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bp Australia response to the Setting, Measuring and Achieving Targets issues paper

bp welcomes the opportunity to respond to the Climate Change Authority's (CCA) issue paper on Setting, Measuring and Achieving Targets and looks forward to supporting the CCA as it finalizes its important advice to Government on:

- Australia's next Nationally determined contribution
- the Minister's annual climate change statement
- the review of the National Greenhouse and Energy Reporting Act
- the review of the Carbon Credits (Carbon Farming Initiative) Act

The strengthened role for the CCA - supported by the Climate Change Act - to provide evidence-based, non-partisan advice to Government and the Parliament can move the dial for decarbonizing Australia. The commitment from the Australian government towards the energy transition and the important progress that has already been made is acknowledged by bp. We hope the CCA can strengthen this momentum with clear recommendations on the suite of policies needed to achieve Australia's emission reduction goals.

About bp

bp's purpose is to reimagine energy for people and our planet. Our ambition is to become a net zero company by 2050 or sooner; and to help the world get there too. Globally, bp aims to be net zero across our operations (scope 1 & 2), in our oil and gas production (scope 3) and in the energy products we sell (life-cycle emissions intensity). For each of these we have also set short-term (2025) and medium-term targets (2030). You can read more about our net zero plans and progress in our Net zero ambition report released earlier this year.

Globally, we're aiming to be a different company by 2030. We've always said that the energy transition needs to be orderly. In three years, the capital we've invested in our transition growth engines has increased from 3% to 30%. We are:

- Reducing our oil and gas production by 25-30% (from 2019 levels) by 2030 and lowering emissions while keeping up cash flow by high grading our hydrocarbon portfolio and growing bioenergy.
- Investing in low-carbon energy to rapidly scale up in solar and offshore wind and develop new opportunities in carbon capture and clean hydrogen.
- Installing 100,000 EV charging points and opening more than 1,000 new strategic convenience sites worldwide.
- Progressing five transition growth businesses: bioenergy, convenience, EV charging, renewables, and hydrogen by 2025.

In Australia, we are developing projects consistent with this global strategy:

- We've assumed operatorship of the Australian Renewable Energy Hub (AREH) in the Pilbara, which is planned to provide green electrons and green hydrogen to help decarbonise local customers and to provide hydrogen for export.
- We're transitioning our Kwinana refinery site into a clean energy hub: we're in front-end engineering design (known as FEED) on the Kwinana Renewable Fuels project and exploring hydrogen production as part of H2Kwinana.
- We are working on a further hydrogen project – GERI at Oakajee in the Mid-west.
- We own 50% of Lightsource bp, an independently operated global business with a significant renewable generation portfolio here in Australia.
- We're working with partners exploring the possibility of a Carbon Capture and Storage (CCS) hub, Angel, off the coast of WA.
- And are rolling out electric vehicle charge points through our bp pulse brand in Australia and bp EV charging in NZ, and we're exploring options with partners to decarbonise heavy transport, including hydrogen refueling.
- We've substantial gas interests in Western Australia as part of the Northwest Shelf Joint Venture and are developing the Browse project with our joint venture partners. We are working on ways to decarbonise these operations in order to provide domestic and export natural gas as we move through the energy transition.

bp has a unique perspective when it comes to climate policy in Australia. Some of our assets are large emitters and will need to reduce their emissions over time. On the other hand, our low carbon growth businesses rely on effective policy to provide the incentives for emission reductions.

Our customers are varied, from very large diverse, emissions-intensive businesses that themselves have ambitious emission reduction strategies; to households which are making their own choices about their carbon footprint in a world of rapidly changing technologies and options. It is clear that ambitious climate policies will be essential to support the investment decisions of our customers and enable the world to meet the Paris climate goals.

Targets and ambition

The world's carbon budget is finite and running out. The world needs to rapidly transition to net zero emissions. Despite the marked increase in Government ambitions, greenhouse gas emissions have continued to increase. The longer the delay in taking action to reduce emissions on a sustained basis, the greater the likely economic and social costs of doing so.

At bp, we encourage Australia, and other nations, to accelerate national climate ambitions through their Nationally Determined Contributions (NDC). We support the Paris Agreement goals, including efforts to limit temperature rise to 1.5°C above pre-industrial levels. It is for Governments to determine what their national ambition should be, consistent with these goals.

bp is supportive of the framework proposed by the CCA to underpin its advice on targets. We encourage the CCA to have a view to the longer-term when providing advice on the next NDC. Understanding the pathway to net zero, not just the next NDC, will help to inform today's policy, investments and market behaviour.

The IEA assessed that today's climate pledges by governments, if fully achieved, would limit the global temperature rise to 1.7C. However, the first global stocktake to assess progress since the uptake of the Paris Agreement (due later this year), is likely to indicate the need for greater ambition from governments, corporates and society.

The IPCC has concluded that improving the chances of limiting temperature rises to 1.5°C will require global net zero by 2050 and involve far-reaching transitions in energy, land, urban and infrastructure (including transport and buildings), as well as industrial systems. To be meaningful, national targets need to be underpinned by policy frameworks to incentivize and support these economy-wide transitions.

When we refer to net zero, we mean achieving a balance between sources of anthropogenic emissions and removal by sinks of greenhouse gases, as set out in Article 4.1 of the Paris Agreement. So, we are encouraged by the CCA's work to better understand the role that removals can play in Australia's transition and to consider this when providing advice on Australia's NDC.

Implementing policy

bp welcomes the enhanced role the CCA has been given under the Climate Change Act to provide regular advice to government on the progress toward meeting Australia's greenhouse gas targets.

As stated in the CCA's Issues paper, "government has an important role in helping the nation navigate an orderly transition to a resilient, net zero economy". Government is in a unique position to provide the exceptional level of coordination and integration required across the economy and the community to transition to net zero.

bp sees an important role for the CCA in assessing the performance of existing policy, identifying gaps and in providing advice on policy reform that can support Australia in meeting its emission reduction goals.

As we go beyond the 43 per cent target in 2030 toward net zero, all sectors of the economy will need to be subject to some form of emissions reduction policy. The decision for policy makers is not whether to adopt an emission reduction policy for a particular sector, but rather what is the best policy. We encourage the CCA to undertake its planned audit of all relevant existing and announced policies and to make recommendations for improvements and additions from an integrated whole of economy perspective.

bp considers economy-wide carbon pricing as the most effective and efficient way to reduce emissions but understands that the Australian government intends to take a more sectoral approach. Given this, we believe that policies providing an explicit or implicit price on emissions should be considered by the CCA. We encourage the CCA to leverage the experience and success of these sorts of policies in other countries when providing advice on what policies could work in Australia.

We also believe it is important for policy to be open to the full range of abatement technologies. bp is working closely with its customers to understand what options will support them on their journey to net zero. It is clear to us there is no silver bullet. Most customers will need a mix of technologies and that mix will differ depending on the specific circumstances and preferences of the customer.

We also acknowledge that community acceptance of different abatement options will be important. As a trusted source of advice, the CCA can help to provide a non-biased evidence base to better inform community attitudes to existing and emerging technologies.

Sectoral decarbonisation

The Issues Paper refers to the need for an exploration of sectoral decarbonisation pathways and the challenges and opportunities they present. bp supports this analysis as it can help

industry, investors and the community to better understand what is needed to achieve Australia's emission reduction goals.

Sectoral decarbonization pathway analysis can also help inform the design of effective policy, to assess how to achieve our emissions reduction goals efficiently and while retaining a resilient economy. They can also help to understand the many interdependencies between different parts of the economy and facilitate better planning and coordination. Sectoral decarbonization pathways will need to balance objectives and outcomes for the community – for example in the energy sector we need an orderly transition at pace, so that affordable and secure energy keeps flowing to where it is needed while the sector decarbonises.

Below we provide some additional commentary on the transport sector and two important technologies we believe will play a role across the economy that we hope will help the CCA in its sectoral decarbonization pathway analysis.

Decarbonising transport

bp welcomed the announcement of the National Transport & Infrastructure net zero roadmap in the May 2023 budget. Transport is an important sector for Australia's broader economy, with material emissions that will continue to grow in the absence of targeted policy.

We believe electrification of transport is key to helping Australia get to net zero and we strongly support the commitments by Australian governments to encourage the uptake of EVs, and to facilitate the roll out of charging infrastructure.

bp launched its global EV charging brand in Australia in November 2022. The launch is the part of bp's ambition for an initial wave of around 600 bp charge points in Australia and New Zealand, and to build the country's most convenient fast-charging EV network and customer experience. Some 6 months in, over 120 rapid speed charge points are operating.

We also see a significant role for sustainable biofuels in reducing Australia's transport emissions – both long-term in difficult to decarbonise sectors (such as aviation and marine), and a continued role for legacy ICE cars, vans, and trucks during their transition to electrification.

bp's Energy Outlook points to global demand for biofuels roughly tripling to 2050 and a move away from more traditional biomass to advanced biofuels like renewable diesel and sustainable aviation fuels.

With the right policy settings, Australia has great potential to grow the feedstocks, and produce the biofuels its industry and the rest of the world will need to reduce transport emissions. But we need to urgently get the policy settings right:

- we need to establish a standard for what biofuels will be acceptable for use in Australia, including sustainability criteria
- drawing on experience internationally, we need to establish the accreditation systems to support the industry and ensure we have appropriate auditing, particularly for imported feedstock and fuel
- we need to make sure our NGERs reporting system is not a barrier and expand this to capture life-cycle emissions reporting
- we need to support the production of sustainable feedstocks in Australia, in a way that will attract the investment required to do so at scale.
- we need to expand our domestic refining capacity not only to support emission reduction but contribute to fuel security
- and most importantly, we need policy to drive domestic demand.

Global demand for biofuels is increasing rapidly as other countries implement ambitious policies to drive down their transport emissions. Australia will need to compete in the global market for biofuels. Effective policy here can help to ensure Australia's biofuels stay in country to reduce our own emissions.

We encourage the CCA to consider the success that other countries have had in implementing market-based policies to drive transport emissions. We believe that similar policies can work in Australia.

For example, we believe that a sector specific greenhouse gas target for Australia's aviation sector can set a level playing field and ensure emissions reductions are achieved within the sector, driving the adoption of a range of technologies including the use of SAF. Aviation is a particularly hard to abate sector, so there is a rationale for targeted intervention to drive cost reductions through innovation and experience.

Likewise for ground transport, we see value in a broad-based market mechanism that can provide incentives across a range of technologies, similar to California's Low Carbon Fuel Standard (LCFS).

We encourage the CCA to consider the right suite of policies to reduce Australia's transport emissions. Given the internal combustion engines will comprise the significant majority of Australia's fleet, even with aggressive penetration rates of electric drivetrains, we believe both decarbonised fuels, as well as electrification will be critical.

Role of hydrogen

We believe hydrogen has a critical role in helping to achieve net zero – it's complementary to electrification and will be pivotal in the decarbonisation of hard-to-abate industrial and transportation sectors where electrification is not commercially or technically feasible.

Our 2023 Energy Outlook shows an increase in demand for low carbon hydrogen as the world takes action to reduce emissions. The uptake is relatively slow in the period to 2030, reflecting the long lead time to develop projects and the need for considerable policy to incentivize its use in place of lower cost alternatives. However, demand increases rapidly in the following decades, with demand increasing by a factor of about 10 in the period from 2030 to 2050.

Here in Australia, low carbon hydrogen will also have an important role in allowing Australia to meet its emissions reduction goals. For example, the Australian Industry Energy Transition Initiative indicates Australia's heavy industry alone needs some 140kt of clean hydrogen each year by 2030, with demand increasing rapidly in the following decades.

At bp, we're excited by the potential for Australia to be a major green energy producer and a green energy exporter. We believe that there is an opportunity to produce domestic energy at globally competitive costs, and that this will be an enabler for value-added products. By combining the renewable energy and resources that we have in abundance, we can expand the breadth of high value, low carbon products available for export and have tangible impacts on decarbonisation both domestically and globally.

But Australia's low carbon hydrogen industry is in its early stages and has many challenges to overcome. These challenges include:

- buyers need green pricing now to make strategic decisions, well before production projects have taken final investment decisions
- undeveloped supply chains make estimating project economics difficult,

- there is a lack of supporting infrastructure such as transmissions, ports, roads and housing;
- the requirement of initial government support to overcome the cost differential between clean hydrogen and grey hydrogen/natural gas.
- while Australia has excellent skills and capabilities to leverage, the workforce remains undeveloped; and
- the regulatory environment is still evolving.

We see an important role for government in overcoming these challenges:

- the Federal government to set policy, facilitate project-based trade links, and create best-practice approval frameworks for regulators,
- State and local governments to prioritise access to land, develop enabling infrastructure, reform power markets and contribute to important demand-side initiatives,
- Educators to engage with businesses to understand the future workforce skills – and put in place curriculum today for talent tomorrow.

bp welcomed the decision to refresh the National Hydrogen Strategy and the announcement of the Government's $2 billion Hydrogen Headstart program. We acknowledge government will be further developing its hydrogen policy in parallel to the work of the CCA. We encourage close collaboration, with the CCA adding particular value in providing advice on the longer-term policy settings.

At bp we think this will require:

- policy reform – both federally and across the states – to incentivise significant investment in renewable power that can be delivered at globally competitive prices;
- prioritising the infrastructure needed to support hydrogen projects – be it transmission, ports, roads, water, housing;
- developing safety and technical settings – efficiently adopting the work other markets have undertaken - and harmonizing Australia to establishing global norms;
- government approval processes that align with the pace at which projects will need to be executed, without compromising on best-practice environmental and sustainability standards;
- hydrogen certification standards and systems
- further fostering of government-to-government links – especially with Japan and Republic of Korea, Germany and the EU – to enable developments on a project-by-project basis with trading partners looking for supply later in this decade.

Role for Carbon Capture Use and Storage

Achieving deep global reductions in CO2 emissions will require a mix of technologies and solutions. We, like other experts such as the IPCC and IEA, believe that CCUS has an important role.

CCS is based on a well-understood technology that has been in use since the 1970s. International Energy Agency, the CCUS facilities currently in operation around the world have a collective capacity to capture more than 40 MtCO2 each year.

The Intergovernmental Panel on Climate Change (IPCC) has indicated that CCS is one of a suite of solutions that can help deliver net zero and net-negative emissions.

In our 2023 Energy Outlook, we see CCUS playing a central role in enabling rapid decarbonization trajectories: capturing industrial process emissions, acting as a source of carbon dioxide removal, and abating emissions from the use of fossil fuels.

CCUS can be used to reduce the emission associated with the production and use of natural gas. Given the ongoing role for natural gas over the coming decades, we need to focus on ways to reduce emissions from its production, distribution and use. For example, the Browse Joint Venture has determined that a CCS solution to abate Browse reservoir CO2 is feasible and has incorporated it into the development concept.

We anticipate natural gas will be needed to support the rapid uptake of intermittent renewables. CCUS can be used to reduce the emissions associated with this firming.

CCUS can also be used to decarbonize hard-to-abate industries like steel and chemicals.

It can also be used with natural gas to produce low carbon hydrogen, which our analysis indicates may be more cost-effective initially than low carbon hydrogen produced from renewable energy, particularly in those locations that don't have access to abundant local renewable energy.

Given Australia's natural advantages in the storage of emissions, it can support the decarbonisation of those countries that do not have the same access to renewable energy or viable CCS sites by providing CCUS as a service. This can help reduce the cost to Australia through scale. It can also be an avenue to reduce Australia's scope 3 emissions. For example, many major industrial point emitters in the Asia-pacific region do not have access to viable CCS. Japan, Korea, Taiwan, and Singapore all have emission reduction ambitions that will likely need the support of other countries including by providing CCS as a service. Japan's Ministry of Economy, Trade and Industry estimates that Japan may need to capture and store 140-240mtpa of CO2 by 2050, and is targeting 6- 12mtpa of CCS by 2030.

Importantly, as the CCA has identified, CCUS can also be used with biomass for power generation and with technologies that capture carbon from the atmosphere to provide negative emissions.

We understand that it can be confusing for some in the community to understand the technology and the important role it will play in support of Australia's and the global transition. We believe CCUS is a proven technology and can offer a viable abatement option. It is one tool in the toolkit.

We want to see policy in Australia that remains open to CCUS alongside other abatement options. Policy that can support collaboration with our trading partners on CCUS as a service; and policy that incentivises negative emissions technologies including CCUS.

International context and Australia's contribution beyond our boarder

Climate Change is a global problem. Of course, Australia will consider how to achieve its own emission reduction goals, but it can also have a role in supporting the decarbonization ambitions of other countries. Understanding the interaction between climate change policies and other important global objectives such as the sustainable development goals will also be important. At bp, we understand we need to continue to provide secure and affordable energy while we decarbonize the global energy system.

We are encouraged by the CCA's proposal to consider the international context and Australia's role within the broader global transition when forming its advice on targets, progress and policy.

Fossil fuel exports

Given Australia is a major exporter of coal and gas, the CCA might consider the pace of the transition away from these fuels by our trading partners when providing its advice on Australia's targets and policies.

Global demand and the pace of the transition will be the primary driver of the emissions associated with fossil fuels.

We agree with the CCA that without a shift in global demand, a reduction in Australia's export of fossil fuels, would likely see other countries 'fill the gap' by increasing their exports. Ultimately, fossil fuel importers will decide when they phase them out. We also agree that demand for different fossil fuels will decline on different trajectories, in part because of the different greenhouse gas emissions, with gas having lower emissions than coal.

bp's strategy recognizes that to achieve the Paris Agreement goals, the world must transition away from fossil fuels to lower carbon alternatives. We also recognise there is uncertainty about the pace of the transition and the composition of the energy mix.

To help inform our strategy, we undertake scenario analysis to better understand how the global energy system might change and to test our reliance on the uncertainty. We also consider the transition scenarios developed by others such as the IPCC 1.5 degree aligned scenarios.

We encourage the CCA to also consider these global scenarios when forming a view on Australia's exports of coal, gas and importantly low carbon alternatives that will allow for their replacement such as hydrogen and renewable fuels. We invite the CCA to consider bp's 2023 Energy Outlook and extend an offer to provide a more detailed brief on our view of drivers of global energy demand.

Our view is that gas will remain part of the Australian and global energy mix for decades to come. This means the production, supply and use of natural gas must be decarbonised as fully and quickly as is practical to meet the Paris climate goals. Australian policy can support this transition by:

- providing incentives at home to reduce emissions from the production;
- provide incentives to reduce emissions from shipping – partner with other countries under the IMO, and consider further policies to drive uptake of low carbon shipping;
- support the development of technologies to reduce the emissions from end use – for example, by investing in industrial applications of CCS to reduce emissions at home and support industry wide learning and costs reductions; and develop policy frameworks that would allow Australia to provide CCS as a service.
- support the development of low carbon alternatives like low carbon hydrogen and renewable fuels.
- work collaboratively with other governments to encourage them to implement policies that support the transition to low carbon alternatives, drive efficiencies, and deploy CCS.

Carbon leakage

bp considers, carbon leakage to be where the emission reduction goals of policies in one country are undermined by businesses moving activities and the associated GHG emissions to another country without equivalent GHG policy measures instead of implementing emission

reductions. As more countries take on action to reduce their emissions, we expect the risk of carbon leakage to reduce.

Until countries have similar climate policies, carbon border adjustment mechanisms (CBAM) or other measures may be needed to avoid emissions and investment shifting elsewhere – known as carbon leakage – and to recognise potential impacts on economies.

Carbon border adjustments (CBAs) can be designed in many ways but must ultimately create a level playing field by adjusting the costs of imports and exports to compensate for different carbon. CBAMs must be designed carefully with the specific aim of addressing competitiveness impacts resulting from climate regulation and avoiding unnecessary or unfair impacts on trade. They should not be a barrier to trade, for example by adding significant administrative costs to goods and services being traded.

Introducing such policies is a complex task and will require Australia to develop, collect and monitor high-quality data on the carbon content of traded goods.

International aviation and maritime.
bp believes global regulation is the most effective approach for helping decarbonise aviation and international maritime, but this should not stop regions and individual countries going further and faster.

bp encourages the CCA to consider policy interventions that Australia could take to help accelerate global efforts to reduce international aviation and maritime emissions. Australia's geography mean's that international ships and airplanes that come to Australia are likely to pick up their fuel here, so there is scope for Australia to make a valuable contribution beyond our domestic emissions.

bp sees great opportunity for Australia in the production of feedstock and sustainable fuels that can be used to reduced aviation and maritime emissions. That's why we are developing our Kwinana renewable Fuels Plant at our Kwinana site, that if developed would produce around 10,000bpd of sustainable fuels. Policy here to encourage the uptake of these fuels including by international airlines and ships would help to develop the domestic industry.

There is also an opportunity for Australia to align itself with other countries that are implementing policies that will drive down these international emissions, particularly in our region. For example, Japan has announced an intention to require all international flights using Japanese airports to use 10% sustainable aviation fuel by 2030. Singapore has also announced plans to be a sustainable air hub. The EU has included international aviation and maritime emissions associated with flights and shipping routes calling at European airports and posts under its UE ETS. It has also implemented policy to drive down the emissions intensity of fuel used. If Australia falls behind likeminded countries, there is a risk that any sustainable fuels produced here will be shipped to those ports that do have policy in place.

Use of international units
bp supports the use of international offsets and the implementation of Article 6 by governments to achieve the goals of the Paris Agreement. The international context will continue to evolve as countries define their implementation of Article 6 and build their capabilities to allow for the trade of offsets backed by an International Traded Mitigation Outcome (ITMO) and required corresponding adjustments. We support the CCA's previous recommendation to prepare a carbon market strategy that sets out how Australia intends to use international markets to achieve its emission reduction goals.

Should Australia decide to use international markets to achieve its NDC, bp would support integrating international units within the various domestic policies. For example, bp would support allowing safeguard entities to use international offsets that are consistent with the Paris agreement for compliance under the mechanism.

NGER review

The NGER scheme is an important underpinning of Australia's climate change policy framework. It provides the energy and greenhouse gas emissions data for a number of different purposes, including the national inventory, to inform policy makers of trends and drivers, as well as, providing the basis for the compliance for the safeguard mechanism. The emissions data needs of Australia are changing overtime, for example:

- policy to drive emissions across the whole economy will need data not currently reported under the NGER scheme
- to get incentives right, some policy may need lifecycle emissions data that goes beyond the scope 1 & 2 emissions data currently reported, for example to support the Guarantee of Origin scheme or to underpin a Low Carbon Fuels Standard in the transport sector.
- the mandatory disclosure of climate change related financial risks to improve investment decisions may require the reporting of not just scope 1 & 2 emissions, but material scope 3 emissions as well, and the organizational boundary might differ focusing on equity rather than operatorship.

We encourage the CCA to consider these different emissions data needs and to assess if the NGER scheme should be reformed to accommodate or whether other data systems might be needed going forward. We also urge the CCA to consider if the NGER scheme is fit for purpose to drive the right investment decisions particularly under the safeguard mechanism.

Biofuels and limitations of location-based accounting

We see an important role for biofuels in Australia's decarbonization, including for Australia's largest emitters subject to the Safeguard mechanism. We welcomed the recent addition of renewable diesel and sustainable aviation fuels under the NGER scheme as many of bp's customers are. Its important that the NGER scheme keeps pace with new emissions reduction technologies. We also welcome the earlier amendments to recognize biomethane. However, without reform accounting treatment under the NGER scheme will remain a key barrier to the uptake of these abatement options.

The major attraction of these biofuels is that they are "drop-in fuels". They can be used in the same vehicles and machinery to reduce emissions now without the need to wait for the assets to turn over. These biofuels will be distributed using the same infrastructure as their fossil alternatives which is typically shared infrastructure.

Currently the NGER scheme does not allow for direct allocation of emissions reductions from biofuels that are delivered using a shared pipework or tank. The reporting of higher order NGER methods such as Method 2 or Method 3 would allow all users sourcing from the same pipeline to claim a small amount of the benefit. But this dilutes the incentive for emitters to invest in the biofuels because they can't report and claim the full benefit under NGER.

This is a particular concern for many safeguard mechanism entities for whom biofuel is one of a limited set of viable emission reduction options in the period to 2035. Currently, a safeguard entity would need biofuels supplied segregated if they wanted to claim the full emissions reductions under the safeguard mechanism, which would significantly increase their cost of abatement.

We strongly urge the CCA to recommend reform to the NGER scheme to ensure that the incentives under the safeguard mechanism flow as intended and that customers who have paid for the biofuel are able to claim the full emissions benefit. We encourage the CCA to consider the mass-balance accounting approaches that are used in other countries to inform their recommendations. We note the Guarantee of Origin scheme proposed for renewable electricity may also be relevant. However, we do stress that the considerations for these biofuels in the context of the safeguard mechanism where compliance is based on scope 1 is different to the market-based accounting considerations for scope 2 emissions. We would welcome the opportunity to discuss this matter further with you as appropriate.

Methane measurement

While bp is not the operator of our gas interests here in Australia, we do have experience internationally that might be relevant to the CCA. bp is a member of the Oil and Gas Methane Partnership (OGMP) under the United Nations Environment Programme's (UNEP) Climate and Clean Air Coalition. As part of its OGMP membership, bp has an obligation to report specific methane emissions data including data from its non-operated joint ventures and to improve the quality of that methane data over time.

Keeping methane in the pipes is good for the planet and for business. The measured concentration of methane in the atmosphere continues to rise faster than CO2, increasing the relative contribution of methane on future warming. For natural gas to play its fullest part in delivering the goals of the Paris Agreement, methane emissions across the gas value chain will have to be significantly reduced.

Part of our global strategy is to install methane measurement at all our existing major oil and gas processing sites by 2023, public the data, and then drive a 50% reduction in methane intensity of our operations.

Our methane measurement approach deploys a range of technologies such as site-level measurement from drones, aircraft, satellites, and fixed cameras. We are deploying enhanced metering, software for flare efficiency and predictive emissions monitoring on gas turbines. We have gas cloud imaging, tested in the deserts of Oman at the Khazzan tight gas project, allowing constant site monitoring. We also have drones that live stream data, thanks to highly-advanced on-board sensors developed by NASA. Video imaging spectral radiometry flare monitors use infrared images to measure how efficiently a flare consumes emissions.

Technologies to detect and measure methane are evolving fast. So, at bp we take a flexible approach to using different technologies to move us towards increased continuous site and source-level measurement systems as more advanced technology becomes available. We offer a more in depth briefing on our global methane measurement program if this would be useful to the CCA in developing its advice.

Closing remarks

bp welcomes well-designed, stable, and long-term policy frameworks to incentivize and support the necessary investments in low carbon solutions. We reiterate our offer to provide further briefing as useful on matters set out in our submission. We look forward to working with the CCA as it finalizes its advice to government.