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MEMORANDUM

То:	CMAQ Project Selection Committee					
From:	Direct Emissions Reduction Focus Group					
Date:	June 6, 2013					
Re:	Direct Emissions Reduction Proposal Support for GO TO 2040					

Background

In January 2011, CMAP adopted a new approach for the development of the Congestion Mitigation and Air Quality (CMAQ) Improvement Program. The new process includes a five-year program which improves air quality, mitigates congestion and helps implement GO TO 2040, the comprehensive regional plan. The approach established four focus groups which review project applications that are relevant to their group's project types, evaluates them based on relevant action areas of GO TO 2040 and makes recommendations to the CMAQ Project Selection Committee.

The FFY 2014 – 2018 program is now under development and the support proposals provide for implementing GO TO 2040 is being assessed by the Direct Emissions Reduction Focus Group. . The group consists of staff from the Illinois Environmental Protection Agency, the U.S. Environmental Protection Agency, City of Chicago Department of Transportation, the Regional Transportation Authority, Metra, Pace, CTA, private railroads, and interested advocacy groups. Each has a unique set of experiences and knowledge of projects that address the charge to the group.

GO TO 2040 Action Areas

Although GO TO 2040 does not include specific goals or recommendations for improving air quality, it does contain recommendations and identifies action areas that implement the CMAQ objectives above. The following Implementation Action Areas are particularly relevant to the Focus Group and CMAQ programming:

Action Areas from GO TO 2040:					
Adopt Best Practices in new technologies – Modernize the Region's Transit System					
Implement green infrastructure demonstration projects					
Focus investment on maintenance and modernization					
Prioritize maintenance and modernization projects when making investment decisions					

While the action areas directly applicable to direct emissions reduction are limited, GO TO 2040 also addresses energy use, emissions and transportation:

GO TO 2040 Excerpts

Local governments should also make a commitment to using alternative fuels in their fleets and public works equipment. Indeed, communities could undertake a multitude of actions to "lead by example," including the review of procurement processes to ensure the inclusion of green materials for governmental equipment (e.g., increased use of recycled materials in construction activities), a higher commitment to waste reduction and recycling, and so forth.

The conservation of energy and water is a top priority for GO TO 2040. Over the next 30 years, these resources will likely become more constrained, affecting businesses, local governments, and residents alike. By taking a proactive approach to resource conservation, the region can avoid price shocks farther down the road, while saving money in the medium term.

To help screen proposals for their support for GO TO 2040, the following evaluation measures were used:

- Proximity to sensitive populations (seniors & children).
- Number of reported asthma cases within proximity to the projects.
- Is the project innovative or does it demonstrate a state of the art technology that directly reduces vehicle emissions?
- Does the project help improve the overall condition of the region's public fleets?

Proposal Review

Nine proposals that addressed direct emissions reductions were submitted for FY 2014 – 2018 CMAQ funding. (Two addition proposals were submitted, but do not meet the CMAQ eligibility criteria.) Focus Group members scored the proposals using the four evaluation measures. The detail of these scores is given in a separate table, posted to the Focus Group web page.

The average scores of each proposal are summarized in an attached table. The table is organized in descending order of overall average total score, where "total score" means the sum of the scores for the four individual evaluation criteria. As can be seen, the average total scores range from a high of 10.6 to a low of 7.6.

In addition, the average total score was compared to the average individual evaluation measure scores. A graph summarizing this analysis is attached. It indicates the following:

- Proximity to Sensitive Populations This measure's scores are generally consistent with the average total score.
- Asthma Rates Near Project This measure's scores are generally consistent with the average total score.

- Does Project Help Improve the Region's Public Fleets? This measure's scores vary somewhat from the overall score, reflecting the fact that some proposals are aimed at privately-owned vehicles, some support publicly-owned vehicles, and some are a mix.
- Innovative or State of the Art Technology This measure's scores are not well-correlated with the average total score. This is because some of the lower-ranking projects involve more state-of-the-art technologies such as electric or CNG vehicles, while the higher-ranking projects involve more traditional emission-reduction technologies.

Assessment of Support for GO TO 2040

Based on the scoring, the Focus Group finds that all proposals advance the recommendations of GO TO 2040. Implementing these proposals will address the GO TO 2040 Action Areas and recommendations by:

- modernizing the transit service provider fleets
- implementing green technology projects (all projects)
- increasing alternative fuel use (notably CDOT's Chicago Area Alternative Fuel Deployment project, IEPA's Harbor Belt project, and Park Forest's CNG facility and refuse hauler project)
- conserving energy (notably the Metra hotel power project)

While there is some variation in the overall scores, most of the proposals lie in a relatively narrow range of 7.6 to 9.3, out of a maximum possible score of 12. Aside from the highest-ranking proposal (10.6), there are no obvious gaps in the scoring that suggest a boundary between recommended and not recommended proposals.

Recommendation

The total federal funding required to implement these proposals is \$120,703,800. MAP-21 requires that, since the region is in nonattainment of the annual PM_{2.5} standard, 25% of CMAQ funds must be obligated to projects that reduce particulate matter. The proposals in the direct emissions reduction category meet this requirement.

The Focus Group urges the CMAQ Project Selection Committee to fully fund as many of the proposals as possible. Emission reduction projects have a very favorable cost/benefit ratio, especially for particulate matter, which is generally not well addressed by other types of projects that focus on shifting people out of cars or improving general traffic flow.

Direct Emission Reduction CMAQ Proposals Qualitative Evaluation Ordered Summary

CMAQ ID	Sponsor	Brief Description	Average	Proximity to Sensitive Populations	Asthma Rates Near Project	Innovative or State of the Art Technology	Does Project Help Improve the Region's Public Fleets?	Proposal Total	Proposal Federal	cumulative federal
TI01143930	СТА	Bus Improvement, Purchase and Install up to 32 Hybrid Engines on 60'	10.6	2.6	2.6	2.6	2.9 \$	10,140,000	\$ 8,112,000	\$ 8,112,000
		Bus Improve-ment, Purchase and Install up to 32 Hybrid Engines on 60' Articulate Buses								
DR13143934	Metra	Install engine/generator set for hotel power	9.3	2.1	2.3	2.1	2.7 \$	5,000,000	\$ 4,000,000	\$ 12,112,000
DR13143938	Metra	Repower F40PHM Locomotives on BNSF Service	9.1	2.3	2.3	2.2	2.3 \$	5,000,000	\$ 4,000,000	\$ 16,112,000
DR13143945	Metra	Purchase Components to Repower F40PH/F40PHM Locomotives	8.9	2.3	2.1	2.1	2.4 \$	11,000,000	\$ 8,800,000	\$ 24,912,000
DR13143957	IEPA	Indiana Harbor Belt Railroad Locomotive Fuel Conversion	8.3	2.4	2.4	2.8	0.6 \$	59,154,000	\$ 38,450,000	\$ 63,362,000
DR13143925	IEPA	Chicago Area Green Fleet Grant Program	8.1	1.8	1.9	2.4	2.0 \$	20,000,000	\$ 10,000,000	\$ 73,362,000
DR13144027	Pace	Diesel Emission reduction - Regional Pace System	7.9	2.1	2.1	1.8	2.0 \$	2,016,000	\$ 1,612,800	\$ 74,974,800
DR01143928	CDOT	Chicago Area Alternative Fuel Deployment Project, Phase 3	7.7	1.8	1.8	2.7	1.5 \$	114,818,000	\$ 41,553,000	\$ 116,527,800
DR07143954	Park Forest	Install CNG Facilities in Park Forest and Homewood; Purchase CNG Refuse	e 7.6	1.9	1.8	2.5	1.6 \$	5,271,000	\$ 4,176,000	\$ 120,703,800
		Haulers								

