EXECUTED IN 50 COUNTERPARTS OF WHICH THIS IS COUNTERPART No. 35

# NORTHWEST NATURAL GAS COMPANY

TO

# BANKERS TRUST COMPANY

AND

STANLEY BURG

(SUCCESSOR TO R. G. PAGE AND J. C. KENNEDY),

As Trustees under the Mortgage and Deed of Trust, dated as of July 1, 1946, of Portland Gas & Coke Company (now Northwest Natural Gas Company)

Oruth Supplemental Indenture providing among other things for First Mortgage Bonds, 17% Series due 1984

Dated as of January 1, 1975

# TENTH SUPPLEMENTAL INCENTURE

INDENTURE, dated as of the 1st day of January, 1975, made and entered into by and between Northwest Natural Gas Company (for merly Portland Gas & Coke Company), a corporation of the State of Oregon, whose post office address is Suite 300, 200 S.W. Market Street, Portland, Oregon, 97201 (hereinafter sometimes called the Company), party of the first part, and BANKERS TRUST COMPANY, a corporation of the State of New York, whose post office address is Sixteen Wall Street, New York, New York 10015 (hereinafter sometimes called the Corporate Trustee) and STANLEY BURG (successor to R. G. PAGE and J. C. KENNEDY), whose post office reldress is 23 Dover Green, Staten Island, New York 10312 (hereinafter sometimes called the Co-Trustee), parties of the second part (the Corporate Trustee and the Co-Trustee being hereinafter together sometimes called the Trustees), as Trustees under the Mortgage and Deed of Trust, dated as of July 1, 1946 (hereinafter called the Mortgage), executed and delivered by Portland Gas & Coke Company (now Northwest Natural Gas Company) to secure the payment of bonds issue, or to be issued under and in accordance with the provisions of the Mortgage, this indenture (hereinafter called Tenth Supplemental Indenture) being supplemental thereto;

Whereas the Mortgage was or is to be recorded in the official records of various counties in the States of Oregon and Washington which counties include or will include all counties in which this Tenth Supplemental Indenture is to be recorded; and

WHEREAS by the Mortgage the Company covenanted that it would execute and deliver such supplemental indenture or indentures and such further instruments and do such further acts as might be necessary or proper to carry out more effectually the purposes of the Mortgage and to make subject to the lien of the Mortgage any property thereafter acquired, made or constructed and intended to be subject to the lien thereof; and

Wherehas the Company executed and delivered to the Trustees its First Supplemental Indenture, dated as of June 1, 1949 (hereinafter called its First Supplemental Indenture), its Second Supplemental Indenture, dated as of March 1, 1954 (hereinafter called its Second Supplemental Indenture), its Third Supplemental Indenture, dated as of April 1, 1956 (hereinafter called its Third Supplemental Indenture), its Fourth Supplemental Indenture, dated as of February 1, 1959 (hereinafter called its Fourth Supplemental Indenture, dated as of February 1, 1959 (hereinafter called its Fourth Supplemental Indenture).

mental Indenture), its Fifth Supplemental Indenture, dated as of July 1, 1961 (hereinafter called its Fifth Supplemental Indenture), its Sixth Supplemental Indenture, dated as of January 1, 1964 (hereinafter called its Sixth Supplemental Indenture), its Seventh Supplemental Indenture, dated as of March 1, 1966 (hereinafter called its Seventh Supplemental Indenture), and its Eighth Supplemental Indenture, dated as of December 1, 1969 (hereinafter called its Eighth Supplemental Indenture); and

WHEREAS said First through Eighth Supplemental Indentures were filed for record, and were recorded and indexed, as a mortgage of both real and personal property, in the official records of various counties in the States of Oregon and Washington which counties include or will include all counties in which this Tenth Supplemental Indeature is to be recorded; and

WHEREAS the Company executed and delivered to the Trustees its Ninth Supplemental Indenture, dated as of April 1, 1971 (hereinafter called its Ninth Supplemental Indenture); and

WHEREAS said Nin'h Supplemental Indenture was filed for record, and was recorded and indexed, as a mortgage of both real and personal property, and finencing statements were filed, in the official records of the several counties and other offices in the States of Oregon and V ashington listed below, as follows:

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### OREGON

### Real Properly Mortgage Records

County	Date Recorded	Book, Film or Reel	Fage
Benton	May 11, 1971	24409	-
Clackamas	May 11, 1971	71-10026	
Clatsop	May 11, 1971	347	503
Columbia	May 11, 1971	115	864
Coes	May 11, 1971	71-5-58818/52	-
Douglas	May 11, 1971	466	219
Hood River ,	May 11, 1971	710790	-
Lane	May 11, 1971	531R	
Lincoln	May 11, 1971	25	760
Linn	May 11, 1971	MF14	877
Marion	May 11, 1971	670	171
Multnomah	May 11, 1971	786	1449
Polk	May 11, 1971	16	351
Tillamook	May 11, 1971	223	72
Wasco	May 11, 1971	710749	
Washington	May 11, 1971	816	680
Yamhili	May 11, 1971	83	1952

## Filed as a Financing Statement

	Date Filed	File
Office	for Record	Number
Secretary of State	May 11, 1971	C'-02556

(An executed counterpart of the Ninth Supplemental Indenture was filed on May 7, 1971 in the office of the Auditor of the City of Portland.)

#### WASHINGTON

# Real Property Morigage Records

County	Thate Recorded	Book, Film or Recl	Page
Clark	May 11, 1971	780758	
Klickitat	May 11, 1971	104	263A
Skamania	May 11, 1971	48	969

## Flied as a Financing Statement

Опісь	Date Filed for Record	File Number
Secretary of State	May 11, 1971	0124352

and

WHEREAS c<sup>m</sup> instrument dated as of June 14, 1951, was executed by the Company appointing J. C. Kennedy as Co-Trustee in succession to said R. G. Page (resigned) under the Mortgage and by J. C. Kennedy eccepting the appointment as Co-Trustee under the Mortgage in succession to the said R. G. Page, which instrument was recorded in various counties in the States of Oregon and Washington; and

WHEREAS, in the Ninth Supplemental Indenture STANLEY BURG was appointed by the Company as Co-Trustee under the Mortgage in succession to said J. C. KENNEDY (resigned) and in the Ninth Supplemental Indenture Stanley Burg accepted such appointment as Co-Trustee under the Mortgage in succession to said J. C. Kennedy; and

WHEREAS in addition to the property described in the Mortgage, as heretofore supplemented, the Company has acquired certain other property, rights and interests in property; and

V'HERIAS, the Company has heretotore issued, in accordance with the provisions of the Mortgage, as supplemented, the following series of First Mortgage Bonds:

Series	Amount Outstanding
31 8 % Series due 1976	\$10, 00,000
378 C Series due 1974	None
4 Series due 1974	None
438 % Series due 1976	
518 7 Series due 1984	
51 s & Series due 1986	
434 % Series due 1989	
534 ° Series due 1991	. \$14,075,000
9384 Series due 1974	
818 % Series due 1996	

WHEREAS Section 8 of the Mortgage provides that the form of each series of bonds (other than the First Series) issued thereunder shall be established by Resolution of the Board of Directors of the Company; that the form of such series, as established by said Board of Directors, shall specify the descriptive title of the bonds and various other terms thereof; and that such Series may also contain such provisions not in onsistent with the provisions of the Mortgage as the Board of Directors may, we its discretion, cause

and

to be inserted therein expressing or referring to the terms and conditions upon which such bonds are to be issued and/or secured under the Mortgage; and

WHEREAS Section 120 of the Mortgage provides, among other things, that any power, privilege or right expressly or impliedly reserved to or in any way conferred upon the Compan, by any provision of the Mortgage, whether such power, privilege or right is in any way restricted or is unrestricted, may (to the extent permitted by law) be in whole or in part waived or surrendered or subjected to any restriction if at the time unrestricted or to additional restriction if already restricted, and the Company may enter that any further covenants, limitations or restrictions for the benefit of any one or more series. of bonds issued thereunder, or the Company may cure any tambiguity contained therein or in any supplemental indenture of may (in lieu of establishment by Resolution as provided in Section 8 of the Mortgage) establish the terms and provisions of any serie, of bonds other than said First Series, by an instrument in writing executed and acknowledged by the Company in such manner as would be nece early to entitle a conveyance of real estate to record in all of the states in which any property at the time subject to the lien of the Mortgage shall be situated; and

Williams the Company now desires to create a new series of bonds and (pursuant to the provisions of Section 120 of the Mortgage) to add to its covenants and agreements contained in the Mortgage, as heretofore supplemented, certain other covenants and agreements to be observed by it and to alter and amend in certain respects the covenants and provisions contained in the Mortgage, as heretofore supplemented and amended; and

Whereas the Company wishes to secure the repayment of \$30,000,000 aggregate principal amount of its 12% Secured Notes Due '084 (the "Secured Notes") issued pursuant to several Note Purchase Agreements dated December 31, 1974 (the "Note Purchase Agreements"), between the Company and the several purchasers named therein, by the issuance and pledge of \$30,000,000 aggregate principal amount of such new series of bonds to be created and issued pursuant to the Mortgage, as heretofore supplemented, and as supplemented by this Tenth Supplemental Indenture; and

Whereas the execution and delivery by the Company of this Tenth Supplemental Indenture, and the terms of the bonds of the Eleventh Series hereinafter referred to, have been duly authorized by the Board of Directors of the Company by appropriate resolutions of said Board of Directors;

#### Now, Therefore, This Indenture Witnesseth:

That Northwest Natural Gas Company, in consideration of the premises and of One Dollar to it duly paid by the Trustees at or before the ensealing and delivery of these presents, the receipt whereof is hereby acknowledged, and in further assurance of the estate, title and rights of the Trustees, and in order further to secure the payment both of the principal of and interest and premium, if any, on the bonds from time to time issued under the Mortgage. according to their ter and effect, and the performance of all the provisions of the Mortgage (inc. ting any instruments supplemental thereto and inv modification made as in the Mortgage provided) and of said bonds, hereby grants, bargains, sells, releases, conveys, assigns, transfers, mortgages, pledges, sets over and confirms (subject, however, to Excepted Encumbrances, as defined in Section 6 of the Mortgage) unto Stanley Burg and (to the extent of its legal capacity to hold the same for the purposes hereof) to Bankers Trust Company, as Trustees under the Mortgage, and to their successor or successors in said trust, and to said Trustees and their successors and assigns forever, all property, real, personal and mixed, acquired by the Company after the date of the Mortgage, of the kind or nature specifically mentioned in Article XXI of the Mortgage or of any other kind or nature (except any herein or in the Mortgage expressly excepted) now owned or, subject to the provisions of subsection (I) of Section 87 of the Mortgage, hereafter acquired by the Company (by purchase, consolidation, merger, donation, construction, erection or in any other way) and wheresoever situated, including (without in anywise limiting or impairing by the enumeration of the same the scope and intent of the foregoing) all lands, gas plants, by-product plants, gas holders, gas mains and pipes; all power vices, water rights, reservoirs, canals, raceways, dams, aqueducts, and all other rights or means for appropriating, conveying, storing and supplying water; all rights of way and roads; all plants for the generation of electricity by steam, water and/or other power; all nower houses, street lighting systems, standards and other equipment incidental thereto, telephone, radio, television and air-conditioning systems and equipment incidental thereto, water works, wa er systems, steam heat and hot water plants, substations, lines, service and supply systems, bridges, culvert, tracts, ice or refrigeration pleats and equipment, offices, buildings and other structures and the equipment thereof; all machinery, engines, boilers, dynamos, gas, electric and other machines, regulators, meters, transformers, generators, motors, gas, electrical and mechanical appliances, conduits, cables, gas, water, steam heat or other pipes, service pipes, fittings, valves and connections, pole and transmission lines, wires, cables, tools, implements, apparatus, furniture and chattels; all franchises, consents or permits; all lines for the transmission and distribution of gas, electric current, steam heat or water for any purpose including mains, pipes, conduits, towers, poles, wires, cables, ducts and all apparatus for use in connection therewith; all real estate, lands, casements, servitudes, licenses, permits, franchises, privileges, rights of way and other rights in or relating to public or private property, real or personal, or the occupancy of such property and (except as herein or in the Mortgage, as hereinfore supplemented, expressly excepted) all right, title and interest the Company may now have or may hereafter acquire in and to any and all property of any kind or nature wheresoever situated.

TOGETHER WITH all and singular the tenements, hereditaments, prescriptions, servitudes and appurtenances belonging or in anywise appertaining to the aforementioned property or any part thereof, with the reversion and reversions, remainder and remainders and (subject to the provisions of Section 57 of tl.2 Mortgage) the tolls, rents, revenues, issues, carnings, income, product and profits thereof, and all the estate, right, title and interest and claim whatsoever, at law as well as in equity, which the Company now has or may after acquire in and to the aforementioned property and franchises and part and parcel thereof.

It is Hereby Agreed by the Company that, subject to the provisions of subsection (I) of Section 87 of the Mortgage, all the property, rights, and franchises acquired by the Company (by purchase, consolidation, merger, donation, construction, erection or in any other way) after the date hereof, except any herein or in the Mortgage, as heretofore supplemented, expressly excepted, shall be and are as fully granted and conveyed hereby and by the Mortgage, and as fully embraced within the lien h... of and the lien of the Mortgage, as supplemented, as if such property, rig...is and franchises were now owned by the Company and were specifically described herein or in the Mortgage, as heretofore supplemented, and conveyed hereby or thereby.

Provided that the following are not and are not intended to be now or hereafter granted, batgained, sold, released, conveyed, assigned, transferred, mortgaged, pledged, set over or confirmed hereunder and are hereby expressly excepted from the lien and operation of this Tenth Supplemental Indenture and from the lien and operation of the Mortgage, as heretofore supplemented, viz: (1) cash, shares of stock, bonds, notes and other obligations and other securities not hereafter specifically pledged, paid, deposited, delivered or held

under the Mortgage, as heretofore supplemented, or covenanted so to be; (2) merchandise, equipment, appareius, materials or supplies held for the purpose of sale or other disposition in the usual course of business; fuel, oil and similar materials and supplies consumable in the operation of any of the properties of the Company; all aircraft, tractors, rolling stock, trolley coaches, buses, motor coaches, automobiles, motor trucks, and other vehicles and materials and supplies held for the purpose of repairing or replacing (in whole or part) any of the same; (3) bills, notes and accounts receivable, judgments, demands and choses in action, and all contracts, leases and operating agreements not specifically pledged under the Martgage, as deretofore supplemented, or covenanted so to be; (4) the last day of the term of any lease or leatehold which may be or become subject to the Berr of the Mortgage; (5) gas, petroleum, carbon, chemicals, light oils, air products, electric energy, steam, water, ice, and other materials or products, manufactured, stored, generated, produced, purchased or acquired by the Company for sale, distribution or use in the ordinary course of its business; all timber, minerals, mineral rights and royalties and all Natural Gas and Oil Production Property, as defined in Section 4 of the Mortgage; and (6) the Company's franchise to be a corporation; provided, however, that the property and rights expressly excepted from the lien and operation of this Tenth Supplemental Indenture and from the lien and operation of the Mortgage, as heretofore supplemented, in the above subdivisions (2) and (3) shall (to the extent permitted by law) cease to be so excepted in the event and as of the date that either or both of the Trustees or a receiver or trustee shall enter upon and take possession of the Mortgaged and Pledged Property in the manner provided in Article XIII of the Mortgage by reason of the occurrence of a Default as defined in Section 65 thercof.

To HAVE AND To HOLD all such properties, real, personal and mixed, granted, bargained, sold, released, conveyed, assigned, transferred, mortgaged, pledged, set over or confirmed by the Company as aforese'd, or intended so to be, unto Stanley Burg and (to the extent of its legal capacity to hold the same for the purposes hereof) to Bankers Trust Company, as Trustees, and their successors and assigns forever.

IN TRUST NEVERTHELESS, for the same purposes and upon the same terms, trusts and conditions and subject to and with the same provisos and covenants as are set forth in the Mortgage, as heretofore supplemented, this Tenth Supplemental Indenture being supplemental thereto.

AND IT IS HERBEY COVENANTED by the Company that all the terms, conditions, provisos, covenants and provisions contained in the Mortgage, as heretofore supplemented, shall affect and apply to the property hereinbefore described and conveyed, and to the estates, rights, obligations and duties of the Company and the Trusties and the beneficiar's of the trust with respect to said property, and to the Trustees and their successory in the trust, in the same manner and with the same effect as if the said property had been owned by the Company at the time of the execution of the Mortgage, and had been specifically and at length described in and conveyed to said Trustees by the Mortgage as a part of the property therein stated to be conveyed.

The Company further covenants and agrees to and with the Trustees and their successors in said trust under the Mortgage, as follows:

#### ARTICLE I.

#### Eleventh Series of Bonds.

SECTION 1.01. Amount, Interest and Maturity. There shall be a series of bonds designated "12% Series due 1984" (herein sometimes referred to as the "Eleventh Series"), each of which shall also bear the descriptive title First Mortgage Bond, and the form thereof, which shall I by Resolution of the Board of Directors of the Company, shall contain suitable provisions with respect to the matters hereinafter in this Section specified. Bonds of the Eleventh Series shall be limited to \$30,000,000 in aggregate principal amount at any one time Outstanding except as provided in Section 16 of the Mortgage and shall mature on December 1, 1984, and shall be issued as fully registered bonds in denominations of One Thousand Dollars and, at the option of the Company, in any multiple or multiples of One Thousand Dollars (the Lacreise of such option to be evidenced by the execution and delivery thereof); they shall bear interest from January 21, 1975 at the rate of 12% per annum (computed on the basis of a 360-day year of twelve 30-day months), payable, subject to Section 1.03 hereof, semi-annually on June 1 and December 1 of each year, commencing June 1, 1975; and the principal of, premium, if any, and interest on each said bond shall be payable at the office or agency of the Company in the Borough of Manhattan, the City of New York, in such coin or currency of the United States of America 23 at the time of payment is legal tender for public and private debts, and, at the option of the Company, may be paid by check mailed to the registered holder thereof. Bonds of the Eleventh Series shall be dated as in Section 10 of the Mortgage provided.

SECTION 1.02. Redemption. Bonds of the Eleventh Series shall be redeemable at the option of the Company on any date on or atter December 1, 1979 in accordance with the requirements of the Mortgage in whole at any time, or in part from time to time (if in part, in multiples of \$100,000 but in amounts not less than \$1,000,000 in aggregate principal amount of such bonds), prior to maturity, upon notice, as previded in Section 52 of the Mortgage, mailed at least thirty (30) days prior to the date fixed for redemption amount of the bonds to be redeemed:

If redeemed during the twelve-month period heginning December 1.	Percentage
1979	105.00%
1980	103,75
1981	102,50
1982	101.25
1983 and thereafter	

in each case, together with accrued interest to the date fixed for redemption; provided, however, that prior to June 1, 1984, no bonds of the Eleventh Series may be redeemed pursuant to this Section prior to maturity as part of or in anticipation of any refinancing operation involving, directly or indirectly, the incurring of indebtedness by the Company or any subsidiary or affiliate thereof for borrowed funds having an interest rate or cost (calculated in accordance with generally accepted financial practice) of less than 12% per annum. The term "affiliate" means a person directly or indirectly controlling, controlled by, or under direct or indirect common control with, the Company. A person shall be deemed to control a corporation or other person, for the purpose of this definition, if such person possesses, directly or indirectly, the power to direct or cause the direction of the management and policies of such corporation or other person, whether through the ownership of voting securices, by contract, or otherwise. The term "subsidiary" means any corporation at least a majority of whose outstanding voting stock shall nt the time be owned by the Company and/or by one or more subsidiaries of the Company.

Bonds of the Eleventh Series shall be redeemable by the application of eash deposited with the Corporate Trustee pursuant to the provisions of Section 39 or Section 64 of the Mortgage or with the Proceeds of Released Property; provided, however, that no bonds of the Eleventh Series shall be redeemable pursuant to any Section of the Mortgage (other than pursuant to the first paragraph of this Section 1.02) which permits the Com-

pany to designate one or more series from which redemption is to be made without the prior written consent of the holders of not less than 70% of the principal amount of the bonds of the Eleventh Series then Outstanding, which consent shall be requested by the Company. Any such redemption, a consented to, shall be made at a redemption price equal to 100% of the principal amount thereof, together with accrued interest to the date fixed for redemptic 1.

Subject to the provisions of Section 1.03 hereof, Bonds of the Eleventh Series shall be redeemed through the annual operation of the sinking fund pursuant to Article II hereof at a sinking fund redemption price equal to 100% of the principal amount thereof, in each case together with accrued interest to the date fixed for redemption.

SECTION 1.03. Effect of Payment of Secured Notes; Covenant to Pay, The obligation of the Company to pay the principal of, premium, if any, and interest on the bonds of the Eleventh Series on any date fixed for the payment of such amounts pursuant to this Tenth Supplemental Indenture shall be discharged by (i) the payment of all of the corresponding amounts when due and payable in respect of the principal of, premium, if any, and interest on the Secured Notes to be issued pursuant to Note Purchase Agreements, each dated December 31, 1974, between the Company and the purchasers named therein; and (ii) in the case of payments of principal and premium, if any, the presentation and surrender for cancellation or exchange, or the presentation for potation, of the bonds of the Eleventh Series to the Corporate Trustee as provided in Section 54 of th. Mortgage. Without limiting the effect of the foregoing, prepayment of the Secured Notes pursuant to Section 2.01 or 2.02 of the Note Purchase Agreements shall, upon presentation and surrender for cancellation or exchange, or presentation for notation, of the bonds of the Eleventh Series as provided in the preceding sentence, discharge the obligation hereunder to make an Eleventh Series Sinking Fund Payment or redemption pursuant to Section 2.01, 2.02 or 1.02 hereof for the corresponding date. If any amounts payable in respect of the Secured Notes on a date fixed for the payment thereof pursuant to the Note Purchase Agreements shall not be paid on such date, the corresponding amount payable in respect of the bonds of the Eleventh Series on such date, or the portion thereof which is equal to that portion of the amounts then payable in respect of the Secured Notes and remaining appaid, shall be paid to the registered owners I the bonds of the Eleventh Series.

The Company covenants that it will duly and punctually pay the principal of, premium, if any, and interest on the Secured Notes as and when the same shall become due and payable whether at maturity, upon redemption, whether mandatory or optional, by declaration or otherwise. The Company covenants that it will promptly notify the Corporate Trustee of any Event of Default under the Note Purchase Agreements.

Section 1.04. Payment Certificates. The Company shall, if it is the case, deliver to the Corporate Trustee on each date on which any amounts would otherwise be required to be paid in respect of bonds of the Eleventh Series pursuant to the provisions hereof and of the Mortgage, an Officers' Certificate (the "Payment Certificate") that it has duly and punctually made the corresponding payments in respect of the Secured Notes, in which event the Company shall not, unless default is made in the making of any such payment on the Secured Notes, be required to pay any such amounts in respect of bonds of the Eleventh Series. The Corporate Trustee shall be entitled to rely conclusively upon any Payment Certificate delivered by the Company unless and until it shall have received written notice from the holder of any bond of the Eleventh Series that any such amounts so payable in respect of the Secured Notes have not been duly paid.

Section 1.05. Exchange and Registration. At the option of the registered owner, any bonds of the Eleventh Series, upon surrender thereof, for cancellation, at the office or agency of the Company in the Borough of Manhattan, the City of New York, shall (subject to the provisions of Section 12 of the Mertgage) be exchangeable for a like aggregate principal amount of bonds of the same series of other authorized denominations.

Transfers of boads of the Eleventh Series may be registered (subject to the provisions of Section 12 of the Mortgage) at the office or agency of the Company in the Borough of Manhattan, the City of New York.

Upon any registration of transfer or exchange of bonds of the Eleventh Series, the Company may make a charge therefor sufficient to reimburse it for any tax or taxes or other governmental charge, as provided in Section 12 of the Mortgage, but the Company hereby waives any right to make a charge in addition thereto for any registration or exchange or transfer of bonds of the Eleventh Series.

## ARTICLE II.

# Sinking Fund for Bonds of the Eleventh Series.

Section 2.01. Regular Sinking Fund and Dates. Subject to the provisions of Section 1.03 hereof, the Company covenants that, unless all bonds

of the Eleventh Series shall have ceased to be Outstanding, it will, as a sinking fund for the retirement of bonds of the Eleventh Series, pay to the Corporate Trustee an amount in cash not later than December 1 in each of the years 1979 to and including 1983 (subject to acceleration pursuant to Section 2.02 hereof) sufficient to redeem \$4,500,000 principal amount of such bonds (subject to adjustment pursuant to Section 2.02 hereof) at the sinking fund redemption price, together with accrued interest thereon to the date fixed for redemption. The dates upon which such payments are to be made are herein called "Eleventh Series Sinking Fund Payment Dates". The amount to be paid to the Corporate Trustee on an Eleventh Series Sinking Fund Payment Date is herein called an "Eleventh Series Sinking Fund Payment".

The Comp my shall not be entitled to increase, or to anticipate, any payment in satisfaction of its obligations in respect of the Sinking Fund for the Eleventh Series, except as specifically provided in Section 2.02 below. The Company will not, and will not permit any subsidiary to, acquire directly or indirectly by purchase or otherwise any of the outstanding bonds of the Eleventh Series except by way of payment or redemption in accordance with the provisions of this Tenth Supplemental Indenture.

SECTION 2.02, Adjusted Sinking Fund Payments and Accelerated Sinking Fund Payment Dates. The terms used in this Section 2.02 shall have the meanings defined in Section 2.03. On or before March 31 of each year beginning with the year 1975, the Company covenants that it shall file a Certificate of Firm Gas Supply with the Trustee and, so long as any original holder of bonds of the Eleventh Series continues to hold any of such bonds, deliver a copy of such Certificate to such original holder. If the Date of Exhaustion of Firm Gas Supply shown by the Certificate of Firm Gas Supply so filed shall be a date earlier than December 1, 1984, then the dates of the Eleventh Series Sinking Fund Payment Dates and the amounts of the Eleventh Series Sinking Fund Payments shall be redetermined as follows: The aggregate principal amount of bonds of the Eleventh Series outstanding on the date on which such certificate was filed shall be divided by the number of December 1sts subsequent to the date on which such certificate is filed and prior to such Date of Exhaustion. The resulting quotient (rounded to the next higher integral multiple of \$1,000 if the quotient is not an integral multiple of \$1,000) shall thereupon become the adjusted Eleventh Series Sinking Fund Payment. Each December 1st subsequent to the date on which such certificate is filed and prior to such Date of Exhaustion that is also prior to December 1, 1979 shall thereupon become an accelerated Eleventh Series Sinking Fund Payment Date. Such adjusted Eleventh Series Sinking Fund Payment than each Eleventh Series Sinking Fund Payment Date, including any accelerated Eleventh Series Sinking Fund Payment Date, including any accelerated Eleventh Series Sinking Fund Payment Date.

If any Certificate of Firm Gas Supply filed in any year after the Company's Eleventh Series Sinking Fund Payment has been adjusted as hereinabove provided shall show a Date of Exhaustion of Firm Gas Supply that is both different from the Date of Exhaustion shown in the most recent previous Certificate of Firm Gas Supply and prior to December 1, 1984, the amount of the Company's remaining adjusted Eleventh Series Sinking Fund Payments shall again be adjusted in the same manner as provided above. If any such subsequently filed Certificate of Firm Gas Supply shall show a Date of Exhaustion later than November 30, 1984, then (until such time as a further subsequent Certificate of Firm Gas Supply shall be filed showing a Date of Exhaustion prior to December 1, 1984) no further payments on accelerated Eleventh Series Sinking Fund Payment Dates shall be required to be made and the remaining E3 ath Series Sinking Fund Payments shall be made as provided, exclusive of ay adjustment, in the first paragraph of Section 2.01, except that (1) if less than \$22,500,000 shall then have been paid, each such remaining Eleventh Series Sinking Fund Payment shall be reduced by a fraction computed by dividing (i) the sum of (x) any Eleventh Series Sinking Fund Payments theretofore made on accelerated Eleventh Series Sinking Fund Payment Dates plus (y) the aggregate amount of any excess of an adjusted Eleventh Series Sinking Fund Payment over \$4,500,000 for all such payments theretofore made on the Eleventh Series Sinking Fund Payment Dates after December 1, 1978, by (ii) \$4,500,000 multi, "d by the number of December 1sts which are subsequent to both December 1, 1978 and the date such Certificate is filed and which are prior to December 1, 1984, or (2) if \$22,500,000 or more shall then have been paid, no further payments shall be required to be made on any remaining Eleventh Series Sinking Fund Payment Dates.

Nothing contained in this Section 2.02 shall affect the obligation of the Company to repay the unpaid principal amount of bonds of the Eleventh Series at maturity on December 1, 1984.

Section 2.03. Certain Definitions. For purposes of this Article II, the following terms shall have the following meanings:

The term "Certificate of Firm Gas Supply" shall mean an Officers' Certificate which shall state:

(a) The Company's Firm Gas Supply as at January 1 of the year in which such Certificate is filed;

- (b) The Company's Annual Gas Requirements;
- (c) The Company's Firm Gas Supply Life as at January 1 of the year in which such Certificate is filed; and
  - (d) The Date of Exhaustion of Firm Gas Supply.

The terms "Date of Exhaustion of Firm Gas Supply" or "Date of Exhaustion" shall mean the first day of the calendar month next following the end of the period commencing on January 1 of the year in which a Certificate of Firm Gas Supply is filed and extending for the Firm Gas Supply Life shown in such Certificate.

The term "Firm Gas Supply Life" shall mean a period of years, stated to the nearest 1/10 of a year, computed by dividing the Company's Firm Gas Supply by the Company's Annual Gas Requirements, each stated in a Certificate of Firm Gas Supply.

The term "Annual Gas Requirements" shall mean, for the purposes of any Certificate of Firm Gas Supply, the average of the aggregate annual amount in Therms of all gas sold and of all gas used by the Company during the three calendar years next preceding the date of such Certificate including gas unaccounted for but excluding the excess, if any, in Therms, of the average aggregate annual amount of gas sold on an interruptible basis during the same period over 35% of the average aggregate annual amount of all gas sold and used.

The term "Firm Gas Supply" shall mean, for the purposes of any Certificate of Firm Gas Supply, the sum, without duplication, of

(a) the aggregate amount in Therms of proven (as evidenced by an independent geologist's certificate dated January 1st or later of the then current year) reco erable natural gas reserves of Distribution Quality (including gas in solution or in a common reservoir with oil or distillate and to be produced with such oil or distillate in the form of casinghead gas) controlled by the Company by virtue of leaseholds owned by the Company or by virtue of contracts or other legal entitlements under which the Company is entitled to purchase natural gas produced from such reserves, which, after taking into account the current availability of transportation facilities and all other pertinent factors relative to such reserves, the Company can reasonably expect to produce, at economically practicable prices, and have delivered to it and to transport to its markets to meet requirements in the future for sales to its customers, after exclud-

ing from such aggregate any amounts to be unilized in connection with the production of Liquefied Natural Gas included under (c) or (e); provided, however, that no amounts shall be taken into account hereunder from any reserve unless on or prior to the date of such Certificate, (i) all necessary regulatory approvals required for the commencement and communation of withdrawals from such reserves and delive ies to the Company's markets have been obtained and are still in full force and effect and (ii) construction of any facilities required for the withdrawal of such gas is in progress and is reasonably expected by the Company to be completed within a period of eighteen months from the date of such Certificate;

- (b) to the extent not included in (a) above, the aggregate amount in Therms of gas of Distribution Quality owned or controlled by the Company in storage reservoirs, excluding non-recoverable cushion gas;
- (c) the aggregate amount in Therris of Distribution Quality gas which the Company i entitled to purchase or otherwise acquire from interstate, intrastate or Canadian has pipeline companies under any contract or other legal entitlement providing for the delivery of such gas to, or for the account of, the Company, provided that on or prior to the date of such Certificate, all necessary regulatory approvals required for the commencement and continuation of deliveries to the Company of such gas have been obtained and are still in full force and effect, and provided further that such aggregate amount shall be diminis ed by the excess, if any, of (i) that portion which, in light of the circumstances existing on the date of such Certificate, can reasonably be expected will not be delivered to the Company because (x) the Copany has received notice or has reason to believe that such piper... supplier does not intend to or cannot deliver such portion, or (y) the Company has not reasonably assured itself to the extent feasible that such pipeline supplier has itself a sufficient gas supply to perform its contract or other legal obligation for delivery of such portion to, or for the account f, the Company over (ii) the aggregate amount, if any, of Synthetic Gas of Distribution Quality and or Liquefied Natural Gas of Distribution Quality meeting the requirements of subsections (d) and (e) below (except for the dates set forth in clauses (iii) of such subsections) available to the Company by reason of arrangements made in response to reduction of pipeline supply resulting from the events referred to in (i) above;

- (d) the aggregate amount in Therms of Synthetic Gas of Distribution Quality controlled by the Company by virtue of an interest held by the Company in, or under contracts or other legal entitlements to purchase or otherwise acquire production from, any facilities for the production of Synthetic Gas, provided that (i) all regulatory approvals required to be obtained on or prior to the date of such Certificate for the construction or operation of such facilities and the purchase or other acquisition of such gas have been obtained and are still in full force and effect, and that construction of such facilities (if not completed) is in progress and is reasonably expected by the Company to be completed within a period of eighteen months from the date of such Certificate, (ii) no event or circumstance has occurred which would prevent the completion and operation of any project of which such facilities are a part, and (iii) any such amount of Synthetic Gas skall as of the date of such Certificate be available to the Company for a remaining term ending not earlier than December 1, 1984; and
  - (e) the aggregate amount in Therms of Liquefied Natural Gas of Distribution Quality controlled by the Company by virtue of an interest held by the Company in, or under contracts or other legal entitlements to purchase or otherwise acquire production from, any facilities for the liquefication of natural gas, provided that (i) all regulatory approvals required to be obtained on or prior to the date of such Certificate for the construction or operation of such facilities and the purchase or other acquisition of such gas have been obtained and are still in full force and effect, and that construction of such facilities (if not completed) is in progress and is reasonably expected by the Company to be completed within a period of eighteen months from the date of such Certificate, (ii) no event or circumstance has occurred which would prevent the completion and operation of any project of which such facilities are a part, and (iii) any such amount of Liquefied Natural Gas shall as of the date of such Certificate be available to the Company for a remaining term ending not earlier than June 1, 1984;

provided, however, that in the case of (c), the signers of any Certificate of Firm Gas Supply may, it they shall consider such information reliable and of sufficiently recent date and so state in such Certificate, rely on any figures relating to the gas supply of any pipeline supplier contained in the certificate of gas supply most recently filed with a trustee under any indenture securing

bonds or other obligations of said pipeline supplier if (i) such certificate was signed by a person who would qualify as an independent geologist under such indenture and (ii) pursuant to the terms of said indenture, the signer of such certificate of gas supply, in rendering the opinion set forth therein, shall be required to consider substantially the same factors 1. a substantially similar manner in determining the amount of such gas supply as are required to be considered by the signers of a Certificate of Firm Gas Supply under this Section 2.03 in determining the Firm Gas Supply of the Company, and such certificate of gas supply of the supplier shall be submitted, in conjunction with the Company's Certificate of Firm Gas Supply, to the Trustee and to the original holders of the bonds of the Eleventh Series so long as such original holder continues to hold any such Series; provided, further, that in the case of (d) and (e), the aggregate amounts will be included only to the extent that, in the express written opinion of the signers of the Certificate of Firm Gas Supply hereunder, (i) the design, capacity and useful life of such facilities will permit the production of such amount; (ii) raw materials to be consumed in the production of Synthetic Gas by any facilities referred to in (d) have been acquired or contracted for in quantities sufficient to permit the production of such amount, (iii) the natural gas required to be consumed or used in the production of Liquefied Natural Gas by any facilities referred to in (e) has been acquired or contracted for in quantities sufficient to permit the production of such amount; and (iv) the nature and extent of the Company's interest in such facilities, or the contracts or other legal entitlements by virtue of which the Company has rights to purchase or otherwise acquire production therefrom, and the Company's ability to procure the transportation thereof, are such as to permit the Company to obtain the delivery of such amount; and provided, further, in computing Firm Gas Supply, any gas, including Liquefied Natural Gas and Synthetic Gas, available to the Company from sources not located in the United States of America. whether owned by the Company, its supplier or any supplier of such supplier, shall be included only to the extent that the amount thereof (i) can reasonably be expected to be transported into the United States, over the life of any applicable contract to which the Company is a party, by the Company or its supplier or for delivery to such supplier for sale to the Company, (ii) can be exported from the foreign sources without violating any law, regulation or embargo of any country other than the United States having jurisdiction thereof relating to the export of such gas, and (iii) can be imported into the United States by the Company or its supplier or for delivery to such supplier for sale to the Company without violating any law, regulation or embargo of the United States relating to the import of such gas.

The term "Distribution Quality", when used in reference to any gas, shall mean gas which upon delivery to the Company or after further treatment or processing by available and feasible means, or after blending with other gas available to the Company, is of a quality susceptible for sale or use by the Company in satisfying its gas requirements.

The term "Liquefied Natural Gas" shall mean natural gas converted to a liquid form and which is subject to regasification.

The term "Synthetic Gas" shall mean gas produced by the conversion of coal, oil, naphtha, oil shale or any other substance from a solid or a liquid to a gaseous state, but shall not include gas produced by the regasification of Liquefied Natural Gas.

The term "Therms" shall mean 100,000 British thermal units.

SECTION 2.04. Treatment of Certain Amounts. For all purposes of the Mortgage (including all calculations thereunder), so long as any bonds of the Eleventh Series remain Outstanding, as defined in Section 2 of the Mortgage:

- (i) any cash deposited under the provisions of this Article shall be deemed to be Funded Cash; and
- (ii) any bonds of the Eleventh Series delivered to the Corporate Trustee pursuant to the provisions of this Article shall, after such delivery, be deemed to have been retired by the use of Funded Cash.

Any bonds issued under the Mortgage, delivered to or deposited with the Corporate Trustee by the Company pursuant to the provisions of this Section, shall forthwith be canceled by the Corporate Trustee.

SECTION 2.05. Waivers. Any provision of this Article II may be waived with, and only with, the consent of the holders of 100% of the aggregate unpaid principal amount of the bonds of the Eleventh Series.

## ARTICLE III.

## Miscellaneous Provisions.

SECTION 3.01. Subject to the amendments provided for in this Tenth Supplemental Indenture, the terms defined in the Mortgage, as heretofore

supplemented, shall, for all purposes of this Tenth Supplemental Indenture, have the meanings specified in the Mortgage, as heretofore supplemented.

SECTION 3.02. Section 55 of the Mortgage, as amended, is hereby further amended by inserting the words "and subject to the provisions of Article II of the Tenth Supplemental Indenture dated as of January 1, 1975," after the words "April 1, 1971".

SECTION 3.03. So long as any bonds of the Eleventh Series remain Outstanding, subdivision (c) of Section 65 of the Mortgage is hereby amended to read as follows:

"(c) (1) Failure to pay interest upon or principal (whether at maturity as therein expressed or by declaration, or otherwise) of any Outstanding Qualified Lien Bonds continued beyond the period of grace, if any, specified in the Qualified Lien securing the same; or (2) failure to pay the principal of, or premium, if any, or interest on (whether at maturity or ar prepayment or interest payment date as therein expressed, or by acceleration or otherwise) any of the Company's Secured Notes due 11/34 issued under its Note Purchase Agreements dated December 31, 1/74, when any such payment is due and such failure shall have continued beyond any applicable period of grace specified in such Agreements,"

Section 3.04. If for purposes of Section 413 of the Mortgage, the bonds of the Eleventh Series otherwise Outstanding within the meaning of Section 2 of the Mortgage shall at any time be deemed not to be Outstanding, the Company covenants that it will not (i) consent to any amendment or modification of the Mortgage, or of any indenture supplemental thereto (if, in such case, the consent of holders of such bonds of the Eleventh Series would be required if such bonds had been deemed to be Outstanding for purpose of such Section), unless prior thereto (\*Company, treating the bonds of the Eleventh Series as Outstanding for this purpose, has obtained the consent of the holders of the requisite percentage in aggregate principal amount of First Mortgage Bonds then Outstanding, or (ii) without the prior written consent of holders of not less than 652356 of the aggregate principal amount of Bonds of the Eleventh Series then Outstanding within the meaning of Section 2 of the Mortgage, consent to any amendment or modification of this Tenth Supplemental Indenture.

Section 3.05. The Trustees hereby accept the trusts hereby declared provided, created or supplemented, and agree to perform the same upon the

terms and conditions herein and in the Mortgage, as veretofore supplemented, set forth, including the following:

The Trustees shall not be responsible in an manner whatsoever for or in respect of the validity or sufficiency of this Tenth Supplemental Indenture or for or in respect of the recitats contained herein, all of which recitals are made by the Company solely. In general each and every term and condition contained in Article XVII of the Mortgage shall apply to and form part of this Tenth Supplemental Indenture with the same force and effect as if the same were herein set forth in full, with such omissions, variations and insertions, if any, as may be appropriate to make the same conform to the provisions of the Tenth Supplemental Indenture.

SECTION 3.06. To the extent permitted by Sections 88 and 89 of ac Mortgage, the Trustees or either of them may rely and shall be protected in acting upon any certificate delivered under Article I or Article II and believed by them, it or him to be genuine and to have been signed or presented by the proper party or parties.

SECTION 3.07. Whenever in this Tenth Supplemental Indenture any of the parties hereto is named or referred to, this shall, subject to the provisions of Articles XVI and XVII of the Mortgage, be deemed to include the successors or assigns of such party, and all the covenants and agreements in this Tenth Supplemental Indenture contained by or on behalf of the Company or by or on behalf of the "Trustees shall bind and inure to the benefit of the respective successors and assigns of such parties whether so expressed or not.

SECTION 3.08. Nothing in this Tenth Supplemental Indenture, expressed or implied, is intended, or shall be construed, to confer upon, or to give to, any person, firm or corporation, other than the parties hereto and the holders of the bonds and coupons outstanding under the Mortgage, any right, remedy, or claim under or by reason of this Tenth Supplemental Indenture or any covenant, condition, stipulation, promise or agreement hereof, and all the covenants, conditions, stipulations, promises and agreements by or on behalf of the Company as set forth in this Tenth Supplemental Indenture shall be for the sole and exclusive benefit of the parties hereto, and of the holders of the bonds and of the coupons outstanding under the Mortgage.

SECTION 3.09. This Tenth Supplemental Indenture has been executed in several identical counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

IN WITNESS WHEREOF, Northwest Natural Gas Company, party hereto of the first part, has caused its corporate name to be hereunto affixed, and this

instrument to be signed and sealed by its President or one of its Vice Presidents, and its corporate seal to be attested by its Secretary or one of its Assistant Secretaries for and in its behalf on the 13th day of January 1975, as of January 1, 1975 in the City of Portland, Oregon; Bankers Trust Company, one of the parties hereto of the second part, has caused its corporate name to be hereunto allixed, and this instrument to be signed and sealed by one of its Vice Presidents or one of its Assistant Y'ce Presidents and its corporate seal to be attested by one of its Assistant Secretaries; and Stanley Burg, one of the parties hereto of the second part, has hereunto set his hand and affixed his seal, all in The City of New York, on the 16th day of January, 1975, as of January 1, 1975.

No.	DRTHREES I NATURAL GAS SOMBANY
Attest 8 No Hadland	By V. A. President.
Schreiary.	PST
Executed, sealed and delivered by Northy Natural, Gas Company in the presence	of:
Bout de leve ist kinne	$\sim$ 0,
В	ANKERS TRUSP COMPANY, as Trustee,
	By Assistant Vice President.
Attest:  Assistant Secretary.	1 H B
	STANLET BURG, as Trustee.
Freented, scaled and delivered by BAI TRUST COMPANY and STANLEY But the presence, of:	vkers na in
Syllanding	

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STATE OF OREGON SS.:

January 13, A. D. 1975.

Before me personally appeared Francis F. Hill, who, being duly sworn, did say that he is President of Northwest Natural Gas Company and that the seal affixed to the foregoing instrument is the corporate seal of said Corporation and that said instrument was signed and sealed in behalf of said Corporation by authority of its Board of Directors; and he acknowledged said instrument to be its voluntary act and deed.

On this 13th day of January, 1975, before me personally appeared Francis F. Hill, to me known to be President of Northwest Natural Gas Company, one of the corporations that executed the within and foregoing instrument, and acknowledged said instrument to be the free and voluntary act and deed of said Corporation, for the uses and purposes therein mentioned, and on oath stated that he was authorized to execute said instrument and that the seal affixed is the corporate seal of said Corporation.

In: WITNESS WHEREOF I have hereunto set my hand and affixed my official seal the day and year first above written.

Notary Public for Oregon

My commission expires January 2.5,

NOW.

24

STATE OF NEW YORK SS.

January 16, A. D. 1975.

Before me personally appeared W. L. TISCHLER, who, being duly sworn, did say that he is an Assistant Vice President of BANKERS TRUST COMPANY and that the seal affixed to the foregoing instrument is the corporate seal of said Corporation and that said instrument was signed and sealed in behalf of said Corporation by authority of its Board of Directors; and he acknowledged said instrument to be its voluntary act and deed.

On this 16th day of January, 1975, before me personally appeared W. L. TISCHLER, to me known to be an Assistant Vice President of BANKERS TRUST COMPANY, one of the corporations that executed the within and foregoing instrument, and aeknowledged said instrument to be the free and voluntary act and deed of said Corporation, for the uses and purposes therein mentioned, and on oath stated that he was authorized to execute said instrument and that the seal affixed is the corporate seal of said Corporation.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my official seal the day and year first above written.

CHRISTINE GERACE Natary Public, State of New York No. 43-1407147

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Oualified in Richmond County Certificate filed in New York County Commission Expires March 30, 1975

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STATE OF NEW YORK COUNTY OF NIW YORK

January 16, A. D. 1975.

Before me personally appeared the above-named STANLEY BURG and acknowledged the foregoing instrument to be his voluntary act and deed.

On this day personally appeared before me STANLEY BURG to me known to be the individual described in and who executed the within and foregoing instrument, and acknowledged that he signed the same as his free and voluntary act and deed, for the uses and purposes therein mentioned.

Given under my hand and official seal this 16th day of January, 1975.

Buchner Swae

CHRISTINE GERACE
Notary Public, State of New York
No. 43-1407147
Qualified in Richmond County
Certificate filed in New York County
Commission Expires March 30, 1975

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