Actions				GHG Re	
Action Position	**Action #**	**Action Title and GHG Inventory Sectors**	**Goal Alignment**	**2030 GHG Reductions (MT CO2e/yr.)**	**2040 GHG Reductions (MT CO2e/yr.)**
1	A1(a) (Option for voluntary approach)	Buildings - Residential Natural Gas Buildings - Commercial Natural Gas 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 and major appliances, and include specific provisions for low-income and vulnerable populations.	Transition to high efficiency, zero carbon homes and buildings	2,550	4,900
2	A1(b) (Option for mandatory approach)	Buildings - Residential Natural Gas Buildings - Commercial Natural Gas 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 and major appliances, and include specific provisions for low-income and vulnerable populations.	Transition to high efficiency, zero carbon homes and buildings	25,050	44,550
3	A2(a) (Option for voluntary approach)	Buildings - Residential Natural Gas Buildings - Commercial Natural Gas Research and develop an ordinance requiring building energy-efficiency upgrades and electric (or other non-fossil fuel) equipment replacement at time of sale for residential and commercial properties with a defined implementation schedule for ordinance requirements, and include specific provisions for low-income and vulnerable populations.	Transition to high efficiency, zero carbon homes and buildings	550	1,250
4	A2(b) (Option for mandatory approach)	Buildings - Residential Natural Gas Buildings - Commercial Natural Gas Research and develop an ordinance requiring building energy-efficiency upgrades and electric (or other non-fossil fuel) equipment replacement at time of sale for residential and commercial properties with a defined implementation schedule for ordinance requirements, and include specific provisions for low-income and vulnerable populations.	Transition to high efficiency, zero carbon homes and buildings	7,150	13,650

5	A3(a) (Option for voluntary approach)	Buildings - Residential Natural Gas Buildings - Commercial Natural Gas Develop financing/incentivize options for rental property owners to make energy efficiency and cooling/ventilation upgrades.	Transition to high efficiency, zero carbon homes and buildings	1,300	2,700
6	A3(b) (Option for mandatory approach)	Buildings - Residential Natural Gas Buildings - Commercial Natural Gas Develop financing/incentivize options for rental property owners to make energy efficiency and cooling/ventilation upgrades.	Transition to high efficiency, zero carbon homes and buildings	11,400	23,600
7	A4	Buildings - Residential Natural Gas Buildings - Commercial Natural Gas Continue to update the City's residential and non-residential reach codes to require all-electric new construction and renovations and increase electric vehicle charging infrastructure requirements; adopt a requirement that all new municipal building construction must be all-electric.	Transition to high efficiency, zero carbon homes and buildings	2,050	4,300
8	A5	Buildings - Residential Electricity Buildings - Commercial Electricity Partner with Valley Clean Energy to invest in community solar energy and provide solar battery storage, encourage all subscribers to enroll in the UltraGreen option, and develop financing/incentive options that would support building energy efficiency improvements and electrification	Transition to high efficiency, zero carbon homes and buildings	34,700	39,900

9	A6	Carbon Removal Establish a carbon mitigation fund to collect voluntary and/or mandatory payments to mitigate local emissions activities, with collected funds used to support a range of local, climate-change-related projects	Transition to high efficiency, zero carbon homes and buildings	N/A	N/A
10	A7	Buildings - Commercial Natural Gas 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	Transition to high efficiency, zero carbon homes and buildings	750	950
11	A8	Buildings - Residential Electricity Buildings - Commercial Electricity Incentivize the creation of community microgrids, community battery "co-ops," and the networking of local energy sources to support resiliency hubs that remain in operation during a power grid outage	Expand local renewable energy development and storage	N/A	N/A

12	B1	On-road Transportation Update and implement the Davis Electric Vehicle Charging Plan (2017) to determine public and private charging infrastructure needs, time frame, and implementation approach to enable all vehicles to go electric	Adopt zero emissions vehicles and equipment to reduce fossil fuel use	28,050	50,300
13	B2	On-road Transportation Develop an aggressive plan to transition the municipal vehicle fleet to alternative fuels (e.g., electric, battery electric vehicle, hydrogen)	Adopt zero emissions vehicles and equipment to reduce fossil fuel use	550	1,100
14	B3	On-road Transportation Address ‘last mile’ transportation needs with specific provisions for low-income or vulnerable populations; include specific action recommendations, such as developing a shared electric micromobility program and charging plan, considering a pedi-cab service program, providing additional resources for the Safe Routes to School program, or other actions	Increase opportunities for active mobility in the community	N/A	N/A
15	B4	On-road Transportation Develop financing/incentives for purchasing, using, and maintaining electric micromobility vehicles for personal use (such as bicycles, scooters, trailers), and include specific provisions for low-income and vulnerable populations	Increase opportunities for active mobility in the community	100	100

16	B5	On-road Transportation Subsidize public transit so it is free for all to use and promote expansion of public transit routes and increased operation frequency within Davis to support day-to-day travel needs	Strengthen transit service within Davis and among regional neighbors	1,350	1,350
17	B6	On-road Transportation Implement roadway infrastructure improvements in existing right-of-way, such as "road diets," narrower pedestrian crossing distances, green stormwater infrastructure, etc., to meet Green Streets standards and increase safety for pedestrians and bicycles to encourage active transportation	Strengthen transit service within Davis and among regional neighbors	N/A	N/A
18	B7	On-road Transportation Coordinate with regional transit agencies and cities to promote cohesive transit interconnections, including express buses to Woodland, West Sacramento, Sacramento, etc.	Strengthen transit service within Davis and among regional neighbors	1,200	1,150
19	B8	On-road Transportation Revisit most recent parking pricing study (Downtown Paid Parking, City Council March 5, 2019) and implement pilot projects to test their effectiveness	Reduce single occupant vehicle use	9,850	8,900
20	B9	On-road Transportation Address recommendations for developing, funding, and staffing a coordinated Transportation Demand Management (TDM) program to encourage and/or require 'all people, all trips' to implement TDM strategies, such as remote work opportunities, community education and outreach, micromobility, vanpool, rideshare, subsidized transit, employee parking cash-out, etc.	Reduce single occupant vehicle use	2,850	2,700

21	B10	On-road Transportation Establish a low-emissions vehicle program for Downtown Davis that disincentivizes travel by internal combustion engine vehicles	Reduce single occupant vehicle use	N/A	N/A
22	B11	On-road Transportation Develop incentive options to increase housing construction in the city, including high-density, mixed-use (especially office space and food service), transit-oriented, and affordable options	Expand opportunities for local housing development to balance local employment opportunities	N/A	N/A
23	C1	Water 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	Conserve water in our buildings and landscapes	50	-
24	D1	Buildings - Residential Electricity Buildings - Commercial Electricity Develop an ordinance to require the use of cool surfaces, reflective materials, and coatings to reduce the heat island effect	Create a cooler city with more urban forest and green space for people and habitat	50	150
25	D2	Carbon Removal Expand urban forest in parks, greenbelts, and open space with climate-ready species that provide shade, and develop a tree-replacement plan for street trees for all neighborhoods	Create a cooler city with more urban forest and green space for people and habitat	150	500

26	D3	Climate Risk Develop policies that require air filtration and air conditioning in new and existing residential and commercial properties, with a priority on residential rental properties	Protect public health and safety from extreme heat and wildfire smoke and reduce the urban heat island effect	N/A	N/A
27	D4	Climate Risk Develop policies to increase the use of green stormwater infrastructure and enhance natural water infiltration in public	Protect public health, safety, and infrastructure against damage and disruption from flooding	N/A	N/A
28	D5	Climate Risk Relocate/elevate critical infrastructure out of projected flood areas	Protect public health, safety, and infrastructure against damage and disruption from flooding	N/A	N/A
29	D6	Climate Risk Allocate funding and staff resources to aggressively implement important existing climate-related efforts, such as stormwater management policies, urban water management programs and plans, the 2021 update to the Urban Forestry Management Plan, water conservation programs, and solid waste reduction programs	Prepare and respond to climate hazards to ensure that the City is equipped to address current and future challenges	5,900	11,200
30	D7	Climate Risk Develop policies to expand existing public services and resources, such as cooling and weather relief centers, during extreme weather events	Prepare and respond to climate hazards to ensure that the City is equipped to address current and future challenges	N/A	N/A
31	D8	Carbon Removal Research carbon sequestration and removal opportunities the City can pursue to balance remaining emissions by 2040, and use findings and recommendations to advance actions	Demonstrate climate leadership through innovation, education, and investment	N/A	N/A

32	D9	Carbon Removal Develop carbon farm plans for City-owned agricultural land and seek grant funding to implement recommended strategies for maximum carbon sequestration	Demonstrate climate leadership through innovation, education, and investment	1,450	1,450

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duction Estimates	Cost Effectiveness Analysis				
High-level GHG Analysis Assumptions	**Annualized Capital Cost ($)**	**Annual O&M Cost ($)**	**Annual Savings ($)**	**Annual Net Costs/Savings ($)**	**Cost Per Ton for 2030 GHG Reductions ($/ton based on combined costs)**
Fossil fuel systems will switch to electric heat pumps, 40% of homes have gas stoves, typical lifespan of space heater and stove is 15 years, water heater is 12 years, participation in voluntary incentive-based program is 10% of expired equipment, program is implemented starting in 2023.	$ 382,100	$ 1,801,050	$ (1,380,250)	$ 802,900	$ 250
Fossil fuel systems will switch to electric heat pumps, 40% of homes have gas stoves, typical lifespan of space heater and stove is 15 years, water heater is 12 years, participation in mandatory program is 90% of expired equipment, program is implemented starting in 2023..	$ 3,894,700	$ 17,224,300	$ (12,831,050)	$ 8,287,950	$ 350
Fossil fuel systems will switch to electric heat pumps, 40% of homes have gas stoves, residential turnover is 2% per year, participation in voluntary incentive-based program is 10% of sold properties, program is implemented starting in 2023..	$ 626,550	$ 474,800	$ (363,800)	$ 737,550	$ 1,350
Fossil fuel systems will switch to electric heat pumps, 40% of homes have gas stoves, residential turnover is 2% per year, participation in mandatory program is 90% of sold properties, program is implemented starting in 2023.	$ 6,043,500	$ 4,567,500	$ (3,388,800)	$ 7,222,200	$ 1,000

Fossil fuel systems will switch to electric heat pumps, 40% of units have gas stoves, 58% of total units are rental units, typical lifespan of space heater and stove is 15 years and water heater is 12 years, participation in voluntary incentive-based program is 10% of expired equipment in rental units, program is implemented starting in 2023.	$ 121,150	$ 582,850	$ (454,600)	$ 249,350	$ 200
Fossil fuel systems will switch to electric heat pumps, 40% of units have gas stoves, 58% of total units are rental units, typical lifespan of space heater and stove is 15 years and water heater is 12 years, participation in mandatory program is 90% of expired rental unit equipment, program is implemented starting in 2023.	$ 1,089,200	$ 5,237,350	$ (4,084,600)	$ 2,241,950	$ 200
New construction includes electric heat pumps for space and water heating and electric stovetops, program is implemented starting in 2025 for 100% of forecast housing units and non-residential sqft constructed 2025-2030 and 2025-2040 (non-residential calculations only assume electric heat pumps for space heating).	$ 607,400	$ 1,221,000	$ (930,900)	$ 897,450	$ 450
GHG reductions reflect electric grid decarbonization resulting from primary switch from PG&E to VCE since emissions forecasts were a business-as-usual scenario based on continuation of 2016 electricity emissions factors; assumes continuation of current VCE participation rates through 2040 (i.e., 95% of residential accounts and 85% of non-residential accounts); assumes VCE offering is 100% carbon free from 2030 for all VCE participants; assumes non-VCE participants remain with PG&E and PG&E's electricity emissions factor decreases on straight line trajectory from 2016 levels to zero carbon in 2045.	$0	$0	$0	$0	$0

While actions with direct carbon removal activities were evaluated within this analysis (e.g., D2, D9), this action directs the City to establish a carbon mitigation fund to be used on unspecified carbon removal activities. This fund could be designed in multiple ways to define the sources of funding and what types of carbon reduction/removal projects would be eligible to receive funding. The implementation implications of this action are too broad to be analyzed for GHG reduction potential or cost effectiveness in a meaningful way.	N/A	N/A	N/A	N/A	N/A
80% and 100% of municipal natural gas use is reduced through energy efficiency and equipment fuel switching by 2030 and 2040, respectively; assumes municipal natural gas use increases from 2016 based on city service population (residents + employees)	$ 72,700	$ 9,150	$ (96,750)	$ (14,900)	$0
The GHG reduction potential of this action overlaps primarily with the electric grid decarbonization assumptions used to support the overall action quantitative analysis (i.e., the combination of high VCE participation, a zero carbon VCE offering goal, and implementation of RPS requirements for PG&E customers), which likely significantly reduces the GHG reduction potential of this action. However, a primary benefit of this action is to support grid load management and the collective transition toward 100% zero carbon electricity, so important action benefits exist beyond locally-attributable GHG reductions. The implementation implications of this action (including the number, location, and scope of community microgrids) are too broad to be analyzed for GHG reduction potential or cost effectiveness in a meaningful way.	N/A	N/A	N/A	N/A	N/A

GHG reductions reflect market trends toward vehicle electrification, on-road emissions forecasts were developed using ARB EMFAC vehicle emissions factors for 2030 and 2040 which assumed lower EV uptake than current forecasts suggest, ARB model was built prior to industry-wide EV production commitments; this action quantifies the marginal increase in EV adoption between the level reflected in EMFAC currently and industry forecasts, assumes 25% and 43% of passenger vehicles are EV by 2030 and 2040, respectively, assumes 9% and 16% of non-passenger vehicles are EV by 2030 and 2040, respectively. Note: GHG reductions are not assumed to be the direct result of this action, but updating and implementing the Davis EV Charging Plan would help facilitate this market transition locally; GHG reduction values can be updated pending relevant analysis outputs from EV Charging Plan update.	N/A	N/A	N/A	N/A	N/A
Municipal fleet emissions were 1,100 MT CO2e in 2019 based on fleet fuel record data; assumes fleet does not grow through 2040, 50% of fleet is ZEV by 2030 and 100% by 2040.	$287,150	$ 822,000	$ (7,656,450)	$ (6,547,350)	$ (12,050)
The CAPCOA Handbook, which was used to quantify VMT-reduction actions within this analysis, mentions first/last mile transportation network company (TNC) incentives as a 'supporting or non-quantified GHG reduction measure', and does not provide a methodology for VMT reduction estimates. It also specifically mentions Safe Routes to School and pedi-cab service as potential implementation options for this action, neither of which are evaluated within the CAPCOA Handbook either. The action also mentions developing a shared electric micromobility program, which is analyzed directly in Action B4.	N/A	N/A	N/A	N/A	N/A
Implement a dockless e-bike or escooter program, followed CAPCOA methodology for VMT reduction analysis (equations T-21B and T-21C at 50% implementation each), maximum VMT reduction is defined within CAPCOA methodology for a sub-set of transportation actions (including e-bike/e-scooter programs), action results in 0.05% VMT reduction in 2030.	$518,250	$ 2,185,200	$ (363,800)	$ 2,339,650	$ 19,650

Followed CAPCOA methodology for VMT reduction analysis (equation T-27), equation's max assumption is for 50% fare reduction (not 100% as specified in action language), transit mode share in community is 6%, vehicle mode share in community is 77%, action results in 0.6% VMT reduction in 2030, overall efficacy of this action would increase with greater travel mode shift to transit.	$0	$0	$ (4,001,850)	$ (4,001,850)	$ (2,950)
The implementation implications of this action (including the number, location, and scope of these improvements) are too broad to be analyzed for GHG reduction potential or cost effectiveness in a meaningful way.	N/A	N/A	N/A	N/A	N/A
Followed CAPCOA methodology for VMT reduction analysis (equations T-24 and T-25), assumed a 12.5% increase in total transit service miles and transit frequency, action results in 0.5% VMT reduction in 2030, overall efficacy of this action would increase with greater travel mode shift to transit.	$1,166,200	$1,452,500	$ (3,292,750)	$ (674,050)	$ (550)
Followed CAPCOA methodology for VMT reduction analysis (equation T-23), 63% of public parking is on-street, assumes Downtown VMT for a scenario in which Downtown Specific Plan is not implemented (note: implementing Downtown Specific Plan will increase VMT in Downtown area, which would increase GHG reduction potential from this action), action results in 5% VMT reduction in 2030 (max potential is 30% reduction).	$87,800	$335,400	$ (27,613,100)	$ (27,189,900)	$ (2,750)
Followed CAPCOA methodology for VMT reduction analysis (equation T-5), 25% of employees are eligible for program, VMT reductions are only applied to commute VMT because this is not a community-wide action, average daily commute is 32.3 miles per employee per work day, action results in 6.5% commute trip VMT reduction in 2030 (max potential is 26% reduction).	$0	$0	$ (8,866,000)	$ (8,866,000)	$ (3,100)

The CAPCOA handbook, which was used to quantify VMT-reduction actions within this analysis, identified establishing cordon pricing as a potential action. However, the action is labeled as a 'supporting or non-quantified GHG reduction measure', and does not provide a methodology for VMT reduction estimates because a widely replicable quantification methodology reflecting the local and nuanced VMT reduction potential from this kind of action could not be defined.	N/A	N/A	N/A	N/A	N/A
The specifics for implementing this action are directly tied to the GHG reduction potential, and accurate analysis would require defining potential future land use scenarios and a developing a customized travel model with specific inputs that are not currently defined. The implementation implications of this action (including the number, location, density, type, etc. of these land use changes) are too broad to be analyzed for GHG reduction potential or cost effectiveness in a meaningful way.	N/A	N/A	N/A	N/A	N/A
Followed CAPCOA methodology for water use reduction analysis (equations W-5 and W-6), assumed very low/low water plant factor with drip irrigation, CAPCOA-provided water-energy intensity factor, applied to single family detached units only, assumes 5% voluntary participation by 2030 and 10% by 2040. Note: One of the CAPCOA default inputs does not work in the Davis context and results in an overestimate for water savings; GHG reductions are already near-zero due to low carbon intensity of electricity emissions factor in 2030, but water savings overestimate skews cost effectiveness results.	$646,450	$1,450	$ (734,150)	$ (86,250)	$ (2,450)
Followed CAPCOA methodology for cool roofs in residential development (equation E-4), action language covers all cool surfaces but GHG calculation only accounts for detached single family unit cool roofs so there is likely an underestimation for energy reduction potential based on action language; cool roof albedo is 0.6, assumed average roof area of 1,625 sqft, participation is based on 30-year roof lifespan and mandatory ordinance implementation beginning in 2023.	$1,119,100	$0	$ (113,400)	$1,005,750	$15,250
Followed CAPCOA methodology for expanding urban tree planning (equation N-2) which directs users to the iTree Planting Too for quantification; assumed new plantings of 220 trees per year beginning in 2023 (based on TreeDavis average annual plantings for trees in public realm since 1992), estimated sequestration potential in iTrees tool for Valley Oak species.	$61,000	$63,000	$0	$124,050	$700

Adaptation action that does not address GHG reduction.	N/A	N/A	N/A	N/A	N/A
Adaptation action that does not address GHG reduction.	N/A	N/A	N/A	N/A	N/A
Adaptation action that does not address GHG reduction.	N/A	N/A	N/A	N/A	N/A
Followed CAPCOA methodology for water conservation (equation W-7), 2030 Davis water demand value based on 2015 Urban Water Management Plan (UWMP), assumed target of 134 gallons per capita per day by 2020 (and held constant through 2040) based on NRC recommendation enshrined in 2015 UWMP. Action assumes compliance with SB 1383 for organic waste diversion, holds bill's 2025 75% diversion goal constant through 2040 and applies to the city's forecast waste tonnages by waste characterization (derived from CalRecycle State Waste Characterization Study); assumes diverted organic waste products include paper, food waste, yard trimmings, and wood waste, which are either composted or anaerobically digested.	N/A	N/A	N/A	N/A	N/A
Adaptation action that does not address GHG reduction.	N/A	N/A	N/A	N/A	N/A
Adaptation action that does not address GHG reduction.	N/A	N/A	N/A	N/A	N/A
While actions with direct carbon removal activities were evaluated within this analysis (e.g., D2, D9), this action directs the City to research unspecified carbon sequestration and removal activities. This research could result in findings and recommendations for sequestration and carbon removal in multiple ways. The implementation implications of this action are too broad to be analyzed for GHG reduction potential or cost effectiveness in a meaningful way.	N/A	N/A	N/A	N/A	N/A

Followed CAPCOA methodology for improving function of natural/working lands (equation N-3) which directs users to the USDA COMET-Planner tool (a California-specific tool), assumed action applies to 323 acres of City-owned farmland, assumed all farmland is cropland, assumed all farmland would implement compost application as the conservative practice standard in the tool. City has protected more than 13x as much farmland within the City boundary compared to farmland the City owns; if expanded to all farmland acreage in the city this action could remove approximately 19,000 MT CO_2e/yr.	$85,550	$77,100	$ (21,850)	$ 140,750	$ 100

	Impact on GHG Targets				Climate Haza
High-level Cost Effectiveness Analysis Assumptions	**% of 2030 Total Target (Reductions Needed - 106,729 MT CO_2e/yr)**	**% of 2040 Total Target (Reductions Needed - 361,128 MT CO_2e/yr)**	**Emissions Sub-sector Addressed and Relative Reductions**	**Action Interdependencies**	**Climate Hazard Addressed**
No rebates will be available for electric appliances. Electric appliances require no additional maintenance costs compared to natural gas appliances. Ratio of single- to multi-family units in Davis assumed to remain constant through 2030. Valley Clean Energy (VCE) electric rates will remain comparable to PG&E rates.	2%	1%	Existing Building Natural Gas - Sub-sector is 15% of 2030 forecasts - Action reduces 5% of sub-sector in 2030	• Potential implementation overlap with Action A2(a) (over long-term) - A1(a) targets end-of-life equipment and A2(a) targets point of property sale • GHG reductions are in part based on future estimated electricity emissions factors; future factor used reflects a PG&E RPS compliance scenario and VCE shift to zero carbon energy by 2030	N/A
No rebates will be available for electric appliances. Electric appliances require no additional maintenance costs compared to natural gas appliances. Ratio of single- to multi-family units in Davis assumed to remain constant through 2030. Valley Clean Energy (VCE) electric rates will remain comparable to PG&E rates.	23%	12%	Existing Building Natural Gas - Sub-sector is 15% of 2030 forecasts - Action reduces 44% of sub-sector in 2030	• Potential implementation overlap with Action A2(b) (over long-term) - A1(b) targets end-of-life equipment and A2(b) targets point of property sale • A1(b), A2(b), and A3(b) combine for more than 100% participation by 2040 target year, so GHG reductions cannot be summed from all actions in 2040 • GHG reductions are in part based on future estimated electricity emissions factors; future factor used reflects a PG&E RPS compliance scenario and VCE shift to zero carbon energy by 2030	N/A
No rebates will be available for electric appliances. Electric appliances require no additional maintenance costs compared to natural gas appliances. Ratio of single- to multi-family units in Davis assumed to remain constant through 2030. Valley Clean Energy (VCE) electric rates will remain comparable to PG&E rates.	1%	0%	Existing Building Natural Gas - Sub-sector is 15% of 2030 forecasts - Action reduces 1% of sub-sector in 2030	• Potential implementation overlap with Action A1(a) (over long-term) - A1(a) targets end-of-life equipment and A2(a) targets point of property sale • GHG reductions are in part based on future estimated electricity emissions factors; future factor used reflects a PG&E RPS compliance scenario and VCE shift to zero carbon energy by 2030	N/A
No rebates will be available for electric appliances. Electric appliances require no additional maintenance costs compared to natural gas appliances. Ratio of single- to multi-family units in Davis assumed to remain constant through 2030. Valley Clean Energy (VCE) electric rates will remain comparable to PG&E rates.	7%	4%	Existing Building Natural Gas - Sub-sector is 15% of 2030 forecasts - Action reduces 13% of sub-sector in 2030	• Potential implementation overlap with Action A1(b) (over long-term) - A1(b) targets end-of-life equipment and A2(b) targets point of property sale • A1(b), A2(b), and A3(b) combine for more than 100% participation by 2040 target year, so GHG reductions cannot be summed from all actions in 2040 • GHG reductions are in part based on future estimated electricity emissions factors; future factor used reflects a PG&E RPS compliance scenario and VCE shift to zero carbon energy by 2030	N/A

No rebates will be available for electric appliances. Electric appliances require no additional maintenance costs compared to natural gas appliances. Valley Clean Energy (VCE) electric rates will remain comparable to PG&E rates.	1%	1%	Existing Building Natural Gas - Sub-sector is 15% of 2030 forecasts - Action reduces 2% of sub-sector in 2030	• Likely overlaps with GHG reductions in A1(a) since A1(a) and A3(a) both address rental properties with incentives. If both actions move forward in CAP, GHG reductions will be updated accordingly to reduce reductions attributed to A1(a) • GHG reductions are in part based on future estimated electricity emissions factors; future factor used reflects a PG&E RPS compliance scenario and VCE shift to zero carbon energy by 2030	Air Quality Extreme Heat
No rebates will be available for electric appliances. Electric appliances require no additional maintenance costs compared to natural gas appliances. Valley Clean Energy (VCE) electric rates will remain comparable to PG&E rates.	11%	7%	Existing Building Natural Gas - Sub-sector is 15% of 2030 forecasts - Action reduces 20% of sub-sector in 2030	• Likely overlaps with GHG reductions in A1(b) since A1(b) and A3(b) both address rental properties with a mandate. If both actions move forward in CAP, GHG reductions will be updated accordingly to reduce reductions attributed to A1(b). • A1(b), A2(b), and A3(b) combine for more than 100% participation by 2040 target year, so GHG reductions cannot be summed from all actions in 2040 • GHG reductions are in part based on future estimated electricity emissions factors; future factor used reflects a PG&E RPS compliance scenario and VCE shift to zero carbon energy by 2030	Air Quality Extreme Heat
No rebates will be available for electric appliances. Electric appliances require no additional maintenance costs compared to natural gas appliances. Valley Clean Energy (VCE) electric rates will remain comparable to PG&E rates.	2%	1%	New Building Natural Gas - Sub-sector is 1% of 2030 forecasts - Action reduces 45% of sub-sector in 2030	• GHG reductions are in part based on future estimated electricity emissions factors; future factor used reflects a PG&E RPS compliance scenario and VCE shift to zero carbon energy by 2030	N/A
Costs assume that 96% of Davis households will continue to be enrolled in Valley Clean Energy (VCE) through 2030 and that VCE will achieve it's goal of becoming carbon-free by 2030.	33%	11%	Electricity - Sub-sector is 9% of 2030 forecasts - Action reduces >100% of sub-sector in 2030 (Note: building and vehicle electrification increases future kWh demand beyond BAU forecast amount)	N/A	N/A

N/A	0%	n/a	N/A	N/A	N/A
No rebates will be available for electric appliances. Electric appliances require no additional maintenance or ducting costs compared to natural gas appliances. Valley Clean Energy (VCE) electric rates will remain comparable to PG&E rates. Municipal electric and natural gas rates are assumed to be similar to commercial rates for a small business that is a non-covered entity.	1%	0%	Municipal Building Natural Gas - Sub-sector is 0.2% of 2030 forecasts - Action reduces 81% of sub-sector in 2030	N/A	N/A
N/A	0%	n/a	N/A	N/A	N/A

N/A	26%	14%	On-road Transportation: - Sub-sector is 58% of 2030 forecasts - Action reduces 13% of sub-sector in 2030	• Dependent upon EV market trend assumptions - slower EV uptake will result in greater GHG reductions from this action (and vice versa) • GHG reductions based in part on assumptions for PG&E RPS compliance and VCE zero carbon by 2030 target • VMT reductions from actions B4, B5, B7, B8, and B9 were removed before calculating GHG reductions from this action; changes to assumptions/calculations in those actions would change reductions shown here for B1	N/A
Each EV will require one EVSE (charging infrastructure) hookup, or a 1:1 ratio for vehicles and EVSE . Mid-point costs used for all installation inputs (e.g., installation and equipment), but range is very wide (e.g., $0 to $6500 for equipment and $600 to $12,700 for installation).	1%	0%	On-road Transportation - Municipal Fleet: - Sub-sector is 0.3% of 2030 forecasts - Action reduces 51% of sub-sector in 2030	N/A	N/A
N/A	0%	n/a	N/A	N/A	N/A
100% of the population will have access to either scooter or ebikes. Bike/scooter numbers derived from Davis' non-UC Davis population only. Micromobility options do not replace residents' car purchases - only their trips. Micromobility systems are dockless.	0%	0%	On-road Transportation: - Sub-sector is 58% of 2030 forecasts - Action reduces <1% of sub-sector in 2030	• VMT reductions from this action influence the amount of reductions represented in Action B1 • GHG reductions based in part on assumptions for PG&E RPS compliance and VCE zero carbon by 2030 target	N/A

This action will not require any capital investments; the only activity will be associated with existing staff setting up the program.	1%	0%	On-road Transportation: - Sub-sector is 58% of 2030 forecasts - Action reduces 1% of sub-sector in 2030	• VMT reductions from this action influence the amount of reductions represented in Action B1 • GHG reductions based in part on assumptions for PG&E RPS compliance and VCE zero carbon by 2030 target	N/A
N/A	0%	n/a	N/A	N/A	N/A
25% increase in service will require 25% increase in all expenses, labor, and vehicles. Costs associated with increasing facility capacity are not incorporated. All cost assumptions are based on Unitrans numbers.	1%	0%	On-road Transportation: - Sub-sector is 58% of 2030 forecasts - Action reduces 1% of sub-sector in 2030	• VMT reductions from this action influence the amount of reductions represented in Action B1 • GHG reductions based in part on assumptions for PG&E RPS compliance and VCE zero carbon by 2030 target	N/A
Costs are derived from the Davis Parking Study - assume full implementation. This action includes three (3) FTE that would be required to exclusively support the action.	9%	2%	On-road Transportation: - Sub-sector is 58% of 2030 forecasts - Action reduces 5% of sub-sector in 2030	• VMT reductions from this action influence the amount of reductions represented in Action B1 • GHG reductions based in part on assumptions for PG&E RPS compliance and VCE zero carbon by 2030 target	N/A
This action will not require any capital investments; the only activity will be associated with existing staff setting up programs.	3%	1%	On-road Transportation: - Sub-sector is 58% of 2030 forecasts - Action reduces 1% of sub-sector in 2030	• VMT reductions from this action influence the amount of reductions represented in Action B1 • GHG reductions based in part on assumptions for PG&E RPS compliance and VCE zero carbon by 2030 target	N/A

N/A	0%	n/a	N/A	N/A	N/A
N/A	0%	n/a	N/A	N/A	N/A
Capital costs for turf removal are assumed to be an average of the turf removal incentive offerings provided by Davis and Sacramento. Turf is replaced with a non-irrigated groundcover and no hardscape.	0%	0%	Water Energy - Sub-sector is 0.1% of 2030 forecasts - Action reduces 9% of sub-sector in 2030	N/A	Drought Flood
Cool treatment applied to roofs only. Cool roof material is applied at the end of the useful life of existing roof. Costs account for cost premium only.	0%	0%	Existing Residential Building Energy - Sub-sector is 8% of 2030 forecasts - Action reduces <1% of sub-sector in 2030	• GHG reductions are in part based on future estimated electricity emissions factors; future factor used reflects a PG&E RPS compliance scenario and VCE shift to zero carbon energy by 2030	Extreme Heat
Trees will be planted in parks, greenbelts, or open areas. Note that this action assumes trees continue to be planted at the same rate as recent years.	0%	0%	Carbon Removal (not part of inventory)	N/A	Extreme Heat

N/A	0%	n/a	N/A	N/A	Air Quality Extreme Heat
N/A	0%	n/a	N/A	N/A	Flood
N/A	0%	n/a	N/A	N/A	Flood
N/A	6%	3%	Solid Waste - Sub-sector is 4% of 2030 forecasts - Action reduces 38% of sub-sector in 2030	• Water savings from this action potentially overlap with water savings from Action C1; UWMP gpcd target could possibly be met without single-family residential landscape conservation actions, in which case the water savings from these actions would not overlap.	Flood Drought Extreme Heat
N/A	0%	n/a	N/A	N/A	Air Quality Extreme Heat
N/A	0%	n/a	N/A	N/A	N/A

Compost will be applied to city-owned croplands, thereby mitigating the need for nitrogen fertilizer. Savings are from not applying fertilizer.	1%	0%	Carbon Removal (not part of inventory)	N/A	N/A

rd Addressed	Co-Benefits	
Number of Climate Hazards Addressed	Positive Co-benefit Impacts	Negative Co-benefit Impacts
0	5	0
0	5	0
0	5	0
0	5	0

GHG REDUCTION SUMMARY		
	2030	2040
% of Target Achievement - Voluntary	88%	37%
% of Target Achievement - Mandatory	124%	47%

2	4	0
2	4	0
0	4	0
0	4	0

0	2	0
0	3	0
0	2	0

0	4	0
0	3	0
0	3	0
0	3	0

0	4	0
0	3	0
0	4	0
0	1	2
0	2	0

0	2	1
0	3	0
2	5	0
1	1	0
1	4	0

2	3	1
1	2	0
1	2	0
3	7	0
2	3	0
0	0	0

0	2	0