

Draft Recommendation on Actions

Presentation Today:

- Purpose of Ranking
- Looking Through Different Lenses Recap
- Guidance from OGWC
Discussion → Action
Recommendation Process
- Results → Draft Action
Recommendation

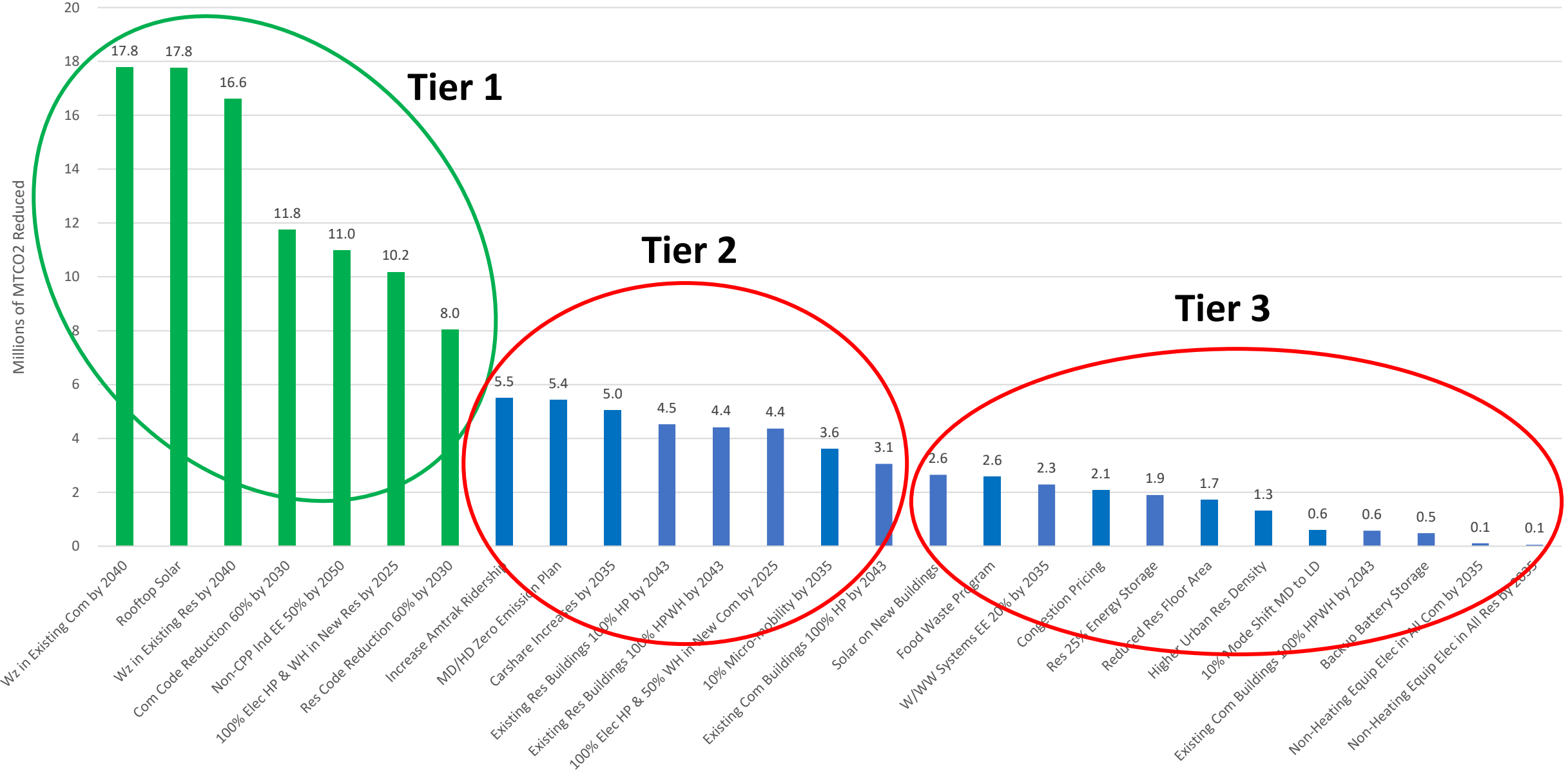
Looking Through Different Lenses Recap

Analysis Lenses:

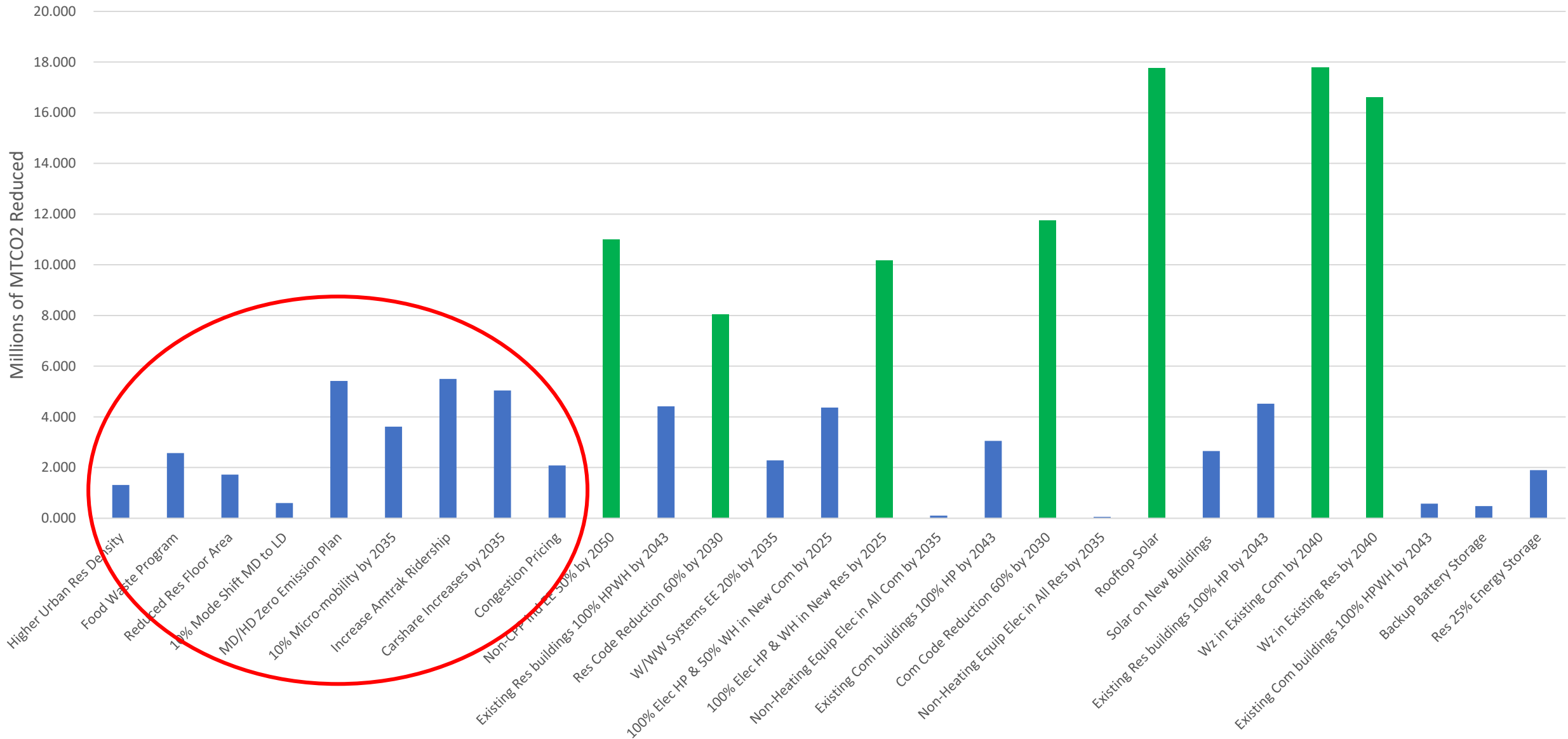
1. GHG Reduction Amounts (MTCO₂)
2. Cost-Effectiveness (\$/MTCO₂)
3. Co-Benefits Only
 - Equity
 - Health
 - Jobs and Economic Prosperity
1. Total Evaluation Criteria Score
2. Risk and Uncertainty

Electrification Scenario Prioritization Analysis

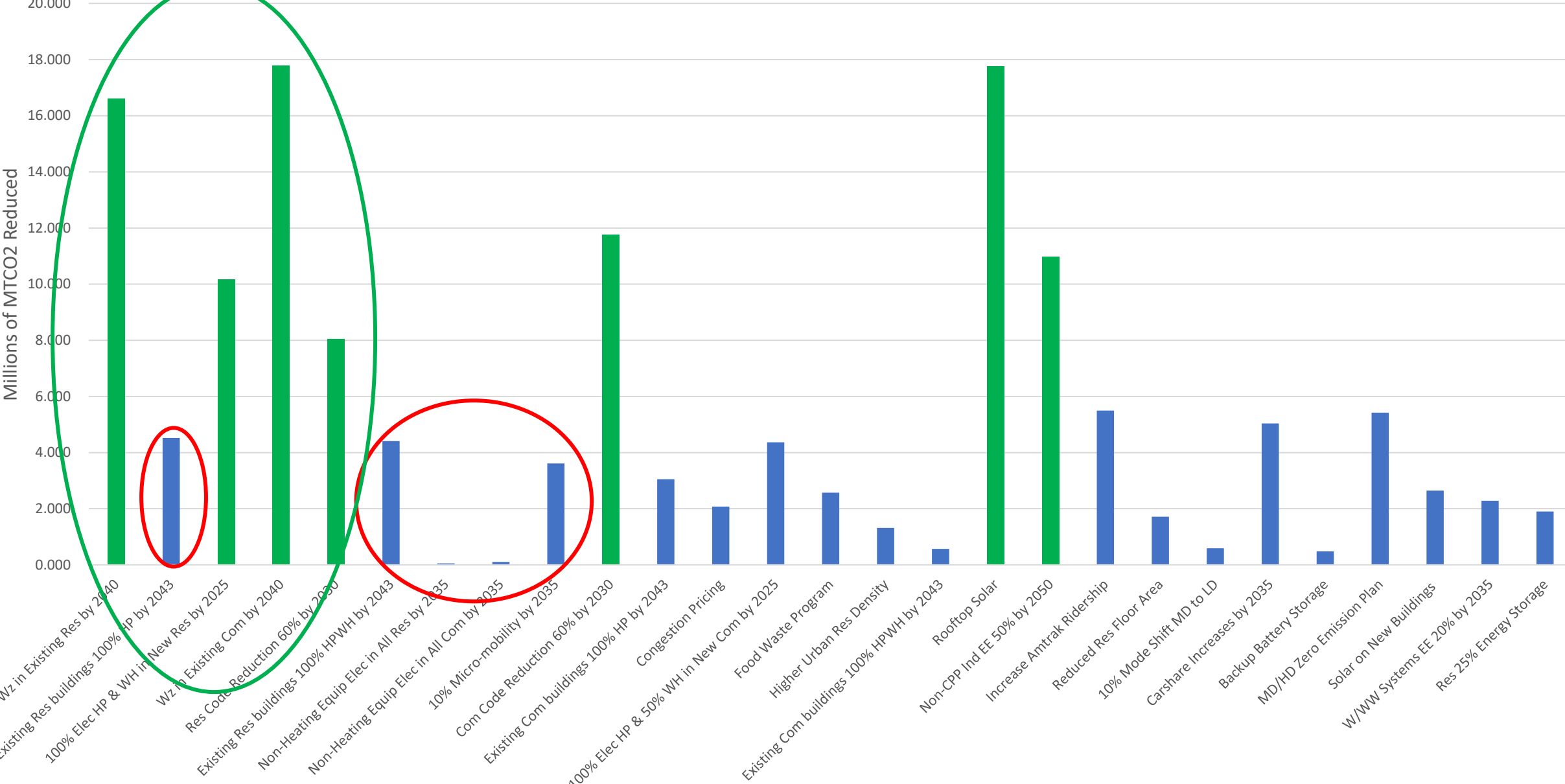
Ranking by GHG Reduction Amount



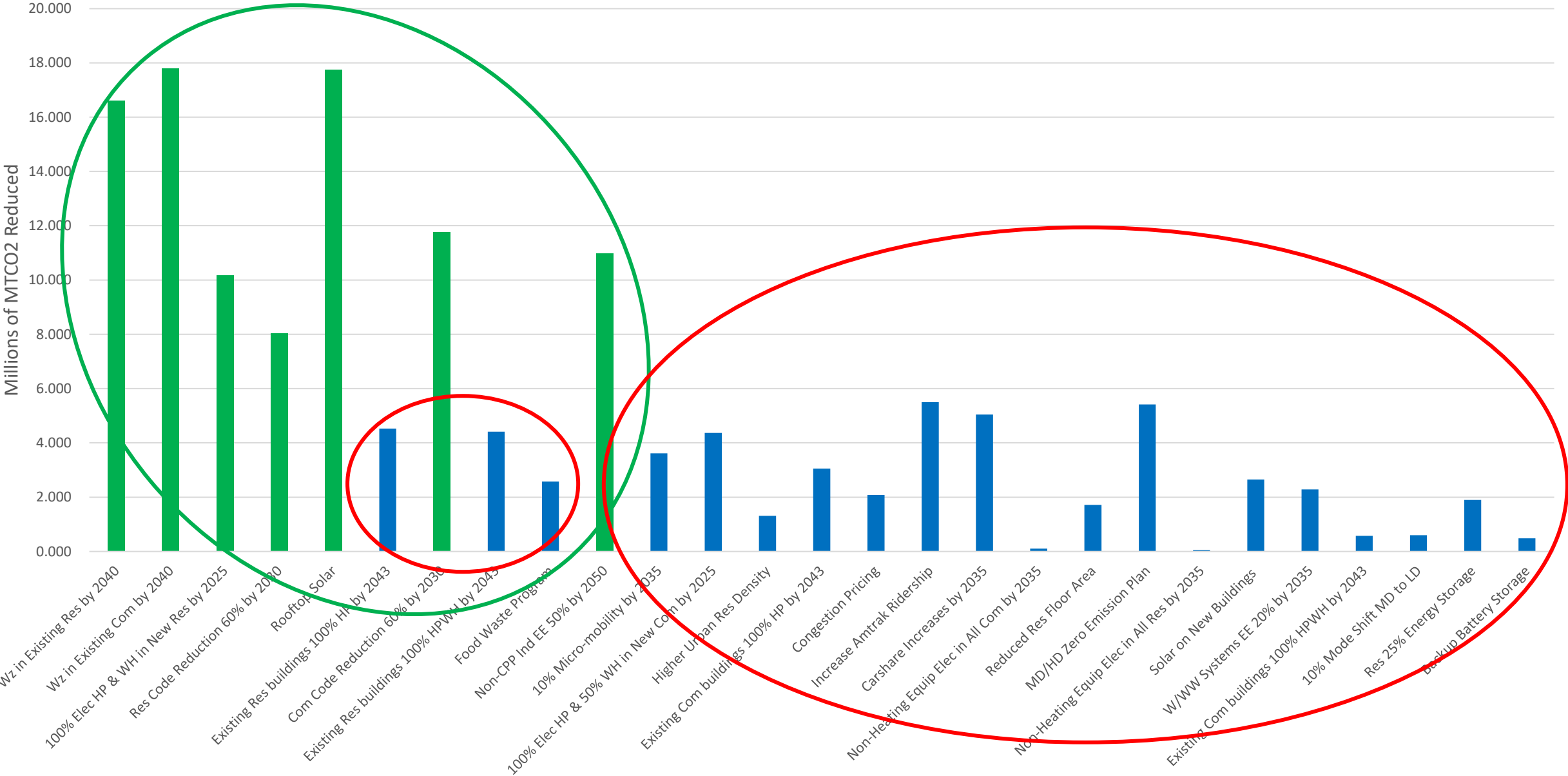
GHG Reduction Amount Resorted by Cost-Effectiveness



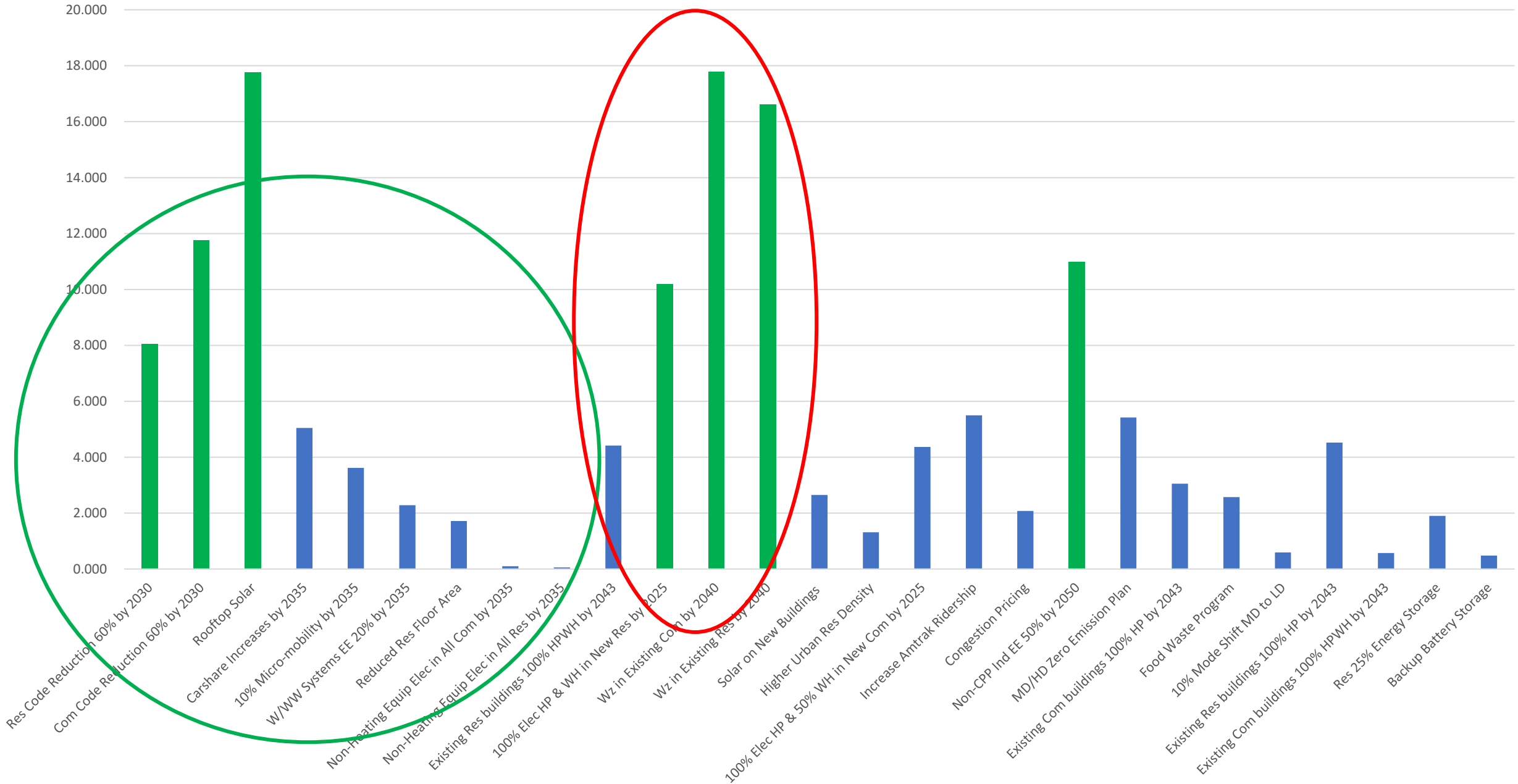
GHG Reduction Amount Resorted by Co-Benefits Only



GHG Reduction Amount Resorted by Evaluation Criteria Score



GHG Reduction Amount Resorted by Risk & Uncertainty



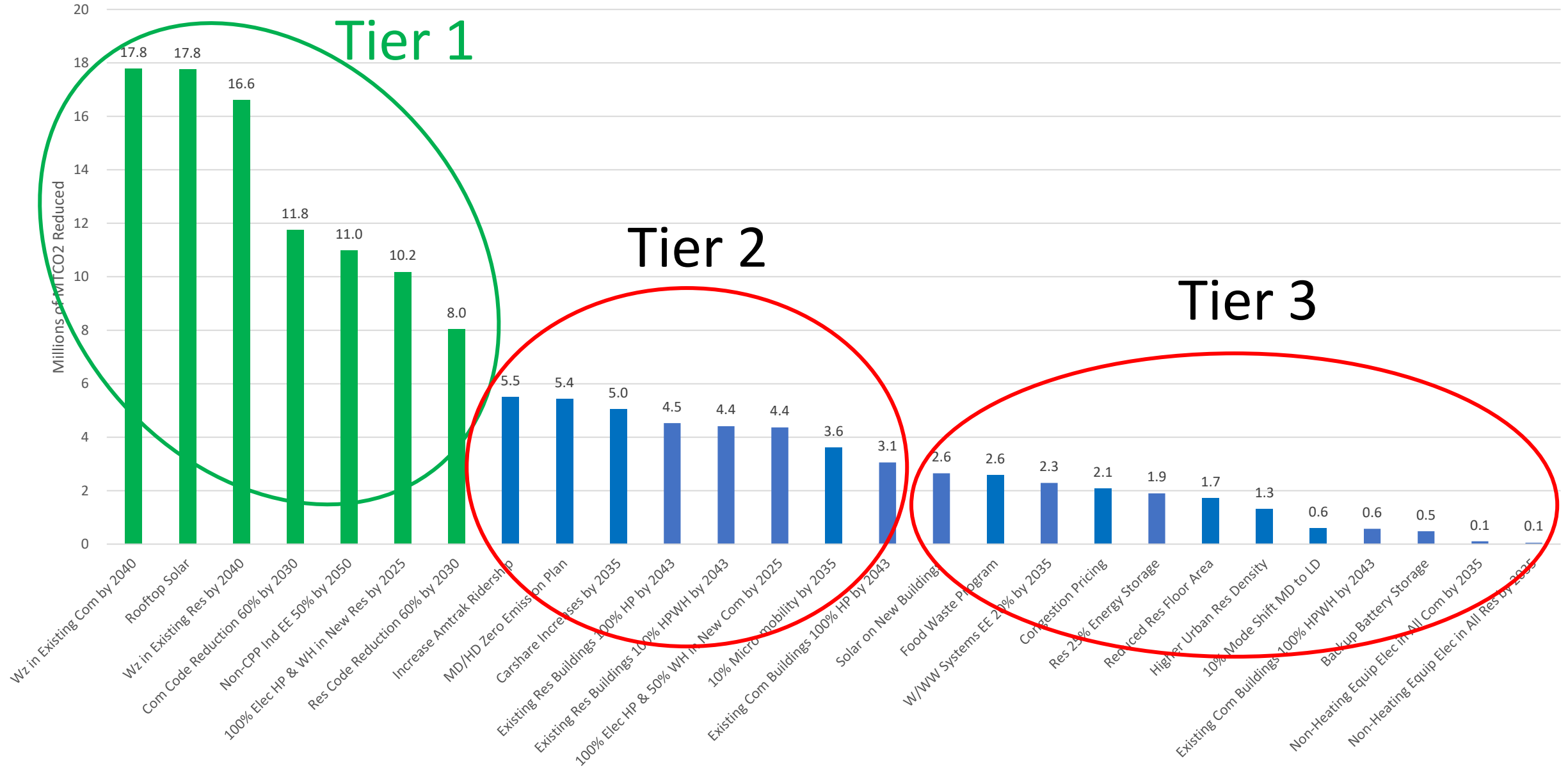
Electrification Scenario Prioritization Recommendation Development

Action Recommendation Process

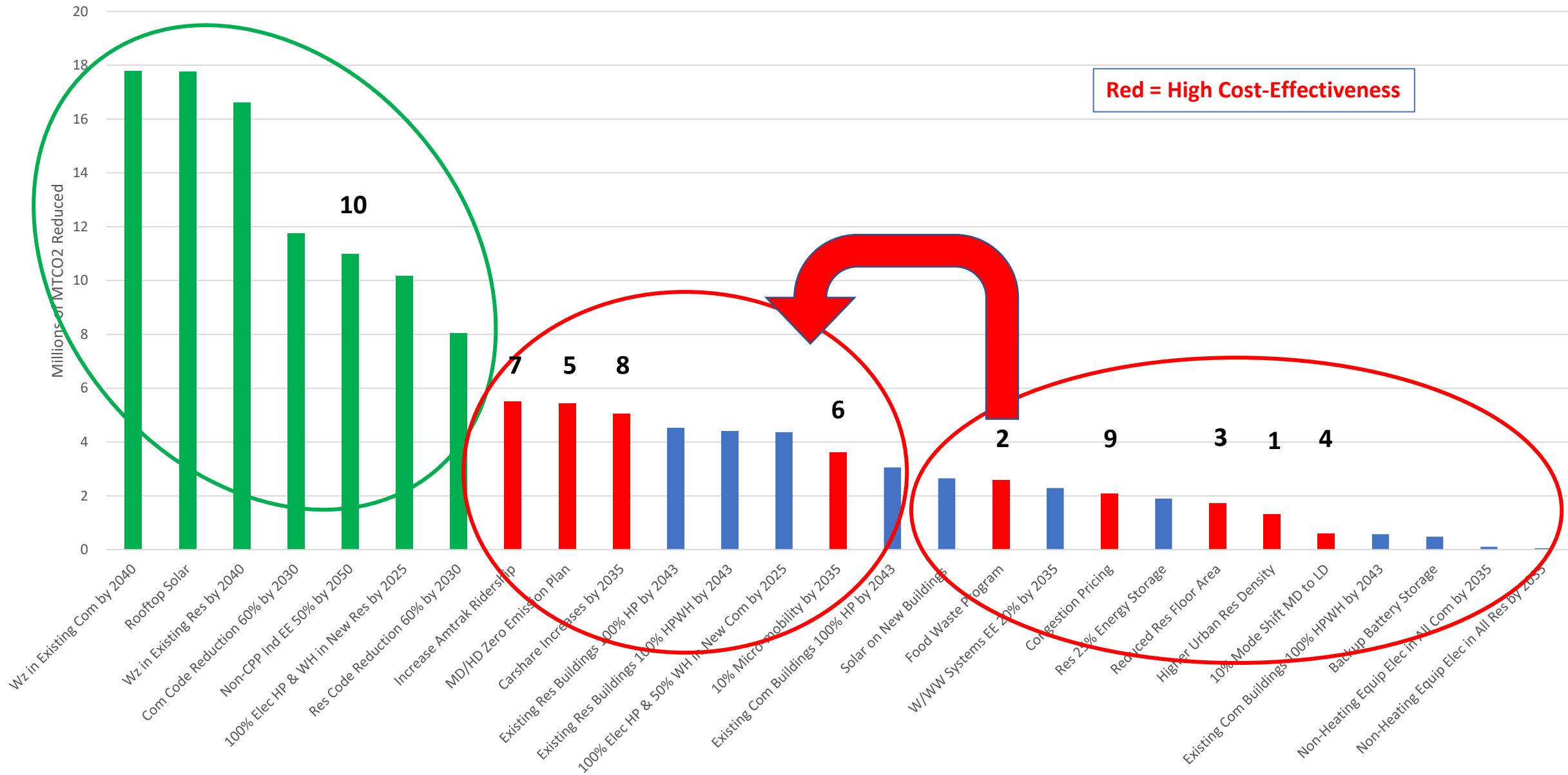
Process

- Direction from Commissioner Jackson's comments
- Start with GHG Reduction Amount
- Look at Cost-Effectiveness
- Look at Co-Benefits
- Look at Score
- Look at Federal Grants and Incentives
- Look at Risk and Uncertainty (further study?)

Ranking – GHG Reduction Amount



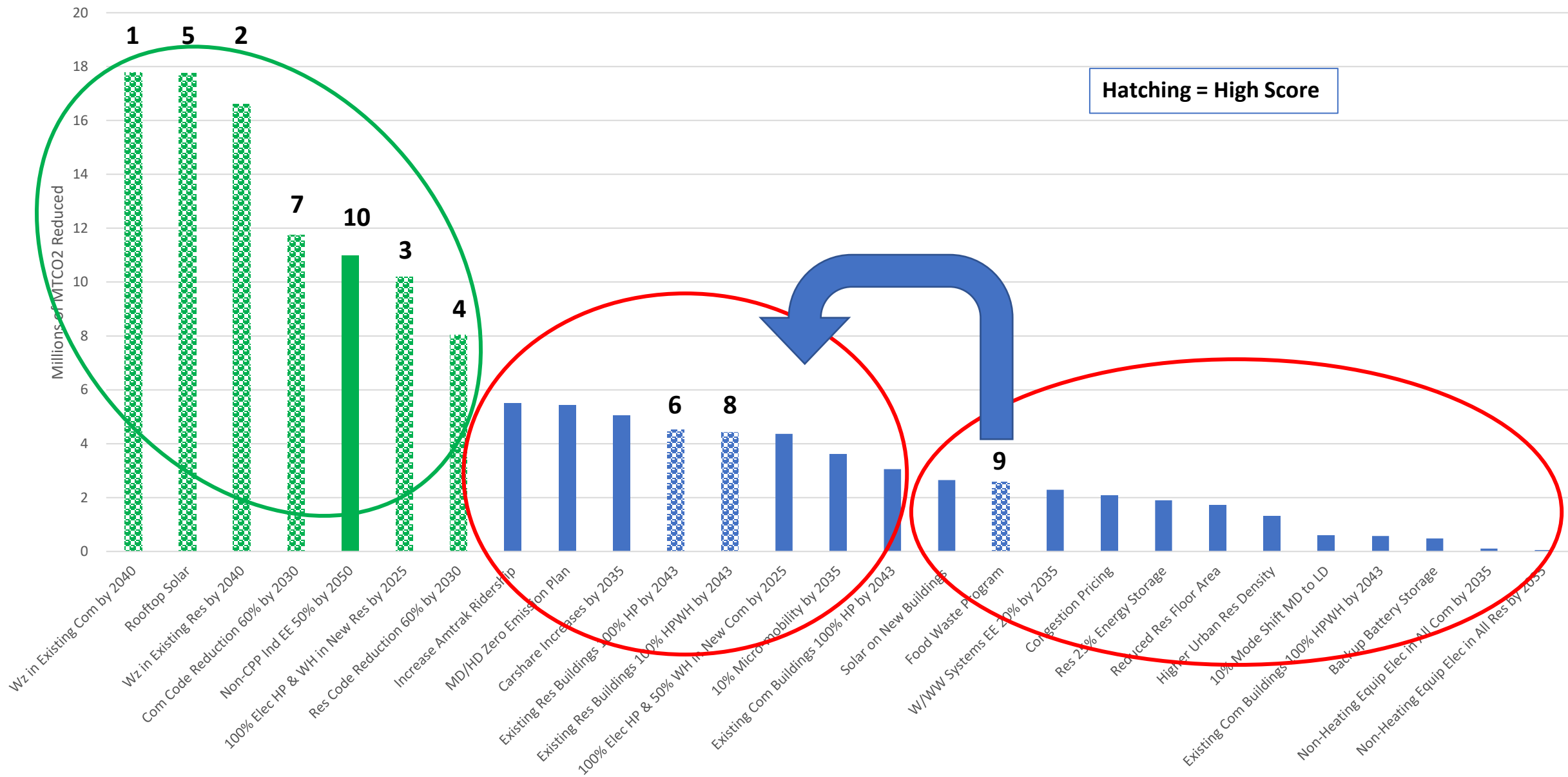
Ranking – Looking at Cost-Effectiveness



Ranking – Looking at Co-Benefits Only



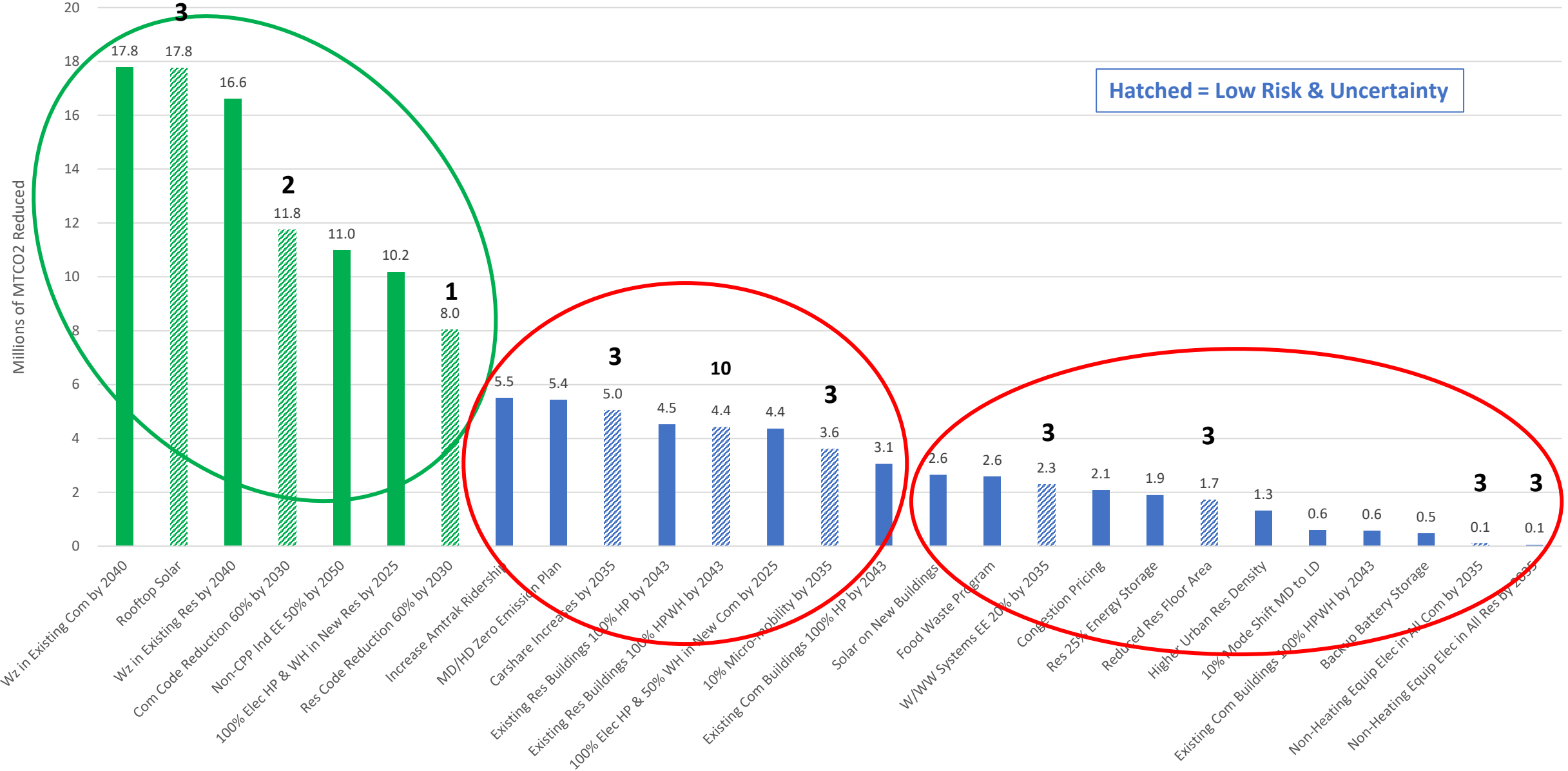
Ranking – Looking at Score



Ranking – Looking at Federal Funding



Ranking – Looking at Risk & Uncertainty



Draft Action Recommendation

Tier 1
(green)

Tier 2
(blue)

Tier 3
(white)

#	Actions (sorted by GHG Emission Reduction Amount)	Category
8	Wz in Existing Com by 2040	Buildings
25	Rooftop Solar	Renewables
7	Wz in Existing Res by 2040	Buildings
4	Com Code Reduction 60% by 2030	Buildings
15	Non-CPP Ind EE 50% by 2050	Ind EE
5	100% Elec HP & WH in New Res by 2025	Buildings
3	Res Code Reduction 60% by 2030	Buildings
19	Increase Amtrak Ridership	Transportation
16	MD/HD Zero Emission Plan	Transportation
20	Carshare Increases by 2035	Transportation
9	Existing Res Buildings 100% HP by 2043	Buildings
10	Existing Res Buildings 100% HPWH by 2043	Buildings
6	100% Elec HP & 50% WH in New Com by 2025	Buildings
18	10% Micro-mobility by 2035	Transportation
11	Existing Com Buildings 100% HP by 2043	Buildings
24	Solar on New Buildings	Renewables
23	Food Waste Program	Waste
22	W/WW Systems EE 20% by 2035	Ind EE
21	Congestion Pricing	Transportation
26	Res 25% Energy Storage	Renewables
1	Reduced Res Floor Area	Buildings
2	Higher Urban Res Density	Buildings
17	10% Mode Shift MD to LD	Transportation
12	Existing Com Buildings 100% HPWH by 2043	Buildings
27	Backup Battery Storage	Renewables
14	Non-Heating Equip Elec in All Com by 2035	Buildings
13	Non-Heating Equip Elec in All Res by 2035	Buildings

Action Category	#
Buildings Energy Efficiency	14
Transportation	6
Renewables	4
Industrial Energy Efficiency	2
Waste	1

Actions That Will Take More Study Prior to Implementation

Does not have an existing delivery pathway.
Delivery mechanism or technology uncertain.

Tier 2:

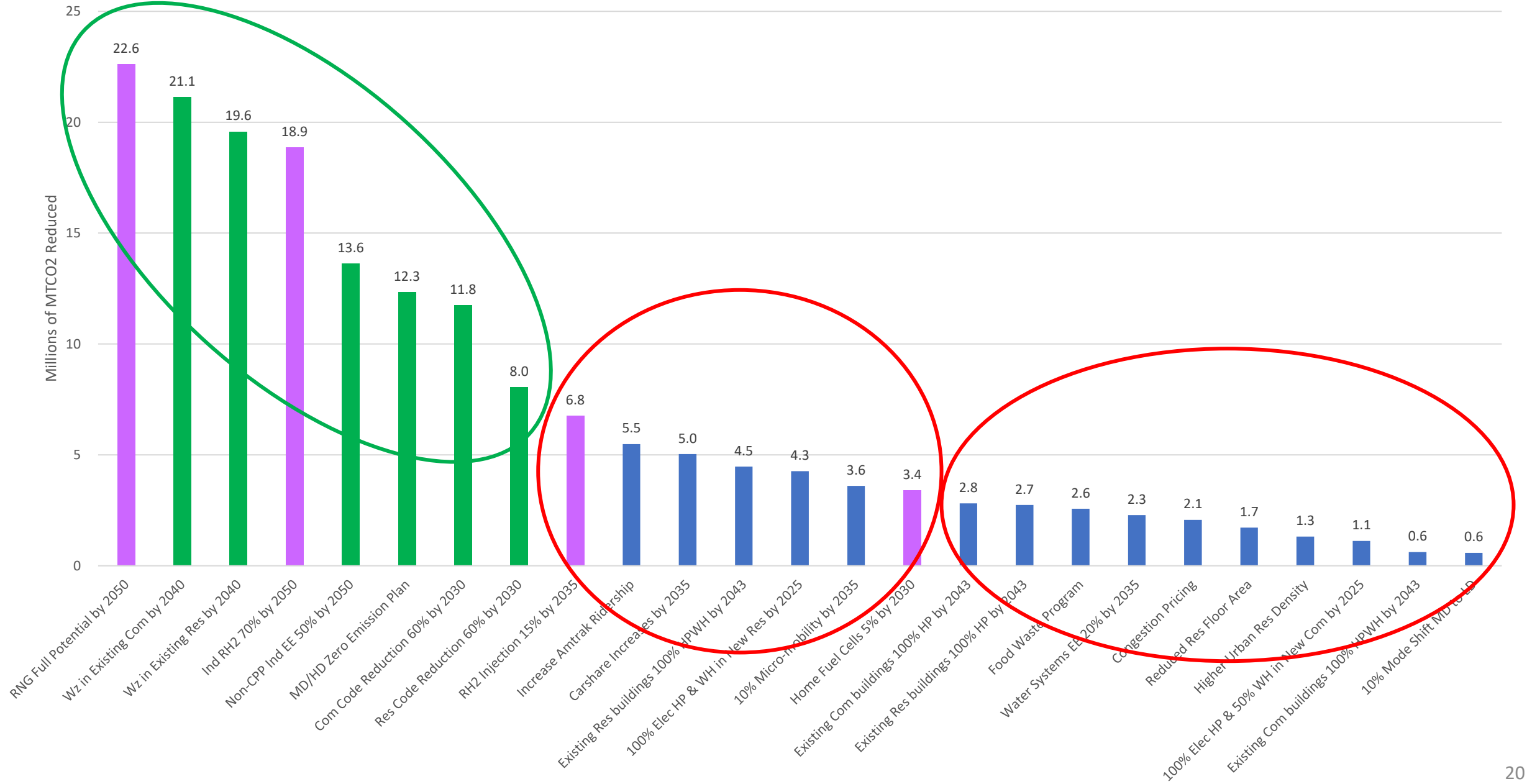
- Increase Amtrak Ridership (#19)
- MD/HD Zero Emission Plan (#16)
- Carshare Increase by 2035 (#20)
- 10% Micro-Mobility by 2035 (#18)
- Food Waste Program (#23)

Tier 3:

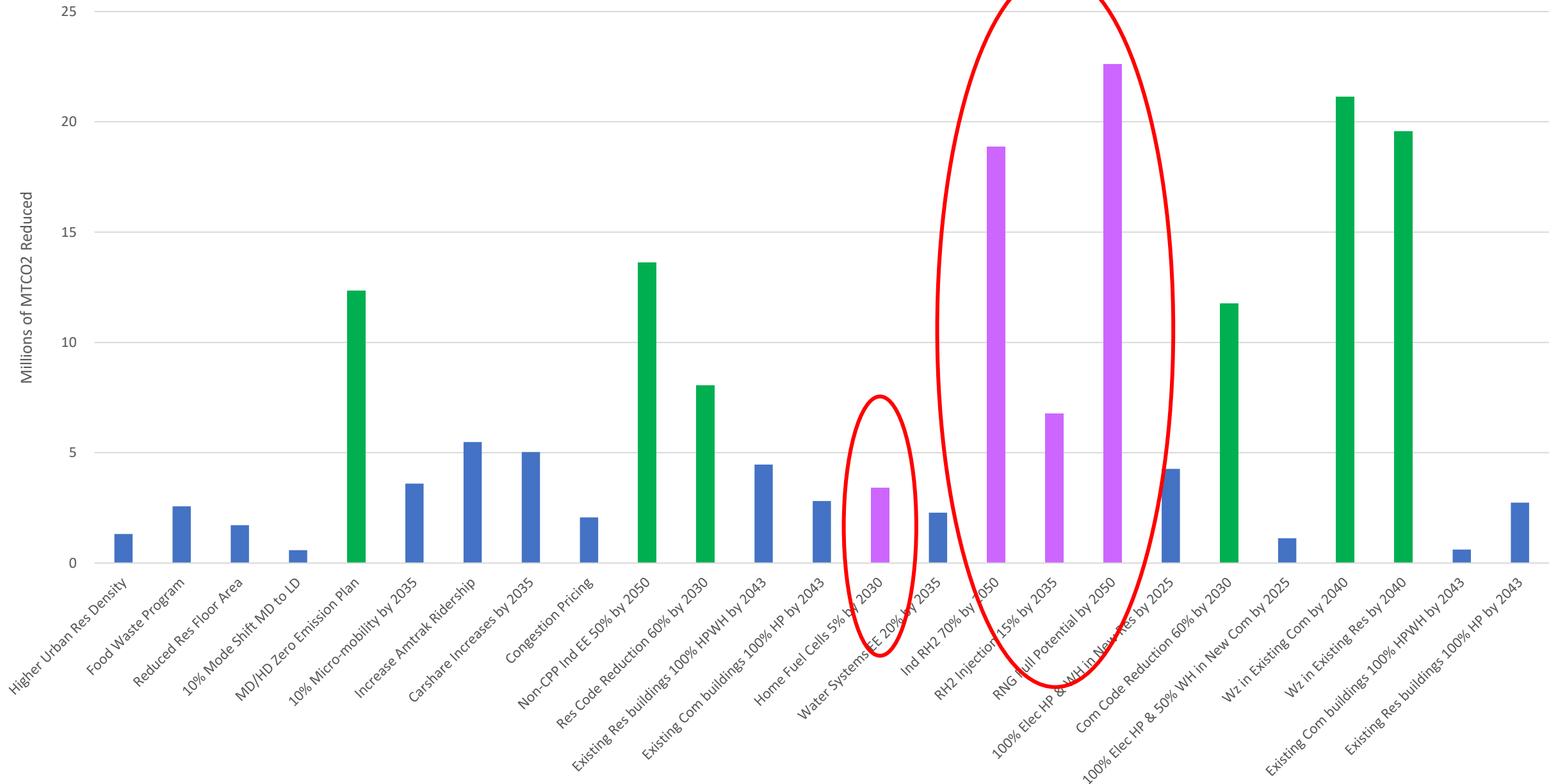
- Congestion Pricing (#21)
- Reduced Res Floor Area (#1)
- Higher Urban Res Density (#2)
- 10% Mode Shift MD to LD (#17)
- Backup as Battery Storage (#27)

Hybrid Scenario Prioritization Analysis

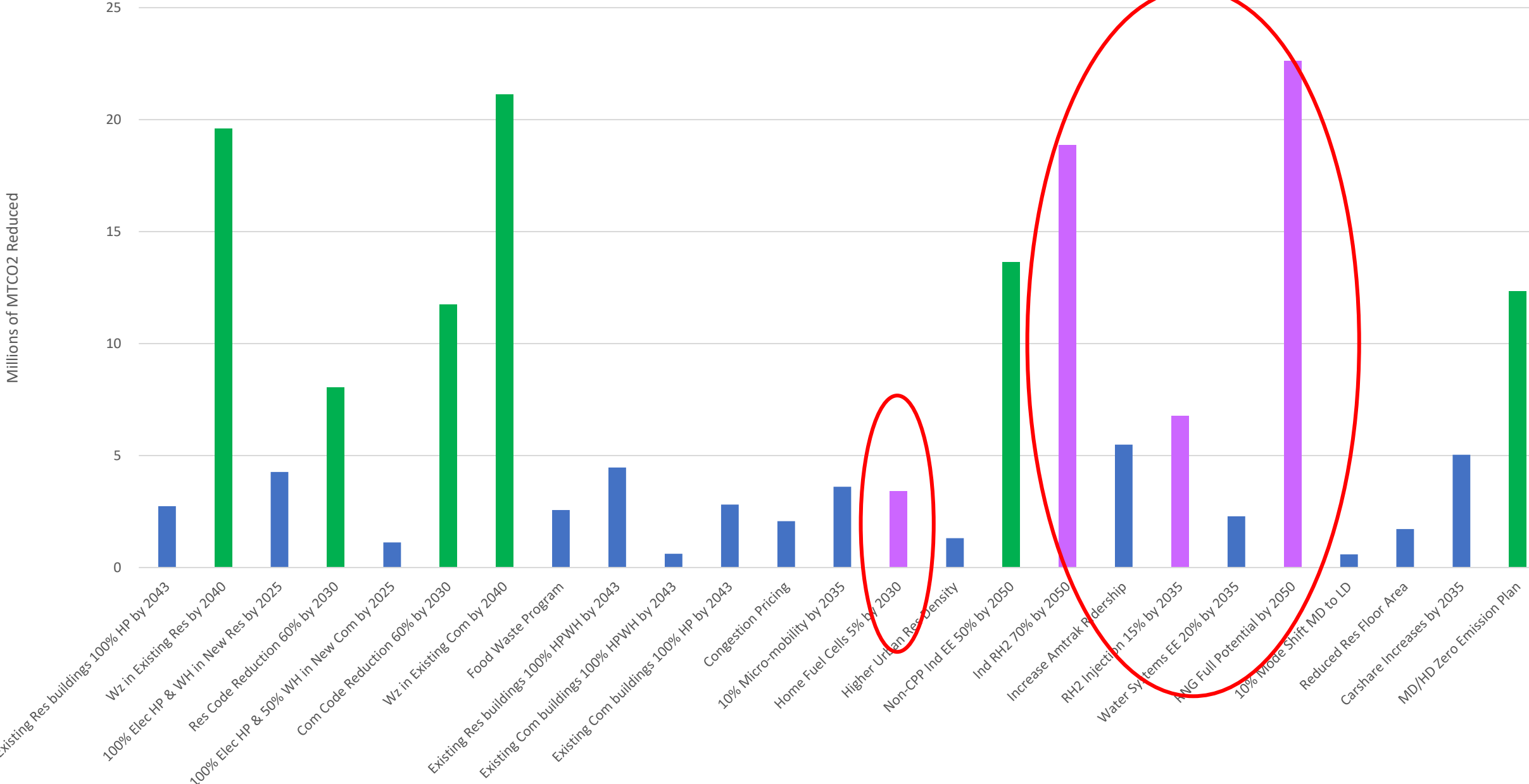
Ranking by GHG Reduction Amount



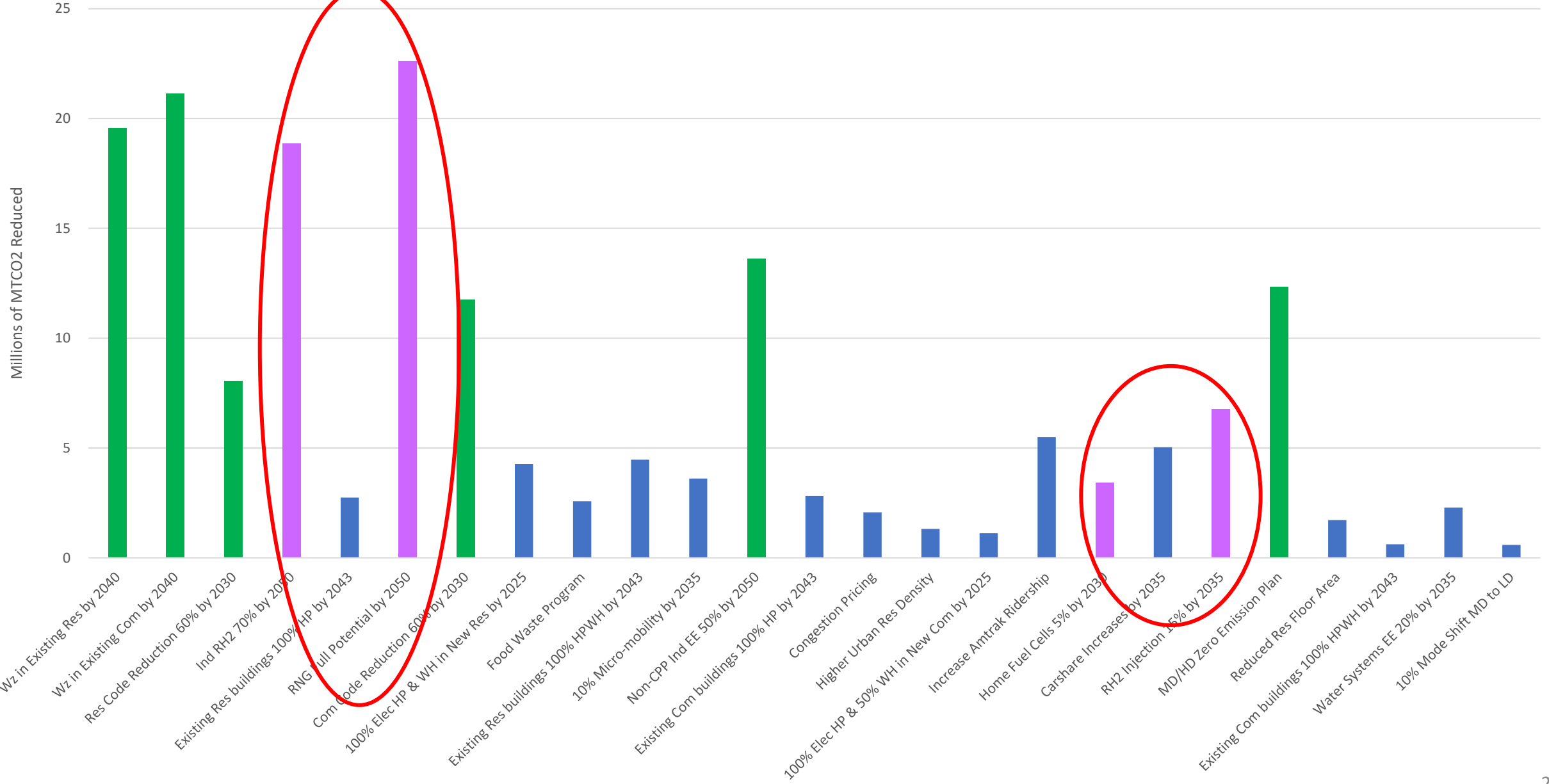
GHG Reduction Amount Resorted by Cost-Effectiveness



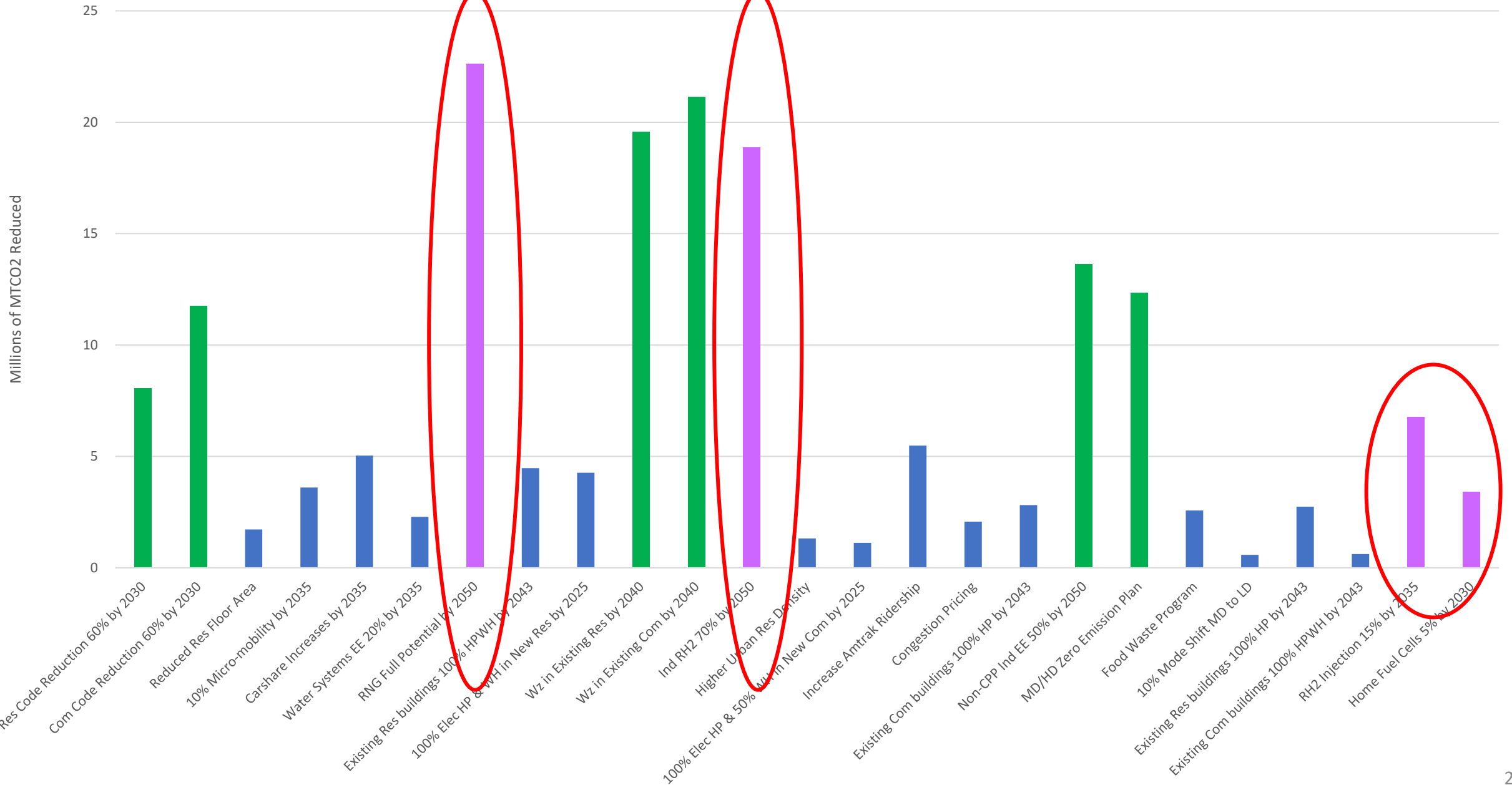
GHG Reduction Amount Resorted by Co-Benefits Only



GHG Reduction Amount Resorted by Evaluation Criteria Score

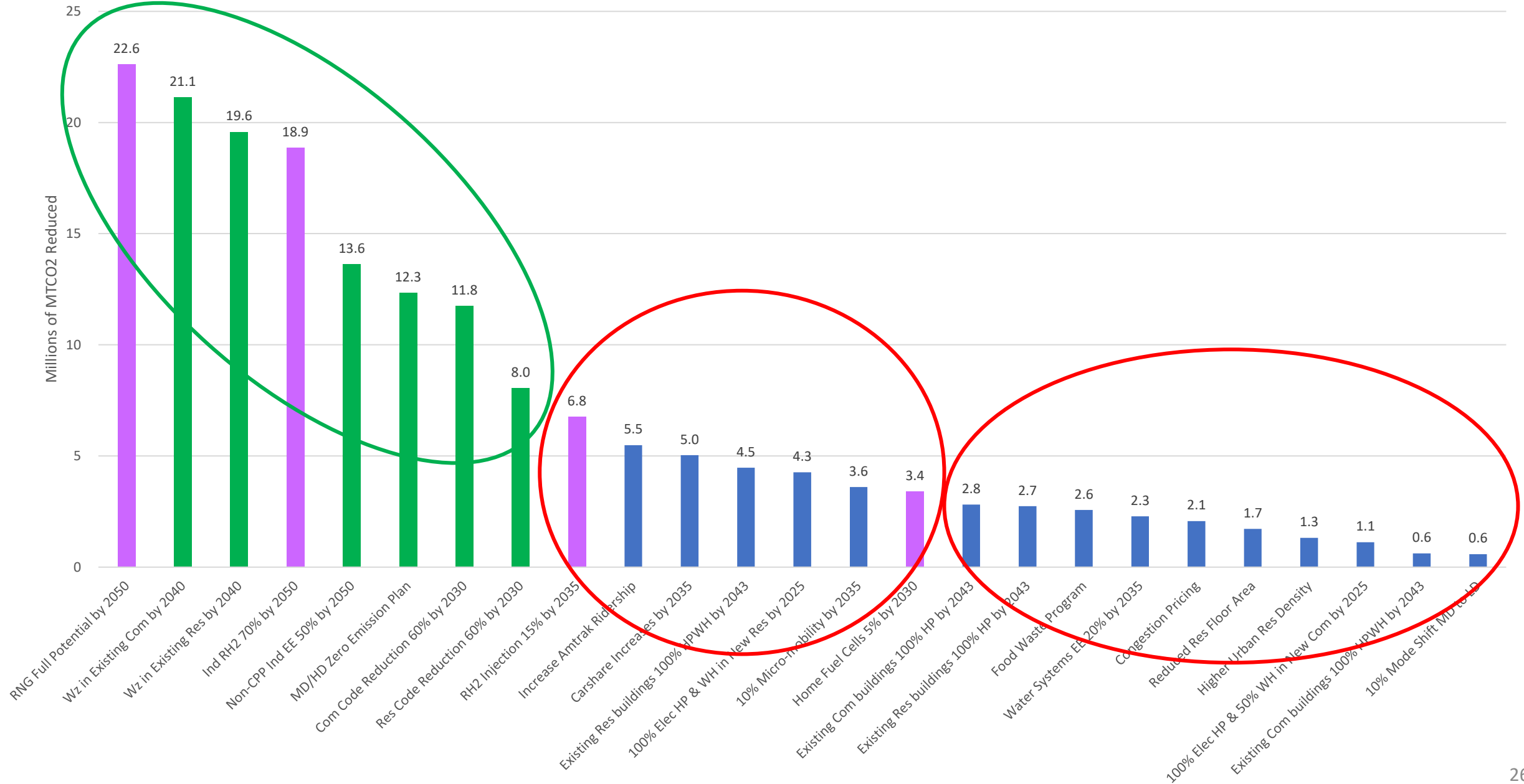


GHG Reduction Amount Resorted by Risk & Uncertainty

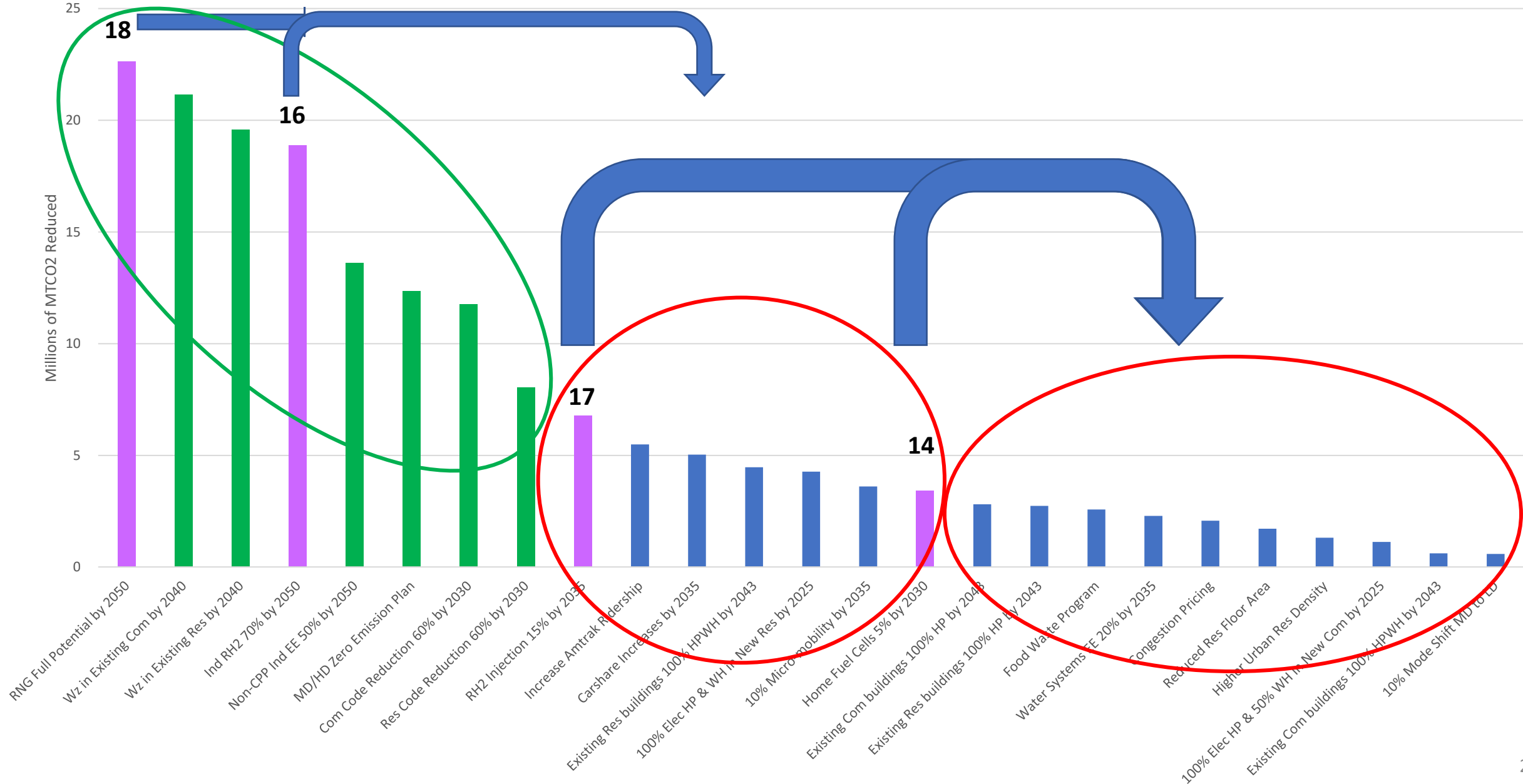


Hybrid Scenario Prioritization Recommendation Development

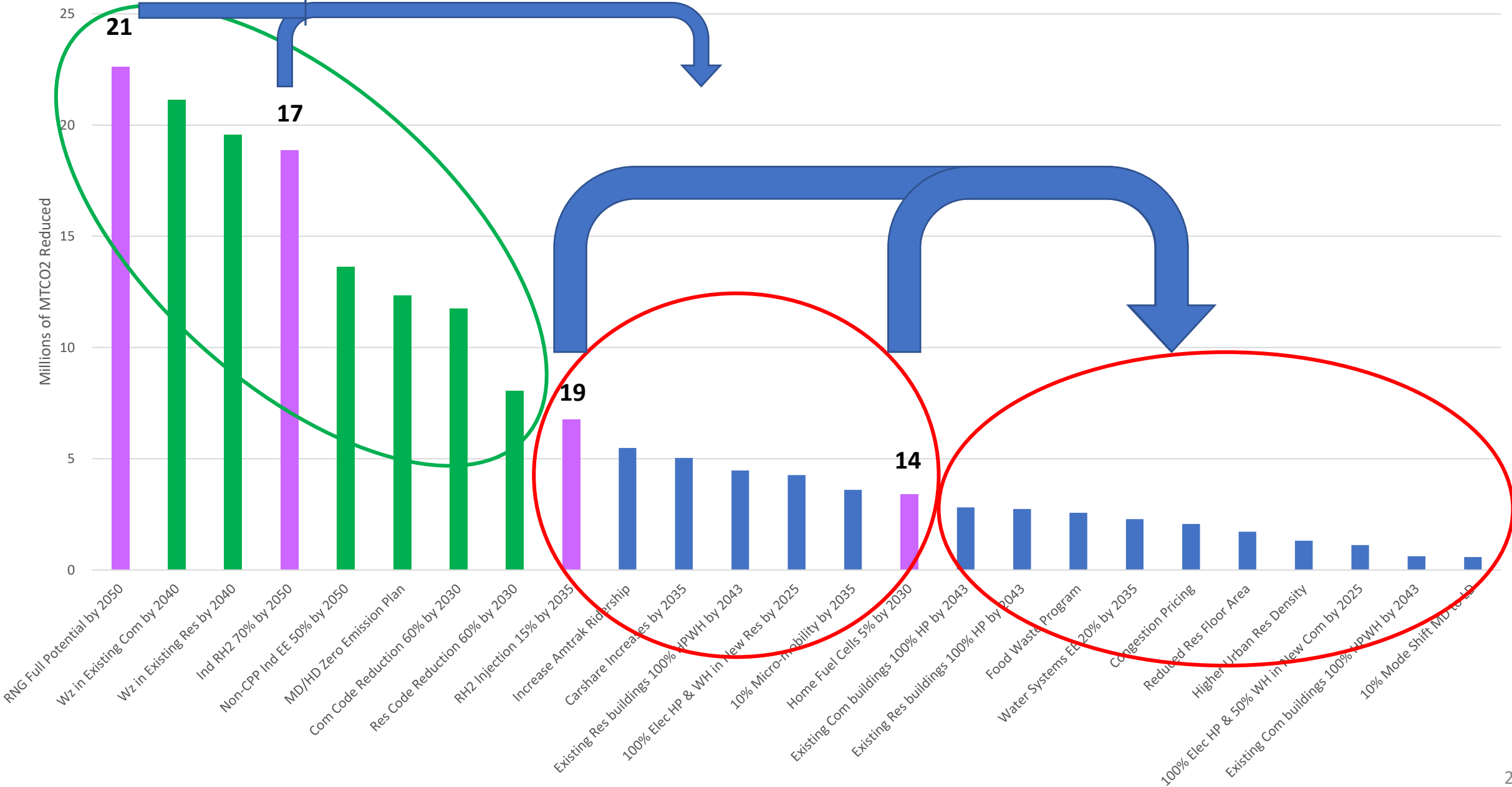
Ranking by GHG Reduction Amount



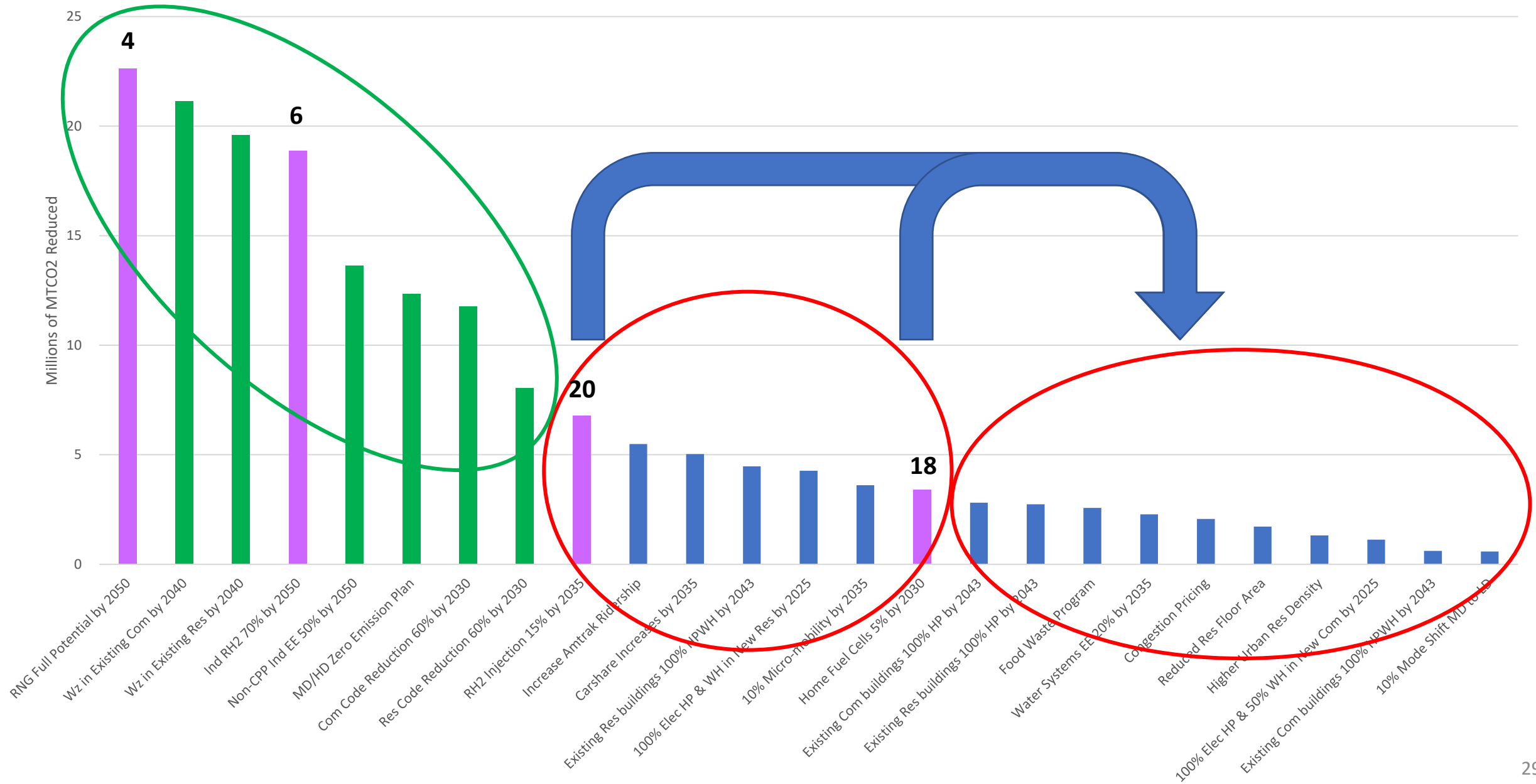
Ranking – Looking at Cost-Effectiveness



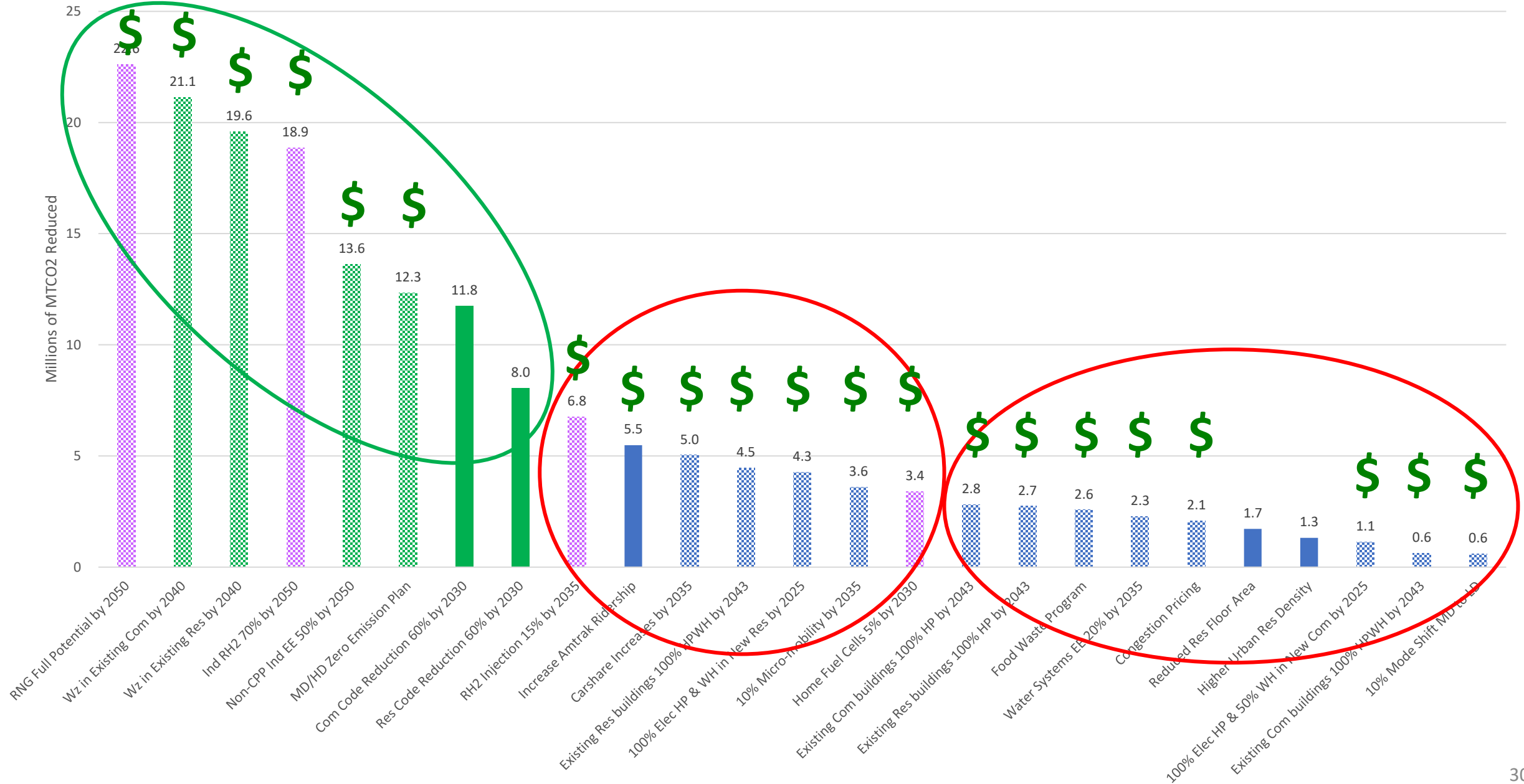
Ranking – Looking at Co-Benefits Only



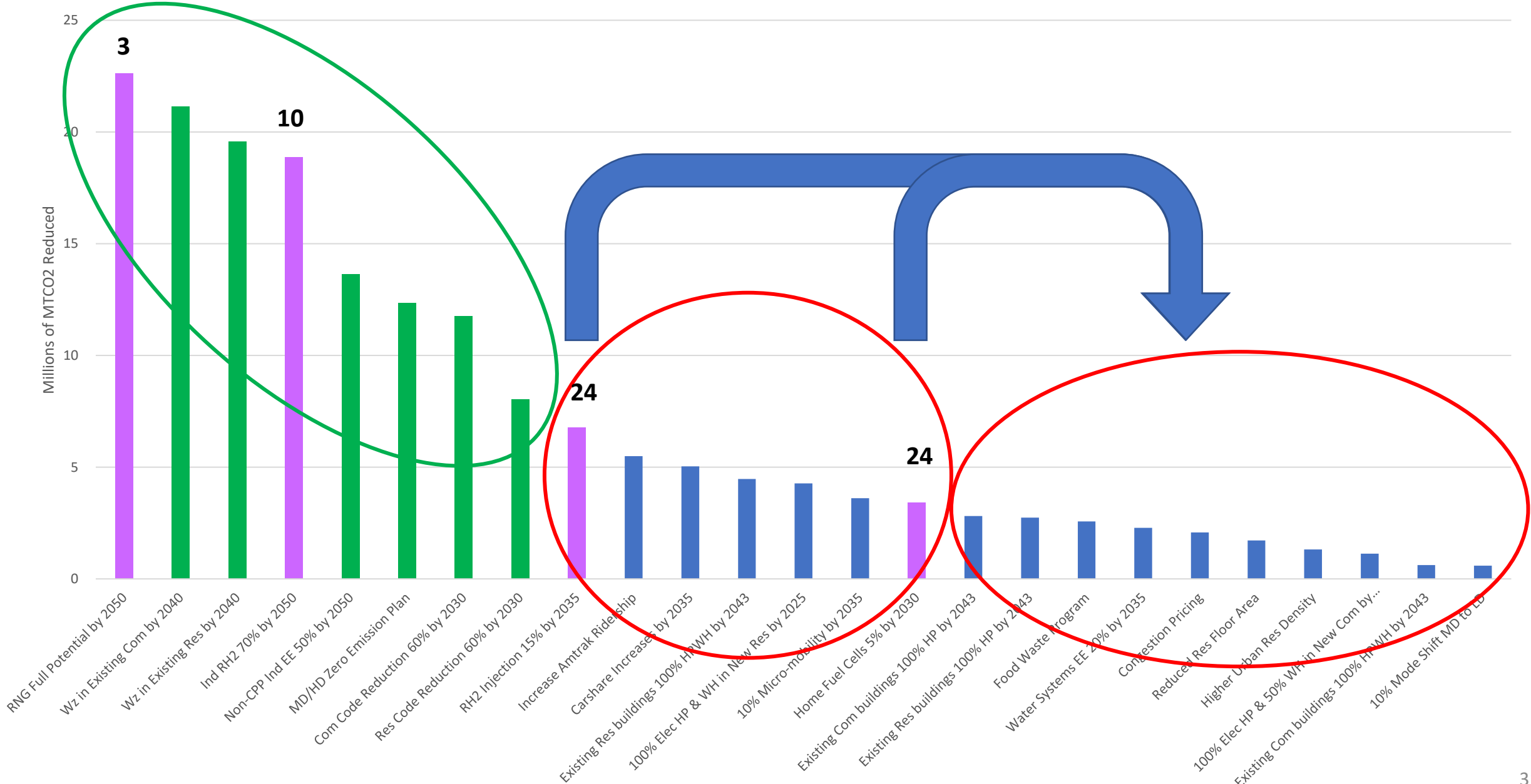
Ranking – Looking at Evaluation Criteria Score



Ranking – Looking at Federal Funding



Ranking – Looking at Risk & Uncertainty



Draft Action Recommendation

#	Action (sorted by GHG Emission Reduction Amount)	Category
23	RNG Full Potential by 2050	RNG
8	Wz in Existing Com by 2040	Buildings
7	Wz in Existing Res by 2040	Buildings
22	Ind RH2 70% by 2050	Hydrogen
13	Non-CPP Ind EE 50% by 2050	Ind EE
14	MD/HD Zero Emission Plan	Transportation
4	Com Code Reduction 60% by 2030	Buildings
3	Res Code Reduction 60% by 2030	Buildings
24	RH2 Injection 15% by 2035	Hydrogen
17	Increase Amtrak Ridership	Transportation
18	Carshare Increases by 2035	Transportation
10	Existing Res buildings 100% HPWH by 2043	Buildings
5	100% Elec HP & WH in New Res by 2025	Buildings
16	10% Micro-mobility by 2035	Transportation
25	Home Fuel Cells 5% by 2030	Hydrogen
11	Existing Com buildings 100% HP by 2043	Buildings
9	Existing Res buildings 100% HP by 2043	Buildings
21	Food Waste Program	Waste
20	Water Systems EE 20% by 2035	Ind EE
19	Congestion Pricing	Transportation
1	Reduced Res Floor Area	Buildings
2	Higher Urban Res Density	Buildings
6	100% Elec HP & 50% WH in New Com by 2025	Buildings
12	Existing Com buildings 100% HPWH by 2043	Buildings
15	10% Mode Shift MD to LD	Transportation

Action Category	#
Buildings Energy Efficiency	12
Transportation	6
Hydrogen	3
RNG	1
Industrial Energy Efficiency	2
Waste	1

Actions That Will Take More Study Prior to Implementation

Does not have an existing delivery pathway.
Delivery mechanism or technology uncertain.

Tier 1:

- MD/HD Zero Emission Plan (#14)

Tier 2:

- ***RNG Full Potential by 2050 (#23)***
- ***Ind RH2 70% by 2050 (#22)***
- Increase Amtrak Ridership (#17)
- Carshare Increase by 2035 (#18)
- 10% Micro-Mobility by 2035 (#16)
- Food Waste Program (#21)

Actions That Will Take More Study Prior to Implementation

Does not have an existing delivery pathway.
Delivery mechanism or technology uncertain.

Tier 3:

- ***RH2 Injection 15% by 2035 (#24)***
- ***Home Fuel Cells 5% by 2030 (#25)***
- Congestion Pricing (#19)
- Reduced Res Floor Area (#1)
- Higher Urban Res Density (#2)
- 10% Mode Shift MD to LD (#15)

Consistent with REBuilding Task Force Recommendations

Recommendations: “Task Force members were surveyed about their levels of alignment with the following general policy directions (listed from highest to lowest levels of support):

- 1. Promote, incentivize, and/or subsidize energy efficiency and heating/cooling efficiency increases** (25 support, 2 do not support).
- 2. Promote, incentivize, and/or subsidize heat pumps** (24 support, 2 do not support).
- 3. Decarbonize institutional/public buildings** (23 support, 4 do not support).
4. Promote, incentivize, and/or subsidize air purification systems (23 support, 4 do not support).
5. Assess and disclose material-related emissions (21 support, 6 do not support).
6. Modify Energy Trust of Oregon’s mission (21 support, 6 do not support).
7. Building performance standards (19 support, 8 do not support).
- 8. Align energy efficiency programs with state’s climate goals** (19 support, 8 do not support).
- 9. Enact energy-efficient building codes** (18 support, 9 do not support).”

<https://olis.oregonlegislature.gov/liz/202111/Downloads/CommitteeMeetingDocument/258395>