

Message

From: Mark Finley [REDACTED]
Sent: 19/07/2019 01:24:43
To: Jason Bordoff [REDACTED]
CC: Minge, John C [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=2a467eff6beb4ce59f292fe3a25fd8cf-Minge, John]; Kolenda, Sally [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=34dd0dfca7904a0193c853319bc082eb-Kolenda, Sa]; Julio Friedmann [REDACTED]; Julio Friedmann [REDACTED]; Hill, Gardiner [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=67ffd5c490cf4ed9bcdcc919fc513e58-Hill, Gardi]; Yeilding, Cindy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=177049344af2433483f35665757451c4-Yeilding, C]
Subject: Re: 18 July 2019 - NPC CCUS Study - Chapter 1

I got my wife a gigantic joule when she agreed to marry me! ☺

At least it felt gigantic on a GS-12 salary...

Sent from my iPhone

> On Jul 18, 2019, at 9:08 PM, Jason Bordoff [REDACTED] wrote:
>
> I have no idea what gigajoule is. And I think about energy a lot (
>
> It's true that most of the world wants access to affordable energy and we want them to have it. I don't think that's the rationale for CCUS. I'm sensitive to this because the argument that the world needs cheap energy is what the industry often argues for why we need hydrocarbons for a long time (the inference being we need to be modest/realistic about what's possible to achieve by way of climate goals). The persuasive point for CCUS is that even if we achieve our climate goals, CCUS plays a very important role to do that cost-effectively. In other words, imagine hypothetically that CCUS was 20 times as costly as it really is. The fact that the world needs cheap energy would not matter. There would be no case for CCUS. There would be cheaper options to deliver that energy to people in a low-carbon way.
>
> Thanks. Jason
>
> --
> Jason Bordoff
> Professor of Professional Practice in International and Public Affairs
> Founding Director, Center on Global Energy Policy
> Columbia University
> [REDACTED]
> [REDACTED]
> Visit us at energypolicy.columbia.edu <<http://energypolicy.columbia.edu>>
>
>
> On 7/18/19, 8:55 PM, "Minge, John C" [REDACTED] wrote:
>
> Thanks Mark -
>
> On the 100 gigajoules ... I think what we want to convey is some sense of context for what the chart represents. People don't know what a joule or gigantic joule is.
>
> We don't have to overstate. What we are trying to do is put some context to the number as many readers won't know what it means for 80% of the world's population to live with very low amounts of energy. They strive for what Americans strived for many years ago - the want heat, light and mobility, and as prosperity grows they pay for it.
>
> 100 GJ is small in the context of energy (I am going to try and calculate what my family uses - even with us trying to conserve, we are probably way higher than US average). I would like our report to make people think, and to have a picture of others. That's what makes the challenge come to life. Having lived in Vietnam when GDP per capita was <\$300/yr, I had first hand witness to this issue. I'd love for our report to have a couple sentences to illuminate this point.
>
> John
>
> Sent from my iPad

>
 >> On Jul 18, 2019, at 6:23 PM, Mark Finley <[REDACTED]> wrote:
 >>
 >> Thanks, Sally.
 >>
 >> Here is a draft with my comments.
 >>
 >> As mentioned in earlier e-mails:
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 >> * I pulled data from DOE on state emissions to get a figure on what share is covered by carbon pricing (though I used in place "and planned" to match the map). Interestingly, it's about 20%—the same as the global figure cited in the text. I attach the spreadsheet 'for the file'.
 >> * I re-numbered all the charts & text in the entire chapter. Hope I didn't miss any references!
 >> * I don't think Stanford will be able to give us the data we mention re: reductions from CCUS (as discussed in an earlier note) but if we can get the data from the XOM Exec Summary chart we can at least compare with the figure we cite of IEA SDS applying CCUS to 10% of fossil fuel consumption by 2040.
 >>
 >> Finally, I can roughly confirm the figures cited in the attachment re: contextualizing 100 GJ—ie, roughly 2 100-watt bulbs & 2 room A/Cs...running 24/7/365 (which as I noted is not realistic). BUT as I reflect, another reason why this may not be useful (at least to me) is that these are not personal figures—they are national averages, so the 100 GJ/capita represents ALL the energy consumed in that country—all the factories, power plants, etc...not just in people's houses. So in that sense it overstates what 100 GJ means, because it tries to convey the whole economy's energy use in terms of personal consumption. (i.e. actual personal consumption is way less than that...) But maybe this is just the geek in me not able to relate to real human beings, so if the rest of you like the light bulb-A/C analogy, I am happy to defer!
 >>
 >> FWIW, here's how the BP Energy Outlook discusses this data (p23):
 >>
 >> * There is a strong link between human progress and energy consumption.
 >> * The United Nation's Human Development Index (HDI) suggests that increases in energy consumption up to around 100 Gigajoules (GJ) per head are associated with substantial increases in human development and well-being, after which the relationship flattens out.
 >> * Around 80% of the world's population today live in countries where average energy consumption is less than 100 GJ per head. In the ET scenario, this proportion is still around two-thirds even by 2040. In the alternative 'More energy' scenario this share is reduced to one-third by 2040.
 >>
 >> Hope that helps & I can answer any remaining questions either early Friday or late (but will be offline most of the day)
 >>
 >> Ciao,
 >>
 >> -M.
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 >> On Jul 18, 2019, at 5:41 PM, Kolenda, Sally <[REDACTED]> wrote:
 >>
 >> Mark,
 >>
 >> Thanks for making the time to chat today! Attached is the updated copy of the chapter. The following outstanding issues must be resolved before to finalize the chapter for CSC review.
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 >> 1. Compare this chapter with the most current version of the Executive Summary and close any remaining gaps
 >> 2. Review figure numbers and descriptions; renumber and/or elaborate descriptions in text, as appropriate
 >> 3. Improve examples for 100 GJ/head (email attached)
 >> 4. Connect with Stanford on Figure 1-7 - who's on deck to get this done?
 >> 5. Add in emissions information from Paul Jefferiss (I will send when I get the response from him)
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 >>
 >> Am I missing anything? Let me know if you have any questions!
 >>
 >> Regards,
 >>
 >> Sally
 >> <18 July 2019 - NPC CCUS Study - Chapter 1.docx><Mail Attachment.eml>
 >>
 >> <18 July 2019 - NPC CCUS Study - Chapter 1 MF.docx>
 >> <CO2 by state.xlsx>
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