Phase	Strategy Category	Action #	Actions	Timeframe	Currently in an Adopted City Plan?	Action Status	Owner of the Action	Participating / Active Stakeholders	Barriers or Limiting Factors	Avoided Emissions	Ancillary Benefits
	-			2015-2020 2020-2030 2030-2050	Generation Plan	**C**urrent **D**evelop ment **P**lan **N**ew	**B**usiness **G**overnment **M**ulti**F**amily **N**onprofit, NGOs **R**esidents, All **SF**-Single-family	**B**usiness **G**overnment **M**ulti**F**amily **N**onprofit, NGOs **R**esidents, All **SF**-Single-family	**F**unding **P**olicy **B**ehavior **C**hange **T**echnology	**D**irect **I**ndirect **L**arge **S**mall **C**onceptual/ NA	**Q**uality life **A**ffordable **H**ealth **J**obs **W**ater
1	Behavior Change and Education	BC-1	Increase efforts to engage customers to drive energy efficiency and demand response: increase transparency of energy costs in multi-family and commerical buildings; evaluate feasibility of neighborhood wide energy efficiency challenges	2015-2020	N	N	G,B,R	G,B,R (multi-family)	P,BC	DS	A
1	Behavior Change and Education	BC-2	Implement time of use / dynamic rates, including user educational efforts, supported by advanced metering and other technologies	2015-2020	N, but in budget docs?	D (Time of use);	G	All	T, BC	DS	Major cost savings by avoiding peak prices (A)
1	Behavior Change and Education	BC-3	Expand educational efforts through social media, applications, competitions (try individual and neighborhood scale competitions) and exposure/Media campaigns using local celebrities to drive behavior change	2015-2020	N, but AE has programs	C, N	G, N	B,R	F	DS	More informed citizenry
1	Behavior Change and Education	BC-4	Utilize meter reads and bill format/presentation to influence behavior. Present energy use in actionable and more timely formats/ways to customers.	2015-2020	N	N	G	B, R	P,BC	C	A
2	Behavior Change and Education	BC-5	Promote programs for individuals to manage their own carbon footprint (carbon diet)	2015-2020	N	D	G,B,N	B,R,N	BC	DS	H
2	Behavior Change and Education	BC-6	Educate the local building construction and professional design community about the importance and benefits of climate-appropriate passive solar building design strategies	2015-2020	N	N	G,B	G,B,R (multi-family)	BC	C	Q,A
1	Buildings and Integrated Efficiency	BIE-1	Explore financing mechanisms to enable energy efficiency, demand response, distributed generation, storage and more. Possible financing mechanisms which could enable large amounts of private sector retrofits include Property Assessed Clean Energy (PACE) and Warehouse for Energy Efficiency Loans (WHEEL)	2015-2020	N	N	G	G, B (Lenders, contractors), R (multi-family), N	P	DL if on a large scale	A, J
1	Buildings and Integrated Efficiency	BIE-2	Increase funding for energy efficiency rebates within constraints of rate affordability goals, and emphasize and market offerings or higher amounts that may attract new customers	2015-2020	N	P	G	All	F	DL if on a large scale	A, J
1	Buildings and Integrated Efficiency	BIE-3	Identify high energy users in all sectors; target incentives and initiatives to those users to maximize impact	2015-2020	N	P	G	All	P,BC,F	DL	A, J
1	Buildings and Integrated Efficiency	BIE-4	Promote specific high-impact strategies including envelope improvements (biggest impact), lighting retrofits (LEDs), HVAC improvements, water heating efficiency, and plug load reduction	2015-2020	Y	C	G,B,R	All	P,F,BC	DS	A, J
1	Buildings and Integrated Efficiency	BIE-5	Implement programs to reduce energy use and carbon intensity associated with water consumption (caveat: decreased impact if the water utility uses renewable energy to pump and treat water)	2015-2020	Y	C	All	All	F,BC,P	DS	A, W
1	Buildings and Integrated Efficiency	BIE-6	Coordinated effort with AWU to reduce energy use and carbon intensity associated with consumption, treatment, and delivery of water, including peak shifting	2020-2030	Y	C	G	G	T,F	DL	A, W
1	Buildings and Integrated Efficiency	BIE-7	Expand the availability and use of automated demand response to more and new technologies	2015-2020	N	N	G, B	All	BC,T,P	DS	A, J
1	Buildings and Integrated Efficiency	BIE-8	Increase meter reading frequency and use the information to identify opportunities for utility action and to promote customer conservation and demand response	2015-2020	Y, smart meter program	P	G	R, G	F	DS	

1	Buildings and Integrated Efficiency	BIE-9	Create a new minimum standard for existing building energy use; enforce the new standard	2020-2030	N	N	G	All	P	DL	A, J
1	Buildings and Integrated Efficiency	BIE-10	Consider the potential for net-zero new construction of residential and commercial buildings	2020-2030	N	P	G	All	P,F,T	DL	J
1	Buildings and Integrated Efficiency	BIE-11	Educate designers, builders, code inspectors, and plan reviewers to gain higher compliance with new energy codes as they're implemented every 3 years	2015-2020	Y	C	G, N	All	F,BC	DS	J
1	Buildings and Integrated Efficiency	BIE-12	Phase-in requirement to submeter new commercial office space as new permits are issued	2020-2030	N	N	G	G,B	P	DS	
2	Buildings and Integrated Efficiency	BIE-13	Transition the AE Energy Efficiency program and codes to a performance model + measurement and verification; program customers would be incentivized to meet targets. (Includes giving credit for passive design strategies)	2020-2030	N	N	G	All	P,BC	DS	
2	Buildings and Integrated Efficiency	BIE-14	Enhanced sub-metering for demand response	2020-2030	N	N	G,B	G,B,R	P,BC,T,F	DS	
2	Buildings and Integrated Efficiency	BIE-15	Incorporate recommendations for passive solar subdivision and street/lot orientation into the land development code	2020-2030	N	N	G	All	P	DS	Q, H, A
2	Buildings and Integrated Efficiency	BIE-16	Implement neighborhood wide projects to weatherize homes and increase energy efficiency and demand response	2020-2030	N	N	G	All	F,BC	DS	Q, H, A
1	Resource Technologies	RT-1	Begin a coordinated effort to prioritize strategic development and evolution of Smart Grid/Intelligent Energy Management Systems, within constraints of affordability goals, to further enable intermittent resources and use of EVs for storage/demand shift	2015-2020	N	C,D,P	G,B	G,B	F,P,T	C	H, J
1	Resource Technologies	RT-2	Prioritize investment in zero carbon-emitting resources at utility and/or customer scale: Utility-scale, community and distributed solar, including concentrating solar; Utility-scale wind (inland and coastal)	2015-2020	Y	C	G,B,R	G,B,R,N	F,T,P,BC	DL	Q, H, J
1	Resource Technologies	RT-3	Routinely evaluate resource technologies for opportunities to incrementally reduce carbon intensity including storage, distributed chilled water, biomass, geothermal, and nuclear, within constraints of rate affordability goals	Perpetual	Y	C	G	All	F,P,T	DL	
2	Resource Technologies	RT-4	Explore and pilot storage options with grid functionality	2015-2020	N	C	G,B	G,B	F,T	C	
2	Resource Technologies	RT-5	Explore incentives for electrification of carbon-fueled consumer products: hot water heater extended reservoirs, larger pads for battery-powered lawn mowers, weed wackers, chainsaws, etc.	2020-2030	N	N	G	G,R	F,BC	C	Q, H
2	Resource Technologies	RT-6	Explore micro-grids as a carbon reduction strategy. Consider tradeoffs	2030-2050	N	N	G,B	G,B	F,P,T	C	