



Prince William County

2030 GHG Reduction Scenario Version 2

January 11, 2023

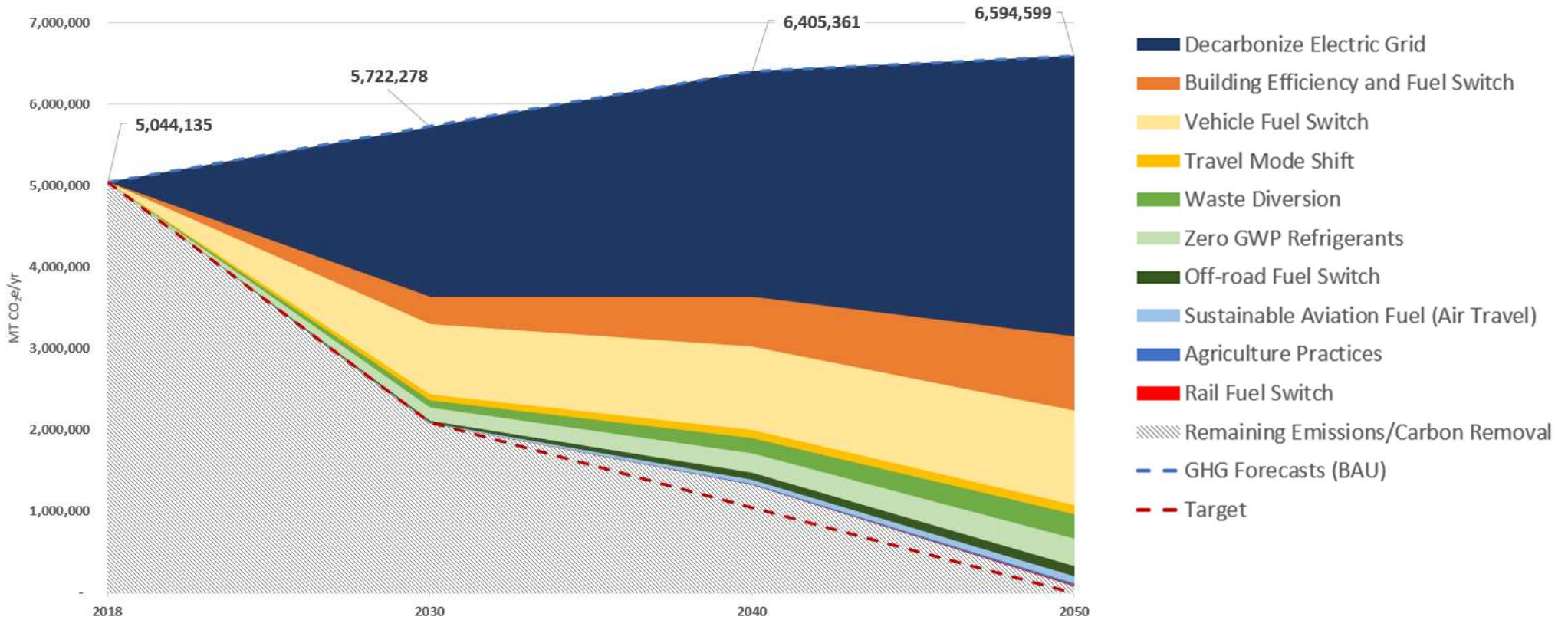
Vanessa Goh, AECOM

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Final GHG Reduction Scenario

Final GHG Reduction Scenario

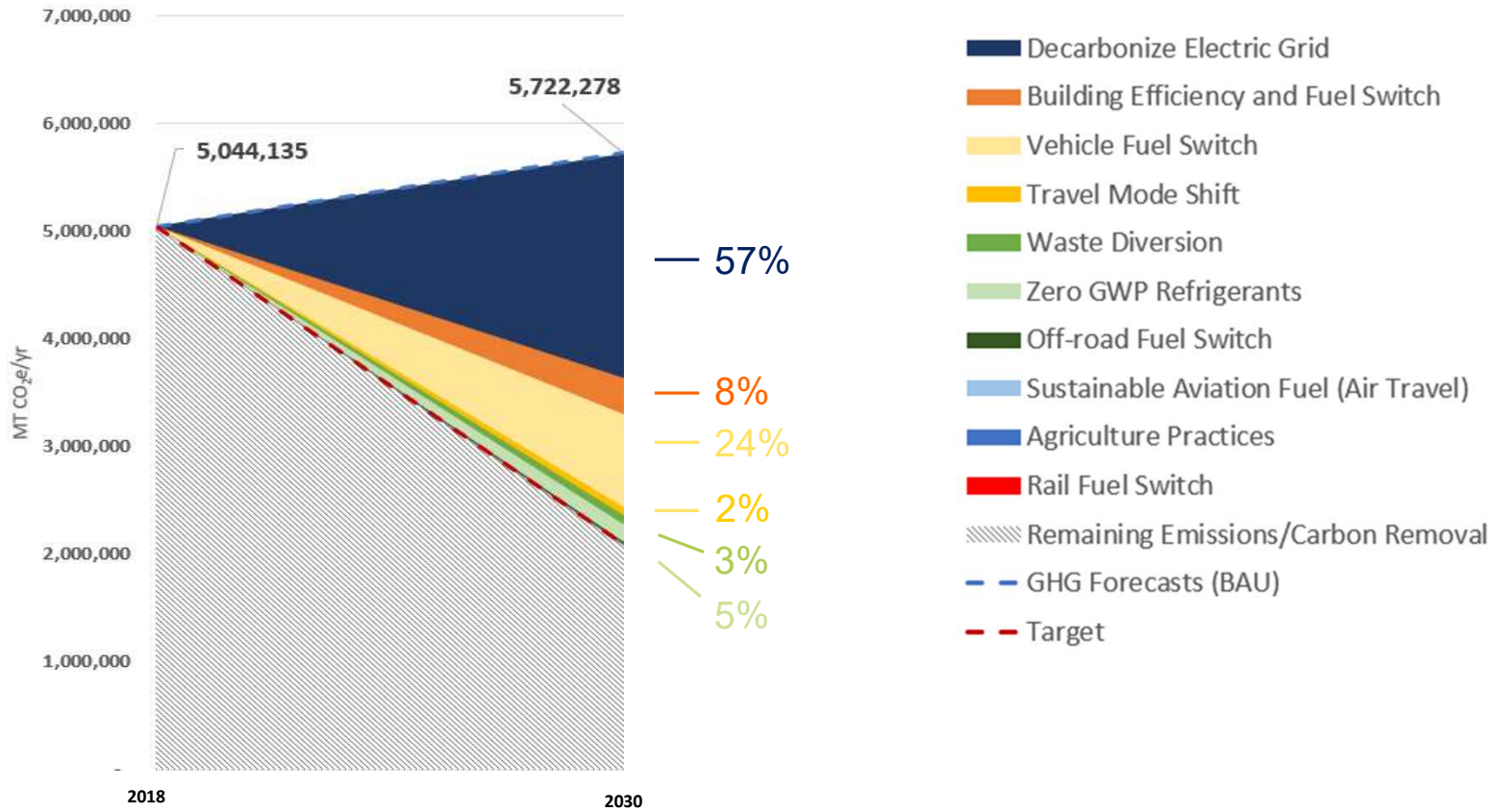


Final 2030 GHG Reduction Scenario

Strategy	Total 2030 Reductions
92% clean electricity	57%
40% of HVAC/water heaters are highly efficient and electric	8%
100% high-efficiency lighting and appliances	1%
57% HFCs replaced with zero GWP alternatives	4%
50% of passenger and medium-duty vehicles are ZEV	24%
5% mode shift from passenger vehicles to active/public transport	2%
15% zero emissions off-road equipment	1%
20% reduction in aviation emissions	<1%
60% waste diversion rate	2%
10% reduction in agriculture emissions	<1%

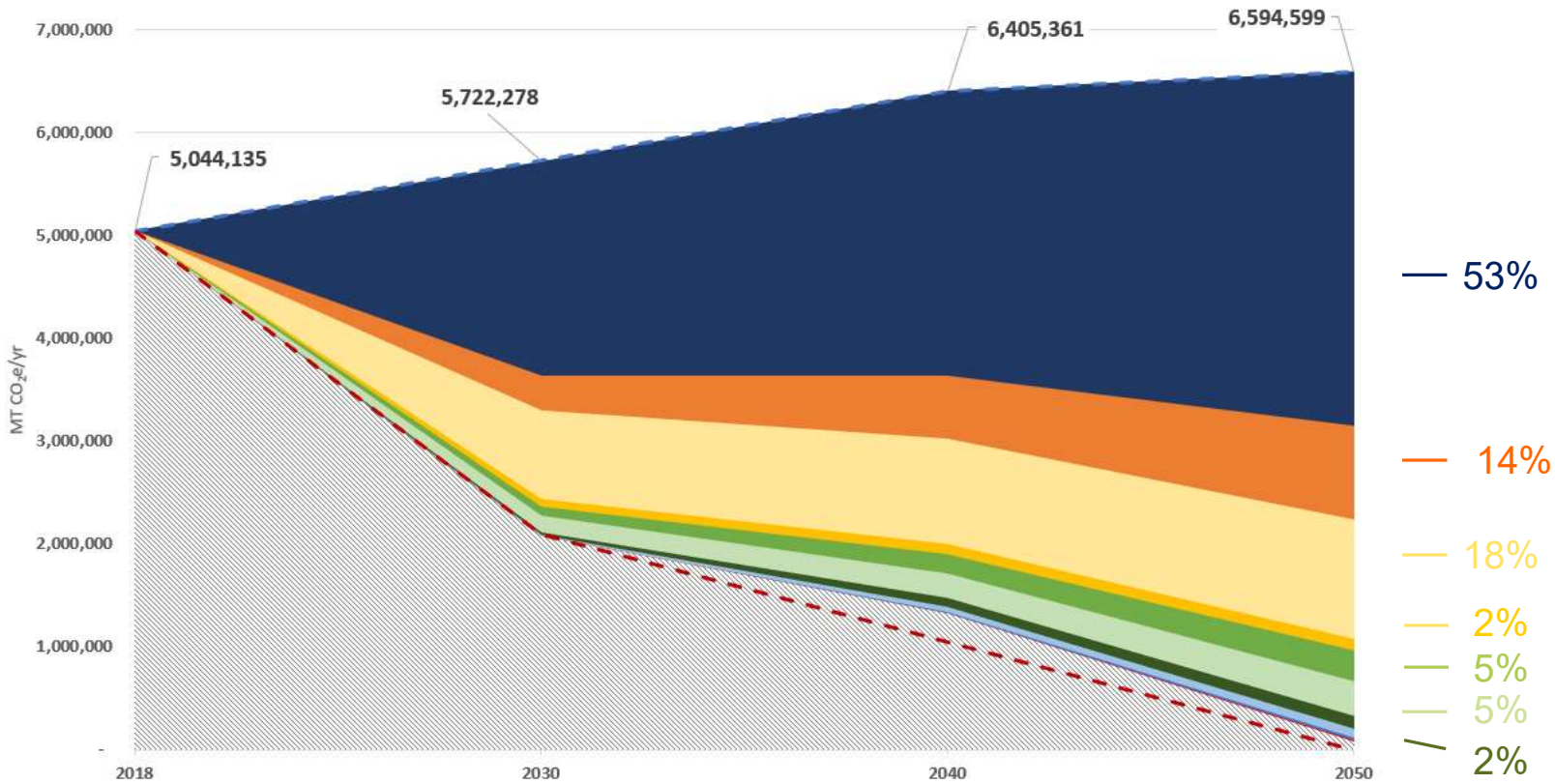
Red= increased since first GHG reduction scenario

2030 Final GHG Reduction Scenario



2050 Final GHG Reduction Scenario

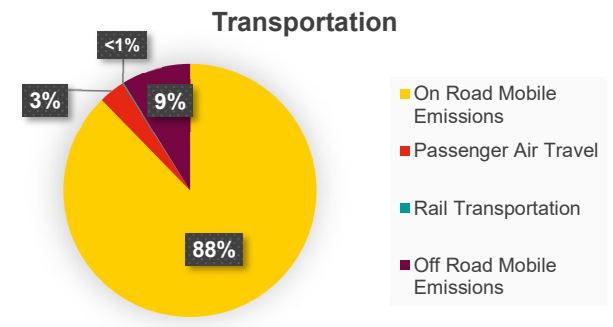
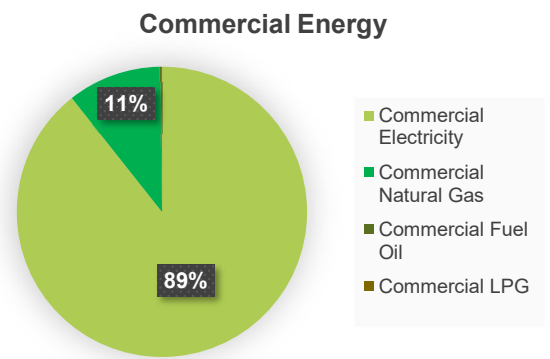
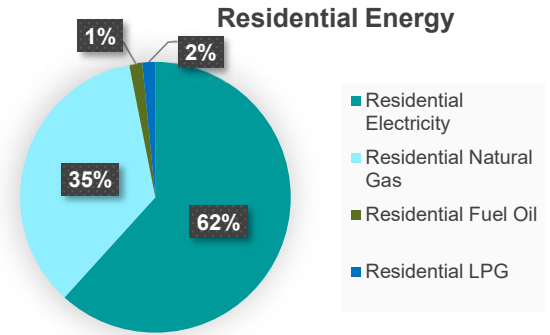
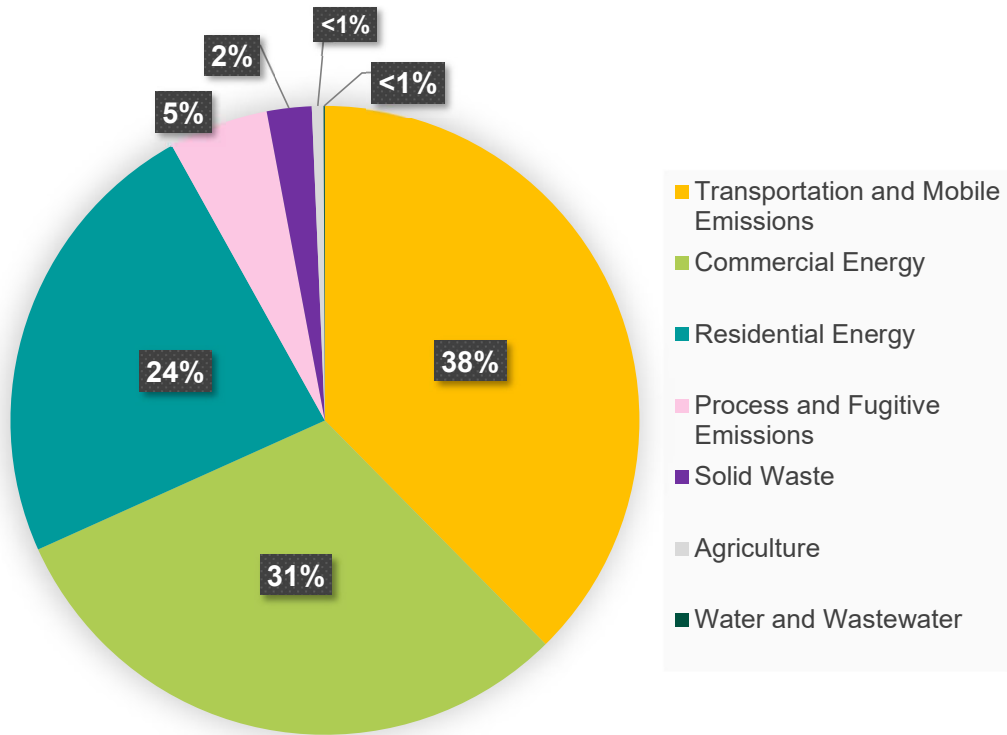
- Decarbonize Electric Grid
- Building Efficiency and Fuel Switch
- Vehicle Fuel Switch
- Travel Mode Shift
- Waste Diversion
- Zero GWP Refrigerants
- Off-road Fuel Switch
- Sustainable Aviation Fuel (Air Travel)
- Agriculture Practices
- Rail Fuel Switch
- Remaining Emissions/Carbon Removal
- GHG Forecasts (BAU)
- Target





Previously Presented Slides

2018 GHG Emissions Inventory



OLD 2030 GHG Reduction Scenario

Strategy	Total 2030 Reductions
84% clean electricity	63%
40% of HVAC/water heaters are highly efficient and electric	10%
100% high-efficiency lighting and appliances	1%
55% HFCs replaced with zero GWP alternatives	5%
50% of passenger and medium-duty vehicles are ZEV	15%
2% mode shift from passenger vehicles to active/public transport	1%
15% zero emissions off-road equipment	1%
20% reduction in aviation emissions	<1%
60% waste diversion rate	3%
10% reduction in agriculture emissions	<1%

GHG Reduction Barriers

Strategies	Barriers
All	County jurisdictional control, funding/finance
Clean electricity	Electric grid control
Building efficiency and electrification	Building and energy code limitations, grid capacity
Zero emission on-road vehicles	Market conditions, grid capacity
Mode shift to active/public transport	Transit agencies, infrastructure
Zero emissions off-road equipment	Market conditions, technological barriers
Aviation emission reductions	Market conditions, technological barriers
Waste diversion	Behavioral barriers, technological barriers
Agricultural management practices	Technological barriers