Message

From:	Stout, Robert [/O=MSXBP/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/
Sent:	27/09/2016 11:35:52
To:	Hill, Gardiner [/O=MSXBP/OU=EXCHANGE ADMINISTRATIVE GROUP
	(FYDIBOHF23SPDLT)/CN=RECIPIENTS
CC:	Nolan, James [/O=MSXBP/OU=EXCHA <u>NGE ADMINISTRA</u> TIVE GROUP
	(FYDIBOHF23SPDLT)/CN=RECIPIENTS, ; Jefferis <u>s, Paul H. [/O=MS</u> XBP/OU=EXCHANGE
	ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/ ; Nash, Mike A (Legal)
	[/O=MSXBP/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS
	Rachel [/O=MSXBP/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/
Subject:	Re: HKS research ideas

Thanks, Gardiner. Good idea. And probably also Mark Finley, who is interested in policy and presently working on policy assumptions for the next economic outlook.

Bob

Sent from my iPhone

On Sep 27, 2016, at 4:20 AM, Hill, Gardiner Quk.bp.com wrote:

Thanks Bob....

Paul, I was wondering if we should also share these proposals with Spencer. In my recent discussions with him around technology and climate change, he is interested in the policy mechanisms that might enable the various technology pathways and outcomes. This also links to the thinking around Energy Outlook, faster transitions.

Should we also test this with Spencer?

Kind regards,

Gardiner

Director Carbon Solutions Group Technology BP Phone Cell

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From: Stout, Robert Sent: 25 September 2016 23:33 To: Nolan, James

Cc: Hill, Gardiner; Jefferiss, Paul H.; Nash, Mike A (Legal); Stutz, Rachel; Stout, Robert **Subject:** RE: HKS research ideas

Jim:

These all look like reasonable candidates to me, esp. the ones I've highlighted in yellow below. The last couple could raise more risk of drifting into geopolitics and crowding out other work, plus Kelly is pretty strong on China. For my money I would lean more toward the first 4.

One other topic I might consider is to look at possible legal/regulatory structures (short of a comprehensive cap and trade program) to incentivize cross-sector emissions reductions including land use. This also might be an interesting topic for collaboration given Steve Pacala's and Tufts' interest in land use issues.

I have copied Paul Jefferiss, whose input we will want on these as well as Kelly's list before we provide comment back to

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Redacted - Privilege	
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Thanks,

Bob Stout

Robert L. Stout, Jr. Vice President & Head of Regulatory Affairs BP America Communications & External Affairs

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Office: Mobile:



From: Nolan, James Sent: Friday, September 23, 2016 5:26 PM To: Stout, Robert Cc: Hill, Gardiner Subject: HKS research ideas

Bob, Gardiner and I discussed Henry's July proposal and brainstormed a number of additional research ideas. I have tried to capture our thinking but I am sure Gardiner can provide some additional clarity.

We don't want to push our ideas to hard. We think we could tell Henry that his July list was intriguing and led to some brainstorming on our part. We could ask him to consider our ideas, refine them as necessary and see if they might capture the interest of his researchers.

Like to get your reaction and any other ideas you may have (especially after spending this week immersed in climate issues). I would like to get something back to Henry next week.

FYI: I reached out to Penny at Tufts already. Given our focus on the Climate Policy Lab, I think the work streams there are easier to agree.

<!--[if !supportLists]--><![endif]-->Natural Gas

o <!--[if !supportLists]--><![endif]-->Putting a cost on intermittency: How does the grid cope with an increase in intermittent renewable power, while still delivering high quality reliable and cost effective electricity? Valuing the role of gas in an increasingly renewable power energy system?

o <!--[if !supportLists]--><![endif]-->New natural gas base load: Will new gas fired power plants (without CCUS) play a significant role in providing base load? Or will new gas plants be disfavoured because they decrease demand for renewables and thereby increase overall GHG emissions?

• <!--[if !supportLists]--><![endif]-->Do all roads lead to 450ppm? Can emission reductions targets (like 80%) and regulations that address discrete industries (like the Clean Power Plan) reach a goal based on cumulative emissions? What impact does a delay in achieving reductions have on the cumulative emissions target of 450 ppm?

• <!--[if !supportLists]--><![endif]-->This is Gardiner's idea and I am not sure I am doing it justice.

• <!--[if !supportLists]--><![endif]-->An implied price of carbon: How does the existing implied price of carbon found in various state and federal regulations and incentives compare to the explicit price of carbon thought to be necessary to achieve the Paris goals?

o <!--[if !supportLists]--><![endif]-->Could be linked with Henry Lee proposal to continue to assess the effectiveness of state initiatives in the US.

• <!--[if !supportLists]--><![endif]-->CCUS:

<!--[if !supportLists]--><![endif]-->working with CMI to understand the technical challenges, explore the barriers
to the deployment of CCUS. What price on carbon would support the deployment of CCUS in the US? How does the
analysis differ for coal versus gas?

 <!--[if !supportLists]--><![endif]-->Assess the legal and regulatory structure needed to support CCUS (particularly in the US with its legal liability regime). Explore the adequacy of existing legislation and regulations. Factoring in the latest scientific information (e.g., regarding the risk of leaks), assess the need for a legal means of assuring the integrity of long term sequestration of GHGs.

• <!--[if !supportLists]--><![endif]-->Indonesian, China and India – all big coal regions – Clean vs. Cheap: how energy economics, national politics and the post-Paris international process will shape strategic energy policy choices in Asia

o <!--[if !supportLists]--><![endif]-->Implications of national energy/environmental policy choices for the natural
gas/LNG and coal markets

• <!--[if !supportLists]--><![endif]-->China's cap & trade program: is it feasible to link a Chinese program with other trading regimes given incomplete emissions data and lack of enforcement mechanisms in China?

• <!--[if !supportLists]--><![endif]-->Energy and climate implications of the new Russia – China relationship

o <!--[if !supportLists]--><![endif]-->But, we want to be cautious about expanding back into geopolitics.

Jim Nolan Senior Director, Regulatory Advocacy BP America, Communications & External Affairs Mobile: Skype: