

Climate Advocacy Report

May 26, 2023

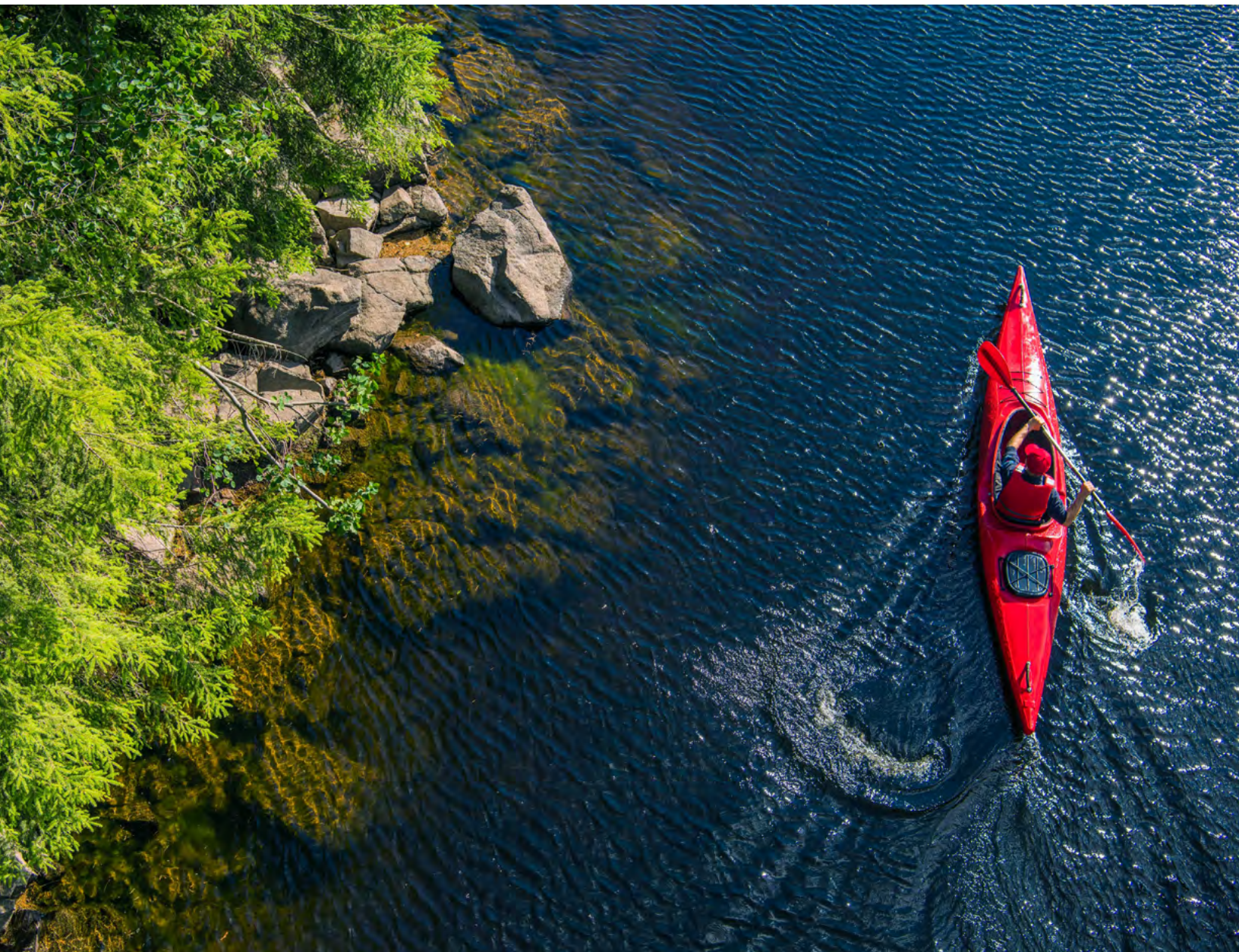


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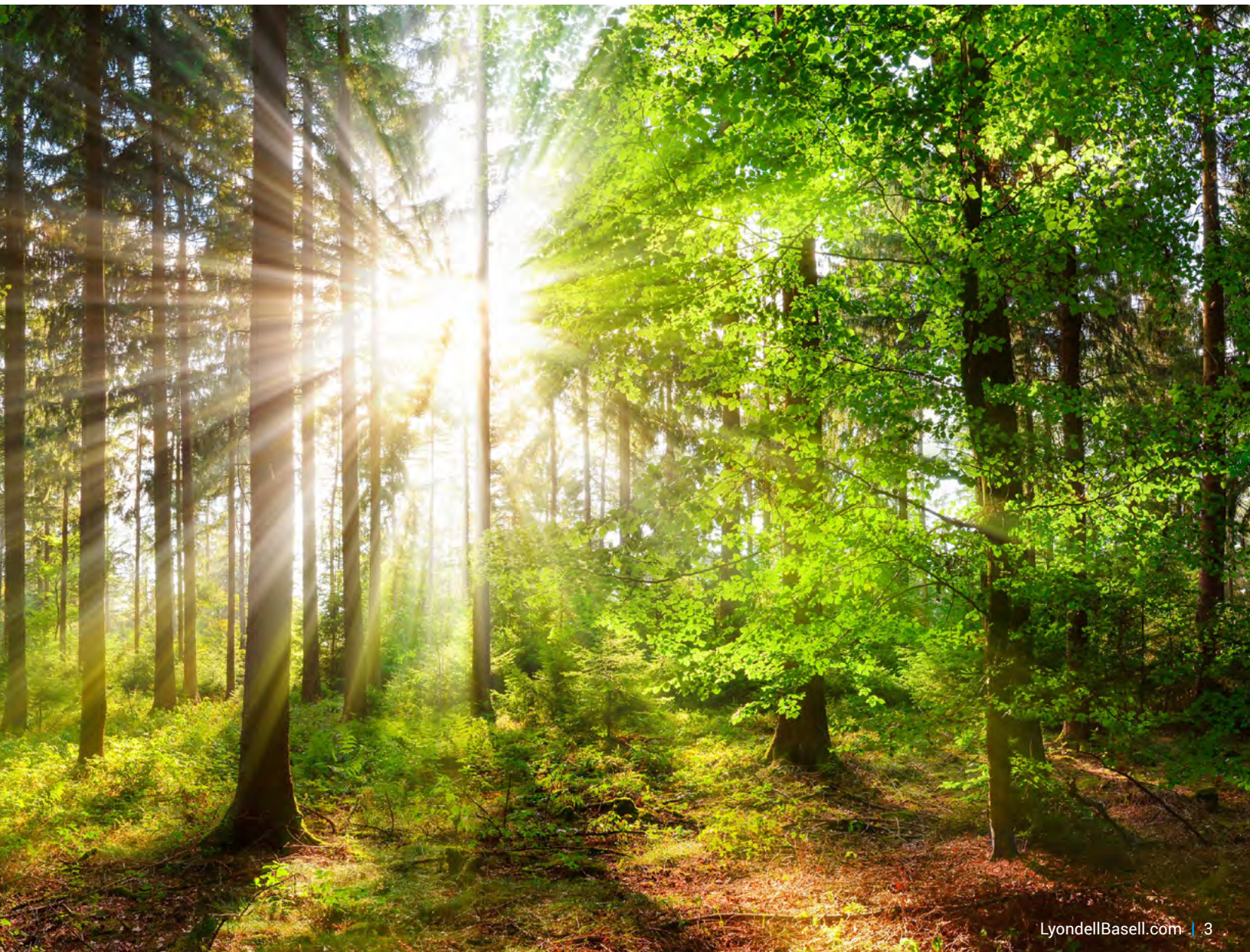


INTRODUCTION

Addressing climate change is one of the most pressing challenges our world faces and we believe collective action and a sense of urgency are needed. As a leader in our industry, we have an important role in driving change. We support the objectives of the Paris Agreement to limit global temperature rise to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5°C. We are committed to doing our part and recognize that achieving this objective will require collaboration and collective action between industry, policymakers, and all parts of society. To that end, LyondellBasell aims to:

- Achieve net zero scope 1 & 2 greenhouse gas (GHG) emissions from our global operations by 2050;
- Reduce absolute scope 1 & 2 GHG emissions 42% by 2030 (relative to a 2020 baseline);
- Reduce absolute scope 3 GHG emissions 30% by 2030 (relative to a 2020 baseline); and,
- Procure a minimum of 50% of electricity from renewable sources by 2030 (based on 2020 procured levels).

We believe public policy plays a critical role in addressing the challenge of climate change. LyondellBasell actively participates in the political process through direct outreach to policymakers, as well as indirectly through trade associations. This report describes our approach to climate advocacy including detailing our climate policy positions, setting out our approach to participating in trade associations, and publishing our first-ever review and evaluation of trade association alignment with our climate policy positions.





OUR GLOBAL CLIMATE POLICY POSITIONS

We support effective policies to achieve the goals of the Paris Agreement and our global climate ambitions. Our strategy for achieving our climate ambitions relies on several key enablers. These include stable positions and policies independent of political cycles and the development of necessary infrastructure and technologies to support the transition toward net zero.

Our global climate policy positions serve as a framework to guide LyondellBasell's advocacy with governments and within industry associations. These climate policy positions also serve as the basis for our review of industry associations in this report.

Our climate policy positions include:

- 1. Paris Agreement and net zero emissions:** LyondellBasell supports the goals of the 2015 Paris Climate Agreement to limit global temperature rise to well below 2°C above preindustrial levels and to pursue efforts to limit the temperature increase even further to 1.5°C. We support emission reduction targets in line with these goals that help the world reach net zero by 2050.
- 2. Hydrogen and other low-carbon fuels:** LyondellBasell supports policies encouraging the further development of affordable and reliable low carbon energy needed to support industrial operations through various incentives that reward investment in carbon-reducing technologies and support the development of needed infrastructure.
- 3. Carbon capture, utilization and storage (CCUS):** LyondellBasell supports policies promoting the development of a carbon capture and storage infrastructure at the scale required to enable the storage of currently unavoidable GHG emissions. Longer term, we believe in the potential of CO₂ utilization as an alternative to permanent storage. CO₂ utilization not only has the potential to reduce scope 1 and 2 emissions through CO₂ capture, but also to reduce scope 3 emissions by converting the captured CO₂ to higher value chemicals that could replace current fossil-based feedstocks.
- 4. Emerging technologies:** LyondellBasell supports policies accelerating the development of emerging technologies which enable the reduction of emissions from carbon intensive, large scale manufacturing needs, including processes and adjacent infrastructure to enable cost-effective use of CO₂ at scale for the production of higher value chemicals.
- 5. Renewable and low carbon electricity:** LyondellBasell supports policies promoting significant increases in renewable electricity production and grid capacity upgrades needed to support the high electricity demands tied to the electrification of processes. LyondellBasell also supports policies that encourage further development of affordable, reliable baseload generation from other non-emitting sources.
- 6. Carbon pricing:** LyondellBasell supports a carbon pricing scheme that effectively facilitates a transition to a net zero economy. We believe a global carbon price provides the most efficient, fair, and uniform way to reduce GHG emissions at scale. In the absence of a global price on carbon, in the near-term, we support regionally implemented cap-and-trade programs and effective carbon leakage protection measures to ensure our production remains competitive.

OUR PRINCIPLES FOR CLIMATE ADVOCACY

In accordance with our values, our [Code of Conduct](#), and our [Principles for Public Policy](#), we engage directly with governments, regulators, and elected officials to advocate on matters that affect us, our employees, our customers, and our shareholders. Our lobbying activities are guided by transparency and integrity. We seek to enable climate policy that provides certainty for long-term investment decisions, encouraging a level playing field, eliminating redundant, overlapping, and outdated requirements, and protecting jobs. We are committed to promoting climate policies that align with the goals of the Paris Agreement and actively advocate for such policies through our direct lobbying.

Below are examples of climate advocacy in Europe and the United States in the past year.

Climate Advocacy – Europe

In Europe, LyondellBasell engaged in climate advocacy discussions in support of electrification technology and low carbon hydrogen, availability of renewable or low carbon electricity, and development of CCUS. This requires an efficient infrastructure network in order to ensure an abundant supply of energy and utilities, including carbon storage, at globally competitive costs.

European Union level

- Throughout the year, LyondellBasell has met with relevant Members of the European Parliament and European Commission officials, at various levels, either directly or through trade associations.
- Discussions focused on key topics for the company, linked to either the "Fit for 55" package (in particular the introduction of a Carbon Border Adjustment Mechanism, changes to the Emission Trading System (ETS), Renewable Energy Directive (RED III), carbon capture and storage/carbon capture and usage etc.) and the circular economy strategy (e.g., Sustainable Carbon Cycles).

National level

- In France, we have been engaged since 2021 in conversations with the government regarding our sites in Berre and Fos-sur-Mer. We discussed possible roadmaps for these sites to achieve net zero emissions by 2050 and associated infrastructure, policies, and subsidies at the EU and national levels that would support these roadmaps. The government, which has committed 5 billion euros of financial support to industry, and potentially up to a total of 10 billion euros in a second phase, is planning to propose a national decarbonization pathway for the top 50 GHG-emitting sites in France in the course of 2023.
- In the Netherlands, we have engaged in discussions with the national government on the establishment of a Tailor-made agreement (Maatwerkafpraak), which would specify GHG emission reduction projects we are planning to undertake at our sites in the Netherlands and the government support needed, for example, financial mechanisms, stimulation of demand for sustainable products, timely decision-making on permit applications, advancing timely availability of low carbon fuels, renewable and low carbon electricity, CCUS and required infrastructure, and addressing regulatory uncertainty.

Climate Advocacy – United States

Federal level

In the United States, LyondellBasell engaged in climate policy discussions at the federal level in support of increased government investment and scientific resources to develop and deploy low emissions technologies in the manufacturing sector; adopt transparent, predictable, technology- and revenue-neutral, market-based, economy-wide carbon price signals; and encourage adoption of emissions-avoiding solutions and technologies throughout the economy.

LyondellBasell directly advocated alongside other industry members and the American Chemistry Council in support of a number of climate policy recommendations for a lower emissions future. [Link](#)

State level

In the United States, LyondellBasell engaged in climate policy discussions at the state level in support of state greenhouse gas reduction targets, climate action plans, and policies that support energy transition, renewable portfolio standards, and clean energy standards.

LyondellBasell is directly involved in advocacy to advance CCUS in the states to ensure supportive regulatory framework for carbon reduction technologies as well as policies to support electricity market reforms to support renewable and generation investments, innovation, and grid reliability.

LYONDELLBASELL AND TRADE ASSOCIATIONS

LyondellBasell is a member of many trade associations around the world. We value our participation in trade associations, which enable us to promote our priorities together with other companies and engage as an industry with governments and regulators. In addition to engaging in public policy and regulation, trade associations also play a key role in developing best practices in health, safety, security, and environmental performance.

The policy positions that trade associations adopt are typically developed based on the majority view or a consensus among their membership. With a wide range of differing views represented, it is unlikely that our policy positions will always exactly align with those of the trade associations in which we participate. Further, LyondellBasell has varied levels of participation and influence in the different trade associations in which we participate.

We are committed to promoting climate policies that align with the goals of the Paris Agreement and actively advocating for such policies within the trade associations to which we belong. Further, we believe that our trade association memberships should be consistent with our climate positions and efforts to advance a net zero economy in line with the goals of the Paris Agreement and that it is our responsibility to evaluate our participation in trade associations and disclose misalignments. Where misalignment is identified, we take action. For example, our representatives may reaffirm LyondellBasell's position and advocate within the organization for a change in position. If there is a material misalignment on a priority policy issue, we may publicly dissent from the trade association before withdrawing our membership. In developing our approach to addressing misalignment, we also consider the broader value of our membership, the significance of the trade association, and our ability to influence internally.

LyondellBasell's framework for evaluating our trade group participation to determine whether misalignment exists is detailed below.

Our Approach

For this first report, we reviewed our memberships in the 10 most important trade associations in which we are active, as well as the World Economic Forum, which we joined in 2021. We present information about these memberships, along with the results of our assessment of each groups' positions and advocacy against our climate policy positions. We define each as aligned, partially aligned, or misaligned as detailed below.

Going forward, we intend to expand this analysis to additional trade associations or industry groups and provide an updated assessment every two years.

Methodology

Criteria for inclusion:

1. The Trade Association (TA) is
 - a. active or influential within the sector/industry under which LyondellBasell conducts business and/or within the geography of LyondellBasell's regional or global operations; and
2. The TA also:
 - a. Undertakes direct advocacy or lobbying engagement on climate-related policy; or
 - b. Has taken a public policy position on climate change; or
 - c. Is likely to be active or take a position on climate-related policy given the remit of the TA.

Evaluation Criteria

We evaluate material found on TA websites, media articles, social media, and public statements and public comments submitted to governments from the TA principle executives for consistency with the following positions:

Paris Agreement and net-zero emissions

- Support the goals of the Paris Agreement to limit global temperature rise to well below 2°C above preindustrial levels and to pursue efforts to limit the temperature increase even further to 1.5°C.
- Support emission reduction targets in line with these goals, that help the world reach net zero by 2050.
- Hydrogen and other low-carbon fuels
- Support policies encouraging the further development of affordable and reliable low carbon energy needed to support industrial operations through various incentives that reward investment in carbon-reducing technologies and support the development of needed infrastructure.

Carbon capture, utilization and storage (CCUS)

- Support policies promoting the development of a CCS infrastructure at the scale required to enable the storage of currently unavoidable GHG emissions, while also recognizing the potential of CO₂ utilization as an alternative to permanent storage.

Renewable and low-carbon electricity

- Support policies promoting significant increases in renewable electricity production and grid capacity upgrades needed to support the high electricity demands tied to the electrification of processes.
- Support policies encouraging further development of affordable, reliable renewable energy, and baseload generation from other non-emitting sources.

Emerging technologies

- Support policies accelerating the development of emerging technologies that enable the reduction of emissions from carbon intensive, large scale manufacturing needs, including processes and adjacent infrastructure to enable cost-effective use of CO₂ at scale for the production of higher value chemicals.

Carbon pricing

- Support a carbon pricing scheme that effectively facilitates a transition to a net zero economy.
- In the near-term, support regionally implemented cap-and-trade programs in the absence of a global price on carbon.

Not all of our policy positions were relevant to each TA. Where a TA did not state a position, and the issue did not appear to be relevant to the TA, we did not assess misalignment for this issue. However, if a TA did not state a position, and we determined that the issue should be relevant to the TA, we evaluated misalignment on the issue. Where we found that the TA not stating a position on the issue could undermine our support for the goal of the Paris Agreement and for policies we support to help advance a net zero economy, we would determine that there is misalignment on this issue.

After the evaluation, we categorized each TA as follows:

● Aligned	Trade association is fully aligned with LyondellBasell's climate position or commitment.
● Partially Aligned	Trade association does not fully match LyondellBasell position or commitment; improvements to be pursued via increased engagement.
● Misaligned	Trade association is largely inconsistent with or opposes LyondellBasell's position or commitment; action needed to address misalignment (engagement and remediation steps, if necessary)
● No public position	Trade association has no public position; viewed as room for improvement and change via increased engagement.

Evaluation Results

Based on our criteria for evaluation, we assessed the 10 most important trade associations in which we are active, as well as the World Economic Forum, which we joined in 2021

1. American Chemistry Council (ACC)
2. American Fuel and Petrochemical Manufacturers (AFPM)
3. BusinessEurope
4. European Chemical Industry Council (Cefic)
5. International Council of Chemical Associations (ICCA)
6. National Association of Manufacturers (NAM)
7. Plastics Europe
8. Plastics Industry Association
9. Texas Chemical Council (TCC)
10. United States Council for International Business (USCIB)
11. World Economic Forum

Key Findings

- 73% Aligned
- 0% Partial Alignment
- 9% Misaligned
- 18% No Public Position

Next Steps

- Next steps related to these findings are detailed below within the analysis of each Trade Association.

Assessment Summary

TA	Region	2022 Dues (USD)*	2022 Grade	Paris Agreement	Hydrogen/low-carbon fuels	CCUS	Emerging technologies	Renewable & low carbon electricity	Carbon pricing
American Chemistry Council (ACC)	United States	>\$5M	Aligned	●	●	●	●	●	●
American Fuel and Petrochemical Manufacturers (AFPM)	United States	\$1-2M	Misaligned	●	●	●	●	●	●
BusinessEurope	European Union	<\$100k	Aligned	●	●	●	●	●	●
European Chemical Industry Council (Cefic)	European Union	\$1-2M	Aligned	●	●	●	●	●	●
International Council of Chemical Associations (ICCA)	International	**	Aligned	●	●	●	●	●	●
National Association of Manufacturers (NAM)	United States	\$100-500k	Aligned	●	●	●	●	●	●
Plastics Europe	European Union	\$1-2M	Aligned	●	●	●	●	●	●
Plastics Industry Association	United States	<\$100k	No Public Position	●	●	●	●	●	●
Texas Chemical Council (TCC)	United States (Texas)	\$100-500k	No Public Position	●	●	●	●	●	●
United States Council for International Business (USCIB)	International	***	Aligned	●	●	●	●	●	●
World Economic Forum (WEF)	International	\$100-500k	Aligned	●	●	●	●	●	●

*Dues values are presented as an approximation within the following bands: <\$100k; \$100 - \$500k; \$500k – 1M; \$1-2M; >\$2M; >\$5M; >\$10M

** ICCA's dues are paid by the member organizations, or trade associations, that form ICCA. ICCA membership assessments are included within ACC and CEFIC's dues.

***LYB is a new member of USCIB as of 2023 and as such does not have historical dues numbers.

American Chemistry Council (ACC)

Criteria	Notes	Resources and Next Steps
Paris Agreement and net zero emissions	<p>● Aligned – ACC welcomed the US recommitment to the Paris Agreement, and has indicated support for net zero emissions economy-wide by 2050. link link</p>	<ul style="list-style-type: none"> ■ 2022 Alignment Evaluation: Aligned ■ Membership position
Hydrogen and other low-carbon fuels	<p>● Aligned – ACC supports “a national energy strategy that develops and uses America’s diverse sources, promotes energy efficiency, and encourages the development and adoption of new technologies.”</p> <p>ACC supports “government investment & scientific resources to develop & deploy lower emissions technologies in the manufacturing sector.”</p> <p>In a 2022 submission to the DOE on Industrial Decarbonization, ACC stated “a successful industrial decarbonization research agenda will need to support a diversity of solutions reflecting the diversity of the chemical sector. These include renewable and low-carbon electricity, fuels, and feedstocks, circular feedstocks (e.g., chemical recycling), process electrification, combined heat and power and other energy efficiency innovations, carbon capture, utilization, and storage (CCUS), and innovative new chemistries and materials to enable and optimize performance.”</p> <p>ACC supported the Hydrogen for Industry Act, commenting that the Act “recognizes U.S. industry’s key role in hydrogen production and technology development and how it can contribute to the hydrogen and fuel cell supply chain going forward. The grant program created by S. 3112 can help accelerate hydrogen projects that benefit our economy and environment.”</p>	<ul style="list-style-type: none"> – LyondellBasell is a member of the ACC Executive Committee, and LyondellBasell representatives sit on multiple committees. ■ Annual membership fees: >\$5 million (~\$7,950,000) ■ References <ul style="list-style-type: none"> – Countdown to Climate Summit Begins link – ACC Policy Recommendations for a Lower Emissions Future link – ACC Response to DOE on Reducing GHGs in Manufacturing link – ACC Energy link – ACC Comments for FERC link ■ Next steps <ul style="list-style-type: none"> – LyondellBasell will continue to remain a member of ACC, while engaging the association on climate and energy transition topics, and will continue to track alignment between ACC’s climate and energy transition positions and our own.
CCUS	<p>● Aligned – ACC supports CCUS, stating it “will be important to mitigate the carbon intensity of heavy manufacturing, including chemical production.”</p>	
Emerging technologies	<p>● Aligned – In a 2022 submission to the DOE on Industrial Decarbonization Priorities, ACC identified electrification as an option for decarbonization and stated that “new low or no-emissions energy sources, and electrification of chemical manufacturing processes hold promise, but these technologies are still in the development stage.”</p> <p>ACC supports “government investment & scientific resources to develop & deploy lower emissions technologies in the manufacturing sector.”</p> <p>ACC “encourages the adoption of emissions-avoiding solutions & technologies to reduce emissions throughout the economy to achieve significant emissions savings.”</p>	
Renewable and low-carbon electricity	<p>● Aligned – ACC supports “a national energy strategy that develops and uses America’s diverse sources, promotes energy efficiency, and encourages the development and adoption of new technologies.”</p> <p>“Multiple new technologies & game-changing breakthroughs will be needed for lower emissions manufacturing: Low- or no-emissions sources of electricity including new nuclear energy sources and expanded renewable energy generation.”</p>	
Carbon pricing	<p>● Aligned – ACC supports a price on carbon, including carbon border adjustments.</p>	

American Fuel and Petrochemical Manufacturers (AFPM)

Criteria	Notes	Resources and Next Steps
<p>Paris Agreement and net zero emissions</p>	<ul style="list-style-type: none"> ● Misaligned – On their website, AFPM states support for “the aspiration of the Paris Accord to address climate change through global cooperation and greenhouse gas emissions reductions” but does not specify support for the goals of the Agreement to limit global temperature rise to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5°C. <p>In their 2022 Annual Report, AFPM describes its “Climate Change Principles” as follows:</p> <p>AFPM is committed to engaging in the discussion and development of sound climate change policies that are:</p> <ul style="list-style-type: none"> ▮ Balanced and measured to improve quality of life, ensuring the long-term economic, energy and environmental needs of humanity are met; ▮ Protective of U.S. competitiveness and prevent the shifting of production, jobs and emissions from the United States to other countries; ▮ Harmonized, preemptive and economy-wide; ▮ Simple and transparent; and ▮ Achievable and flexible to adjust, as necessary.” (pg. 49) <p>AFPM’s climate change principles go on to state that its members are “further committed to: Delivering affordable, reliable fuel.”</p> <p>AFPM has no stated position on net-zero emissions, but is opposed to EV mandates and bans that would impact their refining members. AFPM is leading litigation efforts to oppose federal and state laws/regulations designed to reduced GHG emissions from the transportation sector by supporting zero emissions vehicles, which play a key role in the U.S. meeting its climate targets. AFPM has stated the importance that liquid fuels will play for years to come, the importance of consumer choice, and evaluating the GHG impacts of all aspects of vehicles including batteries and semiconductors.</p>	<ul style="list-style-type: none"> ▮ 2022 Alignment Evaluation: Misaligned ▮ Membership position <ul style="list-style-type: none"> – LyondellBasell is a member of the AFPM Board of Directors, and LyondellBasell representatives sit on multiple committees. ▮ Annual membership fees: \$1-2 million (~\$1,300,000) ▮ References <ul style="list-style-type: none"> – Climate link – Zero emissions vehicles link link – 2022 AFPM Annual Report link – 2021 AFPM Sustainability Report link – AFPM opposes the Inflation Reduction Act (IRA) link – AFPM on Low Carbon Fuel Standards link – Carbon reduction link – 2023 AFPM Sustainability Report link ▮ Next steps <ul style="list-style-type: none"> – As with all of our trade association memberships, LyondellBasell will continue to evaluate our membership in AFPM. We commit to engaging the association on climate and energy transition topics and will continue to track alignment between AFPM’s climate and energy transition positions and our own.
<p>Hydrogen and other low-carbon fuels</p>	<ul style="list-style-type: none"> ● Partially Aligned – AFPM has not taken a public advocacy position for or against hydrogen or other low carbon fuels as a way to support industrial decarbonization, ut they opposed parts of the Inflation Reduction Act, which provides a source of funding to incentivize and accelerate investment in hydrogen. 	
<p>CCUS</p>	<ul style="list-style-type: none"> ● Partially Aligned – AFPM supports CCUS and states “carbon capture is a critical technology to pave the way to a lower carbon energy future. We are supportive of tax credits for carbon capture technologies – specifically the 45Q tax credit for carbon capture technologies – because these technologies are an essential pathway for reducing the carbon intensity of energy and industrial systems. We are working with Congress on other policies to activate, expand and fully realize the benefits of this innovative technology.” (pg. 38) (pg. 9) <p>“Carbon capture technology is critical to paving the way to a lower-carbon energy future. AFPM is supportive of tax credits for carbon capture technologies – specifically the 45Q tax credit for carbon capture technologies – because these technologies are an essential pathway for reducing the carbon intensity of energy and industrial systems. We are working with policymakers on other policies to activate, expand and fully realize the benefits of this innovative technology.” (pg. 43)</p> <p>However, AFPM did go on the record opposing the Inflation Reduction Act, which provides a source of finding to incentivize and accelerate investment in CCUS, although this was not a piece of the legislation they appeared to be opposed to.</p>	
<p>Emerging technologies</p>	<ul style="list-style-type: none"> ● No public position – AFPM does not appear to specifically advocate for or against the need to support emerging technologies to reduce GHG emissions from petrochemical operations. However, they opposed the Inflation Reduction Act, which provided a source of funding to incentivize and accelerate investment in emerging technologies for industrial decarbonization. 	
<p>Renewable and low-carbon electricity</p>	<ul style="list-style-type: none"> ● No public position – AFPM does not appear to advocate directly for or against the development of renewable electricity sources and necessary grid capacity. 	
<p>Carbon pricing</p>	<ul style="list-style-type: none"> ● No public position – AFPM does not appear to take direct positions related to carbon pricing, but has stated that they are open to the concept of carbon pricing, stressing that the details of any proposal are critical. link 	

BusinessEurope

Criteria	Notes	Resources and Next Steps
Paris Agreement and net zero emissions	<p>● Aligned – “Climate change is a global challenge that requires global actions. BusinessEurope is committed to and aware of the challenges that climate change presents as well as the impacts of human activities. This is why we highly welcomed the Paris Agreement, which reflects the long-term objective of limiting global warming below 2°C.”</p>	<p>■ 2022 Alignment Evaluation: Aligned</p> <p>■ Membership position</p> <ul style="list-style-type: none"> – LyondellBasell is a member of the Corporate Advisory and Support Group and sits on a number of committees.
Hydrogen and other low-carbon fuels	<p>● Aligned – “BusinessEurope supports the European Green Deal and the EU’s ambition to become the first climate neutral continent by 2050. To make such a radical transformation successful, policymakers must ensure that the right framework conditions are in place across the EU to promote a competitive economic environment and enable investments in low-carbon technologies. The EU ETS has a key role to play in this respect. We have consistently supported the system and firmly believe that it should remain the main driver for the European industry and the power and aviation sectors to reduce greenhouse gas emissions in a market-based and cost-effective manner while maintaining our competitiveness on a global scale.”</p> <p>“Other sources of energy, including hydrogen, biogas or synthetic fuels, sustainable biomass (heat and feedstock) and biofuels will play an important role in decarbonising parts of the economy that cannot be easily electrified.”</p>	<p>■ Annual membership fees: \$<100k (\$36,000)</p> <p>■ References</p> <ul style="list-style-type: none"> – Climate – Revision of EU ETS – Views on competitive energy/ climate strategy
CCUS	<p>● Aligned – “Carbon capture utilisation and storage (CCU and CCS) technologies are indispensable to tackle process emissions in any GHG abatement scenario that envisages GHG reductions of more than 80%.”</p>	<p>■ Next steps</p> <ul style="list-style-type: none"> – LyondellBasell will continue to remain a member of BusinessEurope, while engaging the association on climate and energy transition topics, and will continue to track alignment between BusinessEurope’s climate and energy transition positions and our own.
Emerging technologies	<p>● Aligned – “BusinessEurope is fully committed to implementation of the [Paris] Agreement, and the companies it represents invest billions in low-carbon innovation, as well as in the development and deployment of low-carbon technologies for the future.”</p> <p>“To keep industrial production in Europe, companies will have to invest and innovate significantly. Therefore, Europe needs a comprehensive industrial strategy enabling companies to do so. This includes greater flexibility for public-private partnerships, state aid and other political decisions that reduce costs and determine the magnitude of private investments that will flow into Europe.”</p>	
Renewable and low-carbon electricity	<p>● Aligned – “Electrification has the potential to serve up to 50-62% of the decarbonisation effort of Europe’s economy. A climate-friendly, cost-competitive power sector is therefore a prerequisite for decarbonisation efforts in buildings, transport and industry.”</p>	
Carbon pricing	<p>● Aligned – “Ideally, all major economies converge their climate ambitions and aim for climate neutrality by around mid-century in order to comply with the Paris Agreement. This includes the introduction of carbon pricing mechanisms worldwide (an agreement on Article 6 under the Paris Agreement’s Rulebook on carbon markets should therefore be concluded no later than 2019-2020). Preferably, each carbon pricing mechanism should be harmonised over time to create a global carbon price. This would create a global level playing field, and make discussions about investment and carbon leakage less relevant.”</p>	

European Chemical Industry Council (Cefic)

Criteria	Notes	Resources and Next Steps
Paris Agreement and net zero emissions	<ul style="list-style-type: none"> ● Aligned – Cefic supports the goals of the Paris Agreement. Cefic also supports the Green Deal and Europe’s ambition to be climate neutral by 2050. Cefic states that the European chemical industry has the ambition to become climate neutral by 2050. 	<ul style="list-style-type: none"> ■ 2022 Alignment Evaluation: Aligned ■ Membership position
Hydrogen and other low-carbon fuels	<ul style="list-style-type: none"> ● Aligned – Cefic Director General Marco Mensink stated that “switching to renewable power and hydrogen is one of the main solutions for the chemical industry to significantly reduce emissions” and “enable the transition to a lower industrial carbon footprint.” <p>In 2022, Cefic stated “support [for] the EU plans to accelerate the clean energy transition.”</p> <p>In a 2022 position paper on the Gas Directive and Gas Regulation, Cefic “welcomes the Commission ambition to develop both a competitive hydrogen market and a renewable and low-carbon gas market in the EU” and states “to achieve the broader Union objective of climate-neutrality by 2050, large volumes of competitively priced renewable & low-carbon energy and feedstock are an essential pre-condition, working in conjunction with an enabling regulatory framework and the deployment of breakthrough technologies.”</p>	<ul style="list-style-type: none"> – LyondellBasell is a member of the Board and a Permanent Guest of the Executive Committee. LyondellBasell representatives sit on multiple committees. ■ Annual membership fees: \$1-2 million (~\$1,350,000)
CCUS	<ul style="list-style-type: none"> ● Aligned – Cefic has stated that carbon capture and storage “can contribute to meeting Paris Agreement GHG emission ambition” and has stated that CCUS “needs to be incentivized.” <p>In a 2022 statement, Cefic stated: “Technologies such as Carbon Capture and Utilization (CCU), which capture CO₂ straight from industrial processes, are vital for our industry to reduce emissions and will reduce the need for carbon removals in the future.”</p>	<ul style="list-style-type: none"> ■ References – Create Low-Carbon Economy link – Cefic supports of Green New Deal link – Welcoming “Fit for 55” link
Emerging technologies	<ul style="list-style-type: none"> ● Aligned – “Cefic and its members will focus action and foster innovation in four key areas that are critical for progressing in Sustainable Development: <ol style="list-style-type: none"> 1) Enabling the transition to a low carbon economy by: <ul style="list-style-type: none"> ■ promoting innovation and stimulation of breakthrough technologies development in energy efficient chemicals processes ■ offering market solutions consistent with low carbon requirements ■ fostering the development and use of sustainable and renewable raw materials ■ fostering the use of sustainable and renewable energy and raw materials with focus on cost and accessibility ■ innovating for chemical energy storage ■ developing fuels and building blocks built on CO₂ 2) Driving resource efficiency across global value chains and in our operations by: <ul style="list-style-type: none"> ■ designing sustainable solutions needing fewer resources over the entire life cycle and allowing easy reuse and recycling ■ maximizing material recovery and reuse 3) Promoting adoption of Circular Economy principles to prevent waste and to achieve a low carbon economy and enhance resource efficiency 4) Preventing harm to humans and the environment throughout the entire life cycle by: <ul style="list-style-type: none"> ■ mitigating risks, including assessment of substitutes ■ promoting uptake of safe substances, materials and solutions ■ minimizing negative environmental impacts on biodiversity and ecosystems. ■ facilitating reuse, recycling and recovery with steady information flows on products” <p>– Also, Cefic has published several positions on carbon-reducing technologies. The most recent paper is on the Net Zero Industry Act: Fact Sheet (cefic.org)</p>	<ul style="list-style-type: none"> – CCS can contribute to meeting Paris ambitions link – CCS needs to be incentivized link – How Can The Chemical Industry Help Europe Transition To Climate Neutrality link – REPowerEU Action Plan link – Developing the Cracker of the Future link – The Road to 2050 link – Cefic position paper Gas Directive & Gas Regulation link – Cefic position paper on Energy Efficiency link

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European Chemical Industry Council (Cefic) – Continued

Criteria	Notes	Resources and Next Steps
Renewable and low-carbon electricity	<p>● Aligned – Cefic Director General Marco Mensink stated that “switching to renewable power and hydrogen is one of the main solutions for the chemical industry to significantly reduce emissions” and “enable the transition to a lower industrial carbon footprint.”</p> <p>In 2022, Cefic stated “support [for] the EU plans to accelerate the clean energy transition.”</p> <p>In a 2022 position paper on the Gas Directive and Gas Regulation, Cefic “welcomes the Commission ambition to develop both a competitive hydrogen market and a renewable and low-carbon gas market in the EU” and states “to achieve the broader Union objective of climate-neutrality by 2050, large volumes of competitively priced renewable & low-carbon energy and feedstock are an essential pre-condition, working in conjunction with an enabling regulatory framework and the deployment of breakthrough technologies.”</p> <p>Cefic “supports Europe’s ambition to become climate neutral by 2050. To achieve this objective, large volumes of competitively priced renewable and low-carbon energy, breakthrough technologies and enabling frameworks for the very large investments will be required.”</p>	<p>References continued</p> <ul style="list-style-type: none"> - Cefic position paper on the Renewable Energy Directive: Fact Sheet (cefic.org) - Cefic position paper on the EU ETS Fact Sheet (cefic.org) - Cefic position on Restoring Carbon Cycles link - CEFIC Sustainability Charter <p>Next steps</p> <ul style="list-style-type: none"> - LyondellBasell will continue to remain a member of CEFIC, while engaging the association on climate and energy transition topics, and will continue to track alignment between CEFIC’s climate and energy transition positions and our own.
Carbon pricing	<p>● Aligned – Cefic supports carbon pricing and has stated support for emissions trading as a policy tool to achieve emission reductions. Fact Sheet (cefic.org)</p>	

International Council of Chemical Associations (ICCA)

Criteria	Notes	Resources and Next Steps
Paris Agreement and net zero emissions	<p>● Aligned – “ICCA, the global voice of the chemical industry, fully supports the Paris Agreement and the ambition to achieve a climate neutral world by mid-century.”</p> <p>“ICCA welcomes the pledges from chemical companies, along with local and regional associations, to work toward climate neutrality, showing the industry is already on the path to address the climate predictions of the August 2021 report from the Intergovernmental Panel on Climate Change (IPCC).”</p>	<p>■ 2022 Alignment Evaluation: Aligned</p> <p>■ Membership position</p> <ul style="list-style-type: none"> – LyondellBasell is a member of the ICCA Board of Directors, and LyondellBasell representatives sit on multiple committees. <p>■ Annual membership fees: ICCA's dues are paid by the member organizations, or trade associations, that form ICCA. ICCA membership assessments are included within ACC and CEFIC's dues.</p> <p>■ References</p> <ul style="list-style-type: none"> – Paris Agreement link link – Low-carbon / Carbon Capture link – Emerging Technologies link – Renewable and low-carbon Energy link link <p>■ Next steps</p> <ul style="list-style-type: none"> – LyondellBasell will continue to remain a member of ICCA, while engaging the association on climate and energy transition topics, and will continue to track alignment between ICCA's climate and energy transition positions and our own.
Hydrogen and other low-carbon fuels	<p>● Aligned – “Current trends in energy supply and use are unsustainable – economically, environmentally and socially. Without decisive action, energy-related emissions of carbon dioxide (CO₂) will more than double by 2050 and increased fossil energy demand will heighten concerns over the security of supplies. We can and must change our current path, but this will take an energy revolution and low-carbon energy technologies will have a crucial role to play. Energy efficiency, many types of renewable energy, carbon capture and storage (CCUS), nuclear power and new transport technologies will all require widespread deployment if we are to reach our goals to reduce greenhouse-gas (GHG) emissions.”</p>	
CCUS	<p>● Aligned – See above quote for low-carbon.</p>	
Emerging technologies	<p>● Aligned – “Economic growth, social development and climate action are heavily dependent on investments in infrastructure, sustainable industrial development and technological progress. ICCA is building resilient infrastructure, promoting inclusive and sustainable industrialization and fostering innovation.”</p>	
Renewable and low-carbon electricity	<p>● Aligned – “Burning carbon fuels produces large amounts of greenhouse gases, which cause climate change and have harmful impacts on people's well-being and the environment. ICCA is committed to ensuring access to affordable, reliable, sustainable and modern energy for all.”</p> <p>“As a significant manufacturing sector, we are continuously improving the GHG footprint of our operations to develop transformational technologies that reduce emissions, enable circularity, improve energy efficiency along the value chain, and contribute to GHG abatement in other sectors. We are increasingly using alternative and renewable feedstock sources like biomass, CO₂, residues, and waste as raw material. To implement these solutions, the global chemical industry will require low carbon energy at competitive costs and massive investments into breakthrough innovations.</p> <p>ICCA believes that a combination of technology, market-based and policy solutions are necessary to achieve climate neutrality. Internationally harmonized rules and public support will be needed to create a level-playing field for companies to sustain the additional cost of R&D investments and capital and operational expenditures. Enhanced transparency to demonstrate achieved emission reductions along the value chain will be a key contributor to a climate neutral economy.</p> <p>A strong collaboration between the whole value chain, industry, governments, stakeholders, consumers, and communities at local, regional, and global level is necessary to identify and overcome technological, economic and infrastructural challenges to the net zero future which we all aspire. All parties need to cooperate to promote an enabling and open international economic system, which contributes to the sustainable economic growth and development of all parties, especially developing countries. Sharing knowledge and providing training on sustainable operations, processes and equipment, will be indispensable in the pursuit of our common ambition.”</p>	
Carbon pricing	<p>● Aligned – See above quote.</p>	

National Association of Manufacturers (NAM)

Criteria	Notes	Resources and Next Steps
Paris Agreement and net zero emissions	<p>● Aligned – NAM states support for the goals of the Paris Agreement: “Climate change is happening. Human activities are contributing. The NAM supports the objectives of the Paris Climate Agreement to significantly reduce the risks and impacts of global climate change.” However, NAM has no stated a position on net-zero emissions by 2050.</p> <p>NAM has also stated: “A global consensus has emerged that we must restrict global temperature rise to 2 degrees Celsius above preindustrial levels and strive to limit the rise to 1.5 degrees. Either scenario will require massive reductions in GHG emissions over the next 30 years and would likely require net emissions to reach zero in the coming decades.”</p>	<ul style="list-style-type: none"> I 2022 Alignment Evaluation: Aligned I Membership position <ul style="list-style-type: none"> – LyondellBasell representatives sit on multiple committees. I Annual membership fees: \$100-500k (~\$300,000)
Hydrogen and other low-carbon fuels	<p>● Aligned – NAM “supports policies that encourage an energy mix including clean, renewable and low carbon energy resources and other power and thermal energy solutions and promote energy-efficiency measures. Many NAM members are increasingly reducing the carbon footprint of their operations and supply chain. Government should support policies and technologies that ensure the low-carbon energy manufacturers are sourcing can be reliably and affordably transmitted and delivered.”</p>	<ul style="list-style-type: none"> I References <ul style="list-style-type: none"> – NAM Policy Positions 2020 link – NAM The Promise Ahead link – NAM Competing to Win link
CCUS	<p>● Aligned – NAM has stated support for the need to “commercialize and deploy” CCUS technology.[20] NAM has stated that in order to “meet growing global energy demand and GHG reduction goals, the world must vastly ramp up the deployment of carbon, capture, use and storage technologies,” adding that the US “is well positioned to be the world leader in this emerging technology.”</p>	<ul style="list-style-type: none"> I Next steps <ul style="list-style-type: none"> – LyondellBasell will continue to remain a member of NAM, while engaging the association on climate and energy transition topics, and will continue to track alignment between NAM’s climate and energy transition positions and our own.
Emerging technologies	<p>● Aligned – NAM has stated that in order to “meet growing global energy demand and GHG reduction goals, the world must vastly ramp up the deployment of carbon, capture, use and storage technologies,” adding that the US “is well positioned to be the world leader in this emerging technology.”</p>	
Renewable and low-carbon electricity	<p>● Aligned – NAM has stated support for “policies that encourage an energy mix including clean, renewable and low carbon energy” and supports a “reliable, modern electric grid that ensures manufacturers can access reliable, affordable energy when they need it, even as policies and markets change.”</p>	
Carbon pricing	<p>● No Public Position – NAM has not stated a position on carbon pricing. Its climate change principles state that government action to address climate change should “utilize economy-wide policy options that leverage market-based options, including cost containment mechanisms and complementary sector-specific policy where appropriate.”</p> <p>NAM has also stated it “recommends Congress enact a single unified climate policy that meets science-based targets, ensures a level playing field without carbon leakage and preserves consumer choice and manufacturing competitiveness.”</p>	

PlasticsEurope

Criteria	Notes	Resources and Next Steps
<p>Paris Agreement and net zero emissions</p>	<p>● Aligned – PlasticsEurope states support for the Paris Agreement, stating “we therefore support the EU’s ambition to become climate-neutral by 2050, contributing to global climate objectives of the Paris Agreement. We will work, within our own responsibilities and competencies, towards this common ambition, which will require new technologies and an enabling policy framework. PlasticsEurope members will collaborate with all relevant stakeholders to find and implement adequate solutions aimed at helping the EU reach this objective.” link</p>	<ul style="list-style-type: none"> ■ 2022 Alignment Evaluation: Aligned ■ Membership position <ul style="list-style-type: none"> – LyondellBasell is a member of the PlasticsEurope Steering Board. LyondellBasell representatives also sit on multiple committees.
<p>Hydrogen and other low-carbon fuels</p>	<p>● Aligned – PlasticsEurope states “Increasing the use of renewable energy and electricity: the energy needs for virgin polymer production and plastics recycling will increasingly be met by renewable energy sources, including an expected higher degree of electrification and the use of hydrogen as fuel for high temperature processes. Development of electrification of upstream stages of the polymer production, such as in the crackers, is also an important step to reduce CO₂ emissions.”</p>	<ul style="list-style-type: none"> ■ Annual membership fees: \$1-2 million (\$1,450,000)
<p>CCUS</p>	<p>● Aligned – PlasticsEurope states “Carbon capture can be a useful means to manage the remaining end-of-pipe CO₂ for storage and possible utilization. Provided the adoption of an enabling policy framework, and the necessary development steps, CO₂ could also become another feedstock for plastics.”</p>	<ul style="list-style-type: none"> ■ References <ul style="list-style-type: none"> – PlasticsEurope views on EU Climate Neutrality link
<p>Emerging technologies</p>	<p>● Aligned – PlasticsEurope states “Significant technological advances and a comprehensive and well-balanced enabling policy framework will be necessary to ensure that the transformations the industry has already embarked upon become fully effective, at a level that will be a game-changer for achieving the 2050 goal. In addition to ensuring the efficient continuation of the European Emission Trading System (ETS) which may be complemented by appropriate Carbon Border Adjustment Measures in order to avoid carbon leakage while supporting the development of low-carbon technologies, this framework should allow: (a) The abundant supply of competitive renewable energy, in particular electricity; (b) The support to industrial development of currently emerging low-carbon technologies, through the mobilization of EU funds (EU recovery plan, ETS Innovation Fund, Horizon Europe program, etc.), the establishment of Important Projects of Common European Interest (IPCEI) on low- CO₂ emissions industries and the development of relevant economic tools (such as Carbon Contract for Difference); (c) The safeguarding of European industrial competitiveness, both on the domestic market and in export markets, as long as climate protection measures are taken at different pace across the planet, (d) The technological neutrality for recycling and recycled content (chemical, biologic, mechanical recycling), as well as incentives for high quality recycled content (e.g. to reduce weight in transport applications).”</p>	<ul style="list-style-type: none"> ■ Next steps <ul style="list-style-type: none"> – LyondellBasell will continue to remain a member of PlasticsEurope, while engaging the association on climate and energy transition topics and will continue to track alignment between PlasticEurope’s climate and energy transition positions and our own.
<p>Renewable and low-carbon electricity</p>	<p>● Aligned – “a comprehensive and well-balanced enabling policy framework will be necessary to ensure that the transformations the industry has already embarked upon become fully effective, at a level that will be a game-changer for achieving the 2050 goal... this framework should allow the abundant supply of competitive renewable energy, in particular electricity.”</p> <p>“PlasticsEurope members have also strived to improve energy efficiency, notably through the increasing use of Combined Heat and Power (CHP) units, providing both electricity and heat to their production processes.”</p> <p>“To accelerate the transition to EU’s climate neutrality by 2050, next to enhancing energy and resource efficiency, the plastics industry is already stepping up its efforts to further reduce GHG emissions in the production phase.”</p>	
<p>Carbon pricing</p>	<p>● Aligned – PlasticsEurope supports the European Emission Trading System (ETS) and states it may “be complemented by appropriate Carbon Border Adjustment Measures in order to avoid carbon leakage while supporting the development of low-carbon technologies.”</p>	

Plastics Industry Association

Criteria	Notes	Resources and Next Steps
Paris Agreement and net zero emissions	<ul style="list-style-type: none"> ● No Public Position – Though notable that Plastics has a Zero Net Waste (ZNW) program which recognizes companies that take steps to drive toward zero net waste in manufacturing. link 	<ul style="list-style-type: none"> 2022 Alignment Evaluation: No Public Position Membership position <ul style="list-style-type: none"> - LyondellBasell is a member of the Sustainability Advisory Board, and LyondellBasell representatives sit on multiple committees, including as Vice-Chair of the Public Policy Committee. Annual membership fees: \$<100k (\$50,000) References <ul style="list-style-type: none"> - Renewable Energy: link Next steps <ul style="list-style-type: none"> - LyondellBasell will continue to remain a member of the Plastics Industry Association (Plastics), while engaging the association on climate and energy transition topics and will advocate to re-initiate the activities of the Sustainability Advisory Board in order to ensure clarity on climate positions by this trade association.
Hydrogen and other low-carbon fuels	<ul style="list-style-type: none"> ● No Public Position 	
CCUS	<ul style="list-style-type: none"> ● No Public Position 	
Emerging technologies	<ul style="list-style-type: none"> ● No Public Position 	
Renewable and low-carbon electricity	<ul style="list-style-type: none"> ● Aligned – “The Plastics Industry Association encourages all companies engaged in plastics manufacturing to make sustainability a guiding principle at all levels of operation. Sustainable plastic manufacturing conducts business in a way that seeks to drive value creation for society, the environment, and the industry. It also strives for improvement to reduce impacts on natural resources, minimizing waste generation, and shifting toward renewable energy options; all of which reduces greenhouse gas impacts. Efforts should be guided by scientific data that measures the impacts of the many lifecycle stages of plastic products, consistent with the values of Sustainable Materials Management, and strive to keep materials in circularity for remanufacturing whenever it yields the greatest environmental benefit. These activities should be measured and reported with integrity and transparency.” 	
Carbon pricing	<ul style="list-style-type: none"> ● No Public Position 	

* PLASTICS created a “Sustainability Advisory Board” to be made up of representatives from all segments of the supply chain and interested specific end markets who act as a steering committee, guiding the association’s sustainability work. PLASTICS notes that this group will prioritize opportunities, steer projects across the broader organization, and ensure the success of efforts are measurable so the industry’s environmental and societal impacts are understood. Members will serve as liaisons to communicate sustainability priorities throughout the organization to provide clear direction and ensure sustainability efforts are effectively and successfully implemented. However, the activities of this Board were temporarily paused due to restructuring with a note to check back in 2022. As of April 2023, no further information was provided. [link](#)

Texas Chemical Council

Criteria	Notes	Resources and Next Steps
Paris Agreement and net zero emissions	<ul style="list-style-type: none"> ● No Public Position 	<ul style="list-style-type: none"> 2022 Alignment Evaluation: No Public Position Membership position <ul style="list-style-type: none"> - LyondellBasell is a member of the TCC Board of Directors, and LyondellBasell representatives sit on multiple committees.
Hydrogen and other low-carbon fuels	<ul style="list-style-type: none"> ● No Public Position 	<ul style="list-style-type: none"> Annual membership fees: \$100-500k (~\$300,000)
CCUS	<ul style="list-style-type: none"> ● No Public Position 	<ul style="list-style-type: none"> References <ul style="list-style-type: none"> - link Next steps <ul style="list-style-type: none"> - Based on a review of publicly-available information, TCC has not taken a public position on any matter related to Paris or climate criteria. TCC represents 70 member companies and over 200 manufacturing and research facilities across Texas. LYB will encourage TCC to take public positions on climate issues.
Emerging technologies	<ul style="list-style-type: none"> ● No Public Position 	
Renewable and low-carbon electricity	<ul style="list-style-type: none"> ● No Public Position 	
Carbon pricing	<ul style="list-style-type: none"> ● No Public Position 	

United States Council for International Business (USCIB)

Criteria	Notes	Resources and Next Steps
Paris Agreement and net zero emissions	<p>● Aligned – “Encourage the US to stay actively involved in the UN climate treaty, and to remain in the Paris Agreement, to defend and advance US economic interests, and to fight against proposals that would undermine US competitiveness, or block business involvement in the UNFCCC.”</p> <p>“The United States Council for International Business (USCIB) sees COP26 as an opportunity to launch a new chapter in the UN Framework Convention on Climate Change (UNFCCC) and its Paris Agreement, and USCIB and its members are ready to be part of this transformative next step in the journey of international cooperation to global net zero and shared prosperity in line with the SDGs.”</p>	<p>■ 2022 Alignment Evaluation: Aligned</p> <p>■ Membership position</p> <ul style="list-style-type: none"> – LyondellBasell is a member of USCIB. <p>■ Annual membership fees: New member</p>
Hydrogen and other low-carbon fuels	<p>● Aligned – “Achieving the goals of the Paris Agreement will require a major shift in investment away from traditional fossil fuel based energy intensive goods and services towards smarter, cleaner low carbon business models. To ensure that the objective of keeping global temperature increases well below 2°C remains possible and can be done in a way that minimizes economic disruption, this shift will have to happen immediately.”</p> <p>“USCIB supports efforts at the WTO to revitalize negotiations to liberalize trade in environmental and low-carbon goods and services.”</p>	<p>■ References</p> <ul style="list-style-type: none"> – Paris: link link – Low Carbon: link link – Carbon Capture: link – Emerging Technologies: link – Renewables: link – Carbon Pricing : link
CCUS	<p>● Aligned – “The United States Council for International Business (USCIB) sees COP26 as an opportunity to launch a new chapter in the UN Framework Convention on Climate Change (UNFCCC) and its Paris Agreement, and USCIB and its members are ready to be part of this transformative next step in the journey of international cooperation to global net zero and shared prosperity in line with the SDGs. American companies are committed to continuing to research and innovate, to invest in technologies including carbon capture and storage, and to deploy natural climate solutions in the pursuit of a sustainable resilient recovery.”</p>	<p>■ Next steps</p> <ul style="list-style-type: none"> – LyondellBasell will continue to remain a member of the USCIB, while engaging the association on climate and energy transition topics, and will continue to track alignment between USCIB’s climate and energy transition positions and our own.
Emerging technologies	<p>● Aligned – “Encourage integration of international energy policy issues across other policy areas: promoting enabling frameworks to encourage investment and innovation while promoting more sustainable and environmentally friendly development and commercial activity.”</p>	
Renewable and low-carbon electricity	<p>● Aligned – “Promote global energy systems that allow U.S. companies to compete and flourish, to develop and disseminate more sustainable and efficient energy systems and technologies and to manage and improve energy use, conservation and environmental/social impacts, in line with SDG7.”</p> <p>“Advocates for appropriate regulatory frameworks to protect investments in green technology and deploy technology through trade and commercial transactions.”</p>	
Carbon pricing	<p>● Aligned – “Carbon pricing is an important, but not the only, market-based climate policy tool. Countries have unique economic and energy circumstances and goals, so any such pricing at the international level needs to reflect those realities.”</p>	

*“USCIB formulates its influential positions in policy committees composed of business experts drawn from its membership of 300 global corporations, professional firms and industry associations. We advocate these positions to the U.S. government and to intergovernmental organizations with which our international affiliates have official consultative status on behalf of world business.” The Climate Change and Energy Committee supports the UN Framework Convention on Climate Change and represents American business interests at global climate negotiations. [link](#)

World Economic Forum

Criteria	Notes	Resources and Next Steps
<p>Paris Agreement and net zero emissions</p>	<p>● Aligned – “To limit global temperature rise to well below 2°C and as close as possible to 1.5°C above pre-industrial levels, it is essential that businesses, policy-makers, and civil society advance comprehensive near- and long-term climate actions in line with the goals of the Paris Agreement on climate change.”</p> <p>“The Global Future Council on Net-Zero Transition will focus on delivering a framework for business leaders to follow including case studies on credible corporate roadmaps to deliver net zero that incorporate an industry transition alongside Natural Climate Solutions; it will also examine the practicalities of developing a common set of metrics on net zero that can be integrated into Corporate Governance models as well as ESG principles.”</p>	<ul style="list-style-type: none"> ■ 2022 Alignment Evaluation: Aligned ■ Membership position <ul style="list-style-type: none"> – LyondellBasell is an associate partner of the World Economic Forum. ■ Annual membership fees: \$100-500k (~\$300,000)
<p>Hydrogen and other low-carbon fuels</p>	<p>● Aligned – The World Economic Forum formed the Low-Carbon Emitting Technologies initiative in 2021. This initiative is a first of its kind collaboration of climate action champions in the chemical industry, and LyondellBasell is a member.</p> <p>The initiative seeks to enable a pathway to net-zero emissions by:</p> <ul style="list-style-type: none"> ■ Addressing technology, regulatory, funding, and market challenges to decarbonization ■ Collaborating with and beyond the industry to increase the maturity of low-carbon emitting technologies ■ Developing real-life projects to transform traditional operating models in key value chains into net-zero production methodologies. ■ Combination of electrification and renewable feedstock within alternative hydrogen production via electrolysis. <p>The WEF created the Low-Carbon Emitting Technology Initiative to assist industry and policy makers in the continued development of a decarbonization-promoting policy landscape: “The chemical industry provides essential materials, technologies and components to all goods-producing industrial sectors and as such has a vital role in the transition towards a global net-zero society. Low-carbon emitting technologies (LCETs) are essential building blocks in this net-zero endeavour. While LCETs offer significant decarbonization opportunities, they face various challenges and depend strongly on favourable policy environments.”</p> <p>The WEF created the Low-Carbon Emitting Technology Initiative to assist industry and policy makers in the continued development of a decarbonization-promoting policy landscape: “The chemical industry provides essential materials, technologies and components to all goods-producing industrial sectors and as such has a vital role in the transition towards a global net-zero society. Low-carbon emitting technologies (LCETs) are essential building blocks in this net-zero endeavour. While LCETs offer significant decarbonization opportunities, they face various challenges and depend strongly on favourable policy environments.”</p> <p>See also, below quote in CCUS on Hydrogen.</p>	<ul style="list-style-type: none"> ■ References <ul style="list-style-type: none"> – Paris link – Net Zero link – Low Carbon link link – Infrastructure: link – Energy Efficiency/ Carbon Reduction link – Carbon Pricing link ■ Next steps <ul style="list-style-type: none"> – LyondellBasell will continue to remain a member of the World Economic Forum (WEF), while engaging the association on climate and energy transition topics and will continue to track alignment between WEF’s climate and energy transition positions and our own.
<p>CCUS</p>	<p>● Aligned – “The demand for chemicals and materials will likely quadruple by 2050 compared to 2010 levels. Unfortunately, the established ways of reducing emissions – by continual, incremental process improvements, which are the first choice in CO₂ abatement, or, often, through internal cost optimization toolboxes – will not suffice to achieve net-zero. A holistic approach to emissions reduction using a variety of technologies is required. Immediate actions are needed by the chemical industry to combat climate change. Achieving net-zero by 2050, though, will not be a sudden switch; rather, it will follow a steady pathway of relevant technology development and deployment. New building blocks to be created and implemented along this pathway (not in order of action or significance) are as follows:</p> <ul style="list-style-type: none"> ■ Use of renewable feedstock by increasing circularity via improved waste processing. ■ Carbon capture use and storage (CCUS) and CO₂ sequestration via reforestation. <p>Some of these technologies, such as carbon capture and storage (CCS) and blue hydrogen (see below), play a critical and very important role for the transition towards long-term carbon neutral solutions.” (pg. 13)</p>	

Continued on next page

World Economic Forum – Continued

Criteria	Notes	
Emerging technologies	<p>● Aligned – “A transition of energy, materials, and infrastructure is needed in the next two decades to keep global temperature increases below 1.5 degrees while ensuring the energy future is affordable, secure and inclusive. New trends and technologies are changing energy production, delivery and consumption. In parallel, world demand for raw materials could double by 2060. Getting on track to net-zero emissions by 2050 will require annual investment in clean energy infrastructure to reach nearly \$4 trillion by 2030.”</p>	
Renewable and low-carbon electricity	<p>● Aligned – “A transition of energy, materials, and infrastructure is needed in the next two decades to keep global temperature increases below 1.5 degrees while ensuring the energy future is affordable, secure and inclusive. New trends and technologies are changing energy production, delivery and consumption. In parallel, world demand for raw materials could double by 2060. Getting on track to net-zero emissions by 2050 will require annual investment in clean energy infrastructure to reach nearly \$4 trillion by 2030.”</p>	
Carbon pricing	<p>● Aligned – “Carbon pricing can be a powerful tool in the fight to limit global warming and shift from fossil fuels to cleaner alternatives. In the long-term, carbon pricing would pay for itself many times over by avoiding the economic costs of the potentially devastating effects of climate change. In the short-term, the revenues from carbon pricing can be used to ensure support to regions and groups impacted by the net zero transition.”</p>	

FORWARD-LOOKING STATEMENTS

The statements herein relating to matters that are not historical facts are forward-looking statements. These forward-looking statements are based upon assumptions of management of LyondellBasell which are believed to be reasonable at the time made and are subject to significant risks and uncertainties. When used herein, the words “estimate,” “believe,” “continue,” “could,” “intend,” “may,” “plan,” “potential,” “predict,” “should,” “will,” “expect,” and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain such identifying words. Actual results could differ materially based on factors including, but not limited to, market conditions, the business cyclical nature of the chemical, polymers and refining industries; the availability, cost and price volatility of raw materials and utilities, particularly the cost of oil, natural gas, and associated natural gas liquids; competitive product and pricing pressures; labor conditions; our ability to attract and retain key personnel; operating interruptions (including leaks, explosions, fires, weather-related incidents, mechanical failure, unscheduled downtime, supplier disruptions, labor shortages, strikes, work stoppages or other labor difficulties, transportation interruptions, spills and releases and other environmental risks); the supply/demand balances for our and our joint ventures’ products, and the related effects of industry production capacities and operating rates; our ability to manage costs; future financial and operating results; benefits and synergies of any proposed transactions and our ability to align our assets with our core; legal and environmental proceedings; tax rulings, consequences or proceedings; technological developments, and our ability to develop new products and process technologies; our ability to meet our sustainability goals, including the ability to operate safely, increase production of recycled and renewable-based polymers to meet our targets and forecasts, and reduce our emissions and achieve net zero emissions by the time set in our goals; our ability to procure energy from renewable sources; our ability to build a profitable Circular & Low Carbon Solutions business; the successful shut down and closure of the Houston Refinery, including within the expected timeframe; potential governmental regulatory actions; political unrest and terrorist acts; risks and uncertainties posed by international operations, including foreign currency fluctuations; and our ability to comply with debt covenants and to repay our debt. Additional factors that could cause results to differ materially from those described in the forward-looking statements can be found in the “Risk Factors” section of our Form 10-K for the year ended December 31, 2022, which can be found at www.LyondellBasell.com on the Investor Relations page and on the Securities and Exchange Commission’s website at www.sec.gov. There is no assurance that any of the actions, events or results of the forward-looking statements will occur, or if any of them do, what impact they will have on our results of operations or financial condition. Forward-looking statements speak only as of the date they were made and are based on the estimates and opinions of management of LyondellBasell at the time the statements are made. LyondellBasell does not assume any obligation to update forward-looking statements should circumstances or management’s estimates or opinions change, except as required by law.



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