



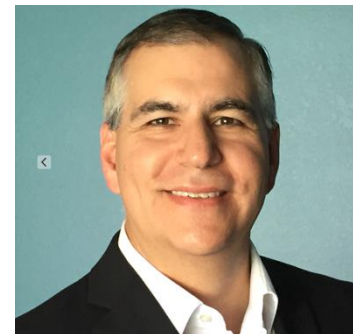
Regional Renewable Energy Study Approach Review

Presented to:

**Built Environment and Energy Advisory Committee
Metropolitan Washington Council of Governments**

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Renewable Energy Study Scope

- **Supplemental Analysis from Multi-Sector Approach to Reducing GHG Emissions**
- **Refine “10% Renewable Energy Goal”**
 - Document goal in terms of total MWh, by sector and by MWCOG jurisdiction, and roll up to summaries for Virginia, Maryland, and the District of Columbia
 - Estimate equivalent renewable energy deployment needed to reach the goal – specifically solar PV capacity, and number of systems, along with other viable technologies, as appropriate
- **Provide additional analysis of renewable energy issues with comparisons that are easy to explain and understand.**
 - Document regional desire and opportunities for green power purchasing
 - Explain constraints and their impact
 - Compare potential with existing goals and external examples (e.g., from related regional goals and accomplishments from across the country)
 - Provide assumptions and calculations for renewable energy penetration and potential

Rationale and Approach

- Provide additional support and analysis to build confidence in the current goal to achieve “10% of regional electricity consumption from renewable sources” for regional leaders and stakeholders. Include data sources to inform future MWCOG goal setting, planned actions, and tracking of renewable energy deployment.
- Investigate and analyze, at a summary level, regional drivers for renewable energy implementation including:
 - Current adoption trends and forecasts
 - Existing renewable potential studies from MWCOG members, as available
 - Regional green power purchases, as available
 - Electric utility integrated resource plans
 - Revisit sector potential for Institutional (government agency & non-profit), Commercial, Residential, Utility
 - Regional constraints to deployment including economic, policy and technical
 - Regional opportunities and co-benefits
 - Potential for solar hot water adoption at meaningful scale

Top-Line Goal

- 2012 Total Electricity Usage by Jurisdiction (from MWCOG)
- Target: 10% of 2012 Electricity Sourced from Renewable Energy (RE) [~6,000 GWh]
- Sources to be included for RE target: On-site renewables + Off-site renewables + RECs

JURISDICTION		TOTAL KWH USAGE	
		2005	2012
MD	Montgomery County	10,348,986,387	9,264,634,701
MD	Prince Georges County	6,095,019,444	7,406,153,004
MD	Frederick County	5,846,364,723	2,972,379,345
MD	Charles County	1,352,991,067	1,332,500,859
VA	Alexandria	1,747,945,750	1,757,052,807
VA	Arlington	3,097,359,329	3,241,416,881
VA	Fairfax City	327,884,768	306,084,682
VA	Fairfax County	12,148,492,539	13,050,307,311
VA	Falls Church	125,718,688	131,486,413
VA	Loudoun County	2,442,478,150	5,115,753,311
VA	Manassas City	638,103,464	813,364,269
VA	Manassas Park	70,746,318	80,545,159
VA	Prince William County	2,946,733,509	3,825,402,395
DC	Washington	11,735,691,057	10,878,440,707
TOTAL		58,924,515,193	60,175,521,844
10% Renewable Energy Target (Annual kWh)			6,017,552,184

Next Steps

- Confirm top-level goal and approach [by 3/21/16]
- Analyze/update latest adoption trends and forecasts for RE technologies [by 4/5/16]
- Gather existing renewable potential studies from MWCOG members [by 4/5/16]
- Review regional electric utility integrated resource plans [by 4/12/16]
- Capture available regional green power purchase data [by 4/19/16]
- Update on progress for BEEAC [on 4/21/16]
- ...
- CEEPC review of full report on findings planned for 5/25/16 (in person)