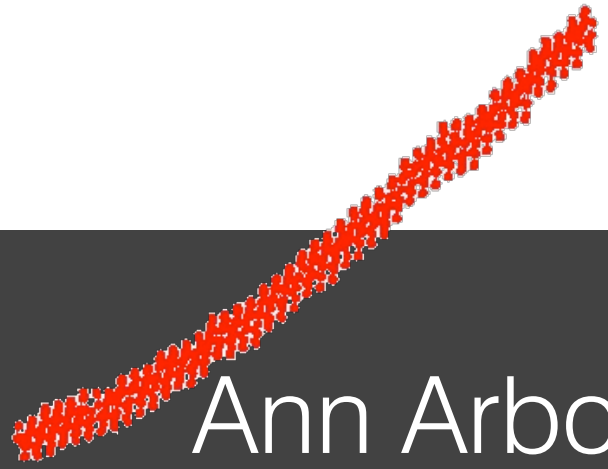

Ann Arbor Climate Action Plan

clean energy coalition

bridging needs. advancing change.

Target Setting

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Ann Arbor's Targets

- Short-term
  - 8% below 2000 levels by 2015
- Mid-term
  - 25% below 2000 levels by 2025
- Long-term
  - 80% below 2000 levels by 2050

Current Relative Targets in MI

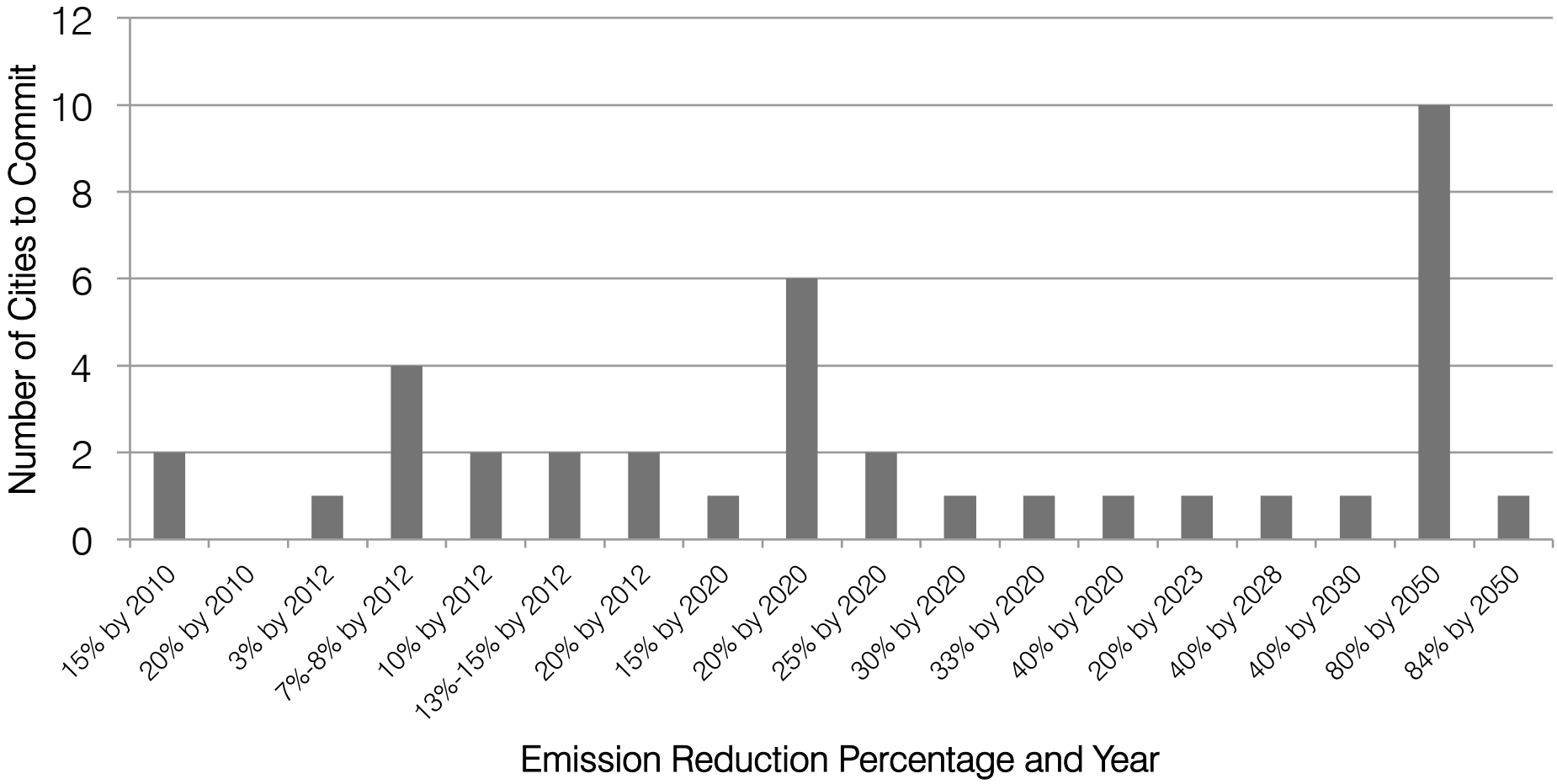
- State of Michigan
  - Short-term
    - none
  - Mid-term
    - 20% below 2005 levels by 2020
  - Long-term
    - 80% below 2005 levels by 2050
- University of Michigan
  - Short-term
    - none
  - Mid-term
    - 25% below 2006 levels by 2025
  - Long-term
    - none

Common Targets from Existing CAPs

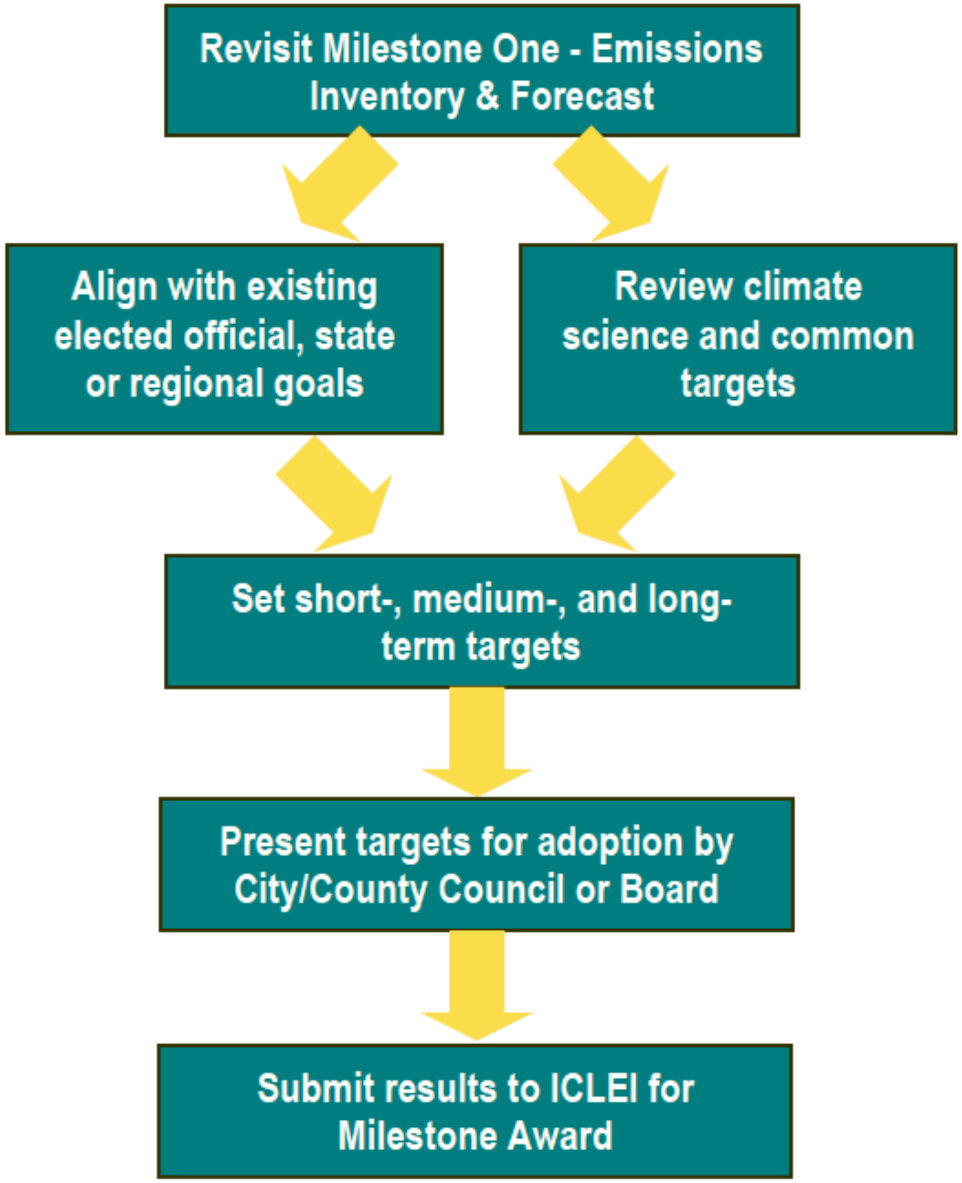
Targets committed to by most cities:

- Short-term
  - 7-8% reduction by 2012
- Mid-term
  - 20% reduction by 2020
- Long-term
  - 80% reduction by 2050
- U.S. Mayors Agreement/Kyoto Protocol

Emissions Reduction Targets



ICLEI's Recommended Process for Setting Targets



UM GHG Strategy
Concept Stage

planet blue
the sustainable difference

Climate Goal

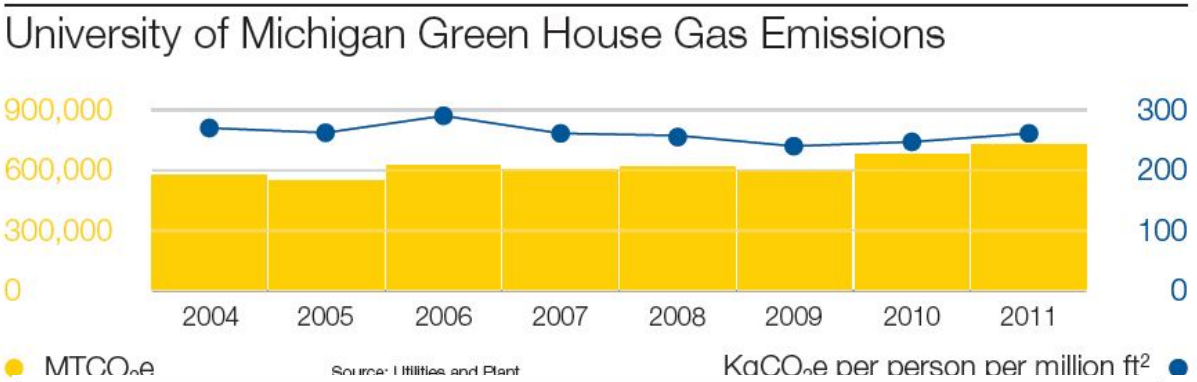
GUIDING PRINCIPLE:

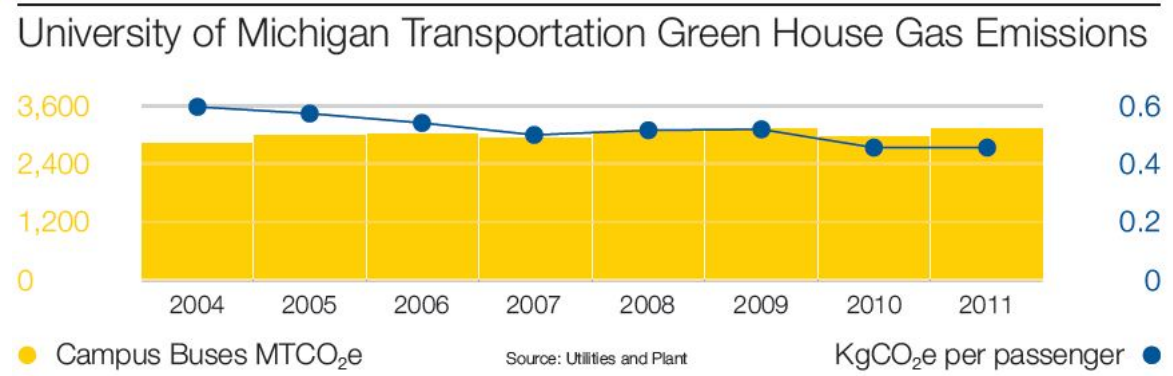
- We will pursue energy efficiency and fiscally-responsible energy sourcing strategies to reduce greenhouse gas emissions toward long-term carbon neutrality.

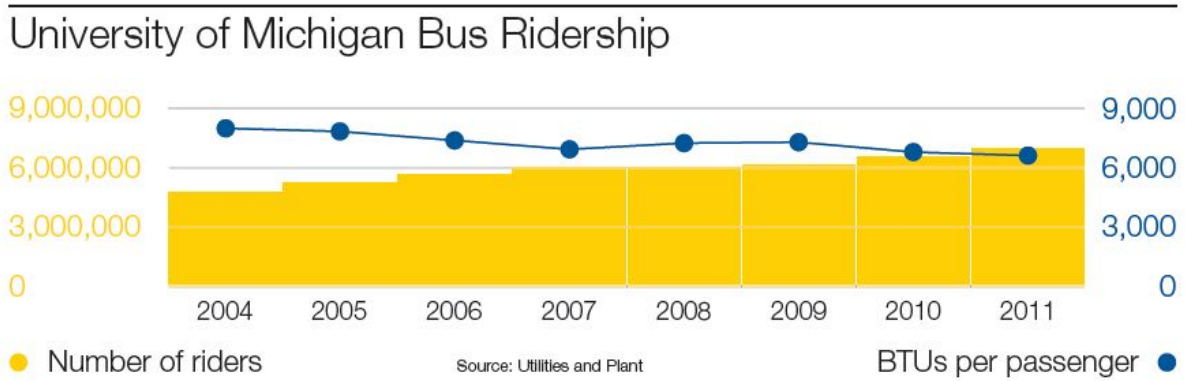
2025 GOALS:

- Reduce scopes 1 & 2 greenhouse gas emissions by 25% below 2006 levels.
- Decrease carbon intensity of passenger trips on U-M transportation options by 30% below 2006 levels.

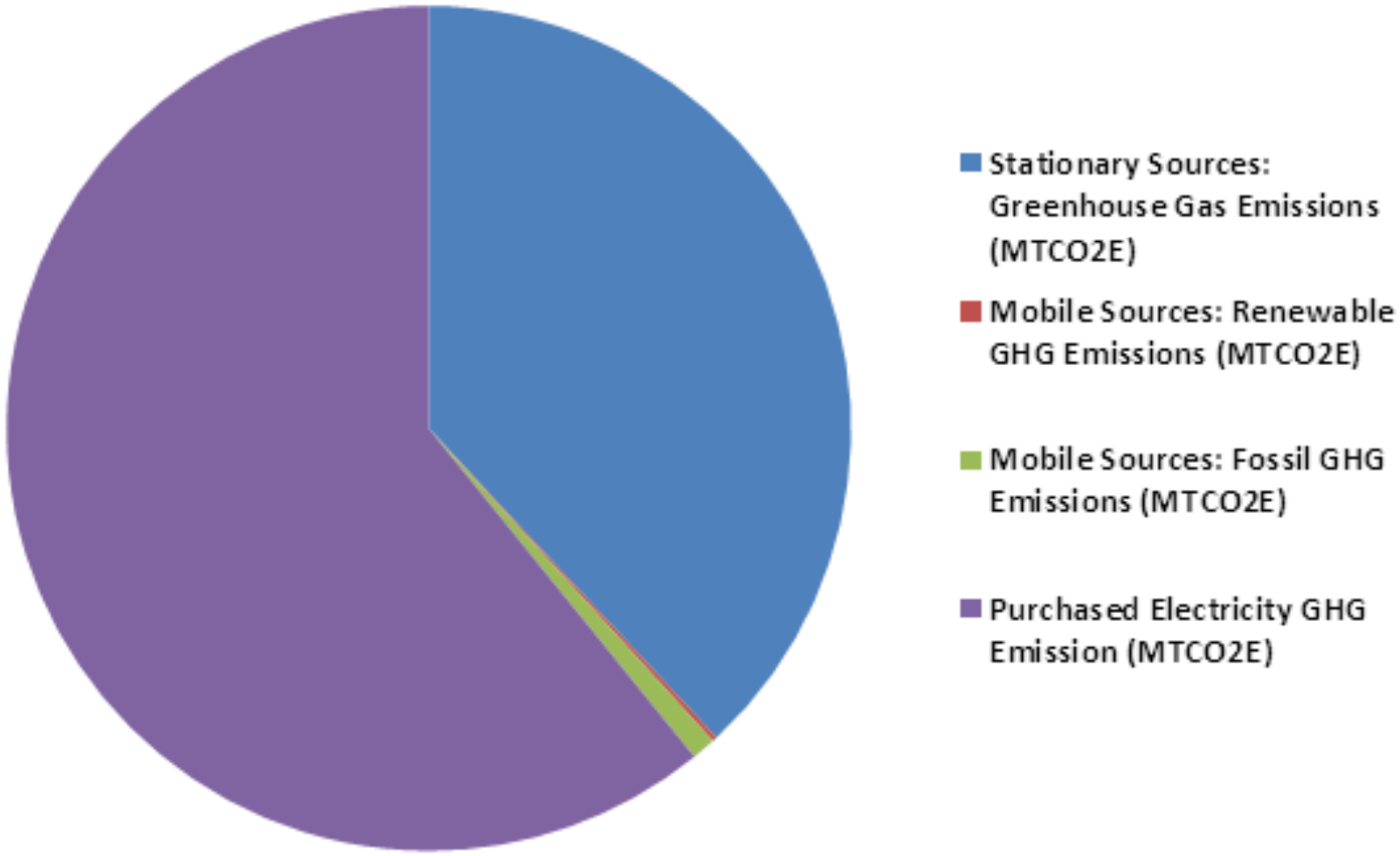
Where We Are on GHG Production







U of M GHG Emissions by Source



GHG Candidate Actions

Goal 1: Reduce scope 1 and 2 greenhouse gas emissions by 25% below 2006 levels

Potential Actions Packages	Capital Costs (in millions)	Net Annual Operating Costs (in millions)	Simple Payback (in years)	Project Life span (in years)	CO2 reduction expectation (MTCO2)	NOTES
Planet Blue Operations Teams	33	-5	6.5	5	34,550	
Natural Gas Turbines at Central Power Plant	63	-9	7	15	60,000	
New Community Education and Tracking Programs	0	-1.8	0	NA	13,820	
600KW Photovoltaic Arrays	DTE	NA	NA	20	540	
Renewable Energy Credits (RECs)	0	3.9	NA	NA	142,990	

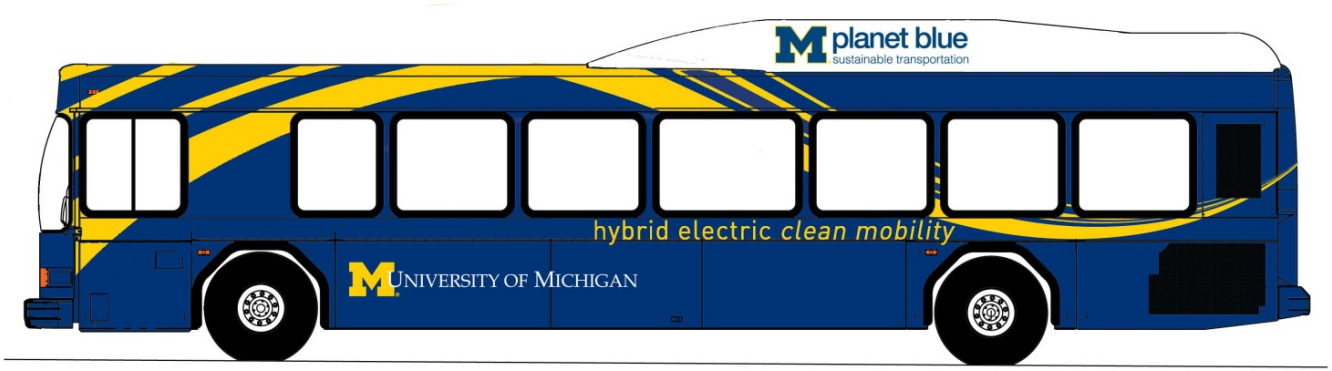

SOLAR

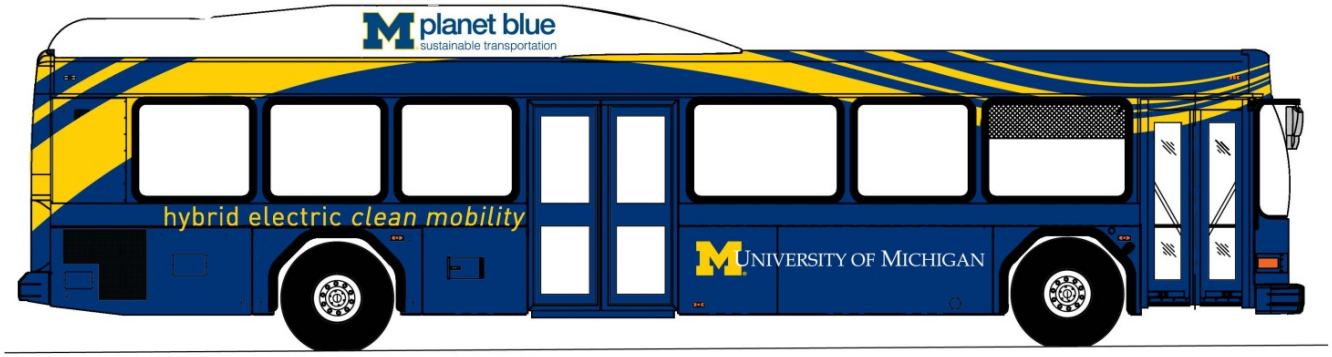
Candidate Actions for Other Goals

Potential Actions Packages	Capital Costs (in millions)	Net Annual Operating Costs ($)	Simple Payback (in years)	Project Life span (in years)	NOTES
Goal 2: Decrease the carbon intensity (GHGs/passenger trip) of passenger trips across University-sponsored transportation options by 30% below FY2006					
Ridership Increase Already Realized Since 2006	0	0	0	20	1,240,000 passenger trip increase
Hybrid Campus Bus	7.4	-120,176	62	13	Conversion of 38 buses - 7 underway
Hybrid Fusion	1.9	-144,900	13	5	Represents replacement of 225 vehicles - 30 underway
Goal 3: Reduce waste tonnage diverted to disposal facilities by 40% below FY 2006 levels					
Single Stream Collection	3.2	0.05	NA	12	1,250 tons or recycle material possible
Pre and Post Consumer composting	1.2	0.17	NA	15	919 tons of waste composting possible
Environmentally Preferable Purchasing	NA	NA	NA	on-going	574 tons of waste reduction possible
Tray-less Dining	1.0	NA	NA	on-going	574 tons of waste reduction possible
Chemical Redistribution	NA	NA	NA	on-going	31 tons diverted from haz waste possible
Goal 4: Purchase 20% of campus food from sustainable sources					
Sustainable Food Purchasing Guideline	0	0.1	none	on-going	Identify existing sustainable practices in food serve operations, increase transparency and customer options, and demonstrate a commitment toward sustainable food.
Campus farm/garden	0	<0.05	none	on-going	Highly visible commitment with teaching and learning benefits.
Goal 5: Protect Huron River water quality by minimizing impacts from UM's impervious surfaces (outperform surfaces with no stormwater control by 30%) and reducing volume of land management chemicals used by 40%					
Implement the OSEH May 2010 Storm Water Management Plan (SWMPP)	Project dependent	In Plant and OSEH operating budgets	none	on-going	This plan goes above and beyond the current State of Michigan Storm Water Permit requirements and has been approved by the Michigan DEQ.

MICHIGAN MARKETING & DESIGN

CLIENT: STEVE DOLEN Parking and Transportation Services





Criteria Weighing Review

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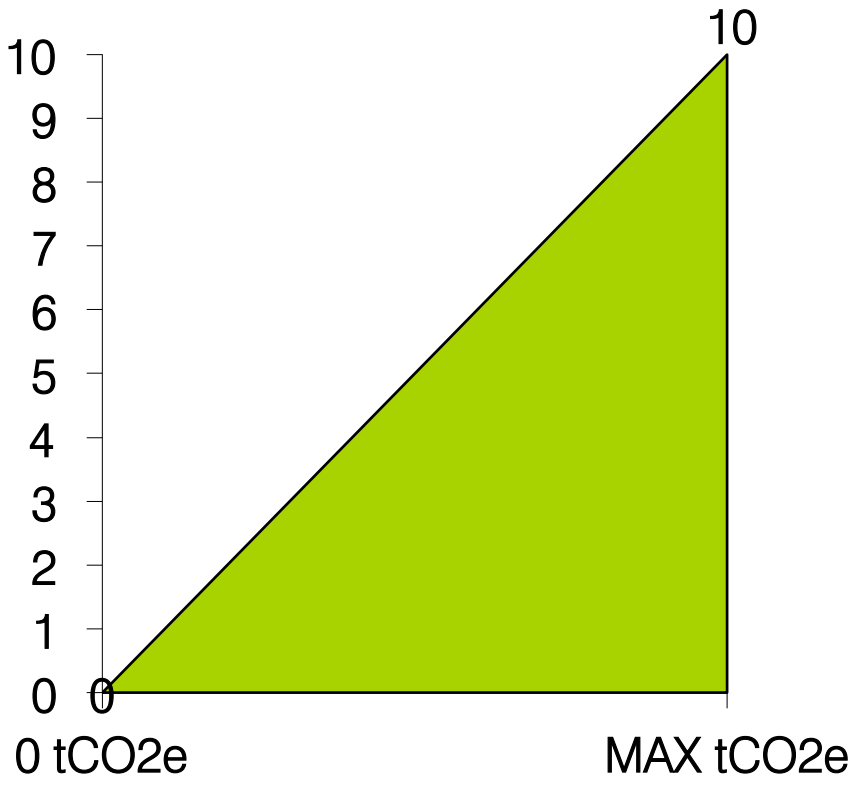
3. Impact

Once the potential reduction for each action has been modeled, the largest impact action will be scored a 10. Other actions will receive 0-10 proportionate to that largest impact action.

(For example, if the largest potential reduction is a 10,000 tCO_2e action, an action with a potential reduction of 5,000 tCO2e will score a 5 for this criterion.)



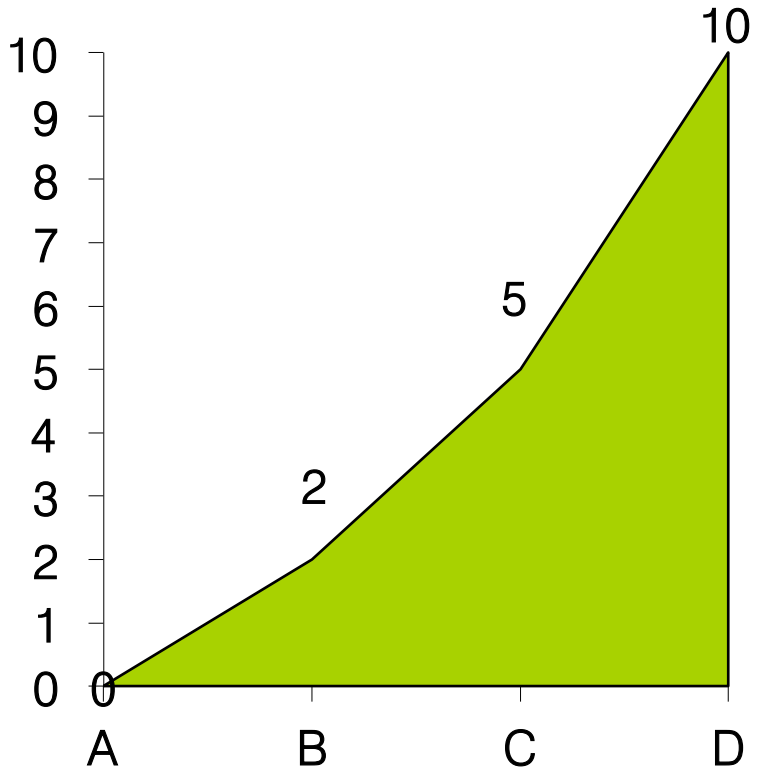
4. Jurisdiction

A. Implementation would require action by the federal government.

B. Implementation requires action by state government OR significant action by the utility company.

C. Implementation requires action by county government OR modest action by the utility company.

D. Implementation requires action only by City and local partners or contractors.



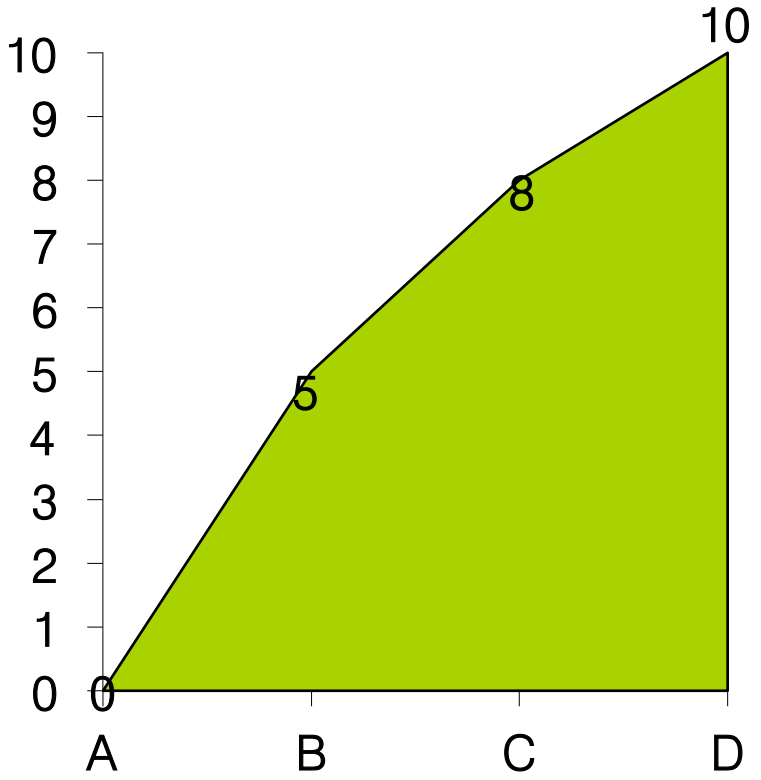
6. Timeframe

A. Significant reductions are not achievable until after 2030.

B. Significant reductions are achievable between 2020 and 2030.

C. Significant reductions are achievable before 2020.

D. Significant reductions are achievable within the next year (if action is implemented immediately).



8. Visibility

A. Less than 10% of residents are expected to be aware of action.

B. Between 10% and 50% of residents are expected to be aware of action.

C. Between 50% and 80% of residents are expected to be aware of action.

D. More than 80% of residents are expected to be aware of action.