

As filed with the Securities and Exchange Commission on December 23, 2025

Registration No. 333-

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**FORM S-3**

REGISTRATION STATEMENT

UNDER

THE SECURITIES ACT OF 1933

**BKV CORPORATION**

(Exact name of registrant as specified in its charter)

**Delaware**  
(State or other jurisdiction of  
incorporation or organization)

**1200 17th Street, Suite 2100**  
**Denver, Colorado**  
(Address, including zip code, and  
telephone number, including area code, of  
registrant's principal executive offices)

**85-0886382**  
(I.R.S. Employer  
Identification Number)

**Lindsay B. Larrick**  
**Chief Legal Officer and Chief Administrative Officer**  
**BKV Corporation**  
**1200 17th Street, Suite 2100**  
**Denver, Colorado 80202**  
**(720) 375-9680**

(Name, address, including zip code, and telephone number, including area code, of agent for service)

*Copies to:*

**Samantha H. Crispin**  
**Baker Botts L.L.P.**  
**2001 Ross Avenue, Suite 900**  
**Dallas, Texas 75201**  
**(214) 953-6500**

**Approximate date of commencement of proposed sale to the public:** From time to time after this registration statement becomes effective.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box:

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box:

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input checked="" type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input checked="" type="checkbox"/>

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

## PROSPECTUS

**BKV CORPORATION****Up to 5,233,957 Shares of Common Stock Offered by the Selling Stockholder**

This prospectus relates to the offering and resale by the selling stockholder named in the “Selling Stockholder” section of this prospectus of up to 5,233,957 shares of our common stock, par value \$0.01 (the “common stock”), from time to time in amounts, at prices and on terms that will be determined at the time of any such offering. We are registering the offer and sale of the shares of the common stock owned by the selling stockholder to satisfy registration rights we have granted to the selling stockholder pursuant to the registration rights agreement, dated as of September 29, 2025 (the “Registration Rights Agreement”). We have agreed to bear all of the expenses incurred in connection with the registration of the common stock covered by this prospectus. The selling stockholder will pay or assume brokerage discounts and commissions and similar charges, if any, incurred in the sale of the common stock sold by them. We are not selling any common stock under this prospectus, and we will not receive any proceeds from the offer or sale of any common stock by the selling stockholder pursuant to this prospectus. See “Selling Stockholder” for a more detailed discussion about the selling stockholder.

Each time the selling stockholder sells common stock pursuant to this prospectus, we will provide a prospectus supplement and attach it to this prospectus. The applicable prospectus supplement will also describe the specific manner in which the selling stockholder will offer the common stock and may also supplement, update or amend information contained in this prospectus. The selling stockholder may offer and sell the common stock to or through one or more underwriters, dealers or agents, or directly to purchasers, on a continuous or delayed basis. The price at which the selling stockholder may sell the common stock will be determined by the prevailing market for the common stock or in negotiated transactions that may be at prices other than prevailing market prices. See “Plan of Distribution” elsewhere in this prospectus for more information about how the selling stockholder may sell or otherwise dispose of the common stock. Our registration of the common stock does not mean that the selling stockholder will offer or sell any shares of common stock. The names of any underwriters, dealers or agents and the terms of the arrangements with such entities will be stated in the applicable prospectus supplement.

You should carefully read this prospectus and any supplement, as well as the documents incorporated by reference herein or therein, before you invest. No person may use this prospectus to offer and sell the common stock unless a prospectus supplement accompanies this prospectus.

Our common stock is listed on the New York Stock Exchange (“NYSE”) under the symbol “BKV”. On December 22, 2025, the last reported sale price of our common stock on NYSE was \$27.04 per share. Our principal executive office is located at 1200 17th Street, Suite 2100, Denver, Colorado 80202, and our telephone number is (720) 375-9680.

**Investing in our common stock involves risks. You should carefully review and consider the risks and uncertainties described under the heading “Risk Factors” contained on page 3 herein and in any applicable prospectus supplement and the documents incorporated or deemed incorporated by reference in this prospectus or in any applicable prospectus supplement before investing in our common stock.**

**NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR DETERMINED THAT THIS PROSPECTUS IS ACCURATE OR COMPLETE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.**

**The date of this prospectus is December 23, 2025**

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## ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission (“SEC”) utilizing a “shelf” registration process. Under this shelf registration process, the selling stockholder named herein may offer and sell from time to time, in one or more offerings, shares of common stock as described in this prospectus.

This prospectus provides you with a general description of the common stock the selling stockholder may offer. Each time any selling stockholder offers common stock pursuant to this prospectus, we will provide a prospectus supplement and attach it to this prospectus. We may also provide you with a free writing prospectus that contains information about the offering. To the extent required by law, such prospectus supplement or free writing prospectus will contain more specific information about the terms of that offering and the common stock being offered. Any prospectus supplement and any free writing prospectus may add to, update, supplement, change or clarify information contained in this prospectus. Any statement that we make in this prospectus will be modified or superseded by any inconsistent statement made by us in a prospectus supplement or free writing prospectus prepared by us. If the information in this prospectus is inconsistent with a prospectus supplement or free writing prospectus, you should rely on the information in the prospectus supplement or free writing prospectus.

**You should rely only on the information we have provided or incorporated by reference in this prospectus, any applicable prospectus supplement or any free-writing prospectus filed by us with the SEC and any information about the terms of the common stock offered conveyed to you by us, our underwriters or our agents. Neither we nor the selling stockholder have authorized any person, including any salesman or broker, to provide you with different information. If anyone provides you with different or additional information, you should not rely on it. We and the selling stockholder take no responsibility for, and provide no assurance as to the reliability of, any other information that others may give you. You should assume that the information in this prospectus, any applicable prospectus supplement and any free-writing prospectus is accurate only as of the date on its cover page and that any information we have incorporated by reference is accurate only as of the date of the document incorporated by reference. Our business, financial condition, results of operations and prospects may have changed since such dates.**

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference in this prospectus were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

**The selling stockholder will not make an offer of the common stock in any jurisdiction where the offer or sale is not permitted. This prospectus does not constitute, and may not be used in connection with, an offer or solicitation by anyone in any jurisdiction in which the offer or solicitation is not authorized, or in which the person making the offer or solicitation is not qualified to do so, or to any person to whom it is unlawful to make the offer or solicitation.**

You should carefully read this prospectus, any accompanying prospectus supplement or free writing prospectus and the information that is incorporated or deemed incorporated by reference in this prospectus. See “Documents Incorporated by Reference into This Prospectus.”

In this prospectus, “BKV,” “we,” “us,” “our,” and the “Company” refer to BKV Corporation and its consolidated subsidiaries, unless otherwise indicated or the context otherwise requires.

## WHERE YOU CAN FIND MORE INFORMATION

We are subject to the informational requirements of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and as a result, we file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public at the SEC’s website at <http://www.sec.gov>, as well as on our website at [www.bkv.com](http://www.bkv.com). However, information contained on or accessible through our website is not intended to be incorporated by reference in this prospectus and you

should not consider that information a part of this prospectus, other than the documents expressly incorporated by reference or deemed incorporated by reference into this prospectus.

This prospectus is part of a registration statement that we filed with the SEC relating to the common stock the selling stockholder may offer. As permitted by the SEC rules, this prospectus does not contain all of the information we included in the registration statement. You may refer to the registration statement and the accompanying exhibits for more information about us and the common stock. Whenever a reference is made in this prospectus to a contract or other document of ours, the reference is only a summary and you should refer to the exhibits that are a part of the registration statement or otherwise filed with the SEC for a copy or more complete understanding of the document. You may review a copy of the registration statement through the SEC's website.

#### DOCUMENTS INCORPORATED BY REFERENCE INTO THIS PROSPECTUS

The SEC allows information to be “incorporated by reference” into this prospectus, which means that important information can be disclosed to you by referring you to another document filed separately by us with the SEC. The information incorporated by reference is deemed to be part of this prospectus, except for any information superseded by information in this prospectus. The information incorporated by reference is an important part of this prospectus, and information that we file later with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below and any future filings made by us with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus and prior to the termination of the offering or offerings to which this prospectus relates are completed (other than documents or information deemed to have been furnished and not filed in accordance with SEC rules):

- our Annual Report on [Form 10-K](#) for the fiscal year ended December 31, 2024 filed with the SEC on March 31, 2025, including those sections incorporated therein by reference from our Definitive Proxy Statement on [Schedule 14A](#) filed with the SEC on April 28, 2025;
- our Quarterly Reports on Form 10-Q for the fiscal quarter ended March 31, 2025 filed with the SEC on [May 9, 2025](#), for the fiscal quarter ended June 30, 2025 filed with the SEC on [August 12, 2025](#) and for the fiscal quarter ended September 30, 2025 filed with the SEC on [November 10, 2025](#);
- our Current Reports on Form 8-K filed with the SEC on [February 3, 2025](#), [May 8, 2025](#), [June 20, 2025](#), [August 12, 2025](#), [September 22, 2025](#), [October 1, 2025](#), [October 29, 2025](#), [November 17, 2025](#), [December 3, 2025](#) and [December 18, 2025](#); and
- the description of our common stock contained in our registration statement on [Form 8-A](#) filed with the SEC on September 25, 2024, as updated by the description of our securities contained in [Exhibit 4.1](#) to the Annual Report on Form 10-K for the year ended December 31, 2024, filed with the SEC on March 31, 2025.

Documents incorporated by reference are available from us without charge, excluding exhibits to those documents unless the exhibit has been specifically incorporated by reference in the documents. You may obtain without charge a copy of documents that are incorporated by reference in this prospectus by requesting them in writing or by telephone at the following address:

BKV Corporation  
1200 17th Street, Suite 2100  
Denver, Colorado  
(720) 375-9680

## OUR COMPANY

BKV is a forward thinking, growth driven energy company focused on creating value for our stockholders through the organic development of our properties as well as accretive acquisitions. Our core business is to produce natural gas from our owned and operated upstream businesses, which are supported by our four business lines: natural gas production; natural gas gathering, processing and transportation (our “natural gas midstream business”); power generation; and carbon capture, utilization and sequestration (“CCUS”). We expect our owned and operated upstream and natural gas midstream businesses to achieve net zero Scope 1 and Scope 2 emissions by the early 2030s, and net zero Scope 1, 2, and 3 emissions by the late 2030s. We maintain a “closed-loop” approach to our net zero emissions goal through the operation of our four business lines. We are committed to vertically integrating portions of our business to reduce costs and improve overall commercial optimization of the full value chain. Our strategy is to create value for our stockholders by managing and growing our integrated asset base and focusing on our net zero objectives.

We were incorporated in the State of Delaware in May 2020. We completed our initial public offering on September 27, 2024. Shares of our common stock trade on NYSE under the ticker symbol “BKV”.

The Company’s principal executive offices are located at 1200 17th Street, Suite 2100, Denver, Colorado 80202, and the Company’s telephone number is (720) 375-9680. We maintain a website at [www.BKV.com](http://www.BKV.com). We make available free of charge on our website our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and any amendments thereto, as soon as reasonably practicable after such material is filed with, or furnished to, the SEC. Information on our Investor page and on or available through our website is not part of this prospectus or any of our other securities filings unless specifically incorporated or deemed incorporated herein by reference.

## RISK FACTORS

An investment in our common stock involves risks. Before making a decision whether to invest in our common stock, you should consider the risks described under “Risk Factors” and elsewhere in our most recent Annual Report on Form 10-K and any subsequently filed periodic and current reports that are incorporated by reference in this prospectus, and those risk factors that may be included in any applicable prospectus supplement. These risks are not the only risks that we face. This prospectus also contains forward-looking statements that involve risks and uncertainties. Please read “Cautionary Statement Regarding Forward-Looking Statements.” Our actual results could differ materially from those anticipated in the forward-looking statements as a result of certain factors, including the risks described elsewhere in this prospectus or any prospectus supplement and in the documents incorporated by reference in this prospectus or any prospectus supplement. If any of these risks occur, our business, financial condition or results of operations could be adversely affected. In that case, the trading price of our common stock could decline, and you could lose all or part of your investment.

## CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, any accompanying prospectus supplement or free writing prospectus and the information incorporated by reference herein may include forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”), Section 21E of the Exchange Act and the Private Securities Litigation Reform Act of 1995. All statements, other than statements of historical fact contained in this prospectus, regarding our strategy, future operations, financial position, estimated revenue and losses, projected costs, prospects, plans and objectives of management and dividend policy, are forward-looking statements. When used in this prospectus, words such as “expect,” “project,” “estimate,” “believe,” “anticipate,” “intend,” “budget,” “plan,” “seek,” “envision,” “forecast,” “target,” “predict,” “may,” “should,” “would,” “could,” “will,” the negative of these terms and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain such identifying words. Such forward-looking statements include, but are not limited to, statements about the consummation and timing of the proposed transaction to acquire one-half of the limited liability company interests of BKV-BPP Power, LLC from Banpu Power US Corporation, which is expected to close in the first quarter of 2026 (the “BPPUS BKV-BPP Power Joint Venture Transaction), the anticipated benefits, opportunities and results with respect to the BKV-BPP Power Joint Venture Transaction and the Bedrock acquisition (as defined below), including any expected value creation from the BKV-BPP Power Joint Venture

Transaction or the Bedrock acquisition, and any reserves additions, midstream opportunities and other anticipated impacts from the Bedrock acquisition, anticipated efficiencies, power plant reliability and strategic growth and power purchase agreement opportunities relating to the BKV-BPP Power Joint Venture and the BKV-BPP Power Joint Venture Transaction, as well as guidance, projected or forecasted financial and operating results, future liquidity, leverage, results in certain basins, objectives, project timing, expectations and intentions, regulatory and governmental actions and other statements that are not historical facts. These forward-looking statements are based on our current expectations and assumptions about future events and are based on currently available information as to the outcome and timing of future events.

Forward-looking statements contained in this prospectus include, but are not limited to, statements about:

- our business strategy;
- our reserves;
- our financial strategy, liquidity and capital required for our development programs;
- our relationship with our sponsor, Banpu Public Company Limited (“Banpu”), and its affiliates, including future agreements with Banpu;
- actual and potential conflicts of interest relating to Banpu, its affiliates and other entities in which members of our officers and directors are or may become involved;
- volatility in natural gas, natural gas liquids (“NGL”) and oil prices;
- our dividend policy;
- our drilling plans and the timing and amount of future production of natural gas, NGL and oil;
- our hedging strategy and results;
- competition and government regulation;
- changes in trade regulation, including tariffs and other market factors;
- legal, regulatory or environmental matters;
- marketing of natural gas, NGL and oil;
- business or leasehold acquisitions and integration of acquired businesses, including the Bedrock acquisition, with our business;
- our ability to develop existing prospects;
- costs of developing our properties and of conducting our operations;
- our plans to establish midstream contracts that allow us to supply our own natural gas directly to our combined gas turbine and steam turbine power plants located in Temple, Texas;
- our plan to continue to build out our power generation business and to expand into retail power;
- our ability to develop, produce and sell carbon sequestered gas;
- our ability to effectively operate and grow our CCUS business;
- our ability to forecast annual carbon dioxide equivalent sequestration rates for our CCUS projects;
- our ability to reach final investment decision and execute and complete any of our pipeline of identified CCUS projects;
- our ability to identify and complete additional CCUS projects as we expand our upstream operations;
- our ability to effectively operate and grow our retail power business;
- our anticipated Scope 1, 2 and 3 emissions from our owned and operated upstream and natural gas midstream businesses and our sustainability plans and goals, including our plans to offset our Scope 1, 2 and 3 emissions from our owned and operated upstream and natural gas midstream businesses;

- our environmental, social and governance (“ESG”) strategy and initiatives, including those relating to the generation and marketing of environmental attributes or new products seeking to benefit from ESG-related activities, and the continuation of government tax incentives applicable thereto;
- the impact of regional epidemics or pandemics and its effects on our business and financial condition;
- general economic conditions;
- cost inflation;
- credit markets;
- our ability to service our indebtedness;
- our ability to expand our business, including through the recruitment and retention of skilled personnel;
- our future operating results;
- the remediation of our material weakness;
- the Bedrock acquisition and the anticipated benefits thereof;
- the BKV-BPP Power Joint Venture Transaction and the anticipated timing and benefits thereof;
- the impact of the One Big Beautiful Bill Act of 2025; and
- our plans, objectives, expectations and intentions.

Although we believe our estimates and assumptions to be reasonable, they are inherently uncertain and involve a number of risks and uncertainties that are beyond our control. In addition, management’s assumptions about future events may prove to be inaccurate. Management cautions all readers that the forward-looking statements contained in this prospectus, any accompanying prospectus supplement and the information incorporated by reference herein are not guarantees of future performance, and we cannot assure any reader that those statements will be realized or the forward-looking events and circumstances will occur. For a discussion of risks and uncertainties that could cause actual results to differ from those contained in the forward-looking statements, see our most recent Annual Report on Form 10-K, our Quarterly Reports on Form 10-Q, and our Current Reports on Form 8-K, particularly under the heading “Risk Factors.” All forward-looking statements speak only as of the date of this prospectus, the date of any accompanying prospectus supplement or the date of the information incorporated by reference herein, as applicable.

Except as otherwise required by applicable law, we disclaim any duty to update any forward-looking statements, all of which are expressly qualified by the statements in this section, to reflect events or circumstances after the date of this prospectus.

All forward-looking statements, expressed or implied, included in this prospectus are expressly qualified in their entirety by this cautionary statement. This cautionary statement should also be considered in connection with any subsequent written or oral forward-looking statements that we or persons acting on our behalf may issue. We urge you to carefully review and consider the disclosures made in this prospectus and our reports filed with the SEC and incorporated by reference herein that attempt to advise interested parties of the risks and factors that may affect our business. Please read “Where You Can Find More Information.”

#### **USE OF PROCEEDS**

We are not selling any common stock under this prospectus. The selling stockholder may offer and sell up to an aggregate of 5,233,957 shares of common stock under this prospectus. See the section titled, “Selling Stockholder.” Accordingly, we will not receive any proceeds from the sales of common stock sold by the selling stockholder.



## SELLING STOCKHOLDER

This prospectus covers the offering for resale of up to an aggregate of 5,233,957 shares of common stock that may be offered and sold from time to time under this prospectus by the selling stockholder identified in the table below, subject to any appropriate adjustment as a result of any stock dividend, stock split or distribution, or in connection with a combination of shares, and any security into which such shares of common stock shall have been converted or exchanged in connection with a recapitalization, reorganization, reclassification, merger, consolidation, exchange, distribution or otherwise.

In connection with the acquisition of 100% of the equity interests of Bedrock Production, LLC, a Texas limited liability company, from the selling stockholder on September 29, 2025 (the “Bedrock acquisition”), we entered into the Registration Rights Agreement with the selling stockholder pursuant to which we agreed to prepare and file a registration statement to permit the resale of certain shares of common stock held by the selling stockholder from time to time as permitted by Rule 415 promulgated under the Securities Act and to use all reasonable efforts to cause the registration statement to remain effective during the period such registration statement is required to be kept effective, and to be supplemented and amended to the extent necessary to ensure that the registration statement is available or, if not available, that another registration statement is available, for the resale of all such shares of common stock held by the selling stockholder until all such shares have ceased to be Registrable Securities (as defined in the Registration Rights Agreement).

Furthermore, under the Registration Rights Agreement, the selling stockholder has demand rights and piggyback registration rights with respect to certain other underwritten offerings conducted by us for our own account or the account of our other stockholders. The Registration Rights Agreement contains customary indemnification and contribution obligations of ours for the benefit of the selling stockholder and vice versa, subject to certain qualifications and exceptions.

Information about the selling stockholder may change over time. As used in this prospectus, “selling stockholder” includes the donees, transferees, assignees, successors, heirs, executors, administrators, legal representatives, pledgees and others who may later hold the selling stockholder’s interests.

We have prepared the table below and the related notes based on information supplied to us by the selling stockholder and such information is as of November 13, 2025. We have not sought to verify such information. We believe, based on information supplied by the selling stockholder, that except as may otherwise be indicated in the footnotes to the table below, the selling stockholder has sole voting and dispositive power with respect to the shares of common stock reported as beneficially owned by it. Because the selling stockholder identified in the table may sell some or all of the shares of common stock owned by it which are included in this prospectus, and because there are currently no agreements, arrangements or understandings with respect to the sale of any of the shares of common stock, no estimate can be given as to the number of the shares of common stock available for resale hereby that will be held by the selling stockholder upon termination of this offering.

In addition, the selling stockholder may have sold, transferred or otherwise disposed of, or may sell, transfer or otherwise dispose of, at any time and from time to time, the shares of common stock it holds in transactions exempt from the registration requirements of the Securities Act after the date on which the selling stockholder provided the information set forth on the table below or pursuant to another effective registration statement covering those shares. We have, therefore, assumed for the purposes of the following table, that the selling stockholder will sell all of the shares of common stock beneficially owned by it that are covered by this prospectus. The selling stockholder is not obligated to sell any of the shares of common stock offered by this prospectus. The percent of beneficial ownership for the selling stockholder is based on 96,871,868 shares of common stock outstanding as of December 4, 2025.

Selling Stockholder	Shares of Common Stock Beneficially Owned Prior to the Offering <sup>(1)</sup>		Shares of Common Stock Offered Hereby	Shares of common stock Beneficially Owned After Completion of the Offering	
	Number	Percentage		Number	Percentage
Bedrock Energy Partners, LLC (“BEP”) <sup>(2)</sup>	5,233,957	5.40%	5,233,957	—	—

- (1) The amounts and percentages of common stock beneficially owned are reported on the basis of regulations of the SEC governing the determination of beneficial ownership of securities. Under the rules of the SEC, a person is deemed to be a “beneficial owner” of a security if that person has or shares voting power, which includes the power to vote or direct the voting of such security, or investment power, which includes the power to dispose of or to direct the disposition of such security. Under these rules, more than one person may be deemed to be a beneficial owner of the same securities, and a person may be deemed to be a beneficial owner of securities as to which such person has no economic interest.
- (2) Consists of shares of common stock held directly by BEP, a Delaware limited liability company and an indirect wholly owned subsidiary of Mountain Capital Management, LLC, a Delaware limited liability company (“MCM”). MCM holds voting and dispositive power with respect to the common stock held by BEP and therefore may be deemed to be the beneficial owner of such common stock. The principal address for BEP is 811 Louisiana Street, Suite 2600, Houston, Texas 77002.

## DESCRIPTION OF CAPITAL STOCK

### **General**

Pursuant to our Second Amended and Restated Certificate of Incorporation (the “certificate of incorporation”), our authorized capital stock consists of:

- 500,000,000 shares of common stock, \$0.01 par value per share, and
- 80,000,000 shares of preferred stock, \$0.01 par value per share.

As of December 4, 2025, there were 96,871,868 shares of common stock issued and outstanding and no preferred stock issued and outstanding.

### **Common Stock**

The following description of our common stock is a summary and does not purport to be complete. It is subject to and qualified in its entirety by reference to our certificate of incorporation and our Second Amended and Restated Bylaws (the “bylaws”), each of which are included as exhibits to the registration statement of which this prospectus forms a part, and to the applicable provisions of the General Corporation Law of the State of Delaware (the “DGCL”).

### ***Voting Rights***

Holders of shares of our common stock are entitled to one vote for each share held of record on all matters on which stockholders are entitled to vote generally, including the election or removal of directors elected by our stockholders generally. Holders of our common stock do not have cumulative voting rights in the election of directors. Subject to certain nomination rights of Banpu North America Corporation (“BNAC”) under the Stockholders’ Agreement we entered into on September 27, 2024 (the “Stockholders’ Agreement”), which is filed as an exhibit to our most recent Annual Report on Form 10-K, holders of our common stock are entitled to elect all directors to our board of directors.

### ***Dividend Rights***

Holders of shares of our common stock are entitled to receive dividends when, as and if declared by our board of directors out of funds legally available therefor, subject to any statutory or contractual restrictions on the payment of dividends and to any restrictions on the payment of dividends imposed by the terms of any outstanding preferred stock.

### ***Liquidation, Dissolution and Winding-Up Rights***

Upon our liquidation, dissolution or winding up and after payment in full of all amounts required to be paid to creditors and to the holders of preferred stock having liquidation preferences, if any, the holders of shares of our common stock will be entitled to receive pro rata our remaining assets available for distribution.

### ***Other Rights***

All outstanding shares of our common stock are fully paid and non-assessable. Our common stock is not subject to further calls or assessments by us. Holders of shares of our common stock do not have preemptive, subscription, redemption or conversion rights. There are no redemption or sinking fund provisions applicable to our common stock. The rights powers, preferences and privileges of our common stock are subject to those of the holders of any shares of our preferred stock or any other series or class of stock we may authorize and issue in the future.

### **Preferred Stock**

Our certificate of incorporation authorizes our board of directors to establish one or more series of preferred stock (including convertible preferred stock). Unless required by law or any stock exchange, the

authorized shares of preferred stock are available for issuance without further action by the holders of our common stock. Our board of directors is able to determine, with respect to any series of preferred stock, the powers (including voting powers), preferences and relative, participating, optional or other special rights, and the qualifications, limitations or restrictions thereof, including, without limitation:

- the designation of the series;
- the number of shares of the series, which our board of directors may, except where otherwise provided in the preferred stock designation, increase (but not above the total number of authorized shares of the class) or decrease (but not below the number of shares then outstanding);
- whether dividends, if any, will be cumulative or non-cumulative and the dividend rate of the series;
- the dates at which dividends, if any, will be payable;
- the redemption or repurchase rights and price or prices, if any, for shares of the series;
- the terms and amounts of any sinking fund provided for the purchase or redemption of shares of the series;
- the amounts payable on shares of the series in the event of any voluntary or involuntary liquidation, dissolution or winding-up of our affairs;
- whether the shares of the series will be convertible into shares of any other class or series, or any other security, of us or any other entity, and, if so, the specification of the other class or series or other security, the conversion price or prices or rate or rates, any rate adjustments, the date or dates as of which the shares will be convertible and all other terms and conditions upon which the conversion may be made;
- restrictions on the issuance of shares of the same series or of any other class or series; and
- the voting rights, if any, of the holders of the series.

#### **Transfer Agent and Registrar**

The transfer agent and registrar for our common stock is Broadridge Corporate Issuer Solutions, Inc. The transfer agent and registrar's address is 51 Mercedes Way, Edgewood, New York 11717.

#### **Listing**

Shares of our common stock are listed on the NYSE under the symbol "BKV."

#### **Anti-Takeover Provisions**

Our governing documents and the DGCL contain provisions, which are summarized in the following paragraphs, that are intended to enhance the likelihood of continuity and stability in the composition of our board of directors. These provisions are intended to avoid costly takeover battles, reduce our vulnerability to a hostile or abusive change of control and enhance the ability of our board of directors to maximize stockholder value in connection with any unsolicited offer to acquire us. However, these provisions may have an anti-takeover effect and may delay, deter or prevent a merger or acquisition of the Company by means of a tender offer, a proxy contest or other takeover attempt that a stockholder might consider in its best interest, including those attempts that might result in a premium over the prevailing market price for the shares of common stock held by stockholders.

#### ***Classified Board of Directors***

Our certificate of incorporation provides that our board of directors is divided into three classes of directors, with each class to be as equal in number as possible, and with the directors serving staggered three-year terms. As a result, approximately one-third of our board of directors will be elected each year. The classification of directors has the effect of making it more difficult for stockholders to change the composition of our board of directors. Our certificate of incorporation provides that, subject to any rights of holders

of preferred stock to elect additional directors under specified circumstances, the total number of directors will be determined from time to time by the affirmative vote of a majority of the total number of directors then in office.

***Delaware Law***

We are subject to the provisions of Section 203 of the DGCL regulating corporate takeovers. Section 203 of the DGCL provides that, subject to exceptions specified therein, an “interested stockholder” of a Delaware corporation shall not engage in any “business combination,” including general mergers or consolidations or acquisitions of additional shares of the corporation, with the corporation for a three-year period following the time that such stockholder becomes an interested stockholder unless:

- prior to such time, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction that resulted in the stockholder becoming an “interested stockholder,” the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced (excluding specified shares); or
- at or subsequent to such time, the business combination is approved by the board of directors of the corporation and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66 $\frac{2}{3}$ % of the outstanding voting stock not owned by the interested stockholder.

Under Section 203 of the DGCL, the restrictions described above also do not apply to specified business combinations proposed by an interested stockholder following the announcement or notification of one of specified transactions involving the corporation and a person who had not been an interested stockholder during the previous three years or who became an interested stockholder with the approval of a majority of the corporation’s directors, if such transaction is approved or not opposed by a majority of the directors who were directors prior to any person becoming an interested stockholder during the previous three years or were recommended for election or elected to succeed such directors by a majority of such directors.

Except as otherwise specified in Section 203 of the DGCL, an “interested stockholder” is defined to include:

- any person that is the owner of 15% or more of the outstanding voting stock of the corporation, or is an affiliate or associate of the corporation and was the owner of 15% or more of the outstanding voting stock of the corporation at any time within three years immediately prior to the date of determination; and
- the affiliates and associates of any such person.

Under some circumstances, Section 203 of the DGCL makes it more difficult for a person who is an interested stockholder to effect various business combinations with us for a three-year period following the time such stockholder became an interested stockholder.

A Delaware corporation may “opt out” of Section 203 of the DGCL with an express provision in its original certificate of incorporation or an express provision in its certificate of incorporation or bylaws resulting from amendments approved by the holders of at least a majority of the corporation’s outstanding voting shares. We have not elected to “opt out” of the provisions of Section 203 of the DGCL. The statute could prohibit or delay mergers or other takeover or change in control attempts and, accordingly, may discourage attempts to acquire us.

***Removal of Directors; Vacancies and Newly Created Directorships***

Under the DGCL, unless otherwise provided in our certificate of incorporation, directors serving on a classified board may be removed by the stockholders only for cause. Our certificate of incorporation provides that directors may be removed only for cause and only by the affirmative vote of the holders of at least 60% in voting power of all the then-outstanding shares of our stock entitled to vote generally in the election

of directors, voting together as a single class. In addition, our certificate of incorporation provides that, subject to the rights granted to the holders of one or more series of preferred stock then outstanding or the rights granted under our Stockholders' Agreement, any vacancies on our board of directors, and any newly created directorships, will be filled by an appointment made by a majority of the total number of directors then in office, even if less than a quorum, or by a sole remaining director, and not by the stockholders.

#### ***Special Stockholder Meetings***

Our certificate of incorporation provides that, subject to the rights of the holders of any series of preferred stock, special meetings of our stockholders may be called at any time only by or at the direction of our board of directors by the affirmative vote of a majority of the total number of directors then in office, the chairman of our board of directors or our Chief Executive Officer, and may not be called by any other person or persons. Our bylaws prohibit the conduct of any business at a special meeting other than as specified in the notice for such meeting. These provisions may have the effect of deterring, delaying or discouraging hostile takeovers, or changes in control or management of the Company.

#### ***Director Nominations and Stockholder Proposals***

Our bylaws establish advance notice procedures with respect to stockholder proposals and the nomination of candidates for election as directors, other than nominations made by or at the direction of the board of directors or a committee of the board of directors, as well as certain requirements regarding the form and content of a shareholder's notice for any such proposal. In order for any matter to be "properly brought" before a meeting, any such proposals will have to comply with these advance notice, form and content requirements.

#### ***Stockholder Action by Written Consent***

Under the DGCL, any action required to be taken at any annual or special meeting of stockholders may be taken without a meeting, without prior notice and without a vote if a consent or consents in writing, setting forth the action so taken, is or are signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares of our stock entitled to vote thereon were present and voted, unless our certificate of incorporation provides otherwise. Our certificate of incorporation precludes stockholder action by written consent at any time when BNAC and its affiliates and subsidiaries (excluding the Company and its subsidiaries) own, in the aggregate, less than 35% in voting power of our stock entitled to vote generally in the election of directors.

#### ***Supermajority Provisions***

Our governing documents provide that our board of directors is expressly authorized to make, repeal, alter, amend and rescind, in whole or in part, our bylaws by the affirmative vote of a majority of the total number of directors then in office, without the assent or vote of our stockholders in any matter not inconsistent with the laws of the State of Delaware or our certificate of incorporation.

Any amendment, alteration, rescission or repeal of any provision of our bylaws, or the adoption of any provision inconsistent with our bylaws, by our stockholders, requires the affirmative vote of the holders of at least 66 $\frac{2}{3}$ % in voting power of all the then-outstanding shares of our stock entitled to vote thereon, voting together as a single class, in addition to any vote of the holders of any class or series of our capital stock required by our governing documents or any applicable law, securities exchange rule or regulation.

The DGCL provides generally that the affirmative vote of a majority of the outstanding shares entitled to vote thereon, voting together as a single class, is required to amend a corporation's certificate of incorporation, unless the certificate of incorporation requires a greater percentage.

Our certificate of incorporation provides that, in addition to any vote required by our governing documents or any applicable law, securities exchange rule or regulation, the following provisions in our certificate of incorporation may be amended, altered, repealed or rescinded, in whole or in part, or any provision inconsistent therewith may be adopted, only by the affirmative vote of the holders of at least 66 $\frac{2}{3}$ %

in voting power of the then-outstanding shares of our stock entitled to vote thereon, voting together as a single class (except that, in the case of any proposed amendment, alteration, repeal or rescission of, or the adoption of any provision inconsistent with, the following provisions, as to which the DGCL does not require the consent or vote of the stockholders or that is approved by at least 60% of our board of directors, then only the affirmative vote of the holders of a majority in voting power of all the then-outstanding shares of our stock entitled to vote thereon, voting together as a single class (in addition to any vote required by our governing documents or any applicable law, securities exchange rule or regulation)), is required to amend, alter, repeal or rescind, or adopt any provision inconsistent with, the following provisions:

- the provisions requiring a 66 $\frac{2}{3}$ % supermajority vote for stockholders to amend our bylaws;
- the provisions providing for a classified board of directors (the election and term of our directors);
- the provisions regarding removal of directors;
- the provisions regarding filling vacancies on our board of directors and newly-created directorships;
- the provisions eliminating monetary damages for breaches of fiduciary duty by a director or officer;
- the provisions regarding indemnification and advancement of expenses to certain indemnitees in connection with certain proceedings;
- the provisions regarding stockholder action by written consent;
- the provisions regarding calling special meetings of stockholders;
- the provisions regarding competition and corporate opportunities; and
- the amendment provision requiring that the above provisions be amended with a majority vote or a 66 $\frac{2}{3}$ % supermajority vote, as applicable, of stockholders.

The combination of the classification of our board of directors, the lack of cumulative voting and the supermajority voting requirements in certain circumstances will make it more difficult for our existing stockholders to replace our board of directors as well as for another party to obtain control of us by replacing our board of directors. Because our board of directors has the power to retain and discharge our officers, these provisions could also make it more difficult for existing stockholders or another party to effect a change in management.

These provisions may have the effect of deterring hostile takeovers or delaying or preventing changes in control of us or our management, such as a merger, reorganization or tender offer. These provisions are intended to enhance the likelihood of continued stability in the composition of our board of directors and its policies and to discourage certain types of transactions that may involve an actual or threatened acquisition of the Company. These provisions are designed to reduce our vulnerability to an unsolicited acquisition proposal. The provisions are also intended to discourage certain tactics that may be used in proxy fights. However, such provisions could have the effect of discouraging others from making tender offers for our shares and, as a consequence, they also may inhibit fluctuations in the market price of our shares that could result from actual or rumored takeover attempts. Such provisions may also have the effect of preventing changes in management.

#### **Choice of Forum**

Our certificate of incorporation provides that unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware will, to the fullest extent permitted by law, be the sole and exclusive forum for any (i) derivative action or proceeding brought on behalf of the Company, (ii) action asserting a claim of breach of a fiduciary duty owed by any director, officer or employee of the Company to the Company or our stockholders, (iii) action asserting a claim against the Company or any director or officer of the Company arising pursuant to any provision of the DGCL or our governing documents, or (iv) action asserting a claim against the Company or any director, officer or employee of the Company, which claim is governed by the internal affairs doctrine. Notwithstanding the foregoing sentence, the federal district courts of the United States of America is the exclusive forum for the resolution of any complaint asserting a cause of action arising under U.S. federal securities laws, including the Securities Act of 1933, as amended (the “Securities Act”) and the Exchange Act. Any person or entity

purchasing or otherwise acquiring any interest in shares of capital stock of the Company will be deemed to have notice of and consented to the forum provisions in our certificate of incorporation. However, the enforceability of similar forum provisions in other companies' certificates of incorporation has been challenged in legal proceedings, and it is possible that a court could find these types of provisions to be unenforceable.

### **Corporate Opportunity**

The DGCL permits corporations to adopt provisions renouncing any interest or expectancy of the corporation in, or in being offered an opportunity to participate in, specified business opportunities that are presented to the corporation or its officers, directors or stockholders. Our certificate of incorporation, to the fullest extent permitted by law, renounces any interest or expectancy that we have in, or right to be offered an opportunity to participate in, specified business opportunities that are from time to time presented to our officers, directors or stockholders or their respective affiliates, other than those officers, directors, stockholders or affiliates who are our or our subsidiaries' employees. Our certificate of incorporation provides that, to the fullest extent permitted by law, neither BNAC nor its affiliates or any director who is not employed by us (including any non-employee director who serves as one of our officers in both his or her director and officer capacities) or his or her affiliates will have any duty to refrain from (i) engaging in the same or similar business activities or lines of business in which we or our affiliates now engage or propose to engage or (ii) otherwise competing with us or our affiliates. In addition, to the fullest extent permitted by law, in the event that BNAC or its affiliates or any non-employee director acquires knowledge of a potential transaction or other business opportunity that may be a corporate opportunity for itself, himself or herself or its or his or her affiliates or for us or any of our affiliates, such person will have no duty to communicate or offer such transaction or business opportunity to us or any of our affiliates and they may take any such opportunity for themselves or offer it to another person or entity. Our certificate of incorporation does not renounce our interest in any corporate opportunity that is expressly offered to a non-employee director solely in his or her capacity as a director or officer of the Company. To the fullest extent permitted by law, a business opportunity will not be deemed to be a potential corporate opportunity for us if we would not be financially or legally able, or contractually permitted to undertake, the opportunity; the opportunity, from its nature, would not be in the line of our business; or the opportunity is one in which we would have no interest or reasonable expectancy.

In addition, in light of the role of Mr. Christopher P. Kalnin, our Chief Executive Officer, on the Executive Committee of Banpu Public Company Limited, a public company listed on the Stock Exchange of Thailand and the ultimate parent company of BKV and BNAC, our board of directors has adopted a corporate opportunity policy that requires Mr. Kalnin to present applicable business opportunities of which he may become aware to our Company before such opportunities may be presented to Banpu or one of its affiliates.



## PLAN OF DISTRIBUTION

The common stock covered by this prospectus is being registered to permit the selling stockholder (which as used herein means the entity listed in the table included herein under "Selling Stockholder" and the pledgees, donees, transferees, assignees, successors and others who come to hold any of the common stock covered by this prospectus as a result of a transfer not involving a public sale) to offer and sell such common stock from time to time after the date of this prospectus. These dispositions may be at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale or at negotiated prices.

We will not receive any of the proceeds from the sale or other distribution of the common stock offered by the selling stockholder.

The selling stockholder may act independently of us in making decisions with respect to the timing, manner, and size of any of its sales. The selling stockholder may sell the common stock on a delayed or continuous basis in and outside the United States through the methods described below or through any other method permitted pursuant to applicable law, including through a combination of such methods. The selling stockholder may sell all or a portion of the common stock held by it and offered hereby from time to time directly or through one or more underwriters, broker-dealers or agents. A prospectus supplement, if required, will set forth any required information such as the terms of the offering and the method of distribution and will include the following information:

- the name or names of any underwriters or agents;
- the purchase price of the common stock;
- the net proceeds from the sale of the common stock;
- any over-allotment options under which underwriters may purchase additional common stock;
- any underwriting discounts, commissions and other items constituting compensation to underwriters, dealers or agents;
- any public offering price;
- any discounts or concessions allowed or reallocated or paid to dealers; and
- any securities exchange or market on which the common stock offered in a prospectus supplement may be listed.

The selling stockholder may sell the common stock covered by this prospectus using one or more of the following methods:

- into an existing market for the securities, including the NYSE or any other national securities exchange or U.S. inter-dealer system of a registered national securities association on which the common stock may be listed or quoted at the time of sale;
- an over-the-counter sale or distribution;
- one or more underwritten offerings;
- one or more block trades in which a broker-dealer will attempt to sell the common stock as agent, but may reposition and resell a portion of the block, as principal, in order to facilitate the transaction, or in crosses in which the same broker acts as agent on both sides;
- purchases by a broker-dealer, as principal, and resale by the broker-dealer for its account;
- ordinary brokerage transactions and transactions in which a broker-dealer solicits purchasers;
- an exchange distribution and/or secondary distribution in accordance with the rules of the applicable exchange;
- broker-dealers, who may agree with the selling stockholder to sell a specified number of the common stock at a stipulated price per share;
- privately negotiated transactions;

- short sales, whether through a broker-dealer or themselves;
- through distributions by the selling stockholder to its general or limited partners, members, managers, affiliates, employees, directors or stockholders;
- in options transactions;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- trading plans entered into by the selling stockholder pursuant to Rule 10b5-1 under the Exchange Act that are in place at the time of an offering pursuant to this prospectus and any applicable prospectus supplement hereto that provide for periodic sales of their securities on the basis of parameters described in such trading plans;
- any combination of the foregoing; or
- any other method permitted pursuant to applicable law.

The selling stockholder may, from time to time, pledge or grant a security interest in some of the shares of common stock owned by it and, if the selling stockholder defaults in the performance of its secured obligations, the pledgees or secured parties may offer and sell the shares, from time to time, under this prospectus, or under an amendment or supplement to this prospectus amending the list of the selling stockholder to include the pledgees, transferees or other successors-in-interest as the selling stockholder under this prospectus. In connection with the sale of shares of common stock or interests therein, the selling stockholder may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of shares of common stock in the course of hedging the positions they assume. The selling stockholder may also sell shares of common stock short and deliver these securities to close out their short positions, or loan or pledge shares of common stock to broker-dealers that in turn may sell these securities. The selling stockholder may also enter into option or other transactions with broker-dealers or other financial institutions or one or more derivative securities that require the delivery to such broker-dealer or other financial institution of the offered shares, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction). The selling stockholder also may transfer the shares of common stock in other circumstances, in which case the transferees, pledgees or other successors-in-interest will be the selling beneficial owners for purposes of this prospectus.

In addition, the selling stockholder may also sell the shares of common stock under Rule 144 under the Securities Act, if available, or in other transactions exempt from registration, rather than under this prospectus. The selling stockholder has the sole and absolute discretion not to accept any purchase offer or make any sale of common stock if it deems the purchase price to be unsatisfactory at any particular time.

The selling stockholder and any broker-dealers or agents that participate in the sale of the common stock may be deemed by the SEC to be “underwriters” within the meaning of Section 2(a)(11) of the Securities Act. Any discounts, commissions, concessions or profit they earn on any resale of the common stock may therefore be underwriting discounts and commissions under the Securities Act. If the selling stockholder is an “underwriter” within the meaning of Section 2(a)(11) of the Securities Act, then the selling stockholder will be subject to the prospectus delivery requirements of the Securities Act. Underwriters and their controlling persons, dealers and agents may be entitled, under agreements entered into by such underwriters, controlling persons, dealers or agents and the selling stockholder, to indemnification against and contribution toward specific civil liabilities, including liabilities under the Securities Act.

To facilitate the offering of the shares of common stock offered by the selling stockholder, certain persons participating in the offering may engage in transactions that stabilize, maintain or otherwise affect the price of the common stock. This may include over-allotments or short sales, which involve the sale by persons participating in the offering of more shares than were sold to them. In these circumstances, these persons would cover such over-allotments or short positions by making purchases in the open market or by exercising their over-allotment option(s), if any. In addition, these persons may stabilize or maintain the price of the common stock by bidding for or purchasing shares of common stock in the open market or by imposing penalty bids, whereby selling concessions allowed to dealers participating in the offering may be

reclaimed if shares sold by them are repurchased in connection with stabilization transactions. The effect of these transactions may be to stabilize or maintain the market price of the common stock at a level above that which might otherwise prevail in the open market. These transactions may be discontinued at any time.

As of the date of this prospectus, we are not a party to any agreement, arrangement or understanding between any broker or dealer and us with respect to the offer or sale of the common stock pursuant to this prospectus.

In order to comply with the securities laws of some states, if applicable, the common stock may be sold in these jurisdictions only through registered or licensed brokers or dealers. In addition, in some states the common stock may not be sold unless it has been registered or qualified for sale or an exemption from registration or qualification requirements is available and is complied with.

Agents could make sales in privately negotiated transactions and/or any other method permitted by law, which includes sales made directly on or through the NYSE, the existing trading market for the common stock, or sales made to or through a market maker other than on an exchange.

There can be no assurances that the selling stockholder will sell any or all of the common stock offered registered pursuant to the registration statement, of which this prospectus forms a part.

Pursuant to the Registration Rights Agreement, we will pay all expenses of the registration of the shares of common stock covered by this prospectus, including, without limitation, SEC filing fees and expenses of compliance with state securities or "blue sky" laws; provided, however, the selling stockholder will be responsible for underwriters', brokers' and dealers' discounts and commissions and all fees and expenses of any legal counsel or other advisors representing the selling stockholder.

### **LEGAL MATTERS**

The validity of the common stock being offered by this prospectus will be passed upon for us by Baker Botts L.L.P., Dallas, Texas. Any underwriters, dealers or agents will be represented by their own legal counsel.

### **EXPERTS**

The financial statements incorporated in this prospectus by reference to BKV Corporation's Annual Report on Form 10-K for the year ended December 31, 2024 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

The consolidated financial statements of Bedrock Energy Partners, LLC as of and for the year ended December 31, 2024, incorporated by reference in this prospectus have been so incorporated in reliance on the report of BDO USA, P.C., independent auditors, given on the authority of said firm as experts in auditing and accounting.

The information incorporated by reference in this prospectus and registration statement regarding estimated quantities of proved reserves of BKV and its subsidiaries, the future net revenues from those reserves and their present value as of December 31, 2024 is based on the reserve reports prepared by Ryder Scott Company, L.P., BKV's independent petroleum engineers given the authority of such firm as an expert in these matters.

The information incorporated by reference herein regarding estimated quantities of proved reserves of Bedrock Production, LLC and related future net cash flows related to those reserves as of December 31, 2024 is based upon a reserve report audited by independent petroleum engineers, Cawley, Gillespie & Associates, Inc. Such estimates have been so incorporated in reliance on the authority of such firm as an expert in such matters.

**Part II**  
**Information Not Required in Prospectus**

**Item 14. Other Expenses of Issuance and Distribution.**

Set forth below are the expenses expected to be incurred in connection with the issuance and distribution of the common stock registered hereby and payable by us.

	Amount
SEC registration fee	\$18,807.50
Printing expenses	*
Accounting fees and expenses	*
Legal fees and expenses	*
Miscellaneous	*
Total	\$ *

\* Estimated expenses are not presently known. The foregoing sets forth the general categories of expenses (other than underwriting discounts and commissions) that we anticipate to incur in connection with the offering of securities under this registration statement. An estimate of the aggregate expenses in connection with the issuance and distribution of the securities being offered will be included in the applicable prospectus supplement.

**Item 15. Indemnification of Directors and Officers.***Limitations of Liability and Indemnification*

Our certificate of incorporation provides that directors and officers will not be liable to the Company or its stockholders for monetary damages to the fullest extent permitted by the DGCL. In addition, if the DGCL is amended to authorize the further elimination or limitation of the liability of directors and officers, then the liability of a director or officer of the Company, in addition to the limitation on personal liability provided in our certificate of incorporation, will be limited to the fullest extent permitted by the amended DGCL. Our bylaws provide that the Company will indemnify, and advance expenses to, any officer or director to the fullest extent authorized by the DGCL.

Section 145 of the DGCL provides that a corporation may indemnify directors and officers as well as other employees and individuals against expenses, including attorneys' fees, judgments, fines and amounts paid in settlement in connection with specified actions, suits and proceedings whether civil, criminal, administrative, or investigative, other than a derivative action by or in the right of the corporation, if they acted in good faith and in a manner they reasonably believed to be in or not opposed to the best interests of the corporation and, with respect to any criminal action or proceeding, had no reasonable cause to believe their conduct was unlawful. A similar standard is applicable in the case of derivative actions, except that indemnification extends only to expenses, including attorneys' fees, incurred in connection with the defense or settlement of such action and the statute requires court approval before there can be any indemnification where the person seeking indemnification has been found liable to the corporation. The statute provides that it is not exclusive of other indemnification that may be granted by a corporation's certificate of incorporation, bylaws, disinterested director vote, stockholder vote, agreement or otherwise.

Our certificate of incorporation also contains indemnification rights for our directors and our officers. Specifically, our certificate of incorporation will provide that we shall defend, indemnify and advance expenses to our officers and directors to the fullest extent authorized by the DGCL. Further, we may maintain insurance on behalf of our officers and directors against expense, liability or loss asserted incurred by them in their capacities as officers and directors.

We maintain liability insurance policies that indemnify our directors and officers against various liabilities, including certain liabilities arising under the Securities Act or the Exchange Act that may be incurred by them in their capacity as such.

**Indemnification Agreements**

In addition, we have entered into indemnification agreements with our current directors and officers containing provisions that are in some respects broader than the specific indemnification provisions contained in the DGCL. The indemnification agreements require us, among other things, to indemnify our directors and officers against certain liabilities that may arise by reason of their status or service as directors or officers and to advance their expenses incurred as a result of any proceeding against them as to which they could be indemnified. We also intend to enter into indemnification agreements with our future directors and officers. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors or officers, we have been informed that in the opinion of the SEC such indemnification is against public policy and is therefore unenforceable.

**Item 16. Exhibits and Financial Statement Schedules.**

(a) Exhibits.

**Exhibit Index**

Exhibit Number	Description
1.1*	Form of Underwriting Agreement.
3.1	<a href="#">Second Amended and Restated Certificate of Incorporation of BKV Corporation (incorporated herein by reference to Exhibit 3.1 to the registrant's Current Report on Form 8-K filed with the SEC on September 27, 2024).</a>
3.2	<a href="#">Second Amended and Restated Bylaws of BKV Corporation (incorporated herein by reference to Exhibit 3.2 to the registrant's Current Report on Form 8-K filed with the SEC on September 27, 2024).</a>
4.1	<a href="#">Description of Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934 (incorporated herein by reference to Exhibit 4.1 to the registrant's Annual Report on Form 10-K filed with the SEC on March 31, 2025).</a>
4.2	<a href="#">Registration Rights Agreement, dated September 29, 2025, by and between BKV Corporation and Bedrock Energy Partners, LLC (incorporated herein by reference to Exhibit 10.2 to the registrant's Quarterly Report on Form 10-Q filed with the SEC on November 10, 2025).</a>
5.1**	<a href="#">Opinion of Baker Botts L.L.P.</a>
23.1**	<a href="#">Consent of PricewaterhouseCoopers LLP.</a>
23.2**	<a href="#">Consent of Ryder Scott Company, L.P.</a>
23.3**	<a href="#">Consent of Baker Botts L.L.P. (included in their opinion filed as Exhibit 5.1)</a>
23.4**	<a href="#">Consent of BDO USA, P.C.</a>
23.5**	<a href="#">Consent of Cawley, Gillespie &amp; Associates, Inc.</a>
24.1**	<a href="#">Powers of Attorney (included on signature page)</a>
107**	<a href="#">Filing Fee Table</a>

\* To be filed, if necessary, in connection with a specific offering as an exhibit to a post-effective amendment to this registration statement or as an exhibit to a Current Report on Form 8-K and incorporated by reference herein.

\*\* Filed herewith.

**Item 17. Undertakings.**

(a) The undersigned registrant hereby undertakes:

- (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
  - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;
  - (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the “Calculation of Filing Fee Tables” or “Calculation of Registration Fee” table, as applicable, in the effective registration statement;
  - (iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

*Provided, however, that:*

Paragraphs (a)(1)(i), (a)(1)(ii) and (a)(1)(iii) of this section do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the SEC by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

- (2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:
  - (i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and
  - (ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof. *Provided, however,* that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of

sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

- (5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities:

The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

- (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
  - (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
  - (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
  - (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.
- (b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.
- (c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933 and will be governed by the final adjudication of such issue.



**SIGNATURES**

Pursuant to the requirements of the Securities Act of 1933 the undersigned Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Denver, State of Colorado, on the 23<sup>rd</sup> day of December 2025.

**BKV Corporation**

By: /s/ Christopher P. Kalnin

Name: Christopher P. Kalnin

Title: Chief Executive Officer

**POWER OF ATTORNEY**

Each person whose signature appears below hereby constitutes and appoints Christopher P. Kalnin and Lindsay B. Larrick, each with full power to act alone and without the other, his or her true and lawful attorney-in-fact, with full power of substitution, and with the authority to execute in the name of each such person, any and all amendments (including without limitation, post-effective amendments) to this registration statement, to sign any and all additional registration statements relating to the same offering of securities as this registration statement that are filed pursuant to Rule 462(b) of the Securities Act, and to file such registration statements with the SEC, together with any exhibits thereto and other documents therewith, necessary or advisable to enable the registrant to comply with the Securities Act, and any rules, regulations and requirements of the SEC in respect thereof, which amendments may make such other changes in the registration statement as the aforesaid attorney-in-fact executing the same deems appropriate.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Christopher P. Kalnin</u> Christopher P. Kalnin	Chief Executive Officer and Director (Principal Executive Officer)	December 23, 2025
<u>/s/ David R. Tameron</u> David R. Tameron	Chief Financial Officer (Principal Financial Officer)	December 23, 2025
<u>/s/ Barry S. Turcotte</u> Barry S. Turcotte	Chief Accounting Officer (Principal Accounting Officer)	December 23, 2025
<u>/s/ Chanin Vongkusolkit</u> Chanin Vongkusolkit	Chairman of the Board	December 23, 2025
<u>/s/ Somruedee Chaimongkol</u> Somruedee Chaimongkol	Director	December 23, 2025
<u>/s/ Joseph R. Davis</u> Joseph R. Davis	Director	December 23, 2025
<u>/s/ Akaraphong Dayananda</u> Akaraphong Dayananda	Director	December 23, 2025
<u>/s/ Kirana Limpaphayom</u> Kirana Limpaphayom	Director	December 23, 2025

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Carla S. Mashinski</u> Carla S. Mashinski	Director	December 23, 2025
<u>/s/ Thiti Mekavichai</u> Thiti Mekavichai	Director	December 23, 2025
<u>/s/ Charles C. Miller III</u> Charles C. Miller III	Director	December 23, 2025
<u>/s/ Sunit S. Patel</u> Sunit S. Patel	Director	December 23, 2025
<u>/s/ Anon Sirisaengtaksin</u> Anon Sirisaengtaksin	Director	December 23, 2025
<u>/s/ Sinon Vongkusolkrit</u> Sinon Vongkusolkrit	Director	December 23, 2025

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PALO ALTO  
RIYADH  
SAN FRANCISCO  
SINGAPORE  
WASHINGTON

December 23, 2025

BKV Corporation  
1200 17<sup>th</sup> Street, Suite 2100  
Denver, Colorado 80202

Ladies and Gentlemen:

We have acted as counsel to BKV Corporation, a Delaware corporation (the "Company"), with respect to certain legal matters in connection with the preparation of the Registration Statement on Form S-3 (the "Registration Statement") to be filed by the Company on or about the date hereof with the Securities and Exchange Commission (the "Commission") under the Securities Act of 1933, as amended (the "Act"), registering the offer and resale, from time to time pursuant to Rule 415 under the Act, by the selling stockholder identified therein (the "Selling Stockholder"), of up to 5,233,957 shares of the Company's common stock, par value \$0.01 per share (the "Securities"), pursuant to and in accordance with the registration rights agreement, dated as of September 29, 2025, by and between the Company and the Selling Stockholder (the "Registration Rights Agreement"). The Registration Statement includes a base prospectus (the "Base Prospectus") that provides it will be supplemented in the future, if required, by one or more prospectus supplements (each, a "Prospectus Supplement"). At your request, this opinion is being furnished to you for filing as Exhibit 5.1 to the Registration Statement.

In our capacity as your counsel in the connection referred to above and as a basis for the opinions herein after expressed, we have examined originals, or copies certified or otherwise identified, of (i) the Company's Second Amended and Restated Certificate of Incorporation and Second Amended and Restated Bylaws, each as amended to date (together, the "Charter Documents"), (ii) corporate records of the Company, (iii) the Registration Statement, including the Base Prospectus contained therein relating to the Securities, (iv) the Registration Rights Agreement, (v) certificates of governmental and public officials and of officers and other representatives of the Company and (vi) statutes and such other records, certificates, documents and instruments as we have deemed necessary or advisable as a basis for giving the opinions set forth below.

In giving such opinions below, we have relied, to the extent we deemed proper, without independent investigation or verification, upon the truth and accuracy of the representations and warranties in the documents reviewed by us and the certificates, statements and other representations of officers and other representatives of the Company and of governmental and public officials with respect to the accuracy and completeness of the material factual matters contained therein or covered thereby.

In making our examination, we have assumed, without independent investigation or verification, the legal capacity and competency of all natural persons, that each document submitted to us for review is accurate and complete, each such document that is an original is authentic, each such document that is a copy conforms to an authentic original and all signatures on each such document are genuine.

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In connection with this opinion, we also have assumed that:

- (i) the Registration Statement and any amendments thereto (including post-effective amendments) will have become effective and comply with all applicable laws under the Act and such effectiveness shall not have been terminated or rescinded;
- (ii) a Prospectus Supplement, if required, will have been prepared and filed with the Commission describing the Securities offered thereby;
- (iii) all Securities will be offered and sold in compliance with applicable federal and state securities laws and in the manner stated in the Registration Statement (including post-effective amendments thereto) and the appropriate Prospectus Supplement; and
- (v) a definitive purchase agreement, underwriting agreement or similar agreement with respect to any Securities offered (each, a "Purchase Agreement"), if applicable, will have been duly authorized and validly executed and delivered by the Company, the Selling Stockholder and the other parties thereto, as applicable.

On the basis of the foregoing, and subject to the assumptions, limitations, qualifications and exceptions set forth herein, we are of the opinion that the Securities proposed to be sold by the Selling Stockholder have been duly authorized and validly issued and are fully paid and nonassessable.

The opinions set forth above are limited in all respects to the General Corporation Law of the State of Delaware as in effect on the date hereof, and we express no opinion as to the law of any other jurisdiction.

We hereby consent to the filing of this opinion of counsel with the Commission as Exhibit 5.1 to the Registration Statement. We also consent to the reference to our Firm under the heading "Legal Matters" in the Base Prospectus forming a part of the Registration Statement. In giving such consent, we do not hereby admit that we are in the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Commission thereunder.

Very truly yours,

/s/ Baker Botts L.L.P.

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CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-3 of BKV Corporation, of our report dated March 31, 2025 relating to the financial statements, which appears in BKV Corporation's Annual Report on Form 10-K for the year ended December 31, 2024. We also consent to the reference to us under the heading "Experts" in such Registration Statement.

/s/ PricewaterhouseCoopers LLP  
Dallas, Texas  
December 23, 2025

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**CONSENT OF INDEPENDENT PETROLEUM ENGINEERS**

We hereby consent to the references to our firm in this Registration Statement on Form S-3 (including any amendments thereto) for BKV Corporation, or the Registration Statement, and to the use and inclusion of our reports, dated December 18, 2024 and January 10, 2025 with respect to the estimates of proved reserves and future net revenues from those reserves and their present value for the year ended December 31, 2024 in the Registration Statement. We further consent to the reference to our firm as experts in this Registration Statement, including the Prospectus included in the Registration Statement.

*/s/ Ryder Scott Company, L.P.*

**RYDER SCOTT COMPANY, L.P.**

TBPE Firm Registration No. F-1580

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Denver, Colorado  
December 23, 2025

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Consent of Independent Auditor

We hereby consent to the incorporation by reference in the Prospectus constituting a part of this Registration Statement of BKV Corporation, of our report dated April 29, 2025, relating to the consolidated financial statements of Bedrock Energy Partners, LLC, appearing in BKV Corporation's Current Report on Form 8-K filed on October 1, 2025.

We also consent to the reference to us under the caption "Experts" in the Prospectus.

/s/ BDO USA, P.C.  
Houston, Texas

December 23, 2025

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# CAWLEY, GILLESPIE & ASSOCIATES, INC.

PETROLEUM CONSULTANTS

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1000 LOUISIANA STREET, SUITE 1900  
HOUSTON, TEXAS 77002-5008  
713-651-9944

## CONSENT OF INDEPENDENT PETROLEUM ENGINEERS AND GEOLOGISTS

As independent petroleum engineers, we hereby consent to the references to our firm, in the context in which they appear, and to the references to, and to the incorporation by reference in this Registration Statement on Form S-3 of, our summary reserve report dated February 28, 2025, and oil, natural gas and NGL reserves estimates and forecasts of economics of Bedrock Production, LLC as of December 31, 2024, included in or made part of the Current Report on Form 8-K of BKV Corporation filed on October 1, 2025. We hereby further consent to the reference to our firm under the caption "Experts" in this Registration Statement, including any amendments thereto.

**CAWLEY, GILLESPIE & ASSOCIATES, INC.**  
*Texas Registered Engineering Firm F-693*

/s/ W. Todd Brooker  
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W. Todd Brooker, P.E.  
President

Austin, Texas  
December 23, 2025

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