The Force of Forward.

BKV 2022 • TCFD REPORT

BKV CORPORATION 1200 17TH STREET, STE 2100, DENVER, CO 80202

BKV®

About this Report

At BKV, we are committed to improving our approach to cleaner energy as we recognize the impacts of climate change. We strive to be a responsible operator by taking concrete steps to produce cleaner energy safely and reliably. Our goal is to achieve net zero greenhouse gas ("GHG") emissions across Scope 1 and 2 for our owned and operated upstream operations by the end of 2025 and ultimately reach net zero Scope 1, 2, and 3 emissions from our owned and operated upstream business by the early 2030s.

To ensure transparency and accountability, we have followed the recommendations of the Task Force on Climate-Related Financial Disclosure ("TCFD") and included disclosures aligned with the TCFD as part of our Sustainability Report since 2021. In 2022 and 2023, we conducted a more in-depth scenario analysis and re-evaluated climate-related risks and opportunities that are prominent to our businesses.

We are proud to publish our first stand-alone TCFD Report, which supplements the BKV 2022 Sustainability Report and aligns with the 4 pillars and all 11 recommended disclosures of the TCFD. This report provides further transparency and insights for our stakeholders to better understand BKV's climate-related risks and opportunities, our governance and risk management practices in place to mitigate these risks and various climate scenarios that test the resilience of our business.

About BKV

Headquartered in Denver, Colorado, BKV Corporation (BKV) is a privately held, forward-thinking, growth-driven energy company focused on creating value for our stockholders. BKV's core business is to produce natural gas from its owned and operated upstream businesses, which we expect to achieve net zero Scope 1 and Scope 2 emissions by the end of 2025. Founded in 2015, BKV has approximately 370 employees across the U.S. that are committed to building a different kind of energy company. BKV is one of the top 20 gas-weighted natural gas producers in the United States and the largest natural gas producer in the Barnett Shale. BKV corporation is the parent company for the BKV family of companies.

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Our Path to Net-Zero

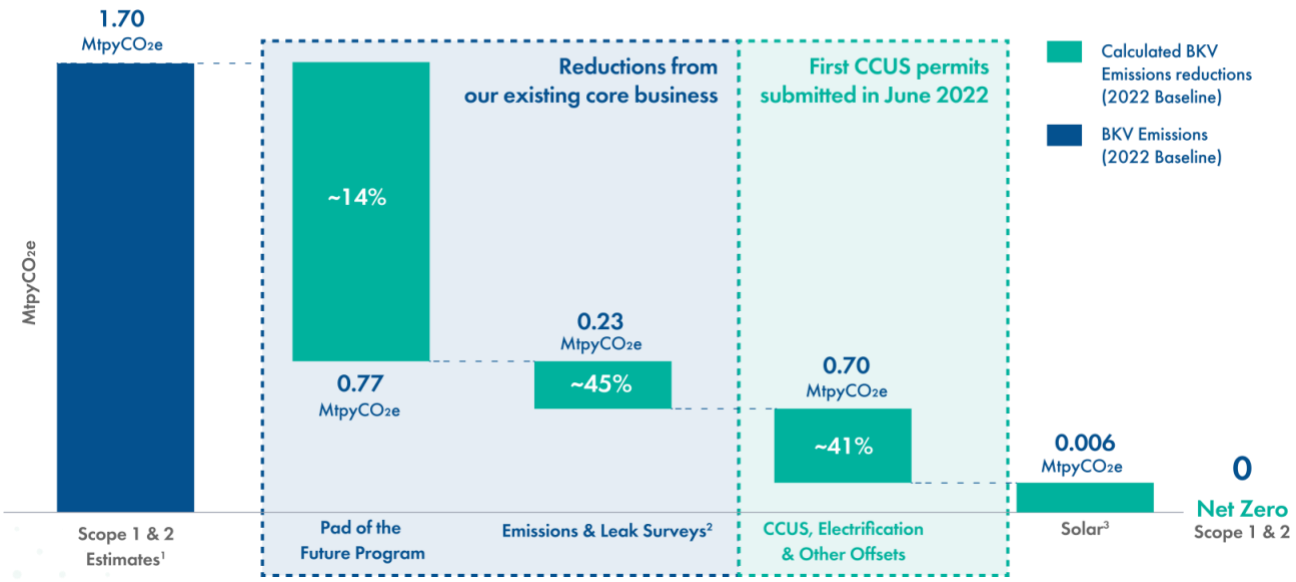
Our core business is natural gas production from our owned and operated upstream businesses. Our goal is to achieve net zero Scope 1 and Scope 2 emissions from our owned and operated upstream businesses by the end of 2025 and net zero Scope 1, 2 and 3 emissions from our owned and operated upstream businesses by the early 2030s.

We maintain a "closed-loop" approach to our net zero emissions goal with our four business lines:

- Natural gas production,
- Natural gas gathering and boosting (our "natural gas midstream business"),
- Power generation, and
- Carbon capture, utilization, and storage ("CCUS").

BKV's Planned Path to Net Zero (Scope 1 & 2): Barnett and NEPA Production

Based on total BKV upstream emission estimates in the Barnett and NEPA



[1] Scope 1 and 2 calculated emissions are based on 830 MMscf/d production volume (net sales) for 2022 Subpart W in the Barnett and 144 MMscf/d production volume for 2022 Subpart W in NEPA.

[2] Our emissions surveys to accomplish a one-to-two month leakage review period versus 12-month period which must have regulatory updates (current proposed OOOO.b,c) to include continuous flyover/satellite technology sensitivities.

[3] Our Installation of a 2.5 MW to 5 MW solar farm. We have obtained permits for 2.5 MW and are in the process of obtaining permits for the remaining 2.5 MW.

As part of our climate strategy, our goal is to achieve net zero Scope 1 and Scope 2 emissions from our owned and operated upstream businesses by the end of 2025 and net zero Scope 1, 2 and 3 emissions from our owned and operated upstream businesses by the early 2030s.

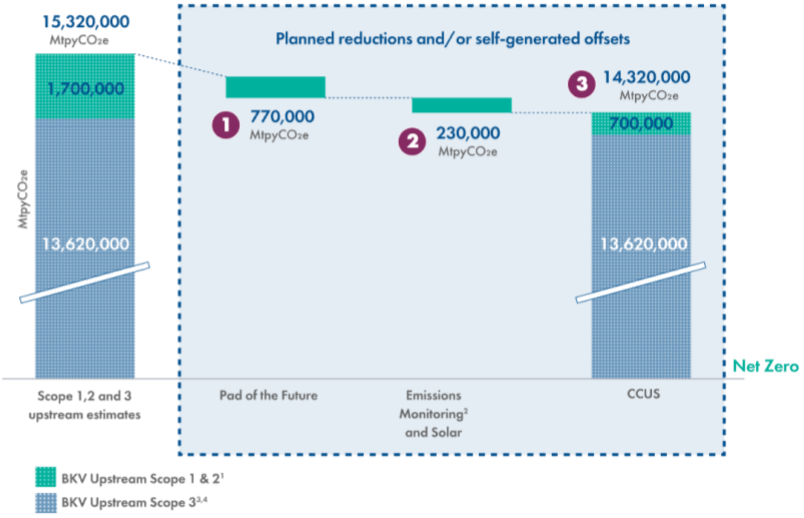
- To reduce our upstream **Scope 1** emissions, we prioritize reducing our emissions through investments in BKV's Pad of the Future and monitoring and detecting leaks. We intend to offset the emissions we cannot reduce with the implementation of CCUS and other offsets.
    - We expect to expand and implement our "Pad of the Future" program on more than 6,000 of our existing wells (more than 8,000 pneumatic devices and 2,000 pneumatic pumps) by the end of 2025 to eliminate approximately 0.77 Mtpy CO_2e, or approximately 45%, of the currently estimated Scope 1 annual emissions from our owned and operated upstream businesses.
    - Our leak detection and repair emissions monitoring program involves continuous ground-based instrument monitoring, satellite-based monitoring, aerial flyovers, and on-the-ground leak detection and repair inspections and is anticipated to reduce approximately 0.23 Mtpy CO_2e, or 15% of the CY2022 Scope 1 annual emissions, from our owned and operated upstream business.

- To reduce our upstream **Scope 2** emissions, we are pursuing investment in renewable energy and energy-efficient technology through the implementation of solar skids and the installation of a commercial solar farm.
    - We expect to install a 2.5 MW to 5 MW solar farm located within our Barnett operations, which is scheduled to begin generating power in 2024. For every 1,000 kilowatt-hours of electricity produced by an eligible solar facility, one SREC is awarded. The solar farm is expected to generate enough SRECs that, when combined with our leak detection and repair emissions monitoring program, are expected to offset approximately 0.23 Mtpy CO_2e in GHG emissions from our owned and operated upstream businesses.

BKV's Planned Path to Net Zero (Scope 1, 2 & 3): Barnett and NEPA Production

Based on total BKV upstream emission estimates in the Barnett and NEPA

1. **Pad of the Future Scope 1 & 2 reduction**
   - Improve operations and environmental performance
   - Asset consolidation and replacement
   - Emissions elimination
   - Highly economic program
2. **Emissions Monitoring and Solar Scope 1 & 2 reduction**
   - 4-tiered air monitoring plan: flyover, satellite, continuous monitoring, and LDAR
   - Up to 5 MW field solar
3. **Carbon Capture Utilization and Storage Scope 1, 2 & 3 reduction**
   - CCUS projects to achieve emission offsets
   - Balance of Scope 1&2, all Scope 3 via CCUS
   - Large-scale potential
   - >30 MtpyCO2e project pipeline with strong economics



[1] Scope 1 and 2 calculated emissions are based on 830 MMscf/d production volume for 2022 Subpart W in the Barnett and 144 MMscf/d production volume for 2022 Subpart W in NEPA.

[2] Emissions surveys to accomplish a one-to-two month leakage review period versus 12-month period which must have regulatory updates (current proposed OOOO.b,c) to include continuous flyover/ satellite technology sensitivities. Installation of a 2.5 MW to 5 MW solar farm. We have obtained permits for 2.5 MW and are in the process of obtaining permits for the remaining 2.5 MW.

[3] Scope 3 calculated emissions are based on an estimated net production rate of approximately 900 MMcfe/d (approximately 720 MMscf/d of natural gas and 31,000 Bbl/day of NGLs).

[4] Scope 3 calculated emissions are estimated assuming fuel-based usage of all produced natural gas and NGLs. Approximately 58% of NGLs are assumed to be combusted for fuel while 100% of all natural gas sold is assumed to be combusted for fuel. Scope 3 emissions estimation methodology is therefore considered to be conservative.

- To address our **Scope 3** emissions, we aspire to offset 100% of emissions from Category 11 from our owned and operated upstream businesses by the early 2030s. We have developed a viable and credible path to achieving these goals through the expansion of our CCUS business.
  - We have identified twelve potential CCUS projects that we believe are commercially viable that we estimate would have a combined forecasted annual volume of carbon capture and sequestration of approximately 30 Mtpy CO_2e (which exceeds our estimated Scope 1, 2 and 3 annual emissions from our owned and operated upstream businesses as of December 31, 2022).

Governance and Risk Management

Enterprise Risk Management Framework ("ERM")

At BKV, we recognize that a robust enterprise risk management process is essential for identifying, assessing, and managing risks, ensuring the long-term success of the company. Our enterprise risk management system provides comprehensive oversight of climate-related risks and opportunities and is built upon four key pillars that inform our approach:

- ***Risk Strategy and Governance:*** Through this pillar, our risk appetite and tolerance are defined and aligned with our corporate values, competencies, strategies, and the competitive landscape. It ensures the implementation of appropriate policies and procedures to govern and control risks effectively, integrating risk management as a standard practice in decision-making across all levels of the organization.
- ***A Culture of Risk Mitigation:*** By fostering a culture that prioritizes risk management and mitigation, we continuously build new capabilities and domain knowledge to ensure a comprehensive understanding of the risk landscape. Moreover, it promotes a sense of internal ownership, accountability, and expectation for risk management, from field-level workers up to the Senior Leadership team and the Board.
- ***Risk Management Process:*** The process establishes consistent risk management methodologies and tools to provide an integrated approach to effective risk management. Risk objectives, identification, assessment, mitigation, monitoring, and reporting are all taken into account during this process.
- ***Technological Advancement:*** Utilizing technology to identify digital solutions for dynamic risk management enhances decision-making efficiency. Analytics tools provide extensive data streams that facilitate the creation of quantitative pathways, enabling superior error detection and more precise risk assessment and forecasting.

Oversight of Climate-Related Risks and Opportunities

BOARD OF DIRECTORS OVERSIGHT

Our Board of Directors is comprised of individuals with pertinent business and professional expertise, as well as diverse backgrounds in risk management, financial reporting, leadership, geoscience, mergers and acquisitions, and other areas. The Board has direct responsibility for climate risk oversight and has designated the Risk Management Committee to aid in supervising policies and procedures pertaining to our ERM framework. The Risk Management Committee meets quarterly and reports to the board advisory committee. Aligned with the four pillars of our ERM framework, climate risks are addressed through a comprehensive approach that ensures consistency of risk management methodologies and tools across the organization. Risk mitigation, monitoring, and reporting are systematically performed after the risk has been identified.

Additionally, the Board of Directors meets monthly to examine BKV's performance and to provide guidance on a variety of topics, including climate-related risks and opportunities. Climate solutions are regularly included as a discussion topic at the monthly board meetings.

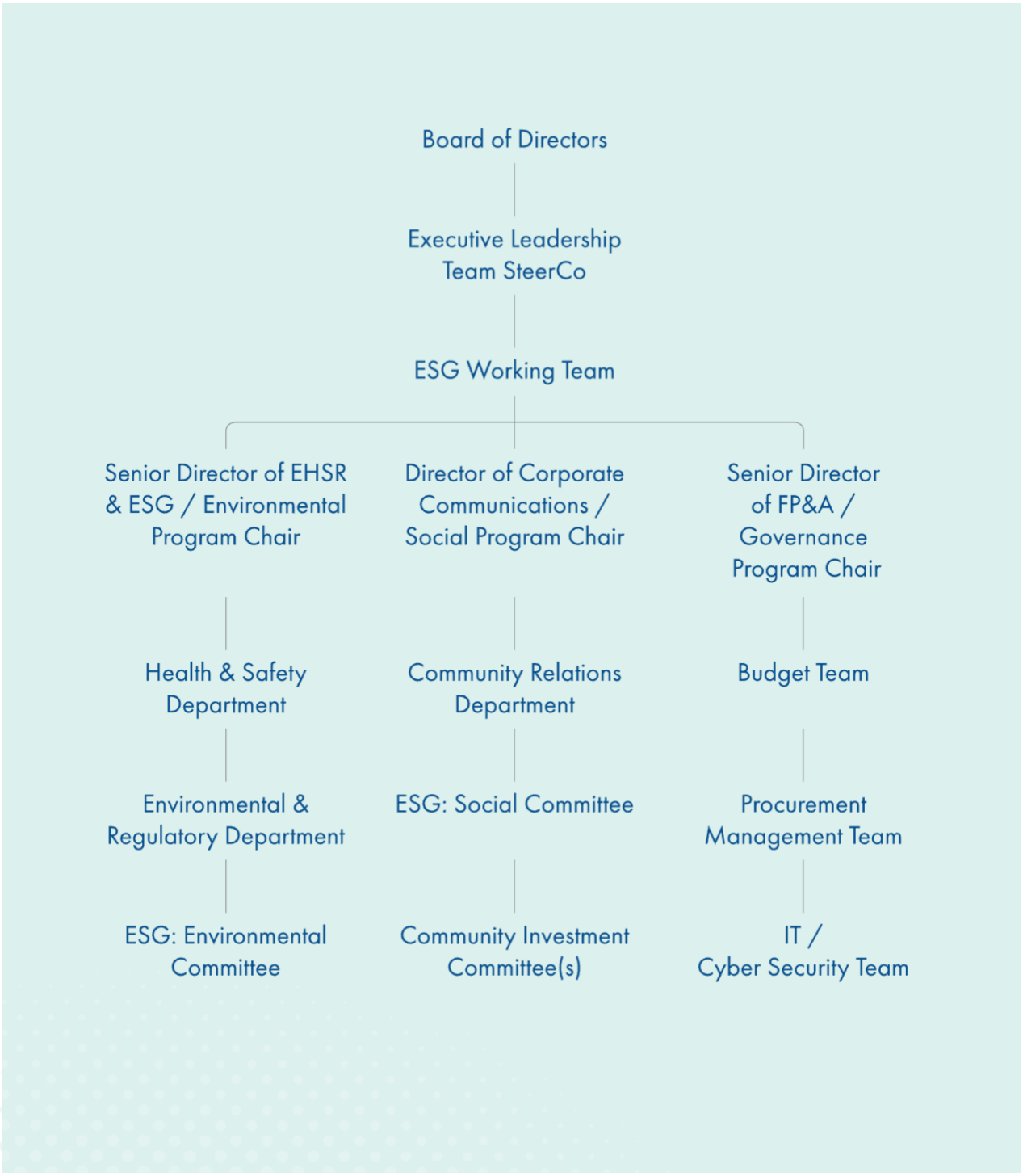
MANAGEMENT'S ROLE

At the management level, BKV's health, safety and environmental ("HSE") programs are overseen directly by our Chief Executive Officer ("CEO") and Chief Operating Officer ("COO"), who meet weekly to discuss matters including HSE updates and assess climate strategies. The Senior Director of Environmental, Health, Safety and Regulatory ("EHSR") and Environmental, Social and Governance ("ESG") is responsible for managing climate-related mitigation of our identified risks, supported by a team of environmental, health, safety, and regulatory personnel. The Senior Director of EHSR and ESG reports to the COO and meets quarterly with the CEO, facilitating direct communication with the Executive Management and expediting the decision-making process.

Led by the Senior Director of EHSR and ESG, our ESG Working team, a cross-functional group of BKV leaders who represent various aspects of the company's ESG strategy, was established in 2021. The working group meets bi-weekly to discuss environmental and ESG strategy and provides regular updates on the environment and climate-related risks and opportunities to the Executive Leadership team.

In addition to the ESG Working Team, a joint Risk Management Committee with Banpu Public Company Limited ("Banpu"), our controlling stockholder, was established in 2021. The joint Committee encompasses representation from Senior Management, Operations, Legal, Finance, Investor Relations, IT, Marketing and Environmental Compliance from both organizations. During its quarterly meetings, the Committee examines ESG and other potential risks, monitors any modifications to these risks, and ensures their appropriate management. Additionally, representatives from our Environmental Compliance team sit on the Risk Management Committee to present and discuss emerging climate-related risks. The committee's findings and recommendations are also regularly discussed with BKV's Board of Directors.

Our executive short-term incentive plan is tied to ESG-related initiatives. In 2022, 30% of our short-term incentive program was tied directly to ESG-specific targets related to safety performance, ESG metrics, emissions reduction, employee engagement, and ESG reporting. Further enhancing our ESG excellence with other ESG factors in our executive compensation incentivizes strong governance oversight and management of climate change and ESG to deliver tangible results.


Board of Directors
Executive Leadership Team SteerCo
ESG Working Team
Senior Director of EHSR & ESG / Environmental Program Chair
Director of Corporate Communications / Social Program Chair
Senior Director of FP&A / Governance Program Chair
Health & Safety Department
Community Relations Department
Budget Team
Environmental & Regulatory Department
ESG: Social Committee
Procurement Management Team
ESG: Environmental Committee
Community Investment Committee(s)
IT / Cyber Security Team

Our Strategies Responding to Climate-Related Risks and Opportunities

At BKV, the drive for climate solutions is embedded in our strategies and operations. Our success is dependent on achieving exceptional environmental stewardship while effectively managing environmental risks and opportunities. As we strive to produce low-impact and sustainable energy, we consistently evaluate and manage climate-related risks and opportunities, and stress test the resilience of our strategies toward achieving our net zero goal.

Climate-Related Risks and Opportunities

Physical Risks **–** According to the definition provided by TCFD, physical risks arising from climate change include both acute risks, which are event-driven, and chronic risks, which reflect long-term shifts in climate patterns.

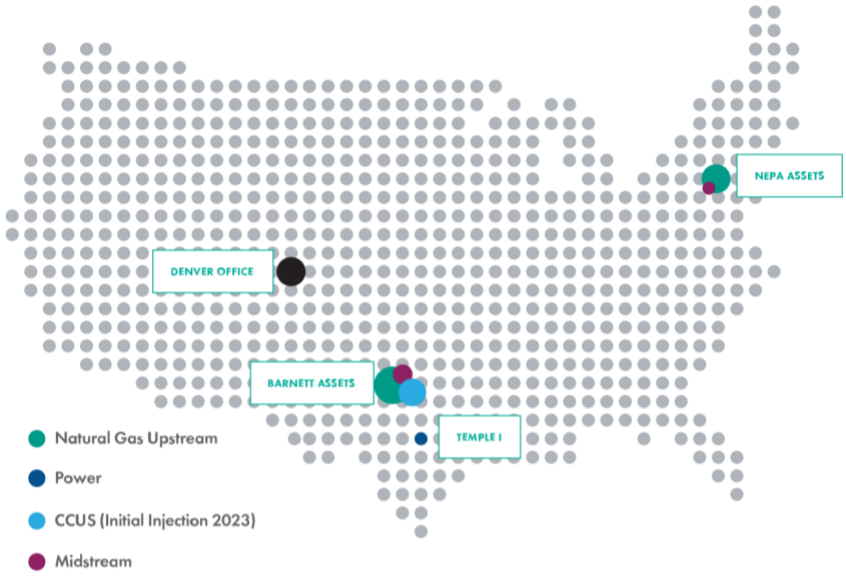
Acute

Potential acute physical risks associated with climate change, such as increased severity of storms, droughts, and flooding, have the possibility to impact our operations or ability to deliver a product to customers. The inability to provide energy during critical moments has the potential to negatively impact revenue if we cannot operate, while storms and similar events may also lead to repair costs if they are damaged. For example, Winter Storm Uri in 2021 caused power outages across our communities in Texas. We are mitigating this risk by improving our winterization plans to be more resilient during extreme weather.

Chronic

The gradual, physical effects of climate change could have a negative impact on our operations, customers' operations and the overall demand for products and services. For example, sea level rise and increased frequency of flooding on the Upper Texas Coast may impact BKV's operations and assets as well as product markets in Texas and beyond. Additionally, severe weather patterns could change the feasibility of our operations, such as a drought leading to a decline in available water necessary to conduct business. Our Denver headquarters and some of our Texas operations fall within water-stressed areas.

BKV Assets



Overview of BKV Assets

Natural Gas Upstream

	Twelve Months Ending Dec '22 Net Production (MMcfe/d)	Dec '22 SEC 1P Reserves (Tcfe)	Producing Wells	Net Acres
Barnett	733	5.24	6,926	458,000
NEPA	139	0.90	411	37,000
Total	872	6.14	7,337	495,000

Operated Midstream

	As of Dec '22 Throughput (Mmcf/d)	Pipeline Miles	Midstream Compressors
Barnett	220	778	65

Power

	Location	Heat Rate Btu/kWh	Capacity MW+
Temple 1	Bell County, TX	6,950	755

Transition Risks – According to the definition provided by TCFD, transition risks refer to risks associated with the transition towards a lower-carbon economy, which can arise from changes in policies, technologies, and market conditions.

Short-term: Now - 2025

Medium-term: 2025 - 2030

Long-term: 2030 - 2050

Policy & Legal and Reputation Risks

Risk Summary: With the guidance of TCFD, we are carefully evaluating the potential impact of policy and legal actions aimed at reducing GHG emissions and promoting adaptation to climate change. Furthermore, we recognize that failure to transition to a low-carbon economy could expose us to reputation risks from our stakeholders.

Mitigation Strategy: We are actively seeking opportunities to lower our GHG emissions, increase our operational efficiency, invest further in CCUS and other low-emission products offerings while staying ahead and compliant with new regulations with ongoing enhancement to our sustainability reporting.

Detailed Risks

Policy and Legal

Enhanced emissions-reporting obligations

Timeframe: Short-term

With the acquisition of approximately 165,000 net acres, 2,100 operated wells and related natural gas upstream, midstream and other assets in the Barnett from XTO Energy, Inc., and Barnett Gathering LLC in 2022, BKV is anticipating an increased annual GHG emissions footprint in this reporting cycle as well as growing resources dedicated to monitoring and reporting. As our business expands, BKV may face rising compliance costs in our operations to continue complying with GHG emissions regulations and reporting obligations.

Policy and Legal

Increased pricing of GHG emissions

Timeframe: Medium-term

BKV is not currently affected by carbon pricing in the United States; however, we are closely monitoring the carbon taxes and/or carbon pricing mechanisms in place in other regions of the world, which helps us to stay informed and prepared for any potential regulations that may arise in the future. BKV could become subject to carbon prices, resulting in higher costs, depending on future policy actions. In the event of a regulated carbon pricing system being instituted, it's possible that the natural gas industry may bear additional costs, depending on where in the value chain the fee is collected.

Policy and Legal

Mandates on and regulation of existing products and services

Timeframe: Medium-term

The volatility of the regulatory energy market might adversely affect BKV's cost of compliance. New climate-related legislation (e.g., EPA's Subpart W, Quad O.b and Quad O.c, Inflation Reduction Act) could affect the oil and gas industry by increasing the regulatory burden. The increasingly stringent regulations could reduce profitability as additional emissions reduction requirements are adopted. These requirements could decrease profitability or hinder our ability to generate revenue due to reduced production capacity. A stricter regulatory environment could also result in delays in operations due to permitting restrictions or operating limitations that could negatively impact production.

Reputation

Increased stakeholder concern or negative stakeholder feedback and stigmatization of sector

Timeframe: Short-term

ESG and climate-related issues are an increasingly popular way for investors and stakeholders to evaluate a company's risk profile. There is a risk of potential negative perception of BKV's management of climate-related issues that could theoretically lead to company exclusion from ESG indices, thereby decreasing our access to capital and increasing operating costs.

Reputational such as a negative perception of the company and/or the industry, can hinder relationships with our stakeholders. Any reputational damage to the company has the potential to limit our ability to raise capital, attract new talent, operate in certain regions and maintain strong relationships with our communities. Negative perceptions and opinions of the natural gas industry impact our social license to operate and cause decreased demand for products and, therefore, decreased revenue.

Market and Technology Risks

Risk Summary: Natural gas industry may be adversely affected by government incentives and regulations promoting low-carbon innovations and renewable alternatives. As a result, market conditions, changes in our consumer preferences, and pricing improvements in renewable energy sources may impact our pricing and profitability at BKV. As we proactively engage in technological advancement, we also recognize the inherent risks involved.

Mitigation Strategy: As we continue to refine our new product offering of a Scope 1, 2 and 3 carbon-neutral gas product, which we call Measured Net-Zero ("MNZ") gas, we are capitalizing on new market opportunities and are preparing to address the growing demand for low-impact energy, while demonstrating our ability to pivot quickly and align with new strategies that could create value. Additionally, our CCUS development strategy is further supported by reduced operating costs due to multiple levels of incentives and tax credits.

Detailed Risks

Market

Changing customer behavior

Timeframe: Medium-term

Incentives and regulations from the government to transition to low-carbon innovations and invest in renewable alternatives may have an adverse impact on the natural gas industry. An exogenous shock in the supply or demand of natural gas or a change in market conditions/norms has the possibility to impact the price at which we can sell our product, along with how much energy our customers are seeking to buy. A change in consumer preferences and pricing improvements of renewable alternatives may heavily impact BKV's current pricing and profitability.

Market

Market uncertainty

Timeframe: Ongoing

Divestment of domestic energy holdings by large institutional investors may reduce industry access to capital. Additionally, commodity prices may fluctuate widely in response to relatively minor changes in supply and demand and as result of consumer preferences towards less carbon-intense energy sources. Critical supply chain disruptions and inflation could result in increased costs of raw materials such as energy and water.

Technology

Substitution of existing products/services with lower emissions options

Timeframe: Short- to medium-term

Increased investments are being seen in renewable energy technology, as the cost-effectiveness of other lower-emission fuel sources increases. As the world continues to increase the proportion of renewable energy in its energy portfolio, natural gas demand could be reduced and therefore, our revenues could decrease.

Technology

Costs to transition lower emissions technology

Timeframe: Short- to medium-term

BKV considers the costs associated with adopting new practices and processes and the retirement of obsolete assets to keep pace with technological advancements. As the future of the energy transition is volatile, we are proactively engaged in research and development and capital expenditures in new and alternative technologies and strategies. BKV considers the risk that is naturally associated with R&D expenditures and capital investments in technology deployment.

Detailed Opportunities

Market

Use of public sector incentives

Timeframe: Short-term

Following the enactment of the Inflation Reduction Act of 2022 (“IRA”), BKV's strategy in CCUS development is further strengthened by multiple tiers of tax benefits. Additionally, section 45Q tax credits for CO_2 sequestration also provides tax credit incentives, increasing BKV's financial viability in deploying CCUS projects and lowering our operating costs.

Market

Access to new markets

Timeframe: Short- to medium-term

BKV is developing a new product offering of a Scope 1, 2 and 3 carbon neutral gas product, which we call MNZ Gas. As we continue to mature the product development and strengthen our partnership with Engie Energy, we intend to create an evolved market and a new energy framework that enables a carbon-neutral gas product that helps our consumers reduce their carbon footprint. Additionally, we are strategically positioned near LNG terminals to export our product, which enables us to respond to market variations in areas where natural gas serves as a reliable and transitional fuel towards a low-carbon economy.

Resource Efficiency

Use of more efficient production and distribution processes

Timeframe: Short- to medium-term

At BKV, we have established a credible path with concrete steps to reach our net zero goal, including minimizing and ultimately eliminating GHG emissions from legacy BKV and legacy Exxon Barnett assets. One of our core pillars in achieving our net zero goal by 2030 is leveraging technology to further enhance the efficiency of our operations. By encouraging innovation from the operational level, we utilize technology to improve leak detection, target emission monitoring, and minimize our emissions footprint. For example, our Pad of the Future ("POTF") project converted more than 9,000 pneumatic gas instruments which significantly reduced our Scope 1 emissions and increased efficiencies and production, thus increasing our revenue and reduced our overall GHG emissions. We will continue the pneumatic instrument conversion program to further reduce GHG emissions. We are constantly exploring new opportunities; our next focus will be to convert our pneumatic pumps and improve the efficiency of our thermoelectric generators and compressors.

Resource Efficiency

Reduced water usage and consumption

Timeframe: Medium- to long-term

As water is one of the largest expenses we have, especially with our recent acquisition, we are committed to improving our methods of treating and recycling water. We are actively monitoring and assessing our water use intensity in order to reduce our water use, which could lessen our operating costs by improving efficiency and production capacity.

Products & Services

Expansion of low emission offerings – Measured Net-Zero gas

Timeframe: Medium- to long-term

In 2021, we certified our entire NEPA production and, in 2022, we certified a portion of our Barnett production and, in each case, achieved a Gold rating with Project Canary's TrustWell environmental assessment (Project Canary is an environmental certification and ESG data company). This is the second highest rating a company can receive for its production, qualifying the certified portion of our natural gas production as Responsibly Sourced Gas ("RSG"), or gas that is considered to be less carbon-intensive by some purchasers due to the way it was produced. In addition, We intend to develop our ability to provide a Scope 1, 2 and 3 carbon-neutral gas product, which we refer to as MNZ gas, and we believe that the expansion of our presence in the retail power space, along with the synergistic and opportunistic growth of our upstream, midstream and power generation businesses, will provide our retail energy business the opportunity to offer end consumers household energy sourced from MNZ gas. Through continuous technological innovation, emission monitoring, and investments in CCUS technology with BKV dCarbon Ventures, we are developing and enhancing new projects. The scalability of our CCUS projects also allows us to expand our MNZ gas offering and achieve our net zero goals. By expanding our low-emission product offerings, we expect an increase in revenues due to the increase in demand for our products and increased production capacity.

Products & Services

Shift in consumer preferences

Timeframe: Medium-term

As consumers look for more sustainable energy sources, BKV's MNZ gas offers a Scope 1, 2 and 3 carbon-neutral gas product, satisfying the shift in consumer preferences toward a safe and low-impact energy. Thus, we hope to see increased revenues through the growing sustainable energy market and increased exposure of our products.

Energy

Use of lower-emissions sources of energy and participation in carbon market

Timeframe: Medium- to long-term

In addition to our GHG reduction program, we also see electrification and adding solar power as a great resource to reduce our operating costs and increase the value of our assets. BKV has multiple pad electrification and solar installation projects underway, and we plan to utilize the generated SRECs from our solar installations to offset our scope 2 emission across our Barnett and NEPA operations. For example, in 2022, we continued the testing of solar-powered pneumatic skids for locations that do not have easy access to electricity and are installing a 2.5 MW solar farm in the Barnett Shale in the heart of our operations, with the expectation that these assets will begin generating power in 2024. The advantages and potentials of transitioning to clean energy continue to be explored at BKV as we progress toward achieving our net zero goals, which could mitigate our risks toward potential carbon pricing.

Transparency and Disclosure

Disclosing efforts around climate change transparently

Timeframe: Ongoing

At BKV, we have established a credible path to achieve our net zero goals while we continuously evaluate our ESG performance. To mitigate potential reputation risks, we communicate transparently with our stakeholders by disclosing our ESG efforts such as TCFD, Sustainability Accounting Standards Board ("SASB"), and Global Reporting Initiative ("GRI") through our annual sustainability report. You can access our 2022 Sustainability Report here.

To further build trust and credibility with our stakeholders, we work closely with them to understand their expectations and feedback, which will help us to continue to drive improvements in our ESG program.

Approach to Climate Scenario Analysis

BKV has performed a rigorous assessment of the potential technological, reputational, and physical risks and opportunities associated with a changing climate and policies aimed at reducing global GHG emissions. This assessment takes the form of a quantitative scenario analysis that evaluates how physical and transition risks and opportunities under different climate scenarios may result in financial impacts to the company's business units. BKV uses the results of this analysis to evaluate the organization's strategic and business resilience and, where necessary, adjust strategic and financial plans.

To conduct this analysis, BKV worked with a third-party consultant using publicly available scenarios to evaluate the likelihood and financial impacts of potential transition and physical risks to the company. Transition risks were evaluated using the 2022 World Energy Outlook ("WEO") published by the International Energy Agency ("IEA") and physical risks were evaluated using the long-term climate change scenarios published by the Inter-governmental Panel on Climate Change ("IPCC"), the United Nations body for assessing the science related to climate change.

BKV evaluated the climate-related risks and opportunities across each of its business segments, including upstream gas and natural gas liquids ("NGLs") production, midstream gathering and boosting, wholesale electric generation, retail electric sales and CCUS. Importantly, BKV assessed how the ability to market MNZ gas and other products could reduce emissions for the company and its customers. The climate scenario analysis shows how these products can help BKV mitigate risks and capitalize on opportunities associated with carbon pricing and other potential actions taken to limit an increase in GHG emissions. In the following sections, we will discuss:

1. The scenarios selected by BKV;
2. The framework for evaluating the likelihood and financial impact of each climate driver;
3. The key climate-related drivers evaluated under each climate scenario; and
4. The expected impact of climate drivers on company performance, both individually and under holistic "quick transition" and "slow transition" futures that combine drivers from the WEO and IPCC scenarios into holistic futures that consider actions taken to reduce GHG emissions and the result impacts on temperature and other climate outcomes.

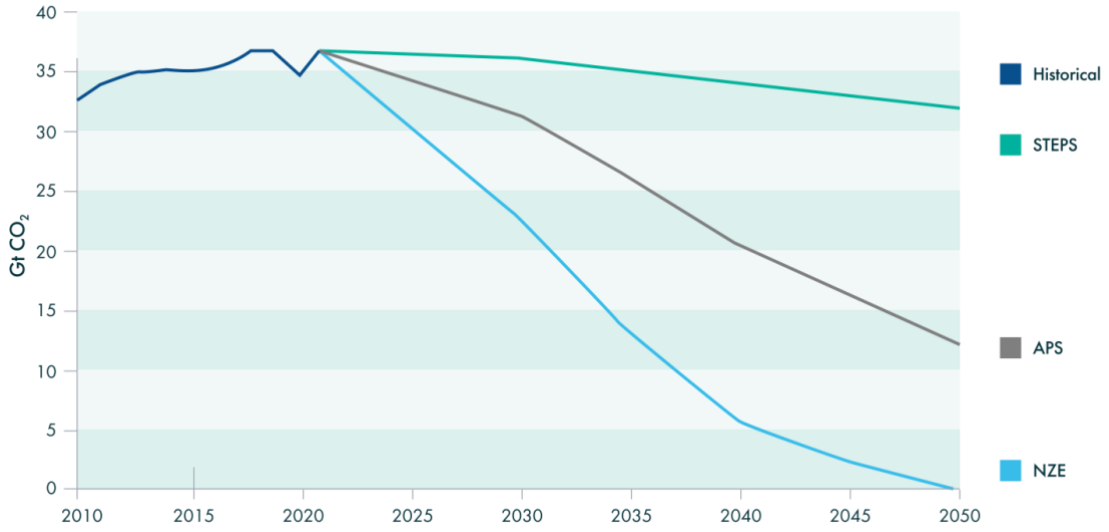
Climate Scenarios Selected by BKV

BKV selected four different scenarios from the WEO and IPCC reports to test the transition and physical risks and opportunities to its business. At a high level, these scenarios are intended to reflect a set of plausible outcomes that test materially different futures from both the policy and climate perspectives. The scenarios chosen for this analysis are not designed to deliver a precise prediction or forecast of what will occur. Rather, scenarios were selected that evaluate a wide range of possible GHG mitigation pathways and developments in the global energy sector to determine the resulting impacts on BKV.

TRANSITION SCENARIOS

Transition scenarios for BKV's analysis were taken from the 2022 WEO report. This study is one of the most widely recognized reports that contemplates potential transition risks associated with climate change, and WEO studies have been widely used by companies in the energy sector. Each scenario reflects a plausible future state of the world and tests key uncertainties under different pathways of policy and economic development.

Figure 1: Global Energy-related Emissions Pathways in the 2022 WEO scenarios, 2010-2050



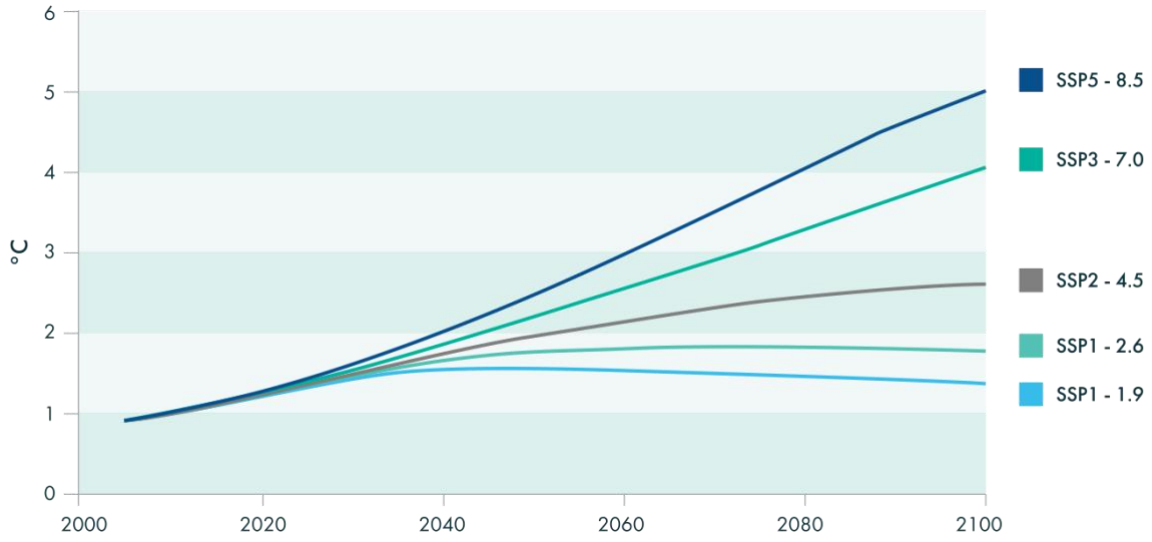
Transition risks and opportunities for each BKV business were evaluated under the STEPS and NZE scenarios to evaluate a wide range of potential outcomes.

1. **Scenario Stated Policies Scenarios ("STEPS")** reflects a sector-by-sector assessment of the specific policies currently in place and under development by governments around the world. This scenario provides a useful benchmark for evaluating outcomes where further actions to address climate change are limited and emissions from the global energy sector remain steady and demand for fossil fuels continues to grow through 2030.
2. **Net Zero Emissions by 2050 ('NZE")** is a narrow but achievable pathway for the global energy sector to achieve net-zero CO_2 emissions by 2050. This scenario tests a world that pursues even more aggressive emissions reduction strategies than those currently announced. Under this scenario, there is a rapid shift away from fossil fuels towards alternative energy sources beginning in the 2020s.

PHYSICAL SCENARIOS

Physical scenarios for BKV's analysis were taken from the IPCC's Sixth Assessment Report ("AR6"). This study summarizes the state of knowledge of climate change, its widespread impacts and risks, and potential mitigation and adaptation activities. A key element of this report is the evaluation of the physical impacts of climate change, including temperature increase, sea-level rise, changes in extreme weather patterns, and water stress. The IPCC evaluates five core scenarios in AR6 that correspond to different shared socioeconomic pathways ("SSPs") and representative concentration pathways ("RCPs"). Each scenario reflects a plausible future state of the world and tests key uncertainties under different pathways that reflect different levels of mitigation action and resulting temperature increase over time.

Figure 2: Global Surface Temperature Change through 2100 Relative to 1850-1900 by IPCC Scenario



Physical risks and opportunities for each BKV business were evaluated under SSP1-2.6 and SSP3-7.0 to evaluate a wide range of potential outcomes without looking at the most extreme outcomes in SSP1-1.9 and SSP5-8.5, which may be considered less plausible.

1. In **SSP1-2.6,** economic growth shifts toward a broader emphasis on human well-being even as aggressive action is taken to address climate change. Consumption is oriented toward low material growth, resource, and energy intensity. Global increase in temperatures is limited to below 2° C by the end of the century relative to the 1850-1900 average.
2. In **SSP3-7.0,** concerns about competitiveness, security, and regional conflicts push countries to focus on domestic and regional issues, such as energy and food security, at the expense of broader-based development and climate targets. Global temperate increase by more than 4° C by the end of the century relative to the 1850-1900 average.

Framework for Evaluating Likelihood and Impact of Climate Drivers

BKV's climate scenario analysis focuses on quantifying the short- and medium-term financial impacts to the company as a result of a changing climate and policies enacted to address global GHG emissions. "Short-term," in this analysis, is defined as the impact in calendar year 2025. "Medium-term," in this analysis, is defined as impacts in calendar year 2030. BKV also reviewed long-term outcomes across key climate drivers through 2050, though impacts on this time scale were considered only qualitatively because reported outcomes are expected to be increasingly speculative as the forecast moves further out in time.

BKV considered both the impact of individual drivers in isolation (e.g., how would the company be impacted if natural gas price outcomes aligned to the STEPs scenario from WEO 2022 with no other changes) and across two holistic scenarios that combined outcomes from the WEO and IPCC. Under these holistic scenarios, transition risks associated with quick and slow efforts to reduce global GHG emissions were combined with physical outcomes of lower and higher levels of global warming, as illustrated in Table 1 below.

Table 1: Description of Holistic Climate Scenarios Evaluated by BKV

Holistic Scenario	Transition Scenario	Physical Scenario
Quick Action to Mitigate GHG Emissions	NZE	SSP1-2.6
Slow Action to Mitigate GHG Emissions	STEPS	SSP3-7.0

For each driver and scenario, BKV estimated impacts across each of its core business lines: upstream gas and liquids production, midstream transportation, wholesale electric generation, retail electric sales, and carbon capture and storage. Impacts of each driver on BKV revenue and costs were estimated by business unit, then combined to calculate a total expected impact to BKV revenues and costs. The combined impacts of each driver were ranked relative to one another based on the level of exposure and degree of impact on the company's costs and revenue in each time frame.

In addition to evaluating financial impacts, BKV assessed the uncertainty around the reported outcomes for each key climate-related driver. Uncertainty in both the short- and medium-term was evaluated for each climate-related driver based on the range of observed outcomes across scenarios within each region and across regions within each scenario. Based on this evaluation, each driver was assigned a rank from highly likely to highly uncertain based on relative variance in outcomes observed, as defined below in Table 2.

Table 2: Uncertainty Definitions Used to Rank Drivers in BKV's Quantitative Scenario Analysis

Uncertainty Rank	Definition
Highly Likely	No difference, or almost no difference, in the reported value of the driver across the climate scenarios or regions.
Likely	Limited but noticeable differences in the reported value of the driver across the climate scenarios or regions.
Uncertain	Significant differences observed in the reported value of the driver across the climate scenarios or regions.
Highly Uncertain	A wide range of differences observed in the reported value across the climate scenarios and regions.

Finally, BKV arranged the likelihood and impact score of each driver into a matrix for years 2025 and 2030, as illustrated in the figures below. Using this framework allowed BKV to identify those climate-related drivers that are likely to have the greatest financial impact on each of its business units over the short- and medium-term and to investigate outcomes under internally consistent combinations of transition and physical risks and opportunities.

Climate-Related Drivers Evaluated Under Each Scenario

BKV considered a wide range of climate-related drivers of physical and transition risks and opportunities from the reported outputs of each scenario in the study. Ultimately, 10 drivers were selected for final inclusion in the quantitative risk and opportunity analysis because these drivers (1) directly impacted BKV's operations, (2) directly impacted the price and demand for BKV's products, and (3) because sufficient data were reported to estimate the financial impacts of the scenario outcomes on BKV. These drivers are listed in Table 2 below.[4]

Table 3: Final Climate Drivers Included in BKV's Quantitative Scenario Analysis

Driver	Source	Impact
North American Production of Natural Gas	WEO 2022	Affects forecast of BKV dry gas production and demand for midstream transportation services.
U.S. Price of Natural Gas	WEO 2022	Affects price paid for BKV dry gas production and fuel price paid by BKV's generators.
North American Production of Oil	WEO 2022	Affects forecast of BKV oil and natural gas liquids production.
U.S. Price of Oil	WEO 2022	Affects price paid to BKV for oil and natural gas liquids.
Volume of Global CCUS Storage	WEO 2022	Affects forecast of demand for "for fee" CCUS services offered by BKV.

Natural Gas-fired Electricity Generation in Advanced Economies	WEO 2022	Affects forecast of wholesale electricity produced by BKV generators.
U.S. Demand for Electricity	WEO 2022	Affects demand for retail electricity sold by BKV.
Texas and Pennsylvania Water Scarcity	IPCC	Affects costs of water consumed in BKV drilling operations.
Increased Frequency of Extreme Rainfall Events	IPCC	Affects frequency and duration of business interruptions at BKV facilities or supply chain.
U.S. Carbon Price	WEO 2022	Affects price paid by customers for BKV products, fuel cost to BKV generators, and wholesale electricity prices in ERCOT.

Results of the Scenario Analysis

BKV's scenario analysis is designed to achieve two objectives. First, to understand the elements of transition and physical risks that are expected to be most uncertain and have the greatest impact to the business. Second, to understand how the company's business units could perform under different climate scenarios that combine physical and transition outcomes in a holistic manner (i.e., combining the transition risks associated with aggressive action to reduce GHG emissions with lower temperature outcomes and vice-versa).

LIKELIHOOD AND IMPACT OF INDIVIDUAL CLIMATE-RELATED DRIVERS

Using the framework described above, BKV evaluated the likelihood and impact of individual climate-related drivers in 2025 and 2030 to better understand the impacts on its business and to determine focus areas for the development of further strategy and risk-management activities.

Figure 3 below shows the results of the likelihood and impact analysis over the short-term by focusing on outcomes in calendar year 2025. Over this timescale, there is little time for differences in physical climate outcomes to manifest, which explains why drivers such as extreme weather and water stress tend to score lower on the likelihood axis. However, impacts from extreme weather events may still be impactful on the business if they lead to extended interruptions in business operations.

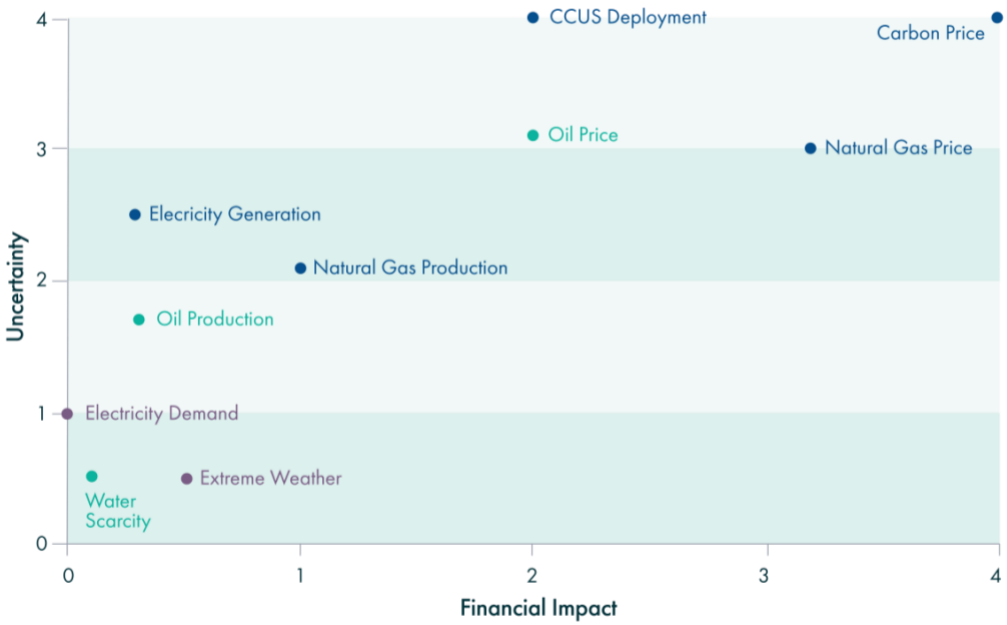
From a transition risk perspective, in 2025, there is no expected impact due to market-wide changes in carbon prices or CCUS adoption. This is because neither WEO scenario forecasts carbon prices to be enacted by 2025. Further, in this year, revenues from BKV's CCUS business are driven by projects funded under the 45Q tax credit rather than "for fee" customers purchasing CCUS as a service. These 45Q CCUS volumes are driven by decisions made by the company rather than broader market adoption of the technology, which is highly variable across the climate scenarios.

Figure 3: 2025 Climate Impact Matrix

From a financial perspective, natural gas and oil prices have the greatest impact on BKV in 2025. This outcome is driven by the relative portion of overall revenue and costs associated with these businesses. While production from these businesses also impacts outcomes for BKV, changes in volumes affect both revenues and costs, muting the overall impact relative to commodity prices. Finally, while there is uncertainty observed in the generation of electricity from natural gas units and the demand for retail electricity, the scale of these businesses relative to BKV's upstream natural gas and NGLs business limit the expected financial impacts.

Figure 4 below shows the results of the likelihood and impact analysis over the medium-term by focusing on outcomes in calendar year 2030. Over this timescale, there is more time for differences in physical climate outcomes to manifest globally. However, projections in Texas and Pennsylvania specifically, where BKV's businesses are concentrated, show little difference in outcomes across the SSP1-2.6 and SSP3-7.0 scenarios. Impacts of extreme weather on BKV's business are also relatively lower in 2030 than in 2025 because the company's revenues are more diversified, with CCUS expected to make up a major portion of total revenues and costs alongside natural gas and NGLs. Because BKV is less dependent on any single business line in 2030, interruptions at specific sites tend to have a lower impact on the overall finances of the company.

Figure 4: 2030 Climate Impact Matrix



BKV's ability to both market MNZ gas and the potential for the company to consume MNZ gas in its power asset could impact expected revenues. Overall, market adoption of CCUS as a method for achieving emissions reduction is highly uncertain across the STEPS and NZE scenarios, which affects cost and revenue from the "for fee" component of BKV's CCUS business. However, because a significant portion of overall CCUS revenues could come from the 45Q portion of the CCUS business, this could have less overall financial impact than carbon prices.

Despite the expected diversification of BKV's portfolio to include CCUS, natural gas and NGLs, sales are still expected to make up an important component of revenue in 2030. Because the IEA forecasts a wide range of potential 2030 price outcomes across the NZE and STEPS scenarios, these are expected to have a significant impact on the business over the medium term. As in 2025, demand for natural gas and oil has less impact on overall business outcomes and price since lower production volumes lead to lower operating costs, and vice-versa.

Finally, we observe a much wider range of potential electricity-sector outcomes in 2030 than in 2025 across the climate scenarios. This results in a higher scoring for these elements along the likelihood axis. However, due to the relatively small portion of overall revenue and cost relative to other offerings, the financial impacts of the demand for natural gas generation and retail electricity sales have a more limited effect on financial outcomes.

IMPACTS TO BKV UNDER QUICK AND SLOW CLIMATE ACTION SCENARIOS

The quick climate action scenario combines the transition outcomes from WEO's NZE scenario with the physical outcomes from IPCC's SSP1-2.6 scenario.

In 2025, under the "quick" scenario, BKV faces risks to its natural gas and NGLs business as a result of reduced price and demand for these products. While there are offsetting increases from the electric business, the difference in overall size could lead to a net negative impact on our results of operations. There is little impact to BKV's CCUS business in 2025 under either scenario since revenues in this period could be driven primarily by 45Q tax credits and are not expected to be as sensitive to broader market adoption of the technology.

By 2030, under the "quick" scenario, BKV shows opportunities across all business lines. This change in outcomes relative to 2025 is driven by two factors. First, by 2030, under the NZE scenario, CO_2 prices are projected to be more than $180 / metric ton. The company's ability to both market Measured Net-Zero gas to customers and the potential for the company to consume Measured Net-Zero gas in its electric generator lead to an increase in net revenues relative to the base case. Second, broad market adoption of CCUS as a mitigation technology leads to further demand for BKV's "for fee" CCUS offering.

The slow climate action scenario combines the transition outcomes from WEO's STEPS scenario with the physical outcomes from IPCC's SSP3-7.0 scenario.

In 2025, under the "slow" scenario, continued demand for natural gas and oil and higher commodity prices could result in a significant increase in our results of operations relative to base case. The electricity business could also see an increase in its results of operations driven by increased sales from BKV's wholesale power generation business, though impacts are expected to be minor compared to the upstream business. There is expected to be little impact to BKV's CCUS business in 2025 under either scenario since financial results in this period are expected to be driven primarily by 45Q tax credits and are not expected to be sensitive to broader market adoption of the technology.

In 2030, under the "slow" scenario, the trend of increasing revenues from BKV's upstream business is expected to be sustained due to strong demand for gas and NGLs and increasing market prices. The electricity business is expected to show an increase in results of operations-driven, relative to the base case, due to increased generation at BKV's power plant, though impacts are expected to be minor compared to the oil and gas business. Finally, BKV faces risks to its CCUS business under this outlook as the demand for the "for fee" portion of the business could be significantly lower than in other outlooks. However, due to the 45Q portion of the CCUS business, the overall impacts of this potential decline on financial results are limited and are expected to be well below the increases observed in BKV's other business segments.

Metrics and Targets

Use of climate-related metrics / Metrics to assess climate-related risks and opportunities

Metrics Used to Assess Climate-Related Risks and Opportunities			
	Unit	**2021 (Baseline)[1]**	**2022**
Scope 1 and 2 Emissions	Million tonnes CO_2e	2.40[2]	1.90[3]
Scope 3 Emissions[4]	Million tonnes CO_2e	11.00[5]	14.0[6]
Methane Emissions Intensity	% (CH4 (CO_2e) / total CO_2e)	83	70.18
Barnett			
Freshwater Use	Million cubic meters	0.0309	3.34
Freshwater Reused/Recycled (estimated)	%	20	0
NEPA			
Freshwater Use	Million cubic meters	0.390	1.10
Freshwater Reused/Recycled (estimated)	%	6	0

For the complete performance table, refer to BKV 2022 Sustainability Report.

[1] 2021 baseline may not be reflective of the reported emissions in our 2021 sustainability report due to the addition of the Exxon Barnett acquisition modeled into a new baseline.

[2] Projected GHG baseline established 7/1/22 due to the acquisition of Exxon Barnett upstream and midstream assets. Original BKV 2021 baseline was 1.6 Mtpy-CO_2e.

[3] Owned and operated upstream reported Scope 1 and 2 emissions as of December 31, 2022, inclusive of the Exxon Barnett acquisition.

[4] Our Scope 3 emissions are estimated using Category 11 from our upstream operations.

[5] Estimated Scope 3 emissions as of December 31, 2021.

[6] Scope 3 emissions based on 2022 reported production of 144 MMcfd for NEPA and 562 MMcfd for Barnett and 500 bbl of NGL.

Targets and Performance

We have set a goal of reaching net-zero GHG emissions across Scopes 1 and 2 by the end of 2025 for our owned and operated upstream operations, and we have a credible path to achieve this goal. For our Scope 3 emissions, our goal is to reach net zero Scope 1, 2 and 3 emissions from our owned and operated upstream businesses by the early 2030s. We have developed a credible path to achieving these net-zero and offset goals through the exploration and expansion of carbon-negative businesses, such as CCUS.

Indicator	Target	2022 Progress
GHG Emissions	Net-Zero for Scope 1 and Scope 2 GHG emissions across our owned and operated upstream operations by year-end 2025	We estimate that our owned and operated upstream Scope 1 and 2 annual emissions were approximately 1.90 Mtpy CO_2e as of December 31, 2022. This updated baseline reflects direct emission reduction of 0.335 Mtpy CO_2e compared to 2021 data due to the implementation of "Pad of the Future" emissions reductions. The 2022 estimate is also inclusive of the assets acquired in the Exxon Barnett Acquisition in June 2022.
GHG Emissions	Aspire to offset the Scope 3 GHG emissions of our owned and operated upstream businesses by the early 2030s	We estimate our Scope 3 emissions to be approximately 14 Mtpy CO_2e annually as of December 31, 2022. We have identified twelve potential CCUS projects that we believe are commercially viable. We anticipate that the completion of these or a combination of other comparable projects would enable us to achieve our Scope 1, 2 and 3 emissions goals.

To read more about our performance updates toward the net-zero path, please refer to BKV 2022 Sustainability Report.