

Message

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**From:** Gray, Julian [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN= [REDACTED]]  
**Sent:** 01/04/2021 14:40:44  
**To:** Bitar, Fawaz K [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/[REDACTED]]; Goddard, Kelly [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/[REDACTED]]; Nash, Mike A (Legal) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/[REDACTED]]; Streett, Mary [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/[REDACTED]]; ZZGerard, Faye [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/[REDACTED]]; Gerard, Faye [REDACTED]@bpx.com]; Watson, Morag S [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=[REDACTED]]  
**CC:** Naik, Manish [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=[REDACTED]]; Young, Matthew [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=[REDACTED]]; Sathiamoorthy, Muhunthan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=[REDACTED]]; King, Matthew [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=[REDACTED]]; Batchelder, Rebecca [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=[REDACTED]]; Maclellan, Gemma [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=[REDACTED]]; Zimmerman, Philippa [philippa.zimmerman@bpx.com]; Linster, Brenda [REDACTED]@bpx.com]; Mogstad, Isabel [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=[REDACTED]]; Magallanes, Downey [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=[REDACTED]]; Knaizer, Sam [REDACTED]@bpx.com]  
**Subject:** RE: Diff Gas Monthly Update - February 2021  
**Attachments:** DNG2.0 Measurement Options Summary.pptx

**Flag:** Follow up

Hi all,

Following up on the action from the GB enclosed are the internal and external measurement summaries, the team have prepared.

If you could review the external content please? And we will set-up a short call to align and agree next steps with external parties.

Best regards

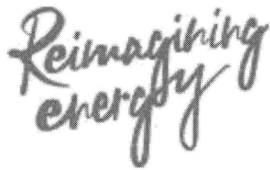
Julian

**Julian Gray**

VP Digital Science and Digital Innovation

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**From:** Gray, Julian  
**Sent:** 17 March 2021 13:26  
**To:** Bitar, Fawaz K <[REDACTED]@uk.bp.com>; Goddard, Kelly <[REDACTED]@bp.com>; ZZGerard, Faye <[REDACTED]@bp.com>; Gerard, Faye <[REDACTED]@bpx.com>; Zimmerman, Philippa <[REDACTED]@bpx.com>; Watson, Morag S <[REDACTED]@bp.com>; Linster, Brenda <[REDACTED]@bpx.com>; Scott, Zachary <[REDACTED]@bp.com>; Mogstad, Isabel <[REDACTED]@bp.com>; Nash, Mike A (Legal) <[REDACTED]@uk.bp.com>; Magallanes, Downey <[REDACTED]@bp.com>; Streett, Mary <[REDACTED]@bp.com>; Knaizer, Sam <[REDACTED]@bpx.com>  
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**Subject:** RE: Diff Gas Monthly Update - February 2021

The team are preparing the final documents so we can share them internally and then with EDF, as proposed. We will have a think about how to include this as an additional piece.

**Julian Gray**  
VP Digital Science and Digital Innovation  
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**Subject:** RE: Diff Gas Monthly Update - February 2021

Hi Julian,

I had my regular catch up with Mark Brownstein from EDF and ran him through our approach to measurement. He seemed fine with it. The only add he had which I think is a good one is to add some statistical analysis to quantify the uncertainty in the reported measurement.

Regards,  
Fuzzy.

Confidential

**From:** Gray, Julian <[REDACTED]@uk.bp.com>

**Sent:** 09 March 2021 10:12

**To:** Goddard, Kelly <[REDACTED]@bp.com>; ZZGerard, Faye <[REDACTED]@bp.com>; Gerard, Faye <[REDACTED]@bpx.com>; Zimmerman, Philippa <[REDACTED]@bpx.com>; Watson, Morag S <[REDACTED]@bp.com>; Linster, Brenda <[REDACTED]@bpx.com>; Scott, Zachary <[REDACTED]@bp.com>; Mogstad, Isabel <[REDACTED]@bp.com>; Nash, Mike A (Legal) <[REDACTED]@uk.bp.com>; Magallanes, Downey <[REDACTED]@bp.com>; Bitar, Fawaz K <[REDACTED]@uk.bp.com>; Streett, Mary <[REDACTED]@bp.com>; Knaizer, Sam <[REDACTED]@bpx.com>

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**Subject:** Diff Gas Monthly Update - February 2021

Please find below the project summary for February.

Highlights are that following a successful governance board conversation the team are:

- completing the summary table for review which we will bring those back to a subset of the governance team, including policy and legal.
- continue to assess standards with detailed reviews of IES, Platts and RMI (MiQ). At present RMI are looking most promising.

**Redacted - Privilege**

Best  
Julian

SPA / PROJECT LEAD / PROJECT MANAGER	PERIOD COVERED	DATE OF STATUS ENTRY
Julian Gray / Manish Naik / Matthew Young	Feb 1 <sup>st</sup> – March 1 <sup>st</sup> 2021	8 <sup>th</sup> March 2021

PROJECT SUMMARY

A PoC was run in 2019 between bp DS&E, T&S, bpX, P&O Low Carbon and XCHG (formerly Xpansiv) demonstrating the ability to securely attach emissions attributes to produced gas for a industry-first differentiated gas trade. This was approved by the IST New Activity Initiation process and bp group legal team but was not proceeded as there was a reputational risk by marketing differentiated gas when using the EPA methodology when EDF, and other external bodies have observed higher emissions than reported when using the EPA estimation and calculation methods. bp has also committed to implement a measurement approach for Aim 4 to increase the accuracy of methane emission quantification.

This project will develop and validate a new methodology that is acceptable internally and externally, aligning differentiating features with bpX AIM4 technology deployment and activities. The project will, if possible, fast track and prioritize work with bpX to identify potential vintage gas from wells where bpX have deployed measurement, so to secure competitive advantage and market premium for bp.

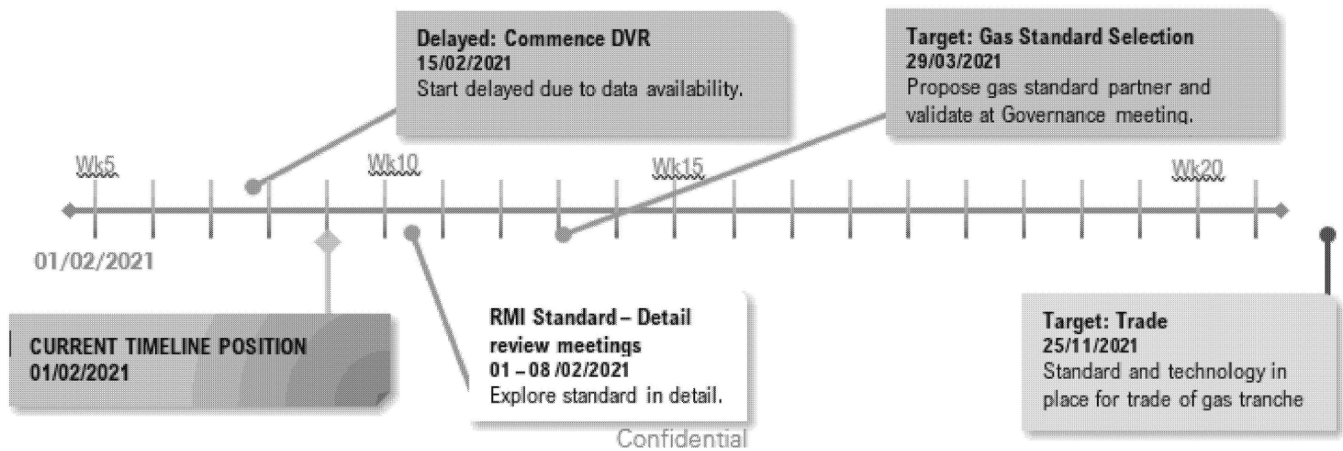
## STATUS OVERVIEW

WORKSTREAM	STATUS	WORK COMPLETED / STATUS	PLANNED ACTIVITY
<b>Measurement and Data Capture</b> 1. Identify technologies which can be deployed at pace in 2021 gas in support of DNG. 2. Develop the digital infrastructure to capture this data and process through the data life cycle into tradable attributes. 3. Investigation into Data Validation and Reconciliation (DVR) technologies	GREEN	<ul style="list-style-type: none"> <li>Completed measurement summary table (draft under review).</li> <li>Data ingestion partner tender process provided cost reduction of &gt;\$500k.</li> <li>Confirmed DVR (mass-balance) scaling costs</li> <li>DVR (mass-balance) simplified story for external understanding complete (draft)</li> </ul>	<ul style="list-style-type: none"> <li>Select data ingestion partner and accelerate procurement process.</li> <li>Complete measurement summary documentation with cost overview.</li> <li>Socialise measurement summary with Governance board members.</li> <li>Start DVR project on historic data.</li> </ul>
<b>Fit for purpose gas standard (POLICY WORKSTREAM)</b> Develop, in conjunction with a selected 3rd party, a methodology enabling the application of DNG opportunities more broadly in line with the rollout of measurement philosophy, technologies and the bpx AIM4 initiative.	AMBER	<ul style="list-style-type: none"> <li>IES standard review meeting completed.</li> <li>RMI (MiQ) standard review meeting completed.</li> <li>Standards overview completed and detailed review of IES, Platts and RMI (MiQ) standards in progress.</li> </ul>	<ul style="list-style-type: none"> <li>Complete follow up meeting with RMI (MiQ) team + Platts review.</li> <li>Complete review of relevant standards and propose partner to governance board.</li> <li>Soclise measurement approach summary with external parties.</li> </ul>

## KEY RISKS, BLOCKERS AND DECISIONS

RISK / ISSUE / DECISIONS	STATUS	OWNER	DESCRIPTION / MITIGATION
<u>RISK</u> – Availability of 3 <sup>rd</sup> party gas standard accounting for measurement.	LIVE	POLICY WORKSTREAM	Policy team exploring gas standard landscape for option that is near to market ready with measurement included.
<u>RISK</u> – Third party outreach outlining our differentiated gas approach could lead to false conclusions about our ability to deploy pilot technologies at scale, particularly in the near-term federal regulatory context	LIVE	POLICY WORKSTREAM	Policy workstream aligning with C&A & P&O on the outreach messaging
<u>RISK</u> – Delay in 3 <sup>rd</sup> party gas standard availability leading to delay in trade.	LIVE	GOVERNANCE	Discuss potential mitigation options @ April governance board meeting.





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