



Multi-Sector Approach to Reducing Greenhouse Gas Emissions in the Metropolitan Washington Region

Status Report

Excerpts From ICFI Presentations

Commuter Connections Subcommittee

Tuesday July 21, 2015

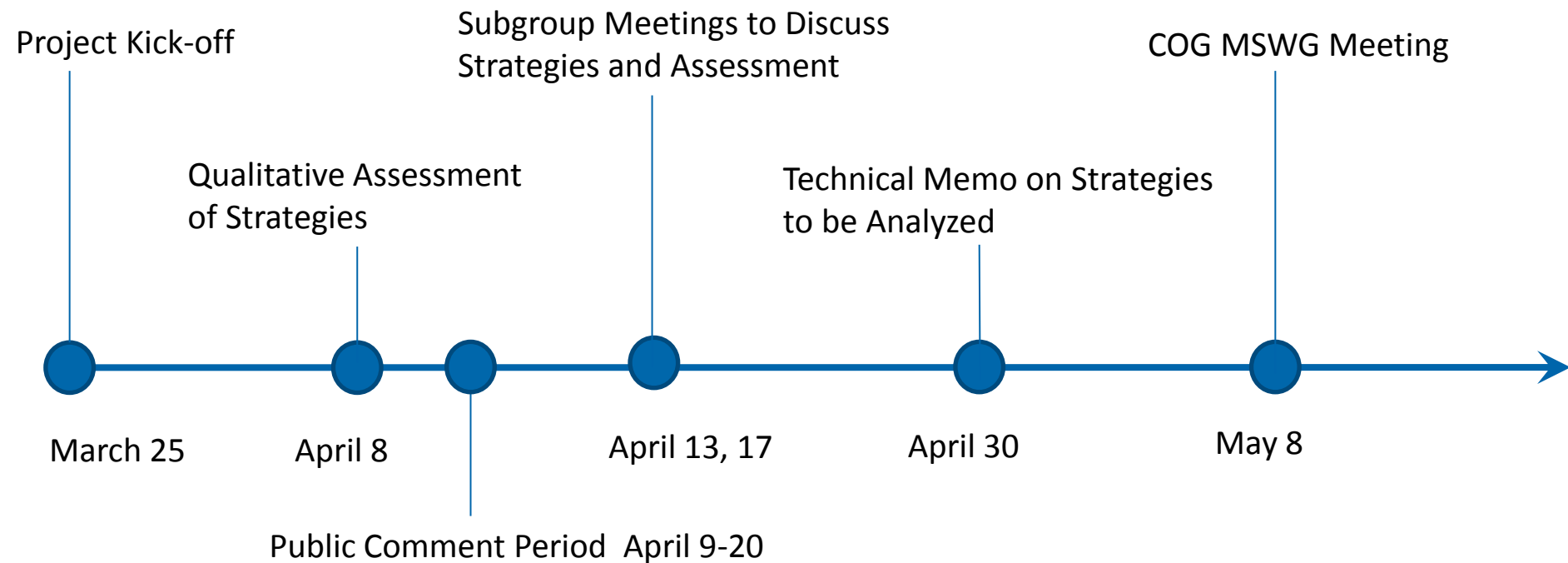


ICF Tasked with...

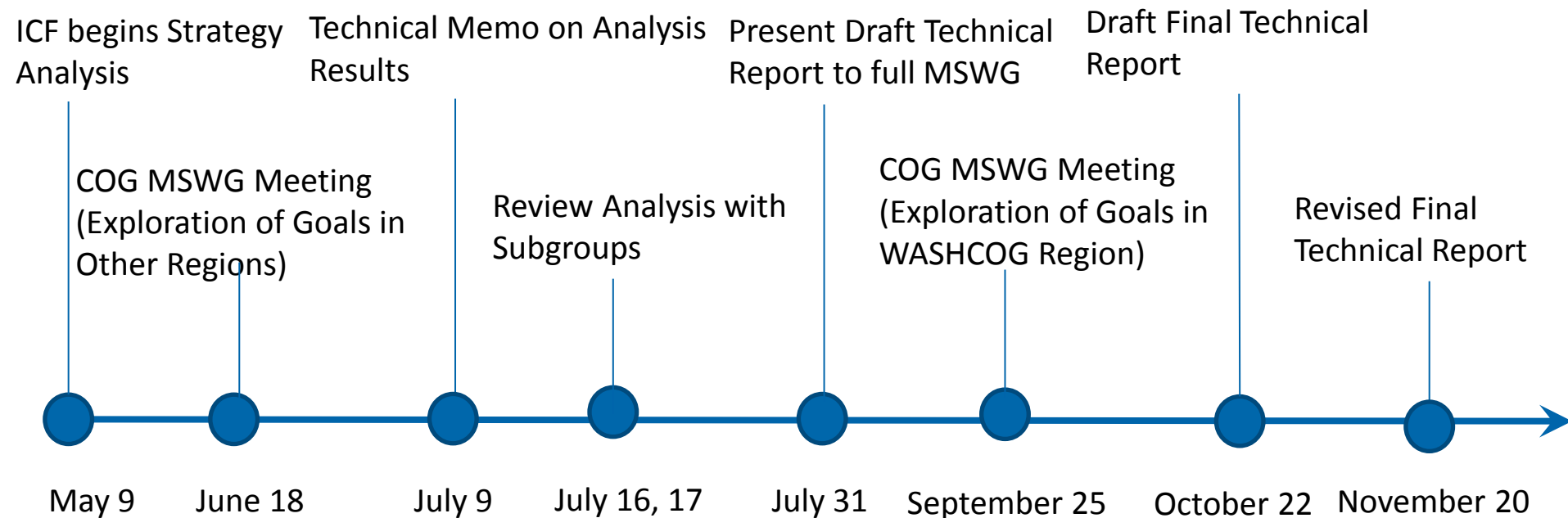
Performing the necessary work to a prepare a Technical Report quantifying the benefits, costs, and co-benefits and describing possible **implementation approaches** and **timeframes** of **viable, implementable, and stretch GHG reductions strategies** in the Metropolitan Washington Region.

Project Milestones

Timeline of strategy analysis to date



Project Milestones Going Forward



ICF Conducts Strategy Analysis May 9 - July 9

**Presentations to Policy Boards/Committees (TPB, MWAQC, CEEPC, COG)
September, October, December 2015
January 2016**

GHG Reduction Strategies

Energy and Built Environment Strategies

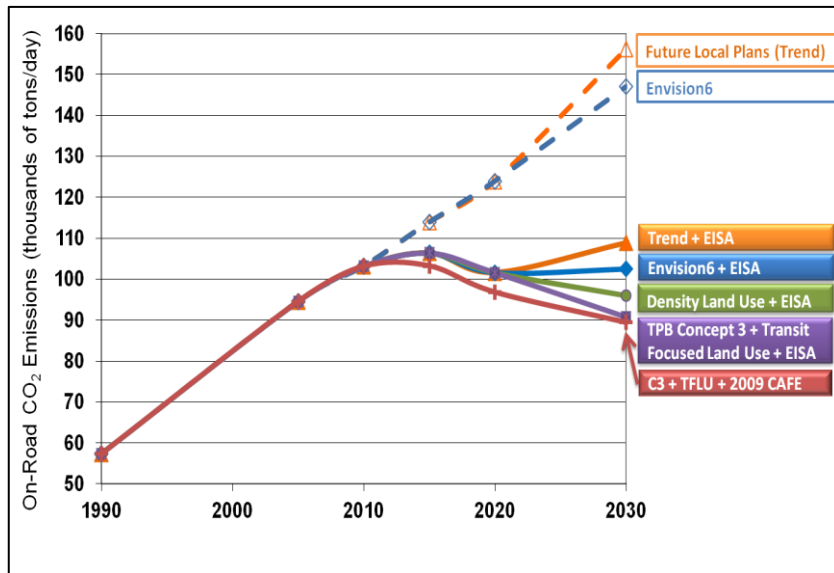
- EBE-1: Existing Buildings - Energy and water performance
- EBE-2: Building-level renewables
- EBE-3: Encourage development in activity centers
- EBE-4: New Buildings - Energy and water performance
- EBE-5: Infrastructure – Energy and water performance and increase renewable energy use
- EBE-6: Reduction in power sector emissions
- EBE-7: Reduction in gas pipeline leaks
- EBE-8: Reduction in municipal solid waste
- EBE-9: Reduction in emissions from non-road engines
- EBE-10: Educate and motivate public

Transportation and Land Use Strategies

- TLU-1: Increase Urban Tree Canopy and Land Stewardship
- TLU-2: Sustainable Development Patterns & Urban Design (including Enhancements for Non-motorized Modes)
- TLU-3: Improve Fuel Economy of Light-duty Vehicle Fleet
- TLU-4: Increase Alternative Fuels in Public Sector Fleets
- TLU-5: Clean Freight Technologies
- TLU-6: Low Carbon Fuel Standard
- TLU-7: Enhance System Operations
- TLU-8: Reduce Speeding on Freeways
- TLU-9: Travel Demand Management
- TLU-10: Transit Enhancements
- TLU-11: Transit Incentives / Fare Reductions
- TLU-12: Road Pricing

Different Analysis Approaches

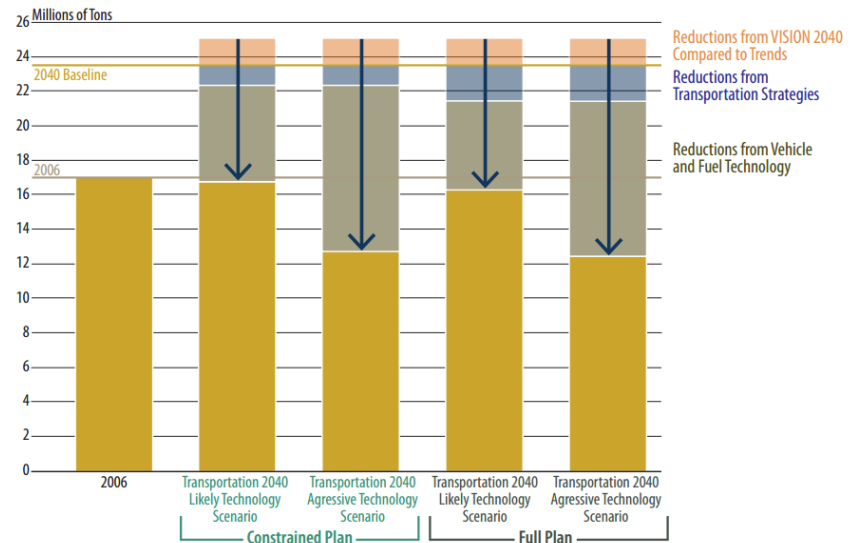
Different sets of (combined) strategies



Source: Atlanta Regional Commission

Different levels of aggressiveness

FIGURE 18. Greenhouse Gas Emissions (CO₂ Emissions in Millions of Tons)



Source: Puget Sound Regional Council, *Transportation 2040*, Chapter 3 and Appendix L, available at: <http://www.psrc.org/transportation/t2040/t2040-pubs/final-draft-transportation-2040>

GHG Reduction Strategies in Descending Order of GHG Benefits

(in 2050 “Stretch Scenario”)

Strategy	Strategy Name	GHG Reductions (MMTCO ₂ e)		
		2020	2040	2050
EBE-6	EBE-6: Achieve targeted reductions in power sector emissions	2.19	10.04	10.04
EBE-1	EBE-1: Achieve annual and cumulative reductions in energy and water consumption in existing buildings	2.00	9.36	9.36
EBE-4	EBE-4: Improve new building energy and water efficiency performance	0.80	3.93	6.20
EBE-2	EBE-2: Support existing building-level renewable energy development	0.73	1.82	2.72
TLU-3	TLU-3: Improve Fuel Economy of Light-duty Vehicle Fleet	0.22	1.23	2.14
EBE-9	EBE-9: Reduce emissions from non-road engines	2.55	1.98	1.98
TLU-2	TLU-2: Sustainable Development Patterns & Urban Design (including Enhancements for Non-motorized Modes)	0.34	1.32	1.67
TLU-6	TLU-6: Low Carbon Fuel Standard	0	1.02	1.29
TLU-7	TLU-7: Enhancing system operations	0.34	0.56	0.85
TLU-12	TLU-12: Road Pricing	0	0.03	0.79
TLU-1	TLU-1: Increase urban tree canopy and land stewardship	0.10	0.50	0.54
TLU-9	TLU-9: Travel Demand Management	0.13	0.24	0.54
EBE-3	EBE-3: Encourage development in activity centers	0	0.07	0.39
EBE-8	EBE-8: Achieve targeted reduction in municipal solid waste	0	0.33	0.39
EBE-5	EBE-5: Achieve annual and cumulative reductions in fossil energy use by improving Infrastructure efficiency and increasing renewable energy use	0.034	0.20	0.28
TLU-11	TLU-11: Transit Incentives / Fare Reductions	0.122	0.10	0.19
EBE-7	EBE-7: Achieve targeted reductions in reduce natural gas pipeline leaks	0.017	0.11	0.11
TLU-4	TLU-4: Increase Alternative Fuels in Public Sector Fleets	0.007	0.05	0.09
TLU-10	TLU-10: Transit Enhancements	0.056	0.06	0.08
TLU-8	TLU-8: Reduce Speeding on Freeways	0.005	0.01	0.006
TLU-5	TLU-5: Clean Freight Technologies	0.0004	0.002	0.006

MSWG – Additional Information

COG sites for additional information

- http://www.mwcog.org/committee/committee/default.asp?COMMITTEE_ID=285
- http://www.mwcog.org/committee/committee/default.asp?COMMITTEE_ID=286
- http://www.mwcog.org/committee/committee/default.asp?COMMITTEE_ID=287
- http://www.mwcog.org/committee/committee/default.asp?COMMITTEE_ID=288

■ Questions