

## INDUSTRIAL GASIFICATION INITIATIVE

March 6, 2009

The Honorable Steven Chu  
Secretary of Energy  
U.S. Department of Energy  
1000 Independence Ave., SW  
Washington, DC 20585

Dear Mr. Secretary:

RE: Recommendations for Gasification Solicitation under ARRA

I write to you on behalf of the Industrial Gasification Initiative (IGI), to provide our recommendations regarding the Department's use of \$1,520,000,000 recently appropriated in Public Law 111-5 (American Recovery and Reinvestment Act) for a competitive solicitation of "projects that demonstrate carbon capture from industrial sources."

The Industrial Gasification Initiative is an informal association of companies who seek to accelerate commercial use of industrial gasification (IG) technology as a tool for restoring US domestic industries' competitiveness in global markets, preserving and expanding American jobs, and reducing our dependence on unstable, or even hostile foreign sources of energy and chemical feedstocks, all in an environmentally responsible manner.

Among the gasification feedstocks we utilize are coal, biomass, petcoke, and carbonaceous secondary recycle materials. Our members include major industrial companies who use, or anticipate using, gasification technology at commercial scale, exceeding 1,000 MW(t) in many cases, as well as black liquor and other gasification applications at smaller scales. Our association includes manufacturers of chemicals, fertilizers, steel, glass, paper and other wood products. While some of our planned projects may generate electricity in a "polygeneration" format, we define electricity as a co-product, but not a principal product, of IG.

Because most industrial gasification applications require separation of CO<sub>2</sub> during the manufacturing process and our products reflect that expense, we well understand the first step in carbon capture and storage (CCS); and we can accomplish carbon capture with little additional expense. Studies show that IG is the most economic near-term opportunity to demonstrate CCS at commercial scale, and importantly, it is the industrial pathway China and India are pursuing. Engaging them is essential to any progress on carbon emissions. We are pleased to see that the recent Stimulus legislation appears to recognize this and the other values of IG.

The IGI's recommendations for carrying out a competitive solicitation under EPAct Section 703 authorities and associated process efficiencies include:

- Define “gasification technology” and “eligible entities” as those which qualify under the Section 48B Industrial Gasification competitive Investment Tax Credit program, with clarification that hydrogen production by an eligible entity is permissible, and specifically limit the solicitations to projects which, by design, are intended to convert less than 50 percent of their total syngas output into electricity. (This condition is intended to prevent overlap or confusion between this new program and the existing CCPI program which requires that electric power represent at least 50 percent of plant output.)
- Projects, including CCS, must be conducted entirely in the U.S.
- A qualifying entity must be capable of storing, or causing to be stored, not less than 1 million metric tons of CO<sub>2</sub> annually. (A lesser amount would simply duplicate the project scale under Phase III of DOE's regional carbon sequestration partnerships.)
- CO<sub>2</sub> stored must be anthropogenic and produced by an “eligible entity.”
- Give preferential consideration to projects which, on an annualized basis, are designed to capture and sequester and/or avoid the highest percentage of total CO<sub>2</sub> produced by the project from non-renewable feedstocks.
- CO<sub>2</sub> sequestration minimum percentage requirements should be applied to and based on the fraction of non-renewable carbon entering the plant as fuel or feedstock.
- Consistent with the Senate Committee's report guidance regarding “beneficial reuse” of CO<sub>2</sub>, the percentage of carbon which enters the plant and is bound in durable products, or which is shipped from the plant as an intermediate product for subsequent conversion into a durable product, should be considered within the percentage of avoided or sequestered emissions of CO<sub>2</sub>.
- Use of CO<sub>2</sub> or its transfer or sale to a third party for the purpose of enhanced oil and/or gas recovery applications in secure geological storage is an acceptable sequestration measure.
- DOE should measure proposed process technology efficiencies against current standard technologies to ensure that only advanced technologies are rewarded. (A dramatic efficiency gain associated with a very old plant retrofit application may, or may not, represent advanced technology.)
- Allowable process improvements should include applications which advance the state of the art with respect to increasing the fraction of biomass fed into existing or new industrial facilities.
- Project applications should be for novel applications of industrial gasification or industrial boiler technology coupled with CCS.

On behalf of the Industrial Gasification Initiative members listed below, thank you for considering our suggestions for the Industrial CCS program solicitation. Should you or your staff wish to discuss these suggestions or the inherent advantages of demonstrating commercial CCS via industrial gasification, I may be reached at 703-587-6439.

Sincerely,



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Lynn Schloesser  
Eastman Chemical Company  
for Industrial Gasification Initiative

CC: FE / Victor Der

**Industrial Gasification Initiative members (and points of contact) supporting this letter:**

Blue Source LLC, Mike Moore  
Coffeyville Resources, Neal Barkley  
Dow Chemical Company, Janet Boyd  
Eastman Chemical Company, Lynn Schloesser  
General Electric Company, Norm Shilling  
Process Energy Solutions, Jim Falsetti  
Rentech Inc., Jim McVaney  
American Chemistry Council (ACC), Owen Kean  
American Iron and Steel Institute (AISI), Tom Gibson  
Glass Manufacturers Industry Council (GMIC), Mike Greenman  
Gasification Technologies Council (GTC), James Childress  
Industrial Energy Consumers of America (IECA), Paul Cico  
The Fertilizer Institute (TFI), Katherine English