

Plan Name	Bucket	Task Title	Progress	Assigned to
Carbon Roadmap	Reduce current GHG 1.1	Develop and implement a mechanism to include greenhouse gas reduction in GOO Engineering	Completed	Price, Bruce; Wright, Dugald M.
Carbon Roadmap	Reduce current GHG 1.10	Deliver 3 Mte Sustainable Emission Reductions (100% of Operated basis) by 2025.	Completed	King, Dave J
Carbon Roadmap	Reduce current GHG 1.11	Gain approval for new Upstream RSR target by 2025 to include GOO, GWO, & L48.	Completed	
Carbon Roadmap	Reduce current GHG 1.12	Complete energy reviews for 3 GOO assets.	Completed	
Carbon Roadmap	Reduce current GHG 1.13	Identify highest OBO contributors to BP's reported equity GHG emissions and develop a	Completed	
Carbon Roadmap	Reduce current GHG 1.14	Develop SER economic evaluation methodology and present to Upstream Carbon Steering Team	Completed	O'Brien, Robert; Cooper, Rob
Carbon Roadmap	Reduce current GHG 1.2	Evaluate and trial technologies for improved measurement of flare combustion efficiency (CE) and fugitive emission rates to verify / enhance quantification of methane emissions and emission reductions	Completed	Touzel, Daniel F; Evans, Peter; Hashmi, Ahmed A

Carbon Roadmap Reduce current GHG 1.3 Quantify the impact of Completec emissions plant reliability on asset GHG emissions / GHG intensity.

Carbon Roadmap Reduce current GHG 1.4 Evaluate options for Completec ZZ Gerard, emissions methane emission Faye; ZZ Fagbayi, reductions in L48, including Kola change-out of gas pneumatics. Agree way forward.

Carbon Roadmap Reduce current GHG 1.5 Pilot methane Completec Touzel, Daniel emissions identification and F; Wright, quantification technology Dugald M. and its potential for use in

Carbon Roadmap Reduce current GHG 1.6 Evaluate technical Completec Willis, Stephen emissions options for reducing flaring H from Angola Block 18 northern fields (subject to legal, contractual and

Carbon Roadmap Reduce current GHG 1.7 Produce paper outlining Completec emissions the feasibility and strategy for green completions in Oman in Q4 2017

Carbon Roadma Reduce current GHG 1.7a Trial of green  
emissions completions in Oman in 1Q  
2019

Completed

Krieger, Andy  
G;Pickard,  
Kate;White,  
Daniel

Carbon Roadma Reduce current GHG 1.8 Assess whether to  
emissions include all GOO assets in  
the scope of the CCAC Oil &

Completed

King, Dave J

Carbon Roadma Reduce current GHG 1.9 Seek consent through  
emissions L48 governance process to  
include identified L48  
assets in the scope of the  
CCAC Oil & Gas Methane  
Partnership by 2018.

Completed

Carbon Roadma Reduce future GHG 2.1 Conduct emissions  
emissions benchmarking at Concept  
Development stage.

Completed

O'Connor, David  
J;Olsson, Jenny  
CM;Wilford,  
Sarah

Carbon Roadmap Reduce future GHG emissions	2.10 Consider power from shore options for Clair South during optimise.	Complete tec	Goldie, John
Carbon Roadmap Reduce future GHG emissions	2.2 Require that projects are developed in accordance with GN 47-061, Energy Optimization in Projects and Operations, and that full consideration is given to the energy value of the project.	Complete tec	O'Connor, David J;Olsson, Jenny CM
Carbon Roadmap Reduce future GHG emissions	2.3 Conduct energy benchmarking for major projects as part of the Energy Value Improving	Complete tec	
Carbon Roadmap Reduce future GHG emissions	2.4 Develop and implement a mechanism for assessing lower carbon options within the project financial governance process.	Complete tec	O'Connor, David J;Olsson, Jenny CM;Wilford, Sarah
Carbon Roadmap Reduce future GHG emissions	2.5 Develop & implement a Carbon Intensity threshold process to apply to projected operational (Scope 1 and 2) GHG emissions from new projects, enabling transparency and informed decision-making if project options exceed the threshold.	Complete tec	
Carbon Roadmap Reduce future GHG emissions	2.6 Consider the GHG emissions profile as part of imminent decision making for Browse.	Complete tec	
Carbon Roadmap Reduce future GHG emissions	2.7 Evaluate lower carbon emission options for the Tortue Project and the wider development of Mauritania & Senegal.	Complete tec	O'Connor, David J;Olsson, Jenny CM;Wilford, Sarah

Carbon Roadmap	Reduce future GHG emissions	2.8 Undertake appraisal work to assess the technical, commercial, legal and contractual feasibility of providing power from shore for the ETAP, Shearwater and Elgin	Complete	Flores, Ariel D
Carbon Roadmap	Reduce future GHG emissions	2.9 Using improved flare combustion efficiency measurement technology, work with GFH approved vendors to better understand and improve	In Progress	O'Connor, David J; Wilford, Sarah
Carbon Roadmap	Transition the Upstream Portfolio	3.1 Develop and implement a mechanism to include carbon risk, carbon opportunity and GHG intensity in the Upstream	Complete	Povey, Brian; Cooper, Rob
Carbon Roadmap	Transition the Upstream Portfolio	3.2 Develop a process to build consideration of GHG emissions and potential impact of national carbon policy into Area and Regional Development Plans.	Complete	Wilford, Sarah; Smith, Martyn M

Carbon Roadmap	Transition the Upstream Portfolio	<div style="border: 1px dashed black; padding: 5px; text-align: center;">Redacted - First Amendment</div>	Complete	Hill, Gardiner
Carbon Roadmap	Meeting Actions	Agreed topics for future Steering Meetings	In Progress	Ragoonan, Jali m, Karen; O'Brien, Robert; King, Dave J
Carbon Roadmap	Meeting Actions	Carbon abatement fund FM and draft governance process to be shared with Gordon	Complete	O'Brien, Robert; Cooper, Rob Gordon

Carbon Roadma Meeting Actions	Check whether GOO Flaring Completec Policy (in development) covers post-TAR start-up flaring (Bruce Price - Completed)	
Carbon Roadma Meeting Actions	Consider a new name for the Carbon Abatement	Completec O'Brien, Robert; King,
Carbon Roadma Meeting Actions	Consider discussion on ETAP power from shore at next Shell meeting	Completec Flores, Ariel D
Carbon Roadma Meeting Actions	<b>Redacted - First Amendment</b>	Completec Emery, Dominic; Arderiu Serra, Enric; Towns, Martin
Carbon Roadma Leadership in methane	Deliver Methane Leadership Plan actions	In Progress King, Dave J
Carbon Roadma Meeting Actions	Plan an Upstream Carbon Workshop during 1H 2019, to be aligned with plans for	Completec Ragoonan, Jali m, Karen; O'Brien,
Methane LeaderAction 1 - Gordon Birrell	1.1 Develop proposal for a carbon price for operations including how this could be embedded through existing processes.	Completec
Methane LeaderAction 1 - Gordon Birrell	1.2 Roll out carbon price approach across Group (subject to learnings from 1.1).	Completec Emery, Dominic
Methane LeaderAction 1 - Gordon Birrell	1.3 Develop Group-level carbon forecast and pricing model with 10-year projection and embed in planning process.	Completec Emery, Dominic

Methane Leader	Action 10 - Dominic Emery	10.1 - Refresh the IMWG purpose and process and associated Advocacy Governance to make it fit	Completed	Emery, Dominic; Jeffreiss, Paul H.
Methane Leader	Action 10 - Dominic Emery	<b>Redacted - First Amendment</b>	Completed	Alves, Nuno F; Stout, Robert; Streett, Mary
Methane Leader	Action 10 - Dominic Emery	10.3 - Review and make recommendation on future and continued participation in all methane-related voluntary programmes.	Completed	Rogers, Liz; King, Dave J
Methane Leader	Action 11 - Rachel Woods	11.1 - Deploy leaders to tell InProgressMoore-Bridger, the gas story and increase BP's visibility on key global platforms e.g. World Gas Conference.	In Progress	Moore-Bridger, Clare; Woods, Rachel
Methane Leader	Action 11 - Rachel Woods	11.10 - Develop a cross-industry methane summit including e.g. agriculture and construction to tackle the methane challenge	In Progress	Moore-Bridger, Clare; Woods, Rachel
Methane Leader	Action 11 - Rachel Woods	11.2 - Create agenda setting content to drive the campaign: deep dive features on methane management and film to	In Progress	Moore-Bridger, Clare; Woods, Rachel
Methane Leader	Action 11 - Rachel Woods	11.3 - Pro-actively engage with stakeholders by hosting global stakeholder events to demonstrate BP's	In Progress	Moore-Bridger, Clare; Woods, Rachel
Methane Leader	Action 11 - Rachel Woods	11.4 - Leverage milestones on BP's most significant gas projects as live proof points	In Progress	Moore-Bridger, Clare; Woods, Rachel
Methane Leader	Action 11 - Rachel Woods	11.5 - Announce technology partnership(s) and look to communicate	In Progress	Moore-Bridger, Clare; Woods, Rachel
Methane Leader	Action 11 - Rachel Woods	11.6 - Develop an open innovation challenge to crowd source ideas to solve a significant aspect of the methane challenge.	Completed	Moore-Bridger, Clare; Woods, Rachel

Methane LeaderAction 11 - Rachel Woods	11.7 - Publish independent data on the methane science cycle with Princeton.	InProgressMoore-Bridger, Clare;Woods, Rachel
Methane LeaderAction 11 - Rachel Woods	11.8 - Run media/stakeholder visits to demonstrate how we are managing methane at key	InProgressMoore-Bridger, Clare;Woods, Rachel
Methane LeaderAction 11 - Rachel Woods	11.9 - Show action in the business by sharing publicly what is happening from targets to reporting methodologies and	NotStartedMoore-Bridger, Clare;Woods, Rachel
Methane LeaderAction 12 - Mary Streett	<b>Redacted - First Amendment</b>	CompletedcZZFagbayi, Kola;Alves, Nuno F;Stout, Robert;Streett, Mary;ZZLawler, David
Methane LeaderAction 12 - Mary Streett	12.2 - Create US Methane Campaign, inclusive of an internal/external communications, engagement, and	CompletedcAlves, Nuno F;Sidoti, Elizabeth;Stout, Robert;Streett, Mary
Methane LeaderAction 12 - Mary Streett	<b>Redacted - First Amendment</b>	CompletedcDio, Susan W;ZZFagbayi, Kola;Alves, Nuno F;Ellis, Joe;ZZLawler,
Methane LeaderAction 12 - Mary Streett	12.4 - Host US focused stakeholder event with the objective of making a meaningful contribution to the world's understanding	CompletedcAlves, Nuno F;Sidoti, Elizabeth;Stout, Robert;Streett, Mary
Methane LeaderAction 12 - Mary Streett	12.5 - Build strategy to advocate for improvements to the EPAs GHG Reporting Rule, focused on intermittent pneumatic	InProgressZZGerard, Faye;ZZFagbayi, Kola;Alves, Nuno F;Stout, Robert
Methane LeaderAction 12 - Mary Streett	12.6 - Recommend fit-for-purpose tracking tool for new proposed legislation	CompletedcAlves, Nuno F;Ellis, Joe;Streett,

Methane Leader	Action 13 - Steve Shaw	13.1 - Develop Upstream methane employee communications plan.	Complete	Shaw, Stephen
Methane Leader	Action 13 - Steve Shaw	13.2 - Implement Upstream methane employee communications plan.	Complete	Shaw, Stephen
Methane Leader	Action 13 - Steve Shaw	13.3 - Develop and implement L48 internal methane communications plan aligned with Segment communication plan.	Complete	ZZFagbayi, Kola;Sidoti, Elizabeth
Methane Leader	Action 13 - Steve Shaw	13.4 - Develop approach to encourage employees to innovate and share best practice to address the methane challenge (e.g. Helios, Energise, cMore).	Complete	Shaw, Stephen
Methane Leader	Action 13 - Steve Shaw	13.5 - Develop Upstream specific methane eLearning package covering methane sources and how they're managed.	In Progress	King, Dave J;Wright, Dugald M.
Methane Leader	Action 14 - Dave King	14.1 - Develop SLL/Executive education programme materials.	Complete	Sathiamoorthy, Muhunthan;Rogers, Liz
Methane Leader	Action 14 - Dave King	14.2 - Identify and agree target audience (minimum: Group Leadership & Upstream SLLs).	Complete	RagoonananJali m, Karen;King, Dave J
Methane Leader	Action 14 - Dave King	14.3 - Develop and implement plan for SLL/Executive education programme.	In Progress	RagoonananJali m, Karen;King, Dave J

Methane Leader	Action 14 - Dave King	14.4 - Develop OMS Academy module.	Completed	Sathiamoorthy, Muhunthan; Rogers, Liz
Methane Leader	Action 14 - Dave King	14.5 - Develop and implement 'zero methane emissions mindset' for L48 leaders.	In Progress	ZZFagbayi, Kola; ZZLawler, David
Methane Leader	Action 15 - Dave King	15.1 - Develop and agree the key focus areas for the 2018 Sustainability Report on 'Addressing the methane challenge' (include consideration of sources, intensity, asset class etc.)	Completed	King, Dave J; Kalpee, Tyrone
Methane Leader	Action 15 - Dave King	15.10 - Work with industry partners (e.g. OGCI) to build shared understanding of what 'near zero methane emissions' means for the	Completed	Sathiamoorthy, Muhunthan; Rogers, Liz
Methane Leader	Action 15 - Dave King	15.2 - Review and update Upstream methane source surveys, incorporating lessons from first surveys to close gaps (this should include GWO).	Completed	O'Brien, Robert; King, Dave J
Methane Leader	Action 15 - Dave King	15.3 - Conduct comparison of US with non- US methane emission methodologies e.g.	Completed	O'Brien, Robert; King, Dave J
Methane Leader	Action 15 - Dave King	15.4 - L48 Emission Inventory Improvement: Hold peer assist to review L48 internal GHG	Completed	ZZGerard, Faye; ZZFagbayi, Kola
Methane Leader	Action 15 - Dave King	15.5 - Ensure accuracy of data in L48's systems of record that are used as inputs to emissions	Completed	ZZPugh, Brian; ZZBurton, William R

Methane Leader	Action 15 - Dave King	15.6 - Update Group reporting guidelines to improve quantification e.g. a tiered approach to methane emissions	Complete	Rogers, Liz;Castano, Alejandra
Methane Leader	Action 15 - Dave King	15.7 - Develop briefing to support consideration of the possibility of independent external auditing of methane data	Complete	Sathiamoorthy, Muhunthan;Rogers, Liz
Methane Leader	Action 15 - Dave King	15.8 - Work with trade associations (GBG, OGCI, IPIECA) and L48 to develop consistent methane emission benchmarking methodology.	Complete	Rogers, Liz;ZZFagbayi, Kola
Methane Leader	Action 15 - Dave King	15.9 - Work with industry partners (e.g. OGCI) to define industry methodology for determining methane emissions across the value chain.	In Progress	Sathiamoorthy, Muhunthan;Rogers, Liz
Methane Leader	Action 2 - David O'Connor / Richard Mortimer	2.1 Revisit GPO Carbon Principles and include specific guidance to project teams emphasising the focus on methane.	Complete	Olsson, Jenny CM;Mortimer, Richard (SUN)
Methane Leader	Action 2 - David O'Connor / Richard Mortimer	2.10 - GFH (Global Facilities Hardware) to require suppliers of equipment to	Complete	Corbally, Jim;Mortimer, Richard (SUN)
Methane Leader	Action 2 - David O'Connor / Richard Mortimer	2.11 - Lead development of Methane Reducing Best Practices (Methane Guiding Principles) and share implementation strategies	Complete	King, Dave J;Ford, Susan J (Sunbury)
Methane Leader	Action 2 - David O'Connor / Richard Mortimer	2.11a Adopt Reducing Methane Best Practices in Upstream	In Progress	Ford, Susan J (Sunbury)

Methane Leader	Action 2 - David O'Connor / Richard Mortimer	2.12 - Update L48 Facility Design Manual (FDM) to incorporate design focus on reducing methane emissions from new & modified facilities.	InProgress	ZZFagbayi, Kola; ZZUrban, Rick J
Methane Leader	Action 2 - David O'Connor / Richard Mortimer	2.2 Review output from GOO focus area on current methane emissions performance from equipment sources across upstream (e.g. flare, vapour	Complete	Rios, Aleida G; Aitken, Campbell T
Methane Leader	Action 2 - David O'Connor / Richard Mortimer	2.3 - Assess and recommend the best available technologies for methane source control for	Complete	Rios, Aleida G; Aitken, Campbell T
Methane Leader	Action 2 - David O'Connor / Richard Mortimer	2.4 - Review actions from other relevant industry initiatives (e.g. OGCI, IPIECA) for potential inclusion into IOGP standards committee or	Complete	Paul, Ed; Mortimer, Richard (SUN)
Methane Leader	Action 2 - David O'Connor / Richard Mortimer	2.5 - Benchmark and internally report the methane 'intensity' of projects in Concept Development.	InProgress	Lulla, Amrita; Smith, Russell I.

Methane Leader	Action 2 - David O'Connor / Richard Mortimer	2.6 - Review inclusion of low emission (CO2 and CH4) specs as part of scope of work for next phase of JIP 33.	Completed	Kennedy, John; Mortimer, Richard (SUN)
Methane Leader	Action 2 - David O'Connor / Richard Mortimer	2.7 - Revisit GPO carbon principles to include consideration for	Completed	Olsson, Jenny CM; Mortimer, Richard (SUN)
Methane Leader	Action 2 - David O'Connor / Richard Mortimer	2.8 - Define process to integrate well flow-back considerations into project concepts and incorporate into rapid screening assessment/project concept selection process.	Completed	Lulla, Amrita; Wilford, Sarah; Mortimer, Richard (SUN)
Methane Leader	Action 2 - David O'Connor / Richard Mortimer	2.8a Update the Appraisal Management Guide so that Well Flowback considerations are included as an example Tier 1 or Tier 2 decisions.	In Progress	Kennedy, John
Methane Leader	Action 2 - David O'Connor / Richard Mortimer	2.9 - Engage with suppliers on low carbon (methane and CO2) at supplier forums to identify next generation of low emission	Completed	Corbally, Jim; Mortimer, Richard (SUN)
Methane Leader	Action 3 - Andy Collins / Matt Werner	3.1 Agree and implement plan to enable (Angola) PSVM and (North Sea) Glen	In Progress	Johnston, Andy B; Boyce, Roger; Werner,
Methane Leader	Action 3 - Andy Collins / Matt Werner	3.2 Develop Segment Flaring Practice to further enhance flaring performance in the regions.	In Progress	Ragoonan, Jali m, Karen; King, Dave J; Gordon, Graeme; Wright, Dugald M.
Methane Leader	Action 3 - Andy Collins / Matt Werner	3.3 Develop plan to embed operational mindset (GOO leadership to operators) to	Completed	Cristofoli, Giovanni; Gordon, Graeme

Methane LeaderAction 3 - Andy Collins / Matt Werner	3.4 Implement plan to instil InProgressCristofoli, operational mindset to continually improve flare performance.	
Methane LeaderAction 4 - David Lawler	4.1 - Evaluate additional remote power options for pneumatic controllers and pumps at L48's dispersed facilities.	Complete tec ZZ Gerard, Faye; ZZ Fagbayi, Kola
Methane LeaderAction 4 - David Lawler	4.2 - Replace all High Bleed Controllers in L48.	Complete tec ZZ Pugh, Brian; ZZ Burton, William R
Methane LeaderAction 4 - David Lawler	4.3 - Complete NBU Pneumatic Pump & Liquid Unloading Trials: solar pumps, removing select pumps, replacing high emitting pumps and Project Kelvin.	Complete tec ZZ Pugh, Brian; ZZ Lanan, Kevin T
Methane LeaderAction 4 - David Lawler	4.4 - Select technologies from above trials and implement across the L48.	InProgress ZZ Pugh, Brian; ZZ Fagbayi, Kola; ZZ Lawler, David
Methane LeaderAction 4 - David Lawler	4.5 - Use crowd-sourcing or other creative ways to find solutions to the pneumatics	InProgress ZZ Gerard, Faye; ZZ Fagbayi, Kola; ZZ Ajakaye,
Methane LeaderAction 5 - Andy Collins	5.1 - Develop plan to seek to influence PAE to reduce methane emissions with	InProgress Humphreys, James R; Robbie, Sayma; Sanders,
Methane LeaderAction 5 - Andy Collins	5.2 - Develop plan to seek to influence GUPCO to reduce methane emissions with focus on largest sources (e.g. venting).	InProgress Humphreys, James R; Robbie, Sayma; Sanders, John (HSE & Risk)

Methane Leader	Action 5 - Andy Collins	5.3 - Build L48 NOJV and other business partners into L48 Carbon Road Map.	InProgress	ZZFagbayi, Kola;ZZLawler, David
Methane Leader	Action 5 - Andy Collins	5.4 - Develop strategy to influence flaring performance in Iraq (Rumaila).	Complete	King, Dave J;Ford, Susan J (Sunbury)
Methane Leader	Action 5 - Andy Collins	5.5 - Develop plan to encourage Rosneft to join the Methane Guiding Principles.	Complete	Campbell, David;Mawer, Chris M
Methane Leader	Action 5 - Andy Collins	5.6 - Develop process to generate robust forecast for NOJV methane emissions.	Complete	Young, Alison S;Yongo, Roy O;O'Brien, Robert;Robbie,
Methane Leader	Action 5 - Andy Collins	5.7 - Equip NOJV Business Managers to be able to actively influence NOJV operator/partners to lower carbon intensity (incl. methane) on existing operations and with new investments.	InProgress	Humphreys, James R;Robbie, Sayma;Sanders, John (HSE & Risk)
Methane Leader	Action 6 - Morag Watson	6.1 - Review current portfolio already using xPansiv platform.	Complete	Watson, Morag S;Gray, Julian
Methane Leader	Action 6 - Morag Watson	6.2 - Identify and engage suitable partners (incl. suppliers, partners	InProgress	Watson, Morag S;Gray, Julian
Methane Leader	Action 6 - Morag Watson	6.3 - Work with the Global Environmental Products Team to develop accreditation benchmarks which enable delivery of a	InProgress	Watson, Morag S;Gray, Julian

Methane Leader	Action 7 - Ahmed Hashmi	7.1 - Develop a plan to use analytics to identify and quantify methane sources (including wells) and inform methane management interventions.	Complete	Watson, Morag S;Gray, Julian
Methane Leader	Action 7 - Ahmed Hashmi	7.10 - Identify suitable test sites in BP for trialing methane detection and reduction technologies, e.g. wellsite power generation.	Complete	Evans, Peter;Hashmi, Ahmed A
Methane Leader	Action 7 - Ahmed Hashmi	7.11 Develop a high-level vision statement for the methane measurement and monitoring strategy and validate with Upstream	Complete	Evans, Peter
Methane Leader	Action 7 - Ahmed Hashmi	7.2 - Complete full stack test (Ground, Flight & Orbit) to prove measurement accuracy and technology choices.	Complete	Watson, Morag S;Gray, Julian
Methane Leader	Action 7 - Ahmed Hashmi	7.3 - Deliver proof of concept field trial for drone-mounted Sensor.	Complete	Watson, Morag S;Gray, Julian
Methane Leader	Action 7 - Ahmed Hashmi	7.4 - Leak Detection & Quantification Trials: Continue current and	Complete	ZZGerard, Faye;ZZFagbayi, Kola
Methane Leader	Action 7 - Ahmed Hashmi	7.5 - Develop an upstream prioritised plan to achieve continuous methane	Complete	Watson, Morag S;Gray, Julian
Methane Leader	Action 7 - Ahmed Hashmi	7.6 - Identify and trial at a site technology to improve flaring performance (e.g. technology to better monitor/detect unlit flare	Complete	Touzel, Daniel F;Evans, Peter;Hashmi, Ahmed A

Methane Leader	Action 7 - Ahmed Hashmi	7.7 - Complete heat map of methane related technology projects across all of BP (DIO, L48,	Complete	Evans, Peter
Methane Leader	Action 7 - Ahmed Hashmi	7.8 - Lead cross functional workshop to agree methane technology focus areas and how technology programmes will be	Complete	Evans, Peter
Methane Leader	Action 7 - Ahmed Hashmi	7.9 - Finalise integrated methane technology plan.	Complete	Evans, Peter; Hashmi, Ahmed A
Methane Leader	Action 8 - Andy Collins	8.1 - Evaluate flare uncertainty (metering and combustion) across GOO operations.	In Progress	Price, Bruce; Alleyne, Ian
Methane Leader	Action 8 - Andy Collins	8.2 - Develop a plan to evaluate flare uncertainty in GWO operations.	In Progress	Krieger, Andy G; Pickard, Kate; Partridge, April L
Methane Leader	Action 8 - Andy Collins	8.3 - Define flare metering performance requirements and build maintenance requirements into existing maintenance processes.	Not Started	Beamer, Steve; Werner, Matthew L
Methane Leader	Action 8 - Andy Collins	8.4 - Define flare combustion performance requirements and build maintenance requirements into existing maintenance processes.	Not Started	Beamer, Steve; Werner, Matthew L
Methane Leader	Action 8 - Andy Collins	8.5 - Repair non-functioning flare meters in Angola.	Complete	Boyce, Roger; Werner, Matthew L

Methane Leader	Action 8 - Andy Collins	8.6 - Develop plan to deliver flare metering and combustion performance requirements across GOO.	InProgress	Beamer, Steve; Werner, Matthew L
Methane Leader	Action 9 - Andy Collins	9.1 - Define GOO LDAR requirements.	InProgress	Price, Bruce; Wright, Dugald M.
Methane Leader	Action 9 - Andy Collins	9.2 - Embed standardised LDAR programme across GOO.	InProgress	Price, Bruce; Wright, Dugald M.
Methane Leader	Action 9 - Andy Collins	9.3 - Implement find and fix LDAR programme in L48: prioritized on 30% of production in 2018/19, 60% of production in 2019/20,	InProgress	ZZPugh, Brian; ZZFagbayi, Kola
Methane Leader	Action 1 - Gordon Birrell	ACTION 1 - Develop and embed carbon price to support operational interventions consistent with good industry practice to deliver the Sustainable	InProgress	Birrell, Gordon Y; Rangel, Patricia
Methane Leader	Action 10 - Dominic Emery	ACTION 10 - Develop and implement a consistent set of Group, Segment and Regional policies and advocacy positions on methane	Complete	Emery, Dominic
Methane Leader	Action 11 - Rachel Woods	ACTION 11 - Deliver external Group-wide gas advocacy campaign and demonstrate BP's leadership on methane	InProgress	Woods, Rachel

Methane Leader	Action 12 - Mary Streett	ACTION 12 - Develop and implement US-specific methane advocacy plan aligned with Groupwide campaign	InProgressStreett, Mary
Methane Leader	Action 13 - Steve Shaw	ACTION 13 - Develop and deliver internal communications plan to educate BP employees on carbon and methane science and BP's role in reducing carbon/ methane emissions	InProgressWebster, Jonathan (Communication s);Shaw, Stephen
Methane Leader	Action 14 - Dave King	ACTION 14 - Develop and implement SLL/ Executive Education Programme to	InProgressKing, Dave J
Methane Leader	Action 15 - Dave King	ACTION 15 - Promote methane reporting transparency	CompleteKing, Dave J
Methane Leader	Action 2 - David O'Connor / Richard Mortimer	ACTION 2 -Develop and implement plan to deliver 'Near Zero' Methane	NotStartedO'Connor, David J;Mortimer, Richard (SUN)
Methane Leader	Action 3 - Andy Collins / Matt Werner	ACTION 3 - Develop and implement prioritised plan to drive further reductions	InProgressCollins, Andrew;Werner , Matthew L
Methane Leader	Action 4 - David Lawler	ACTION 4 - Develop and implement prioritised plan to further reduce L48 methane emissions from	InProgressZZLawler, David
Methane Leader	Action 5 - Andy Collins	ACTION 5 - Develop and implement prioritised influencing plan for methane emissions in non-operated JVs and other parties	InProgressRobbie, Sayma;Collins, Andrew
Methane Leader	Action 6 - Morag Watson	ACTION 6 - Build on blockchain project to develop accredited low emissions gas scheme for the gas value chain	InProgressWatson, Morag S

Methane Leader	Action 7 - Ahmed Hashmi	ACTION 7 - Develop and implement a plan to enhance methane data accuracy and support further operational	InProgress	Hashmi, Ahmed A
Methane Leader	Action 8 - Andy Collins	ACTION 8 - Develop and implement a plan to enhance flare emissions data accuracy (metered	InProgress	Collins, Andrew
Methane Leader	Action 8 - Andy Collins	ACTION 8 - Develop and implement a plan to enhance flare emissions data accuracy (metered volumes & combustion	InProgress	Collins, Andrew
Methane Leader	Action 9 - Andy Collins	ACTION 9 - Design and implement a standardised Upstream Leak Detection and Repair (LDAR) programme	InProgress	Collins, Andrew
Methane Leader	Action 9 - Andy Collins	ACTION 9 - Design and implement a standardised Upstream Leak Detection and Repair (LDAR)	InProgress	Collins, Andrew

Due date      Completed Date    Description  
30/06/2018      24/06/2019 Bruce Price

07/08/2019 Dave King

26/07/2018 D. King

31/12/2017      26/07/2018 D. King

30/06/2018      26/07/2018 A. Collins

06/12/2018      07/12/2018

31/12/2018      17/01/2019 A. Hashmi

31/12/2017 26/07/2018 D. King

31/12/2017 08/10/2018 K. Fagbayi

31/12/2018 17/01/2019

31/12/2017 16/10/2018 F. Bitar

31/12/2017 26/07/2018 A. Krieger

31/03/2019 30/03/2019 A. Krieger

31/12/2019 24/06/2019 Dave King

31/03/2018 26/07/2018 K. Fagbayi

31/12/2018 29/11/2018

30/06/2019 21/06/2019 Clair South project considering  
Power from Shore as an Option.  
Meeting held with Gordon

31/12/2018 03/09/2018 D. O'Connor

31/12/2017 26/07/2018

31/03/2018 03/09/2018 D. O'Connor

31/12/2017 26/07/2018 D. O'Connor

31/12/2017 26/07/2018 D. O'Connor

02/09/2019 D. O'Connor

30/06/2018 06/12/2018 A. Flores

12/12/2019 D. O'Connor

30/06/2018 06/12/2018 Brian Povey

31/12/2018 09/01/2019 M. Smith

25/01/2019 09/05/2019 Action agreed at 16th October  
Steering Meeting

31/12/2019 Tracker for agreed topics

31/12/2018 09/01/2019

09/11/2018

31/01/2019 26/02/2019

31/01/2019 04/03/2019 Consultant study concluded  
Q42018. Business case is  
technically sound though

31/03/2019 07/04/2019

<https://tasks.office.com/bp.com/en-US/Home/PlanViews/TW8JIp28gk2THTyxaHoSopYAEMmk>

30/06/2019 01/05/2019

30/09/2018 08/08/2018 Accountable: Gordon  
Birrell Responsible: Bruce Price

31/12/2019 11/01/2019 Accountable: Dominic  
Emery Responsible: Dominic  
Emery

30/06/2018 29/11/2018 Accountable: Dominic  
Emery Responsible: Dominic  
Emery

31/12/2018	29/11/2018 Accountable - Dominic Emery Responsible - Paul Jefferiss
01/12/2018	30/11/2018 Accountable - Mary Streett Responsible - Bob Stout
31/12/2018	09/05/2019 Accountable - Dave King / Liz Rogers Responsible - Dave King / Liz Rogers
21/03/2020	Accountable - Rachel Woods Responsible - Clare Moore-Bridger
31/12/2020	Accountable - Rachel Woods Responsible - Clare Moore-Bridger
31/12/2019	Accountable - Rachel Woods Responsible - Clare Moore-Bridger
29/11/2019	Accountable - Rachel Woods Responsible - Clare Moore-Bridger
23/03/2020	Accountable - Rachel Woods Responsible - Clare Moore-Bridger
30/09/2019	Accountable - Rachel Woods Responsible - Clare Moore-Bridger
31/03/2019	24/06/2019 Accountable - Rachel Woods Responsible - Clare Moore-Bridger

31/10/2019	Accountable - Rachel Woods Responsible - Clare Moore-Bridger
30/09/2019	Accountable - Rachel Woods Responsible - Clare Moore-Bridger
30/09/2019	Accountable - Rachel Woods Responsible - Clare Moore-Bridger
14/12/2018	30/11/2018 Accountable - Mary Streett / Dave Lawler Responsible - Bob Stout / Kola Fagbayi
14/12/2018	30/11/2018 Accountable - Mary Streett Responsible - Bob Stout / Liz Sidoti
30/11/2018	30/11/2018 Accountable - Susan Dio / Dave Lawler Responsible - Joe Ellis / Kola Fagbayi
01/10/2018	10/10/2018 Accountable - Mary Streett Responsible - Bob Stout / Liz Sidoti
31/12/2019	Accountable - Bob Stout / Kola Fagbayi Responsible - Faye Gerard
01/11/2018	10/10/2018 Accountable - Mary Streett Responsible - Joe Ellis

30/06/2018	04/09/2018 Accountable - Steve Shaw Responsible - Marisa Walker
30/09/2018	08/10/2018 Accountable - Steve Shaw Responsible - Marisa Walker
14/01/2019	16/01/2019 Accountable - Liz Sidoti / Kola Fagbayi Responsible - Maegan Clemens
31/03/2019	09/05/2019 Accountable - Steve Shaw Responsible - Steve Shaw
31/12/2019	Accountable - Dave King Responsible - Doog Wright
31/12/2018	14/01/2019 Accountable - Liz Rogers Responsible - Muhunthan Sathiamoorthy
31/03/2019	30/03/2019 Accountable - Dave King Responsible - Karen RagooniananJalim
31/12/2019	Accountable - Dave King Responsible - Karen RagooniananJalim

31/12/2018 14/01/2019 Accountable - Liz  
Rogers Responsible -  
Muhunthan Sathiamoorthy

31/12/2019 Accountable - Dave  
Lawler Responsible - Kola  
Fagbayi

30/09/2018 28/09/2018 Accountable - Dave  
King Responsible - Tyrone  
Kalpee

31/12/2018 14/01/2019 Accountable - Liz  
Rogers Responsible -  
Muhunthan Sathiamoorthy

31/12/2018 09/05/2019 Accountable - Dave  
King Responsible - Sue Ford

31/12/2018 27/11/2018 Accountable - Dave  
King Responsible - Rob O'Brien

31/12/2018 26/11/2018 Accountable - Kola  
Fagbayi Responsible - Faye  
Gerard

31/12/2019 24/06/2019 Accountable - Brian  
Pugh Responsible - Will Burton

31/12/2018	21/11/2018 Accountable - Liz Rogers Responsible - Alejandra Castano
31/01/2019	04/02/2019 Accountable - Liz Rogers Responsible - Muhunthan Sathiamoorthy
31/12/2018	14/01/2019 Accountable - Liz Rogers Responsible - Liz Rogers / Kola Fagbayi
31/12/2019	Accountable - Liz Rogers Responsible - Muhunthan Sathiamoorthy
30/06/2018	29/08/2018 Accountable: Richard Mortimer Responsible: Jenny Olsson
31/03/2019	03/04/2019 Accountable: Richard Mortimer Responsible: Jim Corbally
31/12/2018	16/01/2019 Accountable: Dave King Responsible: Sue Ford
31/12/2019	The Reducing Methane Best Practices (RMBP) were developed by the external Methane Guiding Principles (MGP) Initiative in 2018 and endorsed by the Steering Committee in January 2019. A <a href="#">2018 Work Program proposal to</a>

31/12/2019		Accountable: Kola Fagbayi Responsible: Rick Urban
28/06/2019	08/05/2019	Accountable: Aleida Rios Responsible: Cam Aitken Methane source surveys will be updated per Action 15.2 (UEC Process Engineering to support) during Action 15.2. This updated data will be used for the 2019 Emissions Inventory
30/08/2019	30/08/2019	Accountable: Aleida Rios Responsible: Cam Aitken This action follows 2.2 which will not be completed
29/03/2019	16/01/2019	Accountable: Richard Mortimer Responsible: Ed Paul
30/09/2019		Accountable: Russell Smith Responsible: Amrita Lulla

31/03/2019 16/01/2019 Accountable: Richard  
Mortimer Responsible: John  
Kennedy

31/12/2018	29/08/2018	Accountable: Richard Mortimer Responsible: Jenny Olsson
31/03/2019	16/01/2019	Accountable: Richard Mortimer and Russel Smith Responsible: John Kennedy

30/09/2019

31/03/2019 03/04/2019 Accountable: Richard  
Mortimer Responsible: Jim  
Corbally

30/06/2019 Accountable: Matt  
Werner Responsible: Roger  
Boyce/Andy Johnston

30/06/2019 Accountable: Dave  
King Responsible: Doog  
Wright/Graeme Gordon

31/12/2018 16/01/2019 Accountable: Gio  
Cristofoli Responsible: Graeme  
Gordon

31/12/2019 Accountable: Gio  
Cristofoli Responsible: Graeme  
Gordon

31/12/2019 20/06/2019 Accountable: Kola  
Fagbayi Responsible: Faye  
Gerard

31/12/2019 20/06/2019 Accountable: Brian  
Pugh Responsible: Will Burton

31/12/2019 24/06/2019 Accountable: Brian  
Pugh Responsible: Kevin Lanan

31/12/2019 Accountable: David  
Lawler Responsible: Brian  
Pugh/Kola Fagbayi

31/12/2019 Accountable: Kola  
Fagbayi Responsible: Faye  
Gerard/Bola Ajakaye

31/12/2019 Accountable: Sayma  
Robbie Responsible: John  
Sanders

31/12/2019 Accountable: Sayma  
Robbie Responsible: John  
Sanders This action is being  
reviewed in light of the  
announced GUPCO sale

31/12/2019	Accountable: David Lawler Responsible: Kola Fagbayi
31/12/2019	04/09/2018 Accountable: Dave King Responsible: Sue Ford
31/03/2019	02/05/2019 Accountable: David Campbell Responsible: Chris Mawer
31/12/2019	07/12/2018 Accountable: Sayma Robbie Responsible: Alison Young/Rob O'Brien
31/12/2019	Accountable: Sayma Robbie Responsible: John Sanders
31/12/2018	16/01/2019 Accountable - Morag Watson Responsible - Julian Gray
31/12/2019	Accountable - Morag Watson Responsible - Julian Gray
31/12/2019	Accountable - Morag Watson Responsible - Julian Gray

31/12/2018	16/01/2019 Accountable - Morag Watson Responsible - Julian Gray
31/12/2019	08/01/2019 Accountable - Ahmed Hashmi Responsible - Ahmed Hashmi
31/12/2018	08/01/2019 Action agreed at 16th October 2018 Upstream Carbon Steering Meeting
31/12/2018	03/09/2018 Accountable - Morag Watson Responsible - Julian Gray
30/04/2019	29/04/2019 Accountable - Morag Watson Responsible - Julian Gray
31/12/2018	16/01/2019 Accountable - Kola Fagbayi Responsible - Faye Gerard
30/06/2019	28/06/2019 Accountable - Morag Watson Responsible - Julian Gray
31/12/2018	08/01/2019 Accountable - Ahmed Hashmi Responsible - Dan Touzel

30/06/2018	24/08/2018 Accountable - Ahmed Hashmi Responsible - Peter Evans
30/09/2018	24/08/2018 Accountable - Ahmed Hashmi Responsible - Peter Evans
31/12/2018	08/01/2019 Accountable - Ahmed Hashmi Responsible - Peter Evans
30/09/2019	Accountable - Matt Werner Responsible - Ian Alleyne
31/12/2019	Accountable - Andy Krieger Responsible - April Partridge
31/12/2019	Accountable - Matt Werner Responsible - Steve Beamer
31/12/2020	Accountable - Matt Werner Responsible - Steve Beamer
15/03/2019	09/05/2019 Accountable - Matt Werner Responsible - Roger Boyce

31/12/2019 Accountable - Matt  
Werner Responsible - Steve  
Beamer

31/12/2019 Accountable - Bruce  
Price Responsible - Doog  
Wright

30/06/2019 Accountable - Bruce  
Price Responsible - Doog  
Wright

31/12/2020 Accountable - Kola  
Fagbayi Responsible - Brian  
Pugh

31/12/2019 Accountable: Gordon Birrell

08/05/2019 Accountable - Dominic Emery

31/12/2020 Accountable - Rachel Woods

31/12/2019 Accountable - Mary Streett

31/12/2019 Accountable - Steve Shaw

31/12/2019 Accountable - Dave King

31/12/2020 24/06/2019 Accountable - Dave King

31/12/2019 Accountable: David  
O'Connor Responsible: Richard  
Mortimer

31/12/2020 Accountable: Andy  
Collins Responsible: Matt  
Werner

31/12/2019 Accountable: David Lawler

31/12/2019 Accountable: Andy Collins

31/12/2020 Accountable - Morag Watson

31/12/2019 An integrated plan has been developed for methane technical activity divided over 4 themes: 1. Direct Quantification 2. Continuous Accountable - Fuzzy Bitar

31/12/2019

31/12/2019 RRcv90fV\_EyACXiAccountable - Fuzzy Bitar

31/12/2019 Accountable - Fuzzy Bitar

31/12/2019 nRSMgC1nCU2AUAccountable - Fuzzy Bitar

Comment

Included in the new Cat C digital projects tool which is currently being deployed.

As of end-2Q 2019 Upstream have delivered 3.05 Mte of SERs with a further 0.15 Mte forecast to year end. See Power BI for latest data: <https://app.powerbi.com/groups/me/apps/3f1cbceb-b9cc-43dd-8e60-5477dedf1845/reports/c30f7de9-ad6e-419c-8250-9cf1258fbd09/ReportSection8cdce3857aa6c7de8689?bookmarkGuid=Bookmarkf7669711063ad9d8de>  
No longer relevant. Superseded by RIC target of 3.5Mte (gross) RSRs by 2025.

Alaska Energy Review completed w/c 9th November (telepresence and Skype). AGT Energy Review completed 16-21st November (site visit). North Sea (ETAP) Energy Review planned for December 9th (offshore site visit cancelled due to weather, will utilise ACE facility)

- The top 10 NOJV emitters have been identified, these collectively account for >80% of Upstream's total non-operated equity emissions. • These NOJVs have been ranked based on BP's level of influence – based on the existing relationship and exposure to other IOCs within the JV (either as operator or partner), on the assumption that other IOCs are also in action on carbon • A prioritised \$100M fund agreed by Gordon and Murray on 2nd November 2018, work progressing to develop FM and governance process

Flare Destruction Efficiency Measurement – We have successfully completed testing of the Providence Mantis camera for measuring flare efficiency. To recap status: • The Mantis camera was originally designed for continuous compliance monitoring of downstream flares. As part of a JIP it performed the best out of a range of measurement systems and provided the basis upon which its measured parameter (combustion efficiency) could be correlated to the target measurand for methane intensity – destruction efficiency. • Early in 2018 the camera was evaluated as a mobile technique capable of being used to survey Upstream flares. The first round of tests in Alaska were a success with the equipment performing to specification in the field. The majority of flares exceeded the 98% destruction efficiency used in emissions calculations • Angola trial: • The recent trials were

Completed - see attachment

June 5th Notes: 1. L48 committed to reducing CO2e emissions by 700,000 MT CO2e between 2017 and 2025 versus 2016 CO2e baseline inventory a. 350,000 MT CO2e to be reduced between 2017 and 2019 b. 350,000 MT CO2e to be reduced between 2020 and 2025 2. L48 will replace remaining 152 High Bleeds by mid 2019

2 successful trials of FLIR camera quantification technology (QL320) completed - technology being deployed across GOO operating regions 1H19

GtP Northern/ Southern line pressure optimisation to reduce flaring and increase gas export to ALNG: Four low flare field trials were completed over a 2 ½ year period to identify the most suitable mechanism (intervention) to reduce the volume of gas being flared. These involved adjusting flowline pressures, testing and improving compressor stability and identifying oil and gas rate optimization opportunities (including enhanced riser-based gas lift, conversion of certain gas injection  
Completed - see attachment

February 27 Update: The first green completion in Oman was started on KZN 402 on 26 February 2019. After completing commissioning and the HAZOP action checklists, the well was opened at 10pm on 25 February and achieved the required parameters to export gas in less than 12 hours.

The team switched gas export to the central processing facility at 9.20am on 26 February. The well is ramping up - export of condensate is expected once a higher rate has been achieved (within 12-24 hours of gas export start). On KZN 402, the team are on target to achieve >90% of hydrocarbons to be diverted to the CPF.

Per email sent to D. King by Sue Ford on June 20th, 2019, containing a Brief for approval by Andy Collins, states, in part: "The attached proposal outlines our position for expanding the number of GOO assets in scope for reporting for 2018 from 5 to 23, bringing AGT, North Sea and Oman into

June 5th Update: Decision retired after conversation with stakeholders.

Ongoing benchmarking to strengthen emissions estimations in pre-GPO to evaluate Life of Field asset emissions. Emissions estimation has been incorporated into the VST tool and pre-GPO workbook.

GHG intensity graphs benchmarking all hopper opportunities are produced for every quarterly COO Appraisal Table. The emissions data and benchmarks have been aligned with other facility power and weight benchmarks. The benchmark data allows differentiation between direct drive and e-drive compression as well as power from shore to facilitate lower carbon option consideration in pre-GPO.

John Goldie confirmed this action can be closed as we are very much progressing the power from shore options during optimise. At the end of the year the project should be able to present a summary of the options and proposed way forward.

"GN 47-061 is already codified in MPcp V5 - CLOSED "

Closed: Use of the energy VIP is already a GPO requirement codified in the GPO HSE Practice. The energy VIP guide has been updated to ensure that energy benchmarking is conducted as part of the energy VIP workshop.

"GHG FM Governance Guide is completed and due for publication. CLOSED GPO Carbon Principles Guide provides guidance for project teams to supplement shall statements in MPcp v5 CLOSED"

June 5th Update: Update Appraisal one-pagers – to include GHG total, carbon intensity and E&S issues and risks. High priority one pagers updated for the COO-AT held at end-Nov. The rest of the Appraisal one-pagers will be updated by Q1 2018. For an update on inclusion of GHG intensity in FM processes see action 3.1. For an update on GHG inclusion in ADPs see action 3.2.

Closed: One page position paper developed and issued outlining options and recommended way forward including alignment with Shell to influence the Operator.

In addition, the Region ran a Carbon Workshop to identify further potential lower carbon options for the Region, and has developed a Regional carbon plan.

Marked as complete based on updates and agreement to create new ongoing action (TBD)

Keeping this action open following discussion with action owner and pushing back the due date until the completion of all the fields trials of flare combustion efficiency using the Mantis VISR camera.

Final document, Guidance Note 14 - GHG Governance, was published to the GIAAP intranet site at the end of November following GPO input/review.

ADPs and Regional Development Plans now require GHG data. Identification of CCUS appraisal opportunities now screened at Appraisal Table during project capital allocation discussions.

Complete - see attached slides provided as part of related Meeting Action to "Create a one page strategy on potential opportunities for CCUS in Alaska relating to 45Q and California regulations"

Green Completions and Carbon Abatement Fund to be discussed at 6th Devember meeting. Xpansiv update and gas advocacy will covered early in 2019

Complete and the FM is now with Gordon and will be shared with UET during the January UEM

Work ongoing to define governance process, but will simply be called the "Upstream Carbon Fund".

Action marked as complete

Confirmed alignment at this stage of the project with Shell

2 slides to illustrate options and relative cost and impact on emissions

The Upstream Carbon Workshop was held on Wednesday 24th April, 2019 and included a cross section of attendees from Group, Upstream (across all three Functions) and Downstream. The output of the workshop was endorsement of the three workstreams going forward that will further define the

Action completed: revised EEM GN-33 process issued in December 2018: The application of carbon prices based on jurisdiction and BP's share of risk in a project has been removed. Carbon prices will apply to all projects based on BP's ownership interest in the project. Changes to Bluebook are effective for projects seeking endorsement from 23 January 2019. An operational carbon fund is proposed to be put in place for Upstream from 2019 (~\$100M over 2 years) to drive SER delivery - this will be managed by a separate governance process under development by Upstream HSE.

Update on behalf of Dominic Emery: Action now closed through a combination of: - GHG Forecast now embedded in Group Planning Process to get Group GHG projection from Segment roll-up; - Zero Net Growth Group Practice developed and in final draft ready for issue by end-2018, which addresses how net growth, offset requirement and carry-forward are determined annually and projected forward to inform IST offset portfolio, and; - Decision made to amend EEM GN-33 / Blue Book to require

Update on behalf of Dominic Emery: The IMWG process has been refreshed with a revised Terms of Reference and renamed the PAWG - Policy and Advocacy Working Group. Lamar remains chair and Gordon Birrell is a member for Upstream. First meeting of the PAWG will be 14th December.

Received and analyzed Exxon's draft Policy Framework recommendation to all Guiding Principles members. US C&EA submitted feedback to Sue Ford on 11/28 (see attached).

Closing action as per Sonna's comments - would be helpful to get update on how Gardiner is progressing on the broader activity though (and Sue has also been doing some mapping of external initiatives)

Bernard Looney took part in a methane-specific panel at CERA Week. He will speak at BNEF and at LNG Shanghai, sharing messaging around gas as well as emissions reductions.

The methane emissions tech showcase on 9 September in Sunbury will include a variety of visual content which can then be shared on digital channels.

The final methane round table in the series will take place in Brussels on 29 April.

The Gas and Methane campaign plan sets out a number of ways to use BP's major Upstream projects to communicate our gas advocacy messaging, whilst showcasing what the business is doing to tackle methane. In Q1 2019 we are planning is to focus on developing a "digital press tour" focusing on The emissions tech showcase event for media will take place on 9 September in Sunbury, and this will include information about technology trials.

To confirm we have decided to focus on communicating BP technology trials as well As the EDF collaboration. We would like to close this task to reflect that.

As we understand it, the main paper on methane leakage is in peer review. We have an action to discuss this with Liz Rogers.

We have now completed filming of methane technologies in the field in L48, Khazzan and Papa Stour. This will feature as part of the virtual reality experiences at the showcase on 9 September, as well as being catalogued in BPTV library for other internal and external uses.

We plan to create a press release for the showcase event on 9 September, which will summarise BP's action and commitments on methane. This will also be communicated to media at the showcase itself.

- The Model Methane Regulation has been completed. Please refer to Chapter 5 in the US Methane Campaign document attached. - US C&EA review and approval expected w/c Dec 3rd.

2018 version of the US Methane campaign document complete. See attached final version of the document.

- BP has strengthened its participation in API Environmental Partnership (EP) group. Senior Air Expert (Dana Wood, BPX) and Senior Director of HSE policy (Jim Nolan, BPA) now attend monthly calls and participated at annual EP conference meeting. - This arrangement will continue to allow BP to lead in coalition with the Industry in the US, by exchanging learnings on methane best practices. - For 2019, Liz Sidoti (Head of U.S. Comms, BPA) who is currently the chair of API's Communications committee, Delivered. High level actions include provide better clarity to the public around the 0.2% intensity target and evaluate options to bring along the rest of industry to address methane emissions in the US. We will think about the possibility of doing another US event in 2019, possibly in Houston.

June 2019 Update: Draft Advocacy Plan has been drafted and is being internally reviewed.

After review and with approval from Susan Dio, this action is being discontinued. Rationale is there are already sufficient mechanisms and tools available to the team - both internal and external - for picking up emerging, serious proposals methane regulation proposals across the US. This includes our own

The Upstream methane employee communications plan has been implemented. The significant deliverables to date include:

- RP/HOF briefing pack
- Upstream AET hub webpage (hosts all Upstream-related AET content)
- Webcast: 'Getting real on carbon' (Panel included Gordon Birrell, Shirley Oliveira, Gio Cristofoli and Russell Smith)
- AET messages and materials in Team Talk for A L48 internal methane communication plan aligned with Segment's communication plan is completed and approved by Kola Fagbayi.

cMore challenge and \$100M fund successfully launched. Low Carbon category also included in 2019 Helios. Future cMore system updates to include Low Carbon and/or Sustainability benefit category as standard in all challenges. Action closed.

This action will be addressed through the MGP Executives / Masterclass Training delivery that SGI / Imperial College are delivering as part of the MGPs Tool Kit, in support of the Reducing Methane Emissions: Best Practices, which will be adopted and embedded within the Upstream.

Action complete

This action identified the target audience within the Upstream GLL and SLL population to undergo the Education Program for embedding a culture of low carbon across the Upstream. The Education Program will require different groups within this audience to undergo different levels of training, commensurate with their role within the Upstream.

The SLL and Executive Methane Education Programme will be delivered via the ongoing work programme in the Methane Guiding Principles external initiative. Under the MGPs an Implementation Plan for the 8 Reducing Methane Emissions: Best Practices is being developed which includes a Global Methane Toolkit and an Outreach Programme for Executives (1/2 a day) and a Master Class for Operational Leaders (1 Day.) The former is for CEOs/COO; the latter for VP Ops/AOMs audiences. Trials for both

Working with OMSA team on the "Alpha" script with view to finalising in late January - noting some changes to the script to the climate sections that were noted in December review. The methane "video" is a modified version of the Group Leader methane video and will be part of the OMSA Climate module (not standalone). Training available for roll out in April 2019

June 2019 Update: The BPX RC&E has begun environmental training in June to help progress the zero methane emissions mindset. GHG Comms Plan to be developed in 3Q2019.

A frame was developed - see attached - and circulated for comment / edit and the attached is the agreed frame (no comments)

As per comment on the 21/11 this specific action is either complete or needs to be re-worded to be more explicit as the near zero OGCI plan is a multi-year, multi-activity plan and not one specific item or deliverable. The timeline will be 2020+

Action completed as surveys now received from North Sea. Recommend a follow-on action to update the methane calculations for the surveyed assets based on the results of the surveys.

Action Complete - a methodology comparison has been completed for Tangguh (see attached) which shows the US methodology actually yields lower overall methane emissions, largely due to the UK methodology applying more conservative assumptions to methane emissions from combustion sources (flaring and energy). The UK and US methodologies can largely be traced back to the API GHG 5th September Update: The L48 RCE team conducted a peer assist with Upstream HSE and Central S&OR members on May 21, 2018. The L48 RCE Team has established an annual review cycle for the internal GHG calculations.

June 2019 Update: For most inputs to the calculations, BPX uses a data aggregation and validation tool that collects data from multiple BPX systems (work order management, Aquarius, SAP Production & Revenue Accounting), aggregates it into one database, checks for data gaps, and compares it with expected values. Using this logic corrects the data. Episodic events such as gas releases, leak surveys,

After reviewing the recent updates to the reporting requirements, we found that the following text is sufficient for completing this action: (Section 6.1 Hierarchy) “The Annexes often recommend a hierarchy of possible approaches for each reported parameter. Where possible, those methods higher up in the hierarchy (more direct measurement) should be used in preference to those lower down, as minimizing the potential inaccuracy enables easier justification of emission reductions year on year. It Initial draft updated following SME feedback

Action completed based on the update provided on 22/11 and assuming the alignment with the OGCI methodology and GBG is sufficient - noting BP has now changed methodology to align with OGCI.

The timeline needs to reflect this is a detailed effort spanning a long period of time and linked to multiple activities with parties outside of BP

GPO Carbon principles document has been updated and makes a specific statement early on in the document to state that carbon also includes methane. Document is final awaiting legal review prior to issuing.

See below PMCS actions that are in place. Engage with suppliers on low carbon by GFH product team. Valves: GFH-AT-000002-A-0011 Inst Controls Electrical: GFH-AT-000002-A-0014 Mech Process Materials: GFH-AT-000002-A-0013 Global Rotating Equipment: GFH-AT-000002-A-0012 – this

The Reducing Methane Best Practices and associated 2019 Implementation Plan have been approved by the Methane Guiding Principles Steering Committee (11th January 2019). BP will lead the development of a global tool kit to accelerate implementation across the natural gas value chain. This will be done in collaboration with Shell who are developing a Methane Outreach Program. Education and Awareness are key components of successful implementation. BP Upstream will embed the

The Guides (12-15 pages) for the 8 Reducing Methane Emissions Best Practices will be developed by SLR Consulting International and the University Texas (Austin) as part of the 2019 Work Programme under the Methane Guiding Principles external initiative. Synopses (2-3) pages will also be produced for each Best Practice. The Guides will be available at the end of 3Q 2019. These will be incorporated into the planned Upstream E&S Practices and Upstream Carbon Guide by end 4Q 2019.

June 2019 Update: On track. An updated Facility Design Manual has been drafted and is currently under review.

Latest data received from GOO and reviewed. Summary in attached PowerPoint. Action 2.3 will now be initiated.

This action has been completed. A list of technologies against key sources of methane emissions identified in action 2.2 has been generated with cross reference to appropriate practice, specs and/or guidance (see attached spreadsheet). • This table will be added as a "GPO Low Carbon Checklist" an appendix to the GPO Low Carbon Option Evaluation Guide to be developed this year. It can then be BP will request the technical work fronts identified are included on the next IOGP Standards Committee (SC) meeting agenda. This action is being closed on the basis of the completion of the review, identification of potential work fronts, and addition to IOGP SC agenda.

Extending this action out to end 3Q to allow time for completion. Activities underway in progress to support this action are: • Meeting with Group S&OR/ UHSSE/ UEC to discuss best benchmarks for methane performance (3rd April) • Update VST tool/ rapid screening workbook with methane intensity calculation (current backlog item for the emissions tab). • Determine best place to report methane benchmarking (e.g. Appraisal Table graphs, benchmarking report at end of CD, etc.). • Ensure alignment with wider activities on methane guiding principles implementation.

Review complete. Low emissions equipment will not be added to JIP33 per se, rather the focus will be on improving equipment reliability through expanding our standardisation efforts. Formal kick-off of the JIP33 steering committee is on 31st Jan. Richard Mortimer is going to chair the committee. The drive to improve the sourcing of low emission equipment is being pursued through actions 2.9 and 2.10.

GPO Carbon Principles Plan - Section 7.4.3.5 – Start up and early operations (Sub Plan 20) states that “Start-up flaring should be minimised as far as possible in the start up methodology and sequence, any significant changes to forecast start up flaring should be communicated and approved”

An update to the last comment below... A second action, 2.8b, will now not be raised and tracked through the Methane Leadership plan. The second action, for "UEC to frame up a focus area on well flowback considerations and undertake the focus area work", has already kicked off and will be managed and tracked through the GPO-UEC Focus Area process, which is the normal mechanism for tracking such work. In the spirit of simplification we have therefore decided not to track this in two places and will therefore not add the additional action here.

Russell Smith requested that this action be postponed to end 3Q 2019 at the last Upstream Carbon Steering Committee meeting as there has been several changes in AGM and AM personnel in GCD and the appraisal management organisation needs to get through this transition period before updating the AM Guide.

See below PMCS actions that are in place. Engage with suppliers on low carbon by GFH product team. Valves: GFH-AT-000002-A-0011 Inst Controls Electrical: GFH-AT-000002-A-0014 Mech Process Materials: GFH-AT-000002-A-0013 Global Rotating Equipment: GFH-AT-000002-A-0012 – this has been completed GHG operational performance data specifications (note - not relevant to ICE product lines). Valves: GFH-AT-000002-A-0015 MPM: GFH-AT-000002-A-0017 GRE: GFH-AT-000002-A-0016 Angola PSVM LPGC re-alignment work package was completed on the 3rd May 2019, pre started-up check on schedule for w/c 6th May

Closed to be embedded with Upstream Carbon Guide.

central & frontline leadership behaviours, embedded processes and performance management outcomes agreed The detailed plan has been developed & discussed in AOM workshop; the plan has been reviewed and approved by HoF

1Q19: COO/ HoF regional expectations communication; develop simple & straightforward video training materials for frontline operations; update production reporting tools update (OMS 6.1/8.1: deviations from flaring design) 2Q19: monitor progress (successes/ challenges); add flaring expectations to Site Manager calls/ workshop

June 2019 Update: BPX evaluated the use of zero emission solar heat trace pumps to eliminate gas pneumatic heat trace pumps. BPX installed 246 solar heat trace pumps (BPX has 4 additional solar pumps held in reserve in the event extra heat trace capacity is needed at a site) and eliminated 470 gas pneumatic heat trace pumps as of January 31, 2019 in the NBU. BPX evaluated the use of solar powered controllers, and they were not cost effective.

June 2019 Update: All high bleed controller replacements located at wellsites have been completed. Due to pending divestiture, high bleed controller replacements (21 controllers) at plants and treating facilities will not be completed.

June 2019 Update: BPX installed 246 solar heat trace pumps (BPX has 4 additional solar pumps held in reserve in the event extra heat trace capacity is needed at a site) and eliminated 470 pneumatic pumps in the NBU. Kelvin has been deployed on 900 wells across the NBU. Kelvin achieves optimal well performance by modeling interactions of multiple variables and using model output to create real time algorithmic controls that increase production and reduce atmospheric venting associated with liquids unloading. Based on initial 120 well deployment achieves 36% decrease in well venting events, 6.5% increase in production, resulting in \$881K current realized value on these first wells. And results in fewer trips to manually unload wells reduces drive time and personnel exposure.

June 2019 Update: Solar pump installations were completed (246 installations as of January 31, 2019 and 4 solar pumps held in reserve in the event extra heat trace capacity is needed at sites), and Project Kelvin has been deployed on 900 wells across the NBU.

Potential crowd-sourcing and other creative solutions to the pneumatics and distributed power challenges are being discussed, such as University Partnerships, consortiums, working with industry groups, and working with BP Group and Upstream). Engagement of the workforce to build a carbon on track

on track

June 2019 Update: RC&E developing a presentation identifying significant OBO GHG reduction opportunities. Recommendations will follow.

The World Bank contacted BP on 27th Feb requesting our support and cooperation on gas flaring reduction in Iraq. BP Iraq (Regional President) responded August 2018 reinforcing are continued commitment to reducing flaring in our operations and stated that as a founding member of the GGFR partnership we remain engaged in the GGFR's Steering Committee and Work Program. We also stated Chris/Karen Well done. Regards Gordon

Methane forecast has been incorporated into overall Upstream GHG forecast in Power BI. NOJV methane and total GHG forecasts provided to NOJV team. Forecasts will continue to be refined, but this specific action is now closed.

The review of current portfolio is complete. We are now working on next steps which is mainly starting with 2-3 Upstream POCs and continuing to setup the Master License agreement in parallel (this is tracked in point 6.2)

The framework MSA is at the final stages of agreement between BP and Xpansiv and it expected to complete anytime soon at the time of writing this (2nd May)

Decisions on the DIO/BPX joint plan have been deferred whilst BPX focuses on absorbing its acquisition of BHP Billiton assets. Regarding capturing satellite imagery of OMAN, given the location and priority is given to the US Government, there is a high probability of being bumped. The DIO team has been in discussion with Digital Globe as to how to improve the chances of being prioritized and not being bumped. ( we have now got 1 successful capture in 4 attempts)., A plan has been created to improve the Satelite detection and quantification algorithms of Satelytics based on collecting imagery from a number of BP owned locations with different backgrounds and environments. Key locations for testing and first generation deployment have been identified for each of the core technologies under consideration. Please refer to monthly report in the Action 7 header for details and ongoing updates.

Vision statement to be finalised at the 22Jan meeting

DIO with support from L48 HSE and Wamsutter operational team completed field trials including executing a number of controlled methane releases of ground (mAIRsure, Rebellion and Providence), flight (Baker Hughes and Precision Hawk) and orbit (Satelytics and Geospatial insights) technologies. Full report is available as an attachment

Proposal circulated reviewed and updated.

L48 has a LDAR recommendation based on completed trials that will be reviewed through L48 governance. No single technology or platform excelled at all criteria, however, drones fitted with a methane laser and optical gas imaging (OGI) camera combination are currently the best fit for BPX. Plan created, reviewed and agreed with Upstream Technology - Peter Evans. Upstream Leadership methane plan agreed to continual monitoring definition and use of OneMap as the single repository for all output data.

We have successfully completed testing of the Providence Mantis camera for measuring flare efficiency. To recap status: • The Mantis camera was originally designed for continuous compliance monitoring of downstream flares. As part of a JIP it performed the best out of a range of measurement systems and provided the basis upon which its measured parameter (combustion efficiency) could be correlated to the target measurand for methane intensity – destruction efficiency. • Early in 2018 the

A full heat map of technical activities currently underway was completed in June 2018 to initiate cross-team working under the integrated technical plan. As projects and opportunities unfold it is being updated periodically to track progress.

A cross functional workshop was held in June to align processes and projects between the various stakeholders involved in the delivery and deployment on technical activities in support of the methane leadership plan. Follow-on actions comprise regular meetings to co-ordinate projects, provide progress updates and share intelligence on technologies entering the market

All processes for delivering technology needs for methane management are now fully integrated

Plan in place to deliver by 3Q 2019 - due date amended to 30/09/2019

Contractor meetings held with Expro (1 meeting) and Schlumberger (2 meetings) to understand contractor approach. Follow up meetings planned internally with David Newman - UEC metering specialist. Outputs of meetings have been documented. Flare camera deployment planning is underway. GWO measurements will be taken in Oman in 3Q 2019. Planning efforts are being led by upstream HSE with support from the above region functional teams and regional representatives. Subsequent locations are likely to include AGT and AsPac however the scheduling of the camera

- PSVM: Vendor BHGI is on schedule to arrive on PSVM on Monday the 13th of May to service the two flare gas flowmeter system (spares probes are on standby at Sonils on target to be shipped this week commencing the 6th of may 2019) - GtP: Vendor Fluenta visited in April and issued a report. Probes have been cleaned and were in relatively good state. HP flare probe is functional and is providing reading, the LP flare probe's cable was obsolete, vendor will be manufacturing a dedicated spare cable replacement as this model is no longer manufactured.

due date needs amending to reflect full workscope, and to follow-on/ align with 8.1/ 3/ 4

Due date extended to end 2Q 2019 to allow for time to incorporate learnings from technology deployment (e.g. QL320, GCI)

June 2019 Update: BPX has successfully implemented an LDAR program on sites that will be divested for approximately ~50% of production. BPX has completed LDAR technology trials and chosen drones equipped with a methane laser and optical gas imaging camera. BPX is currently using the drone on 100% of the production of newly acquired assets to find and fix leaks.

The Methane Emissions Policy attached will be replaced by the IMWG Methane Final BP Position. This represents the Group Position on Methane, with the expectation that it will be appropriately adopted across Segments and Regions.

See milestones updates...all are in progress, some are already complete.

2018 plan delivered. 2019 plan in development and will run throughout the year.

Methane reporting transparency is being progressed through various means: 1. Trials and pilots have been completed and currently various technology are being deployed across Upstream Regions for methane detection, continuous monitoring and measurement. Some of these include - Mantis camera with VISR technology used to confirm flare combustion efficiency in Angola and planned for AGT, Oman and Indonesia before end 2019; Rebellion GCI Camera for 24/7 methane emissions monitoring across site deployed in Oman and currently underway for Trinidad and Alaska; QL320 Emissions Quantification technology deployed in North Sea and AGT and currently underway for Trinidad, Alaska, Oman and Indonesia; drone mounted survey completed for BPV and North Sea

Glen Lyon: FGR remains a key commissioning objective, but delayed from 3Q18 due to sand & gas management issues & lack of stable operations; latest estimate is for FGR commissioning is 1H19;  
PSVM: LP compressor restarted Sep18, initially estimated to be ~12mmscf/d; SER TBD (qualification/

Refer to monthly reports (attached) for details

Plan Name	Task Title	Bucket
Carbon Rx1.1	Develop and implement a mechanism to i	Reduce current GHG emissions
Carbon Rx1.10	Deliver 3 Mte Sustainable Emission Redu	Reduce current GHG emissions
Carbon Rx1.11	Gain approval for new Upstream RSR tar	Reduce current GHG emissions
Carbon Rx1.12	Complete energy reviews for 3 GOO asse	Reduce current GHG emissions
Carbon Rx1.13	Identify highest OBO contributors to BP's	Reduce current GHG emissions
Carbon Rx1.14	Develop SER economic evaluation metho	Reduce current GHG emissions
Carbon Rx1.2	Evaluate and trial technologies for improv	Reduce current GHG emissions
Carbon Rx1.3	Quantify the impact of plant reliability on	Reduce current GHG emissions
Carbon Rx1.4	Evaluate options for methane emission re	Reduce current GHG emissions
Carbon Rx1.5	Pilot methane identification and quantific	Reduce current GHG emissions
Carbon Rx1.6	Evaluate technical options for reducing fla	Reduce current GHG emissions
Carbon Rx1.7	Produce paper outlining the feasibility anc	Reduce current GHG emissions
Carbon Rx1.7a	Trial of green completions in Oman in 1Q	Reduce current GHG emissions
Carbon Rx1.8	Assess whether to include all GOO assets i	Reduce current GHG emissions
Carbon Rx1.9	Seek consent through L48 governance pro	Reduce current GHG emissions
Carbon Rx2.1	Conduct emissions benchmarking at Conc	Reduce future GHG emissions
Carbon Rx2.10	Consider power from shore options for C	Reduce future GHG emissions
Carbon Rx2.2	Require that projects are developed in acc	Reduce future GHG emissions
Carbon Rx2.3	Conduct energy benchmarking for major p	Reduce future GHG emissions
Carbon Rx2.4	Develop and implement a mechanism for :	Reduce future GHG emissions
Carbon Rx2.5	Develop & implement a Carbon Intensity t	Reduce future GHG emissions
Carbon Rx2.6	Consider the GHG emissions profile as par	Reduce future GHG emissions
Carbon Rx2.7	Evaluate lower carbon emission options fc	Reduce future GHG emissions
Carbon Rx2.8	Undertake appraisal work to assess the te	Reduce future GHG emissions
Carbon Rx2.9	Using improved flare combustion efficienc	Reduce future GHG emissions
Carbon Rx3.1	Develop and implement a mechanism to i	Transition the Upstream Portfolio
Carbon Rx3.2	Develop a process to build consideratio	Transition the Upstream Portfolio

**Redacted - First Amendment**

Carbon Rx	Agreed topics for future Steering Meetings	Meeting Actions
Carbon Rx	Carbon abatement fund FM and draft governa	Meeting Actions
Carbon Rx	Check whether GOO Flaring Policy (in develop	Meeting Actions
Carbon Rx	Consider a new name for the Carbon Abatem	Meeting Actions
Carbon Rx	Consider discussion on ETAP power from shor	Meeting Actions
Carbon Rx	Create a one page strategy on potential oppo	Meeting Actions
Carbon Rx	Deliver Methane Leadership Plan actions	Leadership in methane
Carbon Rx	Plan an Upstream Carbon Workshop during 1	Meeting Actions

**Redacted - First Amendment**

Methane 1.2	Roll out carbon price approach across Gro	Action 1 - Gordon Birrell
Methane 1.3	Develop Group-level carbon forecast and j	Action 1 - Gordon Birrell
Methane 10.1	Refresh the IMWG purpose and process	Action 10 - Dominic Emery
Methane 10.2	Align BP's methane advocacy principles	Action 10 - Dominic Emery

Methane 10.3 - Review and make recommendation on iAction 10 - Dominic Emery

Methane 11.1 - Deploy leaders to tell the gas story and Action 11 - Rachel Woods

Methane 11.10 - Develop a cross-industry methane surAction 11 - Rachel Woods

Methane 11.2 - Create agenda setting content to drive iAction 11 - Rachel Woods

Methane 11.3 - Pro-actively engage with stakeholders bAction 11 - Rachel Woods

Methane 11.4 - Leverage milestones on BP's most signifAction 11 - Rachel Woods

Methane 11.5 - Announce technology partnership(s) anAction 11 - Rachel Woods

Methane 11.6 - Develop an open innovation challenge tAction 11 - Rachel Woods

Methane 11.7 - Publish independent data on the methaAction 11 - Rachel Woods

Methane 11.8 - Run media/stakeholder visits to demonAction 11 - Rachel Woods

Methane 11.9 - Show action in the business by sharing iAction 11 - Rachel Woods

Methane 12.1 - Create model framework for Methane FAction 12 - Mary Streett

Methane 12.2 - Create US Methane Campaign, inclusiveAction 12 - Mary Streett

Methane 12.3 - Agree BP's level of leadership participatAction 12 - Mary Streett

Methane 12.4 - Host US focused stakeholder event withAction 12 - Mary Streett

Methane 12.5 - Build strategy to advocate for improvenAction 12 - Mary Streett

Methane 12.6 - Recommend fit-for-purpose tracking toAction 12 - Mary Streett

Methane 13.1 - Develop Upstream methane employee iAction 13 - Steve Shaw

Methane 13.2 - Implement Upstream methane employeAction 13 - Steve Shaw

Methane 13.3 - Develop and implement L48 internal mAction 13 - Steve Shaw

Methane 13.4 - Develop approach to encourage employAction 13 - Steve Shaw

Methane 13.5 - Develop Upstream specific methane eLAction 13 - Steve Shaw

Methane 14.1 - Develop SLL/Executive education progrAction 14 - Dave King

Methane 14.2 - Identify and agree target audience (minAction 14 - Dave King

Methane 14.3 - Develop and implement plan for SLL/ EAction 14 - Dave King

Methane 14.4 - Develop OMS Academy module. Action 14 - Dave King

Methane 14.5 - Develop and implement 'zero methane Action 14 - Dave King

Methane 15.1 - Develop and agree the key focus areas iAction 15 - Dave King

Methane 15.10 - Work with industry partners (e.g. OGCAction 15 - Dave King

Methane 15.2 - Review and update Upstream methane Action 15 - Dave King

Methane 15.3 - Conduct comparison of US with non- USAction 15 - Dave King

Methane 15.4 - L48 Emission Inventory Improvement: iAction 15 - Dave King

Methane 15.5 - Ensure accuracy of data in L48's systemAction 15 - Dave King

Methane 15.6 - Update Group reporting guidelines to irAction 15 - Dave King

Methane 15.7 - Develop briefing to support consideratiAction 15 - Dave King

Methane 15.8 - Work with trade associations (GBG, OGCAction 15 - Dave King

Methane 15.9 - Work with industry partners (e.g. OGCI)Action 15 - Dave King

Methane 2.1 Revisit GPO Carbon Principles and include Action 2 - David O'Connor / Richard Mort

Methane 2.10 - GFH (Global Facilities Hardware) to reqAction 2 - David O'Connor / Richard Mort

Methane 2.11 - Lead development of Methane ReducinAction 2 - David O'Connor / Richard Mort

Methane 2.11a Adopt Reducing Methane Best PracticeAction 2 - David O'Connor / Richard Mort

Methane 2.12 - Update L48 Facility Design Manual (FDNAction 2 - David O'Connor / Richard Mort

Methane 2.2 Review output from GOO focus area on cuAction 2 - David O'Connor / Richard Mort  
Methane 2.3 - Assess and recommend the best availablAction 2 - David O'Connor / Richard Mort  
Methane 2.4 - Review actions from other relevant indusAction 2 - David O'Connor / Richard Mort  
Methane 2.5 - Benchmark and internally report the metAction 2 - David O'Connor / Richard Mort  
Methane 2.6 - Review inclusion of low emission (CO2 arAction 2 - David O'Connor / Richard Mort  
Methane 2.7 - Revisit GPO carbon principles to include (Action 2 - David O'Connor / Richard Mort  
Methane 2.8 - Define process to integrate well flow-bacAction 2 - David O'Connor / Richard Mort  
Methane 2.8a Update the Appraisal Management GuidAction 2 - David O'Connor / Richard Mort  
Methane 2.9 - Engage with suppliers on low carbon (meAction 2 - David O'Connor / Richard Mort  
Methane 3.1 Agree and implement plan to enable (AngAction 3 - Andy Collins / Matt Werner  
Methane 3.2 Develop Segment Flaring Practice to furthAction 3 - Andy Collins / Matt Werner  
Methane 3.3 Develop plan to embed operational mindsAction 3 - Andy Collins / Matt Werner  
Methane 3.4 Implement plan to instil operational mind:Action 3 - Andy Collins / Matt Werner  
Methane 4.1 - Evaluate additional remote power optioAction 4 - David Lawler  
Methane 4.2 - Replace all High Bleed Controllers in L48.Action 4 - David Lawler  
Methane 4.3 - Complete NBU Pneumatic Pump & LiquicAction 4 - David Lawler  
Methane 4.4 - Select technologies from above trials ancAction 4 - David Lawler  
Methane 4.5 - Use crowd-sourcing or other creative waAction 4 - David Lawler  
Methane 5.1 - Develop plan to seek to influence PAE to Action 5 - Andy Collins  
Methane 5.2 - Develop plan to seek to influence GUPCCAction 5 - Andy Collins  
Methane 5.3 - Build L48 NOJV and other business partnAction 5 - Andy Collins  
Methane 5.4 - Develop strategy to influence flaring perfAction 5 - Andy Collins  
Methane 5.5 - Develop plan to encourage Rosneft to joiAction 5 - Andy Collins  
Methane 5.6 - Develop process to generate robust foreAction 5 - Andy Collins  
Methane 5.7 - Equip NOJV Business Managers to be ablAction 5 - Andy Collins  
Methane 6.1 - Review current portfolio already using xFAAction 6 - Morag Watson  
Methane 6.2 - Identify and engage suitable partners (inAction 6 - Morag Watson  
Methane 6.3 - Work with the Global Environmental ProAction 6 - Morag Watson  
Methane 7.1 - Develop a plan to use analytics to identifAction 7 - Ahmed Hashmi  
Methane 7.10 - Identify suitable test sites in BP for trialAction 7 - Ahmed Hashmi  
Methane 7.11 Develop a high-level vision statement forAction 7 - Ahmed Hashmi  
Methane 7.2 - Complete full stack test (Ground, Flight &Action 7 - Ahmed Hashmi  
Methane 7.3 - Deliver proof of concept field trial for drcAction 7 - Ahmed Hashmi  
Methane 7.4 - Leak Detection & Quantification Trials: CAction 7 - Ahmed Hashmi  
Methane 7.5 - Develop an upstream prioritised plan to :Action 7 - Ahmed Hashmi  
Methane 7.6 - Identify and trial at a site technology to iAction 7 - Ahmed Hashmi  
Methane 7.7 - Complete heat map of methane related tAction 7 - Ahmed Hashmi  
Methane 7.8 - Lead cross functional workshop to agree Action 7 - Ahmed Hashmi  
Methane 7.9 - Finalise integrated methane technology jAction 7 - Ahmed Hashmi  
Methane 8.1 - Evaluate flare uncertainty (metering and Action 8 - Andy Collins  
Methane 8.2 - Develop a plan to evaluate flare uncertaiAction 8 - Andy Collins  
Methane 8.3 - Define flare metering performance requiAction 8 - Andy Collins

Methane 8.4 - Define flare combustion performance reAction 8 - Andy Collins  
Methane 8.5 - Repair non-functioning flare meters in ArAction 8 - Andy Collins  
Methane 8.6 - Develop plan to deliver flare metering anAction 8 - Andy Collins  
Methane 9.1 - Define GOO LDAR requirements. Action 9 - Andy Collins  
Methane 9.2 - Embed standardised LDAR programme aAction 9 - Andy Collins  
Methane 9.3 - Implement find and fix LDAR programmeAction 9 - Andy Collins  
Methane ACTION 1 - Develop and embed carbon price tAction 1 - Gordon Birrell  
Methane ACTION 10 - Develop and implement a consistAction 10 - Dominic Emery  
Methane ACTION 11 - Deliver external Group-wide gas :Action 11 - Rachel Woods  
Methane ACTION 12 - Develop and implement US-speciAction 12 - Mary Streett  
Methane ACTION 13 - Develop and deliver internal comAction 13 - Steve Shaw  
Methane ACTION 14 - Develop and implement SLL/ ExeAction 14 - Dave King  
Methane ACTION 15 - Promote methane reporting tranAction 15 - Dave King  
Methane ACTION 2 -Develop and implement plan to deAction 2 - David O'Connor / Richard Mort  
Methane ACTION 3 - Develop and implement prioritiseAction 3 - Andy Collins / Matt Werner  
Methane ACTION 4 - Develop and implement prioritiseAction 4 - David Lawler  
Methane ACTION 5 - Develop and implement prioritiseAction 5 - Andy Collins  
Methane ACTION 6 - Build on blockchain project to devAction 6 - Morag Watson  
Methane ACTION 7 - Develop and implement a plan to (Action 7 - Ahmed Hashmi  
Methane ACTION 8 - Develop and implement a plan to (Action 8 - Andy Collins  
Methane ACTION 8 - Develop and implement a plan to (Action 8 - Andy Collins  
Methane ACTION 9 - Design and implement a standardiAction 9 - Andy Collins  
Methane ACTION 9 - Design and implement a standardiAction 9 - Andy Collins

Progress	Assigned	Due date	Description	Completed date	Completed by	Task Id
Complete	Price, Bruce	30/06/2018	Bruce Price	24/06/2019	Ragoonanan, Jalin	Y3hTRWR0WU
Complete	King, Dave J		Dave King	07/08/2019	O'Brien, Robert	6wLlKvF0MEuN
Completed			D. King	26/07/2018	O'Brien, Robert	j1dzdhMlw0um
Completed		31/12/2017	D. King	26/07/2018	O'Brien, Robert	x1HD-UqTOU6
Completed		30/06/2018	A. Collins	26/07/2018	O'Brien, Robert	8Hd0QZo_a06y
Complete	O'Brien, Robert	06/12/2018		07/12/2018	O'Brien, Robert	iDcldwxnCEunB
Complete	Touzel, David	31/12/2018	A. Hashmi	17/01/2019	Evans, Peter	MqFTFBkDs0SX
Completed		31/12/2017	D. King	26/07/2018	O'Brien, Robert	vEaVUsdCOUiw
Complete	ZZGerard, K	31/12/2017	K. Fagbaye	08/10/2018	ZZGerard, Faye	LH2wk7rPgESF
Complete	Touzel, David	31/12/2018		17/01/2019	O'Brien, Robert	2AR-U8ERTUKlr
Complete	Willis, Steven	31/12/2017	F. Bitar	16/10/2018	Wright, Dugald	M1PKqQV6-5kmx
Completed		31/12/2017	A. Krieger	26/07/2018	O'Brien, Robert	eyg9rIDmjUKCu
Complete	Krieger, A	31/03/2019	A. Krieger	30/03/2019	White, Daniel	mPTh4kls7EGs
Complete	King, Dave	31/12/2019	Dave King	24/06/2019	Ragoonanan, Jalin	fDjA0MTbsk2a
Completed		31/03/2018	K. Fagbaye	26/07/2018	O'Brien, Robert	KD50T3HAX0yY
Complete	O'Connor, D	31/12/2018		29/11/2018	Olsson, Jenny	CNFMcwQ96Z3ke
Complete	Goldie, Jo	30/06/2019	Clair Sout	21/06/2019	Stileman, Tim	OvyTsVGeUUkD
Complete	O'Connor, D	31/12/2018	D. O'Connor	03/09/2018	Olsson, Jenny	CNYasDlpV0Okyag
Completed		31/12/2017		26/07/2018	O'Brien, Robert	iiRXZfZIJkeGyH
Complete	O'Connor, D	31/03/2018	D. O'Connor	03/09/2018	Olsson, Jenny	CNODY2zUtoMUe
Completed		31/12/2017	D. O'Connor	26/07/2018	O'Brien, Robert	p7_-Cv6B902q
Completed		31/12/2017	D. O'Connor	26/07/2018	O'Brien, Robert	LN_KSrluJ0KBw
Complete	O'Connor, David J; Olsson, Jenny (D. O'Connor)	30/06/2019	Clair Sout	02/09/2019	Stileman, Tim	TLzsXjdWokWT
Complete	Flores, Ari	30/06/2018	A. Flores	06/12/2018	O'Brien, Robert	LYZTrQFo1kaEx
InProgres	O'Connor, D	12/12/2019	D. O'Connor			zsUvl3Rs0UeyO
Complete	Povey, Brian	30/06/2018	Brian Povey	06/12/2018	O'Brien, Robert	Jykq23fSaU2Re
Complete	Wilford, S	31/12/2018	M. Smith	09/01/2019	Wilford, Sarah	yMUETgwbRke
Complete	Hill, Gardi	25/01/2019	Action agi	09/05/2019	O'Brien, Robert	F-17h471jEKS1
InProgres	Ragoonan, Jalin	31/12/2019	Tracker for agreed topics			PPudsLHsRkq-V
Complete	O'Brien, Robert	31/12/2018		09/01/2019	O'Brien, Robert	IHBXLO0DxkuN
Completed				09/11/2018	O'Brien, Robert	uHgOb8M12kW
Complete	O'Brien, Robert	31/01/2019		26/02/2019	O'Brien, Robert	APfizkkeq0yTH
Complete	Flores, Ari	31/01/2019	Consultant	04/03/2019	Flores, Ariel D	dGiPnJsXe0OEw
Complete	Emery, DC	31/03/2019		07/04/2019	Towns, Martin	NWmD3rKiHUC
InProgres	King, Dave J		<a href="https://tasks.office.com/bp.com/en-US/HoudLmk68CP0i_08/08/2018">https://tasks.office.com/bp.com/en-US/HoudLmk68CP0i_08/08/2018</a>			
Complete	Ragoonan, Jalin	30/06/2019		01/05/2019	Ragoonanan, Jalin	6qi0kzbAZkqa_
Completed		30/09/2018	Responsible: B08/08/2018	Ford, Susan J	(Su1KWfUEp4qkO	
Complete	Emery, DC	31/12/2019	Responsible: D01/01/2019	O'Brien, Robert	SHkDSqE-F0qTy	
Complete	Emery, DC	30/06/2018	Responsible: D09/11/2018	O'Brien, Robert	ZytBSz9FHkyet	
Complete	Emery, DC	31/12/2018	Responsible - P20/11/2018	O'Brien, Robert	E6pFZICsWUa2	
Complete	Alves, Nuno	01/12/2018	Responsible - B01/12/2018	Alves, Nuno F	8SWueUTPSk-c	

Complete Rogers, Li	31/12/2018 Responsible - 09/03/2019 O'Brien, Robert	J7Mxq0xCNkSt
InProgres Moore-Br	21/03/2020 Responsible - Clare Moore-Bridger	M5XZZ7AxPUM
InProgres Moore-Br	31/12/2020 Responsible - Clare Moore-Bridger	89w1CLHgP06y
InProgres Moore-Br	31/12/2019 Responsible - Clare Moore-Bridger	bQCpGX_RIUud
InProgres Moore-Br	29/11/2019 Responsible - Clare Moore-Bridger	rworgEhu5E6r0
InProgres Moore-Br	23/03/2020 Responsible - Clare Moore-Bridger	qLnh9u9qgEOM
InProgres Moore-Br	30/09/2019 Responsible - Clare Moore-Bridger	easfgfcWT0qnV
Complete Moore-Br	31/03/2019 Responsible - 14/06/2019 O'Brien, Robert	g6E2fZxQL0Wm
InProgres Moore-Br	31/10/2019 Responsible - Clare Moore-Bridger	wd3bKMndGU
InProgres Moore-Br	30/09/2019 Responsible - Clare Moore-Bridger	vemM-mywZku
NotStarteMoore-Br	30/09/2019 Responsible - Clare Moore-Bridger	ngxLzgaayEamO
CompleteZZFagbayi	14/12/2018 Responsible - 01/01/2019 Fagbayi, F	XPMEJ-PFZU2y
CompleteAlves, Nui	14/12/2018 Responsible - 01/01/2019 Alves, Nuno F	DS9CjmQaTEm
CompleteDio, Susar	30/11/2018 Responsible - 10/01/2019 AlFegbaino F	MLMfrJpVJkmt
CompleteAlves, Nui	01/10/2018 Responsible - 01/01/2019 AlFegbaino F	DIFTCf7-QkG9t
InProgres ZZGerard,	31/12/2019 Responsible - Faye, Gerard	IWn527_JCkmX
Complete Alves, Nui	01/11/2018 Responsible - 10/01/2018 Alves, Nuno F	XS61wToa3UC9
CompleteShaw, Ste	30/06/2018 Responsible - 01/01/2018 1ee3f46-faae-47qwyN8T9LUu	
CompleteShaw, Ste	30/09/2018 Responsible - 08/01/2018 1ee3f46-faae-4g4TN8pIDZkem	
CompleteZZFagbayi	14/01/2019 Responsible - 16/01/2019 Gerard, Faye	HxvtcMRY-ka0h
CompleteShaw, Ste	31/03/2019 Responsible - 08/05/2019 O'Brien, Robert	W4BrgbZZW0K
InProgres King, Dave	31/12/2019 Responsible - Doog Wright	-zl_0hRIhEm0J
CompleteSathiamo	31/12/2018 Responsible - 14/01/2019 Sathiamoorthy, IbtriXH3svUaON	
CompleteRagoonian	31/03/2019 Responsible - 20/03/2019 RagoonianJalinuT9N3vXy1EOa	
InProgres Ragoonian	31/12/2019 Responsible - Karen RagoonianJalim	LXH3d_yIFUCR
CompleteSathiamo	31/12/2018 Responsible - 14/01/2019 Sathiamoorthy, I7PJwpva_2UGJ	
InProgres ZZFagbayi	31/12/2019 Responsible - Kola Fagbayi	JkqkUnEls0ONh
Complete King, Dave	30/09/2018 Responsible - 18/09/2018 Sathiamoorthy, Ien5GesiwwkSM	
CompleteSathiamo	31/12/2018 Responsible - 14/01/2019 Sathiamoorthy, IJsRw7reDIEKqx	
CompleteO'Brien, R	31/12/2018 Responsible - 08/05/2019 O'Brien, Robert	eyPolT4oCU2V
CompleteO'Brien, R	31/12/2018 Responsible - 20/01/2018 O'Brien, Robert	YkyeKsdKcEm0
CompleteZZGerard,	31/12/2018 Responsible - 26/11/2018 ZZGerard, Faye	FMt3ReT-nUGr
CompleteZZPugh, B	31/12/2019 Responsible - 04/06/2019 ZZGerard, Faye	nTzKhLAGNEq2
Complete Rogers, Li	31/12/2018 Responsible - 01/01/2018 Castano, Alejandro	Alej2PUJlo1jEKTjc
CompleteSathiamo	31/01/2019 Responsible - 04/02/2019 Sathiamoorthy, IZ9IGWqhQaEq	
Complete Rogers, Li	31/12/2018 Responsible - 14/01/2019 Sathiamoorthy, IMnxKctF4xEqo	
InProgres Sathiamo	31/12/2019 Responsible - Muhunthan Sathiamoorthy	6LxEZsmfsUmt
CompleteOlsson, Je	30/06/2018 Responsible: 29/08/2018 Olsson, Jenny	CN0tI7mL81akiRJ
CompleteCorbally, .	31/03/2019 Responsible: 08/04/2019 Stileman, Tim	EuabM34lhUKP
Complete King, Dave	31/12/2018 Responsible: 16/01/2019 Ford, Susan J (SuSwVU6V8iok-i4	
InProgres Ford, Susa	31/12/2019 The Reducing Methane Best Practices (RME3qOE3Nvwmky	
InProgres ZZFagbayi	31/12/2019 Responsible: Rick Urban	IOzT65PvwkKxK

CompleteRios, Aleic	28/06/2019 Methane sour	08/05/2019 All the update p	zjA71oyY1502_FU
CompleteRios, Aleic	30/08/2019 This action foll	30/08/2019 At the update p	zjA71oyY1502_FU
CompletePaul, Ed; A	29/03/2019 Responsible: Ed	16/01/2019 Stileman, Tim	-8Jq-LVPbkS4A
InProgres Lulla, Amr	30/09/2019 Responsible: Amrita Lulla		7bnxEeTmMUi
CompleteKennedy,	31/03/2019 Responsible: Jd	16/01/2019 Stileman, Tim	0kqRB93XtkOK
CompleteOlsson, Je	31/12/2018 Responsible: Je	29/03/2018 Olsson, Jenny	CM9mntWFjmEy
CompleteLulla, Amr	31/03/2019 Responsible: Jd	16/01/2019 Stileman, Tim	xb51ic-rs0-28D
InProgres Kennedy,	30/09/2019		8y8gzoZkZE2HI
CompleteCorbally, .	31/03/2019 Responsible: Ji	03/04/2019 Stileman, Tim	3Bt7cTzQLECPe
InProgres Johnston,	30/06/2019 Responsible: Roger Boyce/Andy Johnston		2bVuFWyXtkq7
InProgres Ragoonan	30/06/2019 Responsible: Doog Wright/Graeme Gordon	MA1q0_vfs004	
CompleteCristofoli,	31/12/2018 Responsible: Gi	16/01/2019 O'Brien, Robert	R-YODiNG6Uqj
InProgres Cristofoli,	31/12/2019 Responsible: Graeme Gordon		CGyokHGrk0GA
CompleteZZGerard,	31/12/2019 Responsible: Faye	04/06/2019 ZZGerard, Faye	rCpCy8nUAU6x
CompleteZZPugh, B	31/12/2019 Responsible: W	20/06/2019 ZZGerard, Faye	V9zESbZ_T0usM
CompleteZZPugh, B	31/12/2019 Responsible: K	24/06/2019 ZZGerard, Faye	YVDe9fUGs0m
InProgres ZZPugh, B	31/12/2019 Responsible: Brian Pugh/Kola Fagbayi		hVysv1XsxUCh
InProgres ZZGerard,	31/12/2019 Responsible: Faye Gerard/Bola Ajakaye		Rfoz1MVQEECi
InProgres Humphre	31/12/2019 Responsible: John Sanders		KbhRwJd_JEaP
InProgres Humphre	31/12/2019 This action is being reviewed in light of the		z7P1olZncaCtGth
InProgres ZZFagbayi	31/12/2019 Responsible: Kola Fagbayi		ozNZ8QH3vUO
CompleteKing, Dave	31/12/2019 Responsible: So	04/09/2018 Ford, Susan J (SuMoTHwiYnbk6	
CompleteCampbell,	31/03/2019 Responsible: Ch	25/05/2019 RagoonananJalinh7huMKaGUUy	
CompleteYoung, Ali	31/12/2019 Responsible: Ad	07/12/2018 O'Brien, Robert	DLW7JGoy90aZ
InProgres Humphre	31/12/2019 Responsible: John Sanders		iD9c9Ulwu0OH
CompleteWatson, N	31/12/2018 Responsible - J	16/01/2019 Naik, Manish	m2d3O8mkaEe
InProgres Watson, N	31/12/2019 Responsible - Julian Gray		ECT4sN9l80WH
InProgres Watson, N	31/12/2019 Responsible - Julian Gray		izP0foEZhE2sW
CompleteWatson, N	31/12/2018 Responsible - J	16/01/2019 Cameron, Andy	yAEdyL7aiEi4bM
CompleteEvans, Pei	31/12/2019 Responsible - A	08/01/2019 Evans, Peter	HL_ddE6lfUG-w
CompleteEvans, Pei	31/12/2018 Action agi	08/01/2019 Evans, Peter	J6eVqt8Nakam
CompleteWatson, N	31/12/2018 Responsible - J	08/01/2018 Cameron, Andy	dJGSiaiTCUmuN
CompleteWatson, N	30/04/2019 Responsible - J	09/04/2019 Cameron, Andy	dFtyhKj_nkCW
CompleteZZGerard,	31/12/2018 Responsible - F	16/06/2019 ZZGerard, Faye	cpShPtO_kUiD3
CompleteWatson, N	30/06/2019 Responsible - J	28/06/2019 Cameron, Andy	skbfwbSbCkKm
CompleteTouzel, Da	31/12/2018 Responsible - D	08/01/2019 Evans, Peter	oF9Cluq5UkGv
CompleteEvans, Pei	30/06/2018 Responsible - P	24/05/2018 Evans, Peter	Sar58dRHPEGlc
CompleteEvans, Pei	30/09/2018 Responsible - P	24/05/2018 Evans, Peter	_ISU6ce3a02A9
CompleteEvans, Pei	31/12/2018 Responsible - P	08/01/2019 Evans, Peter	WZENcGyu2Eq
InProgres Price, Bru	30/09/2019 Responsible - Ian Alleyne		IIQUjpU1n0Wn
InProgres Krieger, A	31/12/2019 Responsible - April Partridge		THUJmu7NeUy
NotStarteBeamer, S	31/12/2019 Responsible - Steve Beamer		9pUFek6WJEi2

NotStarteBeamer, S	31/12/2020 Responsible - Steve Beamer	wIK9JLRB0kOG
CompleteBoyce, Ro	15/03/2019 Responsible - Doog Wright	UdkcPZ5OhEOI
InProgres Beamer, S	31/12/2019 Responsible - Steve Beamer	QAti9O9LMUyv
InProgres Price, Bru	31/12/2019 Responsible - Doog Wright	J6MeGl_6IUO2
InProgres Price, Bru	30/06/2019 Responsible - Doog Wright	vO1QjEVpLoiRK
InProgres ZZPugh, B	31/12/2020 Responsible - Brian Pugh	thLECEnd2EON
InProgres Birrell, Gc	31/12/2019 Accountable: Gordon Birrell	XLoOpOMaREa
CompleteEmery, Dominic	Accountal 08/05/2019 RagoonananJalinMMhnyjf7EGV	
InProgres Woods, R	31/12/2020 Accountable - Rachel Woods	batQqmNh-kO
InProgres Streett, M	31/12/2019 Accountable - Mary Streett	hi7DGQf77Uyo
InProgres Webster,	31/12/2019 Accountable - Steve Shaw	GI2T_-KC2Umy
InProgres King, Dave	31/12/2019 Accountable - Dave King	yFmfHoA8aES8
CompleteKing, Dave	31/12/2020 Accountal 24/06/2019 RagoonananJalinHSq5QWn9akS	
NotStarteO'Connor,	31/12/2019 Responsible: Richard Mortimer	mkGHNUkxBEG
InProgres Collins, Ar	31/12/2020 Responsible: Matt Werner	CCYYR84xhUe6
InProgres ZZLawler,	31/12/2019 Accountable: David Lawler	sSKTMfnq3kOC
InProgres Robbie, S	31/12/2019 Accountable: Andy Collins	b08XErVp9Eaa
InProgres Watson, N	31/12/2020 Accountable - Morag Watson	7g0c1umQtUKA
InProgres Hashmi, A	31/12/2019 An integrated plan has been developed for 28ClwfO7HUig	
InProgres Collins, Ar	31/12/2019 Accountable - Fuzzy Bitar	RRcv90fV_EyAC
InProgres Collins, Ar	31/12/2019 AccountalRRcv90fV_EyACXieWw1UzpYAP-vk	
InProgres Collins, Ar	31/12/2019 Accountable - Fuzzy Bitar	nRSMgC1nCU2
InProgres Collins, Ar	31/12/2019 AccountalnRSMgC1nCU2AUjfWk09M25YAHZZD	

CiPo4VrgqDnpYADeFt  
nQJVJCU1r5YACpOL  
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XieWw1UzpYAP-vk

AUjfWk09M25YAHZZD

Task Title	TaskId	Comment
2.7 Evalu <del>z</del> TLzsXjdW	In addition, the Region ran a Carbon Workshop to identify further potential low	
2.7 Evalu <del>z</del> TLzsXjdW	This action is being closed out following the project's presentation of its lower	
3.2 Devel <del>MA1q0_v</del>	Closed to be embedded with Upstream Carbon Guide.	
2.3 - Asse <del>2I9UN1ilz</del>	This action has been completed. A list of technologies against key sources of m	
1.10 Deliv <del>6wL</del> KvF0	Upstream have delivered 3.05 Mte of SERs with a further ~0.	
11.8 - Rurvem <del>M-m</del>	We have now completed filming of methane technologies in the field in L48, KI	
11.9 - Shcngx <del>Lzgaa</del>	We plan to create a press release for the showcase event on 9 September, whi	
11.7 - Pukwd <del>3bKM</del> rAs	As we understand it, the main paper on methane leakage is in peer review. We	
7.5 - Deveskb <del>fwb</del> Sb	Upstream Leadership methane plan agreed to continual monitoring definition and	
8.2 - Dev <del>e</del> THUJmu7	Contractor meetings held with Expro (1 meeting) and Schlumberger (2 meeting	
ACTION 1 HSq5QW <del>r1</del>	Trials and pilots have been completed and currently various technology are bei	
13.5 - Dev- <del>z</del> _OhR <del>Ih</del>	This action will be addressed through the MGP Executives / Masterclass Trainin	
1.8 Assess <del>f</del> DjA0MTk	Per email sent to D. King by Sue Ford on June 20th, 2019, containing a Brief for	
4.3 - Com YVDe9fU <del>C</del>	June 2019 Update: BPX installed 246 solar heat trace pumps (BPX has 4 additio	
2.9 Using <del>zsUvI3RsC</del>	Keeping this action open following discussion with action owner and pushing b	
2.9 Using <del>zsUvI3RsC</del>	This action has been incorporated into the 2019 GFH AOP for the MPM team a	
2.10 Cons <del>0vy</del> TsVGe	John Goldie confirmed this action can be closed as we are very much progressi	
15.5 - EnsnTzKhL <del>A</del> g	June 2019 Update: For most inputs to the calculations, BPX uses a data aggrega	
14.5 - DevJkqkUnE <del>l</del> s	June 2019 Update: The BPX RC&E has begun environmental training in June to	
12.5 - Buil <del>l</del> Wn527_	JJune 2019 Update: Draft Advocacy Plan has been drafted and is being internall	
9.3 - Impl <del>th</del> LECEnd	June 2019 Update: BPX has successfully implemented an LDAR program on site	
4.4 - Selech <del>Vysv1Xs</del>	June 2019 Update: Solar pump installations were completed (246 installations	
4.2 - Repl <del>V9z</del> ESbZ_	June 2019 Update: All high bleed controller replacements located at wellsites h	
4.1 - Eval <del>lrCpCy8nU</del>	June 2019 Update: BPX evaluated the use of zero emission solar heat trace pur	
5.3 - Builco <del>z</del> NZ8QH	June 2019 Update: RC&E developing a presentation identifying significant OBO	
2.12 - Up <del>c</del> I <del>OzT65Pv</del>	June 2019 Update: On track. An updated Facility Design Manual has been draft	
14.3 - DevL <del>XH3d_y</del> l	The SLL and Executive Methane Education Programme will be delivered via the	
2.11a Ad <del>3qOE3Nv</del>	The Guides (12-15 pages) for the 8 Reducing Methane Emissions Best Practices	
2.8a Upd <del>z8y8gzoZk</del>	Russell Smith requested that this action be postponed to end 3Q 2019 at the l	
8.2 - Dev <del>e</del> THUJmu7	Meetings held with SLB in March 2019, and further meetings planned with Exp	
11.6 - Devg <del>6E2fZxQ</del>	To confirm we have decided to focus on communicating BP technology trials as	
2.10 Cons <del>0vy</del> TsVGe	Power from Shore has been further progressed, with credible options available	
1.1 Devel <del>Y3hTRWR</del>	Included in the new Cat C digital projects tool which is currently being deployed	
1.10 Deliv <del>6wL</del> KvF0	Upstream have delivered ~2.5 Mte of SERs to end 1Q 2019 with a further ~0.5	
3.3 Revie <del>F-17h471j</del>	Complete - see attached slides provided as part of related Meeting Action to "(	
3.3 Revie <del>F-17h471j</del>	Hi Gardiner - is this action now complete following the update provided at the	
13.4 - DevW4Brgb <del>Z</del> c	More challenge and \$100M fund successfully launched. Low Carbon category	
15.2 - Revey <del>Pol</del> T4o	Action completed as surveys now received from North Sea. Recommend a follo	
10.3 - RevJ7Mxq <del>0x</del> C	Closing action as per Sonna's comments - would be helpful to get update on hc	
2.3 - Asse <del>2I9UN1ilz</del>	Action 2.2 now complete. This action has now been initiated. Stuart Lodge and	
2.2 Revie <del>jzgFZ</del> by <del>Yi</del>	Latest data received from GOO and reviewed. Summary in attached PowerPoi	
ACTION 1 MMhny <del>j</del>	If The Methane Emissions Policy attached will be replaced by the IMWG Methan	
14.5 - DevJkqkUnE <del>l</del> s	May 2019 Update: Townhalls and other all employee meetings - discussions or	
12.5 - Buil <del>l</del> Wn527_	JMay 2019 Update: Completed the study of malfunctioning intermittent contro	
9.3 - Impl <del>th</del> LECEnd	May 2019 Updates: Implemented LDAR program on sites that will be divested -	

5.3 - BuilcozNZ8QH:May 2019 Update: Reviewed OBO GHG reports and identified the largest reduc  
2.12 - UpcIOzT65Pv\May 2019 Update: An updated Facility Design Manual has been drafted and is  
3.1 Agree 2bVuFWyAngola PSVM LPGC re-alignment work package was completed on the 3rd May  
8.5 - RepaUdkcPZ5C- PSVM: Vendor BHGI is on schedule to arrive on PSVM on Monday the 13th of  
5.5 - Devch7huMKaGordon  
5.5 - Devch7huMKaSent from my iPhone  
5.5 - Devch7huMKaUpdate from Chris Mawer - I am pleased to inform you that at the Rosneft Boa  
6.2 - IdenECT4sN9l!The framework MSA is at the final stages of agreement between BP and Xpans  
ACTION 7 28ClwfO7Refer to monthly reports (attached) for details  
Plan an U 6qi0kzbA\The Upstream Carbon Workshop was held on Wednesday 24th April, 2019 and  
7.3 - DelivdFtyhKj\_rProposal circulated reviewed and updated.  
2.2 ReviewjzgFZbyYilGOO Methane Survey data is taking longer to collate than planned. Review wit  
2.3 - Asse 2I9UN1ilzGOO Methane Survey data is taking longer to collate than planned. Review wit  
Create a cNWmD3rl2 slides to illustrate options and relative cost and impact on emissions  
2.10 - GFI EuabM34 GHG operational performance data specifications (note - not relevant to ICE produ  
2.9 - Enga3Bt7cTzQ GHG operational performance data specifications (note - not relevant to ICE produ  
14.2 - IdeuT9N3vXyThis action identified the target audience within the Upstream GLL and SLL por  
3.2 DevelMA1q0\_vIt has been agreed that this document will now take the form of an Upstream I  
2.5 - Benc7bnxEeTnExtending this action out to end 3Q to allow time for completion. Activities unc  
11.8 - RurvemM-m\The methane emissions showcase will now take place on 9 September in Sunbu  
11.6 - Devg6E2fZxQ\We have depriortised this in favour of promoting BP's own technology trials ar  
11.3 - ProrworgEhu\The final methane round table in the series will take place in Brussels on 29 Ap  
11.2 - CrebQCpGX\_\The methane emissions tech showcase on 9 September in Sunbury will include  
11.1 - DepM5XZZ7A\Bernard Looney took part in a methane-specific panel at CERA Week. He will s  
8.5 - RepaUdkcPZ5CGtP\Note update from Roger Boyce on flare meter improvements with anticipated  
11.5 - AnreasfgfcW\The emissions tech showcase event for media will take place on 9 September in  
8.5 - RepaUdkcPZ5CGtP\work planned for offshore execute 11th- 18th April, PSVM work planned fo  
Consider idGiPnJsX\Confirmed alignment at this stage of the project with Shell  
5.5 - Devch7huMKa\The working group within Rosneft continue to evaluate the implications of sign  
2.2 ReviewjzgFZbyYil\Get Outlook for iOS  
2.2 ReviewjzgFZbyYil\Moved due date from end of April to end of June due to delay in GOO methane  
2.10 - GFI EuabM34\This activity is now effectively enduring. It is now a case of continuing to embed  
2.9 - Enga3Bt7cTzQ\This activity is now effectively enduring. It is now a case of continuing to embed  
2.2 ReviewjzgFZbyYil\Requires completion of latest methane surveys by GOO, which are now due by  
2.7 EvaluTLzsXjdW\Propose this ongoing action be closed out following a presentation to the Carb  
8.2 - DevTHUJmu7\Integration meetings held with GOO and upstream technology about flare camera  
1.7a Trial mPTh4kls\The first green completion in Oman was started on KZN 402 on 26 February 2019.  
7.5 - DeveskbfwbSb\Continuous is interpreted at this point as frequent revisits to a particular site to  
Consider :APfizkkeq\Work ongoing to define govenance process, but will simply be called the "Upst  
7.5 - DeveskbfwbSb\High level plan including scope and funding developed and waiting for peer rev  
7.3 - DelivdFtyhKj\_r\Draft proposla attached  
2.11a Ad3qOE3Nv\Reducing Methane Best Practices poster attached for reference.  
2.11a Ad3qOE3Nv\The 2019 Work Program proposal to develop an Implementation Plan for the R  
15.7 - DevZ9IGWqh\Initial draft updated following SME feedback  
2.8 - Defirxb51ic-rs\An update to the last comment below... A second action, 2.8b, will now not be  
1.10 Deliv6wLIKvF0\Preliminary 2018 full-year data shows Upstream will ahve delivered between 1

1.2 Evalu@MqFTFBk!We have successfully completed testing of the Providence Mantis camera for mea  
1.5 Pilot r2AR-U8EF2 successful trials of FLIR camera quantification technology (QL320) completed  
2.8 - Defirxb51ic-rs!This is being closed and superseded by two actions. The first of these actions h  
2.8a Upd@8y8gzoZk!A comment has been raised against the Appraisal Management Guide in the pe  
2.6 - Revit0kqRB93!Review complete. Low emissions equipment will not be added to JIP33 per se,  
2.4 - Revit-8Jq-LVPbBP will request the technical work fronts identified are included on the next IO  
2.7 Evalu@TLzsXjdW!The Tortue Phase 2/3 reference case continues to be standard offshore SCGT c  
6.1 - Revim2d3O8n!The review of current portfolio is complete. We are now working on next steps  
5.5 - Deveh7huMKa • The details of the Methane Guiding Principles (MGP's) have been sent to Rosnef  
15.2 - ReveyPolT4o!Survey responses received from AGT, Angola, AsPac, Oman and Trinidad. Prelir  
9.1 - DefirJ6MeGI\_6Due date extended to end 2Q 2019 to allow for time to incorporate learnings f  
8.1 - Evalu@IQUjpU1rPlan in place to deliver by 3Q 2019 - due date amended to 30/09/2019  
7.5 - DeveskbfwbSb!High level plan in the process of being developed with input from Peter Evans :  
7.3 - DelivdFtyhKj\_r!A proposal has been created to recommend to BP the current preferred drone  
7.1 - DeveyAEdyL7a!Decisions on the DIO/BPX joint plan have been deferred whilst BPX focuses on  
2.11 - LeaSwVU6V8!The Reducing Methane Best Practices and associated 2019 Implementation Pla  
15.5 - EnsntzKhLAgL48 RC&E will hold a meeting with L48 Operations in 1Q 2019 to discuss additio  
14.5 - DevJkqkUnElmA!L48 communication plan on carbon is set for 2019, and a L48 carbon intranet  
13.3 - DevHxvtcMRYA!L48 internal methane communication plan aligned with Segment's communic  
12.5 - Buil@Wn527\_J!Continuing the study of malfunctioning intermittent controllers in Colorado wi  
9.3 - Impl@thLECEnd!The L48 has a LDAR recommendation to achieve the 100% of production LDAR  
7.4 - LeakcpShPtO\_L48!L48 has a LDAR recommendation based on completed trials that will be review  
5.3 - BuilcozNZ8QH!Brainstorming options to complete this task.  
4.5 - Use @Rfoz1MV!Potential crowd-sourcing and other creative solutions to the pneumatics and d  
4.4 - SelechVysv1Xs!Solar pump installations are underway (244 installations of 250 as of Decembe  
4.3 - Com YVDe9fU!Funding approved for a portion of Solar Heat Trace Pump Project. Solar pump i  
4.2 - Repl@V9zESbZ\_All!high bleed controller replacements located at wellsites have been complete  
4.1 - Eval@rCpCy8nU!Replacement of gas pneumatic heat trace pumps with zero emission solar heat  
2.12 - Upc@OzT65PvJan 2019 Update: Revise L48 (now BPX) FDM to incorporate methane reducing  
1.7a Trial mPTh4kls!Site integrated tests of equipment likely to occur in early February to allow for de  
8.2 - Dev@THUJmu7!Terms of reference to outline approach drafted and out for review.  
15.9 - Wo6LxEZsmf!The timeline needs to reflect this is a detailed effort spanning a long period of  
15.10 - WJsRw7reDAs per comment on the 21/11 this specific action is either complete or needs t  
15.8 - WoMnxKctF4!Action completed based on the update provide don 22/11 and assuming the al  
15.7 - DevZ9IGWqhi!Comments received from several SMEs on the draft 2-pager and now collating  
14.4 - Dev7PJwpva\_!Working with OMSA team on the "Alpha" script with view to finalising in late Ja  
14.1 - Dev@btriXH3sv!Action complete  
1.2 Roll o!SHkDSqE-Action completed: revised EEM GN-33 process issued in December 2018: The a  
Carbon a!HBXLO0C!Complete and the FM is now with Gordon and will be shared with UET during t  
3.2 DevelyMUETgwADPs and Regional Development Plans now require GHG data. Identification of  
2.10 Cons0vyTsVGe07/01/2019 Update: A study has been completed on AC vS DC power in the evi  
7.10 - Ide@HL\_ddE6!Key locations for testing and first generation deployment have been identified i  
7.9 - FinalWZENcGy!All processes for delivering technology needs for methane management are nc  
7.6 - Iden@oF9Cluq5!We have successfully completed testing of the Providence Mantis camera for n  
7.11 Dev@J6eVqt8N!Vision statement to be finalised at the 22Jan meeting  
8.5 - RepaUdkcPZ5C!Unfortunately we have seen slippage on both assets associated with contract i

ACTION 1 GI2T\_-KC:2018 plan delivered. 2019 plan in development and will run throughout the year.

2.11 - LeaSwVU6V8 Reducing Methane Best Practices have been agreed by the Methane Guiding Principles Working Group.

3.2 DevelopMUETgw31st December Update: Progress made with bp confirmed as leading Transporter.

3.3 ReviewF-17h471 The work is ongoing and I will provide an update at the next meeting.

8.5 - RepaUdkcPZ5C Both assets remain on track for completion by end Q1. I will re-test readiness in Q1.

7.11 DeveJ6eVqt8N Draft Vision statement and explanatory diagram attached.

5.6 - DeveDLW7JGo Methane forecast has been incorporated into overall Upstream GHG forecast in Q1.

8.1 - EvalIQUjpU1r focus area proposed (UEC) & supported (GOO) to determine Upstream flare management.

3.1 DevelopJykq23fSa Final document, Guidance Note 14 - GHG Governance, was published to the GI.

3.1 Agree 2bVuFWy Due date revised to mid-2019 to reflect current plan for FGR commissioning or 2019.

2.8 UnderLYZTrQFo Marked as complete based on updates and agreement to create new ongoing document.

3.4 ImplementCGyokHG1Q19: COO/ HoF regional expectations communication; develop simple & straightforward language.

3.3 DevelopR-YODiNC central & frontline leadership behaviours, embedded processes and performance management.

3.2 DevelopMA1q0\_v working group to be defined to provide input into practice and process through 2019.

2.8 UnderLYZTrQFo The Engineering Study report has been finalised following comments from the review group.

1.5 Pilot r2AR-U8EF covered by action 1.2 update.

2.8 - Defirxb51ic-rst Initial engagement with projects (e.g. Tortue Phase 2 and 3, Clair South, etc.) ongoing.

2.10 Cons0vTyTsVGeA Clair South Power from Shore (PFS) feasibility study has been kicked off and I am leading this.

8.2 - DeveTHUJmu7 Initial strategy conversations held in 4Q 2018. Terms of reference will be compiled.

1.7a Trial mPTh4kls Project is on track for delivery in 1Q 2019. Engineering for the concept is complete.

12.3 - AgreeMLMfrJp1- BP has strengthened its participation in API Environmental Partnership (EP) group.

12.2 - Create DS9CjmQ:2018 version of the US Methane campaign document complete. See attached document.

10.2 - Align8SWueUT Received and analyzed Exxon's draft Policy Framework recommendation to all.

12.1 - CreateXPMEJ-PF- The Model Methane Regulation has been completed. Please refer to Chapter 12.

3.1 Agree 2bVuFWy BP Angola: PSVM LPGC was restarted between the 28th of August 2018 and the 1st of September 2018.

ACTION 7 28Clwf07 Please note - the end date for Action 7 has been updated to 31/12/2019 to bring the project in line with the revised scope.

ACTION 7 28Clwf07 For full details of monthly progress please refer to attached reports. In the previous report I outlined the following progress:

7.1 - DevelopAEdyL7a DIO have developed a plan with BPX for combined ground, air and satellite monitoring.

7.11 DevelopJ6eVqt8N We are currently working with communications to hone the key components of the system.

2.6 - Review0kqRB93X The proposed scope for the first phase of JIP33 scale up is in the process of being finalised.

2.5 - Benchmark7bnxEeTn Part of ongoing benchmarking activities under the GPO Focus Area on Carbon Intensity.

10.1 - Ref E6pFZICs The IMWG process has been refreshed with a revised Terms of Reference and revised scope.

1.3 DevelopZytBSz9FT- GHG Forecast now embedded in Group Planning Process to get Group GHG projects aligned.

13.4 - DevelopW4BrgbZ The cMore challenge is currently under development and still on track to launch in Q1 2019.

2.7 EvaluateTLzsXjdW The Tortue Phase 1 GHG emissions are forecasted at 9 million tonnes of CO2e in 2019.

2.1 ConductFMcwQ9E Ongoing benchmarking to strengthen emissions estimations in pre-GPO to evaluate the impact of the new regulations.

2.11 - LeaSwVU6V8 BP and Shell have prepared a joint 2019 Work Proposal entitled "Implementation of the Methane Guiding Principles" for submission to the GPO.

15.2 - ReviewPolT4o The previous survey has been updated to improve on previous version and add new data points.

1.10 Deliver6wLIKvF01 To end-3Q 2018 Upstream has delivered 1.48 MtE of SERs with a further 0.41 MtE in 2019.

1.8 AssessfDjA0MTk Membership of External Climate Initiatives is being revisited. Gardiner Hill is leading this work.

Plan an U6qi0kzbA Initial planning discussions have begun, currently working to identify resources and partners.

Agreed to PpudsLHs Green Completions and Carbon Abatement Fund to be discussed at 6th Development Committee.

8.5 - RepaUdkcPZ5C 28/11/2018 - spare probes ordered and expected for both GtP and PSVM by February 2019.

2.11 - LeaSwVU6V8 The 2019 (Methane Guiding Principles) Work Proposal for developing an Implementation Plan is being prepared.

2.11 - LeaSwVU6V8 The 2019 Methane Guiding Principles Work Proposal for developing an Implementation Plan is being prepared.

7.9 - FinalWZENcGy All teams engaged in technology identification, trialing and deployment are working on this.

7.6 - Iden{oF9Cluq5\Angolan test of the Mantis camera on track for mid-December. The camera has

15.3 - CorYkyeKsdK\Action Complete - a methodology comparison has been completed for Tangkul

1.2 Evalu@MqFTFBk\The National Physical Laboratory has been engaged to provide guidance in the fin

14.5 - DevJkqkUnEl\l48 HSE held meetings in November 2018 with key L48 stakeholders to discuss ho

12.5 - Buil\Wn527\\_JContinuing the study of malfunctioning intermittent controllers in Colorado with C

9.3 - Impl\thLECEnd L48 has successfully implemented an LDAR program on sites that account for 30%

7.4 - Leak cpShPtO\_L48 has a draft LDAR recommendation based on completed trials that will be revie

4.5 - Use iRfoz1MV\Meetings held in late October 2018 by L48 HSE team and key L48 stakeholders to d

4.4 - SelechVysv1Xs\Solar pump installations are underway. L48 will continue to evaluate emission red

4.3 - Com YVDe9fUC\Funding approved for a portion of Solar Heat Trace Pump Project. Solar pump insta

4.2 - Repl\V9zESbZ\\_All high bleed controller replacements located at wellsites will be completed in 20

4.1 - Eval\lrCpCy8nUL48 began the replacement of gas pneumatic heat trace pumps with zero emis

2.12 - Upc\IOzT65Pv\25 Nov 2108 Update: Rick Urban met with L48 RCE team & facility engineering

2.12 - Upc\IOzT65Pv\Rick Urban met with L48 RCE team & facility engineering teams in November 2018

15.5 - EnsnTzKhLAg L48 has developed a process to identify GHG data issues in L48's system of record

13.3 - DevHxvtcMR\Y\A L48 internal methane communication plan aligned with Segment's communicati

12.3 - Agr MLMfrJp\Joe Ellis, BPA, met with Eric Milito, API, in June 2018 to discuss how BP could assis

12.1 - Cre XPMEJ-PF\The Model Methane Regulation has been completed. The Model Methane Regula

12.5 - Buil\Wn527\\_JContinuing the study of malfunctioning intermittent controllers in Colorado with C

15.8 - WoMnxKctF4\The OGCI public methane target has set the methodology for methane intensit

15.6 - Upc2PUJlo1Jj\After reviewing the recent updates to the reporting requirements, we found th

11.3 - ProrworgEhu\The third and final stakeholder roundtable of 2018 took place in Beijing on Tue

10.3 - RevJ7Mxq0x\This action is superceded by a broader action looking at all climate / GHG initia

15.9 - Wo6LxEZsmf\OGCI is undertaking, via EDF and UN Environment, a series of independent me

15.9 - Wo6LxEZsmf\The OGCI public methane target has set the methodology for methane intensit

14.1 - DevbtriXH3sv\This is believed to relate the Group Leader Compass programme which include

14.4 - Dev7PJwpva\\_This remains work-in-progress and is aligned to the Climate OMSA module. It is

15.7 - DevZ9IGWqh\Outline draft 2-pager prepared, awaiting final reviews, before being shared mc

15.10 - WJsRw7reD\This activity is part of the over-arching OGCI work in the methane space and is r

2.10 - GF\EuabM34\Discussions are ongoing with suppliers during the scheduled PRMs clearly highl

2.9 - Enga3Bt7cTzQ\Further assessment has been performed to determine the actual vs. theoretica

1.14 DeveiDcldwxn\(\$100M fund agreed by Gordon and Murray on 2nd November 2018, work prog

8.5 - RepaUdkcPZ5CApril 2019. Strategy for online removal agreed. Critical spares identified with d

8.1 - Evalu\IQUjpU1r\Full review to be carried out 2H18/ 2019 across GOO & GPO

5.2 - Devel7PUIZm\Aon track

5.1 - Deve\KbhRwJd\_on track

3.4 Imple\CGyokHG\On track

3.3 Devel\YODiNC\scope GOO only; AOM input Oct

3.2 Devel\MA1q0\_v\section drafting assigned

ACTION 3 CCYYR84xGlen Lyon: FGR remains a key commissioning objective, but delayed from 3Q18

1.10 Deliv6wLlKvF0\SER paper: probabilistic review shows 3.5Mte SER delivery (delivered 2016-18yt

1.5 Pilot r2AR-U8EFAngola (PSVM) flare efficiency trial scheduled Nov

1.1 Devel\Y3hTRWR\interim simple GOO hopper overview spreadsheet 1Q19

2.8 UnderLYZTrQ\Fo Atkins report being reviewed and comments gathered from BP, Shell and Total

1.6 Evalu\1PKqQV6-GtP\Northern/ Southern line pressure optimisation to reduce flaring and increa

5.5 - Deveh7huMK\On the 24th April a Rosneft team attended a knowledge sharing session in SJS |

ACTION 7 28ClwfO7 All projects in Action 7 remain on-track or have been completed. Highlights include:

- 7.9 - Final WZENcGy Details of integrated working practises will be presented at the October Carbon Briefing.
- 7.10 - IdeiHL\_ddE6l After careful consideration by Downstream Technology the request from the vendor to use the Providence Mantis system is scheduled to take place in the week commencing 15th October.
- 7.6 - Iden)oF9Cluq5 Testing of the Providence Mantis system is scheduled to take place in the week commencing 15th October.
- 7.5 - DeveskbfwbSb Working with Peter Evans to ensure aligned with other methane plan actions/records.
- 15.5 - EnsnTzKhLAGL48 has developed a process to identify GHG data issues in L48's system of records.
- 14.5 - DevJkqkUnElIsL48 held the first Methane Mindset Lunch and Learn in September. A L48 refresher course is planned for October.
- 7.3 - DelivdFtyhKj\_r Update PoC completion date to 04/19 to permit adequate time to complete the methane communication plan.
- 13.3 - DevHxvtcMRVA L48 internal methane communication plan aligned with Segment's communication plan.
- 7.1 - DeveyAEdyL7a Discussions ongoing with Peter Evans to develop scope and understand areas of concern.
- 7.3 - DelivdFtyhKj\_r 11/10/18: Updated title to cover all types of methane sensor, OGI is just an example.
- 9.3 - ImplithLECEnd L48 has successfully implemented an LDAR program on sites that account for 3% of total emissions.
- 7.4 - Leak cpShPtO\_Leak detection and quantification trials are ongoing. Draft report in review. On track.
- 4.5 - Use iRfoz1MV Initial discussion have taken place.
- 4.4 - SelechVysv1Xs L48 will continue to evaluate emission reducing solutions and choose successful ones.
- 4.3 - Com YVDe9fUCL48 began replacing NBU glycol pump in early October.
- 4.2 - RepliV9zESbz\_ In 2000, L48 began swapping replacing high-bleed controllers with ones that either provide better clarity to the public around
- 4.1 - EvalrCpCy8nUL48 evaluated and successfully trialed solar pumps. L48 will continue to evaluate options.
- 12.6 - RecXS61wTo After review and with approval from Susan Dio, this action is being discontinued.
- 12.5 - BuillWn527\_JIn progress, but for longer term delivery (2019 or beyond). BP and Industry focus.
- 12.4 - HosDIFTcf7-CDelivered. High level actions include provide better clarity to the public around
- 12.3 - Agr MLMfrJp Within API's CFR and Upstream committees, BP is supporting the Environment
- 12.2 - Cre DS9CjmQ This is a living document. Document to be updated in November/December to
- 12.1 - Cre XPMEJ-PFAction re-opened on 10/2/18 in response to Oct 1 event in DC. The team is now working on a plan.
- 10.2 - Alig8SWueUTAAction is being worked in close coordination with Sue Ford, in her capacity as a member of the steering committee.
- 2.7 EvaluatLzsXjdW Rob

1.2 EvaluatMqFTFBkli Final testing of the Mantis VISR camera scheduled for w/c 19Nov on PSVM in Anadarko.

2.8 - Defirxb51ic-rsCInitial engagement session held with GWO in Oct 2018. Identified two specific areas of focus.

2.5 - Benc7bnxEeTr The evaluation of GHG emissions including methane emissions for a development project.

2.4 - Revi-8Jq-LVPbAn initial review of OGCI, IPECA and other existing cross industry forums and in-house expertise.

13.4 - DevW4BrgbZ Employee 'Get involved' challenge is still on track for implementation in 2019.

13.2 - Img4TN8plD The Upstream methane employee communications plan has been implemented.

11.8 - RurvemM-m Virtual press tour featuring immersive technology to showcase major projects.

11.3 - ProrworgEhu Delivered second Methane Roundtable event in Washington 1 October 2018, a success.

15.2 - ReveyPolT4o(UEC Process Engineer (Francine Counsell) has been working to update the previous version of the standard.

15.3 - CorYkyeKsdK An assessment of the differences between US and UK methodologies has been completed.

2.11 - LeaSwVU6V8 The final Methane Reducing Best Practices, and the new Draft Implementation Plan are now available.

2.9 - Enga3Bt7cTzQ Additionally, the GFH 2019 AOP will include a section on Low Carbon Opportunities.

2.10 - GFHEuabM34 GRE PRMs are occurring during October. Low carbon opportunities have been identified.

2.9 - Enga3Bt7cTzQ GFH have written to and received responses from a number of targeted vendors.

2.12 - UpcIOzT65Pv8th October Update: Working to incorporate methane reducing designs into the new action plan.

2.10 Cons0vyTsVGe New action added to plan as agreed at 5th September Upstream Carbon Steering Committee.

15.1 - Deven5GesiwA A framework was developed - see attached - and circulated for comment / edit and review.

4.2 - RepliV9zESbz\_ Robert, in preparation for when we will have replaced all high bleed controllers.

11.5 - AnreasfgfcW We are planning to execute this in Q1 now, via media announcements and via social media.

3.1 Agree 2bVuFWyGlen Lyon: FGR remains a key commissioning objective, but delayed from 3Q18.

1.1 DeveliY3hTRWRWorkshops update: GoM now complete, North Sea reschedule 11th Oct, Egypt

1.6 Evalu21PKqQV6-successfully implemented & stabilised - initially estimate a 45mmscfd reduction

9.1 - DefirJ6MeGI\_6Existing GOO Leaks & Seeps document to be reviewed and updated as necessary

8.6 - DeveQAti9O9Ldue date needs amending to reflect full workscope, and to follow-on/ align with

8.1 - Evalu1IQUjpU1rScoping survey carried out 3Q18 & used to develop Flare meter uncertainty ev.

3.3 DevelR-YODiNCEInitial thinking to include flaring/ take similar approach as to production losses

3.2 DevelMA1q0\_vExisting flaring documentation received from most regions - next step: to be re

1.5 Pilot r2AR-U8EFFugitives: 1x QL320 (FLIR camera methane emission calculation software) being

15.5 - EnsnTzKhLAG5th September Update: L48 has developed a process to identify GHG data issues

15.4 - L48FMt3ReT-5th September Update: The L48 RCE team conducted a peer assist with Upstre

14.5 - DevJkqkUnEl5th September Update: L48 is currently planning meetings within HSE and the

13.3 - DevHxvtcMRY5th September Update: A L48 internal methane communication plan aligned w

12.5 - BuillWn527\_JAdditional L48 Update: Continuing the study of malfunctioning intermittent co

9.3 - ImplthLECEndL48 has successfully implemented an LDAR program on sites that account for 3

7.4 - LeakcpShPtO\_5th September Update: Leak detection and quantification trials are ongoing. O

4.5 - Use rFoz1MV5th September Update: Initial discussion have taken place.

4.4 - SelechVysv1Xs5th September Update: Solar pump trial on NBU heat trace pumps was success

4.3 - Com YVDe9fUC5th September Update: NBU glycol pump replacements will need a capital com

4.2 - RepliV9zESbZ\_5th September Update: All high bleed controller replacements located at upstr

4.1 - EvaltrCpCy8nU5th September Update: L48 evaluated and successfully trialed solar pumps. L48

2.12 - UpcIOzT65Pv5th September Update: Working to incorporate methane reducing designs into

12.3 - Agr MLMfrJp\1) Met with Erik Milito (API Upstream Committee) to understand status of API'

3.2 DeveliyMUETgwSeptember 4th Update: Four CCUS projects underway, two capture CO2 from i

2.7 Evalu2TLzsXjdWI have also uploaded the Tortue phase 2 and 3 into the action tracker – as per ent

5.4 - DeveMoTHwiYThe World Bank contacted BP on 27th Feb requesting our support and cooperat

2.4 DevelODY2zUtcGPO Carbon Principles Guide provides guidance for project teams to supplement

6.1 - Revim2d3O8nInitial discussions and introductions complete, next steps are to dig deeper into

7.1 - DeveyAEdyL7aCurrently in the next stage of planning and the outcomes from this will be used

7.5 - DeveskbfwbSbThis activity has not started, but will be informed by outcomes and results of 7

7.3 - DelivdFtyhKj\_rDIO team are due to meet and develop a plan for this activity

7.2 - Com dJGSiaiTC DIO with support from L48 HSE and Wamsutter operational team completed fi

11.4 - LevqLnh9u9qThe Gas and Methane campaign plan sets out a number of ways to use BP's ma

11.1 - DefM5XZZ7A Developed key materials for WGC as part of the advocacy campaign to advance

11.3 - ProrworgEhuPlanning and delivery of US event ( October 2018) and China ( November 2018), B

2.10 - GFI EuabM34 For all Supplier PRMs that are conducted by GFH, a core requirement for the a

2.9 - Enga3Bt7cTzQ GFH have identified GFH managed products that have associated potential for

2.2 ReviewjzgFZbyYllInitial results from flare imaging camera trials in Alaska conducted during April

2.2 RequiYasDlpVO"GN 47-061 is already codified in MPcp V5 - CLOSED "

2.7 Evalu2TLzsXjdW "The Tortue Phase 1 GHG emissions are forecasted at 9 million tonnes of CO2e

ACTION 7 28ClwfO7An integrated plan has been developed for methane technical activity divided i

2.4 - Revit-8Jq-LVPbBP is engaged with the following groups supporting the reduction of carbon en

7.6 - IdenoF9Cluq5\A device has been tested (Providence Mantis) in Alaska that provides a practical fi

2.8 UnderLYZTrQFo Study works cope with Atkins (on behalf of BP, Shell and Total) to appraise techno

2.7 Evalu2TLzsXjdW Added attachment

2.2 RequiYasDlpVO Technology Catalogue to be updated with low carbon technologies (e.g. offsho

2.2 RequiYasDlpVO Technology Catalogue to be updated with low carbon technologies (e.g. offsho

2.1 ConduFMcwQ9€Ongoing benchmarking to strengthen emissions estimations in pre-GPO to eval  
2.8 - Defirxb51ic-rs(Initial engagement with projects (e.g. Tortue Phase 2 and 3, Clair South, etc.) o  
2.5 - Benc7bnxEeTnPart of ongoing benchmarking activities under the GPO Focus Area on Carbon I  
2.9 Using zsUvI3RsCln progress under GPO Carbon Efficiency Focus Area - Activities Q2 2019. Initial  
14.4 - Dev7PJwpva\_Currently working with OSMA team to review the Group Leader methane video  
14.1 - DevbtriXH3svSupport provided to the Group Leaders training which includes a specific meth  
15.9 - Wo6LxEZsmf:OGCI is also working with distribution operators to better understand and supp  
15.10 - WJsRw7reDThis activity is slightly delayed as the OGCI focus has been on the methane inte  
15.9 - Wo6LxEZsmf:The work with OGCI on methane intensity methodology will support creating a  
12.6 - RecXS61wTo:Creating a list of tool capability requirements for this task, then will scan market  
12.4 - Ho:DIITCf7-CEvent set for October 1 in Washington, DC. See link to document outlining the  
12.2 - Cre DS9CjmQ:1) Created holistic methane campaign document that includes key messages, g  
ACTION 1 hi7DGQf7See milestones updates...all are in progress, some are already complete.  
12.5 - BuilWn527\_J1) Clarified that internally BP uses manufacturer-based emission factors and no  
10.1 - Ref E6pFZICs\Update from Dominic 29/08/2018: IMWG proposed process change socialised  
1.3 DevelZytBSz9FHUpdate from Dominic 29/08/2018: plan shape GHG data has now been submit  
1.2 Roll oIShkDSqE-Update from Dominic 29/08/2018: remains work in progress subject to 1.1 finc  
12.1 - Cre XPMEJ-PFMethane model regulation framework finished and it has been reviewed by Mi  
10.2 - Alig8SWueUTAction is being worked in close coordination with Sue Ford, in her capacity as a  
2.11 - LeaSwVU6V8Following detailed consultation and engagement, the final version of the Meth  
2.6 - Revi0kqRB93XThe scope of work for JIP 33 Phase 3 is still under discussion among the particip  
2.7 - Revi:M9mntWGPO Carbon Principles Plan - Section 7.4.3.5 – Start up and early operations (Su  
2.1 RevisiOtl7ml81GPO Carbon principles document has been updated and makes a specific state  
5.6 - DeveDLW7JGo Upstream equity GHG forecast has been built up to provide input to RCM and o  
7.10 - IdeHL\_ddE6lDownstream have also been approached to test other aspects of this technology - w  
7.8 - Lead\_ISU6ce3A cross functional workshop was held in June to align processes and projects b  
7.9 - FinalWZENcGyAn integrated programme of activity linking technology teams (UT, GT and DIC  
7.7 - Com Sar58dRHA full heat map of technical activities currently underway was completed in Jur  
1.2 Evalu:MqFTFBklo The original tests of a VISR flare monitoring camera (Providence Mantis) have un  
15.3 - CorYkyeKsdK>Note: IOGP are planning to conduct a comparison of different methane reporti  
15.3 - CorYkyeKsdK>Methane emissions reporting exchange held with Upstream HSE, Lower 48 anc  
15.2 - ReveyPolT4o(UEC resource will be used August - September 2018 to support delivery of this  
7.4 - Leak cpShPtO\_Full milestone: Leak Detection & Quantification Trials: Continue current and pr  
9.3 - ImplthLECEnd Full milestone: Implement find and fix LDAR programme in L48: prioritized on E  
3.2 DevelyMUETgwJune 5th Update: Action being progressed by Reservoir Development team. Ini  
3.1 DevelJykq23fSaJune 5th Update: Agreed mechanism for inclusion of carbon intensity into FMs  
2.9 Using zsUvI3RsCJune 5th Update: This action requires completion of action 1.2, above, to infor  
2.8 UnderLYZTrQFo •BP , Total and Shell agreed to proceed to a consultant technical study on electrif  
2.7 Evalu:TLzsXjdW June 5th Update: The updated operating GHG forecast (Gross) for Tortue 1A is  
2.6 ConsicLN\_KSrluJClosed: One page position paper developed and issued outlining options and re  
2.5 Develop7\_-Cv6BJune 5th Update: Update Appraisal one-pagers – to include GHG total, carbon i  
2.4 DevelopDY2zUtcJune 5th Update: New FM format has been developed - GHG FM Governance C  
2.3 ConduRXZfZIJkClosed: Use of the energy VIP is already a GPO requirement codified in the GPC  
2.2 RequiYasDlpV0Requirement for projects to be developed in accordance with GN47-061 has been c  
2.1 ConduFMcwQ9€June 5th Update: Implementation ongoing. Emissions benchmarking required a  
1.13 Iden8Hd0QZo. • The top 10 NOxV emitters have been identified, these collectively account for

- 1.12 Com x1HD-Uq1Alaska Energy Review completed w/c 9th November (telepresence and Skype).
- 1.11 Gain j1dzdhMlNo longer relevant. Superseded by RIC target of 3.5Mte (gross) RSRs by 2025.
- 1.10 Deliv6wLIKvF0IJune 5th Update: GOO delivered 0.82 Mte tonnes (gross basis) of SERs to the e
- 1.9 Seek cKD50T3HJune 5th Update: Decision retired after conversation with stakeholders.
- 1.8 Assess:fDjA0MTkJune 5th Update: In consultation with Policy and Strategy it has been agreed th
- 1.7a Trial mPTh4klsProject is on track for delivery as per plan (first green completion trial by Q1 2019
- 1.7 Produeyg9rlDmCompleted - see attachment
- 1.6 Evalu21PKqQV6-New operating philosophy was implemented early in May eliminating circa 45 mm
- 1.5 Pilot r2AR-U8EFThe Alaska field trial of the methane quantification technology (FLIR camera + Pro
- 1.4 Evalu2LH2wk7rF1. L48 committed to reducing CO2e emissions by 700,000 MT CO2e between 2017
- 1.3 QuantvEaVUsdCCompleted - see attachment
- 1.2 Evalu2MqFTFBklJune 5th Notes: Fugitive emission quantification - Alaska field trial of Providenc
- 1.1 DevelY3hTRWR• RSR opportunities will be identified through regional carbon workshops (2018 U

PostedBy	PostedDate
Stileman, Tim	2019-09-02T08:49:19+00:00
Stileman, Tim	2019-09-02T08:35:50+00:00
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Ford, Susan J (Sunbury)	2018-08-29T17:11:28+00:00
Kennedy, John	2018-08-29T14:46:26+00:00
Olsson, Jenny CM	2018-08-29T12:26:48+00:00
Olsson, Jenny CM	2018-08-29T12:12:37+00:00
O'Brien, Robert	2018-08-28T15:37:53+00:00
Evans, Peter	2018-08-24T07:28:53+00:00
Evans, Peter	2018-08-24T07:17:00+00:00
Evans, Peter	2018-08-24T07:14:08+00:00
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Evans, Peter	2018-08-24T07:05:49+00:00
O'Brien, Robert	2018-08-14T11:44:57+00:00
O'Brien, Robert	2018-08-14T11:44:25+00:00
Ford, Susan J (Sunbury)	2018-08-14T11:30:28+00:00
Walker, Marisa	2018-08-06T14:48:55+00:00
Walker, Marisa	2018-08-06T14:46:05+00:00
O'Brien, Robert	2018-07-26T12:57:54+00:00
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O'Brien, Robert	2018-07-26T12:56:33+00:00
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O'Brien, Robert	2018-07-26T12:43:11+00:00
O'Brien, Robert	2018-07-26T12:42:32+00:00
O'Brien, Robert	2018-07-26T12:41:49+00:00
O'Brien, Robert	2018-07-26T12:40:58+00:00

O'Brien, Robert	2018-07-26T12:40:46+00:00
O'Brien, Robert	2018-07-26T12:40:36+00:00
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O'Brien, Robert	2018-07-26T12:33:55+00:00
O'Brien, Robert	2018-07-26T12:33:38+00:00
O'Brien, Robert	2018-07-26T12:31:28+00:00