EXHIBIT F

A certified excerpt of resolutions adopted by the Board of Directors effective October 19, 2022 approving the registration and issuance of up to \$400,000,000 of Medium-Term Notes, including Medium-Term Notes.

Executive Offices



SECRETARY'S CERTIFICATE

OF

NORTHWEST NATURAL GAS COMPANY

I, Shawn M. Filippi, the duly elected and acting Corporate Secretary of Northwest Natural Gas Company, a corporation organized and existing under the laws of the State of Oregon (Company), HEREBY CERTIFY that the following is a true and complete copy of resolutions adopted by the Board of Directors of said Company by unanimous written consent effective on the 19th day of October, 2022; and that said resolutions are in full force and effect as of the date of this certificate.

The resolutions adopted by the Board of Directors of the Company effective October 19, 2022 are as follows:

General

RESOLVED, that the Company issue and sell, from time to time, in one or more series, in any combination, an amount of its securities to be approved by the Finance Committee or, in the case of Medium-Term Notes, Series B, in the amounts heretofore and hereinafter authorized, and such securities may be in the form of (i) First Mortgage Bonds (which may be in the form of secured Medium-Term Notes, which includes \$400,000,000 principal amount of Medium-Term Notes, Series B), (ii) Unsecured Notes (which may be in the form of unsecured Medium-Term Notes, which includes the \$400,000,000 principal amount of Medium-Term Notes, which includes the \$400,000,000 principal amount of Medium-Term Notes, Series B previously referenced), and (iii) Preferred Stock (which may be convertible or exchangeable into other securities of the Company) (collectively, the Securities); and further

RESOLVED, that the officers of the Company hereby are authorized and directed, in its name and behalf, to prepare, execute and file with the Public Utility Commission of Oregon (OPUC) and the Washington Utilities and Transportation Commission (WUTC) such applications or filings, together with any and all necessary amendments, exhibits and other documents related thereto, as may be necessary, in the case of the OPUC, to obtain orders authorizing, and in the case of the WUTC, establishing compliance with applicable statutory requirements in connection with, the issuance and sale of the Securities; and further

RESOLVED, that the officers of the Company hereby are authorized and directed, in its name and behalf, to prepare, execute and file with the Securities and Exchange Commission (the Commission) a registration statement or statements on an appropriate form, together with any and all necessary amendments, exhibits and other documents related thereto, (i) for the purpose of registering an unspecified amount of the Securities under the Securities Act of 1933, as amended (Securities Act), and the rules and regulations of the Commission promulgated thereunder and (ii) in connection with any

registration rights agreement, covering securities to be offered for exchange or registered for sale, in any such case pursuant to Rule 415 or other appropriate rule under the Securities Act, and the rules and regulations of the Commission promulgated thereunder, together with any and all necessary amendments, exhibits and documents relating thereto as in the judgment of such officers are deemed by them to be necessary or appropriate; and further

RESOLVED, that the officers of the Company be, and each of them, acting singly, hereby is, authorized and empowered to prepare, execute and file one or more registration statements under the Securities Exchange Act of 1934, as amended, in connection with an offering of the Securities or otherwise, as such officer may deem necessary or desirable in connection with the sale of all or a portion of the Securities; and further

RESOLVED, that each director and officer of the Company who may execute a registration statement or any amendment thereto with respect to the Securities hereby is authorized to appoint David H. Anderson, Frank H. Burkhartsmeyer, Brody J. Wilson, MardiLyn Saathoff, and Shawn M. Filippi and each of them, severally, his or her true and lawful attorneys and attorney, with power to act with or without the others and with full power of substitution and resubstitution, to execute in his or her name, place and stead, in his or her capacity as a director or officer of the Company, such registration statement, together with any and all necessary amendments, exhibits and other documents related thereto, and to file the same with the Commission, with full power and authority to each of such attorneys to do and perform, in the name and on behalf of each of such directors and officers, or any of them, every act whatsoever necessary or desirable to be done in the premises as fully and to all intents and purposes as any such director or officer might or could do in person; and further

RESOLVED, that, in connection with the proposed issuance and sale by the Company of the Securities, it may be necessary and desirable that the Securities be qualified or registered for sale in various jurisdictions of the United States of America; that the officers of the Company hereby are authorized and directed, in its name and behalf, to determine the jurisdictions of the United States of America in which appropriate action shall be taken to qualify or register for sale all or such part of the Securities as such officers may deem to be necessary or advisable; that the officers of the Company hereby are authorized and directed, in its name and behalf, to perform any and all acts which they may deem to be necessary or desirable in order to comply with the applicable laws of any such jurisdiction, and in connection therewith, to execute and file all requisite instruments and documents, including but not limited to applications, reports, surety bonds, irrevocable consents and appointments of attorneys for service of process; and that the execution by such officers, or any of them, of any such instrument or document or the doing by them of any act in connection with the foregoing matters shall conclusively establish their authority therefor from the Company and the validity of the instruments and documents so executed and the action so taken: and further

RESOLVED, that the officers of the Company hereby are authorized, in their discretion and on behalf of the Company, to conduct negotiations with or conduct competitive bidding amongst such underwriters, brokers, dealers, agents and other potential purchasers as they shall select with respect to negotiated or competitively bid underwritten public offerings or private sales by the Company of the Securities; and further RESOLVED, that, without limiting the authority otherwise provided by these resolutions, the officers of the Company are hereby authorized and empowered to prepare one or more private placement or offering memoranda or an offering circular or other disclosure memoranda, including subscription agreements and other documents, for the offer and sale of any of the Securities in private sales, and any changes in and additions, amendments or supplements thereto, as any of the officers of the Company may deem necessary or desirable; and further

RESOLVED, that, subject to the receipt of all requisite regulatory approvals, the Finance Committee of the Board hereby is authorized, in its discretion and on behalf of the Company, to approve all matters relating to the issuance and sale of the Securities (except that the approval of the Finance Committee of the Board is not necessary in the case of Medium-Term Notes, which are previously and hereinafter authorized), including the execution and delivery of indentures, supplemental indentures, purchase contract agreements and other agreements pursuant to which the terms and conditions of the Securities are established and the terms and conditions of any underwriting, purchase, sales, agency and other agreements with respect to their sales; and further

RESOLVED, that the Chief Executive Officer, the President, the Chief Financial Officer, any Vice President, the Treasurer, any Assistant Treasurer and any duly authorized Attorney-in-Fact of the Company hereby are authorized and directed, in its name and behalf, to execute and deliver any and all indentures, supplemental indentures, purchase contract agreements and other agreements pursuant to which the terms and conditions of the Securities are established and any and all underwriting, purchase, sales, agency and other agreements with respect to the sale by the Company of the Securities in substantially the form approved by the Finance Committee of the Board, but with such changes therein as may be approved by the person executing the same, his or her approval of any such change to be conclusively evidenced by his or her execution thereof; and that any of such officers and any such Attorney-in-Fact of the Company hereby are authorized and directed, in its name and behalf, to sign, seal, if necessary, and deliver such instruments and documents and to do or cause to be done any and all such acts and things as they shall deem to be necessary or advisable in order to enable the Company to perform all of its obligations under any such agreement; and further

RESOLVED, that in the event that the Company enters into a registration rights agreement or registration rights agreements in connection with the sale of all or a portion of the Securities, nothing herein is intended to, nor shall it, limit or restrict the amount of the Company's Securities which may be issued in exchange for the Securities so sold in accordance with such registration rights agreement(s).

Medium-Term Notes

RESOLVED, that, from time to time, the Company issue and sell, through agents, by competitive bidding or on a negotiated basis, subject to management's judgment, at the times of sales, as to which method shall be more prudent and to regulatory approval, not more than an additional \$400,000,000 principal amount of Medium-Term Notes, Series B; and further

RESOLVED, that the officers of the Company hereby are authorized, on behalf of the Company, to conduct negotiations with such underwriters, brokers, dealers, agents and

others as they shall select with respect to the sale of not more than an additional \$400,000,000 principal amount of Medium-Term Notes, Series B; and further

RESOLVED, that the Chief Executive Officer, the President, the Chief Financial Officer, any Vice President, the Treasurer, any Assistant Treasurer and any duly authorized Attorney-in-Fact of the Company hereby are authorized and directed, in its name and behalf, to execute and deliver any necessary amendments or supplements to the Distribution Agreement, dated March 18, 2009, as amended (the Current Distribution Agreement), or one or more new distribution agreements, in substantially the form of the Company's Current Distribution Agreement, but with such changes therein as may be approved by the person executing the same, his or her approval of any such change to be conclusively evidenced by his or her execution thereof; and that any of such officers and any such Attorney-in-Fact of the Company hereby are authorized and directed, in its name and behalf, to sign, seal, if necessary, and deliver such instruments and documents and to do or cause to be done any and all such acts and things as they shall deem to be necessary or advisable in order to enable the Company to perform all of its obligations under any such agreement; and further

RESOLVED, that the officers of the Company hereby are authorized to execute, in its name and behalf, its Unsecured Medium-Term Notes, Series B, under and pursuant to the provisions of the Indenture dated as of June 1, 1991 from the Company to Deutsche Bank Trust Company Americas (formerly known as Bankers Trust Company) (the Indenture), as Corporate Trustee, in the forms and denominations hereinbefore established or authorized, with the Company's corporate seal, or a facsimile thereof, impressed or imprinted thereon and attested, and to deliver such Notes for authentication to Deutsche Bank Trust Company Americas, as Corporate Trustee under the Indenture; and that Deutsche Bank Trust Company Americas, as Corporate Trustee, hereby is requested to authenticate such Notes and to deliver the same as directed by a Company Order or Orders or Instructions pursuant thereto; provided, however, that unless otherwise authorized by the Board, the aggregate principal amount of such Notes to be executed, authenticated and delivered on the basis of this authorization shall not exceed \$400,000,000 (excluding any of such Notes issued upon the transfer or in exchange or replacement thereof); and further

RESOLVED, that the proper officers of the Company hereby are authorized to execute, in its name and behalf, its First Mortgage Bonds of the Twenty-first Series under and pursuant to the provisions of the Company's Mortgage and Deed of Trust, dated as of July 1, 1946, as heretofore supplemented, in the forms and denominations hereinbefore established or authorized, with the Company's corporate seal, or a facsimile thereof, impressed or imprinted thereon and attested, and to deliver such bonds for authentication to Deutsche Bank Trust Company Americas, as Corporate Trustee under such Mortgage and Deed of Trust; and that Deutsche Bank Trust Company Americas, as Corporate Trustee, hereby is requested to authenticate such bonds, and to deliver the same to or upon the written order or written instructions of the President or a Vice President and Treasurer or an Assistant Treasurer of the Company in such authorized denominations as such officers may determine; provided, however, that unless otherwise authorized by the Board, the aggregate principal amount of such bonds to be executed, authenticated and delivered pursuant to this authorization shall not exceed \$400,000,000 (excluding any of such bonds issued upon the transfer or in exchange or replacement thereof; and further

RESOLVED, that full power and authority hereby is delegated to, and vested in, the Finance Committee of the Board to do or cause to be done any and all such actions and things as it shall deem necessary or advisable in order to effect the issuance and sale of not more than an additional \$400,000,000 principal amount of Medium-Term Notes, Series B, and to carry out the purposes of the foregoing resolutions with respect thereto; and further

RESOLVED, that, subject to such further approvals, directions and authorizations as may be given by the Finance Committee of the Board, the officers of the Company hereby are authorized and directed, in its name and behalf, to execute and deliver such instruments and documents and to do or cause to be done any and all such acts and things as they may deem to be necessary or desirable in order to effect the issuance and sale of not more than an additional \$400,000,000 principal amount of Medium-Term Notes, Series B, and to carry out the purposes of the foregoing resolutions with respect thereto.

General Authorization

RESOLVED, that each of the officers of the Company be, and each of them, acting singly, hereby is, authorized and empowered, in the name and on behalf of the Company, to execute, deliver and file all such other instruments and documents and take all such actions as any officer shall determine to be necessary or appropriate to carry out the intent and purposes of the foregoing resolutions (such determination to be conclusively, but not exclusively, evidenced by the execution and delivery of such instruments and documents or the taking of such actions); and further

RESOLVED, that all actions taken and all agreements, instruments, reports and documents executed, delivered or filed through the date hereof by any officer of the Company, in the name and on behalf of the Company, in connection with the transactions described in or contemplated by the foregoing resolutions are hereby approved, ratified and confirmed in all respects.

IN WITNESS WHEREOF, I have hereunto signed my name this 23rd day of February, 2023.



MM

Shawn M. Filippi, Corporate Secretary