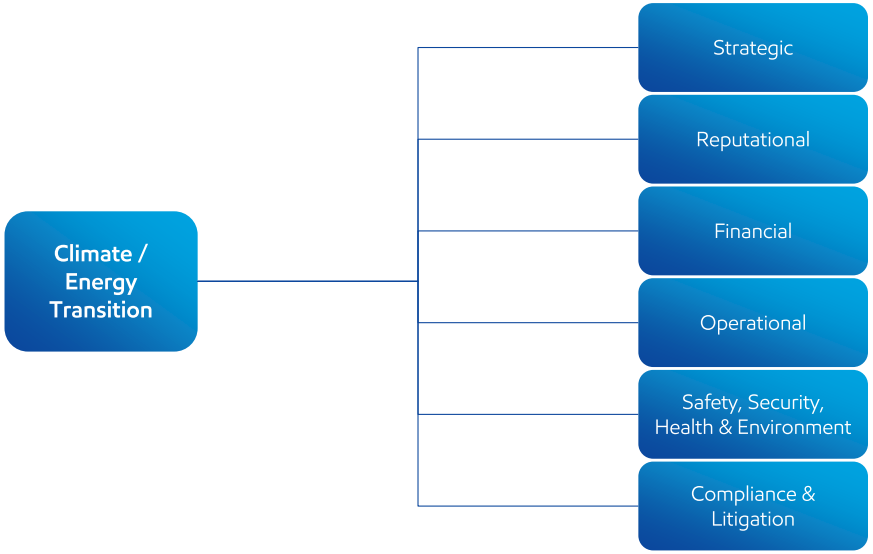
Risk management

Our risk management approach

Our Enterprise Risk Management Framework provides a comprehensive and structured approach to identify, prioritize, understand, and manage ExxonMobil's most important risks. It is designed to drive consistency across risk types and support monitoring key risks. For more details on the risks we consider and manage, refer to Item 1A. Risk Factors in the 10-K.

Examples of potential risks

Managing long-term risks associated with climate change and the energy transition is a key part of managing a broad spectrum of interrelated risks.



Our enterprise risk framework includes five elements:

1. A way to organize and aggregate risks.
2. Robust risk identification practices.
3. A prioritization method.
4. Systems and processes to manage risk.
5. Risk governance to support oversight.

Our approach to risk governance is multilayered and includes clearly defined roles and responsibilities for managing each type of risk. It includes a definition of the responsibilities of risk owners, functional experts, and independent verifiers. Each risk type is managed and supported by organizations that actively execute risk management processes and are responsible for specifying corporate requirements and processes. Each of these processes includes the critical elements of leadership, people, risk identification and management, and continuous improvement. Oversight responsibilities by the Management Committee and the Board and its committees are a key part of risk governance. Our Management Committee consists of our Chief Executive Officer, our Chief Financial Officer, and our two Senior Vice Presidents.

Protection of assets, the community, and the environment

We have extensive experience operating in a wide range of challenging physical environments around the world.

Effective risk management requires the ongoing assessment and mitigation of potential impacts to our people, our assets, the community, and the environments in which we operate. Before pursuing a new development, we use data and advanced computer modeling to assess the full range of potential environmental, socioeconomic and health risks associated with potential construction and operations. We also consult with communities through public meetings and other outreach, and we work with regulators to share information and seek necessary approvals. This process gives us a comprehensive understanding of possible impacts, which we use to implement measures to avoid, reduce, or remedy environmental, socioeconomic, and health risks or impacts.

When considering physical environmental risks, we evaluate the type and location of facilities and investments. As an example, changes in patterns of waves, wind, or ice floes can affect offshore facilities. Onshore facilities could be vulnerable to sea level rise, changes in storm surge, flooding, changes in wind and seismic activity, or geo-technical considerations. We conduct environmental assessments before building and operating facilities to ensure that protective measures and procedures are in place.

Hebron

The Hebron platform is located off the coast of eastern Canada in 92 meters of water. The platform is a reinforced concrete gravity-based structure designed to withstand sea ice, icebergs, and meteorological and oceanographic conditions. Hebron was engineered and wave-tank tested for storms so extreme they may occur only once every 10,000 years. On Nov. 14, 2018, the Grand Banks saw its largest storm in 30 years, estimated as a 100-year return period event. Following temporary shutdown of all Grand Banks platforms, Hebron was up and running within a week without any major issues.

Our scientists and engineers are industry experts across a variety of disciplines. Through their active participation and leadership in industry groups, they advise and gather insights to inform and improve industry standards which, in turn, are adopted to enhance our standards and procedures. We follow industry practices such as the American Society of Civil Engineers' Climate Resilient Infrastructure: Adaptive Design and Risk Management manual of practice.[1]

Industry standards, including American Society of Civil Engineers (ASCE 7)[2] Minimum Design Loads and Associated Criteria for Buildings and Other Structures, are also used along with professional experience to cover a range of uncertainties. After construction of a facility, we monitor and manage ongoing facility integrity through periodic checks of key aspects of the structures.

Gulf Coast Growth Venture

The Gulf Coast Growth Venture, a petrochemical manufacturing facility near Corpus Christi, Texas, is compliant with both San Patricio County and national standards (ASCE 7). Stormwater handling is a risk factor associated with the facility, so the design includes basins to retain excess stormwater to supplement the capacity of the municipal water system. The design, construction, and operations of petrochemical facilities are highly regulated by the Texas Commission on Environmental Quality.

Company representatives held hundreds of outreach meetings with local organizations, chambers, government agencies, civic groups, and neighborhoods and have addressed comments and concerns raised during the permitting process. More information on the Texas Commission on Environmental Quality permitting process can be found on its website.[3]

Once facilities are in operation, we maintain disaster preparedness, response, and business continuity plans. Detailed, well-practiced, and continuously improved emergency response plans are tailored to each facility to help us prepare for unplanned events, including extreme weather. Periodic emergency drills are conducted with appropriate government agencies and community coalitions to help heighten readiness and minimize the impacts of an event. Strategic emergency support groups are established around the world to develop and practice emergency response strategies and assist field responders. Regardless of the size or complexity of any potential incident, each ExxonMobil facility and business unit has access to readily available trained responders, including regional response teams, to provide rapid tactical support.

Footnotes

1. American Society of Civil Engineers Climate- Resilient Infrastructure: Adaptive Design and Risk Management, https://doi.org/10.1061/9780784415191.
2. American Society of Civil Engineers (ASCE 7) Minimum Design Loads and Associated Criteria for Buildings and Other Structures, https://doi.org/10.1061/9780784415788.
3. Texas Commission on Environmental Quality permits and registration, https://www.tceq.texas.gov/permitting/business_permitting.html.