



THURSTON CLIMATE MITIGATION PLAN

Steering Committee



Meeting #9
April 23, 2020



Today's Agenda

1. Welcome & Introductions
2. Communitywide Action List Discussion
3. Scenarios Discussion
4. Communitywide Action List - Direction
5. Spring Public Outreach
6. Jurisdiction Updates on Early & Ongoing Actions
7. Public Comments

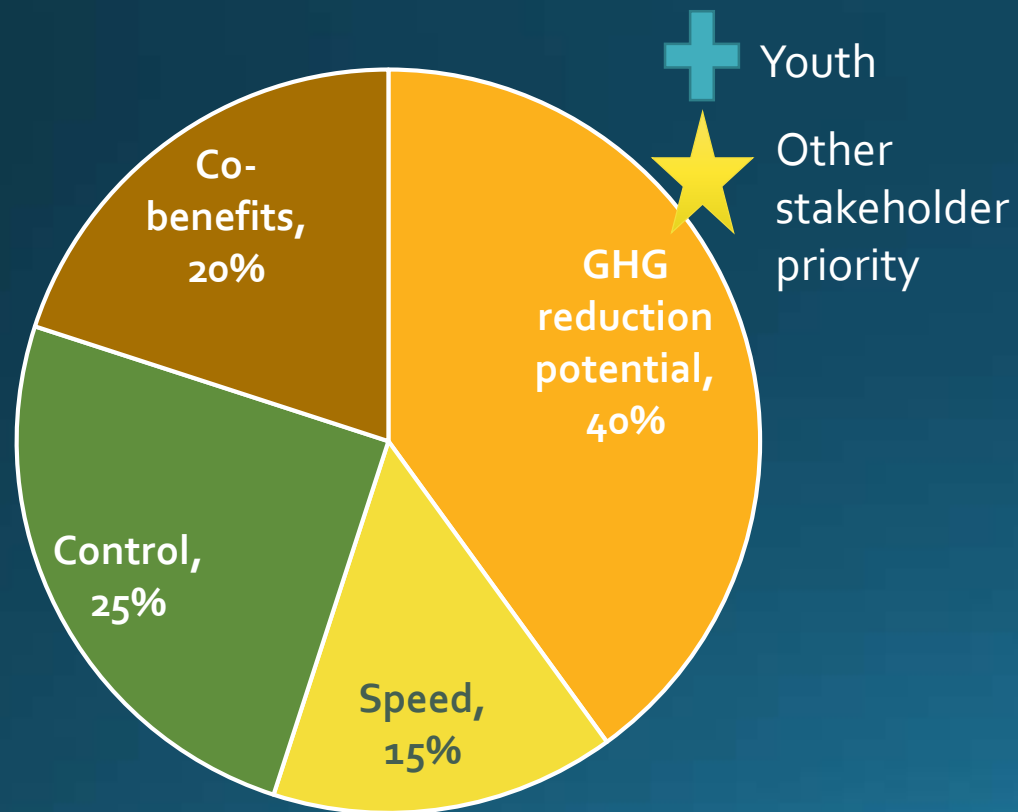
Today's Materials

- Agenda
- 1. Communitywide Action List Memo
- 2. Priority Action List, Option A
- 3. Priority Action List, Option B
- 4. Full Multicriteria Analysis
- 5. Comparison of Options

Last meeting...

Multicriteria Analysis - Steering Committee Direction, 1/23/2020

- Option 1: Total Priority Score



- Identify Priority Actions from list of ~250

- Top score overall
- Top score by sector
- Top score by strategy
- Top for Youth
- Top for other stakeholders

- Note: scores based on qualitative assessment

Today's Ask...

- Provide direction on method to identify priority actions for quantification in the draft Climate Mitigation Plan
- NOT approving final action list
- NOT committing to implementing any individual actions

Communitywide Actions List

- Option A
 - 50 Actions
 - All actions on all 3 “top lists”
 - Remaining actions, 3.6 or higher Total Priority Score
- Heavy focus on some sectors and strategies
 - Buildings & energy and transportation
 - Energy use in new buildings (B.4)
 - EV adoption (T.3)
 - Land Use (T.1)
- Few or no actions in some sectors
 - Agriculture, water, waste
 - Sequestration
 - Fuel switching

Communitywide Actions List

- Option B
 - 56 Actions
 - Removes 12 actions, and adds 18
 - Priority score & Stakeholder support
- Adds actions for areas of interest
 - Fuel switching
 - Sequestration
 - Water
 - Solid waste
 - Agricultural emissions
 - General education
- Drops actions in well-covered strategies
 - Transportation & land use
 - Energy use in new buildings
 - Municipal operations

Communitywide Actions List

- Option A
 - 50 Actions
 - Higher-scoring actions
 - Fewer strategies
- Option B
 - 56 Actions
 - More strategies

Sector	Option A	Option B
Buildings & Energy	20	19
Transportation & Land Use	25	20
Water & Waste	0	6
Agriculture & Forests	1	5
Cross-cutting	4	6

Buildings & Energy

Strategy	Option A	Option B
B1. Reduce energy use in existing residential buildings.	3	5
B2. Reduce energy use in existing commercial/industrial buildings.	4	2
B3. Reduce energy use across building types.	2	2
B4. Reduce energy use in new buildings and redevelopment.	7	5
B5. Increase the production of local renewable energy.	4	3
B6. Convert to cleaner fuel sources.	0	2

Transportation & Land Use

Strategy	Option A	Option B
T1. Set land use policies that support increased density and efficient transportation networks.	5	4
T2. Increase the efficiency of the transportation system.	3	2
T3. Increase the adoption of electric vehicles.	5	4
T4. Increase the use of public transit.	7	5
T5. Increase use of active forms of travel and more efficient commute modes.	5	5

Water

Strategy	Option A	Option B
W1. Increase efficiency of water and wastewater infrastructure.	0	1
W2. Reduce water consumption.	0	1
W3. Reduce emissions from wastewater	0	1

Waste

Strategy	Option A	Option B
W4. Divert more solid waste from landfills.	0	2
W6. Reduce consumption of carbon-intensive goods and services.	0	1

Agriculture

Strategy	Option A	Option B
A1 Reduce emissions from agriculture	0	1
A2 Support agricultural practices that sequester carbon	0	1

Forests

Strategy	Option A	Option B
A5. Manage forests to sequester carbon	1	1
A6. Reduce emissions from the urban landscape	0	2

Cross-cutting

Strategy	Option A	Option B
G1. Education and outreach	0	1
G2. Monitoring and evaluation	1	4
G5. Advocate for state and federal policy.	2	1

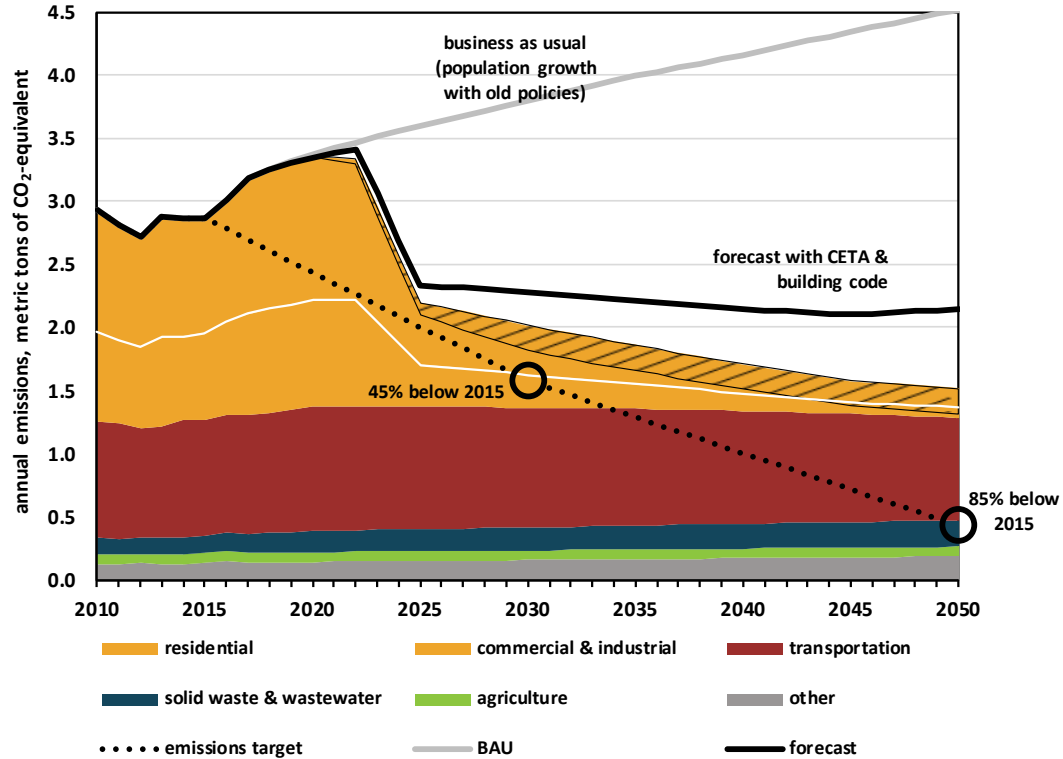
Communitywide Actions List

- Option A
 - Higher-scoring actions
 - Fewer strategies
- Option B
 - More strategies
 - Less score-dependent

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Scenarios

User Dashboard - enter assumptions in light blue cells

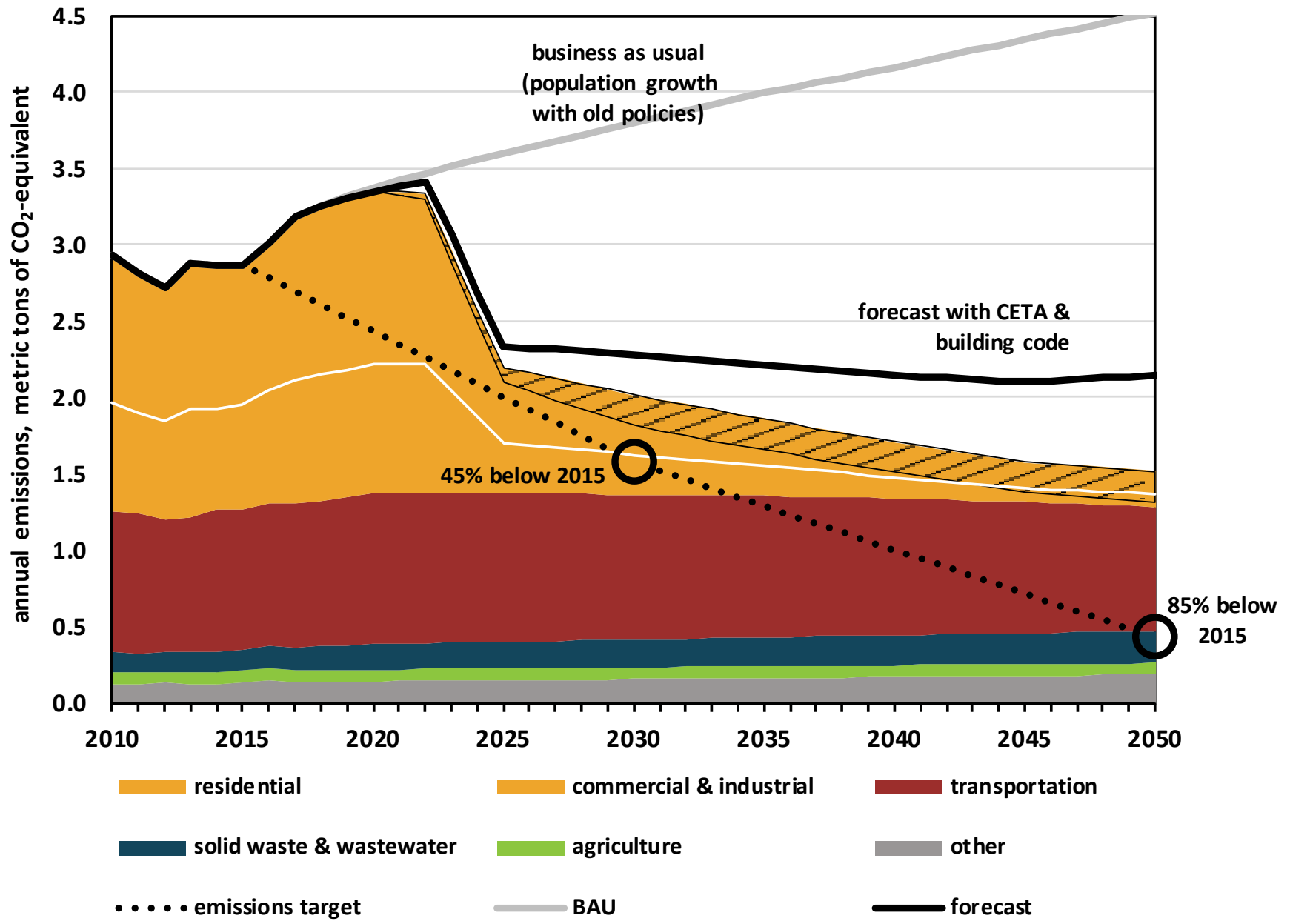


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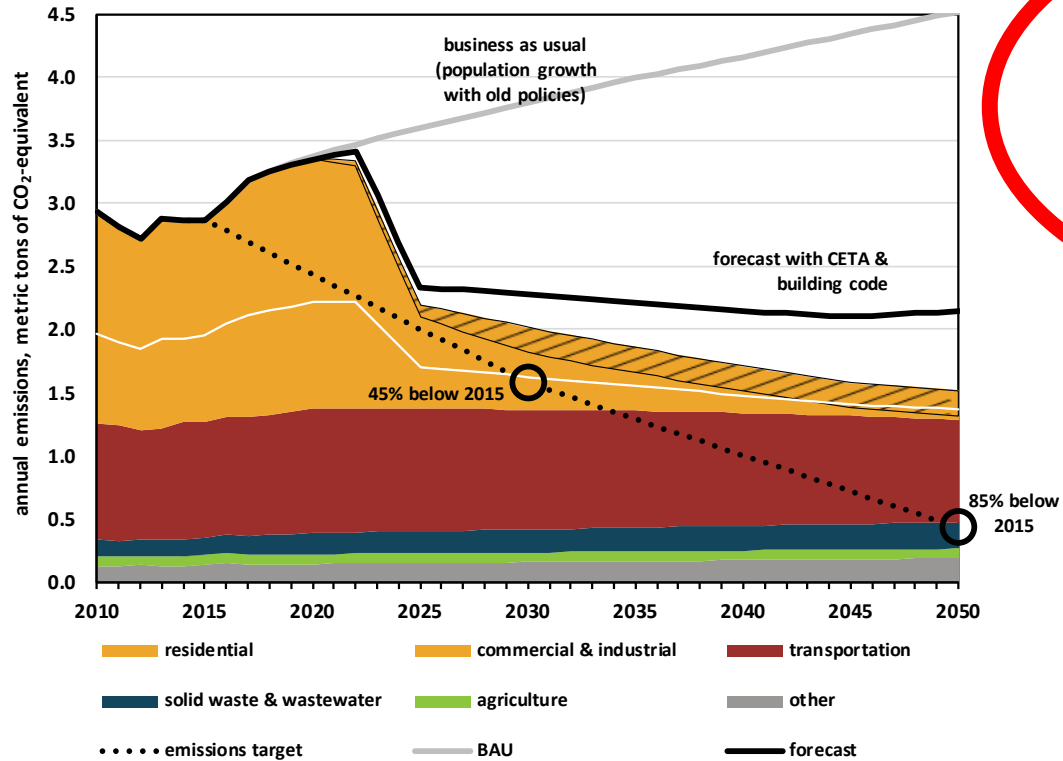
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fuel oil	5%	10%	households	711	675	640	flat	4,045	3,843	3,641
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medium & heavy duty trucks										
use			million VMT	237	288	347	population	0	0	0
emission intensity			gCO ₂ e/mi	1,432	1,432	1,432	flat			
waste & wastewater										
solid waste generation	3%	7%	ton/capita	0.71	0.69	0.66	population	139,294	163,937	189,694
landfill emission rate			MgCO ₂ e/ton	0.68	0.68	0.68	flat			
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other										
street lighting			MWh	10,073	10,073	10,073	flat	5,892	1,184	0
refrigerant use			[activity data not available]				population	110,841	134,484	162,307
land clearing			acre	161	195	236	population	16,086	19,517	23,555

scenario GHG emissions, tCO ₂ e			
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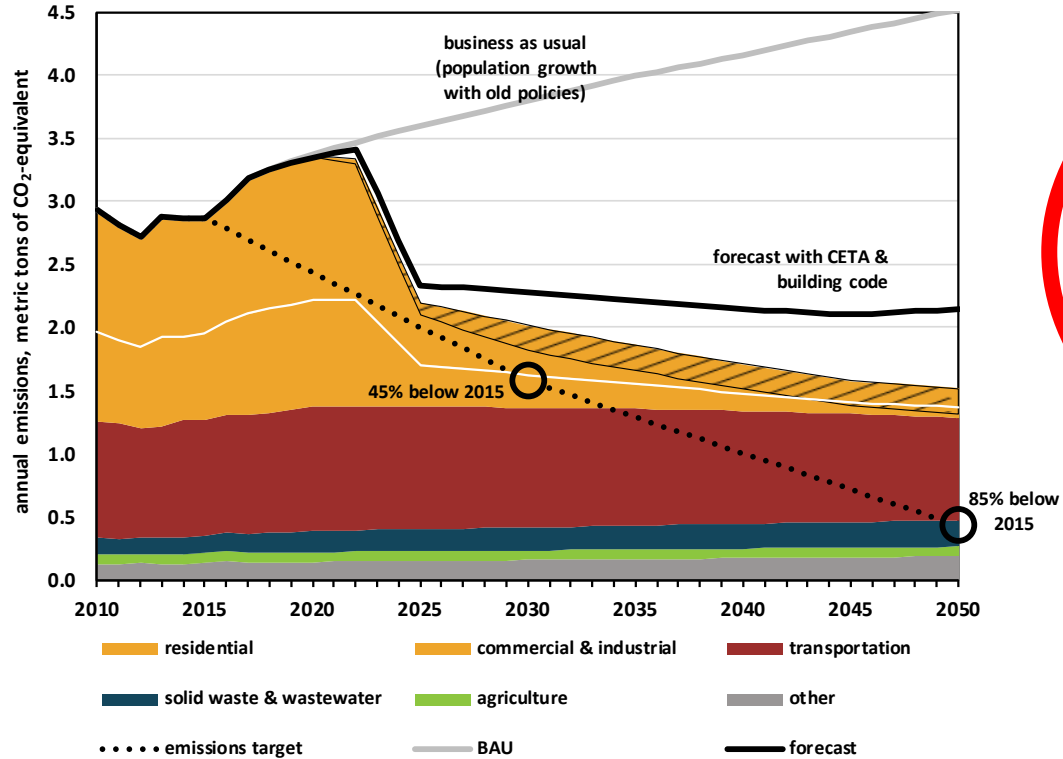
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LPG	5%	10%	households
wood	2%	5%	households

commercial energy consumption

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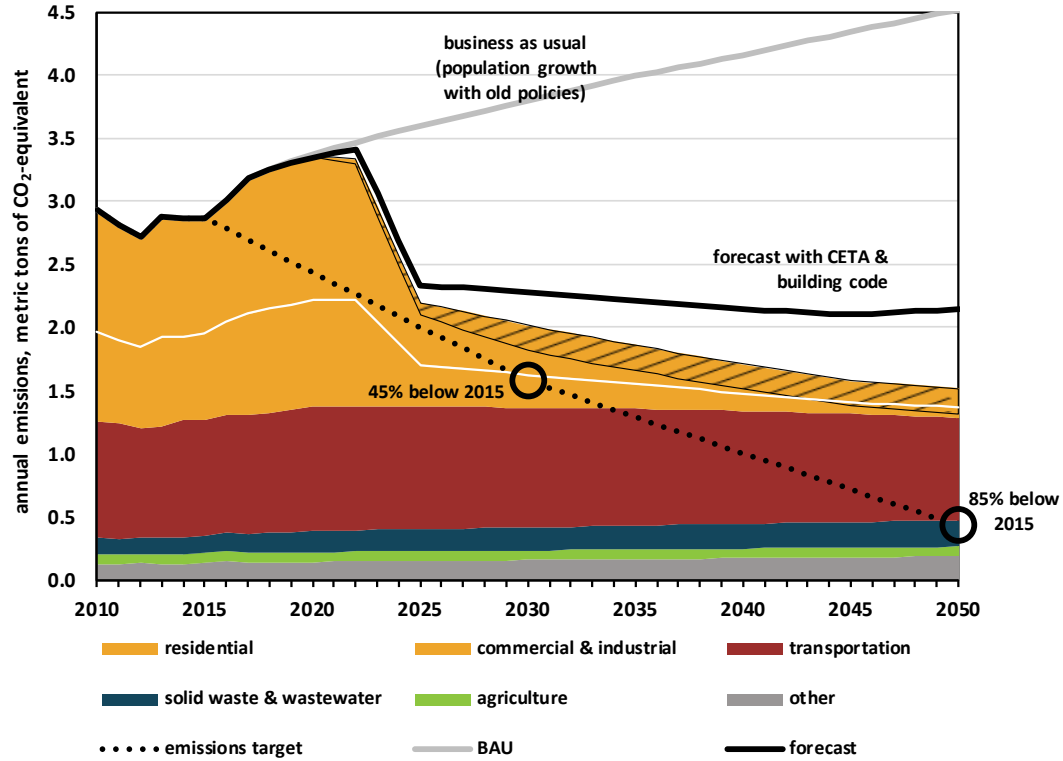
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action bundles and activity reductions

Residential Fossil Gas
therm/household

15% reduction by 2030

40% reduction by 2050

reductions induced by:

B1.1 residential energy performance ratings

B1.2 residential energy audits

B1.4 rental housing EE incentives

B1.5 property tax credit

B1.6 rental housing EE baseline

B3.5 green building tracking

B4.5 permitting incentives

B4.6 EE tax exemptions

B4.7 land use incentives

B4.9 permit counter technical assistance

B4.12 multifamily submetering

B6.1 fossil gas to electric conversions

B6.2 electric appliances in new construction

G1.7 social research

T1.2 middle-density housing

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G1.7 social research

T1.2 middle-density housing

action bundles and activity reductions

Passenger Vehicle EF

gCO₂e/mi

5% reduction by 2030

30% reduction by 2050

reductions induced by:

G1.7 social research

T3.2 free EV parking

T3.5 EV ready building code

T3.10 convert to EV fleets

T3.11 EV education

T3.14 EV mass purchase discounts

Passenger Vehicle Use

VMT

15% reduction by 2030

25% reduction by 2050

reductions induced by:

G1.7 social research

T1.1 coordinated long term planning- future infill

T1.2 middle-density housing

T1.4 20-minute neighborhoods

T1.11 land use efficiency

T2.2 congestion mitigation

T2.17 teleworking/flex work

T4.1 increase transit

T4.3 rural transit

T4.4 fareless system/youth ride free

T4.10 rider education/benefits

T5.1 walk/bike infrastructure

T5.2 barriers to transportation alternatives

T5.4 school drop-off alternative modes

T5.11 car-free zones

T5.13 telecommuting infrastructure

action bundles and activity reductions

Passenger Vehicle EF

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reductions induced by:

G1.7 social research

T3.2 free EV parking

T3.5 EV ready building code

T3.10 convert to EV fleets

T3.11 EV education

T3.14 EV mass purchase discounts

Passenger Vehicle Use

VMT

15% reduction by 2030

25% reduction by 2050

reductions induced by:

G1.7 social research

T1.1 coordinated long term planning- future infill

T1.2 middle-density housing

T1.4 20-minute neighborhoods

T1.11 land use efficiency

T2.2 congestion mitigation

T2.17 teleworking/flex work

T4.1 increase transit

T4.3 rural transit

T4.4 fareless system/youth ride free

T4.10 rider education/benefits

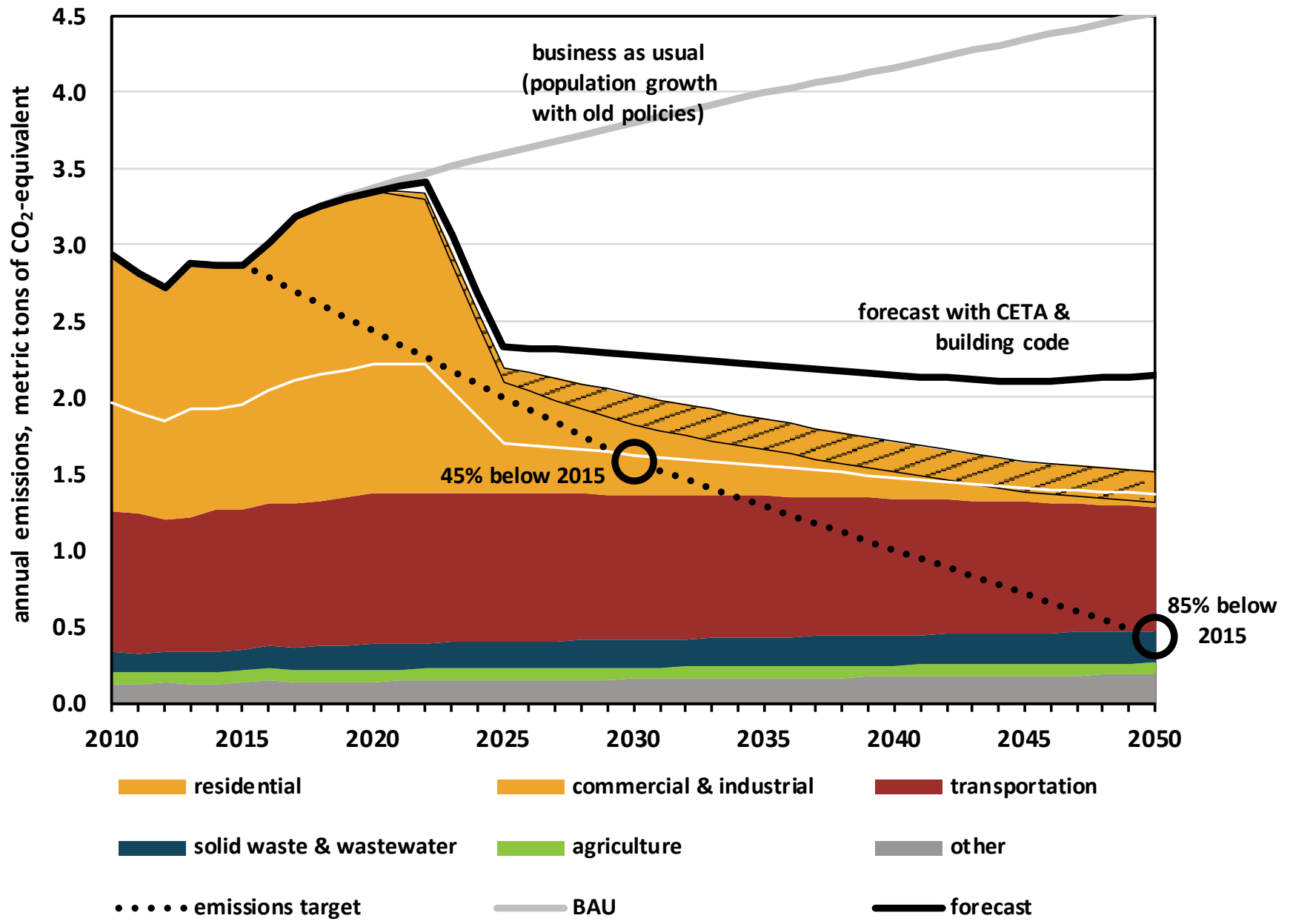
T5.1 walk/bike infrastructure

T5.2 barriers to transportation alternatives

T5.4 school drop-off alternative modes

T5.11 car-free zones

T5.13 telecommuting infrastructure



Biological Carbon Sequestration

afforestation

total area of Thurston County	471,394 acre
fraction subject to afforestation	4%
area affected	18,856 acre
sequestration, status quo	0 tC/acre-yr
sequestration, afforested	2.8 tC/acre-yr
average increase in sequestration	2.8 tC/acre-yr
average increment in sequestration	10.2 tCO ₂ /acre-yr
sequestration	192,418 tCO ₂ /yr

soil carbon

total agricultural land in Thurston County	62,250 acre
fraction subject to improvement	30%
area affected	18,675 acre
soil carbon seq., conventional tillage	0 kgC/ha-yr
soil carbon seq., no-til	337 kgC/ha-yr
soil carbon seq. rate	0.1 tC/acre-yr
duration of uptake	20 yr
average increment in sequestration	0.5 tCO ₂ /acre-yr
sequestration	9,339 tCO ₂ /yr

Priority Action List

- Provide direction on method to identify priority actions for quantification in the draft Climate Mitigation Plan
- NOT approving final action list
- NOT committing to implementing any individual actions









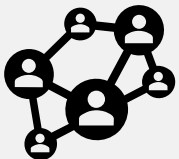

Priority Actions List - Direction

- Option A
 - Top-ranking actions
 - Fewer strategies and sectors covered
- Option B
 - More strategies and sectors covered
 - Some actions lower ranking

Spring Public Outreach

- Proposal
 - Timing shift to June
 - Online-only open house
 - Survey component
 - “Office Hours” set for interactions
- Alternatives
 - Delay outreach and project
 - Fund additional outreach

Next Steps: Proposed 2020 Schedule

	January	February	March	April	May	June	July
Steering Committee	Meeting #8 			Meeting #9 	Meeting #10 		Meeting #11 
Advisory Workgroup	Meeting #4 		Meeting #5 		Joint Meeting? 		Meeting #6 
Community Engagement	Website Updates, Interviews	Website Updates	Website Updates	Website Updates	Website Updates	Network check in 	Online Open House, Public Comment 
							Final Plan Posted

Individual Jurisdictions:
Actions & Implementations

Jurisdiction Updates

Thank You!

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