

# LYONDELLBASELL PRINCIPLES FOR PUBLIC POLICY



lyondellbasell  
*Advancing Possible*

# OVERVIEW

LyondellBasell's global "Principles for Public Policy" describes our approach to addressing some of the world's biggest challenges while preserving competitiveness and enhancing the myriad of societal benefits provided by the plastics, chemicals and materials produced by our industry. To be most effective in supporting a transition to a more sustainable world, we believe that public policy must:

- Be based on sound science
  - Provide certainty for long-term investment decisions
  - Encourage a level, competitive playing field
  - Eliminate redundant, overlapping or outdated requirements
  - Ensure benefits far outweigh the cost
  - Protect jobs
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# PRINCIPLES FOR PUBLIC POLICY AT A GLANCE:



## To End Plastic Waste in the Environment we support efforts to:

- Increase the reuse and recycling of plastic waste
- Advance waste management systems, infrastructure and recycling standards
- Better educate consumers about options for post-use plastics
- Better understand the health and environmental impacts of microplastics



## To Advance the Circular Economy we support efforts to:

- Incentivize the introduction of new recycling technologies to complement existing mechanical recycling technologies
- Encourage the production and adoption of circular products
- Ensure reliable feedstock for use in circular products



## To Address Climate Change we support efforts to:

- Implement a global price on carbon to facilitate the transition to a net zero economy
- Promote renewable and clean energy development
- Deploy infrastructure to mitigate the impact of climate change
- Reward investment in carbon-reducing technologies
- Expand research and development on carbon-reducing technologies



## To Grow Sustainable Solutions we support efforts to:

- Expand tax incentives for research, development and scaling of viable technologies
- Provide adequate funding to public sector research and development programs
- Ensure the availability of third-party financing for research and development efforts
- Establish common definitions for “sustainable products”
- Encourage public / private partnerships



## To Enhance Workplace, Operations and Communities we support efforts to:

- Ensure the safe use of chemicals
- Ensure the availability of feedstock
- Ensure a stable and predictable regulatory framework for our operations
- Promote a diverse, educated and skilled workforce

# ENDING PLASTIC WASTE IN THE ENVIRONMENT



*We believe that ending plastic waste in the environment is a critical issue of our time. We are committed to helping eliminate plastic waste and are engaged in collaborative efforts across the value-chain to direct action where it is needed most.*

## Overview

Across the world, plastics improve our quality of life and play a critical role in advancing a wide range of sustainability efforts. From helping to reduce emissions through the light weighting of vehicles; addressing food waste and hunger through packaging; ensuring the safety and purity of water supplies through plastic piping systems; improving critical healthcare products; and, improving the energy efficiency of buildings, plastics play a vital role in addressing all of these challenges.

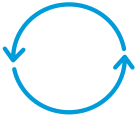
Yet, today, our world faces a large and growing problem in the form of plastic waste in the environment. We believe that finding solutions to this challenge requires collaboration from all parts of the value chain, new partnerships between industry, governments and NGOs and focused innovation. LyondellBasell is committed to playing an active role in helping to address this critically important challenge for our planet.

## Our policy principles:

On a global basis, LyondellBasell supports a variety of efforts to prevent plastic from entering the environment. LyondellBasell supports efforts to:

- 1. Increase the reuse and recycling of plastic waste:** LyondellBasell supports industry commitments to ensure 100 percent of plastic packaging is reused, recycled and / or recovered by 2040.
  - 2. Advance waste management systems, infrastructure and recycling standards:** LyondellBasell supports policy efforts designed to further develop and integrate global and local waste management systems and infrastructure. We support the harmonization of disparate local recycling standards, definitions, procedures and processes into simpler, more streamlined national and international recycling frameworks.
  - 3. Better educate consumers about options for post-use plastics:** LyondellBasell supports policies that support efforts to reduce plastic waste and litter by enhancing consumers' understanding of responsible recycling or disposal options.
  - 4. Better understand the health and environmental impacts of microplastics:** While recent scientific studies indicate that microplastics do not present a threat to health, LyondellBasell supports further study and evaluation of the various sources and effects of microplastics.
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# ADVANCING THE CIRCULAR ECONOMY



*We believe that transitioning to a circular economy will reduce resource use and enable a more sustainable future. We are advancing technologies and innovations that will help conserve finite resources and retain their value for as long as possible.*

## Overview

Over the past several decades, our world has in many ways changed for the better. The share of the population living in extreme poverty has declined significantly and hunger rates continue to fall. At the same time, average lifespans have risen and the population has continued to grow. This confluence of factors has resulted in unprecedented and growing demand on the earth's resources. For example, in 2019, global consumption of materials was more than three times the amount consumed in 1970. By 2050, some experts predict that resource use may double.

This rising demand for resources has significantly elevated the discussion of and desire to transition to a more circular economy. If implemented in a collaborative, step-wise manner, we believe this effort has the potential to unlock additional value from existing materials, stimulate economic activity through the creation of new business models, reduce consumption of raw materials while satisfying consumer demands and meeting all regulatory requirements.

## Our policy principles:

LyondellBasell supports the ambition and efforts to advance a circular economy. We are committed to working with governments and other stakeholders to create a modern, resource and energy efficient economy. LyondellBasell supports efforts to:

- 1. Incentivize the introduction of new recycling technologies to complement existing mechanical recycling technologies:** LyondellBasell supports policies and incentives for new recycling technologies that enable further circularity of products and plastic waste.
  - 2. Encourage the production and adoption of circular products:** LyondellBasell supports a variety of efforts to further incentivize and provide preferred status for more circular products. We support policies that establish standards and targets for the use of recycled plastic in products; regionally appropriate efforts to reduce the amount of plastic disposed of in landfills; and, requirements for the plastic value chain to contribute toward the cost of recycling infrastructure and education.
  - 3. Ensure reliable feedstock for use in circular products:** LyondellBasell supports policy efforts that enhance the ability to reliably access plastic waste, as well as renewable resources, that can be reprocessed into feedstock for circular products.
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# ADDRESSING CLIMATE CHANGE



*We believe that climate change is one of the most important global challenges both now and for future generations. We support the ambitions of the Paris Agreement and are reducing greenhouse gas emissions intensity from our operations to deliver solutions that help advance a low-carbon economy.*

## Overview

There is near-universal consensus that the earth's climate is changing. Since the late 19th century, the average surface temperature of the earth has risen by about 1.62 degrees (0.9 degrees Celsius) with the majority of warming taking place in the past 35 years. Scientists have witnessed warming oceans, declining arctic sea ice, decreased snow cover, sea level rise and a dramatic rise in extreme weather events.

There is wide agreement that this change is, in some part, influenced by human activity. NASA indicates that the earth's current warming trend "is of particular significance because most of it is extremely likely (greater than 95 percent probability) to be the result of human activity since the mid-20th century..."

Addressing climate change is one of the world's most urgent global challenges. As such, we support the ambitions of the Paris Climate Agreement and the goal of limiting global warming to well-below 2 degrees Celsius. To do so, LyondellBasell has established an ambition of achieving net zero emissions from global operations by 2050 and an absolute emissions reduction of 30 percent by 2030 (relative to 2020 levels).

## Our policy principles:

Achieving a net zero economy will require action by companies, industries and governments. We believe sound public policy plays an important role in the achievement of our global climate ambitions, but must avoid mandating particular solutions while creating a level playing field upon which individual countries, sectors of the economy and industries can compete. We are committed to working collaboratively with our stakeholders to develop sound public policy in the following areas:

**1. 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 carbon tax or cap-and-trade programs. We believe that any carbon pricing policy should be carefully crafted to:

- I Provide certainty for long-term investment:** Capital-intensive industrial and manufacturing companies make long-range investment decisions that consider a number of factors, including regulatory certainty. Carbon pricing schemes should provide a clear and transparent framework that allows companies to plan against typical investment horizons and continue to meet shareholder expectations.
  - I Avoid duplicative regulation:** Carbon pricing policies should preempt and eliminate overlap with existing or duplicative regulations. We believe that carbon pricing should only be applied to quantifiable GHG emissions and should not apply to carbon embedded in manufactured products.
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- I **Ensure harmonization with other relevant policies:** To ensure maximum benefit, carbon pricing programs should be harmonized with other energy and environmental policies. To create certainty around a carbon price, we believe the most effective approach to be economy-wide and include a clear, transparent criteria for measuring, reporting and verifying mitigation progress.
  - I **Prevent carbon leakage:** To ensure a level playing field, we support a global pricing system and associated enforcement mechanisms as a longer-term goal. Until a global pricing system is in place, we support policies that discourage the shifting of GHG-generating production to geographies with less stringent constraints. In our view, doing so does not address the broader goal of lowering GHG emissions at a global level.
  - I **Ensure revenues are used for society's benefit:** Revenues derived from carbon pricing should be applied to initiatives that advance society's interests. In particular, we support proposals that directly apply revenues to infrastructure to mitigate the impacts of climate change, investments in R&D for low carbon technology development or worker retraining programs.
- 2. Renewables and clean energy development:** LyondellBasell supports policies that encourage the further development of affordable, reliable renewable energy and baseload generation from other non-emitting sources. As such, we support incentives including tax credits, R&D funding and approaches to siting that support the construction of transmission infrastructure. In addition, we support policies that encourage the development and use of other clean energy sources.
- 3. Infrastructure to mitigate the impact of climate change:** LyondellBasell supports policies that enhance the resilience of the existing electrical grid and the further development of infrastructure that helps to mitigate the impact of hurricanes, rising sea levels and flooding.
- 4. Reward investment in carbon-reducing technologies:** LyondellBasell supports policy efforts that incentivize companies to reduce emissions and energy consumption through upgrades to manufacturing facilities. In addition, we support policies that reward companies through credits (or offsets) for the early adoption of proven carbon-reducing technologies and the achievement of measurable GHG reductions.
- 5. Expansion of R&D on carbon-reduction technology:** LyondellBasell supports policies that accelerate the development and deployment of technologies that enable the reduction of emissions from large-scale manufacturing. These technologies may include, but are not limited to; green hydrogen, carbon capture and storage, direct air capture, carbon-to-fuel and battery technologies.
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# GROWING SUSTAINABLE SOLUTIONS



*We believe growing our portfolio of sustainable solutions will help address society's most pressing challenges. By doing so, we will continue to reliably produce products and offer solutions that are critical to improving the quality of life for billions around the world.*

## Overview

The invention and broad availability of plastic materials has changed the course of human history for the better. Since the 1960s, applications for plastics have expanded exponentially and today, plastic materials are found in nearly every facet of the economy.

As the use of plastics has grown, so have concerns about the environmental impacts of its production and disposal. These concerns have led some to suggest the use of alternative materials including glass, steel, paper and aluminum may be better solutions from an environmental perspective. A 2016 study by TruCost for the American Chemistry Council demonstrated, however, that a transition from plastics to other potentially viable materials would result in a) more alternative material being used to perform the same functions; b) increased cost to society and the economy; c) potential reduction in other environmental benefits including increased automobile emissions, increased food waste, etc.

The continued advancements of a broad portfolio of chemicals and plastics solutions is key to achieving our global sustainability objectives. Through focused innovation, we believe society can continue to benefit from these materials while also addressing challenges such as climate change and plastic waste.

## Our policy principles:

To advance and accelerate innovation, LyondellBasell supports policies that:

- 1. Expand tax incentives for research, development, and scaling of viable technologies:** LyondellBasell supports the expansion of targeted tax incentives designed to encourage the rapid expansion of research and development in next generation mechanical recycling and new advanced (sometimes called chemical or molecular) recycling technologies, as well as the development of alternative feedstocks from renewable sources. Once a technology is proven, we support policies that promote the availability and effective implementation at scale.
  - 2. Provide adequate funding to public sector research and development programs:** LyondellBasell supports fully funding government research programs designed to advance the next generation recycling technologies mentioned above. In addition, we support additional funding earmarked specifically for university-level research and development programs.
  - 3. Ensure the availability of third-party financing for research and development efforts:** LyondellBasell supports efforts to provide low-interest, third-party financing to entities conducting research and development in the areas of mechanical and chemical recycling.
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- 4. Establish common definitions for “sustainable products”:** LyondellBasell supports the development of common definitions of product sustainability. We believe these definitions must consider the holistic environmental impact of such products.
  - 5. Encourage public / private partnerships:** LyondellBasell strongly believes in what we call the “power of many.” We support policies and programs that encourage and support the development of public / private partnerships designed to accelerate development of integrated waste management and recycling systems.
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# ENHANCING OUR WORKPLACE AND OPERATIONS



*We believe the health and safety of our people and the communities where we operate are our highest priorities. We are committed to operating our company sustainably to deliver industry-leading performance, and enhancing our people and communities through the power of many.*

## Overview

As a global chemicals, plastics and refining company, we recognize our responsibility for maintaining the health and safety of our employees while protecting and preserving the environment. More than a philosophy, we have made this a core mission and today, LyondellBasell prides itself on being one of the safest operators in our industry.

Our operational excellence is core to our license to operate and to maintaining the confidence of our various stakeholders. Through this framework and management system, we deliver reliable operations, a safe workplace and protect the environment.

As a company with a culture of continuous improvement and a culture of openness and respect, we are not simply focused on maintaining our current performance but improving upon it.

## Our policy principles:

LyondellBasell supports efforts to:

- 1. Ensure the safe use of chemicals:** LyondellBasell supports policy frameworks that promote the safe use and management of chemicals throughout their lifecycle.
  - 2. Ensure the availability of feedstock:** LyondellBasell supports policies that continue to ensure a reliable supply of low-cost feedstock. To do so, sound energy policy should include resource access provisions, effective but streamlined permitting processes to ensure adequate infrastructure development, and science-based environmental protections.
  - 3. Ensure a stable and predictable regulatory framework for our operations:** LyondellBasell supports regulations that improve the safety of chemical and manufacturing facilities and provide long-term certainty for investment decisions. New regulations or changes to existing regulation must be based on science, be balanced, non-repetitive and have benefits that exceed their cost.
  - 4. Promote a diverse, educated and skilled workforce:** LyondellBasell supports a variety of policies designed to ensure a well-prepared 21st century workforce. We support efforts to enhance and expand Science Technology Engineering Math (STEM) education programs, particularly among underserved and minority communities; policies that expand the availability of quality technical training programs for students seeking careers that meet industry labor needs.
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