```
From:
       Jayne Battey
Sent:
       6/18/2012 4:00:01 PM
       Allen, Meredith (/O=PG&E/OU=Corporate/cn=Recipients/cn=MEAe); Ann Marie
To:
       Johnson (ajohnson@chevron.com); Ross-leech, Diane
       (/O=PG&E/OU=CORPORATE/CN=RECIPIENTS/CN=DPR5); Cherry, Brian K
       (/O=PG&E/OU=CORPORATE/CN=RECIPIENTS/CN=BKC7); Loduca, Janet C.
       (/O=PG&E/OU=CORPORATE/CN=RECIPIENTS/CN=J1LC); McDonald, Brian
       (/O=PG&E/OU=CORPORATE/CN=RECIPIENTS/CN=BMMN); Johnson, Aaron
       (/O=PG&E/OU=Corporate/cn=Recipients/cn=AJJ9); Carlos A. Garcia
       (cagarcia@siliconvalleycf.org); Brian Hannegan (Bhannegan@epri.com); Craig
       Tighe (craig.tighe@dlapiper.com); Bell, Des
       (/O=PG&E/OU=CORPORATE/CN=RECIPIENTS/CN=D4BA); Kraska, David
       (Law) (/O=PG&E/OU=Corporate/cn=Recipients/cn=DTK5); Redacted
       Redacted
                                                      Lynette Curthovs
       (lcurthoys@foghornsolutions.com); Paul Clanon (PAC@cpuc.ca.gov); Christopher
       Carr (ccarr@mofo.com): Art Geis (Redacted
                                                     ): Nancy Ryan
       (ner@cpuc.ca.gov); Redacted
Cc:
Bcc.
```

Subject: Notes from the Energy Conference: A Hamilton Project Forum at Stanford

Hi everyone. I hope this email finds you well. I wanted to take a moment to send you my notes from the energy conference at Stanford last week. It was an amazing group of speakers and panelists--including George Schultz, Vinod Khosla (Tesla), Jim Rogers (Duke), David O'Reilly (Chevron), and many other academic, public, and technology leaders. I took away three major themes:

- The discovery of new domestic gas supplies is a game changer. While there are significant environmental challenges to address, the domestic gas reserves could be a major disruption in terms of both the domestic energy supply mix (note: there were a lot of side conversations that the price of natural gas is "killing" the renewables market) and international relationships. This is fairly astounding given that it was less than 10 years ago that we were concerned that the supply of North American gas was drying up. It sounded like there was a lot of upside, but I remain very concerned about the environmental issues related to recovering shale gas, and I hope we don't swing further to natural gas at the risk of not continuing to diversify our generation mix.
- Repeatedly, the panelists commented that energy efficiency and furthering of smart
 grid/micro grid/smart building technology was the number one tool in reducing energy
 consumption. There was also a lot of conversation about conversion to natural gas for
 transportation (another big swing from contrary sentiment just a year or so ago). I felt
 very optimistic about the technology development underway in Silicon Valley on various
 energy efficiency products; it remains a significant hurdle to bring these products to
 market and have the capital required to rebuild or retrofit existing infrastructure (not to
 mention aligning the transportation industry).

• And last, the final panel focused a fair amount of time on climate change. I think it is fair to say that the tone of the panel (and the room) was pretty somber. The general sentiment was that climate change/global warming is upon us and that we (particularly in the USA) are not willing or able to grasp this. There was substantial discussion about the inability to come to any consensus at a national level ("the states and grassroots democracy will need to lead"), but overall a fairly bleak sense that it will take a pivotal event (e.g. the analogy was Pearl Harbor getting us engaged with WWII) to see real action in regard to climate change.

I hope this is helpful; don't hesitate to call if you have questions or want to discuss. You can learn more and get copies of the white papers at www.hamiltonproject.org.

Best Regards, Jayne

Jayne Battey
Managing Director
Miramar Environmental, Inc.
650-265-2100
650-288-9440 (cell)
jayne@miramarenv.com