

## STAFF REPORT

**DATE:** November 28, 2022  
**TO:** Natural Resources Commission  
**FROM:** Dianna Jensen, CAAP Project Director, Acting Director PWET / City Engineer  
Kerry Loux, CAAP Project Manager, CDS Sustainability Coordinator  
**SUBJECT:** **2020-2040 Climate Action and Adaptation Plan (CAAP) Project Status**

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### Recommendation

1. Informational item only. No action requested.

### Project Status

#### Final Draft CAAP

Staff has been incorporating edits to the Final Draft CAAP based on community input and also incorporating graphic design elements. The Final Draft CAAP will be presented to City Council for review on December 6, 2022. At that time, staff will be requesting approval of the CAAP.

A key change to the CAAP actions, implemented shortly after the close of the Administrative Draft CAAP public review period on October 10, 2022, is related to the change of Action A.2 (now TR.2): Building electrification for existing buildings (previously 'at point of sale'). In response to this change, AECOM completed additional analysis for target achievement assuming that TR.2 includes only voluntary actions based on education and outreach designed to provide community members information to make informed decisions about electrification. Key changes to the technical data include:

Implementation of all priority actions is estimated to reduce community-wide emissions by 149,200 MT CO<sub>2</sub>e/yr (previously 154,150) in 2030 and by 250,600 MT CO<sub>2</sub>e/yr (previously 260,100) in 2040.

The 2030 GHG reductions would result in an emissions level that is 41% (previously 42%) below 2016 levels with an emissions intensity of 6.5 MT CO<sub>2</sub>e/capita/yr (previously 6.4) This current estimate achieves the city's minimum 2030 GHG target (i.e., 40% below 2016 levels), but falls short of the aspirational goal to achieve an emissions intensity level of 5.2 MT CO<sub>2</sub>e/capita/yr. The aspirational 2030 target achievement gap is approximately 67,800 MT CO<sub>2</sub>e/yr (previously 62,850), and multiple factors will influence the City's ability to achieve it. The state may implement new or more aggressive GHG reduction programs to achieve the SB 32 GHG target (i.e., 40% below 1990 levels by 2030). New GHG-reducing technology may be developed, or uptake of current technology might exceed the estimates included in the CAAP analysis, such as EV adoption rates. CAAP action implementation could occur at a higher rate than initially assumed in the GHG reduction estimates, or the City could develop additional GHG reduction actions focused on the 2030 target year.

The Final Draft CAAP includes placeholders for a letter from the Mayor and an NRC letter at the beginning of the document. While the NRC may want to discuss the content of this letter at the November 2022 meeting, staff wants to give the NRC the opportunity to review the final document before completing and including the letter (or deciding not to do so).

An overview of the key changes to the CAAP document include the following:

### Key Changes to Revised CAAP Document for Inclusion in City Council Staff Report

#### December 6, 2022 Revised CAAP

Document is in graphic format (InDesign), including color-coded sectors and graphics, finalized Cover Page and Section Dividers with photos and branding/colors to make the document more readable/accessible

'FINAL DRAFT' Watermark on all pages

Letters from Mayor and NRC- to be included after Dec 6

**ADD: 'Key Contributors' page**

**ADD: O CAAP Overview and Davis Context**

Setting CAAP context, living document, and urgency; Include **Definition of Key Terms**

**Exec Summary Renumber actions and update table**

A.1-8 is now BE.1-8 (Building Energy & Design)

B.1-11 is now TR.1-11 (Transp & Land Use)

C.1 is now WW.1 (Water Cons & Waste Red)

D.1-6 is now AD.1-6 (Climate Adaptation)

D.7-8 is now CR.1-2 (Carbon Removal)

**ADD: Collaboration and Partnerships section**

**Ch 1 Intro** Added Open Space Strategic Plan info

**Ch 2 Plan Development and Community Engagement**

Added information about public review period and comments received; Added information about Cost Effectiveness and GHG Reduction Potential Analysis

**Ch 3 City of Davis and Climate Change**

Clarified Minimum and Aspirational GHG Targets text; Verified data related to meeting 2030/2040 targets after A.2 change to voluntary

**Ch 4 Climate Actions**

Revised goals, action & equity language/format with graphics; Added updated timeline  
Added info on grid capacity (VCE)  
Changed format of 'additional actions'

**Ch 5 Implementation and Monitoring Framework-**

Added info on Dashboard  
Added info on social media and outreach  
Added info on 'next steps', including elements recommended by community input that will not be able to be completed in this CAAP

#### Admin Draft August 8, 2022

Word document with no photos/branding/colors (as intended prior to community input)

Overview section was not previously included, but Davis context needed to introduce CAAP effort. The Abbreviations list was a graphically uninspiring start to CAAP document

ES was previously considered (by community input) to be too technical, but with added Overview section, minimal change is needed

Minimal change to Ch 1

Responses to community comment in Ch 2 for Final Draft

Responses to community comments in Ch 3 for Final Draft

Responses to community comments in Ch 4 for Final Draft: Information overlapped or was missing between CAAP document list of actions and Appendix A Roadmaps, which is now streamlined and corrected for Final Draft

Added information since completion of public review period of Admin Draft for Final Draft

### CEQA Review

The CAAP environmental documents required by the California Environmental Quality Act (CEQA) are also in progress. Staff and AECOM are completing the CEQA-required CAAP Initial Study/Mitigated Negative Declaration (IS/MND) and recommendations for Greenhouse Gas (GHG) Thresholds.

If Council approves the CAAP on December 6<sup>th</sup>, the CEQA documents will be completed and then released in January 2023 for a 30-day Public Review. The final acceptance of the CEQA document will come back to Council after the review of comments and any necessary changes have been made.

The IS/MND is based on the CAAP 'project description' approved by City Council on May 24, 2022, which includes the 28 prioritized actions.

The GHG Thresholds Memorandum provides a summary of options for thresholds of significance to use in evaluating a project's GHG emissions. The memorandum first explains the differences between how the City might evaluate projects using the 2020-2040 CAAP compared to the use of independent GHG thresholds of significance. It then describes key principles in establishing GHG thresholds based upon CEQA statutes and case law. Finally, it presents several threshold options and a summary of the approach to establishing GHG thresholds for CEQA review adopted by the local air district and several surrounding air districts.

### ATTACHMENTS:

1. NRC Subcommittee CAAP Comments and Staff Responses, 9-19-2022
2. Utilities Commission CAAP recommendations, October 2022
3. Cool Davis CAAP recommendations, October 2022
4. List of All Community Comments during CAAP Public Review Period

## ATTACHMENT 1.

### 5C.1 NRC Subcommittee Feedback on

#### Draft CAAP Document and Appendix A: Implementation Roadmaps

September 19, 2022 Special Meeting

The following word document is compiled from information provided by each NRC subcommittee at the 9-19-2022 NRC Special Meeting. These subcommittee recommendations were received and discussed by the full NRC, but there was not a motion to approve, as the Commission felt it was preferable to leave the subcommittee recommendations intact as presented. These subcommittee comments to be used as appropriate by the CAAP project management team in updating and editing the draft CAAP prior to review by City Council in December 2022. These comments will be posted on the City's CAAP website.

**Annotated list of comments 11/10/2022:** highlighted text are as per submitted comments from NRC subcommittees.

**Staff Responses:** Text in blue and websites are added by staff in response to subcommittee comments.

Energy Actions Subcommittee  
Michelle Byars; Richard McCann

#### Ideas/Comments

- Provide information about rules/regs/codes, including:
  - Existing actions:
    - **Commercial Reach Code (2017?)**—New statewide code standards go into effect January 1, 2023. City has not yet completed reach code, but is continuing existing reach code (2019) with new staff report to City Council <https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency>  
This is action A.4 (BE.4)
    - **Residential Reach Code (2019)**—New statewide code standards go into effect January 1, 2023. City has not yet completed reach code, but is continuing existing reach code (2019) with new staff report to City Council <https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency>  
This is action A.4 (BE.4)
    - **60% renewable by 2030:** **Senate Bill (SB) 100** established a landmark policy requiring renewable energy and zero-carbon resources supply 100 percent of electric retail sales to end-use customers by 2045, with interim targets. It requires the California Energy Commission (CEC), California Public Utilities Commission (CPUC), and California Air Resources Board

(CARB) to prepare a report. Note: this is aimed at energy providers (utilities), not consumers.

○ Adopted actions, not yet implemented:

■ VCE 100% Green by 2030 (sooner?)

<https://valleycleanenergy.org/strategic-outlook-brochure/>

- Note: City is in process of switching all municipal accounts to UltraGreen, which should be completed before the end of 2022 (BE.7)
- City is also in discussion with VCE about approaches to transition community member accounts to UltraGreen, with a potential 1 to 3-year pilot where the differential costs between UltraGreen and Standard Green service for all customers would be covered. More information on this concept can be provided at upcoming NRC meetings as it is further developed. (BE.7)

■ State zero carbon electricity mandate: 90% by 2035 and 100% by 2045. See above (SB 100)

■ CARB Advanced Clean Cars II - EV rules

City doesn't have information on this at this point, but this would be part of a Zero Emissions Vehicle Plan (ZEV) development (Action TR.1). A search provided this website:

<https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/advanced-clean-cars-ii>

The **Advanced Clean Cars II** proposal would rapidly scale down light-duty passenger car, truck and SUV emissions starting with the 2026 model year through 2035.

- City is in process of developing municipal fleet transition to all electric vehicles (TR.2)

■ PG&E's electrification to replace neighborhood gas networks

City doesn't have information on this, however as building energy and electrification actions are developed, more information on this will be incorporated (BE.1-BE.8). A search provided this website:

[https://www.pge.com/pge\\_global/common/pdfs/about-pge/environment/what-we-are-doing/pge-climate-goals/PGE-Climate-Goals-Fact-Sheet.pdf](https://www.pge.com/pge_global/common/pdfs/about-pge/environment/what-we-are-doing/pge-climate-goals/PGE-Climate-Goals-Fact-Sheet.pdf)

○ Planned actions, in process:

■ Parking lot share ordinance incentivizing solar panels and EV charging  
This is part of the Urban Forest Management Plan and recommendations from the 2x2 subcommittee.

■ EV Charging Plan

These area part of Action TR.1 for an Electric Vehicle Plan update (or ZEV Plan). The updated plan is not currently in progress, but City anticipates consultant contract in 2023.

- Need a statement that gas distribution lines will be decommissioned by 2040 to achieve carbon neutrality. In line with likely state goal of 2045.

City does not have this information and is not the responsible agency, so the statement is not currently provided in the CAAP, however, as more information on decommissioning is available and CAAP actions are developed, this will be incorporated.

- Educate while you wait
  - May actions list staff as the source of training and education for people seeking permits, etc. What if add a digital system to “advertise” to people waiting in line?  
In progress—see programs on screen at City permit counter
  - Bi-lingual  
In limited applications at this time due to staff capacity and funding, but CAAP project is trying to optimize this effort. Many of the outreach materials were provided in both English and Spanish.
  - QR codes  
In progress
- Do you hold training/education sessions with builders, etc? Online videos?
  - Hold a series/post online videos, display at the “counter” and other points of contact  
Planning in progress
- Funding/grant opportunities: Development of three-year grant strategy in progress. See information in 12/6/2022 staff report to City Council
  - Could use an Appendix to list the opportunities for funds  
Fund sources are already listed in Roadmaps (App A) and Overall fund sources in Appendix B. More information on funding will be developed as actions are implemented and the three-year grant strategy is finalized. It’s important to note that this is a moving target, with new opportunities being announced regularly.
    - With higher probability of applying to an action, then include it.
  - Could use a Matrix of funding possibilities showing the types of funding and to which actions it can be applied.
  - Include potential funding needs
  - Include estimates of funding availability
  - Including replacement cost estimates
  - Include IRA/federal incentives  
See information strategy above
- Building inspection staff will be needed for most actions.  
Noted, and reflected in Implementation Roadmaps
- Format/document structure
  - GHG reductions – include overall % and number of reductions for each action (don’t make us calculate it) This was previously included in CAAP document, and is now further highlighted in ‘top bar’ graphics.
  - Structure – include a TOC for the actions to help navigation include and the action number as a subtitle on each page. Done (CAAP doc has one page for each action; Appendix A is still in word, but will be further developed with publishing software)
  - Primary text change suggestions



that might affect them (is there already some help available and this action just adds to that)? Are there specific EJ or low-income type partners that can help. Will the timeline or implementation steps look different for equity purposes?

- Performance tracking metrics - apply metrics to the equity-specific goals. (number of affordable homes upgraded, number of low-income households that have benefited from the action and by how much and how much grant funding or partnerships were acquired for this purpose.)

- **Financial concerns**

- Offer on-bill financing through City Utilities which may help consumers upgrade (heard that \$130m in City accounts) This can be explored for some of these actions. PWUO would need to be involved in conversations about enterprise funds; there are specific parameters and requirements for how those funds are used.
- Define very low, low, moderately low, and middle incomes and how each may benefit or be incentivized. Establish eligibility criteria. Most actions refer to 'low income', which is defined in Davis as less than 80% of median, and definition is added to CAAP. Further distinctions as you noted are included in the Housing Element.
- **Electric capacity discussion is needed to educate** – availability is only a summer issue, at peak times. The electrification actions are not summertime impacts (heating would get upgraded to electric, but winter does not have a capacity problem.)  
Included information on grid capacity
  - Electrical systems now include timers, other load management software, and other mechanisms to adapt to demand.
- Include a renewable maximization statement/discussion: All GHG emissions are reduced through electrification... meeting mandates as well as goals.  
Included
- **HES - home energy score system (including energy and electrification factors)**
  - Currently included only in "point of sale" action, not "end-of-life". But this information may also affect consumer choice and entice "life" to retire and upgrade... should follow through with this concept for both actions.  
Once City implements the HES pilot project, then starts full program, it will be a stand-alone and not limited to BE.2, so there's no need to include it under all actions that relate to building energy.
    - If the City chooses between the two actions... HES should be included, regardless.
  - HES should also be included on rental advertisements/agreements

#### A.1 Building electrification at end of useful life (rename to "when replaced") – 3.84% Changed

- Include a renewable maximization statement/discussion: All GHG emissions are reduced through electrification. Included in CAAP document text
- Be specific that the requirements would be incorporated into *current* Reach Code.  
Included
- Action should use broader language/wording: "Electrical equipment replacements, additions, or alterations" – for title and description to address people that "retire" their system before any technical "end-of-life" point. Included

- Define end-of-life **Changed to 'when permit is required'**
  - Is it by model year, efficiency rating, both?
- To help consumers prepare and upgrade, define “end-of-life” incrementally... for example: **Changed to 'when permit is required'**
  - replace model year xx by 2030, model year xx+3 by 2035
- Make a note in the explanation that rebates for gas appliances/HVAC are going away (may already be gone) **We would need more documentation to include this**
- Give electrifying clients priority for permits – streamline (put them at the front of the paperwork queue) **same as comment above**
- External partners should be similar to A.2
- Include the Affordable Home point from A.3, Immediate Next Steps, Step 5.
- When protecting rental tenants, include protection for commercial rental tenants, and require property owners to pay for building and provisional equipment conversion and upgrades. **To be developed with further action planning**
- Why such a difference between funding needs? Ex: CARE, FERA mentioned in “sale”, but not in “life” for funding possibilities **Included now in both**
- HES can be applied to this action as well as A.2 – tell people the impact on their home value as a means to incentivize (in addition to annual budget savings typically provided) **See above**

### **A.2 Building electrification at time of sale – 1.1%**

- Consider making the **entire action voluntary with strong incentives** (remove the mandate) Due to cost of housing. **Done**
  - Waive permitting fees
  - Streamline/accelerate permit process
- Include a renewable maximization statement/discussion: All GHG emissions are reduced through electrification **Included in CAAP document text**
- Add: To achieve City carbon neutrality by 2040, decommission the gas system network by 2040. And CA has set legal standard of carbon neutrality by 2045.
  - Also add to other relevant discussion sections to ensure people understand.
  - Require this as a point of information in the home sales disclosure
  - PG&E has begun neighborhood level electrification of its gas system
- Specify age/model year of equipment that must be upgraded **To be developed with further action planning**
- Specify that requirement could be met by the seller or buyer, similar to roof negotiations during sale. **Voluntary only now—and to be developed with further action planning**
- Allow a **timeframe to complete** work/construction/replacement after sale (1 year, 18 months...) **Voluntary only now**
- Consider on-bill financing (City accounts) **See above**
- Include the Affordable Home point from A.3, Immediate Next Steps, Step 5.
  - Affordable home sales – City should fund 100% to upgrade electric.
- Why pilot? Seems like an HES system exists... **We can discuss further. I have more information on this. Starting with a pilot does not require full City Council approval; and also provides metrics to help with approval. We have met with BayREN and StopWaste staff and this is the recommendation.**

### **A.3 Energy efficiency and ventilation in rental properties – 1.8%**

- Include energy efficient kitchen ventilation. **Included**
- Develop City strategy for educating property owners. **To be developed**

- On bill financing through City utilities so that tenants pay for upgrades [See above](#)
- Tenants show willingness to pay more for electrified systems (See ACEEE study)
- Landlords/property owners likely to pass along costs to rents, but information should be provided for tenants showing energy bill savings. [Approaches to be developed to protect renters](#)

#### A.4 All-electric new construction – 0.4%

- List of related CAAP actions incorrect - not connected to existing buildings in A.1 and A.2. [Changed](#)
- December 1, 2022 deadline is infeasible - see note above about using different date language. [Changed](#)
- Current residential Reach Code adopted in 2019 is already encouraging electric (add note for reader's understanding) [Reach codes expire with new code cycle and need to be updated, reviewed by Commission and community stakeholders, approved by City Council, then sent through appropriate State agencies \(CEC, Building Codes & Standards, etc.\)](#)
- Current commercial Reach Code adopted in 2017 incentivizes electrification up to a financially feasible point. Can be updated for new technologies. [Reach codes expire with new code cycle](#)
- Gas connections no longer will be funded by line extension allowances by recent CPUC decision
- Essentially this action is already in effect or soon will be due to outside factors. [Agreed](#)

#### A.5 Community solar energy – 7%

- Use [plain language in the summary and give more specifics](#) to the purpose and benefits
- Needs to focus on local community energy projects [Agreed](#)
- Change summary to describe purpose as: building community solar projects with direct sales to customers fixing the price, similar to the concept of rooftop solar. This would be separate from VCE Ultra Green which is not oriented to local community projects.
  - Sign fixed quantity contracts with fixed price terms over a set period. (Similar to the concept in SB 43.)
- Add CARB as a potential funding source (building electric grid) [Included](#)

#### A.6 Carbon mitigation fund – 0%

- Distinguish roles of external partners. [To be developed](#)
- Add property developers, HVAC and appliance installers [Added](#)

Proposal: [Staff feels this information is very valuable, however the action does not assume only developer fees for the carbon mitigation fund, so focusing exclusively on developers in the CAAP document is counter-productive. This will be an action most likely implemented through regional collaboration and more planning is necessary before we know what the parameters may be. City staff is in conversation with Sacramento County and City, SacAQMD and others.](#)

- For the City to maintain its goal of achieving its reductions goals, a proposed development project must achieve at least net-zero GHG emissions. A project cannot be allocated a pro-rata share of added emissions at 1990 levels—that breaks the original

overall cap (which is not per capita or pro rata to square footage). It must fit under the overall total city-wide cap.

The City should establish a clear procedure for estimating and valuing the GHG lifecycle impacts of development projects and establish a method to estimate the value of specific mitigations of those emissions.

Using these GHG emissions estimates every development project should be subject to a funding set-aside to address the projected GHG lifecycle impacts of the project. This fund would then be used for developing activities, infrastructure or programs that will deliver high value in reaching City GHG reduction & adaptation goals.

- Achieving the fund would function with a two-step process.
  - **First**, the developer can propose on-site measures and strategies to minimize GHG emissions. Those cannot be shown as a "reduction" because the baseline is already zero emissions for a new development. This step is already largely in place. Only the way it is reported will change to a quantity rather than a percentage reduction.
  - **Second**, purchase emission offset amounts using one of two options:
    - (1) Simplify any further mitigation by taking a single action: Buy sufficient GHG allowances from the State Cap and Trade Program Auction to fully mitigate all remaining emissions. (City has checked with Air Resources Board, and this is legal.) The City should then work with the California State Legislature to provide for an allocation from the State GHG Allowance Fund to return that amount to Davis for local GHG mitigation efforts offsite from the subject development.
    - (2) Based on the Cannery / New Home precedent the City of Davis should establish a GHG mitigation and adaptation fund. In 2013 the City of Davis entered into a Development agreement with New Home Company regarding the Cannery development. In that agreement the New Home Company agreed to provide the city with \$100,000 in funds to be used for greenhouse gas reduction projects. This amount was not connected directly to specific GHG emissions estimates and a related mitigation value. However it was the first time that specific GHG reduction was addressed in a development agreement with a dollar amount set aside for GHG reduction projects.
- Contractors then bid to the fund in a reverse auction how many residential houses can be retrofitted with energy efficiency and electrification that meets GHG reduction targets for a given amount of funding, e.g., 10 houses for \$100,000.
- This becomes a model program that other cities can easily duplicate and it pushes administrative costs mostly off to the State. Per-ton allowance prices are currently at the legal floor. Allowing developers to purchase allowances from the State Cap and Trade Program should lead to increased demand that would drive up prices and encourage others to reduce GHG further. Development projects might eventually become net sellers into the allowance marketplace which could smooth a GHG supply curve which looks like it may have a price "wall" down the road.

A.7 Renewable energy in City facilities – 0.2%

- Objective is to provide a model for Davis citizens and demonstrate that the City is willing to take the measures requested of its citizens. Included
- Define “city facilities” - do they include properties managed, used by other entities? Do they include facilities on property that is leased but not owned by the city? *At this point, we are talking about City-owned facilities.*
- What about the school district? Or other government-owned places? *DJUSD is a separate entity with their own sustainability programs and climate action responses*
  - Will it fall under the same requirements as commercial properties? (i.e. upgrade to electric with a remodel, etc.)
  - Can we incentivize or partner for them any differently?

## **NRC Transportation Subcommittee**

Jacob Byrne, Meg Slattery, Keara Tuso

### **General Notes**

- Consider revising the Goal statements where actions are presented. *This is good input, however we have goals and actions approved by City Council, so we have determined that it is best to get this CAAP approved and begin implementation with these actions, and allow for refinements to text with the next update in a few years. We have tried to expand on the hierarchy of the sectors, goal statements and actions.*
  - Goal statements could be used to provide more holistic, high-level narratives for the actions that follow.
  - Goals may benefit from following a format of a clear problem statement, followed by a summary of the intent or effect of the actions.
  - Goal sections may also be an effective area to introduce and highlight co-benefits.

- May want to revisit the ordering scheme for the actions. Commissioners may need a refresher on how the order of these actions were determined. Consider ordering by implementation start date within each Goal.

*Staff feels that it is preferable to keep actions in the same order that has been used in previous editions. However, the numbers have been changed to a system that more clearly identifies the type of action: BE, TR, etc.*

- Equity *benefits* not included in some actions where they seem relevant:
  - Energy efficiency actions (including electrification): all of these have equity benefits, some from indoor air pollution, many from utility bill reductions. Would it be possible to estimate the utility bill savings that would occur along with the energy efficiency improvements?
  - Improving public transit will also disproportionately benefit lower-income communities

*We have included additional recommendations where they've been made, but mostly have made a commitment to continue to address equity throughout the process of planning and implementing actions.*

- Grouping of goals for transportation section is creating some odd separations
  - Consider that Action B.3 is introduced before B.6 and they are grouped under different goals. Actions B3-B7 should all be considered strategies to reduce

single car use. Commissioners suggest the following goals to reduce emissions from transportation:

- Goal 1: Reduce single-passenger vehicle use (this encompasses active transportation and transit)
- Goal 2: Adopt Zero Emissions Vehicles
- Currently, the GHG reductions from reducing vehicle miles traveled all appear to be attributed to charging for parking, which may make this action appear more effective than providing reasonable and desirable alternatives to driving

It is staff's intention to focus on planning and implementing actions by getting the CAAP approved and actions initiated (no matter what goal they currently fall under), and not to take more time perfecting the text about the goals and actions, especially given that there are many opinions about different ways to make it more perfect.

#### Notes on "A" Actions (BE-Building Energy)

- Consider revisiting the way the home electrification measures are described to clarify the phased timing beginning with voluntary compliance, and cite existing funding sources (Inflation Reduction Act, any relevant State programs?) [More info on funding sources is added.](#)
- A.5 through A.7 fit within the goal of Renewable Energy Development; Should be within Goal 4.2.2
- Page 60 - Additional Considerations section of A.8 includes community solar as an option, but this is already a stand-alone measure.
- As a potential funding source for resiliency hubs, consider the California Strategic Growth Council's *Community Resilience Centers Program* [Included](#)

#### Notes on Transportation Action Items

- Implementation Information provides a great level of detail. This exceeds the detail in many other similar CAPs that commissioner Byrne has reviewed and will prove to be essential for meaningful implementation. [Thank you! But we know more information is still needed.](#)
- Action B.1 - Electric Vehicle Charging Plan
  - *The suggestions below may help make the equity provisions more specific, mainly by prioritizing charging at apartment complexes in addition to public charging stations*
  - In CAAP pg 61, Action Description for B.1: public chargers are noted as the solution for renter access to charging infrastructure. This action should also identify the need to **partner with apartment complexes** to install charges in parking lots to benefit renters where they live. Having charging access both in public and at your multi-family residence represents a more equitable long-term solution. [Included](#)
  - In Action Summary of Appendix, suggest adding - 'identify barriers and potential solutions for low-income residents to access charging infrastructure' [Included](#)
  - Next steps, appendix – Suggest adding "Identify high-priority sites for public charging stations based on proximity to rental units, particularly multi-family apartments" [Included](#)
  - Outreach and Education of Appendix - suggest adding 'Establish partnerships with apartment and multi-family housing management firms to encourage installation of charging stations for renters' [Included](#)



- State offers incentives for e-bikes, does City need to also develop these or should we focus more specifically on promoting existing incentives? If City specific incentives are developed these should focus specifically on low-income residents **Included**
- Action B.5 - Pedestrian and Bicycle Safety
  - Tree coverage for pedestrian and bicycle infrastructure is linked with the safe use of these pieces of infrastructure and tree coverage should be holistically included throughout this measure. Specific areas that should be expanded include the Action Description, Action Summary, Related CAAP Actions **Included**
    - Immediate next steps should identify intersections or routes without tree cover **Included**
    - Metrics could include tracking coverage of pedestrian and bicycle infrastructure with shading from trees/structures (if that is feasible from a staff effort/resources point of view) **Included**
- Action B.6
  - Need to track that both the location and frequency of bus stops are serving the whole of Davis' population **Included**
  - Both this action and Action B.7 may be tied to density of development, but there are other contributing factors (affordability, geographic reach of bus lines, frequency) **Included**
- Action B.7 - Strengthen Regional Transit
  - This is a critically important action in terms of reducing reliance on single-passenger vehicles; however, the CAAP is somewhat superficial about the approach here. Reviewers having difficulty developing specific recommendations, but would like to discuss with NRC.
  - Consider tracking travel times for common trips from central destinations (e.g., downtown Davis to downtown Sacramento) as a metric of regional transit connections. Tracking these connections through existing methods (google maps, or transit trip planning tools) could provide useful insight into how the public perceives these connections and provide a cheap source of data
    - Measuring trips by source and destination on regional transit would help us understand where people are going and where we need to strengthen connections **Included**
- Action B.8 - Downtown Parking Improvements
  - Concerned about GHG reductions being attributed to parking pricing (5%) and not the actions focused on improving transit and micromobility (1%) **Comment Included**
  - Paid parking runs the risk of being ineffective at changing the behavior of wealthy drivers, while posing a disproportionate burden on lower-income drivers, especially if alternative modes of transportation are not equally accessible and convenient
- Action B.9 - Transportation Demand Management
  - Suggest adding Sacramento Transportation Management Association to External Partners (Appendix) **Included**
- Action B.11 - Low Emissions Vehicle
  - Transformative Climate Communities is likely not the correct program for Davis in this case (program qualifications exclude Davis). Instead, consider the Strategic Growth Council's Affordable Housing and Sustainable Communities Program.

- Related CAAP actions include: both transit actions, micro-mobility, active transportation safety action, micro-grids could all relate [Included](#)

## **Carbon Removal and Adaptation Actions (Section D) Subcommittee**

John Johnston; Tom Rost

### **General considerations**

#### Cooperation

Regional cooperation on climate action is absolutely necessary if any real and measurable change is going to happen. The draft CAAP does indicate in some places that this will be or in some cases has already happened, for example regional bus transport. But in other places in the plan, e.g., D.7 on carbon sequestration and D.8 on carbon farm plans, cooperation is assumed. Some type of agreement or letter of intent or MOU should be included in the plan to show that realistic collaboration has been discussed and agreed to; anything less is just wishful thinking. [Included](#)

UC Davis is an excellent local partner in achieving climate change goals. The campus has world experts in many of the subject areas in the CAAP. Items D.3 and D.4 for example suggest a partnership with UC Davis landscape design to collaborate on designs to manage stormwater and appropriate landscaping. The plan should in some way show that the city does have an agreement with UC Davis to make this happen in the way of an MOU stating that UC Davis will work with the city on this kind of project depending on if it is appropriate. The university has MOUs with other universities around the world that are rather vague, but they show a willingness to work together whenever appropriate. I would suggest this be done with the UC Davis department of landscape design, or with other campus unit would be suggested. [Included](#)

#### Community

A successful CAAP will require community understanding and buy-in to the action items. This will require some behavior change and so community members will need to see how actions will affect them directly, or else see that the city will provide them with incentives aimed at those behavior changes. Items C.1 on landscape design and A.8 on developing community microgrids are examples. For this to work, the community needs to have some idea of the kinds of incentives the city might provide. The CAAP should spell this out with some possible examples and how the city will be able to carry out an incentive program – where will the funds or other forms of incentive come from? [Included](#)

In general, incentivizing citizens is preferred to mandates. One item of C.1 suggests creating a volunteer corps to support water conservation and waste management goals. We agree that having a means to monitor progress is necessary but creating a volunteer “neighbor police corps” is not the way to do that. [Deleted](#)

#### 5-year Milestones

The CAAP contains good discussions of metrics. However, discussions of timelines and implementation milestones are sometimes vague, which is not a criticism of the plan. These are uncharted waters and we’re barely underway. Also, timelines for all of the proposed actions start shortly after the CAAP is adopted and continue for sometimes indefinite periods. Staff doesn’t have the capacity to start everything at once. Nor is every action equally urgent to accomplish. To better communicate a sense of the pace of various actions, it would be helpful to describe the intended accomplishments within a specified time frame (e.g., the first five years or by 2030). Accomplishments will vary by action. Some will be physical structures on the ground such as number of houses retrofitted. Others will be studies

completed or ordinances passed. For each of the actions we reviewed, we tried to propose a 5-year milestone. Whether our specific milestones are adopted is less important than the idea of describing benchmarks against which we can judge our progress. *Incorporated, but within context of Implementation language already used.*

GHG savings

Each action has an estimate for GHG reduction potential. Somewhere, the assumptions and conditions underlying those numbers should be documented. *This is directly from the analysis done by AECOM and presented at several NRC meetings. The detailed assumptions and analysis are not provided in the CAAP, but can be referred to since ‘Excel Workbook’ is available to general public online.*

**NOTE: Essentially all comments and recommendations below have been incorporated into Implementation Roadmaps, except the recommendations to change the goals or action descriptions in AD.6, CR.1 and CR.2. For that reason, individual responses I blue are not provided.**

**D.1 Cool Surfaces**

Summary Comments

Adopting cool surface building codes makes sense and follows the state lead. Widespread mandating of cool surfaces for ground applications (parking lots, roads, walk and bikeways) should move slowly and be based on experience. Long-term costs, wear, and glare are uncertain. Shading, especially with trees or solar, should always be considered as an alternative.

Specific Comments -- D.1 Cool Surfaces	
Actions	<ul style="list-style-type: none"> <li>• The implementation of the state building code regarding cool roofs and other building surfaces is a good start. These materials are well known and can reduce the heat load on buildings.</li> <li>• Implementing cool surfaces should be done with more deliberation on pavements and other ground surfaces. First, while they may make the pavement more comfortable, they do not reduce building heat loads. Second, they may be more expensive (concrete vs. asphalt). Third, coatings are relatively new and their long-term wear and glare characteristics are not well known. Fourth, there is some evidence that more reflected light actually heats up pedestrians walking on these pavements. (<a href="https://www.bloomberg.com/news/articles/2019-10-03/reflective-pavement-may-be-less-cool-than-it-seems">https://www.bloomberg.com/news/articles/2019-10-03/reflective-pavement-may-be-less-cool-than-it-seems</a>).</li> <li>• Davis should take advantage of experiences elsewhere (LA seems to be actively pursuing this technology). Encourage pilot facilities here before launching into broad mandates. Shading may be the better strategy.</li> </ul>
Equity	<ul style="list-style-type: none"> <li>• Not sure what “considering the potential for pass-through costs” would mean in practice. The city does not have discretion to violate state building codes. On the positive side, implementing the state building code regarding cool roofs and other building surfaces should be a small part of the total cost of replacing these surfaces and there should be an offsetting energy cost savings from the lowered heat load.</li> </ul>
ROAD MAP	
Goals, etc.	

Fund/Resources	
Implementation	<ul style="list-style-type: none"> <li>• Agree with immediate next steps except that wholesale adoption of ordinances for ground surfaces should be based on local experience.</li> </ul>
Metrics	<ul style="list-style-type: none"> <li>• Potential 5-year milestone: Updating building ordinances to incorporate cool surfaces. Be in the process of implementing or monitoring test installations to gather information before mandating widespread adoption.</li> </ul>
Outreach	<ul style="list-style-type: none"> <li>• Add: Involve citizen scientists in monitoring temperatures and albedo of test beds and evaluating glare in roads and bikeways.</li> </ul>

## C.1 Climate-ready private landscapes

### Summary Comments

This is an important activity but not an urgent one. It saves water in the long run, though in the short run, the city has adequate supplies. The goal should be to provide guidance and incentives and make it part of the city's landscaping ethos. We suggest more emphasis on using residential landscaping for shading since this will reduce AC needs. This action should not be portrayed as a flood control strategy. Residential yards might mitigate small local nuisance drainage issues, but not the large rainfalls associated with the 100- and 500-year floods. Finally, change the name to Climate-Ready Landscapes and extend the principles to public lands such as parks.

Specific Comments -- C.1 Climate-ready private landscapes	
Actions	<ul style="list-style-type: none"> <li>• Remove flooding from Climate Hazard Addressed. Even aggressive stormwater management actions address only the 2- to 5-year return period storms. Rains large enough to produce flooding (i.e., 50-, 100-, and 500-year rains) will not be captured by climate ready residential yards. Although these facilities might mitigate nuisance drainage problems, the CAAP should not give the impression that they will stop the flooding described in the Vulnerability Assessment.</li> <li>• A benefit not mentioned is that rain capture can provide deep winter watering that will support trees in the summer and encourage downward root growth.</li> <li>• An important factor missing from this action is the use of landscaping to provide building shading. A climate-ready landscape shades the adjacent structure and reduces heat load. The existing action focuses almost exclusively on water use.</li> <li>• Extend climate-ready landscaping ideas to city parks and greenbelts. This is a continuation of current city planning practices but needs to be done with intention. Develop and coordinate plans for changing park landscaping with local residents and other stakeholders, and publish plans.</li> </ul>
Equity	<ul style="list-style-type: none"> <li>• Add to equity concerns the potential pass-through of costs in the form of higher rents. This may, however, be balanced by lower water bills.</li> </ul>
ROAD MAP	
Goals, etc.	
Fund/Resources	<ul style="list-style-type: none"> <li>• Add CA Dept of Water Resources as a funding source (rebates)</li> </ul>

Implementation	<ul style="list-style-type: none"> <li>• This is an important activity but not an urgent one. Climate-caused droughts will reduce the availability of river water. As described in the urban water management plan, there are substantial groundwater resources available.</li> <li>• Incentives rather than mandates are appropriate in this action.</li> </ul>
Metrics	<ul style="list-style-type: none"> <li>• Good ideas here.</li> <li>• Dollar value of financial incentives is an output, not an outcome.</li> <li>• An outcome not shown is the percentage of households with converted landscapes. This can be tracked over time by a drive-by inventory.</li> <li>• Gallons of water per residence (or per acre) is a better outcome metric than per person because the focus is on landscape.</li> <li>• Potential 5-year milestone: Establishment of an incentive program to encourage landscape modification. Creation of a climate-ready landscaping plan for city parks.</li> </ul>
Outreach	<ul style="list-style-type: none"> <li>• Don't invent a volunteer corps to turn in neighbors. Neighbors telling on neighbors won't help the cause.</li> <li>• Provide education and outreach to realtors. Sellers think (or have been advised) that installing new turf will enhance a property's value. The buyer may tear it out, or worse, maintain it at a water cost.</li> <li>• Provide education on the water costs to maintain different styles of landscaping.</li> <li>• Coordinate plans for changing landscaping in public areas with local residents and other stakeholders.</li> </ul>

**D.2 Urban forest**

Summary Comments

We generally agree with the plan items presented. It is essential that a long-term sustainable funding stream be established, and that staff capacity be increased to be adequate for the job proposed. Tree planting and care is a generational commitment. Because trees are slow to mature, this item has more urgency than other landscaping-related actions (C.1 and D.3).

Specific Comments -- D.2 Urban forest	
Actions	<ul style="list-style-type: none"> <li>• Agree with all the actions.</li> <li>• Look for opportunities to expand the locations for planting trees such as median strips on overly wide streets (Loyola, Anderson, and Cowell east of Mace are examples), and where green infrastructure and road diets are proposed (e.g., the Davis Manor proposals).</li> <li>• Develop a balanced approach to shading parking lots that puts trees where people are and allows solar panel shading where cars are in furtherance of the goals of A.5.</li> </ul>
Equity	<ul style="list-style-type: none"> <li>• Agree that EJ communities should be given priority in planting programs</li> </ul>
ROAD MAP	
Goals, etc.	
Fund/Resources	<ul style="list-style-type: none"> <li>• Establishing a funding stream that is sustainable over the long term is essential. Tree planting and care is a generational commitment.</li> </ul>

Implementation	<ul style="list-style-type: none"> <li>• Agree with all the items, especially the ones about increasing the rate of tree planting and increasing the forestry budget and staffing. Timely removal of dead trees also needs to be incorporated into maintenance activities.</li> <li>• Coordinate and integrate with A.8 to incentivize plantings on private properties.</li> </ul>
Metrics	<ul style="list-style-type: none"> <li>• Good metrics.</li> <li>• Potential 5-year milestone: Completion of the Urban Forest Management Plan. Establishment of a sustainable funding mechanism. Completion of planting programs in high priority EJ communities.</li> </ul>
Outreach	<ul style="list-style-type: none"> <li>• Excellent idea to work with schools and empower kids to assist.</li> <li>• Engage neighborhood residents in street tree replacement plans.</li> <li>• Coordinate with the cycling community and others to maximize shade on active transportation corridors like bikeways and walkways.</li> </ul>

**D.3 Green stormwater infrastructure**

Summary Comments

It is difficult to envision how this action will be implemented. GI by itself will not have a large impact on the flooding described in the Vulnerability Assessment. As such, it is not an urgent issue in the sense that a big retrofit program is needed right away. Instead, GI principles should be incorporated into climate-ready landscapes, urban forestry projects, and flood mitigation projects as a matter of course. Consider reviewing new construction requirements to promote better integration of GI into the drainage systems. Often grey infrastructure is used to transport water to some kind of pond at the edge of development, which may not be the best application of GI principles.

Specific Comments -- D.3 Green stormwater infrastructure	
TR	1.
Actions	<ul style="list-style-type: none"> <li>• The action summary is right in specifying the development of policies. There isn't an urgent need for a big expansion of GI retrofit projects across the city. By itself, GI will mitigate only smaller flood flows, not those described in the Vulnerability Assessment. However, GI principles should be incorporated in all climate-ready landscapes, urban forests, and flood mitigation projects. In this way, GI can be spread throughout the community as these projects are developed.</li> <li>• The lack of urgency for a citywide retrofit program does not mean that GI projects aren't worth pursuing if they can mitigate a local flooding problem or provide another benefit (e.g., Davis Manor urban greening proposals).</li> </ul>
Equity	<ul style="list-style-type: none"> <li>• It is not clear how piloting GI in EJ communities will be helpful or what it would look like. See comments in D.4 on this subject.</li> </ul>
ROAD MAP	
Goals, etc.	
Fund/Resources	
Implementation	<ul style="list-style-type: none"> <li>• We should consider GI facilities east of town to capture and infiltrate some the stormwater that is sent to the Bypass. A study of the benefits</li> </ul>

	<p>of doing this, maybe in conjunction with the D.8 actions, might be helpful.</p> <ul style="list-style-type: none"> <li>For new construction, GI principles of reducing impermeable surfaces and integrating GI into the drainage system should be specified. Unlike Village Homes, recent projects often follow a pattern of using grey infrastructure to transport water to some kind of stormwater retention facility at the edge of the development. This is perhaps not tapping into the full potential of distributed GI, which can have local groundwater replenishment benefits that support the urban forest.</li> </ul>
Metrics	<ul style="list-style-type: none"> <li>Potential 5-year milestone: ??</li> </ul>
Outreach	

#### D.4 Flood resilience of critical infrastructure

##### Summary Comments

The problem with flooding is that a 100-year flood today will be a 50-year flood tomorrow. Climate change effects on rainfall intensities are not well-understood, but intensities seem to be increasing. This summer we saw four (or 5?) 1000-year rainfall intensities in different parts of the country. Though flooding in Davis has not historically been a large problem, we should expect it to get worse, and we should act with deliberate speed on understanding the risks and preparing plans. Another reason to not delay is that flood control is notoriously expensive and finding the money (or raising the money internally) may be difficult. The activities in the roadmap are appropriate for doing this. To address equity concerns, implementation of projects in different parts of the city should be ranked according to risk, consequences, and the abilities of the affected populations to adapt to the consequences.

Specific Comments -- D.4 Flood resilience of critical infrastructure	
TR	1.
Actions	<ul style="list-style-type: none"> <li>Complete relocation may not be attainable. Modify goal to reducing risks to acceptable levels.</li> </ul>
Equity	<ul style="list-style-type: none"> <li>Equity issue – adapt language from D.2. Without attention to equitable protection, infrastructure improvements may systematically occur in higher-income neighborhoods.</li> <li>Equity solution – Prioritize infrastructure based on physical risk (probability), consequences of events, and abilities of the affected populations to adapt to the events.</li> </ul>
ROAD MAP	
Goals, etc.	<ul style="list-style-type: none"> <li>Include risk reduction language listed above.</li> </ul>
Fund/Resources	<ul style="list-style-type: none"> <li>Flood control is not a pilot project. You are either protecting an area or not. Not clear what the initial funding is going to do regarding EJ communities.</li> <li>Funding a given dollar amount each year for planning purposes may not be the best way to do this. See noted under implementation.</li> <li>Add to possible funding opportunities: Corps of Engineers, DWR, Central Valley Flood Protection Board,</li> </ul>
Implementation	<ul style="list-style-type: none"> <li>The list of activities leading to infrastructure improvement plans is appropriate. Executing these studies at \$50K per year is probably not efficient. It would make more sense to put aside \$50K per year and</li> </ul>

	<p>spend a bunch on a larger study that encompasses numerous areas, partially because some of these may be intertwined, and partially because you want to rank different projects as per the equity discussion above.</p> <ul style="list-style-type: none"> <li>• An important part of these studies is recognizing that the existing 100-year and 500-year zones are likely to expand over time as climate change influences the rainfall probabilities. Projecting new flood zones is a first task.</li> <li>• Item 4: Not clear what a pilot project is in this context. Pilots are usually small-scale trials of larger projects. Perhaps you mean phased projects that preferentially protect certain areas before others. The feasibility of this approach is TBD. You can't build a partial flood wall and expect the water to not skirt the edges.</li> <li>• Add to external partners/collaborators: DWR, COE, National Flood Insurance Program</li> <li>• Potential 5-year milestone: The implementation milestones make sense although they may be ambitious. If we get through the first three items plus recalculating the flood zones plus prioritizing the projects according to the equity concerns within 5 years, we'll be doing well.</li> </ul>
Metrics	<ul style="list-style-type: none"> <li>• In this case, the outputs are the outcomes since the ultimate goal is taking infrastructure out of harm's way.</li> </ul>
Outreach	<ul style="list-style-type: none"> <li>• Please describe what resilient Street Labs are.</li> </ul>

## A.8 Create community microgrids and resiliency hubs

### Summary Comments

Creating microgrids and creating resilience hubs are two separate activities that, while related, are not inextricably linked. You can encourage microgrids without hubs and you can create hubs without microgrids. Their urgency is somewhat different as well. Hubs are more urgent. They are more resilient if they are placed in a microgrid (e.g., recent power loss on a 115-degree day), but we don't want to wait for the development of microgrids to establish hubs. We suggest that the resilience hub activities be placed in D.6 and that this action focus on microgrids. That said, the concurrent development of a pilot hub with a microgrid associated with the Vet Center is an idea worth pursuing. Other hubs associated with city facilities (e.g., water tanks) should also be considered. Finally, a computer model of the existing grid should be added to the list of short-term activities. Such a tool would be helpful in planning future microgrids, future urban development (B.11), expansion of the EV charging system (B.1), and expansion of solar facilities throughout the city (A.5).

Specific Comments -- A.8 Create community microgrids and resiliency hubs	
Actions	<ul style="list-style-type: none"> <li>• Activities seem to overlap D.6 and some clarification in language would help. To be resilient, a resilience hub needs to be located within a microgrid, but a microgrid by itself is not a resilience hub. The Urban Sustainability Directors Network (USDN) defines resilience hubs as community-serving facilities augmented to support residents, and coordinate resource distribution and services before, during, or after a natural hazard event. Weather relief (cooling) centers is one function,</li> </ul>

	<p>but hubs incorporate more (as alluded to in the CAAP language on stocking supplies, etc.). Conversely, one can encourage the creation of microgrids for better resiliency in the power system without purposely creating resilience hubs. The point of this distinction is that a city program to create resilience hubs (which should include microgrids for those spaces) is different from a city program to generally encourage neighborhood microgrids (with or without hubs).</p> <ul style="list-style-type: none"> <li>• Most of the activities in the A.8 roadmap are directed toward creating hubs. Recommend moving and incorporating those into D.6 and leaving A.8 focused on power grid upgrades.</li> <li>• As an adaptation goal, microgrids should be assigned power reliability or public safety instead of N/A. Power reliability is related to extreme heat.</li> <li>• New construction must be microgrid-ready. However, it isn't clear how or whether microgrids should be developed across the city. A study on this issue as a possible preliminary step toward developing a plan would be helpful.</li> </ul>
Equity	<ul style="list-style-type: none"> <li>• Agree with the equity issues. Wealthier communities have resources to plug into microgrids and generally have louder political voices when it comes to prioritizing the expenditures by utilities and governments to create microgrids. Since microgrids are intended to improve grid reliability and avoid undesirable outcomes, consider developing and applying a set of EJ-neutral, risk-based decision criteria. Risks to consider could include the quality and age of local grid facilities, the ability of residents to adapt to loss of power, and special facilities that would be affected by power failures (e.g., nursing homes).</li> </ul>
<b>ROAD MAP</b>	
Goals, etc.	<ul style="list-style-type: none"> <li>• Under action summary: remove “create” but keep “support” resilience hubs.</li> </ul>
Fund/Resources	<ul style="list-style-type: none"> <li>• Under initial funding: Put the emphasis on the Veterans Center as a pilot microgrid (as opposed to pilot resilience center which would be discussed in D.6). Consider adding other pilot microgrids (e.g., the water tank near 113 plus the hospital).</li> <li>• Add a medium-range activity to model the city grid. This would (1) facilitate planning for microgrids, (2) facilitate planning system upgrades even without microgrids, and (3) facilitate accommodating additional distributed solar capacity. This would be part of the “further work” listed in the roadmap. A city activity would be to work with partners on a study of options for incentivizing such facilities and addressing the relevant EJ questions. The roadmap is vague on this (for good reason).</li> </ul>
Implementation	<ul style="list-style-type: none"> <li>• Add to external partners: PG&amp;E</li> <li>• Under next steps: Move #2 to D.6.</li> </ul>
Metrics	<ul style="list-style-type: none"> <li>• Outputs: Number of microgrids (not hubs). Add completion of model and plan described above).</li> <li>• Outcomes: The outcomes shown are not appropriate. For instance, the number of heat waves is not under the control of the CAAP. An outcome to consider is the reduction in the number of power outages.</li> <li>• Potential 5-year milestone: Complete pilot microgrid at Vet Center. Complete city grid computer model. Start a planning study on the</li> </ul>

	desirability and process for creating grids in conjunction with proposed resilience hubs (addressed in D.6).
Outreach	

## D.6 Public resources during extreme weather events

This and other items need coordination with surrounding communities. Should organize a regional task force on climate change actions.

### Summary Comments

Generally agree with the steps laid out, particularly with the information-gathering planned at the outset. We need to identify the at-risk population and what services are needed. Do these services require a resilience hub? What is the scale of the need? Do we need one hub, or more, or something else? What agencies will be involved in providing these needs and how will they coordinate? Needs assessment is an urgent activity that should be accomplished in the short term.

Meanwhile, we can count on needing at least one hub, so proceeding with the Veteran's Center pilot project with a microgrid (A.8) is a reasonable thing to do as a parallel activity. A side benefit is that we'll learn more about how microgrids interact with the main grid, which will inform action A.8.

Specific Comments -- D.6 Public resources during extreme weather events	
Actions	<ul style="list-style-type: none"> <li>Activities seem to overlap A.8, and some clarification in language would help. Please see comments there. Although resilience hubs would ideally be located within microgrids, that isn't a prerequisite. They can use traditional onsite backup power. Also, though resilience hubs will provide weather relief (cooling), that isn't their only function. The focus of this action should be providing a system of resilience hubs and other emergency services.</li> </ul>
Equity	<ul style="list-style-type: none"> <li>Equity issues are a driving factor for this action since EJ communities are likely to most need the public services being considered here. The EJ community should be intimately involved in the scoping and planning processes anticipated. This is not a strictly equity action. Some services (e.g., emergency communications) will be needed by all members of the community.</li> </ul>
ROAD MAP	
Goals, etc.	<ul style="list-style-type: none"> <li>Action summary should refer to creating and implementing a plan rather than developing policies.</li> </ul>
Fund/Resources	
Implementation	<ul style="list-style-type: none"> <li>Agree with the steps laid out. The scale of the need is not apparent. Do we need one hub or more? What services are needed, related to, or separate from a physical hub? Who is the at-risk population? Writing an overall hub/services plan as suggested in the roadmap is a good start. Probably partners like the school district or UCD will need to be involved.</li> <li>Meanwhile, we can figure on needing at least one hub, so proceeding with the Vet Center pilot with a microgrid (A.8) is a reasonable thing to do as a parallel activity.</li> </ul>

	<ul style="list-style-type: none"> <li>• Other external partners: DJUSD, UCD, Yolo County (library and other spaces),</li> </ul>
Metrics	<ul style="list-style-type: none"> <li>• Typo: Wrong outcome metric.</li> <li>• The number of cooling centers opened is a stated metric, but the opening of cooling centers is not listed as one of the implementation activities.</li> <li>• A proposed outcome metric would be the number (or percentage) of the vulnerable population that has access to services or shelter.</li> <li>• Potential 5-year milestone: Complete pilot microgrid at Vet Center as in A.8. Complete an assessment of needs and preliminary plan for providing hubs and services.</li> </ul>
Outreach	<ul style="list-style-type: none"> <li>• Some typos here: landscape choices and tree plantings don't seem appropriate.</li> <li>• Add: PTA meetings, school classes, neighborhood block parties</li> </ul>

**D.7 Carbon sequestration and removal**

Summary Comments (combined for D.7 and D.8)

Actions D.7 and D.8 are very similar with D.8 looking like a particular application of carbon removal (CDR) technologies on city-owned land. The point of D.7 is to investigate and evaluate possible CDR projects. Because the way forward on effective CDR is unclear, it would make sense to combine these at this early stage and let the D.8 activities (i.e., those on city land) arise naturally out of the planning proposed in D.7. Although there are several specific ideas in D.8, it is not clear whether they constitute the best overall plan for use of that land. For instance, it has been suggested in the past that the ranch be used for a large-scale community photovoltaic project, which might or might not conflict with carbon farming. Other factors that might influence future plans include the use of reclaimed wastewater and availability of landfill-generated compost. Given that CDR is not a large sink, we recommend a go-slow approach with thorough evaluation followed by pilot plots before committing the land to specific uses. Having that space available for different kinds of pilot CDR projects might be very handy in the near term. Meanwhile, adopting carbon farming practices that don't preclude other land uses (e.g., no till farming) would be acceptable.

Specific Comments -- D.7 Carbon sequestration and removal	
Actions	<ul style="list-style-type: none"> <li>• Difficult to see how this is different from D.8 except that D.8 seems to encapsulate some specific examples of CDR projects. Because the way forward on effective CDR is unclear, it would make sense to combine these at this early stage and let the D.8 activities arise naturally out of the D.7 planning.</li> </ul>
Equity	<ul style="list-style-type: none"> <li>• This action is separate from the urban forest, so the equity concern about tree planting does not apply.</li> <li>• An additional concern is that this action may take resources (i.e., taxes or fees) from disadvantaged populations and not provide them with tangible benefits such as greater energy security, comfort, or mobility. The benefits are diffuse and long term. The equity "solution" would be to minimize local tax-based funding and rely on grants or self-funding (e.g., crop sales, carbon offset fees) for operations.</li> </ul>
ROAD MAP	

Goals, etc.	<ul style="list-style-type: none"> <li>• Actions should be to develop projects, not policies, to sequester carbon.</li> <li>• Also related to D.8</li> <li>• The climate hazard addressed should not be N/A. While technically not GHG reduction, sequestration is a mitigation action.</li> </ul>
Fund/Resources	<ul style="list-style-type: none"> <li>• Potential funding from selling carbon offsets or open space funds?</li> </ul>
Implementation	<ul style="list-style-type: none"> <li>• Consider adding to external partners – Yolo Land Trust, Yolo County (regional plans)</li> </ul>
Metrics	<ul style="list-style-type: none"> <li>• Early output is a report with recommendations on the way forward. Outcome is TBD based on projects chosen. CO2 sequestered is the ultimate outcome.</li> <li>• Potential 5-year milestone: Complete an evaluation report of optimal CDR opportunities coordinated with others in the region. With luck, a more specific report focusing on city-owned land could also be accomplished.</li> </ul>
Outreach	Same as D.8.

## D.8 Carbon farm plans

Summary Comments -- See text under D.7.

Specific Comments -- D.8 Carbon farm plans	
Actions	<ul style="list-style-type: none"> <li>• Difficult to see how this is different from D.7 except that it encapsulates some specific examples of CDR projects. Because the way forward on effective CDR is unclear, it would make sense to combine these at this early stage and let the D.8 activities arise naturally out of the planning proposed in D.7.</li> <li>• Who are the “private agricultural landowners in the city”? Are we talking about residential gardens?</li> <li>• Consider how (or whether) these actions might be applied to city open space lands (not just Howat/Clayton ranch). Affects the partnerships needed.</li> </ul>
Equity	<ul style="list-style-type: none"> <li>• An additional concern is that this action may take resources (i.e., taxes or fees) from disadvantaged populations and not provide them with tangible benefits such as greater energy security, comfort, or mobility. The benefits are diffuse and long term.</li> <li>• The equity “solution” would be to minimize local funding and rely on grants or self-funding (e.g., crop sales, carbon offset fees from others).</li> </ul>
ROAD MAP	
Goals, etc.	<ul style="list-style-type: none"> <li>• Describe source or practices that lead to the 1450 MT/yr figure. If only hedgerows are planted, this would be smaller. If intensive tree cropping is done, it could be larger (over 6000 MT/yr in one study of growing trees with reclaimed wastewater.) The point is that this number depends on projects that aren’t yet decided.</li> <li>• Related to D.7, A.6 and D.2</li> </ul>
Fund/Resources	
Implementation	<ul style="list-style-type: none"> <li>• Consider adding partners: UCD (mentioned in description), Yolo County PW (composting operations), and Yolo Land Trust(?).</li> </ul>

	<ul style="list-style-type: none"> <li>• The next steps are too specific and based on actions that have not been vetted.</li> <li>• Converting Clayton Ranch to a wetland should not be an implementation milestone; no decision made. Studying such as action should be.</li> </ul>
Metrics	<ul style="list-style-type: none"> <li>• Many are too specific; counting things that we haven't decided to do. Once those decisions are made, milestones like the ones shown are mostly appropriate.</li> <li>• Dollars of grant funding is an output of the activities, not an outcome.</li> <li>• Outcome: Some duplication in MT/yr measurements. Area of open space lands managed to maximize CDR is another potential outcome.</li> <li>• Potential 5-year milestone: Complete an initial evaluation report of CDR opportunities and specific plans for Howat/Clayton ranch. Consider all opportunities (forestry, wetlands, etc.) in the planning (this perhaps is done in D.7). Implement easy and cheap actions (applying compost and low tillage), even if they are just placeholders or pilot projects.</li> </ul>
Outreach	Public education on farming techniques perhaps through Center for Land-Based Learning.

## D.5 Funding and staffing for existing efforts

### General Comments

The city's staffing plan to execute the CAAP actions should not be a climate action itself. We don't know what the staffing needs are until we adopt the CAAP, so putting the staff needs inside the CAAP is problematic. Instead, we suggest including a separate section in the text discussing the city's plan to staff up to accomplish the CAAP.

We suggest that the following two features be incorporated into the city's staffing plans. First, it seems inherent in sustainability that it cuts across many activities. Consequently, a key feature of staffing for sustainability is that the management staff be located in the city organization at a level that allows them to interact with multiple other entities with reasonable flexibility and authority. Being based out of the city manager's office is one good approach. Second, although sustainability does need a manager or team who can see the big picture and track progress, sustainability can't be just one person's job. On the other hand, it can't be everyone's job, because then it becomes no one's job. We recommend that city management carefully devise authority structures and job descriptions, so that there is a recognition of shared responsibility and accountability for these programs.

Specific Comments -- D.5 Funding and staffing for existing efforts	
Actions	Why solid waste emissions are credited to city staffing is unclear. Aren't nearly all CAAP actions related to D.5? Why is C.1 called out alone?
Equity	
ROAD MAP	
Goals, etc.	
Fund/Resources	

Implementation	Potential 5-year milestone:
Metrics	Implementation of various plans are certainly metrics, but shouldn't they be attached to the various actions and not the staffing plan?
Outreach	Not clear how outreach using existin public art staff relates to management of the city's sustainability and climate programs.
Other	

## ATTACHMENT 2.

Utilities Commission CAAP recommendations, October 2022

This letter was attached to the 11-28-2022 NRC materials packet

Dear City of Davis CAAP Team and City Council,

In March of 2021, the Utilities Commission (UC) appointed a liaison to work with City Staff and the Natural Resources Commission (NRC) to attend meetings and provide feedback on the City of Davis' development of the 2020 Climate Action and Adaptation Plan (CAAP). Over the last year and a half, a member of the UC has attended and provided feedback to City Staff and its consultants on the areas of the CAAP that overlap with the scope of the UC. It is important to emphasize how much overlap there is between the CAAP and the UC's functions that were charged from City Council ([Resolution No. 19-121](#)):

*The Utility Rate Advisory Commission shall have the responsibilities as provided in this section and such other duties as the Council may, from time to time, determine:*

- 1. To recommend rate setting principles and reserve policies for Davis utilities; annual or multi-year adjustments to the City's utility rates; and technologies, pilot programs and initiatives for City Council consideration and potential staff evaluation; and*
- 2. To consider applicable City goals and policies and incorporate them into utility policies; costs associated with providing utility services; utility customer needs and satisfaction with utility services; short and long term factors and consequences identified in rate studies; information provided by city utility managers, the City Council, and City advisory commissions, especially the Natural Resource Commission (NRC) and Finance and Budget Commission (FBC); current and potential future state regulations and policies, industry experience and best practices; and*
- 3. To evaluate and compare options to improve utility service and/or change the scope and methods of service delivery; social and economic equity effects of utility service and rate options on different segments of the Davis community; utility rates and rate structures of other communities to assist with informing policies for Davis; and long-term strategies to achieve service value and efficiency, resiliency, environmental sustainability, and other City objectives.*

Based on the need to provide rigorous technical review of the CAAP deliverables and to elevate issues to the UC for further action by the commission, the UC voted to form a UC CAAP Subcommittee in September of 2021. Since then, the UC CAAP subcommittee has provided regular updates to the UC as well as provided technical feedback to City Council, City Staff, consultants, and the NRC on CAAP deliverables. Despite a long year and a half process to get the complete CAAP draft, the UC CAAP Subcommittee is pleased to report that there has been an overall positive impact on the CAAP draft. Many of the UC CAAP Subcommittee's recommendations and areas of concern with respect to the impacts on utilities within the City's scope have been addressed. Some of the notable inclusions are reflected in the priorities actions which include upgrading city accounts with Valley Clean Energy to the Ultragreen plan (Action A.7), creating of microgrids and resiliency hubs (Action A.8), addressing flooding risks to utility infrastructure (Action D.4), and implementing greenstorm water systems (Actions B.1, C.1, D.1, and D.3).

While the CAAP team successfully integrated many of the City of Davis documents and plans that are impacted by climate hazards, we remain concerned about the on-going integration and coordination between the finalized CAAP and those plans (i.e. Urban Water Management Plan, Recycled Water Management Plan, Solid Waste Management Plan, Downtown Plan, ect.). The UC CAAP Subcommittee recommends that the City explore technology options such as “IBM Doors” to integrate requirements and plans in order to maximize its efficiency and effectiveness in implementing them going forward.

It is important to note that the UC CAAP Subcommittee focused its review on city operated utilities (drinking water, wastewater, and solid waste) and not electricity delivery or generation (Valley Clean Energy) which operates under a Joint Power Authority (JPA) and is not solely within the control of City of Davis policy or planning. The UC CAAP Subcommittee found this final review to be particularly challenging as previous feedback was not tracked or communicated to the community between deliverables and revisions related to the CAAP over the last 18 months. For future CAAP revisions and updates, the UC CAAP Subcommittee strongly encourages City Staff to maintain a comment resolution tracking mechanism so that community members, advisory members, and city commissioners can not only track the progress of identified issues, but can also feel that there is transparency and accountability in the entire process.

The UC CAAP Subcommittee’s recommendations are broken down into two parts. First, the subcommittee identified high-level concerns that are not tied to a specific section of the draft CAAP. Second, the subcommittee identified issues with sections of the draft CAAP that are summarized in Attachment A of this report as a table.

## **High-Level Concerns**

### **1. Vulnerability Assessment**

In October of 2021, the UC CAAP Subcommittee evaluated the process and framework of the vulnerability assessment to the best practices in the California Adaptation Planning Guide (California Office of Emergency Services, 2020) and cited it in the draft CAAP. Both the guide and the City’s vulnerability assessment cite the vulnerability as a function of exposure (whether the asset is located in an area that will be impacted), sensitivity (degree to which an asset may be affected if exposed), and adaptive capacity (the ability to adjust to mitigate potential damage).

The UC CAAP Subcommittee identified areas of concern and recommendations, and forwarded those to the City Council in November of 2021. To this date, the UC CAAP Subcommittee has not received a response and the draft CAAP contains the same disconnects across the following topics that impact the prioritized actions for City operated utility services:

- There is no analysis on the adaptive capacity of any identified city asset. Without assessing the adaptive capacity, the City is not able to fully assess each asset's vulnerability and make the best use of its limited resources.
- Solid waste is not identified as a city asset and is absent from any actions in the CAAP.
- The spatial areas affected by flooding are narrow in scope. The FEMA 100 and 500 floodplains are based solely on natural phenomena. It does not consider the impacts of flooding from dam failures, which are categorized as technological hazards and different in geographic extent and impact (See mapping in Appendix B). The State of California maintains dam inundation areas and dam safety risk ratings that should be used to assess the exposure of each asset, particularly for critical City operated utilities. The City of Davis is within high risk and far reaching inundation zones of both the Indian Valley Reservoir and Lake Berryessa.
- The sequential steps and processes identified in the California Adaptation Planning Guide were not followed. Community outreach and engagement following the vulnerability assessment did not take place.

The UC CAAP Subcommittee remains concerned that the climate hazards and resilience of city assets were not adequately analyzed following the methodology cited in the draft CAAP. Many of the city assets with the most impact and climate risk relate to City operated utility services. The UC CAAP Subcommittee strongly recommends revising the vulnerability assessment making any adjustments to the prioritized actions in the CAAP as a result. Of particular interest and expertise from work on the UC, the UC CAAP subcommittee recognizes that city utilities lack adequate power back up. This would have been identified in the adaptive capacity analysis that is missing from the vulnerability assessment. As a result, the UC CAAP subcommittee encourages City Staff to further analyze the climate hazards of power outages with respect to maintaining essential City operated utilities and develop appropriate resiliency strategies (i.e. backup power).

## **2. Municipal Broadband Internet**

In 2019, City Council received a [final report](#) and set of recommendations from the Broadband Advisory Task Force (BATF). During its final report presentation to City Council, the BATF advocated for the City to explore multiple scenarios of technical engineering and financial models in order to not only deploy a community owned and operated broadband utility, but to pave the way for future local economic development. Despite inequitable access to affordable and reliable high speed broadband internet in 2019, City Council decided to not pursue a city operated broadband utility for reasons that are still not understood by the UC CAAP Subcommittee.

Following the COVID-19 pandemic transition to increased remote work and learning, the analysis of transportation-related greenhouse gas (GHGs) emissions in the CAAP (74% of GHGs in 2016), and the foundational work of the BATF that highlighted the economic, consumer, and societal benefits of improved broadband infrastructure within Davis, the UC CAAP Subcommittee strongly recommends that municipal broadband internet should be reevaluated under a broad set of circumstances and models to meet the climate challenges of the future. The draft CAAP should be revisited to reestablish a task force to develop recommendations for city operated broadband utility. This should include

initiating a new feasibility study with multiple technical infrastructure and financing scenarios (not a single scenario like the BATF was restricted to in 2019). Hardening the broadband infrastructure in Davis has the potential to significantly decrease the existing digital divide, reduce the GHG inventory for the largest contributing source (transportation), and drive economic development locally within Davis (create local jobs). As the BATF identified, municipal broadband internet is the superior model for the City of Davis based on its potential to not only provide better services and increase consumer choice, but to also dismantle the digital divide that for-profit providers have created in the City of Davis in the last decades. There are various federal and state funding opportunities to address broadband infrastructure and it is up to the City to pursue them by developing a comprehensive study and plan.

### **3. Solid Waste Reduction and Groundwater Sustainability**

A significant portion of the 2016 GHG inventory originates from City operated utilities (excluding Valley Clean Energy): wastewater treatment (3%), solid waste disposal (3%), and water supply (<1%). Currently, Chapter 4.2.14 of the draft CAAP contains the goal, “Reduce waste generation and increase diversion away from landfills.” The rationale for not having prioritized actions for this goal conflicts with earlier discussions of the GHG inventory and Senate Bill 1383, *California’s Short-Lived Climate Pollutant Reduction Strategy*, in Chapter 3. Currently, the only actions for solid waste reduction are considered “Additional Action Items for Consideration” and are therefore not part of the 28 prioritized actions listed earlier in Chapter 4. The UC CAAP Subcommittee is concerned that the draft CAAP does not adequately analyze or prioritize the solid waste utility as a major source to the City’s GHG inventory. It is the subcommittee’s recommendation that the CAAP should integrate and align with other major initiatives that the City is undertaking to reduce GHGs from solid waste (i.e. SB1383).

The draft CAAP has a single mention of groundwater in Chapter 3 within the vulnerability assessment summary in the context of analyzing drought conditions as a climate hazard. It is concerning that there is not a strong tie between the drinking water utility services and its dependence on groundwater, especially given statewide extreme drought conditions and the challenges the Woodland-Davis Clean Water Agency (WDCWA) face when securing additional water rights for surface water. As of 2021, the City of Davis relied on groundwater to deliver 36% of its water demand. The sustainability of groundwater is a challenge at a regional and state level, and climate change poses a direct threat to the integrity of the groundwater basin. Groundwater in California continues to be a diminishing resource that is vulnerable to contamination from agriculture and commercial activities. The UC CAAP Subcommittee recommends that the City revise the draft CAAP to assess the vulnerabilities of the City’s groundwater and revise the priority actions that intersect with drinking water to include substantive measures that address the City’s groundwater supply. Any vulnerabilities and associated actions should be aligned and integrated with the City’s involvement in the [Yolo Subbasin Groundwater Agency](#) and its [Groundwater Sustainability Plan \(2022\)](#).

### **4. Utility Rate Setting**

One of the major responsibilities of the UC is to recommend rate setting principles and reserve policies for Davis utilities (i.e. drinking water, wastewater, and solid waste). In addition, the UC is charged with evaluating and comparing options to improve utility service and/or change the scope and methods of service delivery, as well as the social and economic equity effects of utility service and rate options on

different segments of the Davis community. The UC CAAP Subcommittee feels the need to reiterate how utility rate impacts disproportionately impact renters and low-income. Based on the [2020 Census data](#), the City of Davis is 55.3% renter occupied compared to 38.3% renter occupancy in the Sacramento-Roseville region and 44.7% statewide. Renters do not have the same agency or voice when utility rates are voted on or adopted as homeowners or landlords.

In Chapter 5 and Appendix B (Funding and Finance) the draft CAAP is missing the necessary level of detail on how each of its 28 priority actions will be financed. The UC CAAP Subcommittee is concerned by the ambiguity that is presented in Appendix B, Table 4, *Revenue-Generating Mechanisms* with respect to “Utility Fees, including Stormwater Fees.” The UC CAAP Subcommittee strongly recommends for the CAAP Team to build in the timelines and address the nuances for renewing a utility rate study and/or undertaking a Proposition 218 initiative (Right to Vote on Taxes) if additional revenue from City operated utilities are required to meet any CAAP priority actions. Current utility rates and rate studies have not included the priority actions or additional actions for consideration from the CAAP. These processes can take extensive time to complete and are not always a guaranteed outcome, particularly for a Proposition 218 ballot. In addition to the utility rate study and Proposition 218 initiative (if applicable) pathways to utility rate increases, the UC CAAP Subcommittee recommends that the City explore other financing pathways, such as short term interfund loans or utility bond measures, to finance the CAAP actions.

Lastly, the UC CAAP Subcommittee identified that the sustainability leadership model within the city will not be reviewed by the public prior to adoption of the CAAP by City Council. Given that, the UC CAAP Subcommittee urges the CAAP Team to include a more detailed pathway to implementation and accountability mechanisms to ensure overall success of the CAAP.

On October 19<sup>th</sup>, 2022, the Utilities Commission voted to approve the recommendations provided in this report and to forward it to the CAAP Team and City Council.

Respectfully,

UC CAAP Subcommittee

Appendix A: CAAP Actions with Utility Impacts

Utility Topic	CAAP Section	Action	Goal	Quote	UC CAAP Subco
VCE	Chapter 4.2.1	Action A.5. Community solar energy	Goal: Transition to High Efficiency, Zero Carbon Homes and Buildings	Partner with Valley Clean Energy (VCE) to increase capacity in support of citywide building and transportation electrification, investments in community solar energy, and provide solar battery storage. Encourage all subscribers to enroll in the UltraGreen option. Develop financing/incentive options to support building and transportation energy electrification and energy efficiency improvements.	Concur.
VCE	Chapter 4.2.1	Action A.7. Renewable energy in City facilities	Goal: Transition to High Efficiency, Zero Carbon Homes and Buildings	Switch from fossil gas to electricity, renewable hydrogen, or other non-fossil renewables in all existing City facilities, and include a provision that the City shall upgrade to UltraGreen (100% renewable energy) with Valley Clean Energy for all municipal accounts.	Concur.
Microgrids/Resiliency	Chapter 4.2.2	Action A.8. Create community microgrids and resiliency hubs	Goal: Expand Local Renewable Energy Development and Storage	Address and incentivize the creation of community microgrids, community battery "co-ops", and the networking of local energy sources. Create and/or support resiliency hubs that remain in operation during a power grid outage.	Concur.
Stormwater	Chapter 4.2.4	Action B.5. Pedestrian and bicycle safety	Goal: Increase Opportunities for Active Mobility in the Community	Encourage active transportation with infrastructure improvements. Implement roadway and bikeway infrastructure improvements in existing right-of-way, such as "road diets," narrower pedestrian crossing distances, green stormwater infrastructure, etc., to meet Green	Concur.

				Streets standards and increase safety for pedestrians and bicycles.	
Stormwater	Chapter 4.2.8	Action C.1. Climate-ready private landscapes	Goal: Conserve Water in Our Buildings and Landscapes	Develop financing/incentive options with specific provisions for low-income and vulnerable populations that promote climate-ready private landscapes, such as installing drought tolerant, native, climate-ready plants and/or xeriscaping; programs that support turf removal; installing rainwater capture and harvesting equipment; and the use of green stormwater measures to enhance natural water infiltration.	Need to address equity between home ownership. Financial impact on utility is not clear.
Stormwater	Chapter 4.2.9	Action D.1 Cool Surfaces	Goal: Create a Cooler City with More Urban Forest and Green Space for People and Habitat	Trees in parks and greenbelts enhance recreation spaces and offer habitat for wildlife. Trees also help to manage stormwater runoff flows, improve property values and have been shown to reduce stress and improve moods.	Concurrent.
Stormwater	Chapter 4.2.11	Action D.3. Green stormwater infrastructure	Goal: Protect Public Health, Safety, and Infrastructure Against Damage and Disruption from Flooding	Develop policies to increase the use of green stormwater infrastructure and enhance natural water infiltration in public infrastructure	Need to address equity between home ownership. Financial impact on utility are not clear.
Stormwater, Wastewater, and Drinking Water	Chapter 4.2.11	Action D.4. Flood resilience of critical infrastructure	Goal: Protect Public Health, Safety, and Infrastructure Against Damage and Disruption from Flooding	Relocate/elevate critical public infrastructure out of projected flood areas. The Vulnerability Assessment identified that critical infrastructure lies within the 100-year floodplain and is vulnerable to flooding, including Sutter Davis Hospital, potable water wells, all five of the City's stormwater pump stations, approximately one mile of Highway 113 and more than 13 miles of City streets.	Analysis of climate change impacts is not complete. CAAP Subcommittee Report, October 19, 2022.

Stormwater	Chapter 4.2.12	Action D.5. Funding and staffing for existing efforts	Goal: Prepare and Respond to Climate Hazards to Ensure that the City is Equipped to Address Current and Future Challenges	Allocate funding and staff resources to aggressively implement important existing climate-related programs, policies and management, such as City utility infrastructure (water, wastewater and stormwater) and assets (trees, streets, etc.) Continue to conduct assessments at regular intervals to ensure efficient and effective operations that are at pace with industry improvements, and changing needs due to climate change impacts, and implement recommendations in the assessments as technologically and financially feasible.	Financing and rate setting is a Concern regarding programs, plans related to climate documented in Subcommittee October 19, 2022
Solid Waste	Chapter 4.2.12	Action D.5. Funding and staffing for existing efforts	Goal: Prepare and Respond to Climate Hazards to Ensure that the City is Equipped to Address Current and Future Challenges	The City has created several climate-related plans, policies and programs to address crucial needs for climate adaptation and mitigation. However, a lack of funding and staff resources has slowed implementation efforts. The plan, policies and programs cover multiple topics, including water management and conservation, urban forestry and solid waste reduction programs.	Need to address utility services will be impacted is a need to integrate and plans with solution, "IBM standard tool for regarding integrity plans, and document climate change the UC CAAP Subcommittee for the October
Wastewater	Chapter 4.2.12	Action D.6. Public resources during extreme weather events	Additional Action Items for Consideration: Prepare and Respond to Climate Hazards to Ensure that the City is Equipped to Address Current and Future Challenges	ASR: Investigate aquifer storage and recovery (ASR) systems to capture and store excess river water for later use. Investigate the potential for augmenting aquifer storage with treated wastewater	Concur.
VCE	Chapter 4.2.3	Additional Action Items for Consideration: Adopt Zero Emissions Vehicles and Equipment to Reduce	Goal: Adopt Zero Emissions Vehicles and Equipment to Reduce Fossil Fuel Use	EV charging rates: Work with VCE to establish preferential electric vehicle charging rates to avoid disincentives to electric vehicle adoption (note: this action may not be	Concur.

		Fossil Fuel Use		feasible)	
VCE	Chapter 4.2.2	Additional Action Items for Consideration: Expand Local Renewable Energy Development and Storage	Goal: Expand Local Renewable Energy Development and Storage	Community solar: Set up sites for community solar complexes, with preference for participation from low-income residents. Use VCE to organize these projects and deliver power to customers at fixed long-term prices	Concur.
VCE	Chapter 4.2.2	Additional Action Items for Consideration: Expand Local Renewable Energy Development and Storage	Goal: Expand Local Renewable Energy Development and Storage	VCE energy portfolio: Work with VCE to achieve a zero-carbon portfolio by 2030	Concur.
Stormwater	Chapter 4.2.11	Additional Action Items for Consideration: Protect Public Health, Safety, and Infrastructure Against Damage and Disruption from Flooding	Goal: Protect Public Health, Safety, and Infrastructure Against Damage and Disruption from Flooding	Grant funding for infrastructure: Pursue grant funding to support green infrastructure projects like urban forest management/expansion and sustainable stormwater management	Why does the C other funding s measures for u
Wastewater	Chapter 4.2.12	Additional Action Items for Consideration: Protect Public Health, Safety, and Infrastructure Against Damage and Disruption from Flooding	Goal: Protect Public Health, Safety, and Infrastructure Against Damage and Disruption from Flooding	WWTP levee: Conduct analysis to determine if the levee surrounding the wastewater treatment plant would be accepted by the Federal Emergency Management Agency for flood protection from a 500-year storm event	Analysis of clim impacts is not h CAAP Subcomm October 19, 20

### Appendix B: Dam Inundation Zones

As required by California Water Code section 6161, the Department of Water Resources (DWR), Division of Safety of Dams (DSOD) reviews and approves [inundation maps](#) prepared by licensed civil engineers and submitted by dam owners for extremely high, high, and significant hazard dams and their critical appurtenant structures.



Dam inundation zone for the Indian Valley Reservoir (High-Risk).

The following response was provided to the Utilities Commission from the CAAP project management team.

**From:** Kerry Loux

**Sent:** Tuesday, November 22, 2022 3:16 PM

**Subject:** RE: UC subcommittee letter on CAAP

Utilities Commission members,

We wanted to let you know that we are including the most recent UC CAAP letter in the packet for the NRC meeting on November 28, 2022, so that it is available to the NRC and is part of public record. We have also done our best to respond to the UC recommendations, along with other community comment, in the Final Draft 2020-2040 CAAP. This CAAP will be included on the December 6, 2022 City Council agenda for their review, with a request for approval.

Although we are not updating the completed Vulnerability Assessment prior to completing the Final Draft CAAP, we have included a recommendation in the document to revisit this VA effort as part of the next CAAP update, targeted for 2025. The key language is as follows:

#### 5.9 Next Steps

The CAAP is a living document that describes how the City will address climate change and collaborate with residents and businesses. The CAAP and the proposed actions will be regularly reviewed through community engagement, implementation, progress monitoring, and exploration of emerging opportunities. Updates are planned, with the first update proposed two years after the CAAP adoption (2025), followed by updates every five years (2030, 2035, 2040). Additionally, GHG inventories will be conducted on a bi-annual basis.

The City anticipates that there will be emerging technology, funding and partnering opportunities from regional, state and federal organizations over time to help Davis accomplish climate action and adaptation goals. Because it is not possible to know everything that the future holds, and to assist with planning future updates to the CAAP, the following areas for further action or further study are identified to be considered for inclusion with next CAAP update:

1. Consider recommendations in the DDSP. At the time of adopting this CAAP in December 2022, the DDSP was not yet adopted. As CAAP actions are implemented, and with the next CAAP update, the City should consider the added context and actions following adoption of DDSP. This may include developing a Sustainability Master Plan for Downtown Area, transportation programs and policies, green infrastructure improvements and requirements, microgrids and other building energy issues, among other policies and programs identified in the

DDSP. Adaptation actions and planning should also be prioritized while implementing the Downtown Plan.

2. Address sustainability issues related to City purchasing, facilities and operations, transitioning to fully renewable energy and other municipal opportunities to lead by example.
3. Further develop ideas provided during the community outreach process. These are considered potential engagement ideas that the City can use to support CAAP implementation. Some of the outreach and education opportunities to be explored are listed in Section 2.2.
4. Expand on the City's Vulnerability Assessment and climate adaption actions to further address key vulnerabilities and strengthen community systems, structures, households and neighborhoods in anticipation of growing climate impacts.
5. Consider additional actions generated during community engagement, but not prioritized in this CAAP. The list of these ideas is included in Section 4.6.

It is the City's objective that this CAAP sets the stage for further efforts to address climate change risk and attain the Davis 2040 carbon neutrality target. This plan provides a strong framework for the City to act swiftly to incorporate innovative and creative approaches to implement sustainable GHG reductions, focus on diverse co-benefits, attract new investment to provide opportunities for current and future residents, and celebrate a culture of respect, diversity, equity, and inclusivity.

I apologize if I did not forward responses to the original UC letter. I thought that I had, but was clearly mistaken. Please see these partial responses to your concerns from the September 2021 letter from AECOM, the CAAP consultant:

1. Adaptive Capacity – As noted in the VA, “adaptive capacity of assets is not considered in the vulnerability assessment, but will be addressed in the subsequent adaptation strategy development since adaptability is so asset specific, it is difficult to evaluate at a broad scale and often requires asset- or site-specific evaluations.” While adaptive capacity is noted in the California Adaptation Planning Guide as a step in the VA development process, in our experience it is not a good use of time to evaluate adaptive capacity at this stage, but better to think through adaptive capacity of specific assets that has been identified for adaptation actions later in the process.
2. Drought – As noted in the VA, the City Infrastructure Assets that were assessed include stormwater channels, swales, pump stations, and detention basins; sewer lift stations and the wastewater treatment plant; and water supply wells, valves, storage tanks, sampling stations, and hydrants. This was not an assessment on water supply, but of infrastructure. However, the VA does note that there may be increased demand for groundwater supply due to long term drought, but does not make a detailed assessment of water supply. “Although the water supply well infrastructure has a low sensitivity to

drought conditions and current groundwater supply can meet demands during dry years when minimal surface water is available, long-term or extreme droughts may increase the demand for groundwater withdraws from these sources as surface water allocation may be reduced (City of Davis 2021).”

3. Solid waste - Solid waste was not identified by City staff or included in the City’s GIS database as an asset, and thus was not included in this assessment.
4. Dam Failure – As noted in the letter Dam Failure is categorized as a technological hazard. As noted in the California Adaptation Planning Guide, flooding due to dam failure is not considered a climate hazard, and thus not addressed in this Climate Change Vulnerability Assessment. However, dam failure is a hazard that is included in Local Hazard Mitigation Plans, and thus is considered in other publicly available plans.
5. Outreach – The Vulnerability Assessment results were presented at the public workshop on April 22. Additionally, climate hazards identified in the vulnerability assessment were used as the basis for community feedback for four meetings in July 2021. The community has had the opportunity to review and comment on the vulnerability assessment since July 2021.
6. Strategy Development - Adaptation strategies have been developed that address each of the climate hazards and the key vulnerabilities identified in the vulnerability assessment. Further, climate risk reduction potential was the primary criterion used to assess and prioritize draft CAAP actions.

Thanks for your continued engagement with the CAAP process, for your expertise, and for providing substantive input at NRC meetings, at workshops and other CAAP outreach throughout the CAAP development.

Kerry

**KERRY DAANE LOUX** (she/her)

*Sustainability Coordinator, Staff Liaison to Natural Resources Commission  
LEED AP, Landscape Architect CA 2039*

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#### MISSION

*To inspire our community to reduce greenhouse gas emissions, adapt to a changing climate, and improve the quality of life for all.*

October 10, 2022

Mayor Frerichs, Vice Mayor Arnold and Councilmembers Carson, Chapman and Partida  
City of Davis  
23 Russell Blvd,  
Davis, CA 95616

Dear Mayor Frerichs, Vice Mayor Arnold, Councilmembers Carson, Chapman and Partida,

We applaud the City for undertaking the difficult but essential task of charting the city's course toward achieving carbon neutrality by 2040. Members of the Board of Directors of Cool Davis have reviewed the draft City of Davis 2020-2040 Climate Action and Adaptation Plan (CAAP) draft and the Board has voted to submit the following comments. We hope that these comments help to further strengthen the CAAP draft and help bring additional clarity to many of the community's and our questions.

Since 2010, the Cool Davis board, staff, and volunteers have been passionate about sharing smart energy and climate action "cool solutions" through our various community-based programs and activities. We understand that immediate action is necessary to significantly reduce our GHG emissions. We recognize the complexities of what the CAAP is trying to accomplish and applaud the City for being bold in this time of emergency. Cool Davis continues to be a willing partner in and supporter of the many action items referenced in this draft CAAP, especially those affecting household transformation.

With this in mind, Cool Davis sees many areas where the document needs adjustment to clarify the City's response to this emergency. Below we present a number of overarching comments for the CAAP draft document, followed by more detailed comments and recommendations on specific sections and appendices.

### General Recommendations

**Cohesive vision.** Cool Davis recommends a clearer, more cohesive vision throughout the Climate Action and Adaptation Plan. As the City considers an impressive menu of interconnected actions, developing and articulating a shared vision for a net zero carbon future will improve the chances of achieving that vision.

Cool Davis recommends reorganizing the introductory sections (Ch 1, 2 & 3) to present a bold future oriented, positive, and honest vision that responds to the urgency of the moment. We suggest that the vision be restructured to present climate impacts, vulnerabilities, and the difficult but important goal statements up front.

Cool Davis also recommends that the plan and vision emphasize front and center that we are at an important transition point, that this is hard. The plan only sets the initial trajectory towards the 2040 goals, which is appropriate: things are evolving rapidly and the available resources and impending challenges seem to change every day. However, the .

introductory sections should also acknowledge that additional measures may be developed in the future, and that the City is firm in its commitment to working with the community to achieve carbon neutrality by 2040.

**Restructuring and simplification.** Cool Davis supports the restructuring and simplification of Chapter 4 Climate Actions and Appendix A. Implementation Road Maps. Based on NRC discussions, the City has already committed to making major changes to how the Chapter 4 Climate Actions and Appendix A Implementation Road Maps are presented. Cool Davis applauds this change and has some further recommendations we hope you will consider.

Cool Davis recommends creating a simpler view of the scope and goals for each Climate Action, and clarifying which metrics could be used to measure progress over time. Listening to community conversations, Cool Davis is hearing lots of confusion about how these actions relate to them, how they were identified, how they will be measured in the future, and how much work is needed to complete them.

Our specific suggestions include:

- **Prioritize Near-Term Actions** - Cool Davis would like this plan to more clearly identify the prioritized early next steps overall after the CAAP is approved. The City has taken significant steps to reduce 100 actions to 28 but what can the community expect to happen right after the CAAP is approved?
- **Enhance the Vision of Each Action** - Cool Davis recommends adding a clearer and simplified vision statement for each action at the start of each introduction to capture its scope and intent (one model is the City of Oakland's ECAP pps 36-38)
- **Improve Data Clarity throughout the Plan** - To make it easier for the public to understand the magnitude and impact of each action within the CAAP, Cool Davis recommends refreshing all graphs that use GHG data. We recommend that the CAAP include a set of simple graphs, creating a clear GHG story, in one location (likely within Chapters 1, 2 & 3), to compare existing GHG conditions and to clearly communicate the 2030 and 2040 forecasted GHG reduction targets. The introductory GHG graphics can provide a framework for all actions. It would help if each action's metrics and GHG impact could be easily related back to these original introductory graphics. Cool Davis also recommends that the CAAP clearly explain how the existing data are being used to identify these actions, any existing data limitations, and what plans the City has for future GHG baseline data collection.
- **Better Define Each Action's Baseline Scope, Effort, Impact, and Progress** - Cool Davis recommends restructuring each action to highlight baseline scope of effort, what will be impacted, and how much progress has been made to date.
- **Improve Action Measuring Metrics** - Cool Davis recommends developing a set of simple and measurable metrics to help the City measure progress and help the community better understand progress for each action.
- **Revisit Action Staffing Needs** - Cool Davis recommends revisiting the staffing needs section and use that space to be aggressive and proactive with resource needs to meet the requirements of each action. Cool Davis recognizes that the City has limited resources and staff and that the CAAP will require a large amount of additional effort across the City departments. To this end, Cool Davis suggests the City be open about these limitations and identify and ask for the necessary resources now.

- **Add Estimated Cost of Each Action** - Cool Davis recommends providing estimated costs for each action and simplifying the financial information with visuals or graphs so the community can clearly see the relative amount of funding needed and which types of funding mechanisms might apply to each action. Cool Davis also recommends removing co-benefits from the financial table (Appendix B), as they are already mentioned in each action.
- **Stronger Equity Focus for Each Action** - Cool Davis recommends that equity considerations be addressed front and center:
  - Address equity issues for low income and vulnerable communities in milestones.
  - How will/should rental properties and residents be considered within each action?
  - How will the City assist lower income residents (either homeowners or renters) who will directly or indirectly carry the burden of the cost of required improvements?
  - How will the City ensure all residents can participate in benefits?

**New sections.** Cool Davis recommends adding new sections to Chapter 5 Implementation and Monitoring Framework related to staffing, community oversight, community partnership and engagement . Expanding the implementation and monitoring section of Chapter 5 will allow the City to add more details related to how it will handle future staff resources, engage in community oversight, and facilitate community engagement during implementation. Cool Davis also recommends strengthening section 5.6 relating to vulnerability and resilience. Chapter 5 can set the stage for the key content in each roadmap and action. Cool Davis specifically recommends the following additions to Chapter 5:

- **Develop a Staffing Section** - Cool Davis recommends providing an overarching staffing section that details how CAAP actions will be managed and implemented. Cool Davis suggests that the City invest in an experienced and credentialed Manager / Director and at least two more staff initially. We recommend that these staff be given the authority to direct City CAAP actions and to work both within the City and externally to coordinate the implementation of each action.
- **Develop a Community Oversight Section** - Cool Davis recommends that the City create a more formal climate action commission structure with the authority and responsibility to work together with community stakeholders to create detailed action implementation plans and monitor their progress.
- **Develop a Community Partnership and Engagement Section** - Cool Davis recommends adding a community partnership and engagement section to highlight how the City will collaborate with community partners like Cool Davis, Tree Davis, Bike Davis, The Bike Campaign, and UC Davis, as well as organizations that represent stakeholders such as realtors and property managers. Such steps will be essential for effective plan implementation. It is imperative that the City develop strong and effective processes for working together with its partners to build resilient neighborhoods and implement CAAP goals and programs at the neighborhood and household level.
- **Improve Adaptation Actions and Vulnerability Assessment Connection** : Cool Davis recommends that section 5.6 of the CAAP highlight how planned actions will respond to key vulnerabilities to strengthen community systems, structures, households and neighborhoods in anticipation of growing climate impacts. Recent events with electrical power outages during a dangerous heat wave in our community, highlighted some of these vulnerabilities, and showed how our physical and social systems are not fully prepared at the neighborhood and community level.

The vulnerability analysis in Appendix C remains weak due to its lack of specificity and detailed focus on actual Davis assets, community systems, and neighborhoods. Cool Davis recommends

providing a framework in an updated assessment soon, that expands on actions to protect against predicted impacts and ensure neighborhood and community wide resilience. We need better answers to questions such as these:

- What is the state of our stormwater system, electricity delivery system, water system, emergency shelter system, public health system, building safety, and social safety net, neighborhood by neighborhood?
- What do we need to strengthen these, how and when and with what funding are we going to strengthen them?
- Where do our vulnerable populations live and how will we address their vulnerabilities in a systematic way?

## Changes to Specific Actions

**Building Energy:** Cool Davis is supportive of actions that directly promote electrification, including the creation of home- and neighborhood-based integrated electric systems with backup power including microgrids and vehicle-to-grid power management.

- Actions A1, A3 & A4 fit well with Cool Davis's current experience with household retrofit. We believe that a majority of building electrification needed can be implemented through these actions. These requirements should be put in place as quickly as possible so that building owners can take advantage of the coming federal and state rebate programs. Actions A2 and A3 rely on the effectiveness of Action A1, and Cool Davis strongly recommends that A1 be a high priority for the City.
- Many of the A1-A8 Actions would result in costs to property owners and/or the community. Cool Davis suggests that guidance be developed that explains the costs, co-benefits (especially cost savings from operation), and availability of grants, funding, and rebates to support the replacement of key appliances or conducting an upgrade or opting up to Ultra Green. We suggest the City try to make the case that they are financially feasible over time.
- Regarding Action A2, Cool Davis staff were present at the conversation with the local real estate community and building owners. We support the City in continuing to work closely with such stakeholders to find feasible, constructive solutions. Although the intent of Action A2 appeared to be to allow for flexibility and accommodate unique building situations, it has been interpreted as excessively burdensome by the community. Cool Davis recommends clarifying A2 so that it includes a mix of supportive measures (e.g., financial assistance, financing, incentives, education, outreach, planning assistance, or a Home Energy Score) and mandatory measures (e.g., a time-of-sale or other ordinance for the small number of natural gas appliances that do not naturally turn over through attrition over the next 17 years). We recommend the City makes it clear that plan to continue constructive engagement with the real estate and housing communities to make a detailed implementation plan that will work for Davis.
- Action A3, energy efficiency and ventilation in rental properties, implies air conditioning will be added where it is not currently installed. Such a change would occur by default if gas space heating is to be replaced by electric heat pumps, which combine both heating and cooling functions. It should be more clearly stated that while adding space cooling to properties that do not currently have cooling will add to energy use, it is an equity issue that will also provide improved comfort and potentially save lives with summer temperatures increasing into the future. Kitchen ventilation could be included in this measure. Cooking is the largest source of indoor air pollution and existing kitchen ventilation is inadequate in many cases.

- Action A.5, community solar energy, could be improved by creating a program that enrolls all eligible low-income utility customers in UltraGreen (100% renewable) at no additional cost.

**Transportation:** The Cool Davis Boards makes the following recommendations:

- In the presentation of Actions B3-B10 in the Action section and in the roadmaps, there remains a disconnect between GHG emissions from specific activities (like commuting to jobs outside of Davis and UC Davis) and the actions that are offered as solutions. The result is many questions about the usefulness or value of specific actions in terms of GHG reduction to the specific activity or problem. Cool Davis recommends, in keeping with our overall comments above, that the GHG relationship be more clear between emitting activities and actions that will address those emissions..
- There are many actions hidden or assumed within B1, B2, B4, B5, B7, B9, and B10, many of which overlap each other. Each of these sub actions requires more analytics to decipher its GHG reduction value, a more complete explanation of how it will work, prioritization (which comes first), and a roadmap for implementation. Therefore, Cool Davis recommends a clarification at the front of the Transportation section that recognizes the need for more detailed analysis and clarifies steps that will be taken immediately when the plan is approved.

**Land Use:** The Cool Davis Boards makes the following recommendations:

- Regarding Action B11, the GHG analysis of land use shows that households living in denser environments generate less GHG per capita because of reduced transportation GHG. It also reveals that lower income households generate less overall GHG because they are not consuming as many resources per capita. Cool Davis recommends that the City only support new housing focused on meeting the needs of lower- and moderate-income households with workforce housing to bring our community into better balance both in income and GHG emissions.

**Climate Resilience:** The Cool Davis Board makes the following recommendation.

- The Actions covered in C1 to D6 are mostly plans-to-plan, to complete assessment and plan for these vulnerabilities and impacts. This could be stated more clearly in the document. How will these more detailed, future plans be prioritized, funded, and staffed to achieve the strengthening and preparedness that is needed?

## Summary

Cool Davis applauds the City for developing a new Climate Action and Adaptation Plan. Many communities have not taken such proactive steps, and we are pleased to be a part of a community that is taking the threat of climate change seriously by making concrete plans to mitigate impacts and ease adaptation. The goal of net zero carbon emissions by 2040 is quite ambitious, but it is necessary to ensure we leave a livable community for our children and grandchildren. While it is difficult to imagine what a net zero carbon Davis will look like in 2040, we agree that it is possible to achieve – with strong leadership and a community engaged around a common vision. We look forward to continuing to work with you to make our shared vision a reality.

Cool Davis is happy to engage with the City as appropriate to clarify or expand on these comments.

Sincerely on the Behalf of the Cool Davis Board of Directors,



Jason Bone  
Cool Davis Board President



Christine L Granger  
Executive Director

Cc:

Mike Webb, Davis City Manager  
Diana Jensen, Acting Director of Public Works Engineering & Transportation, CAAP Project  
Director  
Kerry Daane Loux, Sustainability Coordinator, CAAP Project Manager  
Members, Natural Resources Commission

ATTACHMENT 4.

### **Comments Submitted During Review Period, August 8-October 10**

The comments below are compiled from the online response form and from emails sent to the CAAP address. This does not include comments made at meetings, such as the Natural Resources Commission meetings, the Yolo County Association of Realtors event, or other small group meetings, which are provided separately. It does not include comments made via phone call to the Sustainability Coordinator, or by community members who came to City Hall to speak in person. However, staff is confident these comments cover the topics of interest to the community.

The comments are organized by topic area and CAAP chapter. When commenters provided a section, page number or action number for their comments, the comment was placed in that section. If no identifying CAAP location was provided, the comment was placed in the most appropriate section. Some commenters had multiple, consecutive posts on the same topic. Where possible, those posts were combined in this summary into a single comment. Likewise, where commenters addressed several actions in the post, the comment was divided and placed in the appropriate section.

These comments are not in chronological order, but instead are ordered by section and action. Names of commenters are not included. Staff did not edit or change comments, so they are in the original form, and separated by a space. A few comments were submitted by multiple people with the same language. In these cases, the number of times the comment was submitted is noted. A number of identical comments from the same person were included in the response form. These repeated comments are only included once.

### **ES and Ch 1: General/Introduction/Executive Summary**

In general, I support Davis adopting and supporting state level policies toward decarbonization and taking advantage of state and federal grants for improving infrastructure and transportation options. But using city taxpayer dollars to try and make a point of being ahead of the curve for CA is not right. There are fundamental city duties that are not being met: roads and bike paths falling apart (I live on one of the worst rated streets in Davis, Colusa Ave), issues with theft (I have a bike, but I drive to the store because I don't want it to be stolen when I come out with my groceries), an understaffed police force, updating critical city infrastructure (water, sewage), and working with PG&E to improve West Davis electricity distribution system (we have regular black outs over here from equipment failures). These fundamental responsibilities of the City should be the primary focus. The state of California is already well ahead of the rest of the country in the energy efficiency requirements of their building code, and in their electricity decarbonization goals. Davis doesn't need to try and make a point to push even further ahead, especially when there are negative unintended consequences to many of these recommendations that have not been sufficiently considered.

The designation in Table 6. "Transition to high efficiency, zero carbon homes and buildings" is a fallacy. Electric buildings are not zero carbon. The electricity being delivered to homes in Davis contain significant generation from gas generation and as these sorts of mandated electrification requirements increase, that percentage will increase in the absence of significant amounts of short term storage and especially with the lack of current large scale technologies for seasonal storage of energy. 2025 is way too soon to mandate electrification. it will result in an increase of emissions.

We really only want services from the City. We do not want you to impose costs on us because you think these are solutions to problems that are really beyond our control. We the citizens will do our best, within our means, to reduce our impact on the planet. This should be left to the individual not the state/city.

This entire plan needs a complete overhaul. The impracticality, financial burden on residents, intrusion on constitutional property rights, and disregard for equity are breathtaking. I will vote against anyone who supports it.

This is ridiculous. You have made this impossible for anyone to read every word.

You can't expect taxpayers to front the bill that is supposed to fix a problem that is a world wide issue. Not in your preview of an elected official.

Thank you for taking action. I support the draft with the understanding that there will be common sense adjustments made as we move forward. Since we have done nothing for so long with regard to climate bold aggressive action is a must.

Stop this foolishness and start fixing the roads!

This plan has improved over the actions proposed a year ago, but still needs considerable strengthening. A major problem is the long-term focus on "carbon neutrality," which as in the state's overly weak 2022 draft scoping plan assumes breakthroughs in carbon sequestration. If Davis wants to be a climate leader, ending its fossil fuel use and GHG emissions would be better long-term goals.

On page 10 the 2030 goal suddenly shifts from actual GHG reductions to GHG intensity reductions (CO<sub>2</sub>e/capita/yr). Why, apart from the latter perhaps being easier to achieve? What matters are total emissions, not intensity figures. Moving back and forth between the two approaches is confusing. For example, total emissions reductions appear to be the City's goal on page 40, top sentence. They are also the focus in Figures ES 1 and Figure 4. It would be best to keep total emissions reductions front-and-center, using intensity only secondarily if at all.

GHG trend graphs such as Figure 4 should include past actual emissions to allow residents to see how the city has actually done since at least 2010, when it first developed a climate plan.

A central problem is that some 76% of Davis emissions come from motor vehicles, but the City has relatively little leverage to bring about change in types of vehicles. It needs to think more outside the box on this within Action B-10 (Low Emissions Vehicle Program), for example by proposing to restrict use of fossil-fuel-powered vehicles within the city or within the downtown after a certain date. Rather than a knee-jerk response of "the city can't do that," let's look for creative ways that it can. Cities worldwide have restricted car use in all sorts of ways in recent years. pp. 99-100: These figures don't show the City on the path towards carbon neutrality in 2040. They show emissions falling by 2/3, but thinking that sequestration is going to offset the remaining 1/3 is highly unrealistic. Please, let's get away from wishy-washy "carbon neutrality" thinking and actually end GHG emissions.

I have observed responses regarding the proposed CAAP which suggests that we move fully to electric energy sources. While I understand and value our environment and maintenance thereof, I am opposed to the CAAP. Simply, while I have read the proposal, the process pits the community against itself. While no person is an island, the process, whether in favor of or opposed to, is guaranteed to fail as it will produce a community divided against itself. I have lived in Davis since 1980 and have participated in numerous city events and processes, the CAAP is unacceptable.

In general, I agree that the City, in the context of the County and the State GHG emission reduction targets, needs to take actions that support those targets on a compatible timeline.

I consider myself keeping reasonably abreast of City Council activities. However, despite a rather self serving chapter 2 on Plan Development and Community Engagement, it was only through other communication channels that I became aware of the draft CAAP and comment deadline. Somehow, communicating the large impact on residential building home owners and renters has been inadequate.

Specific comments:

1. Target date

The report does not include a rationale for the City carbon neutral target date of 2040, 5 years ahead of the state target date. Since targets for meeting specific mandatory requirements from the updated state building code are not known at this time, it is premature to target a carbon neutral date 5 years ahead of the state target date. Hence, non-alignment with the state target date of 2045 makes no sense. I can only speculate about the non technical drivers for that choice.

2. Transportation vs Building Energy emissions

Reference mainly pages 37 and 38 and Ca state publication of target date for 100% new car sales to be electric in 2035.

Given that on and off-road transportation emissions make up 78% of all emissions vs Building Energy emissions 7%, there is an obvious large schedule disconnect between actions for emission target reductions from transportation, and the initiation of City mandatory decarbonization for buildings (page 46) in 2025 when the state updated building code is projected to be issued.

With respect to transportation, the report does not address how emissions from I-80 factor in.

3. Committees

I do not believe that more committees (page 27 and elsewhere) are required, given that most of the work to date has been subcontracted in the first place.

P.S. I wish the authors of the document would refrain from the overuse of convoluted and unnecessary terminology, such as: transformative, resiliency, sustainability implementation, diverse co-benefits, culture of respect, inclusivity, robust, leveraging, elevate and implement, resource extraction processes, placemaking, etc. There are plenty alternative choices in plain English.

I am founding member of a number of local climate justice related groups including the Interfaith Alliance for Climate Justice, Climate Strike Davis now Fridays for Future Davis, the Yolo Climate Emergency Coalition, and the YoloSol Collective which engages historically marginalized communities, including our more than human relatives in the plant and animal world, in a just transition to a more equitable, inclusive and ecologically and socially sustainable bio-region.

General Process Concerns: My general concerns related to how equity, inclusion and environmental justice are addressed in the CAAP. I was invited to participate in an Equity and Inclusion workgroup convened by City of Davis staff which met twice and was discontinued. To call this a “workgroup” is disingenuous and I kindly ask that any reference to this as a “workgroup” be removed from the CAAP document. As someone that has volunteered and participated in Cool Davis, it was disappointing to not see a greater role for Cool Davis in the CAAP process. All the years of building up the coalition and developing communications platforms such as the newsletter and website should have been put to use in service of this process. I believe we would have had more robust community engagement and a more cohesive plan if we utilized the existing community-based infrastructure.

A number of participatory processes exist that should be explored perhaps for the implementation stage. A number of cities and towns are also now utilizing “citizens assemblies,” for example, to deliver inclusive climate actions plans.

Equity Concerns:

\*\*Discuss equity issues facing Davis, identify frontline communities and their priorities

The workshop on Equity and Resilience offered an important discussion of public health impacts and the experiences of low-income community members. The concept of “universal design” was shared by panelist Anoosh Jorjorian. I had hoped that these environmental justice priorities would have informed the CAAP process moving forward, but I saw little evidence of this in both the process and in the draft document. While an effort was made to evaluate the equity impacts of each proposed action, there are no actions developed to specifically address environmental injustice, inequity, systemic and institutionalized racism, etc. I would like to see the CAAP re-organized to list the actions that specifically address the environmental justice priorities/ co-benefits of air quality, public health, environmental stewardship and racial equity and social justice.

I’d like to see a discussion of the health risks of indoor air quality and toxic pollution from gas burning stoves and other household appliances and products.

Missing from the workshop on Equity and Resilience was direct representation from frontline community members who are most impacted by climate change, namely Native Californian homeland ancestors of Wintun descent who are experts in environmental stewardship, outdoor workers (i.e. construction workers and landscapers) and immigrant farmworkers who send their kids to Davis schools and are residents of our community, and youth. Not surprisingly, actions that reflect their priorities appear to be missing from the CAAP. The process has seemingly invisibilized and further marginalized the exact communities that should be centered in the plan.

Seventeen percent of Davis’ population is under the age of 18. These young people are inheriting a crisis they did not create. We are fortunate to have a deeply engaged youth community - Climate Strike Davis now Fridays for

Future Davis - that has maintained a visible presence demonstration for emergency climate action at the corner of 5th and B across from Davis City Hall every Friday since September 2019 - over 155 Fridays in a row. They have not been consulted or meaningfully engaged to my knowledge. They provided lists of priority climate actions annually to the City of Davis. I don't see their priority actions or their voice reflected in the CAAP. Fridays for Future Davis youth are requesting that the CAAP not be completed until they have a chance to be meaningfully engaged. This is critical to the successful implementation of the CAAP over the long term as well.

The words "equity and inclusion" and even "environmental justice" are used without a clear definition and historical exploration of the problem of inequity and injustice such as the legacy of redlining in Davis. The vulnerability assessment lacked a Davis-specific understating of these issues. The map of Environmental Justice neighborhoods provided on page 21 of the Vulnerability Assessment made it very hard to interpret which neighborhoods were included and why. For example, I'm assuming that North Davis is included because it has a high concentration of elderly people.

Moving forward, I hope that the city will commit resources to hiring an Equity consultant to address these deficiencies and design a CAAP that will facilitate a just transition that drives equity, rather than perpetuates the deep levels of inequality and historic injustice in Davis. Just transition includes those most impacted in the design of the solutions. Climate justice groups have advocated for a number of solutions that should be part of this CAAP including a Green New Deal, reparations to black, brown and indigenous people, rights for nature/ecosystem rights and the building of a solidarity economy that prioritizes ecologically and socially sustainable business enterprises. Equity also equals ownership. The CAAP should prioritize projects that promote cooperatively-owned affordable housing, equitable access to the "commons" i.e. community gardens and community owned farms, community tool sheds, community car sharing, publicly owned banks and community financing, land trusts, etc.

\*\*Discuss and surface challenges and tensions in implementation: One of the biggest controversies in Davis due in large part to the expansion of GHG emissions is the annexing and development of agricultural and open space land surrounding Davis. The CAAP points out the potential for using this land as a carbon sink, and yet the city continues to advance proposals such as DISC that would undermine our climate goals. This point of tension should be addressed openly in the CAAP.

\*\*Address post-pandemic realities and support a more holistic approach: The response to the COVID-19 pandemic demonstrated how resources can be mobilized in the face of a public health emergency. I'd like to see a discussion of how the City of Davis and UC Davis can transition the resources mobilized by Healthy Davis Together in service of our climate emergency.

The Climate resilience and adaptation section needs strengthening. There could be a role for the new department of public safety to support climate resilience, for example.

\*\*Add discussion of impacts of resource extraction: Resource extraction was mentioned in the Equity and Resilience workshop, but little discussion of the source of major inputs whether gas/oil (California is the largest consumer of gas from the Amazon for example) or building materials such as cement. This would be another opportunity to discuss frontline community impacts.

\*\*Don't limit actions to what is "within the authority of City of Davis": I disagree with limiting the scope of action to those that the city has the authority to take action on. Climate change is a global issue that requires us to both think globally and act locally and act globally and think locally. Cities can play a leading role in advocacy and have an important voice in international, federal, and state climate policy-making. In fact, the ASAP tool was developed by the C40 coalition which is a coalition of cities worldwide.

The City of Davis has weighed in as a responsible actor by passing resolutions on key issues outside its immediate boundaries including the Davis Friendly Forest Resolution passed in 2014 which directs the city of Davis to advocate against destructive clearcut logging of Sierra watersheds which is overseen by the state of CA. In October 2016, the City of Davis passed a resolution in solidarity with the Standing Rock Sioux tribe who were defending their tribal territory and watershed against the impacts of the Dakota Access oil pipeline. This resolution directed the city to end its financial services contract with Wells Fargo, one of the largest financiers of fossil fuel projects. These kinds of actions that recognize the City of Davis' leadership in tribal, state, national and international arenas should be encouraged and supported in the CAAP.

Thank you for considering this input!

Davis should do more. The CAAP lists several sectors that generate emissions. These fall mostly into scope 1 emissions, with some scope 2 emissions related to things like waste handling. Many emissions are associated with other actions, including investments and consumption. Investments in fossil-fuel and related industries cause great harm. Consumption by the city and individuals results in emissions and harm during manufacture, transportation, use, and end-of-life. The city can effect reductions in these emissions and could invest in and purchase products that are regenerative.

Shift investments out of fossil fuel and associated industries. Investments could be shifted into regenerative opportunities. Actions can include:

- Modifying its pension plan, which I believe currently is provided through CalPERS. The city can pressure CalPERS to shift investments out of polluting and destructive industries. The city can also seek an alternative pension provider, perhaps in alliance with other cities.
- Ensuring that financial institutions with which it does business meet sustainability requirements, or changing institutions if they do not. The city could, for instance, bank with, or borrow from, institutions that have divested from fossil fuels. The city can also define criteria for selection of financial institutions with which it will do business.

Reduce scope 2 and 3 emissions. This can include:

- Purchasing lower-emission products and shifting to lower-emission processes. For instance, for construction projects, the city can use lower-emission cement and steel. Standards for lower-emission construction materials exist, and the city could at least implement such standards. The city can also limit construction projects to reduce emissions from new construction.
- Using vendors and products that cause less environmental harm, provide greater overall benefits, and have regenerative effects.
- Reducing community-wide consumption-related emissions. For instance, Kamikatsu, a Japanese town, is aiming for zero-waste. Davis can work toward this goal.

There has been some pushback against requiring home electrification, for instance, from several city council candidates. Electrification may at first appear, in many cases, to require a costly upgrade to a home's electric service panel. However, according to a CEC presentation on building decarbonization, 90% of homes with 100 A or larger panels "can be fully electrified (including EV charger) without a service line increase". Methods cited at the presentation to avoid panel upgrades included circuit sharing devices and panel optimization.

Emissions from natural gas use include leaks, from the point of extraction, transportation, and at the end-use appliance. Methane is a potent greenhouse gas. Electrification would reduce these gas emissions, in addition to those from combustion. These additional benefits should be accounted for in the CAAP. Further, the CAAP should represent these emissions in its current emissions inventory.

The city should incentivize, and move to requiring, greywater systems, which are mentioned in the CAAP under additional action items for consideration for water conservation.

This plan may be aptly described as "Damn the torpedoes, full speed ahead." Unfortunately, there are "torpedoes" in this plan that raise serious concerns about detrimental effects on the residents of Davis.

The plan's primary goal, carbon neutrality, was adopted 15 years ago. The updates since that time have modified the time frame but not the goal. As a 50 year resident of Davis, I can certify that today's Davis is significantly different from the Davis of that time. We face different challenges at the local level, the state level, the national level, and the international level. Different challenges bring different demands on the time, attention, and resources of government and the people. The need for and the priority given this plan should be evaluated against the circumstances facing the Davis residents at this time.

The City of Davis cannot solve the climate change problem. If Davis achieves "carbon neutrality" the effect on the global climate change problem will be infinitesimal. That reality means the goal of this plan lacks meaning at this time to justify the imposition of the significant reduction in the wellbeing of the residents of Davis on the schedule set forth in this plan. Actions and failures to act at the state, national, and international levels are eclipsing today and clearly will continue to eclipse any achievements obtained pursuant to this plan. In this situation the City Council should not impose the costs and restrictions on personal wellbeing described in this plan.

The carbon emissions described for Davis in the plan come 75% from transportation and 15% from energy use in buildings. That is 90% from two areas in which the city by itself can do many things which may be disruptive of

everyday life but can achieve little meaningful results. The cost to the residents of Davis in time, effort, and money to shift all energy use in buildings to electricity will be substantial. The benefits to the goal will be barely recognizable, especially as long as the majority of the electricity continues to be generated by use of carbon fuels. It can even be argued that the use of natural gas on site in Davis produces less carbon emissions than generating electricity with natural gas elsewhere and transporting it long distances to Davis. The City Council should not move forward with burdensome demands in this area until it is clear that the changes will not simply relocate the same or more carbon emissions to another location.

Transportation is another area in which the city has limited ability to create on its own meaningful reduction in carbon emissions in this area. Major state and national transportation corridors pass through Davis which generate significant local emissions. City policies past and current have blocked people working in Davis from living here, have caused residents to move to other localities and drive back regularly, have forced residents to drive to other localities to purchase everyday needs, have shut down and blocked the development of local jobs. Even if the local policies are changed it will take years to change to the current circumstances. The reality is transportation emissions must be controlled on the state or national level, and the city should not start imposing costs and inconvenience on its residents until it is clear what will be done at the state and national levels.

Given their current unreliability of the electrical grid bringing electricity to Davis and distributing it in the city, great caution should be invoked before adding significant increases in demand for electricity. The plan describes that Davis is not immune to natural disasters. Prior to limiting alternative energy sources for both everyday needs and the needs during disasters, the city should identify actions in progress to guarantee this basic essential of life.

I oppose all of the following. These requirements, which have NOT been voted upon by the citizens of Davis, would create financial hardship for many homeowners and put a deeply unfair burden upon us. As well, it takes away our right to choose aspects of our personal way of life in a free country.

-Adopt requirements for electrification of all building systems that require permits at end of useful life and/or at time of remodel, including space and water heating/cooling equipment, swimming pool equipment, indoor/outdoor fireplaces and major appliances. Include specific provisions for low-income and vulnerable populations. Preferred approach is to start immediately with voluntary implementation supported by education and outreach; transition to mandatory requirements by 2025.

-Transition to zero carbon high efficiency homes and buildings

-Reduce single occupant vehicle use

The City of Davis eNotification entitled "City Addresses Electrification in the CAAP," which I received today, does not address the comments that I and others who are opposed to this plan have submitted, both by email and through the extremely difficult-to-navigate, user-unfriendly CAAP survey. All this notification seems to do is to describe the "advantages" to existing homeowners to make these expensive -- and for me NOT DESIRED -- changes to our home systems. This is my home, should be my decision. I do not want to trade out my gas systems for electric. And it seems particularly ironic that these requirements are being discussed when PG&E has been having such trouble providing electricity to homeowners and we have been told to cut back on electric usage whenever there is a heat wave, a fire, or any unusual situation.

Again, please reconsider the wisdom and fairness of these mandates.

Thank you for the opportunity to comment. I am in favor of developing a climate action and adaptability plan, but this one leaves much to be fixed before finalization. Here are my comments and suggestions.

- Expand local renewable energy development and storage should be its own category of goals instead of included in Building Energy and Design. Actions A.5 and A.8 should be under this category.
- Water Conservation should include an action addressing water conservation building standards.
- Climate Resilience and Carbon Removal are unrelated and should be separate categories.
- Add two actions after D.4: A) add flood protection infrastructure where needed and B) upgrade vulnerable flood protection infrastructure
- Demonstrating Climate leadership is not a goal, it is an action. The goal is something like Carbon Capture/Mitigation. Action A.6 belongs under this goal.
- Reduce waste generation and increase diversion away from landfills should be in a separate category such as solid waste and waste water.

- We need more climate resilience and climate adaptation goals. The only ones I see have to do with flooding. What can be done to adapt and be more resilient to extreme heat, wildfire and drought?
- **Page 16, CAAP Purpose:** Little, if any, of this discusses the purpose of the CAAP.
- Make a new section, "Section 1.2.2 Regional Plans" when discussing Yolo County and add discussion of SACOG Plans/Goals
- **Table 3:** Air Quality & Public Health are identified as separate co-benefits from Environmental Stewardship. They should not be grouped together in Table 3. Doing so gives them less weight and overweighs the impacts of Equity and Inclusion.  
Using a score of +2 to -2 does not provide significant score separation between negative and positive actions and will therefore result in actions that are very closely scored regardless of their benefits. Recommend using a scale of +5 to -5 when scoring.
- **Table 4:** The \$\$ amounts might be low from a public funding perspective but are very high/unaffordable for a private citizen or company. The scores do not reflect the severity of the impacts of the costs to private parties.  
Using a score of +2 to -2 does not provide significant score separation when determining feasibility and will therefore result in decisions that are very closely scored regardless of their feasibility. Recommend using a scale of +5 to -5 when scoring.
- Wildfire and Air Quality: While smoke and air quality are serious concerns, need to discuss the risk of wildfire, especially wind-driven fire, to the city, especially the areas near open space and greenbelts/bike paths.
- On Road transportation: I assume you meant motorhomes and not mobile homes?
- Off road equipment: mention standby generators, portable or stationary.
- Too much weight is being assigned to Equity and Inclusion. With this approach, limited resources will be prioritized toward action that might not be as effective in helping Davis meet its GHG reduction and Climate Hazard goals. This will impact the ability of the community to be able to adapt and be resilient to the impacts of climate change. It could derail the entire plan.

In all future work on the CAAP I encourage the City and its consultants to FOCUS ON THE MOST EFFECTIVE WAYS TO IMPLEMENT GHG REDUCTION STRATEGIES rather than the level of GHG reduction they will achieve. Cities and Counties across California are spending too much of their resources on bean counting. In their marketing, consultants are overemphasizing their ability to quantify GHG emissions. The fact of the matter is that California needs to reduce its GHG emissions to zero and subsequently finds ways to be net carbon positive. If an activity generates GHGs, then any local GHG reduction plan should strive to eliminate that activity and replace it with a carbon-free option. This is much easier than worrying about how much GHG reduction needs to be achieved by each emissions sector. This means, among other things, helping residents understand heat pumps, their cost of installation, operation, and maintenance. It also means identifying parcels in the City that would ideally be zoned as "Residential, No Parking."

I suggest that City staff have a real conversation with its consultants about how many of the past local GHG reduction plans they have written have actually been implemented. Plans, no matter how well developed, are worthless if not implemented. Again, consultants who can help the City find the best ways to implement GHG elimination measures would be of most value to the City and its residents and workers.

Lastly, when preparing the CEQA review for the CAAP I recommend the analysis be qualitative. The City can qualitatively determine whether the GHG reduction measures in its CAAP are aligned with CARB's most recent Scoping Plan. There is no need for this analysis to be quantitative, especially when the GHG target is zero.

Same comment submitted x3

The City of Davis Climate Action Plan sets forth critical steps to address climate change and can be somewhat of a model for other communities. There is one significant piece missing. The primary focus of the plan is to reduce emissions by the City and within the City of Davis to achieve "carbon neutrality". Reducing emissions is essential for creating a livable world. However, reducing emissions is simply not sufficient. The International Panel on Climate Change (IPCC) has been very clear that we can never meet net-zero without removing greenhouse gases

from the atmosphere. The IPCC's 2018 report states that "[a]ll pathways [that] limit warming to 1.5C use Carbon Dioxide Removal (CDR)..." Of course, achieving net-zero, or net neutrality, is really not enough because our planet is already experiencing extreme weather events at its current level of CO2. The removal of legacy carbon dioxide in our atmosphere is essential to restoring a safe climate. See "*Climate Restoration: The Only Future That Will Sustain the Human Race*" by Peter Fiekowsky with Carole Douglis, published July 2022. Also see [Foundationforclimaterestoration.org](https://www.foundationforclimaterestoration.org).

Davis has been a leader in environmentally sound policies and procedues, and we should continue to lead the way to a more liveable planet.

I'm a staunch environmentalist who wants our society to address our current problems as quickly as possible. But I want it done in a smart manner, that allows people as much flexibility to solve our problems as possible, and that spurs new solutions, rather than locking people into whatever limited vision we have today or the single solution some lobbyist wants applied today.

So please revise your CAAP to allow *any* possible solution, a *mix* of solutions, and don't force people to landfill usable systems before they actually die. And please allow variances and some thoughtful system of consideration as to whether someone's home is more, or at least sufficiently, environmentally friendly without solar, without cutting down trees or tearing out some efficient system, etc. And please start truly seeking public input on your plans, not trying to prevent input via limited comment periods, highly complicated and offensive comment websites, onerous comment requirements, etc.

While a single vote will likely not matter to you, I have decided to join those calling on our residents to vote out any council member who votes in favor of this needlessly overbearing CAAP. That's how outrageous I find this CAAP and the related system to obtain obviously-unwanted comments. You can do far better than this CAAP and our residents, and world, deserve better too. This is not how to solve these problems.

### **Comments on response form**

First of all you have made this comment process ridiculously complicated. Most people would never have the time, ability, or patience to read a 123 page document.

I just went online to try to comment on your 2020-2040 Climate and Adaption Plan (CAAP) and I must say that I'm appalled. It seems as if the comment system was designed to prevent people from commenting as to the CAAP so that you can simply adopt it as written. I have never before seen any public comment system that required commentators to not only provide so much private information, but which will not accept any comment unless the comment identifies the specific section and page number being commented upon. Even legal briefs don't require that level of citation for general comments! The comment system also seemed to limit comments to 1,000 words, despite the CAAP itself consisting of more than 120 pages covering dozens of issues, goals, and proposed solutions. I have heard from dozens of fellow residents who – despite being environmentalists – are appalled at the draconian nature of the CAAP, the virtually unusable comment system, the shifting of costs to residents, and the highly limited nature of the options being permitted despite the existence of many other solutions even today, much less the ones that will likely be found in the future.

I don't understand. I selected topic areas and nothing came up to read Your asking me to comment on topic areas you do not allow me to read. This is useless!

How am I to know what fricking page or section it is on?

You are making this comment section so onerous to discourage citizens to respond to your very biased survey. You are all for yourselves, developers, and pay no attention to current home owners. We are seriously considering moving out of CA.

you people are morons!!~ you people are morons!!~ you people are morons!!~ who the hell designed this idiotic and difficult to use "survey??"

### **Chapter 2: Outreach**

The description of the Technical Advisory Committee (TAC) needs to state how many people were on the committee, and what the areas of expertise are for each committee member. Ideally names of the TAC members would be included. At least their occupations would be important, for example the public needs to know which if any committee members make money related to selling or researching solar panels, electric appliances, and electric cars.

The term "community carbon footprint" needs to be explained. At a minimum, there should be lists of what counts and what does not count. Here are some examples, so please include each of these on the appropriate one of the two suggested lists.

1. Private car driving within our city.
2. Private car driving from our city to another location outside the city.
3. Non-resident vehicles driving past on I-80.
4. Non-resident vehicles stopping here for a meal, otherwise passing through.
5. Amtrak trip from our city to anywhere (assume fossil powered locomotive).
6. Freight train passing through our city.
7. Air travel of city residents.
8. Delivery truck to a private residence, from outside our city.
9. Delivery trucks to businesses from outside the city.
10. Construction vehicles from another location arriving to remodel a kitchen here.
11. Energy used to manufacture items that are delivered to our city and used here.

#### Table 3. Co-Benefit Scoring Rubric

These types of scoring paradigms can only give very general indications because while they look very scientific and mathematical, they are neither: the score values are subjective, the category scores are combined in a linear combinations formula to give an overall score as if the categories were commensurable, which they are not, and linear, which they are not, and the weightings of the linear combination are subjective.

#### Table 4. Feasibility Criteria Scoring Rubric

These types of scoring paradigms can only give very general indications because while they look very scientific and mathematical, they are neither: The score values are subjective, the category scores are combined in a linear combination formula to give an overall score as if the categories were commensurable, which they are not, and linear, which they are not, and the weightings of the linear combination are subjective.

The sentence that refers to 900 comments needs to refer to Appendix G, the new appendix that lists all the public comments, organized by how each public comment fed into the 95 items that are also mentioned.

Table 2: Co-Benefit Criteria Definitions: What about other potential co-benefits like wildfire resiliency?

Table 4: Feasibility Criteria Scoring Rubric

In addition to public support, stakeholder support and buy-in should be considered, eg rental property owners. They are a stakeholder affected by measures but would not consider them "public" per se.

### **Ch 3: City of Davis and Climate Change**

#### General Adaptation Visibility

The plan focuses on mitigation. We might be spectacularly successful at mitigating Davis's emissions, but the climate will still change, and we will still have to implement adaptation actions. Because of its inevitability and the fact that we will be primarily responsible for planning and paying for it, adaptation should be elevated in importance in the plan. Perhaps it should be its own chapter. That chapter should contain Section 3.1 plus descriptions of the most relevant actions – microgrids and resilience hubs (A.8), climate ready landscapes (C.1), cool surfaces (D.1), urban forests (D.2), green infrastructure (D.3), flood resilience (D.4), and emergency resources (D.6).

The last paragraph on page 36 says that most of Davis GHG emissions in 2016 were generated from on-road transportation (74%). Table 5 (p. 38) also shows that on-road transportation causes 74% of emissions. However,

unlabeled Figure 2 on p. 37 indicates that transportation accounted for 79% of GHG emissions. Please clarify and/or explain the discrepancy. Which is the correct number, 74% or 79%?

Fifth sentence in this section states that extreme heat is likely to cause impacts to energy infrastructure and electric vehicle (EV) charging stations due to sensitivity of electronic components when exposed to extreme heat.

Comment: Given rising average temperatures, it may therefore be overly optimistic to assume EVs will continue growing in numbers sufficiently high enough to achieve significant GHG emissions. The Sacramento area set a record this summer for the number of days over 100 degrees (over 40 days). On such hot days, it may be difficult to charge an EV.

Figure 2 and Table 5 have residential Natural Gas responsible for 7% of GHGs.

Residential natural gas is used for heating and cooking. Converting those to electric will not save that 7% of GHG unless the source of the electric power is carbon-free, which it currently is not. If electricity is generated by burning fossil fuel, that has a maximum efficiency of 50%. This is a consequence of the Laws of Thermodynamics and has been known by science and engineering since the mid 1800's.

If fossil fuels are used to generate electricity, the maximum efficiencies will be 50% (power plant,) 95% (delivery to the home), 85% (cooking) to 100% (electric wall heaters), for a net efficiency of 40% to 48%. In contrast, direct use of natural gas for heating or cooking is 85% to 95% efficient.

Use of natural gas to generate electricity for heating or cooking will generate up to 2.1 times as much GHG as direct use of the same natural gas, depending on how carbon-free the electricity generation is.

This paragraph states that GHG emission forecasts assume that emissions from on-road transportation will decline by 15% by 2030 compared to the 2016 baseline, and 20% by 2040. Given that the transportation sector is the biggest generator of GHGs in Davis, these reductions will automatically occur and will go a long way toward attaining the City's climate action goals, and will do so without imposing potentially expensive and administratively complex regulatory burdens on home-owners and businesses (as described in Actions A.1 and A.2). In other words, the increasingly stringent emission reduction and fuel economy requirements that will be implemented by the federal and State governments in the coming decades will achieve far greater emission reductions than the proposed local emission reduction measures, but without the administrative burdens, intrusiveness into people's lives, and negative public reaction.

The City's letter on electrification mentions Senate Bill 100 (SB 100), "The 100 Percent Clean Energy Act of 2018," requiring 60% electrification by 2030. I did not see that target addressed in Section 3.3.1. I know it is not a GHG target, but it is a state requirement and 3.3.1 seems like the right place to address whether or not we will meet it with this plan.

The GHG intensity estimates provided do not appear to correspond to the previously reported GHG inventory and population figures available from the provided sources (California Department of Finance). The reported GHG intensity of 12.0 MT CO<sub>2</sub>e/capita for 2016 appears to correspond to a substantially smaller population than what is reported in the referenced source. It appears the population may have been adjusted to account for the UC Davis-related VMT mentioned elsewhere, but it would be inappropriate to use this adjusted population for anything outside the VMT calculation as that population contributes to all other sources in the GHG inventory.

Minimum 2030 GHG Target (page 40)

"However, in 2016, California's GHG emissions returned to 1990 levels, which the CAAP analysis uses as a proxy for when local governments statewide also returned to *their 1990 GHG emissions levels.*" Is this a realistic assumption? What is the source of this statement?

## Ch 4: Climate Actions

### General Comments

Prioritize Near-Term Actions - Cool Davis would like this plan to more clearly identify the prioritized early next steps overall after the CAAP is approved. The City has taken significant steps to reduce 100

actions to 28 but what can the community expect to happen right after the CAAP is approved?

Enhance the Vision of Each Action - Cool Davis recommends adding a clearer and simplified vision statement for each action at the start of each introduction to capture its scope and intent (one model is the City of Oakland's ECAP pps 36-38)

The Funding and Resources section indicates that funding will be sought to assist residences and businesses that fall under the CAAP's extensive social equity categories. The Implementation Information section proposes to "explore options to offer financial support (such as partial/full subsidies) for low-income and vulnerable households to offset the costs of electrification." In Section 4.1, the definition of "vulnerable" is quite extensive and includes, "low-income communities, communities of color, the young, the disabled, the elderly and indigenous communities." The CAAP fails to include specific definitions for ANY of these groups or identify the number of affected persons or households in these groups, so the impact is unclear. Property owners that are not part of these "marginalized" groups will be required to pay full and significant costs to comply. As the social equity provisions are quite broad and unclear, this proposal is premature and will be divisive to the community.

Where do building efficiency improvements and electrification of rental properties fit into these action items? Action A.2 has some reference to it, but how to address rental properties should be independent of waiting for time of sale. City of Boulder has a rental property ordinance that requires improvements to rental properties be completed in order to qualify and be licensed. Rental properties fit under A.1 when equipment fails at end of useful life but should city develop an ordinance specific to rentals and apartments?

I don't know if you follow community concerns on NextDoor, but this draft plan seems to have triggered a panic. It seems that many residents believe that they will have to spend thousands if not tens of thousands of dollars to comply. It would behoove the city to get out in front of these concerns and address them. The plan itself is long, tedious, and complicated. If staff is not available to respond online to misconceptions, then it might be helpful to organize some workshops to address concerns.

Thanks for the update. I too thought that the concerns were... a bit overwrote. I'm sure the final draft will be acceptable to the majority of the city. My two cent's worth is that it would be prudent to place a cap on the cost of compliance and/or exempt houses that are older than perhaps 25 years old as they would be likely to require extensive rewiring. I am chagrined to confess that I didn't participate in the workshops last year as I wasn't aware of them. Is there a listserv that I can sign up for for future notices? Thanks again for replying.

#### **General Comments about Building Energy actions (A.1-A.8)**

Thank you for holding the information meeting today. I have implemented solar panels and have an electric car and on board with making changes to reduce. Wonder if the City have considered providing an 'incentive' for community members who have already voluntarily started implementing changes towards a climate friendly future.

Below are our household comments on the CAAP out for review. We are emailing these comments directly because the complexity of the review format for the online document makes it more arduous than necessary to provide comments.

Our comments are solely on the proposed requirement to retrofit appliances to electric for replacement and for resale by 2025 in Chapter 4 (Actions A 1, A2 and A4).

- 1) We are opposed to any mandate that would require a building owner or homeowner to convert to electric when their gas appliances needs replacement.
- 2) We are opposed to any mandate requiring electrification (and elimination of natural gas) for resale as proposed starting 2025.
- 3) We support voluntary changes to electric from natural gas at the discretion of homeowner.
- 4) We see no analysis of the added cost, the GHG impact, or other environmental cost of the required conversion as it relates to the added mining of raw materials and manufacturing of replacement electric appliances (all of which will take place outside of Davis, CA).
- 5) We see no CEQA analyses attached to the CAAP describing the local impact of added landfill waste for construction debris (e.g., interior/exterior walls, drywall, framing, flooring, texture, finish work, paint, and replacing

wire/pipe) or for appliances that would occur with this mandated change. What about older homes that were built using asbestos or other toxic materials such as lead paint that would be disrupted by a conversion from gas to electric. Also, where do energy saving tankless water heaters fit in this proposal?

6) We do not see in the document adequate analysis of the overall GHG impact of this project occurring in Davis, CA. This appears a punitive act against building owners solely in Davis CA, while the balance of the State, Nation, and World continues on their same course of action as it relates to electrification. There is no analysis of the added environmental cost (especially for the resale mandate to convert) to remove gas appliances and replace with electric.

7) We are opposed to these changes at this time because the current electrical grid in California is approximately 1/2 natural gas. Renewables such as wind/solar are not reliable 24/7 timeframe. Monitoring of the CAL ISO webpage ([www.caiso.com](http://www.caiso.com)) will demonstrate how little renewables currently contribute to our energy grid, especially after dark, when people want to recharge their electric, or have their AC during hot summer days or gas heat during cold winter nights. The document fails to acknowledge that the bulk of electric provided if electrification happens, will be from natural gas, particularly at night, as well as during cloudy days, and/or during calm winds. We see no analyses on what will be the added GHG contribution to use the additional natural gas needed to power the added electrical appliances given electricity largely comes from natural gas anyway in CA.

8) Overall, we believe the proposal would result in punitive and discriminatory mandates, costs, and environmental consequences placed solely on Davis residents. We like our hot showers and hot water when the electricity goes out. With this proposal that commonplace functionality in modern California goes away and we are left to burn stove fuel, wood, or briquets to have hot water.

9) There is no analyses of the workload required citywide to make the conversion and workload associated with permitting and hiring construction, electrical, and plumbing expertise that would be required. We can't find tradespeople now at an affordable price.

10) We recommend postponing this proposal until California's grid is at least one half provided by renewables, including renewables at night.-- then come at it from a statewide perspective, or better yet nationwide. That might have an impact. Please don't be punishing us locally with draconian mandates that won't contribute measurably to GHG reduction.

My husband and I have been residents of Davis since 1970.

I am writing to object, VEHEMENTLY, the parts of the CAAP that address homeowners, and the "need" to electrify ALL of our homes as soon as possible. This is an EGREGIOUS overreach of government authority!

Where does this council get the authority to tell me what kind of stove I need to cook on??

We live in a house approximately 20 years old, that will need a new heating/AC unit in the not too distant future. This proposal would also mean I can only get a permit for replacement if we choose an expensive all-electric heat pump model. What will THAT do to my PG&E bill?

We are on a fixed, retirement income. We have explored rooftop solar systems, but we are too old to see a payback before we are likely to move out. And we are VERY careful with our electric and gas use already! I am also part of an online community that provides feedback to PG and E regarding a host of issues. Aside from these personal concerns, which are major, due to expenses involved (point of replacement OR point of sale), WHERE is all this electricity going to come from?

In CA, PG&E ALREADY sends us Flex Alerts during hot weather! So stop cooking dinner between 4 and 9 p.m. on that new electric stove!

And this doesn't even touch the issue of electric vehicle charging!

This does NOT seem like a well- thought out, viable, reasonably priced plan.

I am aware of the countless hours already invested in CAAP, but it not good to arbitrarily set goals five years ahead of necessary goals.

Let's be reasonable!

You MUST CHANGE THIS!

My Wife and I are over 65 years old and still work 11 hour days to keep what we have. Instead of reducing our burden, the City wants to impose more costs on its citizens. All we want from the City is services.

Just because the State mandates something does mean we have to take a particular action. Please look it up, it is well known by climatologists that an immediate step to get major reductions in carbon emissions is to get oil and coal use down and increase natural gas use. This requires all those who burn coal or use oil to switch to natural gas.

We can do our part to reduce pollution by developing a program where we are only buying power generated by renewable and low carbon emitting fuel sources, (natural gas). With the proper balancing, we can reach carbon neutrality. You can put that in an ordinance and send it to the State should they ask about any type of compliance with the burden they are putting on us.

Hoping not to freeze in the future,

We need to adopt the Decarbonization Code I sent the NBI codes in the attachment (NBI) has just released its Existing Building Decarbonization Code, which provides a new way for jurisdictions to reduce carbon emissions and meet climate action plan goals and interconnected goals around public health and equity. With 5.9 million existing commercial buildings in the U.S. comprising 97 billion square feet, the need to address energy efficiency in existing building stock is immense. New construction represents less than 2% of building activity in any given year, leaving a vast opportunity to update technologies in existing buildings. By requiring these facilities to be more energy efficient, cities could cut about 30% of all urban emissions by 2050.

I very much support acting to help improve our environment. But I've seen too many government policies and programs that are overly black and white, preventing people from accomplishing the very goals the program was intended to achieve, and leaving no intelligent balancing in specific cases where the rules are questionable. Mandatory sentencing type rules are seldom as beneficial, or just, as more flexible rules with allowed discretion and exemptions. As I've seen the CAAP written thus far, it sadly seems to be just such an inflexible program, imposing unnecessary costs on people and preventing actions that really do help the environment, as well as not allowing for any discretion in specific cases. I hope the program finds a better sense of balance such that no one is forced to tear out environmentally-friendly appliances and features simply to install something that would be worse given their specific circumstances.

I believe the CAAP to be problematic in stating conflicting and mutually-contradictory goals. You will not promote the goals of additional trees and cool reflective surfaces if you compel everyone to install solar panels on their houses. For example, my home in central Davis has many trees and a highly insulated flat white foam roof which not only insulates my house, reducing my energy needs, but which also reflects sunlight back into space to prevent warming of our planet. Yet under your CAAP, I will be forced to cut down many of the trees that cool my house and yard, and remove and landfill my flat white roof, in order to accommodate and make use of the solar panels the CAAP appears to require me to install. Not only will this reduce the insulation and cooling of my home, it will compel me to install a system that multiple solar companies have told me is not useful for my home and needlessly landfill my entire roof. How does any of that help the environment?

Your solar panel and electrification requirement will also prevent anyone in town from adopting geothermal cooling and heating (which is far more efficient than solar panels and works around the clock, not just when the sun is shining). And your electrification plan will require me to tear out and replace the \$28,000 highly efficient and environmentally friendly gas HVAC system I just installed last year to replace our inefficient and non-environmentally friendly gas HVAC system. I did not have to replace it last year, I just thought it was the right thing to do for our environment. No credits were available to me for doing it either. But pursuant to your CAAP, I will have to tear it out, losing that investment, if I ever sell my home or make any improvement that requires the slightest permit. And your lifecycle schedules are bound to require me to tear the system out before it actually ceases to work (there is no option for a waiver, a comparison to electrical HVAC systems to see how it compares, no consideration of whether my home insulation, energy efficient appliances, cooling trees, and HVAC system, in concert, mean that my home is as good as, or virtually as good as, a fully electrified home, etc.). You have in your CAAP mandated a one-size brainlessly fits all system with no flexibility or reason. It is an example of the worse excess of unthinking government that misses the forest for the trees.

Why does every California government these days seem intent not only on setting goals but on also setting forth a single path to accomplishing the stated goals? Why not merely set the goals and allow people to meet them in any way they choose? Why tie their hands as to only one solution, especially when technology is constantly changing

and new solutions are likely to appear? Why not establish a flexible plan that allows for multiple solutions? Why not allow a mix of trees, reflective surfaces, efficient gas systems, electrical systems, etc.? Especially when our local and state electrical grids can't support CAAP's goals and mandates and are unlikely to do so for years to come? And why initiate the CAAP requirements by 2025? Why not simply require any replaced systems to comply? Why force anyone selling their home, seeking any permit (no matter how unrelated), to go to these great expenses? Especially when the government has no plan I can see in the CAAP to help foot these bills?

The week of Labor Day 2022 has shown the vulnerability of the local power supply during a heat wave. I am extremely concerned that the push towards mandatory electrification and decarbonization in the next 3 years will dramatically worsen the power situation during peak demands in the event of future heatwaves. There needs to be a comprehensive and well-documented power supply solution (see comment on Chapter 4B) alongside this push towards full electrification of households and of vehicles, ESPECIALLY if such electrification measures (and the associated inconvenience and danger from rolling blackouts during a heatwave) are to be mandated upon the residents of Davis in merely 3 years time . I certainly hope the City of Davis has thought about this, or is the inconveniencing/endangerment of the residents of Davis just collateral damage ?

Please do not require all electric for sale after 2025. This will only stress the grid and make Davis more unaffordable for the average worker. We are on a fixed income and our gas appliances are much cheaper to own and operate. We cannot afford this. Please consider the consequences to the average homeowners when making a climate change statement.

This concerns the current City of Davis Climate Action and Adoption Plan (CAAP) and specifically, its proposal to require the conversion of appliances and home energy systems from natural gas to electrical appliances and central systems in order to be able to offer for sale existing homes in Davis starting in 2025. I have been following the dialog on Nextdoor, and it is one of the most hotly debated issues. I promised this Nextdoor to provide an expert opinion as a professional electrical engineer familiar with building and energy codes and electrical construction. Here it is.

The CAAP It is not a solution to the global climate crisis. It is an "aspirational" local proposal designed to demonstrate that Davis is ahead of the curve and most of the world. But it is seriously flawed in its most important conclusions regarding energy.

Based on recent reports of energy sources used by PG&E and as reported by CEC<sup>[1]</sup> and EIA<sup>[2]</sup>, PG&E and the other California utilities are increasingly reliant upon natural gas to generate electricity. In 2021, more than 50% of the state's electric energy was produced by natural gas – more than all other sources combined<sup>[3]</sup>. With dwindling hydro resources, the retirement of nuclear resources and lacking utility-grade electricity storage (batteries) to store solar-generated electricity, providing statewide demand for sustainable (if not non-polluting) electricity is a situation is not going to improve soon. The coincident falloff of renewable solar output and the typical increase of energy use in the home and many businesses in the late afternoons and evenings is the reason that electric rates then are the highest because their primary source at that time of day is natural gas.

When electricity is generated using natural gas, between 40 and 58% of the energy contained in the gas is lost in the process. Combined with electrical transmission losses (typically about 8%), the direct use of natural gas for

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heating and cooking is about twice as efficient as electricity and therefore produces fewer greenhouse gases than electric power<sup>[4]</sup>. The only practical difference is that those greenhouse gases are released in the home and in the community, rather than at the PG&E generating plant. They all still end up in the atmosphere.

Then there is the unmentioned topic of resiliency. Resiliency is our ability to stay safe, stay warm or cool, be fed, and carry on comparatively normal life during a power outage or natural disaster. PG&E's electric grid in Davis is not good. We commonly have power losses due to the age and condition of their electric system that are separate from "Flex Alert" outages. Just last month a power failure and underground fire started in our neighborhood. As usual, the failure map shows the outage originating near the West Village and shutting down everything west of CA-113. This has been going on for years.

In my professional opinion, having a second energy source is good engineering. Natural gas is safer and easier to use than other fuels. It also reduces the requisite size of a central battery because gas can be doing what it does best – heating something directly and generating power when needed. Properly installed, inspected and maintained, natural gas is the safest alternative energy source compared to gasoline, diesel or propane, or for that matter, burning wood.

In my professional opinion, this proposal overlooked readily available facts of energy use in the state in pursuit of an ideal that turns out wrong. These CAAP provisions would cause more use of fossil fuels and would render our building systems less resilient because of fewer reasonable options for energy security. That it would cost me a great deal to rid my house of its modest gas uses in order to sell it is even worse. I urge residents to let out civic leaders know that the CAAP misinforms on the subject of electricity and natural gas and recommends an incorrect conclusion.

<sup>[1]</sup> California Energy Commission

<sup>2</sup> Federal Energy Information Administration

<sup>3</sup> California Energy Commission, 2021 Total System Electric Generation

<sup>4</sup> The National Academies of Sciences, Engineering and Medicine, What You Need to Know about Energy, [www.nnedtoknow.nas.edu](http://www.nnedtoknow.nas.edu)

This email is being sent in response to what I've heard about proposals to mandate increased electrification of Davis residences. I haven't studied the proposed regulations in depth as I already have a full-time job, so I hope you understand if some of my comments are misdirected. Also, please note that I am not a "climate change denier", and that I consider climate change--as evidenced by increasingly destructive natural disasters--to be one the two biggest existential threats to our planet (the other being Vladimir Putin). I've lived in Davis half of my life, my kids were raised here, attended public school and state university here, and I've seen how the city council is prone to overreach.

But this electrification proposal--this is egregious. It will increase the chokehold PG&E has on citizens' personal financial health, and amplify PG&E's control of and influence over state and municipal governments.

I support initiatives to decrease greenhouse gas emissions, but there are some obvious major gaps in the logic and fairness of the proposed mandates as I understand them. In short, any significant modifications to residential infrastructure should apply only to new construction. Requiring updates to existing structures is in many cases impossible to achieve and places very large financial burdens on homeowners.

The details are clear, if you would take the time to look. I'm hoping you will read these details carefully and thoughtfully, because they are not just my problem and will apply to a vast number of residential structures in the city. It's impossible to expand the electrical capacity of my house for less than \$30,000. This doesn't include the additional modifications (new circuitry) needed for installing electrical appliances, nor the cost of the appliances themselves and their installation. The underground PG&E supply wires to my house are at capacity, and would need to be replaced and upgraded if the amperage of my service box were to be expanded any further. I'd be looking at six figures to make this 60-year-old house all electric.

I know this, because I recently looked into this with a licensed electrician. Upgrading the supply wires would involve excavating my front and side yards as well as the city sidewalk and street, which explains only part of the expense. Restoring the drought-tolerant and edible landscaping, irrigation and front patio would be a major undertaking. My electrical service box, recently upgraded and replaced, is at capacity, including two subpanels, and is maxed out, limited by the gauge of the PG&E supply wires. We were barely able to squeeze in a 40-amp circuit for a 220 volt charger for my electric vehicle. This \$900,000-plus house doesn't even have the electrical capacity or dedicated circuit for a built-in microwave.

The natural gas appliances that the city is proposing to require I replace are a water heater, a kitchen range, the HVAC system, and a free-standing Vermont Castings stove that is our most utilized source of heat. (What am I supposed to do with the free-standing stove, which was a \$7,500 improvement? Take it to the landfill?) All of these appliances would to my knowledge require separate dedicated 220 volt circuits, which really isn't doable. It would most likely require stripping some of the interior walls of sheetrock to run the new wires. It's also important to point out that all of these devices have been inspected and permitted by the city (an onerous process at best) and have been installed with the blessings of the various municipal authorities. Upgrading the electrical service was also a challenging process, with significant inconveniences imposed by PG&E. The status of these previously permitted appliances should not be questioned or changed going forward. If my gas water heater takes a dump, I should be allowed to replace it with a similar gas device. A new circuit for an electrical water heater is impractical to impossible.

As my wife and I reach retirement age, we face yet again another perfect financial storm, probably worse than the mortgage meltdown crisis of 2008 in which we lost most of our savings due to an unprecedented collapse of the veterinary profession (which has fortunately made an astounding recovery, fueled by the proliferation of "pandemic puppies"). Davis residential real estate has typically been safe from major declines in resale value, and now with stocks and bonds both tanking, inflation surging, electrical bills soaring, and rising interest rates taking a big bite out of home values, the city council wants me to spend multiple tens of thousands of dollars to electrify my 60-year-old house prior to resale permit approval. Our house now represents our major retirement savings, relatively easy and safe to liquidate, so the council should factor that into their proposed mandates. (There are the additional "hidden" costs of any permitted project causing the taxable value of the property to increase, which then subsequently increases additionally at an annual rate, forever. It's not my first day at the Davis resale permit rodeo.)

If the city or the state wants to pay for and supervise these changes, I'm all for it--as long as they pay my PG&E electricity bill as well, which is often far north of \$300/month. I'm not an anti-regulation or anti-government nutjob, but these proposals, as I understand them, are government takings of personal property and savings. If I felt comfortable spending that much money on residential projects, the first thing I'd do is install rooftop solar and battery storage. I want to reduce my use of grid-supplied electrical power, not increase it. Larger reductions in greenhouse gas emissions could be achieved if the city or state would tax out of existence all these full-size pickups and SUVs that people here use for daily solo commutes to Sacramento, Stockton, and the Bay Area.

Mandatory by 2025 doesn't change the equation of converting a 60-year-old house to all-electric, the complexities of which weren't acknowledged in your response.

I already drive an electric vehicle. If the city were serious about reducing greenhouse gas emissions, all city vehicles would be replaced with EVs. That would be a better place to start.

I guess I need to sell my house before 2025. Thanks for the unfunded mandates.

Obviously frustrated,

Actions A.1, A.2, A.4, A.5, and A.7 identify important emission reduction methods, but seem to neglect a key road block to implementation. The current unreliable state of PG&E equipment and electrical service is a serious disincentive and impediment to electrifying homes and the purchase of electric vehicles. Frequent unexplained outages leave residence in the dark and thankful for gas appliances to provide hot water and heat.

Older 100 Amp services in residential areas of the community limit the amount of solar power that can be connected and the charging rate and capacity for electric vehicles. When PG&E equipment fails, electricity from solar is not available to power homes or recharge vehicles without investment in expensive auxiliary batteries and engineered electrical control systems at each residence.

The focus should first be making the distribution system more reliable and more capable with respect to controls - perhaps without PG&E.

There has been some pushback against requiring home electrification, for instance, from several city council candidates. Electrification may at first appear, in many cases, to require a costly upgrade to a home's electric service panel. However, according to a CEC presentation on building decarbonization, 90% of homes with 100 A or larger panels "can be fully electrified (including EV charger) without a service line increase". Methods cited at the presentation to avoid panel upgrades included circuit sharing devices and panel optimization. Emissions from natural gas use include leaks, from the point of extraction, transportation, and at the end-use appliance. Methane is a potent greenhouse gas. Electrification would reduce these gas emissions, in addition to those from combustion. These additional benefits should be accounted for in the CAAP. Further, the CAAP should represent these emissions in its current emissions inventory. The city should incentivize, and move to requiring, greywater systems, which are mentioned in the CAAP under additional action items for consideration for water conservation. ,

#### Building Electrification.

California's electric power supply is not capable of absorbing premature conversion of gas appliances to electric. As we just saw in September, California barely had enough electric power to support the current use. Several flex power alerts were called, and we were on the verge of forced blackouts. With California teetering on the edge, the Diablo nuclear plant, which supplies 8% of California's electrical power, will be shut down in 10 years. Not forcing premature conversion of existing gas appliances will allow time for other power generation to become available. CA produces about 425 million of the world's 50 billion metric tons of GHG, and the appliances we are considering are only 7% of that--a net of only 0.06% of the world's GHG emissions. Forcing premature conversion on CA homeowners will not save the world, and premature conversions cannot be supported by the current available electric power. Let us convert appliances at normal end of useful life.

The document focuses primarily on energy use and net zero energy where it should be looking directly at carbon emissions. The City needs to predict outcomes and make decisions based on carbon emissions and not just energy use. A Life Cycle Analysis (LCA) is the best tool for measure carbon impacts and should be a tool used in City decision making, similar in function to an EIR, but less cumbersome.

(As an example, new construction should use wood framing and not light gauge steel as UC Davis recently did for their new housing projects. Wood sequesters carbon while steel is carbon emissions intensive. LCA brings carbon emissions that occur outside the city into the decision-making process, since the carbon emissions resulting from the use of steel would not otherwise be included in our city's impact analysis.)

Are u crazy you don't have the legal right to require home owners to change from gas to electric

We have concerns about the electrification plan that is proposed for the City of Davis. Not only will this overwhelm an electric grid that is not set up for such an increase in usage, it will also create a hardship for homeowners. Something of this magnitude should be decided by the voters...not the Council.

First, we already have problems that include required rolling black outs and calls for electric customers to self-regulate their usage during the hot summer months. What will happen when all properties have moved to electric, including cars? These issues could be amplified exponentially.

Secondly, another concern is the hardship for the homeowners to meet the requirements for going all electric in their homes. Point of Sale modifications would cause the greatest monetary hardship as well as potential delays, or complications, for homeowners trying to sell their house.

If anything, end of life for appliances seems more reasonable as it would allow homeowners to gradually spend money for these modifications/replacements.

We understand the importance of decreasing the factors that contribute to climate change, but this is not the best way to accomplish this.

**We, as citizens, need to vote on a gradual (but urgent) plan to make these changes so that we can move to renewable energy sources.** Thank you

Are u nutss to force people into all electric. Thy can't keep the grid open. You are all about control I got not knowkedgk about the environment. How date you think it's ok to raise the price of energy for your misguided opinions

I think it's awful your proposal to have all home sales convert natural gas to electric. It's a waste to appliances & extremely costly to the seller. If you want to do for new construction okay. It will  
Once again make rentals more expensive

Seriously, I have solar and. Battery (which will need to be trashed one day). It's mor efficient, cheaper and cleaner to heat my home and cook with gas.

You people need to wake up. The city and state are out of touch with what people want and can afford, not to mention that there is no science to back up their ridiculous plan.

A Tesla battery weighs 1000 lbs and lasts 6-7 years. I can tell you the resources, Etc it takes for this one car but you can look up the facts if you care to.

Wake up! Maybe you all will when you lose your jobs.

When considering a change that will affect the community as a whole, you must consider the full ramifications of such change. Sustainable change comes in steps or sets of actions. Education, compensation, and availability of product need to be in place before considering a complete gas ban.

If you want to move forward, the following few steps would be useful.

1. Work with developers and builders to require enough solar panels in all new construction. to meet the needs of an all electric home or commercial building. This will help with preventing rolling blackouts, because the solar panels will offset the extra strain on the power grid.
2. Work closely with the federal and state governments to provide financial compensation for replacing gas appliances with electric ones and rewiring them..
3. Educate the community on the benefits of electricity verses gas.
4. Make the change from gas to all electric in steps. This last point is critical if you really want to make this work.

Your planned proposal about replacing gas appliances by electric ones is absolutely ridiculous. Apparently, you live in a world where you don't have to worry how to make a decent living. You have too much money and time at your disposal to think of what really concerns real people. Apparently, you are in a hurry to ride the wagon of those who--by abandoning transcendental values and believes-- are in search of new gods to worship. "Climate Change" will do! Please, ground yourselves to reality, and allow yourselves to be left..... behind in the march toward an irrational destruction of peoples' lives! There is an abundance of useful things that the City of Davis can and should do for its residents. The proposed measures are not included in them.

The burden this puts on property owners is excessive and heavy handed. Better to create incentives than force residents to comply. Many homes will require larger CB panels to be installed, costing thousands of dollars. Some homes will require new larger power source (wires) to be run to their house costing thousands. And many homes, specifically kitchens are not set up with 220 so it will have to be run/extended through out attic, walls, costing thousands of dollars. All of this plus the cost of changing out water heaters, stoves costing, etc. This is a very bad idea.

We need to find another way that doesn't stress the grid, overburden the community and raise already crippling cost of living

I don't want home owners forced to electrify all appliances. Thank you

1. Our city shouldn't force transition to electric appliances and vehicles apart from state coordination. It will contribute to electricity shortages and shift local use of natural gas to gas-powered electrical plants until the state can increase renewable electricity generation/distribution. We are already facing electricity shortages, and were requested to REDUCE use of air conditioning, ELECTRICAL APPLIANCES, and charging of ELECTRIC VEHICLES. This will hurt our community by increasing dependence on currently inadequate electricity supplies ahead of state infrastructure improvements.
2. It is an irresponsible to add the staff and electrify city infrastructure without including them in an overall plan to balance our city budget. The city has a serious multi-million dollar running annual financial deficit that threatens our future. The city's main responsibility is the local community. It is not right to focus on state/national/global issues to the neglect of our local community.

Submitted x3 commenters

I'm writing to you today because I believe our community must urgently pass a building electrification policy and phase fossil fuels out of our homes and businesses.

Buildings are responsible for 13% of greenhouse gas emissions in the US, and children in homes with gas stoves face a 42% increased risk of asthma symptoms – that's on par with the risks from secondhand smoke. Burning gas in homes also generates harmful emissions of formaldehyde, methane, nitrogen oxides, and other pollutants.

As your constituent, I'm urging you to do everything in your power to pass a policy that will ensure new buildings in our community are all-electric and help phase gas and other fossil fuels out of existing buildings.

I saw your press release about updating the home electrification portion of the CAAP. In the press release, SB 100 appears to be used as justification for why Davis needs to take action on electrification. The language used in the press release uses the word "mandate" on "jurisdictions" with respect to SB 100, further stipulating that the law requires jurisdictions to achieve "60% electrification by 2030 and 100% by 2045." This is the second time I have seen the city use SB 100 as a justification for its efforts on home electrification.

I generally support home electrification, done right. But I am confused by the city's use of SB 100 as the justification. Professionally, I am a statewide policy expert on energy and I worked very deeply on SB 100. I work with utilities around the state on implementation, and frequently work with the California Energy Commission on the matter. I am not aware of anything in the law that requires jurisdictions like the City of Davis to adopt electrification programs or to undertake any actions relative to renewable or zero-carbon energy. SB 100's requirements were imposed on "retail sellers" which are generally defined to mean IOUs, CCAs and energy service providers, as well as local publicly owned electric utilities like SMUD (references: see PU Code Sections 399.15, 399.30, and 454.53). Further, the requirement in SB 100 is not to electrify homes and businesses, but rather for those retail sellers and local publicly owned electric utilities to procure 60% renewable electricity by 2030 and to plan for 100% zero-emission/renewable electricity by 2045.

Does the city have a different reading of SB 100? What code section is the city interpreting to mean there is a mandate for 60% electrification by 2030 and 100% by 2045?

I am concerned the city is misinterpreting the law incorrectly and if not, I'd like to be educated in your interpretation. This issue has gotten a lot of public attention so I think it's particularly important the city gets the legal aspects right. That's really important to successful policy. Please reply to this email or call me to discuss. My cell phone is (916) 827-7113.

Interesting concept, but talk about putting the cart before the horse! Is the city of Davis ready to provide \$ to assist residents in the conversion to all electric households? Any other ways to support this such as a City of Davis Solar Field?

Without reasonable assistance, this measure will fail. Show me the cost of a family residence converting from gas to electricity.

The issue of not enough electricity to power our city is real. We need a complement of energy sources that help us wean off gas.

Electrification for all housing MAY SEEM a good idea. I find it a BAD IDEA.

1. California's electric grid is fragile at best. We all know that. Yet now there are many many electric cars depending on that grid. You want to add all homes that now have dual energy, electric and gas. Where is all of that electricity coming from? I don't know and neither do you.
2. I find having dual power sources comforting and useful. Should the electricity go out I still have hot water for baths and the ability to make a simple supper. That knowledge was so important when the children were small. Only the frig to worry about.
3. Imagine being older (I am 85) and needing a generator to keep lifesaving devices operating. (I, gratefully, don't need these devices). Generators are usually gas powered. Have you thought of those folks? Please don't rush in to electrify just because it is politically correct and every body's doing it. I have not addressed the cost to the homeowner to retrofit. Have you thought about that? For some reason I doubt you have thought that through. Please excuse me if that is not true. I vote NO on CAAP

Adapting All Electric New Construction (Action A.4) is critical.

Action A Transition to Zero Carbon Homes and Buildings, Additional Items:

Development Incentives: This items notes "zero-net carbon design". Is this defined? Is this only for operational functions once the building is completed and occupied"; it should include "embodied carbon" as would be revealed in a Life Cycle Analysis? Embodied carbon goes well beyond the emissions from off-road vehicles used in construction.

Decarbonization of our existing building stock is critical to battling climate change and, thus, the CAAP should include measures like the following:

Action A.1. Building electrification at end of useful life

Action A.2. Building electrification at time of sale

Action A.3. Energy efficiency and ventilation in rental properties

Most homeowners in Davis have the means to afford the upfront cost of implementing these measures in their homes. Besides, evidence shows these measures result in cost savings in the long run. Hopefully, there will be a lot of rebate opportunities coming from the recently passed Inflation Reduction Act. If so, the City should help building owners know about these rebate programs as much as possible.

A few questions regarding the City of Davis Climate Action and Adaptation Plan DRAFT Where is . information on assumptions regarding sources of electrical power now and in future? Where is information on assumed trade offs going from natural gas for heating homes and water to using electricity generated by natural gas to heat homes and water? Does plan include eliminating use of electricity generated by GHG sources, or using only VCE as source? Please let me know where this information exists in draft. If information is in references, please provide specific references and the referenced information that responds to questions.

As we migrate to an all electric powered world . . . consider the facts that PG&E user rates are already outrageous and that they can't reliably supply current demand, I have these simple questions:

- 1- Is this CAAP proposal an original work of City staff?
  - 2- Why is the resident comment/survey so awkward/time consuming to navigate?
  - 2- What is source of the additional power required to meet the increased demand of an "all electric" conversion?
  - 3- Does PG&E have a plan to provide the additional power?
  - 4- As most of PG&E power is currently generated using fossil fuel, how will they generate the additional electricity?
  - 5- Is the existing PG&E and the entire grid infrastructure/distribution system capable of handling the increased demand?
  - 6- Is our City infrastructure capable of managing the increased load?
  - 7- Beside the rate payers, who else will pay for the infrastructure and generation upgrades?
  - 8- What financial and service demands are being made of PG&E and the PG&E stockholders?
- As proposed, the CAAP puts all the financial burden of this transition onto the rate payers and the city residents. Will we be the ones required to refit our homes to be "all electric", purchase expensive electric autos, pay all the fees/taxes involved . . . and suffer higher rates to improve PG&E's system so that we can pay them more for their additional dirty electricity?

I do support the move to clean energy, but the plan to do so has to be all encompassing, well designed and economically reasonable for the individual! We can wish it so, but unless all parties have a share of the burden, this plan is doomed to fail.

**Action A.1. Building electrification at end of useful life**

I want to make sure I register my surprise and dislike of the idea to make homeowners in Davis retrofit their homes to electricity by 2025. Actually I don't think the city should be able to make that requirement no matter what the date is. What happened to choice? PGE can't handle the load they have now! I'm wondering if you have thought about the disruption and cost to homeowners to do a remodel and buy new appliances? How can you decide how a homeowner should spend their money??

I'm totally against this new idea!!

I oppose this section of the plan. (1) California's electrical infrastructure struggles to deliver service, especially during periods of peak demand. This requirement will increase demand on the grid and the risk of its failure. (2) The plan provides no definition for either low-income or vulnerable populations. As a result, citizens of Davis have no idea who will really pay for implementation of the plan. Failure to provide definitions allows for arbitrary and capricious changes to any assistance these populations may be eligible for.

If there is not enough electric energy to keep AC running in the summer, why should electric cars charging and ALL electric homes even be discussed until more electricity is produced? Until more dams and electrical plants are created, electricity needs can't be met.

Earlier this month there were rolling brownouts, and you want to require more pull on the system???

If a grid failure happens, then what???

CAAP = financial nightmare.

Cost estimate to convert a home from natural gas:

1 My 100 amp electric panel would need an upgrade w these costs: - PGE engineering field of review of their ability to provide a 200 amp service & approve homeowner upgrade—\$1,500 - \$5,000 per PGE rep = \$3,000 - PGE cost to trench, install new underground, to my service panel—\$6,000 - my cost to replace fence, concrete slab & landscaping above PGE trench—\$6,000 - parts & electrician cost to upgrade panel to 200 amp—\$6,000 -

2 New electric water heater & electric circuit—\$2,000 - water heater & install—\$1,500 -

3 Central heating system - new electric circuit \$2,500 - new electric heating unit with compatible cooling system \$12,000 -

= \$40,000

4 Is the City staff ready to process & approve all of the permits for retrofits? A current remodel has taken many months to process – w the homeowner having to go in-person to get applications moving - greatly delaying any sales.

I have a somewhat strange question. I realize the 2020-2040 Climate Action and Adaption Plan is still out for review but I am hoping to gain a little more insight on conversion to electric appliances in the home.

I realize heat pumps are often low hanging fruit and our AC unit decided to quit on us on the hottest day of the year and we are getting bids for heat pumps. This is all well and good but some of the quotes we are getting are saying keep our 20-year old gas powered furnace (as it tends to get to freezing so few days out of the year). Some are saying get a new gas furnace.

It seems crazy to me that many local HVAC companies are recommending new gas furnaces and wondering if you have insights on where the trend/requirements are headed in regards to furnaces? I am all for making more sustainable choices in the near term even if more expensive, and especially if required in the future, but wanted to get a sense of what would be recommended, heat strips or others?

I am trying to gather as much information before making a large financial commitment I will live with for the next 10-20 years.

It's not that money is no object, we recently had some large surprise expenses pop up, but trying to take the long view as much as possible and would love hear any insights or recommendations you may have.

There was a big discussion on Nextdoor about the electrification of homes your plan requires by 2025. If I understand it correctly, you will require water heaters, home heaters, and other gas appliances to be replaced with electric at the end of their useful life after 2025. That's 2 1/2 years from now!

What if the current circuit panel cannot accommodate the extra load? Will we be required to update that as well? This will put an undo financial burden on home owners in Davis.

It is unclear if homes will be required to update at sale. If so, this will further strain the housing market.

It's pretty clear these last days that the electrical grid can't handle the current usage. We need to wait until our governor provides us with a plan to generate adequate electricity to meet our current needs before we require people to comply with city mandates that just add to the problem. Thank you for listening,

Replacement of equipment at the end of life is way more complicated than simply mandating that a home owner migrate to electric-based.

Some people would have to make major modifications to their houses or electrical panels and the like. And those can be expensive. It is an unfair burden to force an owner to have to select only from electrical equipment when s/he might have conditions that make that overburdensome. I don't see any exceptions or any processes for exceptions. And just because there is a generalized statement about helping lower-income people or something like that - without knowing any estimate of what that cost might be - how do we know how affordable this part of the program is.

In short, I think regulating what equipment an owner can purchase is overly encroaching. In order to make a positive carbon impact, the city first needs to approach all the other available options that are less directly targeted to individuals.

This is insane. Making compliance mandatory instead of working with owners is not going to work. The average upgrade cost /home will be more than \$10K. There are 26K housing units, so this will cost over a quarter of a BILLION dollars to force Davis owners to do this. Even with grants (Which I have no idea where even 25% of this will come from,) there are significant # of people in this town that will not be able to pay even a 1/4 of the \$10K. So, then what? Davis has many home rich, cash poor people. Are you going to force your grandparents to have to decide between heating their homes or leave Davis?

We manage over 2K mostly owner-occupied properties in Davis and have received constant questions about how this will affect them. I think a much broader community outreach with better options is necessary. A voluntary program for a few years then mandatory just isn't going to work.

Please reconsider this ridiculous ordinance and come up with a more realistic way to accomplish it.

The proposed requirement that all building systems be converted to electric (from natural gas) at the end of their useful life is highly problematic:

- natural gas is a more efficient and less expensive fuel for heating water, such as in water heaters and pool heaters, than is electricity
- elimination of natural gas fireplace inserts will drive up burning of wood, which is far more polluting and which generates far more GHGs
- some kinds of cooking, for instance, Chinese and other Asian cooking, requires natural gas; a requirement to convert all cooktops to electric is discriminatory and detrimental to these and other ethnic communities and their cuisines
- conversion of all building systems and major appliances to electric would place an added load on an already overburdened California electric grid

I urge the elimination of this provision (Action A.1)

NO to a mandatory approach including new requirements to electrify (or otherwise decarbonize) building equipment and systems that require permits at the time of equipment replacement or during major remodel.

I cannot find the section again but I am concerned about the requirement to replace any natural gas appliances with electric. I did not see any guarantees that natural gas costs will definitely rise as more people use electricity. Currently, we have solar and have reduced our electric costs significantly with that. Looking at our circuits in our house, our main use of electricity is the air conditioner / heater and our dryer. I would like to replace our dryer with a natural gas one to reduce costs. In preparation for future climate change and increasing temperatures and potential power outages, I am also considering a natural gas-based generator for power diversity. I may not understand the Climate Action and Adaptation Plan clearly but would like the ability to maintain power diversity with natural gas so that if the electric grid is interrupted with black or brown outs, I am able to continue to maintain power through natural gas!

We strenuously oppose this proposal of retrofitting our home.

- Retrofitting expenses for gas stovetop, furnace, water heater and dryer at time of sale would be exorbitant and unfeasible before receiving proceeds of the sale.
- Retrofitting when appliances fail also requires substantial financial output. How long would we be without hot water as we locate an electrician, get permits, pay the extra expenses in addition to a new water heater.
- Ironically, when moving into Mace Ranch we had to discard our new electric dryer and purchase a new gas dryer because of existing regulations.
- We fully support that new construction fall under these restrictions. We support energy saving and took a loan to install solar panels.
- This measure hurts residents both in practice and financially and we urge you to oppose this part of the provision.

The City "acknowledges" that this will be prohibitively expensive for many by offering to financially subsidize these new requirements, but only for some people. I want to know who's money they are going to use, and why everybody doesn't qualify for subsidies for these expensive retrofits.

Action A.1 specifies that the City will adopt requirements for electrifying all buildings that require permits when the useful life of certain equipment and appliances is reached or time of remodel. It would mandate electric replacement models. Categories Included would be space and water heating/cooling equipment (AC and furnace), swimming pool equipment, indoor/outdoor fireplaces and major appliances.

The suggested approach would be voluntary replacements until 2025, supported by education and outreach, then transitioning to a mandatory requirement by 2025. The first paragraph in the Action Description concedes that "...many residents and businesses may find it financially infeasible to replace existing natural gas equipment with electric options before the end of their useful life." It goes on to say there would be specific provisions for low-income and vulnerable populations to assist with compliance.

More A.1 comments: The Action Description says that the City will monitor the effectiveness of the voluntary program between the CAAP's adoption and the beginning of the mandatory program in 2025. It goes on to say that 2025 will coincide with the projected State building code update in 2025. It could be inferred from this verbiage that the 2025 revision of the State building code will require replacement of natural gas appliances and equipment, and that Davis is proposing implementation requirements merely so that its building code conform to anticipated State requirements. This Action Description should be revised to more clearly differentiate what is anticipated the State will require versus actions the City of Davis would impose independent-ly of any State requirements. (Footnote 1 for Table 7 on page 95 likewise does not provide sufficient clarification of this reference to the upcoming changes in the State building energy code.)

More on Action A.1: Proposed Action A.1 is unrealistic and highly problematic because it would foist an unreasonable financial and logistical burden on the Davis populace. It will be potentially very expensive for middle and even higher income families to afford compliance with this directive. For example, given today's construction costs, remodeling a kitchen can easily cost \$50,000 or more. If a home now has a natural gas cooktop, the electric service to that appliance is probably only sufficient for spark ignition; i.e., 120 VAC/15 amp. A typical induction cooktop requires a 240 VAC/50 amp, 3-wire dedicated circuit.

More on Action A.1:

Because we are contemplating replacing the current gas cooktop in our home with an induction cooktop, we

recently received estimates from two electrical contractors to install the necessary electrical line (wire). The bids were \$1,900 and \$2,500, exclusive of any additional cost for removing drywall in an adjacent room in case access to the kitchen was impeded by structural framing. Repairing and repainting the wall in the adjacent room could easily add hundreds of dollars or more to the cost. These costs are exclusive of the purchase price of the induction appliance itself. These are costs that the CAAP fails to disclose, which could lead unwary readers to assume that replacing a fossil fuel appliance can be easily accomplished. More on Action A.1:

Both of the electricians we met with regarding the cost and logistics of installing an electric line for an induction cooktop in our home told us that after installing the new dedicated cooktop circuit, the 200-amp electrical panel for our home would not have enough room for additional equipment. (This is partly because our 7.36 kwh solar system took up some of the last remaining available space in the electrical panel.). So, if it became necessary at a later date to replace the gas water heater with an electric water heater (also requiring a 240 VAC wire), or if we wanted to install an electric vehicle fast charger, we would have to first re-place the electrical service panel, which we were informed would cost approximately \$5,000. This again is an example of the type of logistical and financial burden that proposed Action A.1 would force upon the Davis populace, but which the CAAP totally neglects to disclose. Public dialogue warrants such disclosure. More on Action A.1:

Although most newer homes in Davis have 200-amp electrical service, many older homes in Davis may only have 100-amp service. If the City decides to force the burden of proposed Action A.1 on unwary homeowners, it may be necessary for upgraded electrical service to be supplied to the home, either through undergrounding or from a nearby utility pole. This would add many more thousands of dollars of cost to remodeling projects or even a simple appliance replacement endeavor. This would especially be the case if trenching were necessary for the new electric line to be extended to the home (or business). Again, this is the type of ancillary cost which the CAAP completely fails to disclose. Before even remotely thinking about imposing a requirement on the Davis populace, the City should fully disclose such potential costs. More on A.1: The "Equity Considerations" section say the City should explore options for offering financial support for low-income and vulnerable households to offset electrification costs. This begs the question of exactly which costs the City would help finance, regardless of income and vulnerability. Would the City pay the costs for installing new electric panels, dedicated circuits, and interior repairs? If the City merely pays the cost of the replacement appliances, residential and business owners would still have steep, unreimbursed costs for the rest of the project. It is questionable whether it is legitimate for the City to impose such costs on homeowners and businesses.

Nowhere does the CAAP reveal the ancillary costs of replacing fossil fuel equipment and appliances. It just blithely assumes it is easy and cheap to remove an appliance and drop a new electric model into the same place. These added costs could make many remodeling projects financially infeasible. More on Action A.1:

It is entirely reasonable and appropriate for the City to require all-electric appliances and equipment in new construction because implementing an "all electric" structure is most financially viable when a home or other property is being built. It is a cost-effective way to achieve long-term GHG emission reductions. Mandating costly retrofits for an existing structure is simply not a cost-effective approach when all of the ancillary costs are factored into the equation; i.e., additional electrical supply, electric panel upgrades, higher voltage and amperage wiring, wall and ceiling repairs, etc.). More on Action A.1:

Action A.1 and many of the other proposed measures for transitioning to higher efficiency zero-carbon buildings implicitly but incorrectly assume that an unlimited supply of electrical energy will be available to replace natural gas and other fossil fuels. Electricity does not magically flow from receptacles, nor can it be assumed that solar and wind will be capable of meeting all of society's needs, especially during the evening hours when air conditioning demand is often highest in the Sacramento Valley. As demonstrated in recent years, California's electric grid is aging and fragile, and will become more so as older central power plants are retired and distribution equipment fails. Mandating electric retrofits in the absence of a sure path toward greater electrical supply would be responsible.

I understand the goal and need to reduce carbon emissions. I read Bill Gates book, "How to Avoid a Climate Disaster" too. As a Realtor, Point of Sale ordinances don't work quickly and it is a huge burden to put on people who may need to sell because they don't have money.

Out of your three options: new construction going completely electric is probably the most realistic and achievable. It still doesn't address the strain the grid is already bearing, but at least solar panels are required with all new

construction and it could offset some of the dependence on electric.

Requiring home owners to replace all appliances with electric any time a permit is pulled, even if it is unrelated, is absurd and is going to cause people to not pull permits. Imagine a person on a fixed income whose hot water heater fails and needs to be replaced. They then find out their entire kitchen needs to be remodeled because the new appliances will not fit. This is an example of what could happen.

Forcing residents to change from gas to electric in existing homes is cost prohibitive. Most Davis older homes have 100 watt services. PG&E has informed many of us that they do not have line capacity to change us to 200 watt services. I tried to put an EV charging station in and was told that I couldn't do that. I also have solar based on my current usage. If I try to add more panels the solar company can reopen my contract and charge me more for my electricity. There is also the added costs of running new wire throughout the house. All in all I would expect the cost to upgrade the home to be over \$75,000. Unless the city is prepared to help us with these expenses, I would bet the entire plan will be shut down. You need to get a grip on reality.

Since the major cause of pollution in Davis is transportation (75%) compared to gas residential usage (7%) the cost ratio is out of wack. Costs to change over to electric usage are out of proportion to the benefit. Houses will have to be rewired at the least. Larger service panels will be required on most homes. Larger distribution systems will need to be installed by PG&E to supply the upgraded service panels. New solar will have to be installed allowing solar companies to raise their 25 year rates. Solar companies are not regulated and can charge what they want. You need to pass regulations concerning costs that solar electric companies can charge their customers. When selling a house most of us do not have the \$75,000 required to fully change over our homes. House prices will jump the changeover price. Davis homes are already overpriced. This will cause more people to go to Woodland for new housing instead of purchasing the Old Davis housing stock. It will make housing u

2.5 years is not nearly enough time to plan for the expenses that will be incurred by "mandatory electrification." During the last year, our power was out for several days and the only reason we were able to continue living in our house is the fact that we have natural gas appliances. I am assuming that the financial assistance mentioned won't extend to paying for a hotel when our house is uninhabitable during an outage.

I don't see any mention of concrete plans to ensure that the electrical grid can accommodate this increased demand. It seems that making the 'microgrids' mandatory should come first.

I strongly oppose this plan. It would put an undue burden on the home owner to make these changes to our homes. If enacted, this would require me to replace my gas fireplace, gas cooktop, gas furnace and gas water heater. All of these items have been replaced with the past five years at a significant expense. Furthermore, this plan would require me to replace and increase my panel box to accommodate an all electric home. This plan does not make sense for existing homes.

I live in an older neighborhood and the PG&E cables are underground on my block. I have been told that I need to upgrade my electric panel before I can add any more major appliances to my house and that such an upgrade would cost me at least \$16,000. As I and many of my neighbors are retirees, we cannot afford to make these changes.

Your idea is fine for very wealthy Davis residents. It will be an absolute disaster for those of us who are retired with fixed incomes. The expense of replacing entire systems will be overwhelming. Landfills will be overfill with appliances. There will be lots of waste! Please consider just requiring new homes to have all electrical appliances. The current power grid cannot accommodate so many electrical system changes.

The level of control this inflicts over our homes is burdensome. It seems excessive to require all electric appliances and many homes cannot fit that into existing electric panels.

Cooking on electric stoves is not the same as using gas and would chefs in restaurants also be subjected to cooking with electric stoves? Why should homeowners be required to use this unfavorable cooking method? This is just too far. We have solar and love our electric car, so are definitely in favor of climate action. But not this plan.

We oppose the proposal because the electrification affect every residence and should be put to a citywide vote to get people' buy in, not by council's vote, and definitely not be implemented by the permitting process if approved. Permitting is to ensure the health and safety of the homeowners. It should never be turned into a weapon against the homeowners for city council political agenda. The "end of useful life" is a vague term and should be avoided. The correct phrase should be specific such as "at the time of replacement."

I am strongly opposed to any requirement that property owners choose electric over gas when replacing items. A requirement that this be done for the entire property at point of sale is outrageous. Discarding useful equipment is wasteful and terrible for the environment. We replaced our HVAC system last year for better efficiency and to get ahead of the system failing. If we sell, that gets thrown out and replaced at a cost of tens of thousands of dollars? Terrible idea and punishes us for our good motives. Devastating financially to most, especially to those who can least afford it. Davis talks a lot about equity, yet its actions are contrary in a town that is extremely expensive to live in. At least, the plan removes significant value from what is, for many,, their biggest investment. Are are there companies capable of timely providing this massive overhaul? And PG&E is incapable of providing consistent and safe electricity NOW and unlikely to improve as electric vehicles increase.

Locally this summer we had nine warnings about rolling blackouts and two power outages due to equipment failure. This has been during summer when there is an abundance of sunshine. During the winter there is less photovoltaic power. Heat pumps will not work in the low temperatures of winter, which will require the heating with electrical elements. The electrical element will require large amounts of electricity, especially at night. Before requiring the conversion to electrical heating, the city should assure its citizens that the power will be available to heat its homes.

Actions A1, A3, and A4: The electrification requirements in these three related actions are a no-brainer: if our 2040 goal is zero, then it doesn't make sense to allow anyone to add NEW fossil fuel consuming appliances in the meantime. I encourage you to state these actions more emphatically: "Begin disallowing installation of any new appliances that consume fossil fuels in ANY building as soon as possible."

Actions A1, A3, and A4: You can explicitly state that the primary mechanism for these would be a Reach Code, adopted by the City of Davis and going beyond the State Energy Code. This must be adopted in 2023 (for a quick response to the 2022 cycle of the Title 24) and then again in 2026. If and when the state adopts prohibitions to installation of fossil-fuel consuming appliances—in new buildings, additions, alterations, single family homes, multi-family buildings, and non-residential buildings—then these Reach Codes won't be needed. As befitting our position as one of the "coolest" communities in California, the City of Davis should lead and not follow.

Actions A1, A3, and A4: Start immediately, however, with education and outreach about the benefits of electrification and provide financial support as needed, especially for low-income and vulnerable households, certain landlord-owned homes, and small businesses.

Perhaps explicitly state that other beyond-code efficiency requirements may be included in the Reach Code, and will also be actively encouraged and information and engagement will be provided for them too.

I agree that changing to electric appliances at the end of useful life makes sense. However, a remodeling project with a plan to use existing still useful gas appliances should be allowed. Disposal of and replacement of functional gas appliances is wasteful and expensive. Also, upgrades to electrical panels to achieve the transition adds further complications and expense. Any required electric transition expenses should be adequately subsidized by the city or state.

I support the requirement to use electric equipment in new construction, but the requirement to replace equipment at the end of its useful life with electric sets up residents for extortion and hardship.

This is because appliances often reach the end of their useful life unpredictably, by failing. This has happened to my family, when our water heater failed unexpectedly on New Year's Day. This was an emergency situation, leaving us unable to bathe. We had to get a new water heater installed quickly, which was hard enough to do replacing our gas water heater with another gas one. There was no time, and no one available on the holiday, to

find an electrician to upgrade our electrical panel and wire the house for an electric water heater and also shop for the right electric water heater for us. Consumers in this position won't have the ability to shop around, and can be taken advantage of by a vendor/contractor who knows they are the only option. Exceptions are needed. While A.1 seems reasonable enough in theory, it is highly unrealistic when needing to be implemented in an urgent situation. Hot water heaters and HVACs often fail without warning and with poor timing. Having to urgently retrofit to electric in these situations will take weeks if not months. Electrician waiting lists are regularly this long just for simple tasks. Major work like upgrading the service panel (which will commonly be required for this retrofit) or running new 220 lines is something that cannot be implemented quickly in an urgent situation. Are people expected to go without hot water in the middle of winter for weeks or months? Are people expected to go without heat? This is what is going to happen if A.1 is implemented. Rewiring is work that needs to be carefully planned, not completed in an emergency situation. Additionally, older houses are often difficult to retrofit, if not impossible. There needs to be exceptions where all of this needs to be taken into consideration

This appears to be a decent idea that is implementable. There simply will not be certain appliances etc. that would be available to a homeowner during a remodel or significant replacement. The devices being replaced would be deemed by the homeowner as unwanted or obsolete, so there is a limited burden on the homeowner and replacement would not generate increased waste.

Until PG&E has the power grid that does not require rolling brown and black outs, and fires the City of Davis has no business creating a plan that forces residents go all electric at time of remodel and or sale. This puts an undue burden on homeowners and is just another way for the City to make money. The City of Davis, at this time, cannot keep up with demand for permit process today nor keep our greenbelts, parks and medians weed free. Focus on what needs attention today!

I totally support the proposed actions in these two sections, replacing gas appliances with electric ones both at the end of useful life and especially at the time of sale. I support a requirement to do so at the time of sale, and more of an educational approach for replacement at the end of useful life. The city should make it more clear how folks will receive support in working with PG&E bc the utility is not helpful and has a variety of fees when homeowners pursue this on their own; those shouldn't be borne by the individual. However in general wanted to express my support for these measures as I suspect you'll get a lot of pushback from people unwilling to make the kind of drastic and expensive changes we all need to be considering. Glad the city is leading here and I support aggressive goals and associated requirements.

Do not attack home owners by requiring electric conversion on existing homes. This challenges individual rights, gas efficiencies, cost and preference. Adding wiring to cover appliances, over burdening existing circuit boxes, which would require major replacement and upgrades, and even simply PG&E's inability to maintain supply. This is ridiculous. New construction, with it's mandated solar panels perhaps, but get out of our houses. Fix the pot holes; you are already too far into our homes.

Do not require end of life electric replacement on residential housing. Electric panel and wiring upgrades, UNLESS THE CITY IS GOING TO AGREE TO PAY FOR THEM, are unreasonable, unrealistic. Current CA regulations have already reduced carbon replacements. Further, this changeover will not be significant in reducing the footprint, but will be financially impacting to those who must change out a unit, often times the elderly. Stick to new construction. Better yet, fix the roads.

Please do not mandate electric appliances

Electrification of all appliances in a home will not solve our dependence on fossil fuels. Much of the needed electricity is still generated by fossil fuels and the cost to upgrade existing homes' electrical capacity will place an undue burden on home owners.

Both A.1 and A.2 contain the statement: "This action has the potential to generate revenue depending on whether there will be fines under the mandatory implementation approach. This revenue could be used to support costs for

implementing the action.” This statement should be edited or edited. While technically true, income from fines is incidental and minor. Highlighting it in the plan like this may give the impression that these actions are meant to be money-making propositions.

2-part comment

These actions could be clarified for the public by separating them more cleanly – A.1 mandatory, A.2 voluntary. The goal is to simplify the messaging and avoid misunderstandings that lead to public opposition. A.1 should be presented as a simple requirement that when gas-powered appliances are replaced, their replacements must be electrical. The state building code is going in this direction and the city is simply getting onboard. Although you can check, I suspect the majority of the needed replacement will occur through attrition. Programs to accelerate this rate should be voluntary.

A.2 should be focused on voluntary actions. Accelerating electrification of major systems through incentives is a worthy goal, but doing it as a mandatory requirement at time of sale is not. It is disruptive, unpopular, and probably unnecessary. Providing incentives available to anyone at any time (not just time of sale) will encourage early adoption. (cont.)

I wholeheartedly support voluntary electrification, supported through education and incentives, but I strongly oppose the requirement for mandatory electrification at end of useful life by 2025. Electrification is a case-by-case decision for homeowners based on climate considerations, first cost, continued operational energy costs, reliability, and customer preference. It is NOT the role of the city to mandate across the board what makes sense for the individual homeowner. Nor has the city considered if this will in fact be a benefit across the board. Additionally, consider WHEN the typical homeowner replaces an appliance. It is WHEN IT BREAKS. Usually, replacement needs to happen ASAP to restore needed hot water or cooling/heating services. This is not the time to require significant electrical upgrades, potential duct improvement for old homes, and unplanned and untenable cost burden for many of the older homes in Davis with 100 amp service electric infrastructure that isn't sized to handle all electric homes. For many, electrification will create an increase in cost and potentially an increase in emissions, and also takes away redundancy and reliability considerations. For example, my gas tank water heater has given me the ability to have hot water that I needed during several recent outages. This would not be the case if I had electric water heaters. One size does not fit all.

I am happy to replace my gas furnace and electric central air with a heat pump when it is end of life, but it will cost \$10s of thousands of dollars and months of planning, permitting, and construction to upgrade electrical service, panel and run additional wiring to replace my natural gas water heater. Do you expect I will go for months without hot water for months? For a sale, who is going to pay the mortgage with all this going on while you wait to close your sale?

I do not support this proposed action. I am 74 years old and have not planned for a major financial commitment for my senior years. This action would hinder the timely sale of my property. Say for instance my wife or I suffer a major medical problem requiring either of us or both of us to reside in an extended care medical facility forcing us to sell our home to fund the care. How long will it take to do the electrification work? How much would it cost to electrify our home in a neighborhood with underground electrical service? How long would it take to secure a competent contractor to do this work? Are there enough qualified folks to do this work? I believe the City of Davis needs to slow down on the proposed action and get the wrinkles ironed-out. Until that happens I am strongly opposed to this mandatory electrification business.

The requirement for electrification at end of useful life, or when replacement or remodeling requires a permit. Being forced to not buy a gas appliance is not acceptable. The infrastructure for the high demand for electricity caused by this is not ready yet. Also, many people would need to upgrade the electrical panel on their house, at great additional cost.

I'm concerned that I might have to switch over my fireplace, home heating, air conditioning, water heater, stove top, washer, and dryer to electric.

Delete Action A.1 or make this voluntary with incentives and flexible financing. It is premature to mandate building electrification at the end of useful life beginning in 2025 as the electrical grid cannot yet support this shift. A.1 will result in significant costs to property owners, likely in the tens of thousands of dollars, for each home or business. I will likely need to replace my panel when my first gas appliance reaches its end of life. I estimate \$4,000 for a new 200-amp electrical panel with stucco repair; \$13,000 to dig a 75-foot trench from the street, install new underground wiring to the new panel, replace the concrete walkway, make landscaping repairs, and make fence repairs; \$2,000-\$4,000 to run wires to the new appliances from the panel; \$1,500 for new electric water heater plus \$2,000 for a new electric circuit; and \$12,000 for a new electric heating & cooling system plus \$2,500 for a new electric circuit. My total estimated minimum costs would be \$37,000.

One of many places where increased taxes are required in order to not jeopardize other City priorities. My wife and I are retired and will never earn another dollar. Your plan to force us to spend limited resources to replace gas appliances just continues to make Davis less affordable and less desirable as a place to live

Action A.1 should be eliminated or made voluntary. This action item is premature and incomplete as it fails to identify the significant financial impact on homeowners and businesses for electrification at the end of useful life and fails to provide specific, tangible funding sources for incentives, subsidies, loans, and the increased staffing costs for the City to administer the new requirements.

Action A.1 should be eliminated or made voluntary. It will result in costly and stringent retrofitting requirements and create disincentives for compliance. If an electric appliance breaks and the property owner can't afford the significant cost to retrofit, the property owner may attempt to bypass the CAAP requirements and instead replace it with another gas appliance without obtaining a local permit. It is also important to note that in addition to the significant costs to property owners to retrofit gas appliances, it will cost property owners twice as much to operate electric furnaces as gas furnaces. This is unreasonably burdensome. The electric grid cannot support building electrification at the end of useful life beginning in 2025.

Delete Action A.1, place this item on the local ballot, or make this voluntary. Action A.1 would require property owners to make costly upgrades and would result in a fee or charge to property owners. The California Constitution requires any new fees or charges imposed on property owners to be approved by the local voters before becoming effective. The California Constitution, Article XIII D, Section 6(c), requires all local agencies that propose to impose or increase fees or charges on property owner to obtain voter approval ([https://leginfo.legislature.ca.gov/faces/codes\\_displayText.xhtml?lawCode=CONS&division=&title=&part=&chapter=&article=XIII%20D](https://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?lawCode=CONS&division=&title=&part=&chapter=&article=XIII%20D)). If the City adopts this action item without a local vote it would likely result in litigation.

The City of Davis and State of CA needs to know that there are difficulties getting additional electricity to homes. My husband and I bought a hot tub and have been trying to get it installed. A permit was obtained but PG&E also had to approve our planned installation. PG&E wants to charge us \$1,500 (non-refundable) to plan for more electricity to our home. On top of that, once planned, PG&E will likely require us to pay more to install components to provide more electricity to our home and "from start to finish the project can take from 6-8 months" to complete. The proposed ordinance puts a horrible burden on homeowners.. I also am very concerned that over-reliance on one form of energy creates inflexibility/fewer options to meet energy needs. If the electrical power grid fails, then all utilities are down and affects other items such as electric cars, etc.

Replacing gas stoves with electric stoves will increase carbon emissions, not decrease them. Right? Per Google, 80% of electricity generation is non-renewable, and natural gas power plants are 42% efficient. I'm happy to volunteer if the technical team needs more people that like to think quantitatively.

This is very, very unreasonable for homeowners to bear this expense when getting a permit or selling their home. You are putting us all at a disadvantage and assuming we can all afford this!! This is also very bad for our property values of selling our homes and cutting into our equity. This is too extreme and you need to go slower! The grid cannot handle this as we saw recently and it will result in more power outages!

I am all for climate action but NOT requiring people to change out gas appliances and furnace when they fail with electric ones. I HATE cooking with electricity. Gas is best as every chef will tell you. Besides with gas I can still cook and warm up medical stuff when the power fails. I can also warm house with gas fireplace. Encourage people with incentives do NOT force them to change.

The cost of changing to all electric is tremendous. I've already checked and cannot get a permit to change my water heater to all electric! So the city won't support this move either! The cost for changing my new (as of 2021) A/C unit to electric from old to new Freon type and to gas/electric furnace was more than \$7000. So what you have me do?

We, the undersigned, are concerned about the proposal to require Davis homeowners to convert their homes to be all electric. There are many reasons for opposing such an action, but the most important is that it helps move the State of California toward an impending disaster. We have attached a brief engineering "reality check" on the state's plan to have all of its electrical power generated by carbon-free, non-nuclear, sources by 2045. The reality is, that such a plan is impossible in practice and the further we move in that direction the more likely frequent, extended rolling blackouts become.

In order to have most electrical energy generated by solar and wind (plus some amount of hydro and geothermal) and avoid regular rolling blackouts, California will need sufficient energy storage to handle extended periods when the generation of electricity does not satisfy the demand. That amount of energy storage is impossible in this time frame for two reasons: First, it would be astronomically expensive – well beyond our ability to afford; and, Second, the required amount of battery storage (which would surely be the bulk of it) would be impossible to procure given the world's battery manufacturing capacity.

Converting homes to be all electric greatly exacerbates this problem, as does the drive to move all vehicles to electric power. Whatever your opinion of the dangers of global warming, this "solution" is impossible and, therefore, is not the way to go. Please see the attached report for details.

Actions A.1: Okay as long as only the property owner is allowed to determine when an appliance or equipment has reached the end of its useful life.

Action Description: Making this mandatory at time of remodel is government overreach that will raise the cost of housing (rental or purchase) for everyone regardless of income, unless the city pays for it all without raising taxes. Delete this language from the plan, it should not even be considered.

Equity Issues; Proportionate or not, it will be an undue burden on everyone. Many/most of us that would not be defined as "low income" or "vulnerable" households cannot afford the proposed electrification when we sell, buy or remodel our houses. The cost of electrification will be passed on to renters, not maybe. It will impact the affordability of housing, not maybe.

Requiring electrification at end of useful life) is a no-brainer. Please don't listen to residents complaining about this.

The notion of forcing homeowners and other property owners to convert all their systems and appliances to electric is unacceptable. I understand that that owning a house does not give me the absolute right to make whatever choices I like. I understand that Davis has long exercised more control than most cities. But this is ridiculous. Requiring a person who OWNS a building to choose electric over gas is too intrusive and I am strongly opposed. I have gas appliances at my home that I prefer over the alternatives. I believe that is my right in my home. I believe that changing everything to electric in my home will have no effect on the climate in a world where China and India are doing what they do.

There are two appliances in our home that I would highly object to the requirement to replace with electric versions. The first is our gas fireplace insert. We only installed it this summer and have yet to have had a winter to make use of it. We moved from a wood burning fireplace to gas to a gas insert that is more effective. What could we possibly replace this with?

Secondly, we have a modest older home in Davis, but did remodel our kitchen to include a gas stove. It is far more effective in our cooking and could not possibly compare to the prior electric versions that we

used. Furthermore, by putting all our eggs in one basket, moving all our appliances to electricity sets us up for more rolling blackouts. To vet the proposals laid out for homeowners, I recommend that the city first follow through with the proposals to move city buildings, fleets and so on to electrification. Once that is complete, the city will be in a better position to demonstrate what is involved for individual homeowners in the move, what the costs would be and what will be the pros and cons.

We have done much in our home to better the environment. We have solar panels, we have minimal turf, we have double paned windows, we've installed the insulation in the attic, we have borrowed the appliances from the library to check our wattage usage, we utilize the LED light bulbs and on and on.

But again, requiring the replacement of fireplaces and cooktops we object to all together. Again, we object to this proposal for whole house electrification at time of sale. And we are worried about the consequences of moving away from gas HVAC systems to electric as we have already had poor results working with Valley Clean Energy tied to our solar panels.

### **Action A.2 Building electrification at time of sale**

I highly object to the proposal to require the electrification of homes at the time of sale. I do not object to the requirement for most appliances at end of life. But requiring electrification of all appliances in a home at time of sale could lead to many complications and is utterly wasteful for units that could have many years of life left in them. The obligation to start this is listed as 2025. If appliances were purchased in recent years, this obligation could lead to great waste and complicate a legal process that is already burdensome enough. It would require far more assets of the city to complete the code compliance inspections. Homeowners sell under many different circumstances, and this requirement is inappropriate.

This is one of the most controversial of the actions in the CAAP. Suggest an alternative action that can address the same areas and meet GHG reduction goals. Maybe a time of purchase giving the buyer a year to make changes. This might reduce issues and delays with closing/sale of homes. Also, would need to be crafted to have exemptions: for example if equipment is less than 5 years old, or if panel upgrade is required.

Also requiring a full scale electrification at time-of-sale or purchase is an expensive and extensive effort.

Recommend it be limited to one appliance, like HVAC, DHW, or panel upgrade only. Older homes with undersized panels would have higher burden for meeting requirements.

Suggest first steps be to develop/enact Home Energy Score (HES) program that includes building performance and rewards homes on the market that have already done some or all electrification actions. If house appraisal can be based on HES, then market can be created to encourage buyers to purchase homes that score higher and allow sellers to recover some of the costs to electrify before sale in the house price or market activity. BayREN has a voluntary building electrification and upgrade program that uses the HES. (<https://www.bayren.org/home-learning-center/home-energy-score-hes>)

Can this measure be expanded to include a similar approach to rental properties? Use HES to provide score on rental properties and have a rental ordinance where certain improvements need to be made within 5 years to qualify and get licensed? Similar to ordinance in Boulder CO. (<https://bouldercolorado.gov/smartregs-guide>).

Measure description looks to be more than just electrification but also building energy efficiency, which can be captured in the HES.

I strongly oppose this requirement. As a recent homebuyer in Davis, who was just barely able to make it into the Davis housing market, requiring electrification of the many older homes in Davis at time of sale will:

- 1) make the housing market in Davis even more unaffordable for mid-low income families like mine
- 2) Push mid-income families out of Davis once they outgrow starter homes
- 3) Reduce the comfort, reliability and resiliency of homes in Davis by eliminating options such as hybrid gas-electric heating systems that prevent peak loads on the grid during cold events while still providing efficient heating and cooling during moderate weather
- 4) overburden an already stressed electrical grid
- 5) increase emissions as evening peaks from cooking and heating and hot water are met by dispatchable generation from gas peaking plants

This action puts an unfair and undue burden on homeowners, will drive mid income families out of Davis, will decrease energy reliability in Davis, and will not necessarily achieve the real reductions in GHG imagined.

I disagree with having to change appliances prior to sale

I fully support the CAAP and its goals, and am glad that Davis is moving forward with this wonderful plan. I support electrification and believe that the timeline is reasonable,. I think the limitations as to "end of useful life" and "at time of sale" are also reasonable.

I am adamantly opposed to Davis creating a residential pre-sale requirement to replace gas appliances with electric. Replacing at appliance end of useful life is reasonable, but it is unreasonable to require removing functioning appliances in order to sell your home.

The idea of the "Nanny" city of Davis forcing us to spend a ridiculous amount of money to retrofit our homes is unattainable for most. We have lived in Davis for 25 yrs and are disappointed in the mandates that you are trying to pass. This will force us to spend money we don't have in retirement or sell our home before these mandates are in place. I strongly disagree with these mandates. And by the way, do you think electricity grows on trees... it does not and making these changes in our small community is not going to change a thing. Until we get countries like China and Russia and North Korea to decrease their emissions, this tiny effort is not going to help. You are just punishing the citizens of this community

It is unreasonable and oppressive to force citizens to avoid gas appliances when our power grid cannot support full electric use. Rolling black outs are debilitating to many people for a variety of reasons. This includes the ability to cook basic food if the household lacks a gas stove.

Mandatory retrofitting is a huge burden and should be avoided unless substantial subsidies are given. Subsidies should include significant cost sharing so people do not need large out of pocket expenses. Vulnerable groups should be prioritized, but it is often the more wealthy segment with huge houses, lots of electric cars, hot tubs and swimming pools that generate large carbon footprint. These folks should be taxed more and means to have them contribute more to a general carbon reduction fund should be explored.

Requiring all houses to be retrofitted with all electrical utilities when they are sold is ridiculous. This will put an undo strain on all selling homeowners, especially retirees and it will cause additional stress on the California electrical grid. Individuals and the State of California are not prepared for this. This should be voluntary with some tax incentives and it could also be required of all new housing.

While I applaud your concern for the environment, and agree that we can all be taking steps to reduce our emissions and work towards sustainability, this past week of record heat and rolling blackouts has shown that our electricity infrastructure is just not up to the challenge that this proposal would create. Not to mention that it asks homeowners to pay tens of thousands of dollars and likely much higher electric bills as a result.

Mandating the homes be electrified (i.e. gas appliances replaced) at time of sale will be nightmare for home owners who need to sell their homes. It creates a huge financial burden and also requires coordination of other agencies, such as the City of Davis Planning Dept. and PG&E. It will be very difficult for home owners to prepare home for sale in a timely manner. Think of the impact to people who need to move for a job or because they are going into a care facility and must sell their home in order to finance this next phase of their life.

I fully support carbon neutrality for new construction. At that time, power requirements are planned for and provided. However, many older homes would require panel upgrades and larger service in order to meet the power needs of an electric furnace or water heater. These upgrades alone cost thousands (I have costed it) and require PG&E to be involved. Who knows when they would get done. This part of the CAAP is a huge overreach by the city.

This CAAP is a joke: no feasibility study, no mitigation plan, and most importantly no cost analysis. When staff wrote this "plan", did the staff analyze the power required to support the plan, and what impact would the demand on the power grid be. What would be required to support the citizen's need in case of the power outage? Furthermore, staff failed to perform analysis on cost. How much would this plan cost? It is not just the costs to homeowners to upgrade. It also includes the cost to implement the plan, which are the resources needed to provide support to whomever that might be affected by power outage, additional time to review permit, etc. Who would pay for the additional resources? Davis residence again? Without adequate analysis, this CAAP cannot even be considered as a plan. This is an ambitious goal that requires cooperation from everyone involved. It should be put out for a public vote, and that is the only way it could be achieved. Anything else is just a waste of time.

These things should not be required at the time of sale. To get the water heaters and HVAC on my speed replaced would cost me at least \$40,000 because they are in my roof and would need a crane. There would be no way that I could get those replaced when they are in working order. The expense would prevent me from selling and moving if necessary.

This action require new circuits to transition to electricity at end of life. My house is built in such a way that new circuits it's almost impossible to do due to the geometry of the house. It would be cost prohibitive if not impossible. Furthermore I would not qualify for low income help. Please address this issue (limits) for houses that new circuits can not be put in due to geometry or the amount work needed to adopt this action.

I strongly object to the gas --> electric conversions.

I strongly oppose the proposed requirement that buildings be converted to electric from natural gas at the time of sale.

How much extra electric capacity is needed to replace using gas, especially for dryers, furnaces and stovetops? Does PG&E or VCE have a plan to expand distribution for this conversion? Already shortages are common during heat waves, especially due to drought, dwindling snow packs and climate changes, reducing hydroelectric capacity. Would this become common in winter as well? If local capacity is insufficient, would Davis require control of A/C and heating to limit temperature settings to control usage?

Also, what about recycling appliances like gas stoves, furnaces and water heaters, assuming many or all of those items were replaced.

The plan mentions there can be issues where some people would find the costs prohibitive, but where are estimates for these costs? Even switching a dryer from gas to 220V isn't simple.

Am I missing where these questions are addressed? Are we assuming California will mandate utilities to fix the problems, hoping for the best?

I've been reading your plan about encouraging or forcing switching away from natural gas.

I see a few references to including PG&E as a partner particularly for lower income customers. What I don't find is any discussions regarding the capacity of PG&E in local substations to handle increases due to new electric appliances, not to mention overall area capacities issues.

My impression is that now not infrequently there can be possible or actual shortages due to hot periods, even in non-drought years where hydroelectric power can take up some of the slack. If Davis were to mostly stop using natural gas and instead use electric power, in particular for heating and clothes drying and stove tops, does PG&E have a plan to absorb these increases? How much additional electric power will be required? And where would this additional electric power come from? Hydroelectric power may get scarcer if snow packs continue to dwindle, due either to continuing drought or climate changes. Utilities are not encouraging alternatives like solar, wind or nuclear, or so it seems. Will Davis require things like A/C units to be under city control so that no one could set their temperature below some minimum, like 85 deg, or heating above some maximum temperature?

When I replaced my electrical panel, I learned that the power available is limited by the age and size of the underground electric service. Even a 220 outlet for charging a car can't be added without a new line, so how would I add an electric furnace or water heater?. If these rules are adopted, do I pay for underground replacement of the

service (\$10 -15,000 plus, maybe another \$2,000 panel, to comply when replacing a water heater? Or perhaps a \$20,000 plus solar installation? If we sold the house in 2025, even if we were able to take the hit for replacing the service and all the appliances, where would we find the people to do all this work in a timely manner? Please think about phasing it in more gradually, and perhaps add some credits to induce us to look at electrical upgrades.

In section 4.2.1 Action A.2 electrification at time of sale, this places a huge financial burden on homeowners. My husband and I have made upgrades to our small home as we could afford. To replace all these appliances (which would only be 5-10 years old by 2025) is wasteful and beyond what we could afford. Selling the house would either be a major financial loss or make the home too expensive for potential buyers. Additionally, I've loved living in Davis and would be sad to no longer be able to afford to be part of the city. I'm in support of a greener city but this is extreme, and, if passed, my husband and I would sadly sell and move before 2025.

I am in complete disagreement with requirement home owners to change their in-home equipment in order to sell their home. Moreover, Davis has already made affordability essentially out of reach for so many people. Obviously, owners will try to pass the cost over to the buyer. Housing constraints will likely remain, so you are going to make it harder for middle-class people to afford houses here. We know that the electrical benefit is offset by the fact that some % of our electricity is from similar carbon sources (it doesn't matter that it's gradually changing) - so your net benefit is lessened. And, why isn't this program phased. I mean 2025 is only 3 years from now and if there is another pandemic surge - owners will be at the mercy of installers. I would like Davis to stop adding to the expense of living here including inspector fees for this. Davis is becoming Disneyland, a lot of things really bother you about it, but you are forced to deal with them to be there.

Mandated electrification should be limited to new construction. Electrification of existing homes should be voluntary, and encouraged through education and financial incentives. In the event the city adopts mandated electrification of existing homes at the end of useful life, this standard should be applied to all existing homes. The city should not adopt a separate mandate for electrification at time of sale. While a convenient means to accelerate the pace of electrification, it imposes an unfair and potentially significant financial burden on home sellers (and buyers). The gas furnace in the home for sale is contributing no more to climate change than the exact same model next door, the latter of which under the proposed plan would be allowed to run until the end of its useful life.

Voluntary or mandatory efficient upgrades, device upgrades, or electrification prior to sell would be a disaster and should be abandoned as a task in the CAAP. Roll this action into A.1. If a homeowner needs to sell a property, it would likely be impossible to do this in a timely fashion, as the City would be incapable of communicating requirements in a clear manor, permitting would not happen in days (home escrows are 30-45 days total), materials would be costly with price increase to property unknown at time of listing, materials would likely be unavailable at the needed timeline, and contractors would not be unavailable on an emergency timeline. This action is a stupendous reach for the City, with sellers likely needed to plan years in advance to sell a property. This friction is completely unacceptable and a fantasy for the City bureaucracy to implement.

I urge a reconsideration of the 2025 initiation of the requirement to replace end of life space and water heating gas equipment. Electrification is a complex task, especially for older homes where the cost can be enormous. Our home was built in 1968. A few years ago we remodeled our kitchen and replaced a gas oven and stove top with an induction stove and electric oven. The cost of bringing the needed power to the kitchen was high, and it took awhile. The electrician informed us that we have exhausted the maximum amperage available to the house. Let's say our gas heater or furnace fails in a manner that would require replacement. Not only would we have to navigate the choice of which technology to use, but we have to bear the cost of PG&E running a new supply cable and installing a new panel, and then running new conduit through the house (a house without an attic too). PG&E is not known for speed. No heat in the house for how long? For now please limit it to resales!

#### Action A.2. Building electrification at time of sale

Please don't include this provision in the plan. I just purchased a small home in Davis this year that included energy efficient gas appliances. If I ever need to move, it will be a financial hardship if I have to purchase all electric

appliances, plus re-wire the house to support these electric appliances. Realistically, even in 3+ years, I would likely be selling at a loss if I had to do all these upgrades just to sell the house.

If this is a requirement, rather than sell, most people will just turn their house into a rental. And generally rentals have old, inefficient appliances since there is no incentive for the landlord to upgrade. Thanks.

Why would the reduction potential in 2040 be twice what it is in 2030 if no new gas-powered homes can be built and all gas appliances that fail must be replaced by electric? By 2040 most would be phased out, even without this requirement. This is an exaggeration of the impact of this requirement. I strongly object to the requirement to convert all gas appliances at time of sale if they are still functional. To add to the cost, I would have to expand the capacity of my solar system to accommodate the new appliances. These requirements will price middle class families out of the market for Davis.

I replaced the stove, water heater, HVAC, and dryer in my home with natural gas appliances in 2021. Forcing me to discard 4 year old appliances in 2025 seems pretty irresponsible. Is it really more detrimental to the environment to allow the appliances to be used until the end of their life? This doesn't seem like a good idea.

As a senior citizen who's been in my house since 1976, who is planning to downsize to smaller living quarters in the near future, who updated my HVAC less than 10 years ago with an energy efficient gas heater and my water heater just a few months ago with a gas water heater and, this provision will impose a tremendous financial burden on me in a few years when I plan to sell this place. Furthermore, I notice no provision is made for the possibility of crediting homeowners for producing electricity by having installed solar panels. All to what end?

One has to wonder about the underlying logic of a country with roughly 6% of the world's land mass and 4% of the world's population attempting to impact the world's climate by reducing its carbon footprint. As usual, the answer is found by following the money. Somebody stands to gain financially on the backs of those who can least afford it. In this case in Davis it will be its longtime resident senior citizens.

I just spent \$17,000 3 months ago to replace my 28 year old air conditioner and gas furnace because it would be more energy efficient and last 20 to 30 years. It is not fair that if I sell my house in 3 years I would have to spend another \$40,000 to \$50,000 to electrify my house. I should be given 15 to 20 years notice for this incredibly expensive mandate. Money doesn't grow on trees !

Recently we replaced our gas furnace and air conditioners because they were many years old and not working efficiently. It cost lots of money! ~\$17,000. We were not told to not use natural gas or that it would be phased out - by anyone. So it is not fair to have us pay again if we are going to sell out house in 3 years! It is so expensive to get rid of gas. \$40,000 or more. You are impoverishing the middle class. You are pushing people to leave Davis and California. I grew up in California but these costs are insane and making me likely to leave.

Requiring sellers to swap out appliances for electric ones is ridiculous. Electrical appliances are expensive to run with all electric companies gouging us already, especially in the afternoon. This is also cost prohibitive for almost all sellers. Incentives to convert is fine but mandating it is way out of line, especially if the existing appliances are relatively new and have lots of useful life left.

The list of occupations to choose from in this survey is a joke and will statistically tell you nothing.

To require stoves, water heaters and furnaces to be converted in existing homes at end of life is cost prohibitive to most, even those that are not considered low income. To replace electrical boxes and run lines is exceptionally costly. Additionally, our grid cannot maintain this additional load. Requiring conversion at time of sale will only increase the cost to the buyers, in an already expensive area. This should not be considered for current homes.

I can understand the focus on replacing home appliances etc. with energy efficient items. Forcing residents to replace numerous items and redo systems within their home prior to selling is unreasonable. That can place a very heavy burden on us. Offering financing does not help; it adds on debt to the household and financial hardship

to middle income residents- not just lower income households. Its just too much. Update when replacing seems much more reasonable.

Requiring equipment replacement at time of sale for residential properties will create a large financial burden on buyers and sellers. Replacing appliances that are still in good condition with Electric Appliances that may not be as energy efficient will have large negative impacts on overall carbon emissions. New appliances will be required to be produced and old appliances will be sent to our landfills or recycled both having large carbon impacts. This is not a well thought out plan. The total carbon cost should be considered including cost of disposal, remodeling, retrofitting and replacement. Additionally, this will create more stress on Californias failing electrical grid. During the outages this week my disabled wife would have the option to make a meal or take a shower. Can we see a complete study considering full life cycle costs and a details plan showing how we will ensure our grid can support the new loads before we take these drastic measures. Thanks

NO to mandatory requirements to electrify (or otherwise decarbonize) building equipment and systems when a property is sold

This is outrageous to expect people to be able to afford to completely retrofit their homes to all electric prior to selling it. This should be a mandate for new construction and not plunging people into poverty because they decided to buy in Davis. This will make it an even more unaffordable place to live, in addition to the fact that our electricity grid 1) cannot handle more use 2) is not using all clean energy either 3) this will cause a ridiculous increase in the amount of perfectly good appliances having to be put into the dump because they can no longer be used here.

Building electrification at time of sale will disproportionately affect affordable housing owners. Southfield Park Condominiums is the City's designated affordable housing, originally built with natural gas water heaters, furnaces and kitchen ovens, which will be prohibitively expensive to retrofit with electrical replacements. Any ordinance requiring building energy efficiency upgrades and electric (or other non-fossil fuel) equipment replacement at time of sale for residential properties SHOULD NOT be implemented!

Remove Action A.2 from the plan - this is completely ridiculous and unfair to require homeowners to fully retrofit their homes at the time of sale. Many homeowners purchased their homes with the electric and gas systems plumbed the way that they are now. Action A.1 starts the retrofit process using much better triggers that are focused on new construction and redevelopment. To also require full retrofits at time of sale puts an undue burden on the homeowner and is completely unfair. What is next from the City - what other retrofits will you start to require.

No not a good plan because of the high cost. I am on a fix income. There gas for everything an everyone.

Forcing upgrades at time of sale goes too far. Why throw out a perfectly functioning system that may only use small amounts of natural gas? If the city is going to force upgrades, it needs to do so over time, not in 2025. That way people can replace systems as they age and would be replaced anyway. It is wrong to tell people they can't sell their homes without making costly upgrades. On the other hand, I support the electrification requirements for new construction and at end of useful life.

This has me very concerned. The timeline is outrageous! I would support no new houses using gas, but having us all dump our gas appliances into the landfill and switch to electricity so quickly seems like a recipe for disaster. Our grid can't even handle this heat wave. If this actually goes through I think we should sue the city for the HUGE financial burden to all homeowners trying to sell their houses...

I agree with the concept to decrease gas use and convert to electricity where possible, I am very much opposed to the mandatory change of all appliances to electric.

My concerns

1. Mandatory changing of all appliances will be costly, perhaps prohibitively so, to individual homeowners while

sparing energy companies the cost of improving their "leaky" infrastructure (as I was told) which contributes disproportionately to emissions

2. As temperatures increase, we will be seeing more days with 115 degree temperatures. The grid is obviously unable to keep up with demand when most needed. (Electricity in my area was shut off due to overwhelming demand) Add electric cars, all electric appliances, electric heating and air, and demand can only increase. Then what - routine rolling black outs?

3. Taking an entire source of energy from the energy grid leaving fewer sources of energy (ie electricity) for an entire population is risky at best

Incentivise don't mandate - stay out of our homes

I have a very expensive nearly brand new gas water heater. I would have to rip that out and replace it with an electric unit if I want to sell my house? If I am not "needy" all at great expense? I find that outrageous. I would probably just keep my house "forever" (until I die hopefully 40 years from now) and rent it out at the highest rent I can, rather than ever sell it to a deserving family. I also have a fairly new and very nice gas range and oven, which I would similarly not want to replace when selling the house. although replacing that might be marginally less expensive. I can see the idea of electric appliances at the end of useful life replacement, but not for new, fully functional equipment. What is the environmental cost of throwing away perfectly good new appliances? Please rethink such fast implementation of expensive measures. Maybe phase in electric appliances more slowly just with end-of-life replacement rather than time of sale.

Hydropower's share of the State's electrical generation is highly variable, supplying only about 7% of California's utility-scale net generation in 2015 resulting from prolonged drought, compared to 19% in 2019 due to a brief precipitation rebound. But during 2020, in-state hydroelectricity production dropped more than 44% from the prior year. During 2021, water levels in Lake Oroville and other reservoirs dropped below generator intakes. According to the NOAA Drought Task Force Report on the 2020-2021 Southwestern U.S. Drought, many surface water reservoirs in the 6 southwest states are at historic lows. Total reservoir storage across all six states were 57% of average Spring capacity before summer 2021.

Given inconsistent hydropower supplies, it would be premature and irresponsible for a city to mandate a total shift away from gas equipment and appliances. The mandatory aspect of Action A.1 must therefore be deleted from the CAAP.

This edict is even more pernicious than A.1 because it would require simultaneous replacement of all fossil-fuel equipment when a property is listed for sale, in addition to replacing older windows and lighting fixtures. This would potentially add many thousands of dollars to the listing price of a home, and could delay close of escrow for many weeks or even months. In return for all of the bureaucratic and personal cost this measure would entail, Table 7 reveals that this measure would only contribute 3.2% toward GHG emission reductions in 2030 and 3.6% in 2040 (4,950 MT of 154,150 CO2 equivalents in 2030 and 9,500 MT of 260,100 in 2040). More on Action A.2:

This proposal ignores the difficulty that often accompanies selling a home. We know an elderly Davis couple that recently had to quickly vacate their almost 60-year-old home due to unanticipated health problems. Out-of-state family members had to move the couple out of the home and sell it before relocating them to live with other family members the Midwest. The home was listed by the family members and sold in less than a week.

There would have been no feasible way to replace all of the gas equipment, windows and light fixtures in that home in such a short time, yet this is what proposed Action A.2 would require. If enacted as a requirement of the CAAP, Action A.2 would impose an undue hardship on families in similar but all-to-common situations. What legitimate right would the City have to interfere with personal family concerns in this manner? Action A.2:

Real Estate Transactions Are Already Heavily Regulated: Federal and state law impose many requirements on real estate transactions. The legality enacting a local decree to replace perfectly functional existing equipment and appliances as a condition for selling a home or non-residential building is highly questionable. Conditioning transfer of title for a home or commercial building upon meeting the requirements of such a directive is not a legitimate function of local government. If enacted, Action A.2 would impose unneeded and cumbersome bureaucratic control over otherwise legal real estate transactions, and would necessitate modification of real estate disclosure requirements to affirmatively notify prospective buyers of this requirement. Fiscal constraints have forced the City to reduce and/or eliminate personnel and a number of programs, which makes it judicious to question how such a proposed action would be administered while other City needs go unmet. Action A.2:

Who Would Bear the Cost of Carrying Action A.2? Buying and selling residential and commercial property occurs through negotiations between buyers and sellers, typically conducted by brokers representing the parties. A local government edict to replace equipment and appliances before a property could be sold would in many cases trigger substantial new costs that would need to be negotiated and agreed to by the parties. The net result would be delay, increased cost, potentially greater difficulty in obtaining financing, and in some cases a decision by sellers to cancel transactions. Again, real estate disclosure requirements would need to be modified, particularly to ensure that out-of-town real estate brokers and prospective buyers are adequately informed of such a requirement peculiar to Davis. Current homeowners who need to sell their home quickly due to illness or other family considerations would be faced with another hurdle at an already difficult time. Action A.2:

Davis has important and ambitious affordable housing goals and programs, but Action A-2 would contradict those efforts. The compulsory replacement of existing fossil-fuel equipment and appliances would not facilitate affordability; prices would instead further escalate. It further makes little sense to mandate replacement of the existing equipment and appliances that are in good working order. "Junking" perfectly good appliances that required energy and resources to make would not be a sustainable practice.

Lack of Understanding is Not the Problem: The Equity Issues section of Action A.2 states some community members may face challenges in understanding and responding to this action. I assert that the larger challenge would be in getting the public to accept the imposition of such a huge cost burden and inconvenience. I believe that even in Davis, residents will resist this level of government intrusion into their everyday lives and personal financial priorities.

A mandatory energy disclosure ordinance would require property owners to publicly report energy assessments of their properties before sale; an unwarranted burden & gross invasion of privacy. Davis is already known as a difficult city to do business. This edict would further dissuade investment.

It is suggested that the City deploy incentives to promote induction cooking, but induction appliances often need electrical upgrades (dedicated 240 VAC/50 amp 3-wire circuits), which can be costly in a current building, and may exceed the capacity of an existing electrical panel. Such Incentives will do little to prompt conversions to induction cooking unless they include the cost of labor and materials for upgraded electrical service and installation.

We recently asked an appliance repair technician how customers like induction cooktops. He replied that people like them until the units have to be repaired, because repair costs often match or exceed the original purchase price.

Requiring electrification at time of sale could be a particular hardship for older, long-time residents who decide to sell their home. Just because they may have high equity in their home does not mean they have sufficient readily available cash to pay for replacing all of the fossil-fuel appliances in their home. They may have to withdraw funds from taxable retirement investment accounts to pay for this expense, which will incur unanticipated taxes. The City should not mandate regulations and policies that will unnecessarily require segments of the populace to increase their taxable income merely in order to prepare their home for sale.

First of all, you make it difficult to comment with your requirements for Section and page number. I'm guessing that is intentional so you don't get comments. But the resale requirement is not well thought out. I'm not low income, but the cost to run a 220 volt line to my 48" gas kitchen range would be ridiculous. I would have to trench under my driveway, walkway, and front porch. And there aren't any 48" induction cooktops available on the market. So you expect me to spend untold thousands of dollars to put in a 220 volt outlet and then I can't replace the cooktop with something that is the same size.

You are crazy! The cost will be detrimental to all homeowners and renters who will bear the brunt of this scheme. It is solely in place to further monetize Davis homeowners to over fund the permitting office. Recall any council member who votes for this and fire the city manager. Replace the city manager, climate action committee and permitting office with employees that have common sense. Go after transportation and big business which are the biggest contributors to GHG.

I am opposed to requiring resale of a person's home to be retrofitted to all electric and having all gas appliances removed. What about my gas fireplace I installed to replace wood burning? Please do not do this and force Davis

houses to become even more expensive. Such changes continue to prevent less wealthy people from buying house in Davis. I don't see the documents anywhere on this web page so I just put in the required examples.

Let's be frank here. Your process here for commenting is clearly meant to discourage public input so that you can move your agenda forward without truly considering the financial impact to the homeowners. Many many of your voters are AGAINST the CAAP plan. We feel this plan to impose financial burden on the homeowners will be detrimental to everyone. While there may be some good ideas within the plan it will be mandated in order for someone to sell their home and could impact/discourage buyers. You are now also interfering with a homeowners ability to sell THEIR HOME by placing a substantial burden financially. Why is the new Bretton Woods project as all new builders should not going to be required to build with these standards as outlined in the proposal? If you pass this proposal after receiving letters and emails from your voters who have great concerns, you are sending a clear message that the voters do not matter... your agenda does.

#### 4.2.1 Goal: Transition to High Efficiency, Zero Carbon Homes and Buildings.

Replacement of systems and appliances at "end of useful life" is reasonable; at "time of remodel" is not unless the remodel is replacing those systems.

I am not telling you anything you do not know by saying you are demanding people spend money replacing appliances and systems that are still working.

You are also not accounting for the GHG impact of that replacement—the GHG to takes to manufacture and deliver new appliances to replace working appliances.

I have also shown in my comment on Section 3.2.1 that unless the source of electric power is carbon-free, conversion may increase GHG by as much as a factor of 2.1.

"The City will include specific provisions for low-income and vulnerable populations"

Just because a home- or rental-owner is not "vulnerable" does not mean that the cost of such conversions will not be a burden.

As the Plan states, residential natural gas is only responsible for 7% of GHG. As shown earlier, unless the primary power generation is carbon-free, conversion to electric heating and cooking will not reduce that but will increase it to as much as 15%. And for that small reduction--or large increase—Davis is going to force all homeowners to spend thousands of dollars to prematurely convert heating/cooking from gas to electric, rather than waiting until current appliances need to be replaced. Current gas appliances are a sunk cost in both money and GHGs, and prematurely trashing them will not recover those; instead it will require premature expenditure of the GHGs used to manufacture and deliver new appliances. Action A.2. Building electrification at time of sale

Forced conversion at time of sale is only slightly less a burden than at other times. It obviously will affect the finances of either the buyer or seller—or both—and as explained in my comments on Section 3.2.1, unless the primary generation of electric power is fully carbon-free, the converted home's contribution to GHGs will INCREASE by as much as a factor of 2.1.

Conversion at time of replacement is the reasonable requirement.

Table 7 shows "Building electrification at time of sale" to account for only 3.2% of the GHG reductions expected by 2030 and 5.9% of the reductions expected by 2040. This is in contrast to the "Building electrification at end of useful life" reductions of 12% by 2030 and 13% by 2040. So for that additional 9% temporary reduction in GHG ("temporary" because it will be otherwise done anyway at end of useful life), you are going to burden all home sale transactions with the cost of electrification at time of sale, rather than allowing attrition of appliances to end of life. And, as shown in my comments on Section 3.2.1, unless the source of electricity is carbon-free, such conversion will actually significantly increase GHG emission. Not forcing conversion at time of sale but waiting to convert at end of life will also allow more time for the sources of electricity to become carbon-free...

Items A, B, and C of Table 7 represent GHG that will no longer be emitted each year. In contrast, Items D2 and D8 are one-time reductions. Once the Urban Forest or Carbon Farms are established, they no longer are carbon sinks but are steady-state, absorbing and emitting equal amounts. So, while useful, they should not be counted as GHGs that will not be emitted every year into the future. However, D2 and D8 account for only 1% (by 2030) and 0.5% (by 2040) of the total GHG reductions, so the error in counting them as GHG reduction every year is not significant.

I am strongly opposed to requiring electrification at time of resale for residential buildings. This would be an onerous requirement for many homeowners; not only low income. My household upgraded our HVAC and water heater less than 5 years ago. Requiring costly replacement or retrofitting would be an extensive burden given our retirement and current plans. This would not be a trivial cost, likely, in the tens of thousands of dollars. If the city will cover the full cost of retrofitting and / or replacement for all residents, this would be reasonable and fair, but I doubt the city will have the resources to do so.

The information provided for Action A.2 appears to show a very limited understanding of the costs involved with electrification across the city, limiting consideration of the impact these costs might have only to low-income and vulnerable populations. Due to past City practices, such as permitting construction of certain neighborhoods with "direct burial" electrical connections, upgrading electrical service to support electrification of appliances can be cost-prohibitive even for homeowners who do not meet any low-income threshold. Before mandating such an expensive and far-reaching requirement a city-wide, neighborhood-by-neighborhood assessment of the cost and feasibility of implementation needs to be conducted so that a proper cost-benefit analysis of the proposed requirement can be performed.

I do not support making it more expensive to sell your home in Davis by replacing working gas appliances with electric. In such a drastically aging community, we should be doing everything we can to incentivize sellers. This move would accomplish little for anyone besides appliance manufacturers and would greatly inconvenience and disincentivize sellers.

As a homeowner, Realtor and member of this community, I am strongly opposed to any requirements to electrify at point of sale. I am very concerned about GHG and their impact. I support initiatives such as updating to electrification at the end of useful life (provided there are still allowances for when this is cost prohibitive to the homeowner). However, full or partial requirements at point of sale will put unnecessary and ridiculously costly and time and resource intensive burden on the home seller. To name some of the issues - there will undoubtedly be complications of any upgrades that necessitate PG&E involvement, many/most homes will have to upgrade electrical panels which, coupled with the cost of the appliances themselves and the labor (if the seller can even get a contractor to do the work) could cost tens of thousands of dollars. This will be costly, impossible to homeowners to navigate and a logistical nightmare. The benefits will never outweigh the downside.

The Develop Home Energy Score (HES) program in A.2, if not already, will be used for purposes that are not related to health and safety and should not be a part of permitting process for sale or remodel. To fight climate change, everyone must participate and the issue needs to be on the ballot for the residence to decide. The proposal lacks the energy consumption and the cost analysis, two major source of information needed for informative decision making.

Questions: Do upgrades happen before or after sale? If before, is the homeowner expected to pay out of existing funds? Will the City of Davis assist by developing financing options?

Comments

1) Should not overlook the fact that existing equipment may be well within its (expected) useful life. Discarding functional, newer equipment is inefficient and wasteful.

2) Should provide flexible, alternative or 'offset' methods to meet GHG reduction, e.g. solar array installation, EV charging station installation, window upgrades, shading, etc. in lieu of major electrical upgrades. Concern is cost and inefficiency of forcing potentially extensive electrical upgrades when more economically and environmentally efficient and effective use of resources (funds) is available.

Ex: Replace NG equipment w/ electric requiring circuit installation, possible service and main panel upgrades. interior access considerations...

Thanks for your consideration of my concerns!

While the goals of CAAP is admirable, the execution and potential impacts of the plan seem to have not been fully thought out. For example 4.2.1 will certainly have an impact on housing prices. With Davis already lacking

affordable housing and new housing that meets these requirements, the majority of homes will require significant upgrades. It is doubtful that the seller will simply eat these costs and will surely pass them on to the buyer this driving home prices further up. This section needs to be removed completely.

The cost of moving to all electric at time of sale would be prohibitive. As a senior, it is troubling to see that the council wants to rush this plan with no regard to the fact that the infrastructure is not in place to support this timeline.

The wording of “to encourage electrification, potentially along with financing and incentive options” is not a guarantee. With inflation at an all time high it is irresponsible of the council to impose this type of mandate on Davis while the state has a longer timeline. What’s the rush? To claim you are exceeding your own expectations? We already have a lack of affordable housing in Davis, your plan will only exacerbate the problem and slow down the home sale process.

Does this apply to businesses or only targeting the residents? If so, why? Are businesses exempt? This does not seem fair and equitable to me.

I truly hope you examine your plan and timeline before making your citizens endure another experiment like the Mace Mess.

- Action A2 should be recast as a bundle of measures—voluntary to start with, but becoming mandatory—necessary to replace the small fraction of the fossil-fuel appliances in the building stock today that will not be replaced with electric through attrition over the next 17 years (thanks to Action A1).
- Let building owners decide for themselves if they want to respond voluntarily or be subject to mandatory measures. But by 2040 all remaining fossil-fuel appliances must be replaced with electric in order to achieve the City’s goal of zero carbon.
- This Action should include a significant activity to identify and inventory the current stock of fossil-fuel appliances, and track their replacement over time.
- This should be followed by assistance to owners in “making a plan” for their eventual replacement (refer to Cool Davis’ Make a Plan activities as an example <https://www.cooldavis.org/cool-solutions/hvac-make-plan/>). Action A2: This should include assistance to owners in “making a plan” for their eventual replacement (refer to Cool Davis’ Make a Plan activities as an example <https://www.cooldavis.org/cool-solutions/hvac-make-plan/>). This should include incentives, financing, and other financial assistance, and might include a “Cash for Clunkers” type program. Action A2: Building owners have ample time to plan for this replacement, and voluntary measures should be favored. If building owners respond to the City’s efforts by replacing their systems voluntarily, then draconian mandatory measures may not be necessary—that should be the goal. An interim target should be set for about 2030 to assess how strict mandatory measures will need to be to replace any remaining fossil fuel equipment at that time. Plans could be made in the interim for a time-of-sale ordinance or other more draconian mandatory measures. It is essential that our Real Estate community—which has shown an interest in playing its part in promoting sustainability in our housing stock—be involved in both high-level and detailed planning of this ordinance.

A2: The proposed Home Energy Score should be an integral part of this strategy, and it should be encouraged, incentivized, and potentially required. This will help plan the transition to all-electric end uses as well as energy efficiency. Many jurisdictions already have such programs ( <https://www.bayren.org/home-learning-center/home-energy-score-hes>), and Berkeley requires this at time of sale (see <https://berkeleyca.gov/construction-development/green-building/building-emissions-saving-ordinance-beso>). It should be aligned with the DOE program and make use of tools developed for that program. It could be portrayed as an expansion of the inspection that the city already carries out when a home is sold to identify any modifications that were made without a permit and require them to be brought to code. This Home Energy Score is an excellent informational tool and sets a baseline to help homeowners to “make a plan” for taking GHG-reducing actions over time.

However, requiring homeowners to transition to all gas appliances as part of the sales process is overreaching. Disposal of and replacement of functional gas appliances is wasteful and expensive. Also, upgrades to electrical panels to achieve the transition adds further complications and expense to the process of selling a home and will

undoubtedly influence sellers to increase home prices. Any required electric transition expenses should be adequately subsidized by the city or state.

A.1: Changing to electric appliances at the end of useful life makes sense.

The switch to all-electric homes will put a huge financial burden on the homeowner. Furthermore, to put all our eggs in the basket of solely electrified homes defies logic. This heat wave and the recent power outages are an alarming reminder of what life will be like without gas in our homes. The electric transformers in older neighborhoods are in bad shape and will not be able to handle service when the grid is overloaded. We experienced two transformer failures in our neighborhood, one of which created an underground fire.

Also, I second this post made on Next Door:

... the [the city council] wishes to utilize PGE infrastructure and put even more strain on the grid. Natural gas is the largest electric fuel source during the winter. Electricity leaks over long distances and loses energy through transmission. Unless these new appliances are more efficient, we will end up using more greenhouse gases to offset the electric loss in transmission.

Thank you for considering my comments.

I strongly object to the proposed requirement for all electric appliances installed in a home prior to sale of the property. The state electric grid is not able to supply energy sufficiently reliably now or in the near future. Hydroelectric power generation is at great risk due to inadequate precipitation. The capacity for solar generated electricity is currently far from adequate. This leaves greater demand on industrial natural gas powered electricity generators, thus moving gas usage from individual homes to inefficient centralized facilities.

As an elderly homeowner, the requirement to upgrade at time of sale will likely be a challenge for me. My only asset is my home and may be needed to pay for long term care for myself. Please consider excluding the retrofit requirement at time of sale from the adopted plan.

I am opposed to this section requiring electrification of homes at time of sale. The cost and city red tape will be an excessive burden on homeowners wishing to sell their property, and the cost of upgrades will be passed along to buyers, further increasing home prices in Davis and contribute to making homes out of reach for young families wanting to move to Davis. I am wholly in support of electric only appliances in new construction, but not forcing sellers of older homes to meet the same threshold.

On selling a property, requiring all permitted appliances to be replaced with electric ones might actually be a negative for the environment in some cases. If someone sells their house a year after replacing appliances with new gas ones, forcing a replacement again sends efficient equipment to the landfill. You should consider requiring replacement of only the appliances over a certain age at time of sale.

Retrofit of appliances at the time of sale should only be required for items at the end of their useful life and not properly functioning. Useful life should not be based solely on age, but instead how well the appliance is operating. Otherwise we are just filling up landfills unnecessarily. Additionally, there needs to be exceptions for buildings where retrofitting to electric is not reasonably possible, such as some older homes. Retrofit should not require a major remodel to do so. Dual pane windows should not be required in situations where the original windows cannot be reasonably replaced. We have already replaced all the windows in our house that are possible. The others remaining are built into the structure in a way that makes them nearly impossible to replace. Yet, our 70-year old home is still basically net zero. There are ways to accomplish energy goals without forcing retrofit in cases where it is unreasonable for the building structure.

I am a senior who lives in Davis and do not think requiring a complete switch to electric appliances at the time a residence is sold is a realistic or good idea. I am against this part of the plan because of the very high cost it would be. Many people would not be able to afford all the new appliances plus the update to the individual's electric wiring. Please do not make this part of the plan.

The definitions of “major” remodel and end of useful life are ambiguous and who will decide those issues? Also, relative to electrification at time of sale, that risks inequity. For instance, if someone upgrades their gas furnace only one – two years before a sale, it seems unreasonable to require electrification. Also, what about those facing job loss and with little to no equity in their home? Also, what about older retired individuals on fixed incomes? Wouldn't it be better to include some type of credit system, e.g., for those who never travel by gas powered transport? Also, is there enough green electrical power to make the plan workable? Having said these things, overall, the plan is laudable.

Until PG&E has the power grid that does not require rolling brown and black outs, and fires the City of Davis has no business creating a plan that forces residents go all electric at time of remodel and or sale. This puts an undue burden on homeowners and is just another way for the City to make money. The City of Davis, at this time, cannot keep up with demand for permit process today nor keep our greenbelts, parks and medians weed free. Focus on what needs attention today!

Unless your goal is to bankrupt your already financially stressed Davis citizens, I urge you to rethink portions of the Climate Action and Adaptation Plan. Most Davis citizens are not in a financial position to convert all gas appliances to electric. For many elder Davisites, the sale of our homes will help pay for our ongoing care as we age. Please do not burden us with more onerous unfunded mandates that make our financial future even more precarious.

I totally support the proposed actions in these two sections, replacing gas appliances with electric ones both at the end of useful life and especially at the time of sale. I support a requirement to do so at the time of sale, and more of an educational approach for replacement at the end of useful life. The city should make it more clear how folks will receive support in working with PG&E bc the utility is not helpful and has a variety of fees when homeowners pursue this on their own; those shouldn't be borne by the individual. However in general wanted to express my support for these measures as I suspect you'll get a lot of pushback from people unwilling to make the kind of drastic and expensive changes we all need to be considering. Glad the city is leading here and I support aggressive goals and associated requirements.

I oppose mandating the recommendation to replace all cast appliances with electric appliances at the time a house is sold. The cost of this for homeowners would be very high when one includes gas water heaters, dryers, furnaces and stoves. Beyond replacing appliances, in many cases (e.g., dryers and furnaces) significant electrical renovations may be needed (e.g., to install a 220 line). One can expect that home sellers will pass these costs along to the buyers, making an already unaffordable market even less affordable. Furthermore, for individuals in low-income housing, the costs of replacing appliances could make selling virtually impossible. I do support the idea that new construction can be required to have electrical appliances only, but if the city proposes to mandate this for existing homes at the time of sale, I hope the city is also prepared to cover the costs of these changes which will run into the 10's of thousands in some homes.

City should not require homeowners to convert gas stoves, HVAC systems, and water heaters to electric models when houses are sold. Much more energy could be saved by requiring and subsidizing solar systems.

Grandfather existing homes. This is too costly for most people. converting to electric that is mostly fueled by natural gas will solve nothing. I am not an attorney, however I think this is beyond your authority and if passed will lead to many expensive lawsuits.

Electrification at time of sale (by 2025) would be a definite hardship for older home owners who recently updated fixtures such as water heaters and heating units.

Also, the current electric grid fails at times of heavy use, so enormously increased demands for electricity in the near future would certainly cause extensive blackouts with possible increased mortality rates for those of us with medical equipment needs for electricity. Even homes with solar panels don't for the most part include backup batteries, so cannot maintain themselves during blackouts. On the whole, CAAP makes sense, but there is definite need for serious rethinking for parts of it.

I do not think three years is sufficient time for PG&E to have a robust enough electrical grid to support all electric city. It also is not enough time for all home owners to install a solar array large enough to support an all electric home.

These proposals are an outrageous burden on residential homeowners. I am happy to replace my gas furnace and electric central air with a heat pump when it is end of life, but it will cost \$10s of thousands of dollars and months of planning, permitting, and construction to upgrade electrical service, panel and run additional wiring to replace my natural gas water heater. Do you expect I will go for months without hot water for months? For a sale, who is going to pay the mortgage with all this going on while you wait to close your sale?

I object to MANDATORY electrification of housing units. Second, IF mandatory electrification is implemented, it should be done according to a much longer time period. It could be tied to the proposal at the state level to require electrification beginning in 2030.

These actions could be clarified for the public by separating them more cleanly – A.1 mandatory, A.2 voluntary. The goal is to simplify the messaging and avoid misunderstandings that lead to public opposition. A.1 should be presented as a simple requirement that when gas-powered appliances are replaced, their replacements must be electrical. The state building code is going in this direction and the city is simply getting onboard. Although you can check, I suspect the majority of the needed replacement will occur through attrition. Programs to accelerate this rate should be voluntary.

A.2 should be focused on voluntary actions. Accelerating electrification of major systems through incentives is a worthy goal, but doing it as a mandatory requirement at time of sale is not. It is disruptive, unpopular, and probably unnecessary. Providing incentives available to anyone at any time (not just time of sale) will encourage early adoption. (cont.)

Continuation of previous comment ...

That said, I agree that there is good reason to do something at time of sale because it is a good time to take stock. At a minimum, a HES evaluation should be done and made available to potential purchasers so that they can make informed decisions. At a maximum, the city could require that the property on sale be brought up to a specified HES score (or a specified increment above existing) as a condition of sale. Owners should be given the option for deciding the means and who would pay for them (seller or buyer). Choice is important for selling this idea to the public. A possible improvement in this approach might be developing a Home Climate Score which augments the HES by giving credit for early electrification, electrifying appliances not included in A.1, or other items such installing EV chargers which don't reduce energy use.

Imposing a change in major appliances prior to their end of life will create tons of waste! Please consider that when we replace water heaters and stoves, the manufacture of the new appliances, transportation, and disposal of old appliances creates environmental harm too. PLEASE do not let arbitrary events in the life of homes, like home sale, trigger government mandated replacement of existing functioning appliances. It makes much more sense to wait until appliances are broken to replace with electrification.

Building electrification at time of sale is burdensome, expensive and impractical . All existing properties should be grandfather)ed. To give just one example, imagine trying to sell your deceased parents property while residing elsewhere and trying to handle a complete retrofit of electrical systems.

In addition, many Davis homes have been retrofitted with gas fireplaces to avoid air pollution and burn restrictions. It seems impossible to replace a gas fireplace with an electric fireplace. I'm not sure what that would even look like or how it would function.

2025 may be reasonable for new homes to be totally electric but not existing homes. We already have a tight real estate market; demand exceeds supply. It will be much worse if sellers need to come up with the money to replace their stove, furnace and/or water heater before they can sell their homes. If the City wants these changes made, I suggest they offer a rebate to encourage homeowners to get this done sooner than later. There is also the issue of permits which often take time. It could be very time consuming as well as expensive to get your home ready for the

market by 2025. The City of Davis would either need to expand their permit staff or contract out the work; this capacity needs to be added soon.

The burden of replacing all gas appliances with electric would be financially significant if forced to in order to sell.

This plan should be grandfathered for current homeowners. The cost and amount of work required is too onerous for the sellers ... and of course the cost will be passed on to the buyers. I admire the city's efforts to encourage more affordable housing ... this plan would make it even harder for people to move into existing housing.

What is the impact of changing perfecting good functioning HVAC systems, hot water heaters, appliances and their disposal on the environment. Natural gas is a reasonable option environmentally. Is CA ready for additional load on their electrical grid when they keep having blackouts. CA gets 30% of their electricity from out of state and CA has no real plan to significantly improve their electric production. This plan cost more than it would be worth and place a ridiculous burden on the selling homeowner. I am not even sure if this would be environmentally beneficial even for new construction but that would be a better way to start and see if CA can improve its production of electricity before making any additional demands on Davis homeowners.

I can not afford to electrify my home. If the City wants that done the City of Davis must provide me with the money to make the changes.

Action A.2 Building electrification at time of sale.

The Davis housing market is already incredibly high adding a retrofitting for the older homes would only make it more expensive and less likely that families can afford to move into this town.

Our community relies on natural gas. The PGE company even uses natural gas to supply our community. Changing to all electric appliances will not change the usage of natural gas in our community it will only stress the power grid. I am vehemently and adamantly opposed to this prospect. It's an overreach of government that has no basis in actual science.

I oppose the proposed ordinance to replace all gas appliances with electric appliances.

While I support the intent to reduce emissions in general, the rigid implementation of this measure (requiring the replacement of non-electric appliances prior to home-sale by 2025) introduces unnecessarily burdensome delays and costs on home sellers with negative effect to the community. Delays due to permitting and costs related to new appliances and potential circuit breaker panels all added to the sundry other details of selling a home are unnecessary.

Why not simply require that, when a appliance is replaced in the future, it should be electric irrespective of home sale. This allows currently functional appliances to be utilized until their full useful life is complete (which is efficient), avoids waste (from getting rid of perfectly operational appliances before they have met their useful life), and avoids added regulatory cost and delay in selling a home. Ultimately, the community avoids additional inflation of housing costs related to this burdensome and unnecessary proposal.

It is unreasonable to expect homeowners to bear the burden of electrifying their homes at the point of sale. I own an older home and would need to replace a gas water heater to an electric water heater. The electric system in my home would need to be updated to maintain the added electric appliance. This would cost me 10's of thousands of dollars to dig a new line to my home and replace the heating unit. I cannot afford that kind of penalty. Electrifying everything is not the solution. If anything this past heat wave shows our state can barely keep the power on. I believe in diversity of choice when it comes to choosing power to meet the need of the consumer. I was barely able to afford to live in Davis and I want to stay in Davis. However when you penalize a young family that now has to budget for upwards of \$20,000 to update their home it creates a financial penalty that may be the deciding factor if we stay or leave this town I grew up in. Stop making Davis unaffordable.

Please reconsider forcing homeowners to retrofit their home to total electrical before being able to sell. This would be an onerous burden on my husband and me as seniors who will probably need to downsize in the next ten year. You are coming across and authoritarian dictators instead of public servants who allow their citizens to make decisions for themselves. We have lived in Davis since 1992 and have seen the City Council move toward being adversarial towards their constituents. In the upcoming elections, I plan to vote for anyone who doesn't plan the force climate change issues down our throats assuming we are being conscientious on our own.

I'm writing to oppose mandatory upgrades at time of remodeling or sale. The City Council told you not to pursue this idea but the draft includes it anyway. Why is it that bad ideas never die?

About 5 years ago we replaced and upgraded our HVAC system to a state of the art energy efficient system at great expense. Under these proposals, in some circumstances, we could be required to incur large expenses before the useful life of the HVAC system has come to an end. I believe this is a penalty for trying to do the right thing by upgrading the HVAC a short while ago.

Don't put the burden of replacing all gas appliances on the homeowner. We hardly use our heater, we dress warm and turn thermostat down. Why should every elderly homeowner replace these, if you must start with new houses.

Section A.2 requiring the replacement of all gas appliances at time of sale of a house is an overreach of the City of Davis. This proposition puts an undue burden on low and middle income families who may have to spend thousands of dollars replacing equipment that's working just fine and even having to invest in upgrading equipment that does not require such action. The recent power issues with the high temperature also raises concerns that such change will further put in further peril the fragile electric grid. Moreover, forcing this ill-conceived action on the people of Davis will strengthen the feeling that those that govern do so from an ivory tower that completely ignore the struggles of hard working people. While those people, including myself, are well aware of the danger of climate change, that should not be an excuse to impose these actions, when they are not needed.

It's absolutely hilarious that something on this scale is being proposed while say gas leaf blowers, an insanely dirty pollutant, have continued to exist at the request of developers within town despite external recommendation to ban. I will make sure to publicly post about this and keep in mind for further elections that this is what the state of the current city council is.

Requiring electrification at time of home sale by 2025 is estimated to reduce the estimated Green House gas contribution of 12% by 9%. By my simple calculation 9% of 12% is 1.08%. Meaning that this proposal will have an extremely small impact (12% reduced to 10.92%) at an extremely high cost. Requiring replacement of natural gas appliances, water heaters and heaters with electric at the end of their useful life will still work toward this reduction but due to the limited useful life of these items it won't extend this 1.08% reduction over a lengthy period but will significantly reduce the complications.

I revise my previous comment because I made an error. The proposed reduction is the 12% of Greenhouse Gases is 32% of 12%. This means the estimated reduction is 3.84% to 9.6%.

I believe this is a small reduction that will be achieved over a reasonable timeframe if electrification is required at the end of the useful life of natural gas stoves, water heaters and heaters. Thus the cost of electrification will be timed more consistent with homeowners expected expenditures.

The requirement of electrification at time of sale is excessive given the cost and complication for the small gain. The same gain will be achieved over a slightly longer timeframe if replacement of natural gas stoves, water heaters and heaters with electric is required at the end of useful life.

Replacing equipment at the "time-of-sale" without considering the remaining useful life of the equipment seems like an overkill to me. I would like the city to consider only an "end-of-useful-life" electrification requirement, not at the "time-of-sale."

For those homeowners currently using natural gas, change the language from "time of sale" to "end of life". Why create so much additional waste at local landfills of operational/functional equipment?

This requirement will be onerous for homeowners. The cost of converting typical gas appliances (hot water heater, heater (HVAC), stove and fireplace starter) has been estimated by some homeowners who have taken bids as \$40,000 to \$50,000 including retrofitting electrical connections and new appliances. The cost and time it would take to do the retrofit will be unduly burdensome on sale of property. It may be the equivalent of a "taking" without due process. The time line (by 2025) is also very short and is unrealistic and unreasonable given the normal life of the existing appliances.

Laura Christensen (A.2)

I am against the forced electrification of homes at time of sale. We just spent \$9000 on a new HVAC system and if we sell our home in 3 years under this new ordinance, we would have to dispose of a brand new system and install all electric HVAC and appliances. This is absurd! Also - I like cooking on a gas stove. This would force me to cook on an electric stove. What happened to a citizen's individual rights? This issue should be presented to the voters of Davis. It shouldn't be forced on us by City Council and City staff members. We have rights too!

I think it's a more reasonable approach to have the electrification issue come up when the appliance is being replaced because of age. Don't force a homeowner to electrify their home in order to sell it. Listen to your citizens, please.

I'm against the electrification of homes at time of sale. I think it's ridiculous. I don't think we live in a communist country yet, but we're getting close to it.

In the past three years I have upgraded my HVAC system and recently replaced a leaky water heater, all with city permits. These are the only two units in my house that use natural gas. The cost to replace them with electric only units is beyond my means as a retired person. It is crazy to expect my kids to upgrade my house once I die in order to sell it. I believe you all are over stepping your charge to fight climate change. FYI, I have solar with a back up battery system that came in handy with the recent PGE black outs. It is apparent the electric grid cannot fully meet the electrical demands of California. Adding more burden to the grid is not a wise move. Having new construction required to be fully electrical with solar makes sense, requiring older homes to retrofit does not.

City and State goals are unrealistic based on political impulse. Over half the current baseload supplied by natural gas pipeline and imports. No acknowledgment of the environmental costs to alternative sources of power and battery storage. No reasonable alternative to replace natural gas. Happy Newsom acknowledges the urgent need to keep Diablo online. My house is 30 years old with a 125 amp panel. I'm maxed out on Solar panels and appliances. Currently use gas furnace and water heat. We were without power for 23 hours at the height the recent heat wave because of a blown transformer. Upgrading my service for all electric would entail trenching by several homes to the affected transformer. I've also been told by the Davis Building inspection people PGE would not allow me to install off grid solar for an alternate mini split system or my own EV Charger Station. This and other City of Davis overreach makes leaving Davis ever more attractive.

While replacing gas appliances at the end of their useful life with electric appliances may be sensible and financially palatable, a requirement to electrify at time of sale by replacing fully functioning gas appliances is a draconian authoritarian non-sensible costly measure that I do not support.

Causing building electrification at time of sale places a major burden on sellers. May impact buys with less properties available. (see general comments)

What is the source of income to offset costs to low-income or vulnerable households? There does not appear to be a stated solution. I am concerned will be one more financial burden for our citizens to create this subsidy. See also my general comments.

The State of California's Electrical Grid can not support actions like the City of Davis in requiring all homes to be totally electric (i.e. the elimination of all gas appliances).

Also, this is an extremely unfair financial burden to put on home owners.

We need solutions which are but short and long term financially sound.

I am not in favor of switching to all electric in order to sell our home. Too costly for someone living on a fixed income. I can see new homes being built to be all electric but having own a home here for over 20 years that is a lot to ask of people to switch over to all electric..

Consider the economic implications of mandating electrification at the time of sale. This will add substantial costs that will make housing even less affordable. Also, consider the ramifications for the electric grid - specifically, if all houses become fully electrified (including widespread EV use/charging), will the electric grid be able to keep up. As it stands, it struggles during especially hot days with air conditioning being used heavily. How will the grid be prepared to handle widespread use of electric water heaters, vehicle charging, etc.

Do not support mandated time frame of 2025 to convert all residential from gas to electric.

The proposal to update all gas appliances at time of sale is an undue burden on homeowners on many levels. First of all, the permit process is a time consuming proposition and with worker shortages, this makes it very difficult for a homeowner to sell quickly. This proposal does not reduce the carbon print as it takes a lot more energy to make new appliances than the older appliances would use and these older appliances would end up in the landfill. I could write a book on all the cons to this proposal, but I'll leave this comment like this for the sake of the survey. Hopefully this section will get scrapped in future versions of the 2020-40 CAAP.

The biggest concern on CAAP is the punitive and prohibitive requirement to electrify all home appliances at the point of sale. Residential gas use accounts for only 7% of GHG emission, (and converting to electricity still uses 37.9% natural gas to produce!). This is a particular and undue hardship and burden on retired/senior people who are counting on the full sale price of their homes for retirement and/or funding for a care facility, for a relatively small impact in GHGe. In addition, the impact on landfills as well as the environmental impact of the production and transportation of acquiring new appliances will be perhaps more destructive to the environment, especially considering the relatively small difference it will make in GHGe, in comparison to changes in transportation efficiency. Replacement of gas appliances to electric appliances should ONLY be at the end of useful life of the appliance.

I am REALLY unhappy with the proposed electrification requirements. While I see benefits of electrification (possibly, depending on the specific situation), this is over-reaching, and putting a high burden on folks with older houses and electrical infrastructure, and everyone else who would potentially have to chip in to pay for their upgrades. I am not happy with you deciding this kind of issue without a vote, this affects all of us residents far too heavily. I'm also not happy with the technical committee meeting without public oversight, this is not appropriate. The public needs full disclosure to be certain that all of the issues are being considered.

To retrofit and replace all gas-powered appliances in the home at time of sale would be EXTREMELY costly, and an undue burden on private home owners. The discussion of aid for low-income individuals is an over-used phrase to make this proposal sound financially sensitive and reasonable. It is NOT. This part of the plan does not take into consideration the majority of the population in Davis, including low-end middle-income households, who do not fall within the radar of "low income" and whose net finances after the sale of their home will be a significant negative impact. Retired or soon-retiring homeowners, like ourselves, will be especially impacted due to a fixed income, reducing retirement funds and the ability to relocate.

Per the Table 5 gas emissions data of 7% for residential vs. 74% from on-road transportation, the proposal to force retrofitting at time of sale for existing homes is a significantly disproportionate financial burden on a private citizen selling their home.

some serious concerns I have: The City is, basically, proposing to require sellers with gas appliance kitchens, etc., to perform a remodel on their homes before sale - not only replacing a significant number of expensive appliances, but also getting an electrician in to upgrade electric panels and outlets to accommodate 220-volt appliances. Very costly. Also, wasteful. Regardless of the remaining lifetime on a seller's existing gas appliances (stove top, oven, water heater, furnace, fireplace) - requiring massive replacement and disposal? Where are these ending up? In our landfills? Last, but not least, mandating conversion of existing gas-based homes to all electric, at a time when the State of California has mandated electric cars in the near future, and as we are already facing a challenged PG&E electric grid which has had to implement increasing numbers of rolling blackouts this summer, makes this plan an even worse proposal

Electrification should not be required at time of sale. This has many problems. It will increase the cost of housing and cause some people to stay in their homes longer, further reducing the supply. The cost to electrify an entire home could easily exceed \$50,000 especially if a panel upgrade is required, which is likely for homes built before the 1990s. This time of sale proposal should be rejected.

It is far more reasonable to require end of life replacement with electric appliances, but that proposal also needs accommodations. Our gas water heater started leaking and needed to be replaced immediately, We did not have time to asses an electric option, which would have required significant electric work. These emergency situations need to be accommodated. There may also be areas on a house that are not feasible to electrify. For example, there may not be a 240v outlet in a person's kitchen to hook up an all electric stove top.

I commented once before and want to share addtl thoughts. Will the responsibility be on the seller or the buyer? Has the city done an analysis about impacts to housing market? Presumably houses that are electrified will increase in price, while older homes with smaller electrical panels and older systems will lose value. This should be studied in greater detail.

Pending review of impacts to housing market, a more reasonable approach is to instead require a "climate house assessment" whereby the seller hires an inspector for energy efficiency and electrification. The report would include options to assist the seller or buyer in making improvements such as tax credits or rebates.

Think of it this way: a seller usually pays for a general structural inspection. This would be a second inspection focused on the climate friendliness of the home. The seller would still incur costs to pay for the inspection, and all buyers would be informed about upgrades that may be needed.

Please consider removing electrification at time of sale. This is not feasible for a lot of households and homes the way the grid is currently set up. Also, please consider an optional plan for electrification at end of life (maybe one with incentives?) as some people prefer cooking on gas stoves and with the current stress to the energy grid even without mass electrification and potential of rolling blackouts, its actually better if electrification occurs gradually.

I think that the electrification of appliances should be made at the end of useful life of the product and not by the year 2025. There are already too many poorly made appliances being thrown away and to dispose of them when they still have use is very wasteful.

Also, I will need incentives to electrify my appliances since I am not working and living paycheck to paycheck. If this is imposed on the community of Davis then I suggest grants be give to foster this change.

I don't understand the need to go all electric when I was stuck in a rolling blackout during the 112 F weather. I hope the grids will be updated to handle the extra load. What guarantees will Davis have that we don't have more blackouts due to overuse of power grid.

This proposal is too costly for the average homeowner. It is difficult to be able to afford a home here, let alone replace the cost of appliances. To have to switch set up from gas to electric, is so expensive. Offer incentives instead. It is also a difficult sell to move from gas to electric when there are power outages on hot days.

The provision requiring implementation at time of sale by 2025 is TOO SOON. The city wants elderly to sell their large homes. This provision will accomplish the reverse. It places financial hardship on those who had not anticipated such a large expense in such a short time. The cost, informally estimated at \$40,000-50,000 for required upgrades including the electrical, is unreasonable to impose in such a short time. This requirement is

prejudicial against those who must sell their homes to meet medical/financial needs. Those staying in their homes will be able to wait to end of life of the item spaced over time and will be able to financially plan for the cost. The city can't timely process permits as it is. There is a shortage of contractors and projects are delayed now. Sales will be held up, costs will go up, we are likely to see sketchier contractors and shoddy work, and owners won't be able to sell in a reasonable time regardless of the urgent need. Extend the term to 2030.

I have lived in this house since 1968. This is wrong to even think about replacing gas with electricity. I put a new gas heater in just two years ago. To think if I wanted to sell our house we would have to spend all that money to retrofit the house. This is wrong!

I can see you making new homes built to have this but not our older homes.

The suggestion that this is to be a mandatory action is ludicrous, and likely illegal. It will certainly be litigated in the courts (no doubt at the expense of taxpayers in Davis). I strongly oppose this proposal and vow to use the support or opposition of this measure as a litmus test for evaluating any future City Council members. This is a costly and illogical plan. That if enacted will cost longtime tax paying homeowners greatly. It is clearly an overreach by the City of Davis.

Upgrading to electric at time of sale and seems arbitrary, as many of the gas appliances (stove, water heater, furnace, fireplace) may be in good working condition and not at the end of their life. It also puts a heavy financial burden on the seller to make these changes and will increase sales price.

And if at time of sale, the city decides that an older appliance, although working well, is nearing its end of life, what will determine end of life, age, appearance? This is too subjective and ambiguous.

I agree, that when an appliance is being replaced/upgraded by a home owner it should be required to be an electric appliance, but until replacement/upgrade, it should be grandfathered in to compliance.

Electrification should not be required at time of sale. This has many problems. It will increase the cost of housing and cause some people to stay in their homes longer, further reducing the supply. The cost to electrify an entire home could easily exceed \$50,000 especially if a panel upgrade is required, which is likely for homes built before the 1990s. This time of sale proposal should be rejected.

It is far more reasonable to require end of life replacement with electric appliances, but that proposal also needs accommodations. Our gas water heater started leaking and needed to be replaced immediately. We did not have time to assess an electric option, which would have required significant electric work. These emergency situations need to be accommodated. There may also be areas on a house that are not feasible to electrify. For example, there may not be a 240v outlet in a person's kitchen to hook up an all electric stove top.

I am very concerned about being forced to spend tens of thousands of dollars to "electrify" at the time of sale of my house. I recently spent a ton of money to put in a new, higher-efficiency gas heat/HVAC system, and I also replaced my dirty wood-burning fireplace with a closed gas insert, lowering my energy use/carbon footprint. If I need to sell in the next couple of years, it would not be fair to make me toss out the new upgrades and require me to buy electric versions of same. I am OK with a "end of useful life" replacement-with-electric requirement, as that is fair.

I think there needs to be better messaging around what exactly is being proposed that could potentially cost individual homeowners tens of thousands of dollars. I hope I have misunderstood what is being proposed.

"Building electrification at time of sale... Preferred approach is ... transition to mandatory requirements by 2025." This is a disaster. Not only would good equipment be wasted, but the costs go beyond just the equipment replacement. Electrical panels will need to be upgraded and replaced. PG&E street infrastructure is inadequate and will need upgrading at some locations at an additional cost with disruptions by breaking up sidewalks and asphalt to accommodate changes (this happened on my block just recently when a homeowner needed a panel upgrade). Drilling up streets, installing new equipment and other aspects of replacement construction contribute significantly enough to greenhouse gas emissions that the American Institute of Architecture requires education of members to see the impact. Driving up costs of resale by necessary tens of thousands of dollars causes less affordability of housing stock and leads to more commuting and greenhouse gas emissions & other negatives.

Delete Action A.2 that will result in significant costs to property owners. Costs for new appliances, new higher amp electrical panels, new wiring, trenches for new wiring, concrete repairs, etc. could exceed \$40,000 for each household and business. The proposal fails to estimate the significant financial impact on property owners and fails to provide specific, tangible funding sources. As property owners would be required to make costly upgrades, this would result in a fee or charge to property owners that requires approval by the local voters before becoming effective. The CA Constitution, Article XIII D, Section 6(c), requires all local agencies that propose to impose or increase fees or charges on property owner to obtain voter approval ([https://leginfo.legislature.ca.gov/faces/codes\\_displayText.xhtml?lawCode=CONS&division=&title=&part=&chapter=&article=XIII%20D](https://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?lawCode=CONS&division=&title=&part=&chapter=&article=XIII%20D)). If the City adopts this action item without a local vote it would likely result in litigation. The proposal indicates that funding for “equity-based financing for private residences and businesses” will be sought through government grant opportunities and potentially through other financing strategies. However, the proposal fails to consider financing options for property owners that don’t fall under the CAAP’s extensive social equity categories (communities of color, low-income, disabled, elderly, young, etc.). This is discriminatory and divisive to the community. Costs will be extensive and could exceed \$40,000 per property owner. Most property owners will be unable to afford these costs without extensive assistance. This Action item appears to violate the Commerce Clause of the US Constitution (clause 3 of Section 8 of Article 1 of the Constitution). Specifically, localities do not have the right to unduly burden interstate commerce. Action A.2 burdens commerce by preventing homes from entering the stream of interstate commerce. Specifically, if you want to sell your home or business in Davis but can’t afford to retrofit you would not be able to sell your property. Another potential Commerce Clause violation is that the CAAP will further increase the costs of Davis homes and this could be considered discriminatory or exclusionary. The Commerce Clause violations would also likely result in litigation (<https://nysba.org/how-the-dormant-commerce-clause-can-fight-zoning-discrimination/>).

The changes outlined are short sighted and a money grab. Expecting homeowners to install all electric appliances to sell a home in 2025 without explaining how the power grid will be affected is sloppy and incompetent. I am so disgusted with the Davis City council's lack of solid research and communication with the public on the details of issues like this one.

No where in this 'plan' does it discuss the range of costs to homeowners selling their home after year 2025. I suspect no cost estimates were conducted. Otherwise consultant, city staff and City Council would be shocked at the realization of cost burden placed on a small portion of the Davis population so those not selling their homes could feel good about CAAP goals.

After learning about this pending requirement about one week ago, I contacted PG&E regarding my maxed out 100 amp service panel. To replace PGE underground service and restore my landscape, hardscape and fencing, 200 amp panel, all internal electric circuits and appliances would cost \$43,000. Let me repeat; \$43,000.

Surely, CAAP designers didn't anticipate this unfair cost allocation. This is not fair. Those that live in their homes for 10-30 years after 2025 will avoid financially participating in CAAP.

The proposal to require upgrades and electric (or other non-fossil fuel) equipment replacement at the time of sale for residential is overly onerous and expensive. Please reconsider change (switching to non-fossil fuel equipment) for new construction, and when systems need replacement. Please don't add this financial burden to all Davis homeowners at the time of sale. As written, this proposed measure goes too far.

Edit: A further comment: The comment requirements for exact sections and page numbers is a pain in the ass and a deterrent to those who would like to make comments on the overall document.

Requiring residents to replace appliances, including items not attached to the home -- such as stoves, washers, etc with electric options is expensive. You are penalizing individuals whose homes were up to code when purchased akin to an additional tax or penalty (and likely subject to litigation). The end result will be less movement in property sales which will impact City revenue and more expensive properties for renters and students. If someone is looking to spend money in Davis, they could easily drive 5 miles to get a new build in woodland. Instead, consider financial incentives, like credits and grants to replace and electrify with no strings attached.

The 2025 resale implementation date is TOO SOON. Perhaps a 2030 or 2035 implementation date is more reasonable and realistic. The implementation costs could be excessively high and labor intensive.

At our home the following systems would require replacement: the heating system, water heater, built-in fireplace, and gas stove top.

It seems like the built-in gas fireplace and stove top do not use large amounts of fuel so why require changing those out on resale unless they are not in working order? It will be very expensive to change the fireplace as its built-in with tile work. Perhaps allow replacement exemptions for low fuel or intermittently used systems?

Our heating system was replaced in 2019 with a very efficient system that should have at least a 10 life. This would be an excessive cost and we haven't yet paid off system installed just 2.5 years ago.

On our fixed retirement income the combined costs of replacing these items will likely be a hardship.

I oppose this section of the plan. (1) California's electrical infrastructure struggles to deliver service, especially during periods of peak demand. This requirement will increase demand on the grid and the risk of its failure. (2) The plan provides no definition for either low-income or vulnerable populations. As a result, citizens of Davis have no idea who will really pay for implementation of the plan. Failure to provide definitions allows for arbitrary and capricious changes to any assistance these populations may be eligible for.

The proposal can not be mandated to the homeowners to replace all gas appliances with electric . This mandate will mean a hassle and very difficult time for us, retired people.

The cost to replace the appliances and to obtain the permits will be overwhelming for the retired residents.

Thank you.

Electrification at time of home sale. This would add the cost of all new appliances and upgrades to the electrical pane. It would slow down selling the house depending on availability of buying the appliances and equipment.

The price of upgrades is cost prohibitive. This is going to negatively affect future home sales in Davis.

I am strongly opposed to the goal of banning gas stove tops in new construction and requiring residents to remove and replace all gas appliances with electric upon end of life or upon sale of the residence. We who like to cook, strongly prefer cooking with gas. It is more controllable and allows more even cooking than is possible with electric, and the cost difference is minimal. Do you really want to discourage us from living in Davis because it is so rigid? A law that requires the homeowner to replace all gas appliances with electric appliances is likely unenforceable as well because it would be prohibitively expensive in a home designed and built for gas, not electric. So many other building requirements the City could demand of developers, and builders who pass along the cost, for better or worse, to their customers.

I object to the wasteful requirement that requires buildings upgrades at time of sale for starting in just 3 years from now!

I object for two reasons:

1) With rolling blackouts continuing (and will likely worsen), switching to all new electrical appliances will cause sudden additional demand on the electrical grid before additional green infrastructure is available. This requirement is premature and will almost certainly result in more blackouts and additional stress to residents;

2) Replacing newer gas appliances (especially recently installed ones) is incredibly wasteful! If it breaks down, fine, replace with electric, but if it works and is fairly efficient in its use of natural gas, let it be. I can't stand the idea of installers taking these working units and selling them in other states, or worse, having them go to the dump.

This section should be reworked, and/or the points scale adjusted to exempt gas powered appliances in good working condition at time of sale.

Do restaurants have to abide by no gas ranges? What about fire fighters? Real chefs prefer gas ranges for a number of reasons I won't bore you with. Will UC Davis be held to these rules?

If it has to be, it should be at the end of the useful life of the appliance, not at the time of sale of the house. I have a

5K Wolf gas range and just had to replace the over 20 year old granite. with a custom opening for the range. If I have to pull it out and throw into the landfill along with gas water heater(4K) and replace the island granite as the custom opening won't fit something new, this will cost me 20-25 K, throwing away useful appliances. Look at a globe. Look how tiny California is. The biggest problem is other countries that are doing nothing. Oh and then the politicians and rock stars that fly lear jets at 2 tons carbon PER HOUR. Looks like greener transportation would make the most difference, but this is like spitting on a forest fire.....

I am opposed to this provision below or any other related provision which will mandate an extremely high cost to any property owner. There are other more practical and efficient ways to reduce greenhouse gas emission--not to mention the extra emissions created when manufacturing something new to replacing a HVAC or appliance which is still in very good working order and not old: Action A.2. Building electrification at time of sale

I am strongly against the mandate that homeowners replace all gas appliances with electric versions as of 2025 when a house is placed on the market. This puts significant financial burden on homeowners, is of disproportionate impact on lower income individuals, and places even greater pressures and "exclusivity" on individuals who are able to live in Davis. This particular aspect of the climate plan does not appear to make a substantial impact on emissions and instead will further strain our electric grid with the rapid implementation of this aspect of the 2020-40 CAAP. It does not make sense to place much more stringent actions and requirements on Davis homeowners as opposed to those in the rest of Yolo county. This is simply over-reach and too much regulation and micromanagement of the lives of Davis citizens and homeowners.

Action A.2: Not okay to require this ever. See discussion of Sections 4.2.1 below. This action must not be included in this plan. Please delete it before finalizing the CAAP.

Requiring the replacement of equipment prior to the end of its useful life is in itself a waste of resources and impacts the climate in production, transport, distribution, losses and installation of new equipment and premature disposal of the replaced equipment.

It is a waste of money, time and labor to require replacement of equipment prior to the end of its useful life. This is critical when selling or remodeling real estate. It potentially adds many months and tens of thousands of dollars to the remodel or sale process.

There is potentially a huge difference between time of remodel or sale and end of useful life. The property owner is the only person that should have the right to determine when something has reached the end of its useful life. Do not include any language in this CAAP that leaves this decision to anyone else.

The energy disclosure is a proposal for unnecessary bureaucratic red tape that will cost time and money.

Requiring it to be publicly reported is vague, but potentially infringes on privacy rights of property owners. Delete this action from consideration.

Requiring electrification at time of sale is a no-brainer. Please don't listen to residents complaining about this.

The point-of-sale requirement has serious consequences and practical problems that I do not think the planners can possibly have considered. You do realize that a home is the most important investment most people have, don't you? Replacing systems and appliances will greatly reduce or possibly eviscerate any gain on that investment. It will take so much time that it may be impossible in practice. It may even trap people in a home or location that is no longer right for them or cause them to lose job opportunities in other places. And who will be most adversely affected? Those who can least afford it. It is past time for Davis to address equity in actions instead of words. Furthermore, how will the still-useful systems and equipment be replaced? Even now, the wait for that kind of work is very long. How will it be disposed of? Won't that be shockingly wasteful and terrible for the environment?

If none of this is persuasive, at least seek advice on the exposure to lawsuits due to the intrusion on constitutional property rights and the connection certain city officials have with Valley Clean Energy. Consider the vulnerability to PG&E that increases with this plan. This is a company that is responsible for many deaths and considerable destruction of resources and property. On a practical level, it cannot consistently and safely provide electricity even now. Thank you for reading this.

As residents of Mace Ranch, we strongly oppose the provisions that would require retrofitting our home from gas to electric.

Retrofitting expenses for gas stovetop, furnace, water heater and dryer at time of sale would be exorbitant and especially before receiving proceeds of the sale.

-Retrofitting when the appliances fail also requires substantial financial output. How long would we be without hot water as we locate an electrician, get permits, pay the extra expenses in addition to a new water heater.

-Ironically, when moving into Mace Ranch we had to discard our new electric dryer and purchase a new gas dryer because of existing regulations.

-We fully support that new construction fall under these restrictions. We support energy saving and took a loan to install solar panels.

-This measure hurts residents both in practice and financially and we urge you to oppose this part of the provision. PLEASE OPPOSE THIS PORTION OF THE PLAN!

I strongly oppose the electrification requirements upon the sale of a home, particularly if this is required by 2025.

1. This disproportionately impacts older homes; many of these residents are elderly themselves and have not planned for such additional expenses.

2. The timeline is unreasonable - it takes more than 3 years for most of us to save up the \$30,000+ it would take to replace all of our gas appliances and add the required electrical capacity to our homes.

3. Until PG & E has the capacity to power the grid, how would we get enough electricity for our homes? The timing is off - we need to increase the grid capacity FIRST.

4. More demand for electricity = more electricity generation via BURNING FOSSIL FUEL. How would this reduce environmental impact? It just shifts the pollution to areas close to power plants; we all know this would impact lower-income folks the most. Is that ethical?

This is very, very unreasonable for homeowners to bear this expense when getting a permit or selling their home. You are putting us all at a disadvantage and assuming we can all afford this!! This is also very bad for our property values of selling our homes and cutting into our equity. This is too extreme and you need to go slower! The grid cannot handle this as we saw recently and it will result in more power outages!

It appears that the heavy lifting in this plan relies on citizens making expensive purchases. A large portion of the plan includes adding additional hurdles for first time homeownership in a city that already locks most people out of the housing market with inflated prices. Forcing homeowners to make extremely expensive changes to qualify to sell will only drive home prices up.

In addition to these expenses, the plan to improve the energy grid is after the items intended to utilize more electricity. Our reliance on overpriced poor PGE electricity is prohibitive of these changes.

In conclusion, any changes to lower Davis's carbon footprint should start with non-pge renewable energy being built out so that it is affordable to all residents and allow for markedly increased energy usage. This should be followed by city improvements and funds should be allocated to support low income residents making sustainable purchases (like electrification, solar installs, and EVs/ebikes).

### **A.3 Energy efficiency and ventilation in rental properties**

This action description is quite vague. Will Davis require owners of rental property to upgrade all gas appliances in 2025, regardless of whether the property has adequate cooling and ventilation and fully functional appliances in use? Changing to electric appliances at the end of useful life makes sense. However, disposal of and replacement of functional gas appliances is wasteful and expensive. Also, upgrades to electrical panels to achieve the transition adds further complications and expense. It is likely that property owners will increase rental prices to compensate, adding to rental availability and affordability problems. Also "modifying its rental license program to include minimum energy efficiency and cooling/ventilation requirements" is vague. Any required electric transition expenses should be adequately subsidized by the city or state.

The second paragraph under the A.3 Action Description states that the City will monitor the effectiveness of new energy efficiency and ventilation mandates in the context of the "...projected State building code update in 2025..." It is left to the reader to interpret exactly what this statement means. Does it mean that it is expected that the new State building code will contain requirements similar to what is contemplated in the Davis CAAP, and that the City will need to adopt new governing documents simply to be aligned with State requirements? In plain English, please explain for those unfamiliar with the State Building Code, what is meant by this and similar statements elsewhere in the CAAP.

Similar to proposed Actions A.1 and A2, this requirement would boost the cost of rental and ownership housing, because current owners will need to recoup the cost of the required upgrades. Simply put, people do not invest in real estate for the purpose of losing money.

Apply some of the provisions of A.2 to single family rental units. At the time of renewal for their rental business license (or other convenient time), the units should get a HES score. A minimum score should be required for renewal of the license (again with the owner deciding how to achieve that score). A schedule for increasing minimum scores over time can be developed and applied. This is a suggested approach to overcoming the split incentive – improving HES scores in order to remain eligible as a rental unit.

Energy efficiency, cooling /ventilation in rental properties. Rents are already way too high in Davis. Who will pay for these upgrades?

Not clear but it would appear that this measure includes adding air conditioning where AC is not currently installed. This would occur by default if gas space heating is replaced with HVAC heat pumps. It should be more clearly stated that adding space cooling on properties that do not currently have cooling will add to energy use but will provide improved comfort which will become more of a life safety issue with hotter summer temperatures. Kitchen ventilation be included in this measure. Cooking is the largest source of indoor air pollution. And many existing kitchen ventilation is inadequate.

#### **A.4 All electric new construction**

I am dubious on this, but electrification appears to be the emphasis du jour. Energy is increasing in unit costs and utilities are unlikely to achieve system upgrades necessary for capacity and reliability needs.

Saying new construction must omit gas use on property is easy to mandate. Theoretically, should energy be generated somewhere from low carbon sources, then that is a benefit, should the property use energy from those sources. I say the CAAP should qualify this item with triggers derived from energy systems from which properties will derive their power. There is no benefit. So the point is that property electrification scales with low carbon source availability. Make this connection explicit.

For example, the microgrid in a part of town can supply all the energy needs for that part of town. Done, require new housing construction supplied by that microgrid be no gas.

This proposed action makes perfect sense because the costs are planned for in advance and implemented during construction. There would be no problem installing the high voltage/amperage that electric appliances and equipment often require, because the necessary electrical service and wiring would be part of the original construction. Unlike retrofits, there would be no need to run new wiring through attics and existing walls. If a prospective buyer did not want an all-electric home, but instead preferred one with gas appliances, they would be perfectly free to search for and buy such a home in a nearby jurisdiction such as Woodland, Dixon, Vacaville, West Sacramento or Sacramento.

These comments are specifically regarding how cement and concrete are addressed in the draft CAAP. Cement and concrete are addressed in Action A.4, page 52 All-electric New Construction and in Section 4.4.2, page 103-104 Estimated 2040 GHG Reduction Trajectory – Removal/Sequestration Options.

There are multiple sources of low/no/negative carbon concrete with costs similar to conventional high carbon products. Examples include Blue Planet Systems, located in Los Gatos, CA and Clark Pacific, located in Woodland, CA. Our planet needs urgent new city codes, procurement guidelines specifying carbon neutral or negative concrete in public infrastructure including but not limited to buildings, roads, bike paths, sidewalks, tables, benches,

art and other public (and private) projects where concrete is used. The City should support early adoption through demonstration projects and other means, with the goal of having a comprehensive renewable concrete use policy in place no later than 2024.

Requiring electrification for new construction is a no-brainer. Please don't listen to residents complaining about this.

I think you should mandate that ALL new buildings & homes being built have solar on them & just be electrical only, no gas.

I have solar and last month the supposed rotating turn off of power did not happen for I was without for 2.25 hours, it did not rotate but it proved another BIG problem how on earth can we all have electrical cars when we can't even keep up with the electrical needs of our homes in a heat wave.

I was amazed that I did not see any homes in Arizona with solar. It is a shame that there is Mother Nature for us to use for free and we do not, and she lets us know how stupid we are.

EVERYTHING BEING BUILT MUST BE REGULATED TO HAVE SOLAR .....START SOMEWHERE EVERY KILOWATT MAKES A DIFFERENCE and one company is making pure water off of solar panels

.....Thank you

#### **A.5 Community solar energy**

Community Solar Energy is another sensible action that should be vigorously pursued. Our home is enrolled in the Valley Clean Energy "UltraGreen" option, which we feel is a negligible cost relative to the GHG benefits.

Partnering with VCE is great, but are there publicly-available analyses/breakdowns of how they will A) meet the electricity demands arising from mandatory electrification/decarbonization of houses and vehicles and B) improve the resiliency of the power grid in the event of extreme weather (e.g. heat waves and especially wildfires/smog) ? The expansion of local renewable energy development and storage is great. But again, ARE there a quantitative benchmarks that the City of Davis is aiming for in regards to these expansion measures to ensure resiliency of the power supply?

With the added demand from full electrification/decarbonization being mandated in merely 3 years, the residents of Davis deserve more certainty about how the municipality plans on avoiding the dangers associated with lack of resiliency in the power supply before being pushed into a lifestyle that places added strain to the power supply during extreme weather events.

What plans does the City of Davis have in working with VCE to reduce the overall cost of electricity? e.g. VCE could lease individual residential/commercial property roof-tops to install and maintain solar panels to generate clean energy and in lieu, provide free/low- cost electricity to the owner of the property, while simultaneously selling excess power back to the grid which helps VCE recoup the cost of solar panels in the long run.

Once the overall cost of electricity is reduced, Davis residents would naturally replace their gas appliances with electric ones. This also relieves the burden on the city by focusing on a simplified goal of providing clean, cheaper energy, rather than imposing dozens of individual mandates like electrification at the time-of-sale, remodeling, carbon mitigation fund etc.

Because of the split incentive, landlords may not be inclined to install solar and renters do not have access to the benefits even if they want it. Look for a way that renters can "buy into" a community facility as a shareholder and thereby gain some of the financial benefits (i.e., virtual net metering, or rebates on energy bills).

Suggest a program that enrolls all eligible low-income utility customers in UltraGreen (100% renewable) at no additional cost.

#### **A.6 Carbon mitigation fund**

A carbon mitigation fund implies that the City would impose a tax or fee to offer financial support to projects that reduce GHG emissions. This prompts a important questions:

Would such taxes & fees be legal?

What kind of fees/taxes would be levied? Would Davis impose a special tax or fee on sales of fossil fuel vehicles? (Such a tax would put Davis car dealers at a competitive disadvantage to dealers elsewhere.)

Would Davis enact a real estate transfer tax or compel additional fees on building permits for remodeling or new construction?

Would the City impose a tax or fee on services and restaurants as a revenue source for a carbon mitigation fund?

Would parking taxes be raised to provide funding?

How would such fees or taxes be collected and administered?

What entity would determine priorities for spending the funds? This would seem to be a City Council responsibility, but would Council delegate this role to the City Manager, a City commission, or some other entity?

Can fees/tarrifs be applied to buildings/properties that do not meet other mandated criteria above and those funds be put into the carbon mitigation fund.

#### **Action A.7. Renewable energy in City facilities**

This is redundant to Action A.1 and vague on timeline. Simply include the City in mandated electrification on replacements/remodels and specify that the City will buy electricity from 100% low carbon sources immediately. Easy to understand, measurable, obvious benefit.

#### **Action A.8. Create community microgrids and resiliency hubs**

This action should inform implementation of Action A.4. and occur ahead of capacity needed for all-electric new construction. If capacity does not occur for bureaucratic, nimbyism, or technical problems, then burden on citizens is reduced.

Neighborhood resilience centers that ensure adequate backup renewable energy and provide a place to stay cool during extreme heat waves are an important development that could also be integrated into energy micro-grids. I believe the Mary Stephens Branch library is currently being used as a Cooling Center, so I hope it will be included as part of the resiliency center being proposed for the Vets memorial.

#### **General Transportation Comments**

\*\*Add Transportation Equity focus: My overall critique is that the current draft of the CAAP lacks clarity of vision and focus in the overall plan. If more than 70% of Davis' GHG emissions are in the transportation sector - largely our dependence on passenger cars - then I'd hope to see an integrated plan for reducing our VMT's, including a plan to dramatically reduce the use of single occupancy vehicles. From my understanding, the recommended actions don't actually add up to meet our emissions target reductions. Creating a more comprehensive plan and adding more actions in the transportation sector would be a good place to start. Transportation analysis conducted prior to pandemic. Work has changed - there are lots of telecommuters now. It would be helpful to incentivize and institutionalize these changes in the CAAP

And if promoting bike riding is a true goal, why not start living up to the example set by truly bike friendly cities such as The Hague, which have dedicated bike lanes, which don't allow bikes to share lanes with cars, and which actually enforce vehicular codes as to bikes too, not just as to cars? Our city simply pushes bikes into car roads without any physical separation, ignores cyclists that wantonly violate the rules of the road (allowing them to freely run stop lights and stop signs – which I have seen them do right in front of city bike police with no problem – allowing them to blow through pedestrian crosswalks – I have lost count of the times I as a pedestrian have almost been hit by a bike going 25 mph right through a crosswalk, etc.). We crow a lot about our bike friendly city just, seemingly, because we had the first bike lane in the US (something we don't even mark or celebrate), having seemingly done nothing to keep up with advances in bike friendly living since then, which isn't a surprise given that we also seem to have the worst street infrastructure in the region.

**Action B.1. Electric Vehicle Charging Plan.**

This appears to just be a plan update. That is unsatisfactory. Why not say something concrete like State law will ban ice vehicles by 2035, so the City will get this action with little input needed. The City could ban its residents from purchasing ice vehicles I suppose, should the State change its mind. That type of mandate is essentially what the City plans to do in A.1 action.

Action B.1 – Electric Vehicle Charging Plan. This is a very good idea that should be rapidly deployed, along with the “Right-to-Charge” program suggested on page 62. It is evident from news reports that the national goal of rapidly increasing the number of electric vehicles in use will be challenged by the current low number of charging locations. Davis can help overcome this problem.

I support this approach to encourage electric vehicle adoption through the provision of charging infrastructure. This makes provision for individual vehicle owners to decide what makes sense for them and enables opportunities for those who may not be able to charge at home (e.g. those who are constrained due to old electric infrastructure in the home) to still consider EVs as a possibility.

I strongly encourage the council to aggressively seek funding through state and federal grants to accomplish this and limit the use of city funds.

Additionally, the electric infrastructure in West Davis has significant reliability issues. This should be addressed along with looking for opportunities for charging stations.

How about requiring everyone to install power boxes in every garage to accommodate electric cars. You people are idiots.

Electric cars are not electric, they are vehicles that have electricity stored in batteries.

Better spend ur time on electric generation plants now that everyone has a battery charger in their home for their phone.

Davis city reminds me of 1939 Germany!

How does CARB mandate to prohibit sale of new gas-powered cars by 2035 impact this? Will it accelerate the adoption of EVs between 2030 and 2040, maybe sooner. May accelerate the demand for charging stations and electrical infrastructure to support EV charging.

**Action B.2. Decarbonize municipal fleet**

This is redundant to B.1. Simply include the City fleet in B.1. Additionally, ice vehicles will be prohibited by the State for purchase anyway by 2035. The City should have no choice here.

I see the Fire Service has tried to get a carve out to this mandate. There should be no exemption for Fire Service. The argument that engines need to idle for a long time prohibits use of battery power is ridiculous. The whole point of electric vehicles is to not idle and electric pumps are crazy efficient. How many fires a year require extended (> 1 hour) pumping? I'd think 1 per year at max. How often does Davis Department provide mutual aid where there wouldn't be charging? Probably not often. I get that Department is planning for the marginal scenario that could happen, but that is not the way to think about it. Make the transition and create the new capabilities you need.

It is imperative on the city to perform a Total Cost of Ownership evaluation while doing this transition and to select the option that is the most fiscally responsible, including retention of ICE vehicles if the TCO is shown to be less than that of EVs. If EV's have lower TCO, then this transition makes sense. I do not support transition of emergency response vehicles to electric unless there is redundancy.

What about mandating vehicles serving the City but not part of the city fleet, specifically Recology and their fleet of garbage trucks. This should be addressed as well.

More challenging is how to decarbonize the fleet of delivery vehicles and work trucks that serve this region. What can be done to incent them?

### **Action B.3 Micromobility**

We've tried this before and it was not good. A few years ago jump bikes popped up all over the city. Shortly after their appearance, they started getting left all over the city - on lawns, blocking sidewalks, in alleyways...and then they disappeared. Instead of investing in something that doesn't work, improve safety of roads, the quality of bike paths, and crack down on bike thefts to continue to encourage bike use for residents.

### **Action B.5. – Pedestrian and Bicycle Safety**

**Bike Storage Areas.** It is suggested that centralized, monitored storage areas for all mobility devices be provided. This is an essential proposal because bicycle theft in Davis is an important concern that no doubt discourages some bike trips. Some shopping centers are notorious for bike theft. (The Marketplace on West Covell Blvd. is a good example.) If a resident solely or primarily relies on their bicycle for commuting and trips around town, having their bicycle stolen can be a disruptive and life-altering event. Most stolen bikes are probably never received, so deterring theft in the first place should be a high priority for the City.

Have you tried to get into downtown any week morning recently? If the roads get any smaller, it will be impossible to make it to downtown at all! The Road Diet idea is not good -- we'll just end up with more congestion points like at Mace Blvd, the Richards tunnel, and the UCD entrance. Do NOT assume that making roads narrower will decrease the number of drivers, it will just make the traffic worse.

### **Action B.6. Expand public transit**

There is nothing concrete here, so I assume the City will have no measurement for success and achieve little under this action. Test a pilot free transition option? A free option for lame public transit will not get people to use transit and get out of their cars. Cost probably isn't the problem. Cost isn't the problem for me. Have some specific goals. 50% of adults/children in Davis will get to work/school on electric public transit. If that is the goal, it would remove the major CO2 source and transition society away from cars. The City would have to execute a bunch of transit upgrades to achieve the 50% number. Say electric buses/trams operating every 5 mins from 7 parts of town. If transit options exist that are functional, then people will naturally change their behavior. If the system does not support an organic change in behavior then it won't work at any scale/cost because it does not solve the actual problem with mass transit.

Action B.6 suggests that subsidized free public transit be implemented. Where will the funding be derived for this? Plus, unless service areas are expanded and frequency (headway) is improved, increased ridership may not result. Busy people don't have the time to wait an inordinate amount of time at a bus stop, and waiting at bus stops during hot weather is uncomfortable. Keep in mind that the Sacramento area set a record in 2022 for the number of days over 100 degrees (just over 40 days), meaning that on almost 11% of the days the temperature exceeded 100. I once tried taking Yolo bus to and from work at Sacramento International Airport. The trip took twice as long as driving, and required inhaling cigarette smoke while the driver was outside the bus smoking at the Woodland transfer station. I'm not willing to inhale toxic tobacco smoke just to make a contribution to reducing "drive alone" GHG emissions.

According to the roadmaps, expanding public transit in the city (B.6) reduces GHG emissions by 1%; strengthening regional transit (B.7) reduces GHG emissions by 1%; implementing a transportation demand management program (B.9) reduces emissions by 1%; and changing downtown parking (B.8) reduces emission by 5%. It appears that the major actions for addressing our major GHG source are not doing much, i.e., we are asking our citizens to give up their cars and downtown parking for only an 8% reduction. Are these assessments correct? (cont in comment 13)

(cont. from 5)

It's been suggested that the 1%'s represent the savings from only the initial steps. If so, I suggest changing the text. First, clarify what activities produce the 1% reductions. Second, tell the reader where this action could take us in 2040 if implemented. Provide statements like – if it were possible to triple public transit use in the city, emissions could drop by X%, or if enough people participated in a TDM plan to drop commuter traffic by half, emissions could

drop by Y%. These are speculations, so they need to be represented as example scenarios, not actual benchmarks. The goal is to provide readers with envisioning statements to give them a sense of possibility and scale. By scale, I mean readers will understand, say, that tripling Unitrans ridership gets us only X%, so perhaps we need to do something more or less. The CAAP cannot foresee all the detailed steps needed, but sketching future possibilities shows citizens where we're headed.

**Action B.8. Downtown parking improvements**

The action here appears to add friction to driving downtown by charging for parking. This is weak. Any goal achieved by this action should be a natural outcome of transit improvement above. Meaning this action is unneeded. If transit exists people won't drive. If transit options do not exist then people will drive. Action seems to imply that the City realizes it won't achieve transit goals, so it will instead try to discourage folks from behaving in a natural way.

Downtown Parking Improvements. Reducing or eliminating minimum parking standards in new developments is a great idea, because more parking spaces than absolutely necessary should not be required. Most shopping centers rarely have all of the parking spaces full, with the Davis Target shopping center being a prime example. Instituting paid parking and parking meters that only accept credit cards or app payments may have the unintended effect of spurring some shoppers to simply drive to nearby cities that don't have paid parking (i.e., downtown Woodland, Dixon) or to shopping centers outside downtown that do offer free parking. Any parking app that is instituted should allow "touches" credit card payments in order to eliminate the possibility of "skimmer" card readers being installed in parking meters. I recently installed such an app on my phone for buying gasoline with my credit card, which means I no longer need to insert my gasoline credit card into the gasoline pump.

Action B-8 (Downtown parking) tiptoes around the issue of parking charges. Please, let's get into the 21st century and charge for parking. This is one of the most effective ways to reduce motor vehicle use.

Due to the lack of parking in downtown already and the traffic to get there, if I also had to pay for parking to run quick errands, I would probably take my business to Dixon or Woodland. It is important for there to be plenty of short-term free parking in Downtown to encourage use of Downtown businesses.

This is simply a bait-and-switch. It's not the only time the city has tried to implement paid parking for a revenue stream. This is outrageous. If the city is moving towards and encouraging electric vehicles, how would this paid parking be an assist. It's already complicated enough to try to be a patron of local businesses, but this paid parking will drive business out of town even further or to online alternatives that are not environmentally friendly. This is absolutely outrageous and is transparently trying to utilize the environmental issues for other purposes.

**Action B.9. – TDM:**

Such programs are fine as long as they don't impose mandatory requirements on employers and building owners. I submitted extensive comments on this topic earlier in the CAAP development process, and also to the DPAC during its meetings on the draft Downtown Specific Plan. Voluntary TDM programs are fine, but imposing upon employers the burden of developing and operating such programs would be counterproductive and administratively difficult.

I support the development of carpooling programs.

**Action B.10. Low Emissions Vehicle Program**

I don't get it. The State is banning ice vehicles by 2035, plus the City will have to transition to non-ice vehicles given action above. ICE vehicles are irrelevant here if transit goals from above are achieved and State law is executed. The City is wasting its energy with this action as it should be a natural outcome of other actions.

This will put an undue burden on many low and mid income families who need to keep their ICE as long as possible for financial or work reasons. Discriminating financially against people who for many reasons may need to drive an ICE for the foreseeable future is wrong.

I am concerned about the language in this section. It proposes a vague citywide program that disincentivizes travel by internal combustion vehicles. The plan sounds punitive and can be interpreted as fines or taxes for citizens who own and operate non-electric vehicles. Will the fully developed program involve accessing DMV records and implementing a network of cameras in Davis to track the movement of privately owned vehicles? As written, it could. Accordingly, I oppose it.

John Johnston

The activities listed in B.10 promote more sustainable neighborhoods. Pulling it under B.11 would give B.10 context or a motivation for doing the studies suggested. Finally, coordinate B.11 with the General Plan. The roadmap mentions the CAAP, the Downtown Plan and the Housing Element. This action needs to inform the General Plan and that document is where the policies discussed here will be housed.

A central problem is that some 76% of Davis emissions come from motor vehicles, but the City has relatively little leverage to bring about change in types of vehicles. It needs to think more outside the box on this within Action B-10 (Low Emissions Vehicle Program), for example by proposing to restrict use of fossil-fuel-powered vehicles within the city or within the downtown after a certain date. Rather than a knee-jerk response of "the city can't do that," let's look for creative ways that it can. Cities worldwide have restricted car use in all sorts of ways in recent years.

#### **Action B.11. Land Use**

Rename B.11 to "Develop Sustainable Neighborhoods". Sustainable "housing" is covered in electrification, water conservation, climate-friendly landscaping, etc. B.11 focuses on increasing the housing supply in a "sustainable" way. Add to this action the development of neighborhood standards to reduce the need to drive cars. We have some of these now (e.g., distance to grocery shopping, green belts and bicycling paths). These standards can be strengthened and integrated with the new kinds of housing listed under B.11. Also, consider incorporating B.10 into B.11.

Action B-11 (Develop sustainable housing) is way too weak, and omits any mention of regulatory changes. As we all know, Davis needs more housing. This would help reduce in-commuting and associated GHG emissions. If we want to do something substantial to increase housing, let's eliminate single-family zoning city-wide, as jurisdictions around the country are beginning to do, and raise height and density limits along major corridors & in neighborhood centers.

With the recent changes in law to encourage the building of accessory dwelling units, limiting parking supply will be a significant burden. See section 4.2.7 B11 - these two actions happening simultaneously will create a big issue.

#### **Action C.1. Climate-ready private landscapes**

Scott Blankenship

This appears to be residential only. The City I'd think is a much larger water user given the green strips. The City should justify its own water budget here and combine it with residential and commercial use. Perhaps the City could retire certain unused areas, and the water savings would be superior to the residential sector.

I think it's time we outlawed private swimming pools & lawns completely in the interest of serious water conservation. Flying over Davis reveals swimming pools in large numbers of back yards, each containing tens of thousands of gallons of water, on constant auto-fill to the brim under sizzling summer sun. These are predominantly in the more affluent neighborhoods of single family homes, so socioeconomic advantage also plays a role in this. These pools are used only infrequently by small privileged members of the community for a disproportionate drain on the common community water supply. Draining these pools (& taking out lawns) will not be popular, but the reality is we live in a seasonal desert, we have to act like it.

#### **Action D.1. Cool surfaces**

I suppose fancy surfaces and building surfaces could be a benefit. I take pause that "Green space" isn't included in water budget C1. It should. So what you are saying is that the City wishes to replace the the green spaces that it is mandating be removed from residencies? That is weird.

I'd think a better goal here would be to cover every parking lot, roof, playground, with solar panels to provide shade (cool) and add to a microgrid (other action).

#### **Action D.2 Urban Forest**

How can you talk about planting more trees when you won't take care of the ones you already have, especially street trees. To lessen the heat load, how about mandating - which you love to do, solar panels in all large parking lots, including churches which would also provide power. Or, planting actual large shade trees, not the ineffectual small crepe myrtle types. This would actually address areas that are generating heat already, whereas new green areas would not.

#### **Action D.4 Flood risk**

The roadmap focuses on existing flood risks, but it should discuss increased risk of flooding in the future.

According to Cal-Adapt (<https://cal-adapt.org/tools/extreme-precipitation>), the current 100-yr, 2-day storm based on historical data is 5.7 inches of rain. (100-yr return period means 1% chance per year, 50-yr means 2%.) Under the medium climate change scenario, the 100-yr storm is going to increase to 6.0-6.8 inches (projected by four models). So, the existing 100-yr flood zone will be larger in the future. (Our existing 100-year storm is 5.7 inches but in the future, the 50-yr flood will be 5.4-6.7 inches, so our current 100-yr storm is the 50-yr storm of the future.) Similarly, the current 100-year levee protection around the wastewater treatment plant may not be 100-yr protection in the future. (cont in #14)

(cont from 7)

In the "intermediate next steps" of the roadmap (item 1), electrical substations should be added. According to the Vulnerability Assessment, all but one are in flood zones. A flooded substation could knock out power beyond the immediately flooded area. Similarly, while the WWTP may have a levee to protect it, flooded neighborhoods will fill sewers and overwhelm the WWTP if it isn't prepared.

As noted in the Vulnerability Assessment, local flooding is caused by inadequate drainage facilities more than overflow from local water bodies like rivers. The roadmap should include a reevaluation of the city stormwater system. Plans to improve the system, which is likely to be in phases, can be scheduled to protect "EJ neighborhoods" first. The value of pilot projects in these areas is unclear. Perhaps the term "pilot" which usually means some kind of "test" is obscuring the intent of getting these areas some relief sooner rather than later.

#### **Action: Carbon offsets**

\*\*No offsets: The climate justice community has also developed a significant critique of the use of offsets - particularly in the forest sector globally (i.e. REDD) -which should be included in this CAAP. The organization CarbonPlan published in 2021 an analysis of California's carbon offset program that found that 29% of the offsets were over-credited and did not reflect real climate benefits. I strongly advise against the use of offsets given this track record: see <https://carbonplan.org/research/forest-offsets-explainer>

Items A, B, and C of Table 7 represent GHG that will no longer be emitted each year. In contrast, Items D2 and D8 are one-time reductions. Once the Urban Forest or Carbon Farms are established, they no longer are carbon sinks but are steady-state, absorbing and emitting equal amounts. So, while useful, they should not be counted as GHGs that will not be emitted every year into the future. However, D2 and D8 account for only 1% (by 2030) and 0.5% (by 2040) of the total GHG reductions, so the error in counting them as GHG reduction every year is not significant.

An important way that the City of Davis can contribute to pulling CO2 from atmosphere is to require building materials that are low embodied - meaning either whose manufacture is not CO2 creating intensive use of carbon. One prime example is concrete. Currently concrete manufacturing contributes 8% of annual carbon emissions. Concrete can now be made that sequesters CO2—not only carbon zero. A number of Concrete

companies can sequester CO2 so they are net zero, and one nearby in Contra Costa County – Blue Planet-- [blueplanetsystems.com](http://blueplanetsystems.com) and Carbon Cure <https://www.carboncure.com> actually creates limestone concrete by using CO2 in the production of aggregate, and not pulling from mined aggregate. Marin County now requires such net negative concrete in their county code. Communities in the 4 corners area of the country (New Mexico, Utah, Colorado, and Arizona) are implementing programs together to advance CO2 removal. See. <https://youtu.be/qjJZf0oBbdU>.

So, what can the City of Davis do to remove CO2 from our atmosphere? It can add climate restoration, i.e., carbon dioxide removal, as a focus, or at least a very strong component, of this Climate Action Plan. It could start with building materials. One of the largest emitters of carbon dioxide is concrete. In fact, concrete causes nearly 8% of all emissions of CO2 in the world. Concrete can be made using materials that not only eliminate the emissions, but that sequester additional CO2 – i.e., concrete can be made to be net-negative, not just net-zero. There are companies already making concrete components that sequester CO2, such as Blue Planet Systems ([blueplanetsystems.com](http://blueplanetsystems.com)) and Carbon Cure (<https://www.carboncure.com>). The City should adopt policies, building codes, and ordinances to require net-negative building materials in procurement and in construction approvals in the City. Marin County has adopted a building code to address net-negative concrete. Communities in the 4 corners area of the country (New Mexico, Utah, Colorado, and Arizona) have created and are implementing programs together to advance carbon dioxide removal. See <https://youtu.be/qjJZf0oBbdU>.

I read through the plan and did not see any steps to address carbon dioxide removal other than a green square in Figure ES 2 labeled “Carbon Removal” and suggestions that the City could consider CDR in the future. The City should not wait for that “future”; the City can be a leader in climate restoration now and a model for the rest of the country if it takes bold action now, starting with concrete.

The plan describes and efforts to create “carbon neutrality”, but fails to address the vital role of Carbon Dioxide Removal (CDR) In Figure ES 12, “Carbon Removal” is mentioned and the plans says that Carbon Dioxide Removal may be addressed in the future. The UN International Panel on Climate Change has determined that in order to meet the 1.5 Celcius increase goal, CDR is necessary. Every government entity, local, state, federal must put CDR on a high priority in climate plans. While the 1.5 degree Celcius increase is a goal, at 1.1 annual degrees we are already seeing climate extreme events --- enormously destructive storms, temperature extremes, like heat waves where they've not been before as well parching drought. Those are all occurring in a world that has already achieved a 1.1C annual increase. See “Climate Restoration: The Only Future That will sustain the Human Race” by Peter Fiekowski. [www.peterfiekowsky.com](http://www.peterfiekowsky.com)

#### **Other/additional actions**

Close drive thru windows. Minimal impact to businesses and users and IMMEDIATE impact on emissions.

Additional Action Items - Unbundling Parking Costs from Rent: The City should continue allowing parking costs to be unbundled from housing costs. This could be a valuable incentive for encouraging some people to dispose of a car. The Planning Commission had no qualms about allowing only a handful of parking spaces at the Olive Drive apartment project approved earlier this year, feeling that if tenants know up front that they will have nowhere to park, they are likely to accept living in a no-parking environment.

Private Parking Lot Solar. I strongly endorse this proposed action. Solar panels mounted on parking lot canopies provide a number of benefits. Unlike planting trees in parking lots, solar canopies provide shade immediately, whereas it may take many years for trees to provide an appreciable amount of shade. Parking lot canopies equipped with solar panels meet the dual goals of providing shade and generating the electrical power that will be needed to meet the State’s renewable energy goals.

As documented in the 2020-21 NOAA Southwes-ern U.S. drought report, precipitation and winter snowpack is expected to continue declining in the six southwestern states, meaning there simply may not be enough water available for enabling young parking lot trees to grow and thrive.

Solar Standards: I agree that regulations need to be amended to allow solar pan-els in as many locations as possible, including above driveways and yards. Powering homes & cars with electricity depends on this.

The Elephant In The Room: I-80. The most dysfunctional highway design pinches the freeway starting in Davis, where right by Mondavi Center the freeway goes from 6 lanes down to 3 lanes. This causes massive road pollution of the worst kind: metallic particulates from truck brakes. Then bad is added to bad to have I-80 become split to be 50 and be a one-lane exit to stay on I-80. We need to partner with Sacramento to "Build-Back-Better (on what wasn't built well in the 1st place). I-80 needs to be re-routed around Davis to align with the I-80 highway in the Natomas area. This action will help the entire region and allow the Sacramento River Basin to flourish in the magnificent watershed that it is. This would be the most fantastic regional improvement to address population growth and GHG's in the cities. Then the old freeway can be repurposed for local traffic, electric buses and bikes with a garden path design.

Implementation Roadmaps, pages 5, 15, 18, 24, 32: The five noted page numbers refer to seeking help from local artists, which is a great idea to improve public outreach. Appendix A also needs to say that there is a plan to seek volunteer help from local engineers who understand electricity and other forms of energy, to provide feedback on the public outreach messages.

The City of Davis should also create a zoning designation called "Residential, No Parking" and identify sites for which this zoning designation would be ideal, such as infill sites near the UC Davis campus and/or sites near multiple Unitrans lines. Parcels zoned as "Residential, No Parking" could be designed to have some space devoted for care share companies (e.g., Zip Car) and for rideshare companies (e.g., Lyft) for those rare occasions when residents need to make a trip by car or taxi.

#### Financing

As noted in Section 5.3.1.1, the principle the "polluter pays" is generally applicable. One could argue that equipment replacement costs (A.1 and A.2) are traditionally borne by the homeowner without a need for city financial help, especially considering that federal and state incentives for new equipment will be in place. While total costs are expected to be lower, capital costs for electrification are likely to be higher than owners may be expecting based on past history. (In my own house, vendor quotes to replace a gas water heater with a heat pump unit are 2 – 3 times higher than typical gas unit replacement costs.) It's not so much that they won't have the money in the future (when operating costs are lower) as it is that they don't have the up-front costs. So, this is a cash flow and financing problem. (Cont. on comment #12) Cont. from #4

I endorse your efforts to develop financial mechanisms, but I think the plan needs additional attention paid to financing options as opposed to subsidy/rebate options. Easing financing conditions (lower interest, longer terms) would be helpful to all. Creating options with particularly favorable terms to help disadvantaged communities is very desirable. One suggestion is using part of the carbon mitigation fund (A.6) as a revolving loan fund. I doubt that the city wants to be a direct lender, but perhaps it could partner with local financial institutions and provide resources or assurances that would allow them to offer more favorable terms. What these arrangements would look like is outside my expertise. Other cities may be ahead of us here. The current CAAP seems very oriented toward seeking grants, which we may or may not get. I think it should address a broader portfolio of financial instruments.