Denver Climate Support - Strategy Detail | **Goals:**

Net Zero Energy New Construction | NZE Code by 2035

Commercial & Multi-family

Strategy	City Cost Description	City Cost Low/Med/High Comments	City Cost $/yr (Low)	City Cost $/yr (Med)	City Cost $/yr (High)	General Comments
Incentives						
Development incentives for following Denver Green Code (non monetary) - Height incentive / density bonus - Reduced parking requirements - Expedited review - Others to be defined	City of Denver staffing time - Staff time to develop density bonus and parking reduction requirements - Staff time to confirm each building pursuing this is complying with the requirements at permit for additional projects going through the Green Code Review - Staff time to verify actual performance (if required)	**High cost** - 50-75% of new development square footage pursues this option - (2) Full time Engineer - Architect staff **Medium cost** - 25-50% of new development square footage pursues this option - (1) Full time Engineer - Architect staff **Low cost** - 25% or less of new development square footage pursues this option - (0.5) Full time Engineer - Architect staff	$90,000	$180,000	$360,000	**Voted #1** Key questions - Penalty if performance is not there? - How to verify actual performance? - Market acceptance?
Design and construction team incentives - Incentive for the increased time requirement for designing a NZE building - NZE charrettes - pEUI modeling - Cx, MBCx, enclosure Cx - M&V	City of Denver staffing time - Staff time to develop incentive amounts and requirements - Staff time to administer incentive program - Marketing budget Incentive options - Flat fee - Performance based - What amount of incentive is required for high level of participation Cost to team estimates - NZE charrettes: $10k per building or ~$0.10/sf - pEUI modeling: $10-20k per building or ~$0.15/sf - Cx code required, beyond code: ~$0.05-$0.10/sf - Enclosure Cx code require, beyond code: ~$0.05-$0.10/sf - MBCx / M&V cost to team: $20-30k per building or ~$0.25/sf $0.60-0.70/sf total cost add for services	**High cost** - 50-75% of new development square footage pursues this option - (2) Full time Engineer - Architect staff - 100% of cost to team (~$0.60/sf) - 4.4 million sf of commercial space per year for next 5 years (7 million total) **Medium cost** - 25-50% of new development square footage pursues this option - (1) Full time Engineer - Architect staff - 50% of cost to team (~$0.30/sf) - 2.6 million sf of commercial space per year for next 5 years (7 million total) **Low cost** - 25% or less of new development square footage pursues this option - (0.5) Full time Engineer - Architect staff - 25% of cost to team (~$0.15/sf) - 1.8 million sf of commercial space per year for next 5 years (7 million total)	- Staff: $90,000 - Incentives: $270,000 - Total: $360,000	- Staff: $180,000 - Incentives: $780,000 - Total: $960,000	- Staff: $360,000 - Incentives: $2,640,000 - Total: $3,000,000	**Voted #2** Key questions - Penalty if performance is not there? - Does the incentive need to be tied to performance? - Market acceptance? - Is M&V too far out for design teams? - Risk to the City? Design team's job to provide this, might not change developers mind
Permit fee reductions for following Denver Green Code	City of Denver staffing time - Staff time to confirm each building pursuing this is complying with the requirements at permit - Staff time to verify actual performance (if required) Permit fee reduction - 50% reduction in fees - Average cost of construction in Denver $150/sf - Fee of about $0.005 times total construction cost or $0.75/sf - $0.375/sf fee reduction	**High cost** - 50-75% of new development square footage pursues this option - (2) Full time Engineer - Architect staff - 4.4 million sf of commercial space per year for next 5 years (7 million total) **Medium cost** - 25-50% of new development square footage pursues this option - (1) Full time Engineer - Architect staff - 2.6 million sf of commercial space per year for next 5 years (7 million total) **Low cost** - 25% or less of new development square footage pursues this option - (0.5) Full time Engineer - Architect staff - 1.8 million sf of commercial space per year for next 5 years (7 million total)	- Staff: $90,000 - Fee reduction: $675,000 - Total: $765,000	- Staff: $180,000 - Fee reduction: $975,000 - Total: $1,155,000	- Staff: $360,000 - Fee reduction: $1,650,000 - Total: $2,010,000	Key questions - Penalty if performance is not there? - Market acceptance? - Increase regular fees to pay for this?
Cash rewards from City - For efficiency technology (HVAC, controls, lighting, etc) - Renewables - Storage - Electric hvac and water heat - Performance (meeting NZE) - Land purchases for NZE buildings	Cash reward, increased staffing for distributing and confirming participation, and increased staff time for NZE contract documents. City of Denver staffing time - Staff time to develop incentive amounts and requirements - Staff time to administer incentive program - Marketing budget Performance reward impact - Energy efficiency reward: ~$5 to $1.25/sf - PV: ~$10/sf - Would energy efficiency incentive duplicate Xcel EDA incentive? - Federal tax credits for PV	**High cost** - 50-75% of new development square footage pursues this option - Xcel EDA participation is estimated in this range - (2) Full time Engineer - Architect staff - $5/sf - 4.4 million sf of commercial space per year for next 5 years (7 million total) **Medium cost** - 25-50% of new development square footage pursues this option - Performance incentives - (1) Full time Engineer - Architect staff - $2.5/sf - 2.6 million sf of commercial space per year for next 5 years (7 million total) **Low cost** - 25% or less of new development square footage pursues this option - Performance incentives - (0.5) Full time Engineer - Architect staff - $1.25/sf - 1.8 million sf of commercial space per year for next 5 years (7 million total)	- Staff: $90,000 - Incentives: $2,250,000 - Total $2,340,000	- Staff: $180,000 - Incentives: $6,500,000 - Total $6,680,000	- Staff: $360,000 - Incentives: $11,000,000 - Total $11,360,000	**Voted #3** Key questions - Penalty if performance is not there? - Market acceptance? - How to get NZE in contract? - How does land purchase reward work?
NZE certification incentives - Highly subsidize the certification fees	Incentive cost and increased staffing for distributing and confirming participation. City of Denver staffing time - Staff time to develop incentive amounts and requirements - Staff time to administer incentive program - Marketing budget Incentive cost for certification fees - ILFI Net Zero Certification fees are ~$0.04/sf Dependant on the size and market utilization of the incentives but most likely low costs due to low participation.	**High cost** - 15% of new development square footage pursues this option - Xcel EDA participation is estimated in this range - (1) Full time Engineer - Architect staff - 100% of cost to developer (~$0.04/sf) - 1.05 million sf of commercial space per year for next 5 years (7 million total) **Medium cost** - 10% of new development square footage pursues this option - Performance incentives - (0.5) Full time Engineer - Architect staff - 100% of cost to developer (~$0.04/sf) - 0.7 million sf of commercial space per year for next 5 years (7 million total) **Low cost** - 5% or less of new development square footage pursues this option - Performance incentives - (0.25) Full time Engineer - Architect staff - 100% of cost to developer (~$0.04/sf) - 0.35 million sf of commercial space per year for next 5 years (7 million total)	- Staff: $45,000 - Incentives: $14,000 - Total $59,000	- Staff: $90,000 - Incentives: $28,000 - Total $118,000	- Staff: $180,000 - Incentives: $42,000 - Total $222,000	Key questions - Market acceptance? - How many certifications? Cost vary significantly.

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Tax incentives - Lower property tax for building pursuing Denver Green Code	City of Denver staffing time - Staff time to develop incentive amounts and requirements - Staff time to administer incentive program - Marketing budget Reduced tax revenue - First year property tax reduction - Estimated at $3.5/sf	**High cost** - 50-75% of new development square footage pursues this option - (2) Full time Engineer - Architect staff - 100% of first year property tax at $3.5/sf - 4.4 million sf of commercial space per year for next 5 years (7 million total) **Medium cost** - 25-50% of new development square footage pursues this option - (1) Full time Engineer - Architect staff - 50% of first year property tax at $1.75/sf - 2.6 million sf of commercial space per year for next 5 years (7 million total) **Low cost** - 25% or less of new development square footage pursues this option - (0.5) Full time Engineer - Architect staff - 25% of first year property tax at $0.875/sf - 1.8 million sf of commercial space per year for next 5 years (7 million total)	- Staff: $90,000 - Incentives: $1,575,000 - Total: $1,665,000	- Staff: $180,000 - Incentives: $4,550,000 - Total: $4,730,000	- Staff: $360,000 - Incentives: $15,400,000 - Total: $15,760,000	
Policies/Codes						
Penalties - Ensures that the project is designed and operates to meet the Green Code or NZE	Increased staff time for verification Increased fees to the City for projects that do not meet performance goals	**High cost** - (2) Full time Engineer - Architect staff - Increased fees for non-compliance - Fee amount? Assumed 10% failure rate? **Medium cost** - (1) Full time Engineer - Architect staff - Increased fees for non-compliance - Fee amount? Assumed 10% failure rate? **Low cost** - (0.5) Full time Engineer - Architect staff - Increased fees for non-compliance - Fee amount? Assumed 10% failure rate?	$90,000	$180,000	$360,000	Key questions - Would buildings report every year? - Start with credits, then go to penalties later? - How to enforce? - How much?
Natural Gas tax to help fund the office	No cost to the City, but major equity concerns					
Training/Education/Programs						
Xcel incentives (faster hookups & pricing structures)	N/A					Key Questions - How to get Xcel to add this as a program?
City hosted charrettes - For industry and general public	Staff time to organize, invite and host	Most likely low first cost				Key Questions - Exisiting training that could be used? - What is covered? - Who is invited? - How many?
Subsidize training - Developers - Design teams - Contractors - Trades - Financing	Staff to administer/market program If offering new custom training, costs for training development and ongoing staffing/trainers For existing offerings, range of costs to supplement the training program fees, potentially pay extra for time	Require training? Training provided by				Key Questions - Exisiting training that could be used? - What is covered? - Who is invited? - How many?
Research - Studies of sucessful projects & technologies - LCA, carbon footprint - Outcome based codes - How to align performance & aesthetics - Financing options for NZE - Other regulatory approaches that are being used worldwide	Staff time for research or utilizing the industry and existing research	Any specific examples?				Key Questions - What is covered? - How much research? - What is the intent here?
Create an Energy Resource Center - Design and construction support	Staff to administer/market program; provide website information, publicize through various channels Staff for the resource center call center	*See notes on EB-Com tab*				

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Marketing/Behavior Change						
Marketing & education of Denver's goals to community - What the city is doing to achieve the goals - The community's role - Recognition from the City for NZE projects	Marketing consultant to develop and implement City staff time to lead program Radio/TV ads, mailers					
Coordinate with other (non-city) incentive programs	Staff time and marketing budgets to promote incentives.	**High cost** - (0.5) Full time Engineer - Architect staff - Marketing budget **Medium cost** - (0.25) Full time Engineer - Architect staff - Marketing budget **Low cost** - (0.1) Full time Engineer - Architect staff - Marketing budget	- Staff: $18,000 - Marketing: $10,000 - Total $28,000	- Staff: $45,000 - Marketing: $25,000 - Total $70,000	- Staff: $90,000 - Marketing: $50,000 - Total $140,000	Key Questions - How much coordination is necessary?