

Massachusetts Institute of Technology

Cambridge, Massachusetts 02139

**John Deutch Institute Professor
Department of Chemistry**

Tel: [REDACTED]
Fax: [REDACTED]
Email: [REDACTED]@mit.edu

To Rex Tillerson, Chair
National Petroleum Council
By E-Mail [REDACTED]@npc.org

August 26, 2016

Thank you for your leadership of the NPC and preparing a Council response to Secretary Moniz's request to identify technology subjects that would contribute to administration's "Mission Innovation" initiative to double clean energy research and development (R&D) investment over five years.

I believe attention to the management of this focused rapidly growing R&D program is as important to its success as the selection from a broad list of potential topics called for in your letter. Here is a partial set of questions: (1) What is the precise purpose of the program? (Clean energy means different things to different people.), (2) How will the program results be integrated and evaluated? (3) Will DOE manage this initiative by allocating resources to the existing DOE program offices or create a new structure? (Perhaps similar to ARPA-E), (4) Who are expected to be the principal performers, {national laboratories, industry, universities}? (5) What role is Congress expected to have in shaping this initiative.

Evidently, it is impossible to give certain answers to these questions. But, my experience as a manager of R&D efforts is that successful outcomes are more likely if such questions are raised sooner rather than later.

Finally, I am not a fan of federal R&D initiatives that are based on good intentions but little analysis. The Mission Innovation initiative does not have to my knowledge a carefully worked out framework.. The NPC could make a contribution beyond providing a list of topics that will help DOE "sell" this initiative by making suggestions about how the initiative should be structured.

Sincerely yours,



John Deutch