

## Pietro,

Please find below comments from ExxonMobil.

• It's an ambitious document. Part 1 in itself is a complicated and challenging endeavor and in my opinion warrants a dedicated effort. While Parts 2-4 are important and also warrant further attention, these are more mature concepts and inclusion in this document dilutes the focus from Part 1.

Part 1: From Estimates to Actuals: A Step Change Approach to Enhance Emissions Quantification – specific comments

- The paper seems to over-estimate the ability of the top-down approaches to more accurately and consistently quantify methane emissions. Perhaps the focus of the initial effort is to build a collaborative, multi-stakeholder group (industry, eNGO, technology providers) to align on state of the science and gap closure measures to be able to confidently quantify methane emissions on an enterprise level. If there is consensus at that level, then considerations can be given on how companies can pilot this approach to quantify and report to external stakeholders.
- Other industry segments have successfully utilized the bottom-up approach to meet regulatory, policy, and civil society expectations (i.e. manufacturing, refining, chemical). A more cost-effective and likely quicker improvement opportunity would be to improve existing bottom-up methodologies, including updating emission factors, improving leak detection capability (cost and frequency), and driving consistency of methodologies across regions and the natural gas value chain. Because current regulatory structures utilize emissions factors, improving the status of those "in place" emission factors, rather than seeking to impose a wholly new system, is much more likely to be successful.
- Utilizing EDF approach for estimating and reporting methane emissions on top of mandatory regulatory bottomup reporting could possibly confuse external stakeholders rather than providing transparency and clarity.
- Utilizing in-frequent or one-time top-down methodologies would introduce the same inconsistencies as EDF is concerned with in the existing bottom-up approaches, in that it can just as easily miss non-routine emission events (upsets, maintenance, etc). While some tend to dismiss it as non-representative (or ignore it) the U.S. Fayetteville study that concurrently measured top-down and bottom-up identified an important shortcoming of over-extrapolating top-down measurements (namely, assuming time-constrained, episodic events were 24/7).

- Many top-down approaches lack the ability to delineate to individual sources and could make attribution to a single operator challenging if not impossible in some conditions. Also could introduce bias from non-oil & gas sources of atmospheric methane.
- Many of the referenced top-down methodologies have error-bands that are in the same range as the current bottom-up methodologies.

ExxonMobil, both independently and through coalitions like OGCI, strongly supports increasing the ease and accuracy of emissions identification and quantification, and we are devoting considerable research resources toward this end for ourselves and the rest of industry and society. We are open to new approaches and want to be supportive of them.

From: Pietro Mezzano [mailto:	@climateinvestment	s.energy]	
Sent: Thursday, January 2, 2020 6:56 A	M		
To: Johan Leuraers < @equinor.co	om>; <u>@uk.bp</u> .com	r@uk.	.bp.com;
achevron.com; @cn	pc.com.cn, @cnpd	c.com.cn: @e	ni.com; Leonardo
Gelpi < @eni.com>; Tom	nmaso Bald <mark>arelli &lt; I</mark>	@eni.com>; Tyler Scott	t
@equinor.com>; Kolesar, Matthew	@xtoene	ergy.com>; @oxy.co	m; Luis Fernando
<pre>@pemex.cor</pre>	m>; @petrobras.c	com.br; @petrobras.com.br;	
@petrobras.com.br;	@petrobras.com	n.br; alopezr < @repsol.co	m>;
@repsol.com;	@ARAMCO.COM;	മaramco.com;	
@shell.com;	@shell.com;	@total.com;	@total.com;
Ravishankar, Krish <	@oxy.com>		
©chevron.com; Rosai	nna Fusco • @e	eni.com>; Julien Perez	
:@climateinvestments.ene	rgy>		
Subject: RE: EDF WORKING PAPER: FOR	REVIEW (OGCI)		

Dear all,

Thank you to the member companies who already provided comments to the EDF paper.

Do share with Julien and I additional comments by **January 06**<sup>th</sup>, **2020 COB**, before we aggregate and share back with EDF in the following morning.

Best regards,

## Pietro Mezzano



Thanks a lot Johan

After a quick exchange, the middle ground we landed on is

- We will provide a first set of comments by Jan 7, 9 am ET
- A second set could be provided later *if it bring material complementary information* to the set sent on Jan 7
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As EDF intends to release the paper at the MGP roundtable, I suspect that end of the first full week of Jan would be too short to fully capture comments

Your comment below is well captured in all cases and we will incorporate it (anonymizing it if ok for you)

Thanks (and merry Xmas ☺)





From: Johan Leuraers @equinor.com> Sent: vendredi 20 décembre 2019 15:03 To: Julien Perez @climateinvestments.energy> @uk.bp.com; @chevron.com; @cnpc.com.cn; @cnpc.com.cn; <u>@eni.com</u>>; Tommaso Baldarelli @eni.com; Leonardo Gelpi < @eni.com>; Tyler Scott @equinor.com>; @xtoenergy.com; @oxy.com; Luis Fernando @pemex.com>; @petrobras.com.br; @petrobras.com.br; @petrobras.com.br; @petrobras.com.br; alopezr @repsol.com>; @repsol.com; @ARAMCO.COM; @aramco.com; @total.com; @total.com; @shell.com; @shell.com Ravishankar, Krish @oxy.com> @chevron.com; Rosanna Fusco < @eni.com>; Pietro Mezzano @climateinvestments.energy> Subject: RE: EDF WORKING PAPER: FOR REVIEW (OGCI)

Dear Julien,

Most of my expert colleagues are out for the holidays, so indeed the deadline for (detailed) comments is too short, so it would be helpful to ask for an extension towards the end of the first full week of Jan.

After a first quick read, I can summarize the Equinor position as follows:

Equinor welcomes the deployment of top-down site level measurements as **a complement** to the source based inventory system. Compliance to current prevailing regulations requires that companies report their emissions source based. The development of new additional reports in parallel with the existing regulation, based upon different methodology will instill ambiguity in the numbers, which will make 3<sup>rd</sup> party validation even harder and is bound to further undermine public trust. Complementing current practice with site-level emission data, in our view, will enhance the available information, such that the public and authorities are better informed and companies can better prioritize mitigating actions.

Br, Johan From: Julien Perez @climateinvestments.energy> Sent: woensdag 18 december 2019 7:45 @uk.bp.com; බchevron.com: To @uk.bp.com; @cnpc.com.cn; @cnpc.com.cn peni.com; Leonardo Gelpi -@eni.com>; Tommaso Baldarelli < <u>@eni.com</u>>; Johan Leuraers < @equinor.com>; Tyler Scott · @equinor.com>; @oxy.com; Luis Fernando @xtoenergy.com; @pemex.com>; @petrobras.com.br; @petrobras.com.br; @petrobras.com.br; @petrobras.com.br; alopezr < @repsol.com> prepsol.com; @ARAMCO.COM; @aramco.com; @shell.com; @shell.com @total.com @total.com; Ravishankar, Krish @oxy.com> @chevron.com; Rosanna Fusco < Cc: @eni.com>; Pietro Mezzano @climateinvestments.energy> Subject: FW: EDF WORKING PAPER: FOR REVIEW (OGCI)

Dear all

Please find attached a paper in preparation by EDF to be released by mud-January. This paper echo the discussion we had over the phone with Mark Brownstein while in the Hague

EDF is offering us to provide comments – deadline is quite tight (Jan 3). I will explore with them some extension to allow us to provide our feedback few days after year-end break (Jan 7 for instance)

Please let me know shall you would be able to review and provide comments by the deadline. Please if possible make them directly in the document, in track changes, and we will concatenate them into 1 unique doc. We will also make a review on our side

Best Julien

Julien Perez
VP Strategy & Policy
Oil and Gas Climate Initiative

London, W1F 7TS
Mobile:

@climateinvestments.energy



From: Ben Ratner @edf.org>
Sent: Tuesday, December 17, 2019 9:48 PM

To: Julien Perez @climateinvestments.energy>

Cc: Isabel Mogstad @edf.org>; Mark Brownstein

**Subject:** EDF WORKING PAPER: FOR REVIEW (OGCI)

Hi Julien,

I hope this finds you well as the year begins to draw to a close.

EDF is pleased to share with you a draft of EDF's forthcoming white paper that recommends a new, scientifically grounded approach for determining and reporting on methane emissions with enhanced accuracy and credibility over historical methods. We believe this is an increasingly critical topic for industry groups like OGCI, individual companies, and the broader ecosystem working the methane challenge, as collective emphasis shifts from words of commitment in

the 2010s to implementation actions and demonstration of near zero methane emissions in the months and years ahead. As I think you know from Mark joining an OGCI call several months ago and some of our recent written work, improvement in OGCI methane data quality and transparency in reporting is something we particularly hope to see and support, starting in 2020 and in a process over the years to come.

We are working on an expedited timeline to finalize this short paper to release it before the Methane Guiding Principles annual roundtable in London on January 15/16. Recognizing and appreciating that it is a tight turnaround, we would be delighted to invite your review and comment by **January 3**.

Could you please let us know at your convenience 1) whether you intend to comment 2) if you prefer to share written comments or speak with us by phone?

Isabel (cc'd) is the manager and a principal author of the paper, and can serve as the first point of contact for questions or any input.

Best wishes, Ben

Ben N Ratner Senior Director



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