July 4, 2015 Update

Dear EEMI affiliates and friends,
Jon and I are pleased to forward this mid-year update on the activities and developments at EEMI. We’ve separated them into the following series of short summaries, designated as either new (not previously reported) or continued (updated status). The EEMI updates are intended primarily for the EEMI Advisory Board and distributed selectively to EEMI friends, affiliates and potential collaborators. This update covers the following new and updated EEMI developments and opportunities:

1. EEMI Charter and Office Space (continued)
2. Expanding the EEMI Scope with Water (new)
3. European Energy Centre course offerings at GW (new)
4. Standards course plus Graduate Certificate Program - Environmental and Energy Management (continued)
5. Graduate Certificate Program: Greenhouse Gas Management (continued)
6. Executive Order 13693 and GW’s Sustainability Collaborative (new)
7. DoD Energy Technology Deployment (new)
8. District of Columbia Energy Plan (new)
9. EEMI Focal Areas leadership (continued)
10. Fund Raising for EEMI (continued)
11. Meeting of the EEMI Advisory Board (continued)

Jon and I thank you for your interest in EEMI and extend our most sincere wishes for your continued wellbeing and success in your endeavors.

Best Regards,

Jonathan P. Deason, PhD  Joe Cascio, Esq.
Co-Director, EEMI  Co-Director, EEMI

Attachments:
1) EEMI Advisory Board and Affiliates
2) EEMI Focal Areas
1. **EEMI Charter and Office Space (continued)**

In our May notice, we announced that EEMI had been granted a five-year charter by unanimous approval of the GW Advisory Council on Research. As we predicted, this has opened up new opportunities for collaboration and synergistic activities within GW and with parties outside GW. It was important to obtain the charter and we continue to be grateful to have it. We are also very happy to have been assigned a suite of offices, comprising two large adjoining spaces in Tompkins Hall, the previous home of the GW School of Engineering and Applied Science (SEAS). This too has facilitated meetings with prospective sponsors and grantors and has materially contributed to a message of permanence that EEMI conveys to those prospects. The suite includes offices for three professors in addition to ten other desks outfitted with computers for use by graduate students and assistants.

2. **Expanding the EEMI Scope with Water (new)**

Professors Jon Deason and Royce Francis, our in-house EMSE Department experts on water, have attracted strong prospects for EEMI’s involvement on water-related research projects. These prospects are all potential sources of grants and we are now on the cusp of an agreement with industry members to conduct research on public-private partnerships for the purpose of highlighting the opportunities they present as well as their costs and benefits to municipal utilities and the public they serve. EEMI is also collaborating with American University, USEPA, DOE, USDA, The Chesapeake Conservancy, the World Resources Institute, the U.S. Water Alliance and others to advance sensor technology and watershed modeling for the eventual deployment and use of nutrient sensors that will support water quality trading. This came about through EEMI’s affiliation with American University, as reported in the EEMI December 2014 update. A longer shot prospect for EEMI, led by Professor Lee Paddock of the GW Law School, would involve EEMI in producing a report for the District of Columbia on green infrastructure options to help reduce combined sewer overflows (CSO) from storm-water events, a problem that besets many large municipalities across the nation. While water was not one of the original focal areas, we have deemed it prudent to include this topic on the EEMI collection so as to take advantage of our in-house expertise for adding to the growth of EEMI.

3. **European Energy Centre course offerings at GW (new)**

Through the leadership of Professor Rachael Jonassen, lead of the EEMI GHG focal area, EEMI is arranging to cooperate with the European Energy Centre (EEC) to offer short (2 or 3-day) courses on topics related to the technical details of renewable energy projects. Professor Scott Sklar, lead of the EEMI Energy focal area, has agreed to be the instructor for offerings starting as early as the fall of 2015. We have tentatively identified *Solar Photovoltaics* as the first offering. Another topic of interest is *Renewable Energy Management and Finance*. This initiative has been approved in concept by the Dean of the School of Engineering and Applied Science (SEAS) and is expected to bring appreciable revenues to EEMI.

4. **Standards course plus Graduate Certificate Program - Environmental and Energy Management (continued)**

As previously reported, Joe has partnered with Professor Steve Crawford from the GW Institute of Public Policy (GWIPP) to create a new graduate-level course on standards, standardization and conformity assessment. The funding for this work came from NIST and the course is tentatively titled - *Consensus, Voluntary Standards for Technology, Self-Governance and Public Policy*. When completed, this course is intended to be cross-listed by a number of GW Schools and will be one of four courses in a new graduate certificate program. Entitled the *Environmental and Energy Management Graduate Certificate Program*, it will qualify its graduates for technical and managerial positions in industry and government organizations for the management of environmental and energy issues structured around national and international system standards. Three of the four courses already exist and once this last one is done we will apply for GW approval of the certificate program.

5. **Graduate Certificate Program: Greenhouse Gas Management (continued)**

Under the leadership of Professor Rachael Jonassen, EEMI has been collaborating with the Greenhouse Gas Management Institute (GHGMI) to develop a set of online interactive engineering courses focused on GHG management to be offered as a graduate certificate program. The program addresses the measurement, reporting, analysis, reduction, trading, and verification of GHG emissions from activities. The courses have now been completed and
approved and we have submitted another new graduate certificate program, entitled Greenhouse Gas Management, for approval. The expectation is that courses in this new program will be offered for the first time in the spring of 2016.

6. **Executive Order 13693 and GW’s Sustainability Collaborative (new)**
The recently published Executive Order 13693 offers EEMI the opportunity to contribute to GW’s proposal to assist Council for Environmental Quality (CEQ) staff to incorporate environmental sustainability and climate preparedness and resilience training into leadership and educational programs throughout the federal government. We anticipate that such training, mandated by the EO, can be done through existing and relevant executive and management programs such as the Office of Personnel Management (OPM) LEAD program. A comprehensive GW proposal is being organized by the GW Sustainability Collaborative of which EEMI is a charter member. Effectively, the Sustainability Collaborative is the overarching coordinating umbrella for the many GW sustainability-related programs including:

- Environmental and Energy Management Program (School of Engineering and Applied Science)
- Environmental Resource Policy Program (Columbian College of Arts and Sciences)
- Sustainable Development Studies Program (Elliott School of International Affairs)
- Environmental Law Program (School of Law)
- Sustainability and Corporate Responsibility Program (School of Business)
- Environmental Health Science and Policy Program (School of Public Health and Health Services)
- Civil and Environmental Engineering Program (School of Engineering and Applied Science)
- Sustainable Urban Planning Program (College of Professional Studies)

7. **DoD Energy Technology Deployment (new)**
Professor Ekundayo Shittu, an EEMI faculty member, is closing in on a proposal to conduct research under a DoD-MIT (Lincoln Labs) grant to address gaps in the understanding of the economic implications of how new and emerging energy technologies may be deployed, and how the structure of technology inter-dependencies affect the economic architectures of power systems. The research will fill those gaps by developing a methodology for assessing how local technology investments influence system-level performance under different institutional/locational arrangements and uncertainties in technical performance, resource availability, and load and supply variations.

8. **District of Columbia Energy Plan (new)**
Professors Ekundayo Shittu and Scott Sklar are leading a multidisciplinary GW team on a proposal to update and advance a comprehensive energy plan for the District of Columbia. The research team, which represents multiple members of GW’s Sustainability Collaborative, proposes to integrate diverse macroeconomic, microeconomic, financial, and legal perspectives into the plan. As a leading academic institution in the heart of Foggy Bottom, the research team will involve students and seasoned researchers to update the District’s energy plan and advance community environmental goals. They will also reach out to the broader community to ensure stakeholder engagement and feedback are properly solicited, considered, and incorporated into the plan. Based on its objective analysis, the team expects to provide the District with concrete, pragmatic, feasible implementation paths that will help to meet its ambitious sustainability and energy goals.

9. **EEMI Focal Areas leadership (continued)**
We have re-attached the focal area descriptions to remind you of the topics that the Institute is focused on. As discussed above, we will add water as a focal area for EEMI. We are in discussions with highly qualified candidates for the leadership vacancies in the green cities, green products and water focal areas, all of whom should be installed soon. [See attached EEMI Focal Area profiles.]
10. Fund Raising for EEMI (continued)
As previously reported the Institute is self-funded and has a budget that is totally dependent on our ability to generate revenues. Our strategy for doing this is to engage with both Federal agencies and private sector corporations and foundations. Our current prospects look quite promising as many of the above-listed engagements include a financial component that is favorable to EEMI. We will actively continue to approach various institutions with proposals that are congruent with their missions or their self-interest. At this point of EEMI’s evolution, this approach is more likely to lead to a financial benefit as opposed to one of asking for an outright grant, although we would certainly not refuse such a grant if it came our way. We are working actively with GW’s Office for Industry and Corporate Research to prepare proposals for various industrial enterprises. The central theme of our approach continues to be the advancement of environmental and energy performance, the promotion of education in and application of voluntary, consensus standards and other next generation self-governance approaches and methods, and the exploration and dissemination of scientifically-backed knowledge on matters and issues where the public is seeking an unbiased, disinterested view. We sincerely welcome and solicit guidance on this critical EEMI funding need from all Board members and affiliates.

11. Meeting of the EEMI Advisory Board (continued)
Now that EEMI is chartered and therefore GW official, we plan to convene the EEMI Advisory Board before the end of this year. We are eager to receive the full extent of your wisdom and will craft an agenda to make that happen. Our current thinking is for a face-to-face meeting for those in the DC area, with all others brought in via remote video. Before the end of this summer, we will seek your input for a time that will work on your schedule. [See attachment EEMI Advisory Board and Affiliates for listings of Board membership and affiliates who are actively working with us to implement the EEMI.]