### FORM 10-K SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

(MARK ONE)

[X] ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

FOR THE FISCAL YEAR ENDED DECEMBER 31, 1998

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[ ] TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

FOR THE TRANSITION PERIOD FROM T

COMMISSION FILE NUMBER 1-4174

THE WILLIAMS COMPANIES, INC. (Exact name of registrant as specified in its charter)

DELAWARE
(State or other jurisdiction of incorporation or organization)
ONE WILLIAMS CENTER, TULSA, OKLAHOMA (Address of principal executive offices)

73-0569878 (I.R.S. Employer Identification No.)

> 74172 (Zip Code)

Registrant's telephone number, including area code: (918) 573-2000

SECURITIES REGISTERED PURSUANT TO SECTION 12(b) OF THE ACT:

TITLE OF EACH CLASS

NAME OF EACH EXCHANGE ON WHICH REGISTERED

Common Stock, \$1.00 par value Preferred Stock Purchase Rights New York Stock Exchange and the Pacific Stock Exchange

SECURITIES REGISTERED PURSUANT TO SECTION 12(g) OF THE ACT:

None

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes [X] No  $[\ ]$ 

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. [X]

The aggregate market value of the registrant's voting stock held by nonaffiliates as of the close of business on March 26, 1999, was approximately \$16.8 billion.

The number of shares of the registrant's Common Stock outstanding at March 26, 1999, was 431,707,086, excluding 6,304,312 shares held by Williams.

## DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's Proxy Statement prepared for the solicitation of proxies in connection with the Annual Meeting of Stockholders of Williams for 1999 are incorporated by reference in Part III.

#### THE WILLIAMS COMPANIES, INC.

#### FORM 10-K

PART I

### ITEM 1. BUSINESS

## (A) GENERAL DEVELOPMENT OF BUSINESS

The Williams Companies, Inc. was incorporated under the laws of the State of Nevada in 1949 and was reincorporated under the laws of the State of Delaware in 1987. The principal executive offices of Williams are located at One Williams Center, Tulsa, Oklahoma 74172 (telephone (918) 573-2000).

On November 19, 1998, Williams announced that its board of directors had authorized an initial public offering of a minority interest in its communications subsidiary, Williams Communications Group, Inc. Williams expects to file a registration statement for this offering with the Securities and Exchange Commission in the second quarter of 1999. In addition, on February 8, 1999, Williams announced it had entered into an agreement with SBC Communications under which SBC would acquire the lesser of the number of shares of common stock valued at \$500 million or ten percent of the common stock of Williams Communications in a private placement expected to occur simultaneously with the initial public offering.

On March 28, 1998, Williams acquired MAPCO Inc. in a stock-for-stock transaction based upon a fixed exchange ratio of 1.665 shares of Williams common stock and .555 associated preferred stock purchase rights for each share of MAPCO common stock and associated preferred stock purchase rights. See Note 2 to Notes to Consolidated Financial Statements. Management believes the acquisition furthers its strategy of seeking growth through strategic acquisitions and alliances and that MAPCO's assets and operations complement Williams' existing lines of business. Williams operates the MAPCO businesses through Williams Energy Services.

### (B) FINANCIAL INFORMATION ABOUT INDUSTRY SEGMENTS

See Part II, Item 8 -- Financial Statements and Supplementary Data.

## (C) NARRATIVE DESCRIPTION OF BUSINESS

Williams, through Williams Gas Pipeline Company and Williams Energy Services and their subsidiaries, engages in the following types of energy-related activities:

- transportation and storage of natural gas and related activities through operation and ownership of five interstate natural gas pipelines;
- exploration and production of oil and gas through ownership of 708 Bcf of proved natural gas reserves primarily located in the San Juan Basin of Colorado and New Mexico;
- natural gas gathering, processing, and treating activities through ownership and operation of approximately 11,000 miles of gathering lines, ten gas treating plants, and 11 gas processing plants (one of which is partially owned);
- natural gas liquids transportation through ownership and operation of approximately 10,300 miles of natural gas liquids pipeline;
- transportation of petroleum products and related terminal services through ownership or operation of approximately 9,100 miles of petroleum products pipeline and 68 petroleum products terminals;
- production and marketing of ethanol through operation and ownership of two ethanol plants (one of which is partially owned);
- petroleum products and propane distribution services through operation and ownership of a petroleum trucking company;

- refining of petroleum products through operation and ownership of two refineries;
- retail marketing through 256 convenience stores; and
- energy commodity marketing and trading.

Williams, through Williams Communications Group, Inc. and its subsidiaries, engages in the following types of communications-related activities:

- owner and operator of a 19,000-route mile telecommunications fiber optic network;
- data-, voice-, and video-related products and services;
- advertising distribution services;
- video services and other multimedia services for the broadcast industry:
- enhanced audio- and video-conferencing services for businesses;
- customer-premise voice and data equipment, sales, and services including installation, maintenance, and integration; and
- network integration and management services nationwide.

Williams, through subsidiaries of Williams International Company, directly invests in energy and telecommunications projects primarily in South America and Australia and continues to explore and develop additional projects for international investments. It also invests in energy, telecommunications, and infrastructure development funds in Asia and Latin America.

Substantially all operations of Williams are conducted through subsidiaries. Williams performs management, legal, financial, tax, consultative, administrative, and other services for its subsidiaries and employs approximately 1,000 employees. Williams' principal sources of cash are from external financings, dividends and advances from its subsidiaries, investments, payments by subsidiaries for services rendered, and interest payments from subsidiaries on cash advances. The amount of dividends available to Williams from subsidiaries largely depends upon each subsidiary's earnings and operating capital requirements. The terms of certain subsidiaries' borrowing arrangements limit the transfer of funds to Williams.

To achieve organizational and operating efficiencies, Williams' interstate natural gas pipelines are grouped together under its wholly owned subsidiary, Williams Gas Pipeline Company. All other operating companies are owned by Williams Holdings of Delaware, Inc., a wholly owned subsidiary of Williams. The energy operations of Williams Holdings of Delaware, Inc. are grouped into a wholly owned subsidiary, Williams Energy Services; its communications operations are grouped into a wholly owned subsidiary, Williams Communications Group, Inc.; and its international operations are grouped into a wholly owned subsidiary, Williams International Company. Item 1 of this report is formatted to reflect this structure.

#### WILLIAMS GAS PIPELINE COMPANY

Williams' interstate natural gas pipeline group, comprised of Williams Gas Pipeline Company and its subsidiaries, owns and operates a combined total of approximately 27,000 miles of pipelines with a total annual throughput of approximately 3,700 TBtu\* of natural gas and peak-day delivery capacity of approximately 15 Bcf of gas. The gas pipeline group consists of Transcontinental Gas Pipe Line Corporation, Northwest Pipeline Corporation, Kern River Gas Transmission Company, Texas Gas Transmission Corporation, and Williams Gas Pipelines Central, Inc. The gas pipeline group also holds minority interests in joint venture interstate natural gas pipeline systems.

Williams' gas pipeline group has combined certain administrative functions, such as human resources, information services, technical services, and finance, of its operating companies in an effort to lower costs and increase efficiency. Although a single management team manages Northwest Pipeline and Kern River, and Texas Gas and Central share a senior vice president and general manager, each of these operating companies operates as a separate legal entity. Williams' gas pipeline group employs approximately 3,300 employees.

The gas pipeline group's transmission and storage activities are subject to regulation by the Federal Energy Regulatory Commission (FERC) under the Natural Gas Act of 1938 and under the Natural Gas Policy Act of 1978 (NGPA), and, as such, their rates and charges for the transportation of natural gas in interstate commerce, the extension, enlargement, or abandonment of jurisdictional facilities, and accounting, among other things, are subject to regulation. Each gas pipeline company holds certificates of public convenience and necessity issued by the FERC authorizing ownership and operation of all pipelines, facilities, and properties considered jurisdictional for which certificates are required under the Natural Gas Act. Each gas pipeline company is also subject to the Natural Gas Pipeline Safety Act of 1968, as amended by Title I of the Pipeline Safety Act of 1979, which regulates safety requirements in the design, construction, operation, and maintenance of interstate natural gas pipelines.

As a result of the MAPCO merger in 1998, Williams Holdings acquired an approximately 4.8 percent investment interest in Alliance Pipeline. Effective January 1, 1999, this interest was transferred to the gas pipeline group. Alliance consists of two proposed segments, a Canadian segment and a United States segment. Alliance has filed applications for approval with the FERC in the United States and the National Energy Board (NEB) in Canada, to construct and operate an approximately 1,800 mile natural gas pipeline system extending from northeast British Columbia to the Chicago, Illinois, area market center, where it will interconnect with the North American pipeline grid. On September 17, 1998, the FERC granted a Certificate of Public Convenience and Necessity (CPCN) for the United States portion of the Alliance pipeline, and on December 3, 1998, the NEB granted a CPCN for the Canadian portion. Construction is expected to begin in the spring of 1999 with an anticipated in-service date of October 2000. Total estimated cost of the Alliance project is approximately \$3 billion. At December 31, 1998, Williams had invested approximately \$19 million in Alliance.

A business description of the principal companies in the interstate natural gas pipeline group follows.

# TRANSCONTINENTAL GAS PIPE LINE CORPORATION

Transco is an interstate natural gas transportation company that owns a 10,500-mile natural gas pipeline system extending from Texas, Louisiana, Mississippi, and the offshore Gulf of Mexico through Alabama, Georgia, South Carolina, North Carolina, Virginia, Maryland, Pennsylvania, and New Jersey to the New York City metropolitan area. The system serves customers in Texas and eleven southeast and Atlantic seaboard states, including major metropolitan areas in Georgia, North Carolina, New York, New Jersey, and

<sup>\*</sup> The term "Mcf" means thousand cubic feet, "MMcf" means million cubic feet and "Bcf" means billion cubic feet. All volumes of natural gas are stated at a pressure base of 14.73 pounds per square inch absolute at 60 degrees Fahrenheit. The term "Btu" means British Thermal Unit, "MMBtu" means one million British Thermal Units and "TBtu" means one trillion British Thermal Units. The term "Dth" means dekatherm. The term "Mbbl" means one thousand barrels. The term "GWh" means gigawatt hour.

Pennsylvania. Effective May 1, 1995, Transco transferred the operation of certain production area facilities to Williams Field Services Group, Inc., an affiliated company.

## Pipeline System and Customers

At December 31, 1998, Transco's system had a mainline delivery capacity of approximately 3.8 Bcf of gas per day from its production areas to its primary markets. Using its Leidy Line and market-area storage capacity, Transco can deliver an additional 2.9 Bcf of gas per day for a system-wide delivery capacity total of approximately 6.7 Bcf of gas per day. Excluding the production area facilities operated by Williams Field Services Group, Inc., Transco's system is composed of approximately 7,100 miles of mainline and branch transmission pipelines, 41 compressor stations, and six storage locations. Compression facilities at a sea level-rated capacity total approximately 1.3 million horsepower.

Transco's major natural gas transportation customers are public utilities and municipalities that provide service to residential, commercial, industrial, and electric generation end users. Shippers on Transco's system include public utilities, municipalities, intrastate pipelines, direct industrial users, electrical generators, gas marketers, and producers. No customer accounted for more than ten percent of Transco's total operating revenues in 1998. Transco's firm transportation agreements are generally long-term agreements with various expiration dates and account for the major portion of Transco's business. Additionally, Transco offers interruptible transportation service under shorter term agreements.

Transco has gas storage capacity in five underground storage fields located on or near its system and/or market areas and operates three of these storage fields and a liquefied natural gas (LNG) storage facility. The total gas storage capacity available to Transco and its customers is approximately 216 Bcf of gas. Storage capacity permits Transco's customers to inject gas into storage during the summer and off-peak periods for delivery during peak winter demand periods.

# **Expansion Projects**

In 1998 Transco completed construction of, and placed into service, two major projects, the Mobile Bay Lateral Expansion Project and the Cherokee Expansion Project. Phase I of the Mobile Bay Lateral Expansion Project, which was placed into service on August 1, 1998, provides new firm transportation capacity of 350 MMcf per day on a new offshore pipeline extending from the outer continental shelf to Transco's Station 82 and 128 MMcf per day of capacity on the existing onshore lateral from Station 82 to Station 85 at Transco's mainline in Choctaw County, Alabama. Phase II of the project, which was placed into service on November 9, 1998, increased capacity onshore by an additional 136 MMcf per day bringing the total Mobile Bay Lateral capacity delivered at Station 85 to 784 MMcf per day. On November 1, 1998, Transco placed into service the Cherokee Expansion Project, an incremental expansion of Transco's system in its southern market area providing approximately 84 MMcf per day of new firm transportation capacity to serve markets in Georgia.

In February 1997 Pine Needle LNG Company, LLC, which is owned by wholly owned subsidiaries of Transco and several of its major customers, commenced construction of a LNG storage facility in Guilford County, North Carolina. The facility will have 4 Bcf of storage capacity, 400 MMcf per day of withdrawal capacity, and is expected to be operational on May 1, 1999. The project is estimated to cost approximately \$107 million. Wholly owned subsidiaries of Transco will operate the facility and maintain a 35 percent ownership interest. Transco expects to make equity investments of approximately \$19 million in this project.

In November 1997 the North Carolina Utilities Commission issued an order approving the Cardinal Pipeline Project. Wholly owned subsidiaries of Transco and three of its North Carolina customers will own the Cardinal pipeline system, which will involve the acquisition of the existing 37-mile Cardinal pipeline in North Carolina and construction of an approximately 67-mile extension of the Cardinal pipeline to new interconnections located near Clayton County, North Carolina. This project will provide 140 MMcf per day of additional firm transportation capacity to North Carolina markets and is expected to be operational by November 1, 1999. The project is estimated to cost approximately \$98 million. Wholly owned subsidiaries of Transco will

operate the Cardinal pipeline and maintain a 45 percent ownership interest in the project. Transco expects to make equity investments of approximately \$22 million in this project.

In December 1997 wholly owned subsidiaries of Transco and AGL Resources Inc. formed Cumberland Gas Pipeline Company. Cumberland plans to expand existing pipeline facilities of Transco and AGL northward into Tennessee, creating a 143-mile pipeline that is expected to provide firm transportation capacity to markets in Georgia and Tennessee by the 2000-2001 winter heating season. Wholly owned subsidiaries of Transco will operate the Cumberland pipeline and maintain a 50 percent ownership interest. The estimated total cost of this project is up to \$99 million. Transco expects to make equity investments of up to \$24.8 million. Cumberland plans to file for FERC approval of the project during the first quarter of 1999.

On May 13, 1998, Transco filed an application with the FERC for approval of its MarketLink Project. Under this project, Transco proposes to construct and operate mainline and Leidy Line facilities to create an additional 700 Mbh per day of transportation capacity to serve increased demand in the mid-Atlantic and south-Atlantic regions of the United States by a targeted in-service date of November 1, 2000. The estimated cost of the proposed facilities is \$529 million.

In 1997 Independence Pipeline Company, owned equally by wholly owned subsidiaries of Transco, ANR Pipeline Company, and National Fuel Gas Company, filed an application for FERC approval to construct and operate a new pipeline consisting of approximately 400 miles of 36-inch pipe from ANR's existing compressor station at Defiance, Ohio, to Transco's facilities at Leidy, Pennsylvania. In April 1998 Independence notified the FERC that it is revising its expected in-service date from November 1999 to November 2000, reflecting the status of its certificate application and the anticipated time required to construct the pipeline facilities once authorized. Independence's pipeline is expected to provide approximately 916 MMcf per day of firm transportation capacity. The estimated cost of the Independence project is \$678 million. Transco estimates that its equity contribution will approximate \$68 million based on its expected one-third ownership interest.

Subsidiaries of Transco, Duke Energy, and KeySpan Energy have formed Cross Bay(SM) Pipeline Company, L.L.C. The Cross Bay Pipeline Project is designed to increase natural gas deliveries into the New York City metropolitan area by installing compression and looping facilities to expand the capacity of Transco's existing Long Beach lateral pipeline by approximately 121 MMcf per day. The project is targeted to be operational in the 2000-2001 time frame. The project is estimated to cost approximately \$50 million. Wholly owned subsidiaries of Transco will operate the Cross Bay pipeline and maintain a 37.5 percent ownership interest. Transco expects to make equity investments of approximately \$5 million in this project.

Buccaneer Gas Pipeline Company, L.L.C., a wholly owned subsidiary of Transco, announced on March 4, 1999, that it would accept, until March 29, 1999, requests for firm transportation service to be made available on a proposed new natural gas pipeline system extending from the Mobile Bay area in Alabama to markets in Florida. Specifically, Buccaneer anticipates that its pipeline system will extend from a point near Transco's Station 82 in Coden, Alabama, across the Gulf of Mexico to the west coast of Florida just north of Tampa. The pipeline would continue onshore in an easterly direction to serve power generation plants and other markets across the central part of the state, and will terminate in Volusia County, Florida. The lateral pipelines will be constructed in accordance with market demand. The target in-service date for the projects is June 2002. Buccaneer plans to file for FERC approval of the project in August 1999. The capital cost of the project will depend upon the level of market commitment received.

Transco is currently developing the SouthCoast Expansion Project, which it expects will create additional firm transportation capacity on its system from the end of Transco's existing Mobile Bay lateral pipeline in Choctaw County, Alabama, to mainline delivery points in Transco's Rate Zone 4 (Alabama and Georgia). Transco plans to file for FERC approval of the project during the first quarter of 1999. The project has a target in-service date of November 1, 2000. Transco expects the cost of this project to approximate \$96 million.

Operating Statistics. The following table summarizes transportation data for the periods indicated (in TBtus):

TRANSCO SYSTEM DELIVERIES (TBTU)	1998	1997	1996
Market-area deliveries:			
Long-haul transportation	857.8	940.2	948.9
Market-area transportation	522.1	438.9	428.1
Total market-area deliveries	1,379.9	1,379.1	1,377.0
Production-area transportation	214.0	242.0	260.7
Total system deliveries	1,593.9	1,621.1	1,637.7
	======	======	======
Average Daily Transportation Volumes	4.4	4.4	4.5
Average Daily Firm Reserved Capacity	5.8	5.5	5.2

#### NORTHWEST PIPELINE CORPORATION

Northwest Pipeline is an interstate natural gas transportation company that owns and operates a natural gas pipeline system extending from the San Juan Basin in northwestern New Mexico and southwestern Colorado through Colorado, Utah, Wyoming, Idaho, Oregon, and Washington to a point on the Canadian border near Sumas, Washington. Northwest Pipeline provides services for markets in California, New Mexico, Colorado, Utah, Nevada, Wyoming, Idaho, Oregon, and Washington directly or indirectly through interconnections with other pipelines.

## Pipeline System and Customers

At December 31, 1998, Northwest Pipeline's system, having a mainline delivery capacity of approximately 2.5 Bcf of gas per day, was composed of approximately 3,900 miles of mainline and branch transmission pipelines and 40 compressor stations having sea level-rated capacity of approximately 307,000 horsepower.

In 1998 Northwest Pipeline transported natural gas for a total of 165 customers. Transportation customers include distribution companies, municipalities, interstate and intrastate pipelines, gas marketers, and direct industrial users. The two largest customers of Northwest Pipeline in 1998 accounted for approximately 14.8 percent and 14.1 percent, respectively, of its total operating revenues. No other customer accounted for more than ten percent of total operating revenues in 1998. Northwest Pipeline's firm transportation agreements are generally long-term agreements with various expiration dates and account for the major portion of Northwest Pipeline's business. Additionally, Northwest Pipeline offers interruptible transportation service under shorter term agreements.

As a part of its transportation services, Northwest Pipeline utilizes underground storage facilities in Utah and Washington enabling it to balance daily receipts and deliveries. Northwest Pipeline also owns and operates a LNG storage facility in Washington that provides a needle-peaking service for its system. These storage facilities have an aggregate delivery capacity of approximately 973 MMcf of gas per day.

# **Expansion Projects**

The Columbia Gorge project will provide firm transportation between a Stanfield, Washington, receipt point and a delivery point near Sumas, Washington, to serve the markets of BC Gas Utility Ltd. (a major gas distributor in lower British Columbia). Northwest Pipeline has sought regulatory approvals to complete the first phase of 50,000 Dth per day. Northwest Pipeline filed a certificate application on May 15, 1998, to complete the first phase and an amendment (to reflect design cost changes) in the fourth quarter of 1998. Northwest Pipeline expects this project to cost approximately \$18 million.

Northwest Pipeline owns a one-third interest in the Jackson Prairie storage facility located in the state of Washington. In March 1998 Northwest Pipeline filed for certificate authority to realign authorized storage capacity for system balancing by replacing 3.04 Bcf of existing firm storage capacity at the Clay Basin storage

facility located in eastern Utah (and 25.3 MMcf per day of associated firm deliverability) with 1.067 Bcf of Jackson Prairie expansion capacity (and 100 MMcf per day of associated firm deliverability). The FERC order authorizing expansion of the Jackson Prairie storage facility was received and accepted the last week of September 1998. The total cost of Northwest Pipeline's one-third interest in this expansion project is estimated at \$10 million with an expected in-service date of October 1, 1999.

Operating Statistics. The following table summarizes transportation data for the periods indicated (in TBtus):

	1998	1997	1996
Transportation Volumes	732	714	834
Average Daily Transportation Volumes	2.0	2.0	2.3
Average Daily Firm Reserved Capacity	2.6	2.5	2.5

Transportation volumes declined from 1996 to 1997 as a result of Northwest Pipeline's sale in late 1996 of a majority of its South End Facilities.

### KERN RIVER GAS TRANSMISSION COMPANY

Kern River is an interstate natural gas transportation company that owns and operates a natural gas pipeline system extending from Wyoming through Utah and Nevada to California. The system, which commenced operations in February 1992, delivers natural gas primarily to the enhanced oil recovery fields in southern California. The system also transports natural gas for utilities, municipalities, and industries in California, Nevada, and Utah.

### Pipeline System and Customers

At December 31, 1998, Kern River's system was composed of approximately 707 miles of mainline and branch transmission pipelines and five compressor stations having a mainline delivery capacity of approximately 700 MMcf of gas per day. The pipeline system interconnects with the pipeline facilities of another pipeline company at Daggett, California. From the point of interconnection, Kern River and the other pipeline company have a common 219-mile pipeline which is owned 63.6 percent by Kern River and 36.4 percent by the other pipeline company, as tenants in common, and is designed to accommodate the combined throughput of both systems. This common facility has a delivery capacity of 1.1 Bcf of gas per day.

In 1998 Kern River transported natural gas for customers in California, Nevada, and Utah. Kern River transported gas for reinjection as a part of enhanced oil recovery in Kern County, California, and for local distribution customers, electric utilities, cogeneration projects, and commercial and other industrial customers. The two largest customers of Kern River in 1998 accounted for approximately 20 percent and 14 percent, respectively, of its total operating revenues. One of these customers serves the enhanced oil recovery fields. No other customer accounted for more than ten percent of total operating revenues in 1998. Kern River transports natural gas for customers under firm long-term transportation agreements totaling 694 MMcf of gas per day.

Kern River, under an executed firm transportation contract, delivers natural gas into the Las Vegas, Nevada, market area during the winter months. Kern River began deliveries of approximately 10 MMcf of gas per day during 1997 and expects to escalate deliveries to 40 MMcf of gas per day on a seasonal basis by 1999.

Operating Statistics. The following table summarizes transportation data for the periods indicated, including 1996 and part of 1997 during which Williams owned less than 100 percent of Kern River (in TBtus):

	1998	1997	1996
Transportation Volumes	299	285	281
Average Daily Transportation Volumes	. 82	.78	.77
Average Daily Firm Reserved Capacity	.72	.73	.71

#### TEXAS GAS TRANSMISSION CORPORATION

Texas Gas is an interstate natural gas transportation company that owns and operates a natural gas pipeline system extending from the Louisiana Gulf Coast area and eastern Texas and running generally north and east through Louisiana, Arkansas, Mississippi, Tennessee, Kentucky, and Indiana to Ohio, with smaller diameter lines extending into Illinois. Texas Gas's direct market area encompasses eight states in the South and Midwest, and includes the Memphis, Tennessee; Louisville, Kentucky; Cincinnati and Dayton, Ohio; and Indianapolis, Indiana, metropolitan areas. Texas Gas also has indirect market access to the Northeast through interconnections with unaffiliated pipelines.

Pipeline System and Customers

At December 31, 1998, Texas Gas' system, having a mainline delivery capacity of approximately 2.8 Bcf of gas per day, was composed of approximately 6,000 miles of mainline and branch transmission pipelines and 32 compressor stations having a sea level-rated capacity totaling approximately 555,000 horsepower.

In 1998 Texas Gas transported natural gas to customers in Louisiana, Arkansas, Mississippi, Tennessee, Kentucky, Indiana, Illinois, and Ohio, and indirectly to customers in the Northeast. Texas Gas transported gas for 108 distribution companies and municipalities for resale to residential, commercial, and industrial end users. Texas Gas provided transportation services to approximately 21 industrial customers located along its system. At December 31, 1998, Texas Gas had transportation contracts with approximately 595 shippers. Transportation shippers include distribution companies, municipalities, intrastate pipelines, direct industrial users, electrical generators, gas marketers, and producers. The largest customer of Texas Gas in 1998 accounted for approximately 13.9 percent of its total operating revenues. No other customer accounted for more than ten percent of total operating revenues in 1998. Texas Gas' firm transportation agreements are generally long-term agreements with various expiration dates and account for the major portion of Texas Gas's business. Additionally, Texas Gas offers interruptible transportation and storage services under agreements that are generally short-term.

Texas Gas owns and operates gas storage reservoirs in ten underground storage fields located on or near its system or market areas. The storage capacity of Texas Gas' certificated storage fields is approximately 177 Bcf of gas. Texas Gas' storage gas is used in part to meet operational balancing needs on its system, to meet the requirements of Texas Gas' firm and interruptible storage customers, and to meet the requirements of Texas Gas' no-notice transportation service, which allows Texas Gas' customers to temporarily draw from Texas Gas' storage gas to be repaid in-kind during the following summer season. A large portion of the gas delivered by Texas Gas to its market area is used for space heating, resulting in substantially higher daily requirements during winter months.

Operating Statistics. The following table summarizes transportation data for the periods indicated (in  $\mathsf{TBtus}$ ):

	1998	1997	1996
Transportation Volumes	752.4	773.6	794.5
Average Daily Transportation Volumes	2.1	2.1	2.2
Average Daily Firm Reserved Capacity	2.2	2.2	2.1

# WILLIAMS GAS PIPELINES CENTRAL, INC.

Central, formerly known as Williams Natural Gas Company, is an interstate natural gas transportation company that owns and operates a natural gas pipeline system located in Colorado, Kansas, Missouri, Nebraska, Oklahoma, Texas, and Wyoming. The system serves customers in seven states, including major metropolitan areas in Kansas and Missouri, its chief market areas.

Pipeline System and Customers

At December 31, 1998, Central's system, having a mainline delivery capacity of approximately 2 Bcf of gas per day, was composed of approximately 6,000 miles of mainline and branch transmission and storage pipelines and 44 compressor stations having a sea level-rated capacity totaling approximately 227,000 horsepower.

In 1998 Central transported natural gas to customers in Colorado, Kansas, Missouri, Nebraska, Oklahoma, Texas, and Wyoming. Central transported gas for 71 distribution companies and municipalities for resale to residential, commercial, and industrial end users in approximately 530 cities and towns. Central provided transportation services to approximately 296 industrial customers, federal and state institutions, and agricultural processing plants located principally in Kansas, Missouri, and Oklahoma. At December 31, 1998, Central had transportation contracts with approximately 195 shippers. Transportation shippers include distribution companies, municipalities, intrastate pipelines, direct industrial users, electrical generators, gas marketers, and producers.

In 1998 approximately 63 percent of Central's total operating revenues were generated from gas transportation services to Central's two largest customers, Kansas Gas Service Company, a division of Oneok, Inc. (approximately 30 percent), and Missouri Gas Energy Company (approximately 33 percent). Kansas Gas Service Company sells or resells gas to residential, commercial, and industrial customers principally in certain major metropolitan areas of Kansas. Missouri Gas Energy sells or resells gas to residential, commercial, and industrial customers principally in certain major metropolitan areas of Missouri. No other customer accounted for more than ten percent of operating revenues in 1998.

Central's firm transportation agreements have various expiration dates ranging from one to 20 years, with the majority expiring in three to eight years. Additionally, Central offers interruptible transportation services under shorter term agreements.

Central operates nine underground storage fields with an aggregate gas storage capacity of approximately 43 Bcf and an aggregate delivery capacity of approximately 1.2 Bcf of gas per day. Central's customers inject gas into these fields when demand is low and withdraw it to supply their peak requirements. During periods of peak demand, approximately two-thirds of the firm gas delivered to customers is supplied from these storage fields. Storage capacity enables Central's system to operate more uniformly and efficiently during the year.

### **Expansion Projects**

Central's largest expansion project in 1998 involved the acquisition of a petroleum pipeline and conversion of the line to transport 28,000 Dth per day of natural gas into the St. Louis, Missouri, area. Additionally, Central constructed a new supply lateral in Hemphill County, Texas, which provided incremental supply load exceeding 150,000 Dth per day.

Operating Statistics. The following table summarizes transportation data for the periods indicated (in TBtus):

	1998	1997	1996
Transportation Volumes	329	337	341
Average Daily Transportation Volumes	.9	.9	. 9
Average Daily Firm Reserved Capacity	2.1	2.1	1.9

# REGULATORY MATTERS

Each interstate natural gas pipeline company has various regulatory proceedings pending. Each company establishes its rates primarily through the FERC's ratemaking process. Key determinants in the ratemaking process are (1) costs of providing service, including depreciation rates, (2) allowed rate of return, including the equity component of the capital structure, and (3) volume throughput assumptions. The FERC determines the allowed rate of return in each rate case. Rate design and the allocation of costs between the demand and commodity rates also impact profitability. As a result of these proceedings, the pipeline

companies have collected a portion of their revenues subject to refund. See Note 12 of Notes to Consolidated Financial Statements and Management's Discussion & Analysis of Financial Conditions and Results of Operations for the amount of revenues reserved for potential refund at December 31, 1998.

Each of the interstate natural gas pipeline companies that were formerly gas supply merchants have undertaken the reformation of its respective gas supply contracts. None of the pipeline companies have any significant pending supplier take-or-pay, ratable-take, or minimum-take claims. After December 31, 1998, Central paid various parties amounts to resolve its three remaining gas supply contracts. The costs paid to resolve these contracts are presently subject to certain FERC proceedings. For information on outstanding issues with respect to contract reformation, gas purchase deficiencies, and related regulatory issues, see Note 17 of Notes to Consolidated Financial Statements.

#### COMPETITION

The FERC continues to regulate each of Williams' interstate natural gas pipeline companies pursuant to the Natural Gas Act and the NGPA. However, competition for natural gas transportation has intensified in recent years due to customer access to other pipelines, rate competitiveness among pipelines, customers' desire to have more than one transporter, and regulatory developments. Future utilization of pipeline capacity will depend on competition from other pipelines, use of alternative fuels, the general level of natural gas demand, and weather conditions. Electricity and distillate fuel oil are the primary competitive forms of energy for residential and commercial markets. Coal and residual fuel oil compete for industrial and electric generation markets. Nuclear and hydroelectric power and power purchased from electric transmission grid arrangements among electric utilities also compete with gas-fired electric generation in certain markets.

Suppliers of natural gas are able to compete for any gas markets capable of being served by pipelines using nondiscriminatory transportation services provided by the pipeline companies. As the regulated environment has matured, many pipeline companies have faced reduced levels of subscribed capacity as contractual terms expire and customers opt to reduce firm capacity under contract in favor of alternative sources of transmission and related services. This situation, known in the industry as "capacity turnback," is forcing the pipeline companies to evaluate the consequences of major demand reductions in traditional long-term contracts. It could also result in significant shifts in system utilization, and possible realignment of cost structure for remaining customers since all interstate natural gas pipeline companies continue to be authorized to charge maximum rates approved by the FERC on a cost of service basis.

Williams is aware that several state jurisdictions have been involved in implementing changes similar to the changes that have occurred at the federal level. This activity, frequently referred to as "LDC unbundling," has been most pronounced in New York, New Jersey, Georgia, and Pennsylvania. New York and New Jersey began establishing LDC unbundling regulations in 1995 and continue to develop regulations regarding LDC unbundling. Georgia enacted an LDC unbundling program in 1997. Pennsylvania is currently considering LDC unbundling and may enact legislation in 1999. In addition, Maryland and Delaware currently have pilot unbundling programs for industrial, commercial, and residential end-users. Management expects these regulations to encourage greater competition in the natural gas marketplace.

# OWNERSHIP OF PROPERTY

Each of Williams' interstate natural gas pipeline companies generally owns its facilities in fee, with certain portions, such as certain offshore facilities, being held jointly with third parties. However, a substantial portion of each pipeline companies' facilities is constructed and maintained pursuant to rights-of-way, easements, permits, licenses, or consents on and across properties owned by others. Compressor stations, with appurtenant facilities, are located in whole or in part either on lands owned or on sites held under leases or permits issued or approved by public authorities. The storage facilities are either owned or contracted under long-term leases or easements.

# **ENVIRONMENTAL MATTERS**

Each interstate natural gas pipeline is subject to the National Environmental Policy Act and federal, state, and local laws and regulations relating to environmental quality control. Management believes that, with

respect to any capital expenditures and operation and maintenance expenses required to meet applicable environmental standards and regulations, the FERC would grant the requisite rate relief so that, for the most part, the pipeline companies could recover these expenditures in their rates. For this reason, management believes that compliance with applicable environmental requirements by the interstate pipeline companies is not likely to have a material effect upon Williams' earnings or competitive position.

For a discussion of specific environmental issues involving the interstate pipelines, including estimated cleanup costs associated with certain pipeline activities, see "Environmental" under Management's Discussion and Analysis of Financial Condition and Results of Operations and "Environmental Matters" in Note 17 of Notes to Consolidated Financial Statements.

## WILLIAMS HOLDINGS OF DELAWARE, INC.

Williams Holdings' energy subsidiaries are engaged in exploration and production; natural gas gathering, processing, and treating activities; natural gas liquids transportation; petroleum products transportation and terminal services; ethanol production and marketing; refining; convenience retailing; mobile information management systems; fleet fuel management services; and energy commodity marketing and trading. In addition, these subsidiaries provide a variety of other products and services to the energy industry. Williams Holdings' communications subsidiaries own and operate a fiber optic network; offer data-, voice-, and video-related products; and offer services and customer premise voice and data equipment, including installation, maintenance, and integration, nationwide. Williams Holdings' international subsidiaries invest directly in energy and telecommunications projects primarily in South America and Australia and development funds in Asia and Latin America. On November 19, 1998, Williams announced its intention to sell a minority interest in its communications subsidiary, Williams Communications Group, Inc., to the public. In addition, on February 8, 1999, Williams announced it had entered into an agreement with SBC Communications under which SBC would acquire the lesser of the number of shares of common stock valued at \$500 million or ten percent of the common stock of Williams Communications in a private placement expected to occur simultaneously with the initial public offering. On March 24, 1999, Williams disclosed that its Board of Directors had authorized the merger of Williams Holdings with and into Williams and the assumption by Williams of liabilities and obligations of Williams Holdings. Management expects the merger to be completed in the second or third quarter of 1999.

### WILLIAMS ENERGY SERVICES

Williams Energy is comprised of four major business units: Exploration & Production, Midstream Gas & Liquids, Petroleum Services, and Energy Marketing & Trading. Through its business units, Williams Energy engages in energy production and exploration activities; natural gas gathering, processing, and treating; natural gas liquids transportation, fractionation, and storage; petroleum products transportation and terminal services; ethanol production; refining; convenience retailing; mobile information management systems; fleet fuel management services; and energy commodity marketing and trading.

Williams Energy, through its subsidiaries, owns 708 Bcf of proved natural gas reserves located primarily in the San Juan Basin of Colorado and New Mexico and owns or operates approximately 11,000 miles of gathering pipelines (including certain gathering lines owned by an affiliate but operated by Midstream Gas & Liquids), approximately 10,300 miles of natural gas liquids pipelines, ten gas treating plants, 11 gas processing plants (one of which is partially owned), 68 petroleum products terminals, two ethanol production facilities (one of which is partially owned), two refineries, 256 convenience stores/travel centers, and approximately 9,100 miles of petroleum products pipeline. Physical and notional volumes marketed and traded by subsidiaries of Williams Energy approximated 15,873 TBtu equivalents in 1998. Williams Energy, through its subsidiaries, employs approximately 9,150 employees.

Segment revenues and segment profit for Williams Energy are reported in Note 19 of Notes to Consolidated Financial Statements herein.

A business description of each of Williams Energy's business units follows.

#### **EXPLORATION & PRODUCTION**

Williams Energy, through its wholly owned subsidiary Williams Production Company in its Exploration & Production unit (E&P), owns and operates producing natural gas leasehold properties in the United States. In addition, E&P is actively exploring for oil and gas.

Oil and gas properties. E&P's properties are located primarily in the Rocky Mountains and Gulf Coast areas. Rocky Mountain properties are located in the San Juan Basin in New Mexico and Colorado, in Wyoming, and in Utah. Gulf Coast properties are located in Louisiana, east and south Texas, and offshore Gulf of Mexico

Gas Reserves. At December 31, 1998, 1997, and 1996, E&P had proved developed natural gas reserves of 476 Bcf, 362 Bcf, and 323 Bcf, respectively, and proved undeveloped reserves of 232 Bcf, 238 Bcf, and 208 Bcf, respectively. Of E&P's total proved reserves, 90 percent are located in the San Juan Basin of Colorado and New Mexico. No major discovery or other favorable or adverse event has caused a significant change in estimated gas reserves since year end.

Customers and Operations. At December 31, 1998, the gross and net developed leasehold acres owned by E&P totaled 312,939 and 131,303, respectively, and the gross and net undeveloped acres owned were 444,916 and 111,926, respectively. At December 31, 1998, E&P owned interests in 3,393 gross producing wells (632 net) on its leasehold lands.

Operating Statistics. The following tables summarize drilling activity for the periods indicated:

	1998 WELLS	GROSS	NET
		173 173	46.7 46.7
Drilled		5 4	3.1 2.5
	COMPLETED DURING	GROSS WELLS	NET WELLS
1997		177 207 65	49 35 11

The majority of E&P's gas production is currently being sold in the spot market at market prices. Total net production sold during 1998, 1997, and 1996 was 43.2 Bcf, 37.1 Bcf, and 31.0 Bcf, respectively. The average production costs, including production taxes, per Mcf of gas produced were \$.37, \$.42, and \$.23, in 1998, 1997, and 1996, respectively. The average wellhead sales price per Mcf was \$1.31, \$1.62, and \$.98, respectively, for the same periods.

In 1993 E&P conveyed a net profits interest in certain of its properties to the Williams Coal Seam Gas Royalty Trust. Williams subsequently sold Trust Units to the public in an underwritten public offering. Williams Holdings owns 3,568,791 Trust Units representing 36.8 percent of outstanding Units. Substantially all of the production attributable to the properties conveyed to the Trust was from the Fruitland coal formation and constituted coal seam gas. Production information reported herein includes E&P's interest in these Units.

## MIDSTREAM GAS & LIQUIDS

Williams Energy, through Williams Field Services Group, Inc. and its subsidiaries (Midstream Gas & Liquids), owns and operates natural gas gathering, processing, treating, transportation, fractionation, and storage facilities located in northwestern New Mexico, southwestern Colorado, southwestern Wyoming, eastern Utah, northwestern Oklahoma, Kansas, northern Missouri, eastern Nebraska, Iowa, southern Minnesota, Tennessee, and also in areas offshore and onshore in Texas, Alabama, Mississippi, and Louisiana.

Midstream Gas & Liquids also operates gathering facilities, owned by Transcontinental Gas Pipe Line Corporation, an affiliated interstate natural gas pipeline company, that are currently regulated by the FERC.

Expansion Projects. During 1998 Midstream Gas & Liquids continued to expand its operations in the Gulf Coast region through the Mobile Bay and Discovery projects. Discovery, a 50 percent owned joint venture, began operations during 1997 with the completion of its 150-mile gas gathering system, Larose cryogenic plant with 600 MMcf per day of capacity, and Paradis fractionation facility with 42,000 bbl per day of capacity. Construction on the Mobile Bay gathering and processing facilities has remained on schedule, with the processing plant's commissioning and performance testing expected to begin in the second quarter of 1999. Contracts are currently in place to supply approximately 70 percent of the processing plant's 600 MMcf per day of capacity. Liquids from this plant will be handled by three separate joint ventures including the Tri-States Pipeline, a 16.7 percent owned system with a capacity of 80,000 bbl per day, Wilprise Pipeline, a 33 percent owned system with capacity of 75,000 bbl per day, and a 26.7 percent owned fractionation facility with a capacity of 60,000 bbl per day. In addition, Midstream Gas & Liquids began construction on an expansion of its Rocky Mountain natural gas liquids pipeline which will increase capacity from 75,000 bbl per day to 125,000 bbl per day through construction of a 412-mile pipeline parallel to the existing Mid-America System. Completion is expected in

Customers and Operations. Facilities owned and/or operated by Midstream Gas & Liquids consist of approximately 11,000 miles of gathering pipelines (including certain gathering lines owned by Transco but operated by Midstream Gas & Liquids), ten gas treating plants, 11 gas processing plants (one of which is partially owned), and approximately 10,300 miles of natural gas liquids pipeline, of which approximately 1,600 miles are partially owned. The aggregate daily inlet capacity is approximately 7.9 Bcf for the gathering systems and 6.7 Bcf for the gas processing, treating, and dehydration facilities. Midstream Gas & Liquids' pipeline operations provide customers with one of the nation's largest NGL transportation systems, while gathering and processing customers have direct access to interstate pipelines, including affiliated pipelines, which provide access to multiple markets.

During 1998 Midstream Gas & Liquids gathered gas for 288 customers, processed gas for 140 customers, and provided transportation to 87 customers. The largest customer accounted for approximately 15 percent of total gathered volumes and 23 percent of processed volumes, and the two largest transportation customers accounted for 23 percent and 12 percent, respectively, of transportation volumes. No other customer accounted for more than ten percent of gathered, processed, or transported volumes. Midstream Gas & Liquids' gathering and processing agreements with large customers are generally long-term agreements with various expiration dates. These long-term agreements account for the majority of the gas gathered and processed by Midstream Gas & Liquids. The natural gas liquids transportation contracts are tariff-based and generally short-term in nature with some long-term contracts for system-connected processing plants.

Operating Statistics. The following table summarizes gathering, processing, natural gas liquid sales, and transportation volumes for the periods indicated. The information includes operations attributed to facilities owned by Transco but operated by Midstream Gas & Liquids.

	1998	1997	1996
Gas volumes:			
Gathering (TBtu)	2,117	2,153	2,155
Processing (TBtu)	536	<sup>′</sup> 520	484
Natural gas liquids sales (millions of gallons)	576	551	403
Natural gas liquids transportation (MMBbbl)	401	414	397

## PETROLEUM SERVICES

Williams Energy, through wholly owned subsidiaries in its Petroleum Services unit, owns and operates a petroleum products pipeline system, two ethanol production plants (one of which is partially owned), and petroleum products terminals and provides services and markets products related thereto. Included in this

business unit are two refineries, 256 convenience stores/travel centers, trucking and rail operations for propane and refined products, mobile information management systems, and fleet fuel management services.

Transportation. A subsidiary in the Petroleum Services unit, Williams Pipe Line Company, owns and operates a petroleum products pipeline system which covers an 11-state area extending from Oklahoma to North Dakota and Minnesota and Illinois. The system is operated as a common carrier offering transportation and terminalling services on a nondiscriminatory basis under published tariffs. The system transports refined products and liquified petroleum gases.

At December 31, 1998, the system traverses approximately 7,100 miles of right-of-way and includes approximately 9,100 miles of pipeline in various sizes up to 16 inches in diameter. The system includes 77 pumping stations, 22.4 million barrels of storage capacity, and 39 delivery terminals. The terminals are equipped to deliver refined products into tank trucks and tank rail cars. The maximum number of barrels that the system can transport per day depends upon the operating balance achieved at a given time between various segments of the system. Because the balance is dependent upon the mix of products to be shipped and the demand levels at the various delivery points, the exact capacity of the system cannot be stated. In 1998 total system shipments averaged 614 thousand barrels per day.

An affiliate of Williams Pipe Line, Longhorn Enterprises of Texas, Inc. (LETI), owns a 31.5 percent interest in Longhorn Partners Pipeline, LP, a joint venture formed to construct and operate a refined products pipeline from Houston to El Paso, Texas. Pipeline construction is nearly complete, but operations are not expected to commence until the third quarter of 1999, pending review and approval of an environmental assessment. Williams Pipe Line has designed and constructed and will operate the pipeline, and LETI has contributed a total of \$92.4 million to the joint venture.

On February 25, 1999, Williams Energy announced it had reached an agreement to purchase Union Texas Petrochemicals Corporation, a wholly owned subsidiary of ARCO, with a closing expected on March 31, 1999. UTP's assets include a 215-mile light hydrocarbon transportation and 85-mile olefin pipeline and storage network, which connects, either directly or indirectly, most major natural gas liquids producers and olefin consumers in Louisiana. UTP also is the leading merchant marketer of ethylene in Louisiana and owns and operates a 5/12(th) interest in a 1.25 billion pounds per year ethylene plant near Geismar, Louisiana. In connection with the acquisition, the Energy Marketing & Trading unit anticipates entering into a financial agreement, backed by an A credit-rated third party, intended to manage the risks related to the earnings volatility typically associated with ethylene production. The expected cost of this transaction is \$166.5 million.

The operating statistics set forth below relate to the system's operations for the periods indicated:

	1998	1997	1996
Shipments (thousands of barrels): Refined products:			
Gasolines	131,600	132,428	134,296
Distillates	72,471	71,694	68,628
Aviation fuels	10,038	10,557	11,189
LP-Gases	8,644	13,322	15,618
Lube extracted fuel oil	1,246	7,471	8,555
Crude oil	·	31	891
Total Shipments	223,999	235,503	239,177
	======	======	======
Daily average (thousands of barrels)	614	645	655
Barrel miles (millions)	61,043	61,086	61,969

Terminal Services and Development. Williams Energy, through its wholly owned subsidiary Williams Energy Ventures, provides independent terminal services to the refining and marketing industries via distribution of petroleum products through wholly owned and joint interest terminals. WEV owns and/or operates 29 strategically located independent terminals covering a thirteen-state area in the South, Southeast, Southwest, and Midwest.

The terminals are supplied with refined products and ethanol by barge, tanker, truck, rail, and various common carrier pipelines. WEV provides scheduling and inventory management, access to an expanded transportation and information services network, additive injection services, and custom terminalling services such as octane and oxygenate blending. On a selective basis, WEV provides temporary leased storage.

In 1996 WEV acquired a 45.5 percent interest in eight Southeastern terminals and in 1998 increased that ownership percentage to 68.94 percent. In late 1997 WEV acquired a terminal in Dallas, Texas, and in 1998 acquired a terminal in Atlanta, Georgia. In early 1999 WEV purchased 12 terminals in the Southeast from Amoco and two Memphis, Tennessee, area terminals from Truman Arnold Companies. These acquisitions have allowed WEV to increase its core business and to offer multi-market terminal services to its customers.

Terminal barrels delivered for the periods indicated are noted below.

	1998	1997	1996
Terminal Barrels Delivered (mbbls)	28,787	17,336	5,426

Ethanol. WEV is engaged in the production and marketing of ethanol. WEV owns and operates two ethanol plants of which corn is the principal feedstock. The Pekin, Illinois, plant has an annual production capacity of 100 million gallons of fuel-grade and industrial ethanol and also produces various coproducts. The Aurora, Nebraska, plant (in which WEV owns a 74.9 percent interest) has an annual production capacity of 30 million gallons. WEV also markets ethanol produced by third parties. Coproducts, mainly flavor enhancers, produced at the Pekin plant are marketed primarily to food processing companies.

The sales volumes set forth below include ethanol produced by third parties as well as by WEV for the periods indicated:

	1998	1997	1996
Ethanol sold (thousands of gallons)	172,056	145,612	119,800

Distribution Services. Petroleum Services, through its distribution services group, provides petroleum trucking, propane trucking, and rail car operations for Williams Energy and third parties. The petroleum trucking operation, operated out of Memphis, Tennessee, under the name "GENI Transport," works with local jobbers to supply their retail outlets and with several of Williams Energy's Energy Marketing & Trading unit's wholesale customers to develop transportation arrangements. GENI Transport is also the primary transportation provider to Petroleum Services' retail petroleum group. The propane trucking and rail car operations are the primary transportation providers for the Energy Marketing & Trading unit's retail propane group.

Refining. Petroleum Services, through its subsidiaries, owns and operates two refineries: the North Pole, Alaska, refinery and the Memphis, Tennessee, refinery.

North Pole Refinery. The North Pole Refinery includes the refinery located at North Pole, Alaska, and a terminal facility at Anchorage, Alaska. The refinery, the largest in the state, is located approximately two miles from its supply point for crude oil, the Trans-Alaska Pipeline System (TAPS). The refinery's processing capability is approximately 215,000 barrels per day. At maximum crude throughput, the refinery can produce 67,000 barrels per day of refined products. These products are jet fuel, gasoline, diesel fuel, heating oil, fuel oil, naphtha, and asphalt. Williams Energy's Energy Marketing & Trading unit markets these refined products in Alaska, Western Canada, and the Pacific Rim principally to wholesale, commercial, industrial, and governmental customers and Petroleum Services' retail petroleum group. The retail petroleum group accounted for about eight percent of the North Pole Refinery's 1998 product sales volume and 64 percent of the North Pole Refinery's gasoline production. Petroleum Services completed construction of a third crude unit at the refinery that can produce an additional 17,000 barrels per day of refined products, including 14,000 barrels per day of jet fuel. The new crude unit construction was completed in October 1998 at a cost of \$74.5 million.

	1998	1997	1996
Throughput (bbl)	142,471	132,238	132,912
Barrels Processed and Transferred (bbl)	44,561	42,201	43,392

The North Pole Refinery's crude oil is purchased through Williams Energy's Energy Marketing & Trading unit from the state of Alaska or is purchased or received on exchanges from crude oil producers. The refinery has a long-term agreement with the state of Alaska for the purchase of royalty oil, which is scheduled to expire on December 31, 2003. The agreement provides for the purchase of up to 35,000 barrels per day (approximately 17 percent of the refinery's supply) of the state's royalty share of crude oil produced from Prudhoe Bay, Alaska. These volumes, along with crude oil either purchased from crude oil producers or received under exchange agreements or other short-term supply agreements with the state of Alaska, are utilized as throughput in the production of products at the refinery. Approximately 34 percent of the throughput is refined and sold as finished product and the remainder of the throughput is returned to the TAPS and either delivered to repay exchange obligations or sold.

Memphis Refinery. The Memphis Refinery is the only refinery in the state of Tennessee and has a throughput capacity of approximately 140,000 barrels per day. In January 1998 Petroleum Services completed construction of a splitter, increasing the refinery's capacity for propylene production from 2,000 barrels per day to 6,000 barrels per day. In November 1998 Petroleum Services commissioned an expansion of its East Crude Unit increasing crude production capacity by approximately 20,000 barrels per day to 140,000 barrels per day. Williams Energy is currently in the process of making significant plant modifications for further increasing the refinery's crude oil flexibility. In late 1998 a \$123 million project to increase crude processing capacity of the refinery to 160,000 barrels per day and construct a 36,000 barrels per day continuous catalyst regeneration reformer was approved. Both projects are slated for completion in the year 2000 and will enable the refinery to produce 100 percent of customer demand for premium gasoline in the mid-South region of the United States while significantly enhancing crude flexibility.

The Memphis Refinery produces gasoline, low sulfur diesel fuel, jet fuel, K-1 kerosene, propylene, No. 6 fuel oil, propane, and elemental sulfur. These products are exchanged or marketed primarily in the Mid-South region of the United States by Williams Energy's Energy Marketing & Trading unit to wholesale customers, such as industrial, governmental, and commercial consumers, jobbers, independent dealers, other refiner/marketers, and to Petroleum Services' retail petroleum group.

The Memphis Refinery has access to crude oil from the Gulf Coast via common carrier pipeline and by river barges. In addition to domestic crude oil, the Memphis Refinery has the capability of receiving and processing certain foreign crudes. During 1998, following the MAPCO merger, Williams Energy's Energy Marketing & Trading unit purchased all of the crude oil processed at the Memphis Refinery. Although this method of purchase reduces the financial effect of volatile crude oil market prices, the financial results of the Memphis Refinery may be significantly impacted by changes in the market prices for crude oil and refined products. Petroleum Services cannot with any assurance predict the future of crude oil and product prices or their impact on its financial results.

	1998	1998 1997		1998 1997 1		1997 1996	
Barrels Processed and Transferred (bbl)	120,985	113,040	104,129				

Retail Petroleum. Petroleum Services, primarily under the brand names "Williams TravelCenters" and "MAPCO Express," is engaged in the retail marketing of gasoline, diesel fuel, other petroleum products, convenience merchandise, and restaurant and fast food items. The retail petroleum group operates 29 interstate TravelCenter locations and 227 convenience stores. The TravelCenter sites consist of 11 modern facilities

providing gasoline and diesel fuel, merchandise, and restaurant offerings for both traveling consumers and professional drivers, and 18 locations providing fuel and merchandise. The convenience store sites are primarily concentrated in the vicinities of Nashville and Memphis, Tennessee, and the state of Alaska. MAPCO Express stores represent 38 percent of the convenience store market in Alaska. All of the motor fuel sold by Williams TravelCenters and MAPCO Express stores is supplied either by exchanges, directly from either the Memphis or North Pole Refineries or through Williams Energy's Energy Marketing & Trading unit

Convenience merchandise and fast food accounted for approximately 57 percent of the retail petroleum group's gross margins in 1998 and 55 percent in 1997. Gasoline and diesel sales volumes for the periods indicated are noted below:

	1998	1997	1996
Gasoline (mgals)			
Diesel (mgals)	188,401	137,219	147,548

#### **ENERGY MARKETING & TRADING**

Williams Energy, through subsidiaries, primarily Williams Energy Marketing & Trading Company and its subsidiaries (EM&T), is a national energy services provider that buys, sells, and transports a full suite of energy commodities, including natural gas, electricity, refined products, natural gas liquids, crude oil, propane, liquefied natural gas, and liquified petroleum gas, on a wholesale and retail level, serving over 300,000 customers. In addition, EM&T provides price-risk management services through a variety of financial instruments including exchange-traded futures, as well as over-the-counter forwards, options and swap agreements related to various energy commodities and provides capital services to the diverse energy industry. See Note 16 of the Notes to Consolidated Financial Statements.

EM&T markets natural gas throughout North America and grew its total volumes (physical and notional) to an average of 27.7 Bcf per day in 1998. EM&T's core business has traditionally been natural gas marketing in the Gulf Coast and Eastern regions of the United States, using the pipeline systems owned by Williams, but also includes marketing on approximately 50 non-Williams' pipelines. EM&T's natural gas customers include producers, industrials, local distribution companies, utilities, and other gas marketers.

In February 1999 EM&T and AES Ironwood, L.L.C. executed an amended and restated 20-year power purchase agreement under which EM&T is to provide fuel to and market up to approximately 655 megawatts of electricity output from a generating facility to be built and owned by AES in southern Pennsylvania. In December 1998 EM&T reached agreement with Hoosier Energy Rural Electric Cooperative, Inc. to supply a part of its wholesale energy needs and manage its energy portfolio.

In May 1998 EM&T and The AES Corporation signed a 15-year agreement under which EM&T provides fuel to and markets up to approximately 4,000 megawatts of electricity output from three southern California generating sites with 14 units owned and operated by AES. During 1998 EM&T marketed 16.9 GW per hour (physical and notional) of electricity.

In 1998 EM&T provided supply, distribution, and related risk management services to petroleum producers, refiners, and end-users in the United States and various international regions. During 1998 EM&T's total crude and petroleum products (physical and notional) marketed averaged 2,153 Mbbl per day. During 1998 EM&T also marketed natural gas liquids with total volumes (physical and notional) averaging 480.3 Mbbl per day.

EM&T markets and distributes propane and appliances to approximately 300,000 customers at the retail level. Propane is used principally as a fuel in various domestic, commercial, industrial, agricultural, and vehicle motor fuel applications. Residential customers, who account for the majority of sales, use propane for home heating, cooking, and other domestic purposes. The primary agricultural use is crop drying. Commercial and industrial sales include fuel for shopping centers and industrial plants. During 1998 EM&T marketed 262.6 million gallons of propane.

EM&T is currently focusing its retail natural gas and electric business to concentrate on large end-use customers and away from sales to commercial and residential customers. See Note 5 of Consolidated Financial Statements.

Operating Statistics. The following table summarizes marketing and trading volumes for the periods indicated, including propane totals during 1996, 1997, and a portion of 1998 during which Williams did not own MAPCO:

	1998	1997	1996
Average marketing and trading volumes (physical and notional):			
Natural gas (Bcf per day)Refined products, natural gas liquids, crude (mbbl per	27.7	22.3	15.9
day)	2,633.3	1,549.0	616.0
Electricity (GWh per hour)	16.9	8.3	0.5
Propane gallons (millions)	262.6	297.2	331.4

#### REGULATORY MATTERS

Midstream Gas & Liquids. In May 1994 after reviewing its legal authority in a Public Comment Proceeding, the FERC determined that while it retains some regulatory jurisdiction over gathering and processing performed by interstate pipelines, pipeline-affiliated gathering and processing companies are outside its authority under the Natural Gas Act. An appellate court has affirmed the FERC's determination and the United States Supreme Court has denied requests for certiorari. As a result of these FERC decisions, some of the individual states in which Midstream Gas & Liquids conducts its operations have considered whether to impose regulatory requirements on gathering companies. Kansas, Oklahoma, and Texas currently regulate gathering activities using complaint mechanisms under which the state commission may resolve disputes involving an individual gathering arrangement. Other states may also consider whether to impose regulatory requirements on gathering companies.

In February 1996 Midstream Gas & Liquids and Transco filed applications with the FERC to spindown all of Transco's gathering facilities to Midstream Gas & Liquids. The FERC subsequently denied the request in September 1996. Midstream Gas & Liquids and Transco sought rehearing in October 1996. In August 1997 Midstream Gas & Liquids and Transco filed a second request for expedited treatment of the rehearing request. The FERC has yet to rule on this request for rehearing. In February 1998 Midstream Gas & Liquids and Transco filed separate applications to spindown an onshore gathering system located in Texas, the Tilden/ McMullen gathering system, which was also one of the subjects of the pending rehearing request. The FERC has not ruled on this request. In June 1998 the FERC issued a Notice of Inquiry into its policy related to pipeline facilities located on the Outer Continental Shelf. No policy or rule has been issued from that proceeding.

Midstream Gas & Liquids' natural gas liquids group is subject to various federal, state, and local environmental and safety laws and regulations. Midstream Gas & Liquids' pipeline operations are subject to the provisions of the Hazardous Liquid Pipeline Safety Act. In addition, the tariff rates, shipping regulations, and other practices of the Mid-America, Rio Grande, and Seminole pipelines are regulated by the FERC pursuant to the provisions of the Interstate Commerce Act applicable to interstate common carrier petroleum and petroleum products pipelines. The tariff rates and practices of the ammonia system are regulated by the Surface Transportation Board under the provisions of the Interstate Commerce Commission Termination Act of 1995 applicable to pipeline carriers. Both of these statutes require the filing of reasonable and nondiscriminatory tariff rates and subject Midstream Gas & Liquids to certain other regulations concerning its terms and conditions of service. The Mid-America, Rio Grande, and Seminole pipelines also file tariff rates covering intrastate movements with various state commissions. The United States Department of Transportation has prescribed safety regulations for common carrier pipelines. The pipeline systems are subject to various state laws and regulations concerning safety standards, exercise of eminent domain, and similar matters.

Petroleum Services. Williams Pipe Line, as an interstate common carrier pipeline, is subject to the provisions and regulations of the Interstate Commerce Act. Under this Act, Williams Pipe Line is required,

among other things, to establish just, reasonable, and nondiscriminatory rates, to file its tariffs with the FERC, to keep its records and accounts pursuant to the Uniform System of Accounts for Oil Pipeline Companies, to make annual reports to the FERC, and to submit to examination of its records by the audit staff of the FERC. Authority to regulate rates, shipping rules, and other practices and to prescribe depreciation rates for common carrier pipelines is exercised by the FERC. The Department of Transportation, as authorized by the 1995 Pipeline Safety Reauthorization Act, is the oversight authority for interstate liquids pipelines. Williams Pipe Line is also subject to the provisions of various state laws applicable to intrastate pipelines.

On December 31, 1989, a rate cap, which resulted from a settlement with several shippers and had effectively frozen Williams Pipe Line's rates for the previous five years, expired. Williams Pipe Line filed a revised tariff on January 16, 1990, with the FERC and the state commissions. The tariff set an average increase in rates of 11 percent and established volume incentives and proportional rate discounts. Certain shippers on the Williams Pipe Line system and a competing pipeline carrier filed protests with the FERC alleging that the revised rates were not just and reasonable and were unlawfully discriminatory. Williams Pipe Line elected to bifurcate this proceeding in accordance with the then-current FERC policy. Phase I of the FERC's bifurcated proceeding provided Williams Pipe Line the opportunity to justify its rates and rate structure by demonstrating that its markets were workably competitive. Rates to markets that were not deemed workably competitive in Phase I required cost justification in Phase II. Subsequent rate increases filed by Williams Pipe Line were stayed pending ultimate resolution of Phase II.

In the Phase I proceeding, the FERC found all but 12 of Williams Pipe Line's markets to be workably competitive and, thus, eligible for market-based rates. On July 15, 1998, the FERC issued its decision in Phase II finding that Williams Pipe Line failed to demonstrate that the rates at issue for the 12 less competitive markets were just and reasonable and that Williams Pipe Line must roll back those rates to pre-1990 levels and pay refunds with interest to its shippers. Williams Pipe Line sought rehearing of the July 15, 1998, order and has been granted leave to stay the order's refund requirement until the FERC acts on rehearing. A shipper has appealed the Phase I order in the United States Court of Appeals for the District of Columbia Circuit and the appeal has been stayed pending the completion of Phase II. Williams Pipe Line took appropriate reserves in 1998 for the July 15, 1998, order, but continues to believe that subsequently revised tariffs will be found lawful. See Note 17 of Notes to Consolidated Financial Statements.

Environmental regulations and changing crude supply patterns continue to affect the refining industry. The industry's response to environmental regulations and changing supply patterns will directly affect volumes and products shipped on the Williams Pipe Line system. Environmental Protection Agency regulations, driven by the Clean Air Act, require refiners to change the composition of fuel manufactured. A pipeline's ability to respond to the effects of regulation and changing supply patterns will determine its ability to maintain and capture new market shares. Williams Pipe Line has successfully responded to changes in diesel fuel composition and product supply and has adapted to new gasoline additive requirements. Reformulated gasoline regulations have not yet significantly affected Williams Pipe Line. Williams Pipe Line will continue to attempt to position itself to respond to changing regulations and supply patterns but cannot predict how future changes in the marketplace will affect its market areas.

Energy Marketing & Trading. Management believes that EM&T's activities are conducted in substantial compliance with the marketing affiliate rules of FERC Order 497. Order 497 imposes certain nondiscrimination, disclosure, and separation requirements upon interstate natural gas pipelines with respect to their natural gas trading affiliates. EM&T has taken steps to ensure it does not share employees or officers with affiliated interstate natural gas pipelines and does not receive information from affiliated interstate natural gas pipelines that is not also available to unaffiliated natural gas trading companies.

## COMPETITION

Exploration & Production. Williams Energy unit competes with a wide variety of independent producers as well as integrated oil and gas companies for markets for its production. E&P has three general phases of operations: acquiring non-producing properties, developing non-producing properties, and operating producing properties. In the process of acquiring minerals, the primary methods of competition are on acquisition price

and terms such as duration of the mineral lease, the amount of the royalty payment, and special conditions related to rights to use the surface of the land under which the mineral interest lies. In the process of developing non-producing properties, E&P does not face significant competition. In the operating phase, the primary method of competition involves operating efficiencies related to the cost to produce the hydrocarbons from the reservoir.

Midstream Gas & Liquids. Williams Energy competes for gathering and processing business with interstate and intrastate pipelines, producers, and independent gatherers and processors. Numerous factors impact any given customer's choice of a gathering or processing services provider, including rate, term, timeliness of well connections, pressure obligations, and the willingness of the provider to process for either a fee or for liquids taken in-kind. Competition for the natural gas liquids pipelines include other pipelines, tank cars, trucks, barges, local sources of supply (refineries, gasoline plants, and ammonia plants), and other sources of energy such as natural gas, coal, oil, and electricity. Factors that influence customer transportation decisions include rate, location, and timeliness of delivery.

Petroleum Services. Williams Energy's operations are subject to competition because Williams Pipe Line operates without the protection of a federal certificate of public convenience and necessity that might preclude other entrants from providing like service in its area of operations. Further, Williams Pipe Line must plan, operate, and compete without the operating stability inherent in a broad base of contractually obligated or owner-controlled usage. Because Williams Pipe Line is a common carrier, its shippers need only meet the requirements set forth in its published tariffs in order to avail themselves of the transportation services offered by Williams Pipe Line.

Competition exists from other pipelines, refineries, barge traffic, railroads, and tank trucks. Competition is affected by trades of products or crude oil between refineries that have access to the system and by trades among brokers, traders, and others who control products. These trades can result in the diversion from the Williams Pipe Line system of volume that might otherwise be transported on the system. Shorter, lower revenue hauls may also result from these trades. Williams Pipe Line also is exposed to interfuel competition whereby an energy form shipped by a liquids pipeline, such as heating fuel, is replaced by a form not transported by a liquids pipeline, such as electricity or natural gas. While Williams Pipe Line faces competition from a variety of sources throughout its marketing areas, the principal competition is other pipelines. A number of pipeline systems, competing on a broad range of price and service levels, provide transportation service to various areas served by the system. The possible construction of additional competing products or crude oil pipelines, conversions of crude oil or natural gas pipelines to products transportation, changes in refining capacity, refinery closings, changes in the availability of crude oil to refineries located in its marketing area, or conservation and conversion efforts by fuel consumers may adversely affect the volumes available for transportation by Williams Pipe Line.

Williams Energy's ethanol operations compete in local, regional, and national fuel additive markets with one large ethanol producer, numerous smaller ethanol producers, and other fuel additive producers, such as refineries.

The principal competitive forces affecting Williams Energy's refining businesses are feedstock costs, refinery efficiency, refinery product mix, and product distribution. Some of Memphis Refinery's competitors can more easily process sour crudes, and accordingly, are more flexible in the crudes which they can process. Williams Energy has no crude oil reserves and does not engage in crude oil exploration, and it must therefore obtain its crude oil requirements from unaffiliated sources. Williams Energy believes that it will be able to obtain adequate crude oil and other feedstocks at generally competitive prices for the foreseeable future.

The principal competitive factors affecting Williams Energy's retail petroleum business are location, product price and quality, appearance and cleanliness of stores, and brand-name identification. Competition in the convenience store industry is intense. Within the travel center industry, Williams TravelCenters are recognized as leaders in customer service by the local consumer, traveling consumer, and professional driver. Averaging 10,000 square feet, the facilities seamlessly blend these customer groups, resulting in greater revenue and income diversification than traditional convenience stores. Williams Energy intends to construct

ten new travel centers in 1999, in addition to six sites currently scheduled to open during the first and second quarters in 1999.

Energy Marketing & Trading. Williams Energy's operations directly compete with large independent energy marketers, marketing affiliates of regulated pipelines and utilities, propane wholesalers and retailers, and natural gas producers. The financial trading business competes with other energy-based companies offering similar services as well as certain brokerage houses. This level of competition contributes to a business environment of constant pricing and margin pressure.

### OWNERSHIP OF PROPERTY

The majority of Williams Energy's ownership interests in exploration and production properties are held as working interests in oil and gas leaseholds.

Williams Energy's gathering and processing facilities and natural gas liquids pipelines are owned in fee. Midstream Gas & Liquids constructs and maintains gathering and natural gas liquids pipeline systems pursuant to rights-of-way, easements, permits, licenses, and consents on and across properties owned by others. The compressor stations and gas processing and treating facilities are located in whole or in part on lands owned by subsidiaries of Williams Energy or on sites held under leases or permits issued or approved by public authorities.

Williams Energy owns its petroleum pipeline system in fee. However, a substantial portion of the system is operated, constructed, and maintained pursuant to rights-of-way, easements, permits, licenses, or consents on and across properties owned by others. The terminals, pump stations, and all other facilities of the system are located on lands owned in fee or on lands held under long-term leases, permits, or contracts. The North Pole Refinery is located on land leased from the state of Alaska under a long-term lease scheduled to expire in 2025 and renewable at that time by Williams Energy. The Anchorage, Alaska, terminal is located on land leased from the Alaska Railroad Corporation under two long-term leases. The Memphis Refinery is located on land owned by Williams Energy. Williams Energy owns approximately one-half of the properties upon which its Retail Petroleum stores are located and leases the remainder from third parties. Williams Energy management believes its assets are in such a condition and maintained in such a manner that they are adequate and sufficient for the conduct of business.

The primary assets of Williams Energy's energy marketing and trading unit are its term contracts, employees, related systems and technological support, and 180 Thermogas retail outlets located in 18 states including Alabama, Arkansas, Colorado, Florida, Illinois, Indiana, Kansas, Michigan, Minnesota, Missouri, Mississippi, North Carolina, Ohio, Oklahoma, South Dakota, Tennessee, and Wisconsin.

# **ENVIRONMENTAL MATTERS**

Williams Energy is subject to various federal, state, and local laws and regulations relating to environmental quality control. Management believes that Williams Energy's operations are in substantial compliance with existing environmental legal requirements. Management expects that compliance with existing environmental legal requirements will not have a material adverse effect on the capital expenditures, earnings, and competitive position of Williams Energy. See Note 17 of Notes to Consolidated Financial Statements.

The EPA has named Williams Pipe Line as a potentially responsible party as defined in Section 107(a) of the Comprehensive Environmental Response, Compensation, and Liability Act, for a site in Sioux Falls, South Dakota. The EPA placed this site on the National Priorities List in July 1990. In April 1991 Williams Pipe Line and the EPA executed an administrative consent order under which Williams Pipe Line agreed to conduct a remedial investigation and feasibility study for this site. The EPA issued its "No Action" Record of Decision in 1994, concluding that there were no significant hazards associated with the site subject to two additional years of monitoring for arsenic in certain existing monitoring wells. Williams Pipe Line completed monitoring in the second quarter of 1997 and submitted a report of results to the EPA, which published a Notice of Intent to delete the Sioux Falls site in the January 4, 1999, Federal Register. The public comment

period has ended with no significant comments needing to be addressed. Williams Pipe Line expects a closure letter from the EPA in the near future, which will effectively complete the EPA's interest in the site.

Groundwater monitoring and remediation are ongoing at both refineries and air and water pollution control equipment is operating at both refineries to comply with applicable regulations. The Clean Air Act Amendments of 1990 continue to impact Williams Energy's refining businesses through a number of programs and provisions. The provisions include Maximum Achievable Control Technology rules which are being developed for the refining industry, controls on individual chemical substances, new operating permit rules and new fuel specifications to reduce vehicle emissions. The provisions impact other companies in the industry in similar ways and are not expected to adversely impact Williams Energy's competitive position.

### WILLIAMS COMMUNICATIONS GROUP, INC.

Williams Communications is comprised of three business units: Network, which owns and operates Williams Communications' fiber optic network; Solutions, which provides customer-premise voice and data equipment, sales, and services including installation, integration, and maintenance; and Applications, which provides video services and other multimedia services for the broadcast industry, advertising distribution, business television applications, audio-, and video-conferencing services for businesses. In Canada, Solutions operates through its subsidiary, WilTel Communications (Canada), Inc. In 1998 Williams Communications sold the product business segment of Williams Learning Network, Inc. and withdrew from the Business Channel partnership. See Note 5 of Notes to Consolidated Financial Statements. Williams Communications also enters into strategic alliances and makes strategic investments in order to secure long-term, high volume customer contracts and gain additional capabilities to better serve its customers.

Williams Communications and its subsidiaries own approximately 19,000-route miles of fiber optic communications network (with an additional 13,000-route miles planned or under construction), maintain 120 offices primarily across North America, but also in London, Singapore, and Australia, and service approximately 100,000 customer sites. In addition, Williams Communications owns four teleports in the United States and has rights to capacity on domestic and international satellite transponders. Williams Communications employed approximately 8,300 employees as of December 31, 1998.

Consolidated segment revenues by business unit and segment profit/loss for Williams Communications were as follows for 1998 (dollars in millions):

Segment revenues:	
Solutions	\$1,366.8
Network	194.9
Applications	
Total	\$1,768.2
	=======
Segment loss	\$ (175.0)

A business description of each of Williams Communications' business units follows.

## NETWORK

The Network unit of Williams Communications, through Williams Communications, Inc., owns and operates approximately 19,000-route miles of fiber optic communications network, 10,000-route miles of which are restricted until July 1, 2001, to multi-media applications including Internet services, and 4,300-route miles of which are not restricted and were acquired from IXC Communications. Network has constructed an unrestricted network along a 1,600 mile route from Houston to Washington, D.C., in proximity to pipeline right-of-way owned by an affiliated company. In addition, Williams Communications, Inc. also owns an interest in a joint venture constructing a 1,600-mile fiber optic network on a route connecting Portland, Salt Lake City, and Las Vegas with a dark fiber agreement extending the network to Los Angeles. "Dark fibers" are optical fibers contained within fiber-optic cables installed along Williams' rights-of-way,

which do not have transmission equipment attached. Purchasers of the right to use dark fibers connect their own transmission equipment and transmit their own communications signals over the fibers. Williams Communications, Inc. has also acquired a 350-mile fiber network in Florida and plans to construct additional fiber to connect the Florida network to its existing network in the Southeast and to construct a new fiber route in the midwest region of the United States from Chicago westward. Network has ultimate plans for a 32,000-route mile network.

In January 1998, upon the expiration of the non-compete agreement related to Williams' 1995 sale of its network services operations, Williams Communications announced that it was re-entering the long-distance communications market as a wholesale provider of telecommunications services. Network serves companies that are communications carriers, including long distance telephone companies, local telephone service providers, Internet service providers, and utilities entering the telecommunications market. Network provides these customers with a full range of carrier services, including nationwide transmission of telecommunications signals, Internet transmission services, the origination and termination of a long distance call, local access services, consulting, and operational assistance services.

Customers. Network's customers are primarily other carriers. Network is a carrier to other telecommunications companies, providing dedicated line and switched services to other carriers over its owned or leased fiber optic network facilities. Network's customers currently include regional bell operating companies, Internet service providers, other local service providers, utilities, and competitive local access providers and other providers who desire high speed connectivity to the Internet; asynchronous transfer mode (ATM), which is a switching and transmission technology based on sending various types of information, including voice, data, and video, in packets; or frame relay; private lines; or long distance voice services on a wholesale basis. Sales to Intermedia Communications Inc. accounted for approximately 82.5 percent of Network's revenues in 1998. Sales to the next three largest customers accounted for approximately 13.5 percent of Network's revenues in 1998.

Strategic Alliances. Effective January 1998 Network entered into an agreement with US West, which provides that the two companies will work together to provide data networking services and vertical applications to a variety of customers. US West has agreed to use Network on a preferred provider basis through 2002 and is required to purchase at least \$36.6 million of services and equipment from Network over the five-year term.

Network also entered into an agreement with Concentric Network Corporation to provide wholesale communications services. Williams Communications owns approximately 16 percent of Concentric. Under the agreement with Concentric, Concentric has agreed to purchase either services or equipment from Network or Solutions, respectively, valued at a minimum of \$21 million over the five-year contract term. Concentric has also agreed that Network or Solutions, respectively, will be its preferred provider for these services and equipment.

In April 1998 Intermedia Communications Inc. purchased a 20-year indefeasible right of use for Network's nationwide transmission capacity with a value of approximately \$450 million. An indefeasible right of use is an exclusive, indefeasible right to use the specified property for a term essentially representing the economic life of the property. The \$450 million represents the present value of the minimum amount Intermedia will pay over the life of the agreement. Network will provide Intermedia with transmission capacity at rates up to 9.952 billion bits per second.

In October 1998 Network purchased shares of preferred stock of UniDial Communications, Inc. for a purchase price of \$27 million. Dividends begin to accrue at the rate of ten percent per annum beginning October 1, 1999. The shares are convertible into shares of common stock under certain circumstances, with Network's resulting percentage of UniDial being subject to various formulas and timing elements. UniDial markets a variety of long distance and other communications products including frame relay, Internet, and conferencing services. UniDial has agreed to use Network as a preferred provider and has also agreed to allow Solutions to sell UniDial's products and services at competitive prices and for UniDial to handle the billing and collection relating to Solution's sales of their services.

On December 17, 1998, Network entered into two agreements with WinStar Wireless, Inc., a provider of communications services that uses wireless technology to provide high capacity local exchange and Internet access services to companies located in buildings not served by fiber optic cable. The agreements give Network a 25-year right to use approximately two percent of WinStar's wireless capacity in exchange for installment payments totalling \$400 million over approximately two years, and give WinStar a 25-year right to use four strands of Network's fiber over 15,000-route miles in exchange for a seven year \$476 million obligation.

In February 1999 Network entered into a strategic alliance with SBC Communications under which Network will be SBC's preferred provider for domestic voice and data long distance services for 20 years, SBC will be Network's preferred provider for selected international wholesale services, toll-free operator, calling card, and directory assistance services for 20 years, Solutions will sell SBC's products to its customers, and SBC may sell Network's services to its customers. Additionally, SBC agreed to make an equity investment by purchasing the lesser of \$500 million or ten percent of the common stock of Williams Communications at the time of the initial public offering.

#### SOLUTIONS

The Solutions unit of Williams Communications, operated primarily through Williams Communications Solutions, LLC (WCS), provides services and sells and installs equipment for the voice, video, and data networks of its customers. WCS was formed in April 1997 following the merger of subsidiaries of Williams Communications and Northern Telecom, Inc. Williams Communications now holds a 70 percent interest in WCS, and Northern Telecom owns the remaining 30 percent. Williams Communications continues to address challenges following the combination related to integration of software systems, related processes, and business issues.

Williams Communications, through subsidiaries including WCS, serves customers at approximately 100,000 business locations throughout the United States consisting of small, medium, and large businesses and governmental, educational, and non-profit institutions. Solutions' customer base ranges from large, publicly-held corporations and the federal government to small, privately-owned entities. Solutions' top 25 customers combined accounted for approximately 12 percent of its revenue in 1998. Solutions' employs approximately 6,400 employees, including sales employees, billable engineers, design specialists, and service technicians.

Solutions also helps its customers reduce the complexity and cost of their communications decisions by combining components from a variety of manufacturers into the communications solutions required by its customers. Solutions' broad range of voice, video, and data solutions allow Solutions to serve as a single-source provider for its customers' communications needs. Solutions distributes the products and services of a number of leading communications suppliers including Nortel, SBC Communications, Cisco Systems, Lucent Technologies, NEC, US West, and Bell Atlantic. Solutions also provides service and maintenance support for these products.

Operating Statistics. The following table summarizes the results of operations for the Solutions unit of Williams Communications for the periods indicated (dollars in millions):

	1998	1997	1996 	
Segment revenues	\$ 1,366.8	\$ 1,206.5	\$	568.1
Percentage of revenues by type of service:				
New system sales	43%	52%		40%
System modifications	34	28		34
Maintenance	22	19		24
Other	1	1		2
Backlog	\$ 227.0	\$ 202.5	\$	112.2
Segment profit (loss)	\$ (54.1)	\$ 47.3	\$	14.3

In 1998 Solutions derived approximately 56 percent of its revenues from its existing customer base through system modifications and maintenance and approximately 43 percent from the sale of new  $\frac{1}{2} \left( \frac{1}{2} \right) = \frac{1}{2} \left( \frac{1}{2} \right) \left( \frac{1}{2}$ 

telecommunications systems to its existing customer base and new customers. Solutions' three largest suppliers accounted for approximately 91 percent of equipment sold in 1998. A single manufacturer, Northern Telecom, supplied approximately 83 percent of all equipment sold. In this case, WCS is the largest independent distributor in the United States of certain of this company's products. The distribution agreement with this supplier is scheduled to expire at the end of 2000. Management believes there is minimal risk as to the availability of products from suppliers.

### **APPLICATIONS**

### Vyvx

Vyvx, an unincorporated business unit of Williams Communications, Inc., offers broadcast-quality television and multimedia transmission services nationwide by means of Network's 19,000-mile multimedia network, four satellite teleport facilities located near Atlanta, Denver, Los Angeles, and New York, and satellite transponder capacity. Vyvx primarily provides backhaul or point-to-point transmission of sports, news, and other programming between two or more customer locations. With satellite facilities, Vyvx provides point-to-multipoint transmission service. Vyvx's customers include all of the major broadcast and cable networks. Vyvx is also engaged in the business of advertising distribution and is exploring other multimedia communication opportunities.

### Conferencing

Global Access, offers multi-point videoconferencing and audioconferencing, as well as single point to multi-point business television services. Global Access enables Williams Communications to provide customers with integrated media conferences, bringing together voice and video by utilizing Williams Communications' existing fiber-optic and satellite services.

In 1998 Williams Communications withdrew from The Business Channel, a joint venture with the Public Broadcast Services (PBS). See Note 5 of Notes to Consolidated Financial Statements.

#### REGULATORY MATTERS

Network. Williams Communications, Inc. is subject to Federal Communications Commission regulations as a common carrier with regard to certain of its transmission services and is subject to the laws of certain states governing public utilities. An FCC rulemaking to eliminate domestic, common carrier tariffs has been stayed pending judicial review. In the interim, the FCC is requiring such carriers to operate under traditional tariff rules. Operations of intrastate microwave communications, satellite earth stations, and certain other related transmission facilities are also subject to FCC licensing and other regulations. These regulations do not significantly impact Williams Communications, Inc.'s operations. In 1997 the FCC began implementation of the Universal Service Fund contemplated in the Telecommunications Act of 1996. Williams Communications, Inc. is required to contribute to this fund based upon certain revenues. Although Williams Communications, Inc. intends to pass on such charges to its customers, FCC rulings raise questions about the right of companies like Williams Communications, Inc. to do so.

Solutions. The equipment WCS sells must meet the requirements of Part 68 of the FCC rules governing the equipment registration, labeling and connection of equipment to telephone networks. WCS relies on the equipment manufacturers' compliance with these requirements for its own compliance regarding the equipment it distributes. These regulations have a minimal impact on WCS' operations.

# COMPETITION

Network. In the market for network transmission services, Williams Communications faces competition from three major facilities-based long distance fiber optic network companies. In addition, several other companies have just completed or are in the process of constructing regional and nationwide fiber optic networks that will compete with Williams Communications in the wholesale network market. Because Williams Communications has focused its efforts on the market for wholesale network services, it does not

compete with these networks in the retail sector of the market. Network intends to compete by being the lowest cost provider in the market for technologically advanced network services and by pursuing only wholesale opportunities. By avoiding the retail market, it seeks to avoid the situation of competing with its customers who purchase wholesale services for resale in the retail market.

Federal telecommunications reform legislation enacted in February 1996 is designed to increase competition both in the long distance market and local exchange market by significantly liberalizing current restrictions on market entry. In particular, the legislation establishes procedures permitting Regional Bell Operating Companies to provide long distance services including, but not limited to, video transmission services, subject to certain restrictions and conditions precedent. Moreover, electric and gas utilities may provide telecommunications services, including long distance services, through separate subsidiaries. The legislation also calls for elimination of federal tariff filing requirements and relaxation of regulation over common carriers. At this time, management cannot predict the impact such legislation may have on Networks' operations.

The Regional Bell Operating companies continue to seek regulatory approval to provide national long distance services. As courts or regulators remove restrictions on the Regional Bell Operating Companies, they will be both important potential customers and important potential competitors of Network. If Regional Bell Operating Companies are permitted to compete in the market for long-distance services, they will require nationwide fiber networks to provide services. If any such Regional Bell Operating Company chooses to contract with Williams Communications for use of its network, it could create opportunities for Williams Communications to sell fiber or to lease long distance, high volume capacity. If any such Regional Bell Operating Company chooses either to construct its own network or to contract with one of Williams Communications' competitors, it would be in a position to provide nationwide long distance services in direct competition with Williams Communications.

Solutions. For the Solutions business, Williams Communications is the largest independent provider of integrated communications solutions to businesses throughout North America. Though 30 percent owned by Northern Telecom, Solutions maintains strong relationships with other manufacturers of products that it sells to its customers. Solutions' competitors include communications equipment distributors, network integrators, and manufacturers of equipment (including in some instances those manufacturers whose products Solutions also sells). WCS has many competitors ranging from Lucent Technologies, Siemens, and Cisco Systems to small individually-owned companies that sell and service customer-premise equipment. Because WCS sells and installs equipment manufactured by third parties and provides maintenance services on the equipment it sells, it seeks to compete by giving customers their choice of high quality, technologically advanced equipment along with high quality service.

Applications. Vyvx's video and multimedia transmission operations compete primarily with companies offering video or multimedia transmission services by means of satellite facilities and to a lesser degree with companies offering transmission services via microwave facilities or fiber-optic cable. Vyvx competes by providing high quality services in its niche market.

# OWNERSHIP OF PROPERTY

Network. Williams Communications owns part of the fiber-optic transmission facilities and leases the remainder. Approximately 10,000-route miles of its owned facilities are comprised of a single fiber, which is on a portion of the fiber optic network of MCI WorldCom, Inc. and is restricted until July 1, 2001, to multimedia content usage. Williams Communications retained this fiber when a predecessor of MCI WorldCom purchased Williams Communications' network services operations in 1995. Williams Communications carries signals by means of its own fiber-optics facilities, as well as carrying signals over fiber-optic facilities leased from third-party interexchange carriers and the various local exchange carriers. Williams Communications holds its satellite transponder capacity under various agreements. Williams Communications owns part of its teleport facilities and holds the remainder under either a management agreement or long-term facilities leases.

Network intends to obtain capacity primarily by means of the fiber optic networks Williams Communications is constructing or plans to construct or acquire, as well as acquiring dark fiber rights on fiber optic

facilities of other carriers. Network obtains dark fiber rights in the form of the purchase or lease of "indefeasible rights of use" or "IRUs" in specific fiber strands. Purchased IRUs have many of the characteristics of ownership, including many of the associated risks, but the owner of the fiber optic cable retains legal title to the fibers. Specifically, an IRU is an exclusive, indefeasible right to use the specified property for a term essentially representing the economic life of the property. The grant of an IRU transfers the risks and rewards of ownership but does not convey title, ownership, or rights of possession in the network, the individual fibers comprising the network, the related right-of-way agreements, or any other real or personal property. The transferee of an IRU typically has a right to retake possession at the end of the contract term, which generally exceeds 20 years.

## **ENVIRONMENTAL MATTERS**

Williams Communications is subject to federal, state, and local laws and regulations relating to the environmental aspects of its business. Management believes that Williams Communications' operations are in substantial compliance with existing environmental legal requirements. Management expects that compliance with such existing environmental legal requirements will not have a material adverse effect on the capital expenditures, earnings, and competitive position of Williams Communications.

#### WILLIAMS INTERNATIONAL COMPANY

Williams International Company, through subsidiaries, has made direct investments in energy and telecommunications projects primarily in South America and Australia and continues to explore and develop additional projects for international investment. Williams International also has investments in energy, telecommunications, and infrastructure development funds in Asia and Latin America

El Furrial. Williams International owns a 67 percent interest in a venture near the El Furrial field in eastern Venezuela that constructed, owns, and operates medium and high pressure gas compression facilities for Petroleos de Venezuela (PDVSA), the state owned petroleum corporation of Venezuela.

The medium pressure facility compresses 130 MMcf per day of raw natural gas from 100 to 1,200 p.s.i.g. for delivery into a natural gas processing plant owned by PDVSA. The high pressure facility compresses 450 MMcf per day of processed natural gas from 1,100 to 7,500 p.s.i.g. for injection into PDVSA's El Furrial producing field.

The medium pressure facility began operations in November 1997. The high pressure facility began operations in September 1998. An expansion of the high pressure facility to 650 MMcf per day is underway, and Williams International anticipates that the expansion will be complete in the second half of 1999.

Jose Terminal. In November 1998 a consortium in which Williams International owns 45 percent, entered into an agreement with PDVSA to purchase the Jose Terminal, an 800,000 Bbp per day petroleum storage and shiploading facility in northeastern Venezuela, for a 20-year renewable term. As part of the transaction, PDVSA, directly and indirectly through its partners, has committed to store and shipload an average of 873,000 Bbp per day of crude oil during the first 20 years of the transaction. The interim operations began in the first quarter of 1999, and formal closing is expected in the second quarter of 1999.

Apco Argentina. Williams International also owns an interest in Apco Argentina Inc., an oil and gas exploration and production company with operations in Argentina. Apco Argentina's principal business is its 47.6 percent interest in the Entre Lomas concession in southwest Argentina. It also owns a 45 percent interest in the Canadon Ramirez concession and a 1.5 percent interest in the Acambuco concession.

At December 31, 1998, 1997, and 1996, estimated developed, proved reserves net to Apco Argentina were 15.5, 23.7, and 24.2 million barrels, respectively, of oil, condensate, and plant products, and 26.8, 35.8, and 44.3 Bcf, respectively, of natural gas. Estimated undeveloped, proved reserves net to Apco Argentina were 5.1, 9.5, and 10.5 million barrels, respectively, of oil, condensate, and plant products, and 700 MMcf, 800 MMcf, and 2.5 Bcf, respectively, of natural gas.

At December 31, 1998, the gross and net developed concession acres owned by Apco Argentina totaled 37,140 acres and 17,093 acres, respectively, and the gross and net undeveloped concession acres owned were 504,860 acres and 115,493 acres, respectively. At December 31, 1998, Apco Argentina owned interests in 452 gross producing wells and 212 net producing wells on its concession acreage.

Total net production sold during 1998, 1997, and 1996 was 1.7, 1.8, and 1.6 million barrels, respectively, of oil, condensate, and plant products, and 7.7, 7.7, and 8.4 Bcf, respectively, of natural gas. The average production costs, including all costs of operations such as remedial well workovers and depreciation of property and equipment, per barrel of oil produced were \$9.09, \$8.27, and \$8.15, respectively, and per Mcf of natural gas produced were \$.23, \$.21, and \$.22, respectively. The average wellhead sales price per barrel of oil sold were \$12.71, \$19.52, and \$20.87, respectively, and per Mcf of natural gas sold were \$1.33, \$1.34, and \$1.33, respectively, for the same periods.

Lightel and Brazilian Cellular Project. Williams International owns a 20 percent equity interest in Lightel, S.A., a company that owns interests in a local exchange carrier, a cable television company, and cellular telephone companies in Brazil. In April 1998 Williams International participated in Lightel's acquisition of licenses to provide cellular telephone service in the States of Sao Paulo, Rio de Janeiro, and Espirito Santo by issuing convertible debt to Lightel to help fund the investment and by directly investing in ATL -- Algar Telecom Leste, S.A. which holds the Rio de Janeiro and Espirito Santo concession in exchange for a 30 percent equity ownership interest in ATL. Construction on the cellular network began in 1998 and is expected to be complete in the first quarter of 1999. In February 1999 Williams International exercised its right of first refusal to acquire an additional 35 percent equity interest in ATL. Management anticipates completing the transaction before the end of the first quarter of 1999.

PowerTel. In August 1998 Williams International closed a transaction under which it will eventually own an approximate 45 percent direct and 2.4 percent indirect interest in PowerTel Limited (a publicly traded corporation in which three Australian electric utilities will own a 30 percent interest) to build, own, and operate a fiber optic telecommunications network in Australia serving the cities of Brisbane, Sydney, and Melbourne, as well as other cities. Engineering and construction work on the network began in the fourth quarter of 1998, and commercial operations are expected to commence midyear 1999.

MetroCom. In March 1999 Williams International plans to acquire a 19.9 percent equity interest in Metrocom, S.A., a Chilean company formed by Metrogas, S.A., to build, own, and operate a telecommunications network providing high-quality, low-cost local, Internet, data, and voice services to businesses and residences in the Santiago metropolitan area, focusing on the commercial and high-end residential markets. Metrogas, S.A., whose shareholders consist of several large international and Chilean electric utilities and energy companies, is installing a natural gas distribution network in Santiago along with telecommunications ducts for the installation of the fiber optic network. The estimated cost of the investment is approximately U.S. \$24.5 million.

#### OTHER INFORMATION

Williams believes that it has adequate sources and availability of raw materials to assure the continued supply of its services and products for existing and anticipated business needs. Williams' pipeline systems are all regulated in various ways resulting in the financial return on the investments made in the systems being limited to standards permitted by the regulatory bodies. Each of the pipeline systems has ongoing capital requirements for efficiency and mandatory improvements, with expansion opportunities also necessitating periodic capital outlays.

At December 31, 1998, Williams had approximately 21,011 full-time employees, of whom approximately 1,842 were represented by unions and covered by collective bargaining agreements. In September 1998 Williams created three new companies in order to streamline payroll processing and reduce costs. In connection with this, Williams transferred its employees to one of these companies, and the employees are now jointly employed by Williams and one of these new companies. This change had no impact on Williams' management structure or on its employees' seniority and benefits. Williams considers its relations with its employees to be generally good.

## FORWARD-LOOKING INFORMATION

Certain matters discussed in this report, excluding historical information, include forward-looking statements. Although Williams believes these forward-looking statements are based on reasonable assumptions, it cannot give any assurance that it will reach every objective. Williams is making these forward-looking statements in reliance on the safe harbor protections provided under the Private Securities Litigation Reform Act of 1995.

As required by the Act, Williams identifies the following important factors that could cause actual results to differ materially from any results projected, forecasted, estimated, or budgeted:

- changes in general economic conditions in the United States
- changes in laws and regulations to which Williams is subject, including tax, environmental, and employment laws and regulations
- the cost and effects of legal and administrative claims and proceedings against Williams or its subsidiaries
- conditions of the capital markets Williams utilizes to access capital to
- the ability to raise capital in a cost effective way
- Year 2000 readiness of Williams, its customers, and its vendors  $% \left( 1\right) =\left( 1\right) \left( 1\right) \left$
- the effect of changes in accounting policies
- the ability to manage rapid growth
- the ability to control costs
- changes in foreign economies, laws, and regulations, especially in Brazil, Argentina, Venezuela, and Australia where Williams has made direct investments
- political developments in foreign countries, especially in Brazil, Argentina, Venezuela, and Australia where Williams has made direct investments
- the impact of future federal and state regulations of business activities, including allowed rates of return, the pace of deregulation in retail natural gas and electricity markets, and the resolution of other regulatory matters discussed herein
- fluctuating energy commodity prices
- fluctuating corn prices, which affect Williams' ethanol business

- the ability of Williams' energy businesses to develop expanded markets and product offerings as well as their ability to maintain existing markets
- future utilization of pipeline capacity will depend on energy prices, competition from other pipelines and alternate fuels, the general level of natural gas and petroleum product demand, decisions by customers not to renew expiring natural gas transportation contracts, and weather
- the accuracy of estimated hydrocarbon reserves and seismic data
- successful completion of the communications network build
- the ability to successfully market capacity on the communications network
- technological developments, high levels of competition, lack of customer diversification, and general uncertainties of governmental regulation in the communications industry
- significant competition on pricing and product offerings for the Communications Solutions business unit
- the ability of the Communications Solutions business unit to introduce and market competitive products and services

### (D) FINANCIAL INFORMATION ABOUT FOREIGN AND DOMESTIC OPERATIONS AND EXPORT SALES

Williams has no significant amounts of revenue or segment profit or loss attributable to export sales. See Item 1(c) for a description of Williams Energy's and Williams International's export sales activities.

### ITEM 2. PROPERTIES

See Item 1(c) for description of properties.

### ITEM 3. LEGAL PROCEEDINGS

For information regarding certain proceedings pending before federal regulatory agencies, see Note 17 of Notes to Consolidated Financial Statements. Williams is also subject to other ordinary routine litigation incidental to its businesses.

Contract reformations and gas purchase deficiencies

Current FERC policy associated with Orders 436 and 500 requires interstate gas pipelines to absorb some of the cost of reforming gas supply contracts before allowing any recovery through direct bill or surcharges to transportation as well as sales commodity rates. Under Orders 636, 636-A, 636-B, 636-C, and 636-D costs incurred to comply with these rules are permitted to be recovered in full, although a percentage of the costs must be allocated to interruptible transportation service.

Pursuant to a stipulation and agreement approved by the FERC, Williams Gas Pipelines Central, Inc. has made 15 filings to recover take-or-pay and gas supply realignment costs of \$78.9 million from its customers. An intervenor filed a protest seeking to have the FERC review the prudence of certain of the costs covered by these filings. On July 31, 1996, the administrative law judge issued an initial decision rejecting the intervenor's prudency challenge. On September 30, 1997, the FERC, by a two-to-one vote, reversed the administrative law judge's decision and determined that three contracts were imprudently entered into in 1982. Central has filed for rehearing, and management is vigorously defending the prudency of these contracts. An intervenor also filed a protest seeking to have the FERC decide whether non-settlement costs are eligible for recovery under Order No. 636. In January 1997 the FERC held that none of the non-settlement costs and only 75 percent of settlement costs could be recovered by Central if the costs were not eligible for recovery under Order No. 636. This order was affirmed on rehearing in April 1997. On June 16, 1998, a FERC administrative law judge issued an initial decision finding that Central had not met all the tests necessary to show that these costs were eligible for recovery under Order No. 636. On July 20, 1998, Central filed exceptions to the administrative law judge's decision, which in turn must be acted upon by the FERC. If the FERC's final ruling on eligibility is

unfavorable, Central will appeal those orders to the courts. On May 29, 1998, the FERC approved an Order which permitted Central to conduct a reverse auction of the gas purchase contracts which are the subject of the prudence challenges outlined above. No party bid less than the reserve price in the approved auction and, as a result, the contracts were not assigned. In accordance with the FERC's Orders, on September 30, 1998, Central filed a request for authority to conduct a second reverse auction of the contracts. Under the approved reverse auction, Central was granted authority to assign the contracts to bidders at or below an aggregate reserve price of \$112.6 million. If no unaffiliated bidders were willing to accept assignment on those terms, Central was authorized to assign the contracts to an affiliate and recover \$112.6 million from its customers subject to the outcome of the prudence and eligibility cases described above. Central was also authorized to assign the contracts to unaffiliated parties and then file to recover the total cost of the assignment. The FERC also approved an extension of the recovery mechanism for non-settlement costs through February 1,

Through the end of the third quarter, Williams and Central were unable to reasonably estimate the ultimate costs to be incurred because of the uncertainties pertaining to the outcome of issues pending at the FERC and the status of settlement negotiations with producers. However, on January 21, 1999, Central assigned its obligations under the largest of the three contracts to an unaffiliated third party and paid the third party \$100 million. Central also agreed to pay the third party \$18 million in equal installments over the next five years. Central received indemnities from the third party and a release of its obligations under the contract. No parties submitted bids at the second reverse auction, and in accordance with the tariff provisions for the reverse auction, Central assigned the two smaller contracts to an affiliate effective February 1, 1999. As a result of these assignments, Central has no remaining market price gas contracts. Central will file with the FERC to recover all costs, approximately \$126 million, relative to the three contracts. At December 31, 1998, Central has accrued a liability related to these contracts of \$122.2 million.

During the fourth quarter and continuing into 1999, Central has been negotiating with the FERC and state regulators to resolve the amount of costs which are recoverable from its customers. As a result of these negotiations, Central expensed \$58 million of costs previously expected to be recovered and capitalized as a regulatory asset. At December 31, 1998, Central has \$61.4 million remaining regulatory asset representing an estimate of costs to be recovered in the future. If Central does not reach a settlement and prevail in these FERC proceedings or any subsequent appeals, the maximum loss could be the total of the regulatory asset and \$40 million of previously recovered but protested costs. While Central cannot predict the final outcome of the FERC's rulings on contract prudency and cost recovery under Order 636, Williams and Central continue to believe that they entered into the gas purchase contracts in a prudent manner under the FERC rules in place at the time, and that these costs will ultimately be found prudent and eligible for recovery under Order No. 636.

The foregoing accruals are in accordance with Williams' accounting policies regarding the establishment of the accruals which take into consideration estimated total exposure, as discounted and risk-weighted, as well as costs and other risks associated with the difference between the time costs are incurred and the time the costs are recovered from customers. The estimated portion of the costs recoverable from customers is deferred or recorded as a regulatory asset based on an estimate of expected recovery of the amounts allowed by FERC policy. While Williams believes that these accruals are adequate and the associated regulatory assets are appropriate, costs actually incurred and amounts actually recovered from customers will depend upon the outcome of various court and FERC proceedings, the success of settlement negotiations, and various other factors, not all of which are presently foreseeable.

## Environmental matters

Since 1989 Texas Gas and Transcontinental Gas Pipe Line have had studies under way to test certain of their facilities for the presence of toxic and hazardous substances to determine to what extent, if any, remediation may be necessary. Transcontinental Gas Pipe Line has responded to data requests regarding the potential contamination of certain of its sites. The costs of any remediation will depend upon the scope of the remediation. At December 31, 1998, these subsidiaries had reserves totaling approximately \$27 million for these costs.

Certain Williams subsidiaries, including Texas Gas and Transcontinental Gas Pipe Line, have been identified as potentially responsible parties (PRP) at various Superfund and state waste disposal sites. In addition, these subsidiaries have incurred, or are alleged to have incurred, various other hazardous materials removal or remediation obligations under environmental laws. Although no assurances can be given, Williams does not believe that these obligations or the PRP status of these subsidiaries will have a material adverse effect on its financial position, results of operations or net cash flows.

Transcontinental Gas Pipe Line, Texas Gas, and Central have identified polychlorinated biphenyl (PCB) contamination in air compressor systems, soils, and related properties at certain compressor station sites. Transcontinental Gas Pipe Line, Texas Gas, and Central have also been involved in negotiations with the EPA and state agencies to develop screening, sampling, and cleanup programs. In addition, negotiations with certain environmental authorities and other programs concerning investigative and remedial actions relative to potential mercury contamination at certain gas metering sites have been commenced by Central, Texas Gas, and Transcontinental Gas Pipe Line. As of December 31, 1998, Central had recorded a liability for approximately \$12 million, representing the current estimate of future environmental cleanup costs to be incurred over the next six to ten years. The Midstream Gas & Liquids unit of Energy Services has recorded an aggregate liability of approximately \$10 million, representing the current estimate of its future environmental and remediation costs, including approximately \$5 million relating to former Central facilities. Texas Gas and Transcontinental Gas Pipe Line likewise has recorded liabilities for these costs which are included in the \$27 million reserve mentioned above. Actual costs incurred will depend on the actual number of contaminated sites identified, the actual amount and extent of contamination discovered, the final cleanup standards mandated by the EPA and other governmental authorities, and other factors. Texas Gas, Transcontinental Gas Pipe Line, and Central have deferred these costs as incurred pending recovery through future rates and other means.

Williams Energy also accrues environmental remediation costs for its petroleum products pipelines, retail petroleum, refining, and propane marketing operations primarily related to soil and groundwater contamination. At December 31, 1998, Williams Energy and its subsidiaries had reserves, in addition to the reserves listed above, totaling approximately \$31 million. Williams Energy recognizes receivables related to environmental remediation costs from state funds as a result of laws permitting states to reimburse certain expenses associated with underground storage tank problems and repairs. At December 31, 1998, Williams Energy and its subsidiaries had receivables totaling \$14 million.

In connection with the 1987 sale of the assets of Agrico Chemical Company, Williams agreed to indemnify the purchaser for environmental cleanup costs resulting from certain conditions at specified locations to the extent the costs exceed a specified amount. At December 31, 1998, Williams had approximately \$12 million accrued for the excess costs. The actual costs incurred will depend on the actual amount and extent of contamination discovered, the final cleanup standards mandated by the EPA or other governmental authorities, and other factors.

A lawsuit was filed in May 1993 in a state court in Colorado in which certain claims have been made against various defendants, including Northwest Pipeline, contending that gas exploration and development activities in portions of the San Juan Basin have caused air, water, and other contamination. The plaintiffs in the case sought certification of a plaintiff class. In June 1994 the lawsuit was dismissed for failure to join an indispensable party over which the state court had no jurisdiction. The Colorado court of appeals has affirmed the dismissal and remanded the case to Colorado district court for action consistent with the appeals court's decision. Since June 1994 eight individual lawsuits have been filed against Northwest Pipeline and others in U.S. district court in Colorado, making essentially the same claims. The district court has stayed all of the cases involving Northwest Pipeline until the plaintiffs exhaust their remedies before the Southern Ute Indian Tribal Court. Some plaintiffs filed cases in the Tribal court, but none named Northwest Pipeline as a defendant.

Other legal matters

On April 7, 1992, a liquefied petroleum gas explosion occurred near an underground salt dome storage facility located near Brenham, Texas, and owned by an affiliate of MAPCO Inc., Seminole Pipeline Company. MAPCO Inc., as well as Seminole, Mid-America Pipeline Company, MAPCO Natural Gas Liquids Inc., and other non-MAPCO entities were named as defendants in civil action lawsuits filed in state district courts located in four Texas counties. Seminole and the above-mentioned subsidiaries of MAPCO Inc. have settled in excess of 1,600 claims in these lawsuits. The only lawsuit remaining is the Dallmeyer case which was tried before a jury in Harris County, Texas. In Dallmeyer, the judgment rendered in March 1996 against defendants Seminole and MAPCO Inc. and its subsidiaries totaled approximately \$72 million, which included nearly \$65 million of punitive damages awarded to the 21 plaintiffs. Both plaintiffs and defendants have appealed the Dallmeyer judgment to the Court of Appeals for the Fourteenth District of Texas in Harris County. The defendants seek to have the judgment modified in many respects, including the elimination of punitive damages as well as a portion of the actual damages awarded. If the defendants prevail on appeal, it will result in an award significantly less than the judgment. The plaintiffs have cross-appealed and seek to modify the judgment to increase the total award plus interest to exceed \$155 million. In February and March 1998, the defendants entered into settlement agreements involving 17 of the 21 plaintiffs to finally resolve their claims against all defendants for an aggregate payment of approximately \$10 million. These settlements have satisfied and reduced the judgment on appeal by approximately \$42 million. As to the remaining four plaintiffs, the Court of Appeals issued its decision on October 15, 1998, which, while denying all of the plaintiffs' cross-appeal issues, affirmed in part and reversed in part the trial court's judgment. The defendants had entered into settlement agreements with the remaining plaintiffs which, in light of the decision, Williams believes will provide for aggregate payments of approximately \$13.6 million, the full amount of which has been previously

In 1991 the Southern Ute Indian Tribe filed a lawsuit against Williams Production Company, a wholly owned subsidiary of Williams, and other gas producers in the San Juan Basin area, alleging that certain coal strata were reserved by the United States for the benefit of the Tribe and that the extraction of coal-seam gas from the coal strata was wrongful. The Tribe sought compensation for the value of the coal-seam gas. The Tribe also sought an order transferring to the Tribe ownership of all of the defendants' equipment and facilities utilized in the extraction of the coal-seam gas. In September 1994 the court granted summary judgment in favor of the defendants and the Tribe lodged an interlocutory appeal with the U.S. Court of Appeals for the Tenth Circuit. Williams Production agreed to indemnify the Williams Coal Seam Gas Royalty Trust against any losses that may arise in respect of certain properties subject to the lawsuit. On July 16, 1997, the Court of Appeals reversed the decision of the District Court, held that the Tribe owns the coal-seam gas produced from certain coal strata on fee lands within the exterior boundaries of the Tribe's reservation, and remanded the case to the District Court for further proceedings. On September 16, 1997, Amoco Production Company, the class representative for the defendant class (of which Williams Production is a part), filed its motion for rehearing en banc before the Court of Appeals. On July 20, 1998, the Court of Appeals sitting en banc affirmed the panel's decision. The U.S. Supreme Court has granted a writ of certiorari in respect of this decision.

In late March 1999 Williams Production, BP Amoco, and the Tribe announced that they are in settlement negotiations to finalize the terms of an agreement in connection with the claims asserted against Williams. Under the proposed settlement, Williams Production will convert its net profits interest in the production from the oil and gas leases in dispute into a working interest. A portion of Williams Production's working interest will then be transferred to the Tribe effective January 1, 1999. The Tribe will release Williams Production from all other claims asserted in the lawsuit. This pending settlement agreement does not address key issues still being pursued on appeal to the Supreme Court, including the ownership of the natural gas in the coal formation, tribal severance tax payments, and other matters. The Supreme Court is expected to render its decision by mid-1999. The details of this settlement are still being negotiated, and it must be approved by the District Court after an opportunity for review and comment. Williams believes the parties will be successful in reaching a final agreement on the partial settlement in principal and that it will be approved by the District Court.

In 1998 the United States Department of Justice informed Williams that Jack Grynberg, an individual, had filed claims in the United States District Court for the District of Colorado under the False Claims Act against Williams and certain of its wholly owned subsidiaries including Williams Gas Pipeline Central, Kern River Gas Transmission, Northwest Pipeline, Williams Gas Pipeline Company, Transcontinental Gas Pipe Line Corporation, Texas Gas, Williams Field Services Company, and Williams Production Company. Mr. Grynberg has also filed claims against approximately 300 other energy companies and alleges that the defendants violated the False Claims Act in connection with the measurement and purchase of hydrocarbons. The relief sought is an unspecified amount of royalties allegedly not paid to the federal government, treble damages, a civil penalty, attorneys' fees, and costs.

In addition to the foregoing, various other proceedings are pending against Williams or its subsidiaries which are incidental to their operations.

#### Summary

While no assurances may be given, Williams does not believe that the ultimate resolution of the foregoing matters, taken as a whole and after consideration of amounts accrued, insurance coverage, recovery from customers, or other indemnification arrangements, will have a materially adverse effect upon Williams' future financial position, results of operations, or cash flow requirements.

# ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

Not applicable.

# EXECUTIVE OFFICERS OF WILLIAMS

NAME	AGE	POSITIONS AND OFFICES HELD	HELD OFFICE SINCE
Keith E. Bailey	56	Chairman of the Board, President, Chief Executive Officer and Director (Principal Executive Officer)	05-19-94
John C. Bumgarner, Jr	56	Senior Vice President Corporate Development and Planning; President Williams International Company	01-01-79
James R. Herbster	57	Senior Vice President Administration	01-01-92
Jack D. McCarthy	56	Senior Vice President Finance (Principal Financial Officer)	01-01-92
William G. von Glahn	55	Senior Vice President and General Counsel	08-01-96
Gary R. Belitz	49	Controller (Principal Accounting Officer)	01-01-92
Steven J. Malcolm*	50	President Williams Energy Services	12-01-98
Howard E. Janzen	45	President and Chief Operating Officer Williams Communications, Inc.	02-11-97
Brian E. O'Neill	63	President Williams Gas Pipeline Company	01-01-88

<sup>\*</sup> Mr. Malcolm assumed these responsibilities on September 29, 1998, in connection with a leave of absence from Williams by Mr. Stephen L. Cropper. Upon Mr. Cropper's resignation on December 1, 1998, Mr. Malcolm was elected to this position.

All of the above officers have been employed by Williams or its subsidiaries as officers or otherwise for more than five years and have had no other employment during the period.

# PART II

# ITEM 5. MARKET FOR THE REGISTRANT'S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS

Williams' Common Stock is listed on the New York and Pacific Stock exchanges under the symbol "WMB." At the close of business on December 31, 1998, Williams had approximately 15,809 holders of record of its Common Stock. The daily closing price ranges (composite transactions) and dividends declared by quarter for each of the past two years are as follows:

	1998			1997		
QUARTER	HIGH	LOW	DIVIDEND	HIGH	LOW	DIVIDEND
1st	\$34.88	\$26.25	\$.15	\$23.38	\$18.19	\$.13
2nd	\$35.75	\$28.81	\$.15	\$23.50	\$20.00	\$.13
3rd	\$36.94	\$20.00	\$.15	\$24.59	\$21.56	\$.13
4th	\$31.88	\$24.88	\$.15	\$28.50	\$23.09	\$.15

#### ITEM 6. SELECTED FINANCIAL DATA

The following financial data as of December 31, 1998 and 1997 and for the three years ended December 31, 1998 are an integral part of, and should be read in conjunction with, the consolidated financial statements and notes thereto. All other amounts have been prepared from the Company's financial records. Amounts below reflect the combined operations and financial position of Williams and MAPCO and the adoption of the Statement of Financial Accounting Standards No. 131 (see Note 19). Information concerning significant trends in the financial condition and results of operations is contained in Management's Discussion and Analysis of Financial Condition and Results of Operations on pages F-1 through F-18 of this report.

	1998	1997	1996	1995	1994
	(	MILLIONS, EX	CEPT PER-SHA	RE AMOUNTS)	
Revenues(1)	\$ 7,658.3	\$ 8,249.5	\$ 6,849.0	\$ 5,695.6	\$4,397.5
<pre>Income from continuing operations(2)</pre>	146.6	453.7	492.5	363.6	215.1
Income (loss) from discontinued					
operations(3)	(14.3)	(6.3)	(32.7)	1,029.3	122.9
Extraordinary loss(4)	(4.8)	(79.1)			(12.2)
Diluted earnings per share:					
Income from continuing operations	.32	1.05	1.14	.86	.51
Income (loss) from discontinued					
operations	(.03)	(.01)	(.08)	2.49	.30
Extraordinary loss(4)	(.01)	(.19)			(.03)
Cash dividends per common share	.60	.54	. 47	.36	.28
Total assets at December 31	18,647.3	16,277.6	14,589.5	12,843.9	7,341.7
Long-term obligations at December 31	6,366.4	5,351.5	4,985.3	3,675.0	2,028.7
Stockholders' equity at December 31	4,257.4	4,232.6	4,014.8	3,819.6	2,118.3

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- (1) See Note 1 for discussion of the 1998 change in the reporting of certain marketing activities from a "gross" basis to a "net" basis consistent with fair value accounting. See Note 2 for discussion of Williams' 1997 acquisition of Nortel's customer premise equipment sales and service operations.
- (2) See Notes 2 and 5 for discussion of the gain on sale of interest in subsidiary, significant asset sales, write-offs and other accruals in 1998, 1997 and 1996. Income from continuing operations in 1995 includes a \$41.4 million pre-tax charge related to the cancellation of a commercial coal gasification venture and a \$16 million after-tax gain related to the sale of Williams' 15 percent interest in Texasgulf, Inc. Income from continuing operations in 1994 includes a \$22.7 million pre-tax gain from the sale of a portion of Williams' interest in Northern Border Partners, L.P. and a \$68.7 million pre-tax charge related to the settlement of a dispute with the state of Alaska related to royalty oil purchase agreements.
- (3) See Note 3 for the discussion of the losses from discontinued operations for 1998, 1997 and 1996. The income from discontinued operations for 1995 primarily relates to the gain from the 1995 sale of Williams' network services operations, while the 1994 amount reflects the operating results of the network services operations and the MAPCO Coal operations.
- (4) See Note 7 for discussion of the 1998 and 1997 extraordinary losses. The 1994 loss also related to the early extinguishment of debt.

ITEM 7. MANAGEMENT'S DISCUSSION & ANALYSIS OF FINANCIAL CONDITIONS AND RESULTS OF OPERATIONS

### RESULTS OF OPERATIONS

1998 vs. 1997

CONSOLIDATED OVERVIEW. Williams' revenues decreased \$591 million, or 7 percent, due primarily to the \$384 million impact in 1998 of reporting certain revenues net of costs within Energy Services (see Note 1 of Notes to Consolidated Financial Statements) and lower petroleum products and natural gas liquids sales prices. Favorably affecting revenues were higher revenues from Communications' equipment sales and services activities and excess fiber sales, higher power services revenues and increased petroleum products sales volumes.

Segment costs and expenses decreased \$271 million, or 4 percent, due primarily to the \$384 million impact in 1998 of reporting certain costs net in revenues within Energy Services (see Note 1) and lower purchase prices for petroleum products. Partially offsetting these decreases were higher costs and expenses within Communications, costs associated with increased petroleum products sales volumes, higher power services costs and \$143 million of higher charges in 1998 as compared to 1997. The 1998 charges include \$74 million related to contractual and regulatory issues, \$37 million of asset impairments, \$51 million of MAPCO merger-related expenses, and a \$31 million accrual for modification of an employee benefit program associated with vesting of paid time off. Included in 1997 are charges totaling \$50 million for asset impairments.

Operating income decreased \$315 million, or 30 percent, reflecting the change in revenues and segment costs and expenses discussed above and comprised primarily of a \$172 million decrease at Energy Services and a \$117 million decrease at Communications. Income from continuing operations before extraordinary loss and income taxes decreased \$448 million, or 64 percent, due primarily to the lower operating income, \$44 million higher interest expense resulting from continued expansion and new projects, the effect of a \$45 million gain in 1997 on the sale of interest in subsidiary and the effect of a \$66 million gain in 1997 on the sale of assets.

GAS PIPELINE'S \$4.7 million increase in revenues and \$4.3 million, or 1 percent, decrease in segment profit for 1998 as compared to 1997 includes increases (decreases) from the following pipelines:

	INCREAS	E (DECREASE)
	REVENUES	SEGMENT PROFIT
	(M	ILLIONS)
Central  Kern River Gas Transmission  Northwest Pipeline  Texas Gas Transmission  Transcontinental Gas Pipe Line (Transco)  Eliminations	\$ (5.3) (3.8) 14.3 (19.7) 19.0	\$(56.6) (6.2) 12.3 5.7 40.5
Total Gas Pipeline	\$ 4.7 ======	\$ (4.3) ======

Central's revenues decreased \$5.3 million due primarily to the reversal in 1997 of a \$12 million potential refund associated with the sale of working gas in a prior year and \$4 million lower gas supply realignment cost recovery, partially offset by the 1998 reversal of a \$7 million accrual for other regulatory issues initially recorded in 1997. Kern River's revenues decreased \$3.8 million due primarily to the effect of its designed rate structure. Northwest Pipeline's revenues increased \$14.3 million due primarily to the \$4 million effect of a new rate design effective March 1, 1997, that enables greater short-term firm and interruptible transportation volumes, \$5 million of favorable adjustments to rate refund accruals and demand charge reserves in 1998 and the \$10 million effect of unfavorable adjustments in 1997 to rate refund accruals and demand charge reserves, partially offset by a \$3.5 million 1997 gain on the sale of system balancing gas. Texas Gas' revenues decreased \$19.7 million due primarily to \$21 million lower reimbursable costs passed through to customers as provided in Texas Gas' rates and the \$4 million effect of the favorable resolution of certain contractual issues in 1997, partially offset by \$6 million higher revenues related to new services and increased cost recovery in the current

rate structure. Transco's revenues increased \$19 million due primarily to the \$26 million impact of expansion projects placed into service in 1998 and late 1997 and \$4 million from new services initiated in the last half of 1997. Transco's revenues were also favorably impacted by a 1998 adjustment of \$11 million related to the new rates placed into effect May 1, 1997, partially offset by \$17 million lower reimbursable costs passed through to customers. Total throughput for Gas Pipeline decreased 23.5 TBtu, or 1 percent.

Costs and operating expenses decreased \$46 million, or 6 percent, due primarily to \$33 million lower reimbursable costs passed through to customers by Texas Gas and Transco and \$15 million lower operation and maintenance expenses, partially offset by the effect of a \$5.4 million settlement received in 1997 related to a prior Transco rate proceeding and a \$4 million accrual related to the modification of an employee benefit program associated with the vesting of paid time off.

Other (income) expense -- net in 1998 includes a \$58.4 million charge related to certain long-term gas supply contracts that Central entered into in 1982. The charge represents an estimate, based on recent developments, of natural gas costs that will not be recoverable from customers (see Note 17).

Central's segment profit decreased \$56.6 million due primarily to the \$58.4 million accrual for costs related to certain long-term gas supply contracts. Kern River's segment profit decreased \$6.2 million due primarily to its designed rate structure. Northwest Pipeline's segment profit increased \$12.3 million due primarily to a new rate design and the \$14 million combined favorable effect of 1998 and 1997 rate refund accrual adjustments, partially offset by the effect of a \$3.5 million gain in 1997 from the sale of system balancing gas. Texas Gas' segment profit increased \$5.7 million due primarily to \$6 million higher revenues related to new services and increased cost recovery and \$2 million lower operating and maintenance expenses, partially offset by the \$4\$ million effect of the favorable resolution in 1997 of certain contractual issues. Transco's segment profit increased \$40.5 million due primarily to the \$26 million revenue impact of expansion projects placed into service in 1998 and late 1997, \$4 million from new services initiated in the last half of 1997, an adjustment of \$11 million related to the 1998 settlement of new rates placed into effect May 1, 1997, and \$9 million lower operation and maintenance expenses, partially offset by \$6 million higher depreciation related to expansions placed in service and the effect of a \$5.4 million settlement received in 1997.

During 1998, the Federal Energy Regulatory Commission (FERC) issued several rulings that could result in higher tariff rates in future years for Gas Pipeline. These FERC rulings are subject to appeal (see Note 17.)

ENERGY MARKETING & TRADING'S revenues decreased \$337.7 million, or 15 percent, due primarily to the \$384 million impact in 1998 of reporting revenues on a net basis for certain natural gas liquids trading operations previously reported on a "gross" basis (see Note 1) and \$95 million lower crude and refined products marketing and trading revenues. In addition, revenues associated with natural gas origination, price-risk management and physical trading decreased \$50 million reflecting lower margins, the unfavorable market movement against the natural gas portfolio and the adverse market and supply conditions which resulted from Hurricane Georges in September 1998, partially offset by the \$24 million favorable effect of certain contract settlements and terminations. Retail propane revenues decreased \$59 million due to the \$35 million effect of lower volumes following unseasonably warm weather in 1998 as compared to 1997 and the \$24 million effect of lower average propane sales prices. Partially offsetting these decreases were \$243 million higher power services revenues including \$220 million from new power activity in southern California and additional business growth.

Costs and operating expenses decreased \$407 million, or 19 percent, due primarily to the \$384 million impact in 1998 of reporting revenues on a net basis for certain natural gas liquids trading operations previously reported on a "gross" basis (see Note 1) and \$104 million lower product purchases associated with the marketing and trading of crude and refined products. In addition, retail propane cost of sales decreased \$55 million due to the \$21 million effect of lower volumes and the \$34 million effect of lower average propane purchase costs. These decreases were partially offset by \$156 million of costs related to new power activity in southern California.

Segment profit decreased \$14.4 million, or 27 percent, due primarily to the \$50 million decline in revenues from natural gas trading activities discussed above, \$43 million of additional losses from retail natural gas and electric activities and the effect of a \$6 million recovery in 1997 of an account previously written off as a bad debt. The \$43 million of losses from retail natural gas and electric activities includes \$17 million of credit losses and \$14 million of asset impairments (included in other (income) expense -- net). The \$14 million asset impairment is associated with the company's decision to change focus from selling to small commercial and residential customers to large end users (see Note 5). The retail natural gas and electric losses also reflect costs incurred to penetrate new markets. Offsetting these decreases were \$60 million of higher electric power marketing and trading profits, \$17 million lower retail propane operating expenses and \$7 million higher natural gas liquids trading profits.

EXPLORATION & PRODUCTION'S revenues increased \$9.2 million, or 7 percent, due primarily to the recognition of \$22 million of additional deferred income resulting from a 1997 transaction that transferred certain nonoperating economic benefits to a third party and \$8 million from a 14 percent increase in company-owned production, partially offset by the \$25 million effect of lower average natural gas sales prices for company-owned production and for sales of volumes from the Williams Coal Seam Gas Royalty Trust (Royalty Trust) and royalty interest owners.

Segment profit decreased \$3.1 million, or 10 percent, due primarily to \$13 million higher depreciation, depletion and amortization, \$6 million higher nonproducing leasehold amortization, \$2 million higher dry hole costs and \$2 million of leasehold impairment costs, partially offset by the \$22 million increased recognition of deferred income.

MIDSTREAM GAS & LIQUIDS' revenues decreased \$158.7 million, or 15 percent, due primarily to \$60 million lower natural gas liquids sales from processing activities reflecting a decline in average liquids sales prices, and the \$44 million effect of the shutdown of the Canadian liquids marketing operations in late 1997. Revenues also declined due to \$18 million lower natural gas liquids pipeline transportation revenues reflecting 3 percent lower shipments, the passthrough of \$9 million lower operating costs to customers, adjustments of \$14 million related to new rates placed into effect in 1997 for Midstream's regulated gathering activities (offset in costs and operating expenses) and the effect of an \$8 million receipt in 1997 of business interruption insurance proceeds, slightly offset by \$7 million higher gathering revenues and \$8 million associated with a 4 percent increase in natural gas liquids sales volumes.

Costs and operating expenses decreased \$107 million, or 16 percent, due primarily to the \$50 million effect of the shutdown of the Canadian liquids marketing operations, \$14 million of rate adjustments related to Midstream's regulated gathering activities, \$9 million lower costs passed through to customers, \$15 million lower fuel and replacement gas purchases, and lower natural gas liquids pipeline transportation costs.

Other (income) expense -- net in 1998 includes a loss of approximately \$9 million related to the retirement of certain assets and \$6 million of unfavorable litigation loss provisions, partially offset by a \$6 million gain from the settlement of product imbalances.

Segment profit decreased \$56.6 million, or 20 percent, due primarily to \$45 million of lower per-unit liquids margins, decreased pipeline transportation shipments, the \$9 million loss related to retirement of certain assets and the effect of an \$8 million business interruption insurance receipt in 1997, slightly offset by \$7 million higher gathering revenues.

PETROLEUM SERVICES' revenues decreased \$20.5 million, or 1 percent, due primarily to a \$213 million decrease in revenues from refining operations and \$17 million lower product sales from transportation activities, significantly offset by \$107 million higher pipeline construction revenue, \$54 million higher convenience store sales, and \$37 million higher revenues from fleet management and mobile computer technology operations initiated in mid-1997. The \$213 million decline in refining revenues reflects \$386 million from lower average sales prices, partially offset by \$173 million from a 13 percent increase in refined product volumes sold. The \$54 million increase in convenience store sales is due primarily to the May 1997 EZ-Serve acquisition, additional travel centers and increased per-store merchandise sales. Increases of

\$101 million in gasoline and diesel sales volumes and \$47 million higher merchandise sales were partially offset by a \$94 million impact of lower average retail gasoline and diesel sales prices.

Costs and expenses increased \$27 million, or 1 percent, due primarily to \$102 million of pipeline construction costs, \$46 million higher convenience store merchandise purchases and operating costs resulting from the EZ-Serve acquisition, additional travel centers and increased per-store sales, \$41 million higher costs from fleet management and mobile computer technology operations, \$24 million higher general and administrative expenses and a \$15.5 million accrual for potential transportation rate refunds to customers (included in other (income) expense -- net) (see Note 17). Substantially offsetting these increases were a \$194 million decrease from refining operations and \$15 million lower cost of product sales from transportation activities. The \$24 million increase in general and administrative expenses is due, in part, to increased activities in human resources development, investor/media/customer relations and business development. The \$194 million decrease from refining operations reflects a \$343 million decrease due to lower average crude oil purchase prices, partially offset by a \$143 million increase related to an increase in processed barrels sold and \$7 million higher operating costs at the Memphis refinery. Convenience store gasoline and diesel cost of sales remained flat as a \$90 million increase from higher sales volumes was offset by lower average purchase

Segment profit decreased \$47.5 million, or 24 percent, due primarily to the \$15.5 million accrual for potential refunds to transportation customers, \$13 million lower refinery gross margins, \$7 million higher operating costs due to increased production levels at the Memphis refinery, approximately \$24 million higher general and administrative expenses and a \$4.4 million accrual for modification of an employee benefit program associated with vesting of paid time off, partially offset by \$6 million higher product transportation revenues, \$7 million increased profits from convenience store operations and \$5 million from pipeline construction activities.

COMMUNICATIONS SOLUTIONS' revenues increased \$160.3 million, or 13 percent, due primarily to the April 30, 1997, combination of the Nortel customer premise equipment sales and services operations, which contributed an additional \$196 million of revenue during the first four months of 1998. A \$30 million increase in maintenance contract revenues was more than offset by \$46 million lower new system sales and \$31 million lower customer service orders due, in part, to competitive pressures.

Costs and operating expenses increased \$116 million, or 13 percent, and selling, general and administrative expenses increased \$138 million, or 53 percent, due primarily to the combination with Nortel. Included in the overall increase in selling, general and administrative expenses are \$23 million of increased information systems costs associated with expansion and enhancement of the infrastructure and continued costs of maintaining multiple systems while common systems are being developed, \$36 million higher selling costs including the effects of large increases in sales and support staff and higher sales commissions in anticipation of a higher revenue base than actually achieved, \$12 million increased provision for bad debts, and a \$6 million accrual for modification of an employee benefit program associated with vesting of paid time off.

Segment profit decreased \$101.4 million from a \$47.3 million segment profit in 1997 to a \$54.1 million segment loss in 1998, due primarily to the increase in selling, general and administrative costs as described above, \$6 million related to information systems cancellations and \$7 million of obsolete equipment write-downs, severance and contract loss accruals.

NETWORK APPLICATIONS' revenues decreased \$9.1 million, or 4 percent, due primarily to the \$14 million effect of the decision to exit the learning content business in November 1997. Partially offsetting this decline was a \$9 million increase in audio and video conferencing and business television revenues.

Costs and operating expenses increased \$9 million, or 5 percent, due primarily to \$8 million higher costs of providing network services following the transfer of fiber assets to Network Services in October 1997 and the \$7 million effect of increased audio and video conferencing and business television activities, partially offset by \$8 million lower costs as a result of the decision to exit the learning content business in November 1997. A \$10 million, or 11 percent, decrease in selling, general and administrative expenses was also due to the decision to exit the learning content business.

Other (income) expense -- net in 1998 includes a \$23.2 million write-down related to the abandonment of a venture involved in the technology and transmission of business information for news and educational purposes (see Note 5). Other (income) expense -- net in 1997 includes charges totaling \$49.8 million related to the decision and formulation of a plan to sell the learning content business (\$28 million), and the write-down of assets and development costs associated with certain advanced applications (see Note 5). During 1998, a substantial portion of the learning content business was sold at its approximate carrying value.

Segment loss decreased \$14.1 million from a \$108.7 million segment loss in 1997 to a \$94.6 million segment loss in 1998, due primarily to the effect of \$49.8 million of charges in 1997, partially offset by the \$23.2 million write-down in 1998, \$7 million higher network access costs and a \$3 million accrual for modification of an employee benefit program associated with vesting of paid time off.

NETWORK SERVICES' revenues increased \$151.9 million from \$43 million in 1997, due primarily to \$64 million of revenue in 1998 from the sale of excess fiber capacity on the newly constructed digital fiber-optic network, \$49 million of revenues from providing fiber services to new long-term customers and \$27 million higher revenue following the transfer of fiber assets from Network Applications in October 1997.

Costs and operating expenses increased \$136 million from \$32 million in 1997, due primarily to \$38 million of cost of sales of excess fiber capacity, \$55 million of leased capacity costs associated with providing customer services prior to completion of the new network, and \$17 million higher operating expenses. Selling, general and administrative expenses increased \$45 million due primarily to the expansion of the infrastructure to support the new national digital fiber-optic network, including \$8 million of increased information systems costs and \$8 million for a new national advertising campaign.

Segment profit decreased \$29.6 million from a \$3.3 million segment profit in 1997 to a \$26.3 million segment loss in 1998, due primarily to the cost of expanding the infrastructure in support of the network expansion and losses experienced from providing customer services prior to completion of the new network, partially offset by \$26 million of profit from selling excess fiber capacity.

As each phase of the ongoing construction of the planned 32,000 mile full-service wholesale communications network goes into service, revenues and costs are expected to increase. During 1998, 9,000 miles of new network were added increasing the network to 19,000 cable miles at December 31, 1998. The remaining 13,000 miles are planned to come online during 1999 and 2000. This business is expected to contribute an increasing percentage of consolidated revenues but is not expected to contribute significantly to segment profit until 2001. The February 8, 1999, announcement by Williams of a 20-year agreement with SBC Communications, under which Network Services will become the preferred provider of nationwide long-distance voice and data services for SBC Communications, will contribute to the expected network revenue increase in 2000. Additional sales of excess dark fiber capacity along the new network are expected to generate increasing revenues and segment profit during 1999 and 2000.

OTHER segment loss of \$15.5 million in 1998 compares to \$11.4 million of segment profit in 1997. The 1998 segment loss includes equity losses of \$14.8 million from investing activities in a Brazilian communication business in which Williams has a 30 percent interest. This business is constructing a cellular phone network scheduled to be in operation during 1999. In addition, 1998 includes \$8 million higher general and administrative expenses as compared to 1997 and \$5.6 million of write-downs of international cost investments to market.

GENERAL CORPORATE EXPENSES decreased \$5.9 million, or 6 percent, due primarily to expense savings realized following the MAPCO merger, largely offset by MAPCO merger-related costs of \$29 million in 1998 compared to \$10 million in 1997. An additional \$51 million of merger-related costs are included as a component of Energy Services' segment profit (see Note 19). Interest accrued increased \$51.6 million, or 11 percent, due primarily to higher borrowing levels including Williams Holdings' commercial paper program and the issuance of additional public debt, partially offset by the \$52 million effect of lower average interest rates. The lower average interest rate reflects the fourth-quarter 1997 debt restructuring and lower rates on new 1998 borrowings as compared to previously outstanding borrowings. Interest capitalized increased \$7.3 million, or 31 percent, due primarily to increased capital expenditures for the fiber-optic network, the

Venezuelan gas injection plant and international investment activities. Investing income increased \$13.2 million to \$25.8 million due primarily to higher interest income on advances to affiliates and long-term notes receivable. For information concerning the \$44.5 million gain on sale of interest in subsidiary in 1997, see Note 2. The \$66 million gain on sales of assets in 1997 results from the sale of Williams' interest in the liquids and condensate reserves in the West Panhandle field of Texas (see Note 5). Minority interest in (income) loss of consolidated subsidiaries in 1998 is \$27.8 million favorable as compared to 1997 due primarily to losses experienced by Williams Communications Solutions, LLC which has a 30 percent interest held by minority shareholders. Other income (expense) -- net is \$19.6 million unfavorable as compared to 1997 due primarily to 1998 litigation accruals and loss provisions totaling \$11 million related to assets previously sold, and the impact of a 1997 gain of \$4 million on the termination of interest-rate swap agreements.

The \$140.8 million, or 56 percent, decrease in the provision for income taxes on continuing operations is primarily a result of lower pre-tax income, partially offset by a higher effective income tax rate in 1998. The effective income tax rate in 1998 exceeds the federal statutory rate due primarily to the effects of state income taxes and the effects of non-deductible costs, including goodwill. The effective tax rate in 1997 exceeds the federal statutory rate due primarily to the effects of state income taxes, substantially offset by the effect of the non-taxable gain recognized in 1997 (see Note 2) and income tax credits from coal-seam gas production.

The 1998 and 1997 losses on discontinued operations are attributable to loss provisions for contractual obligations related to the sale of the net assets of the MAPCO coal business in 1996 (see Note 3).

The 1998 and 1997 extraordinary losses result from the early extinguishment of debt (see Note 7).

1997 vs. 1996

CONSOLIDATED OVERVIEW. Williams' revenues increased \$1.4 billion, or 20 percent, due primarily to increased marketing of crude oil and refined products and higher revenues at Communications reflecting increased business activity and revenue contributed by acquisitions, including the 1997 combination of the Nortel customer premise equipment sales and services operations. Partially offsetting these increases was the \$141 million impact in 1997 of reporting certain revenues net of costs within Energy Services (see Note 1).

Segment costs and expenses increased \$1.4 billion, or 25 percent, due primarily to costs associated with the increased marketing of crude oil and refined products, higher costs and expenses at Communications and \$50 million of asset impairments, partially offset by the \$141 million impact in 1997 of reporting certain costs net in revenues within Energy Services (see Note 1).

Operating income decreased \$64 million, or 6 percent, reflecting the change in revenues and segment costs and expenses discussed above and comprised primarily of a \$63 million decrease at Communications and a \$37 million decrease at Energy Services, partially offset by a \$50 million increase at Gas Pipeline. Income from continuing operations before extraordinary loss and income taxes decreased \$54 million, or 7 percent, reflecting the lower operating income, increased interest accrued resulting from higher capital expenditures and the effect of the \$37 million gain in 1996 on sales of assets, partially offset by a \$45 million gain in 1997 on the sale of interest in subsidiary, and a \$66 million gain in 1997 on the sale of assets.

GAS PIPELINE'S \$20.5 million, or 1 percent, increase in revenues and \$50.4 million, or 9 percent, increase in segment profit for 1997 as compared to 1996 includes increases (decreases) from the following pipelines:

	INCREAS	SE (DECREASE)
	REVENUES	SEGMENT PROFIT
	( M:	ILLIONS)
Central	\$ 6.0	\$12.2
Kern River Gas Transmission	5.0	5.8
Northwest Pipeline	3.4	(.9)
Texas Gas Transmission	(13.1)	2.5
Transcontinental Gas Pipe Line (Transco)	6.0	30.8
Eliminations	13.2	
Total Gas Pipeline	\$ 20.5	\$50.4
	=====	=====

Central's revenues increased \$6 million due primarily to the reversal in 1997 of a \$12 million potential refund associated with the sale of working gas in a prior year, partially offset by a \$7 million accrual for other regulatory issues. Kern River's revenues increased \$5 million due primarily to a full year of revenues in 1997 as compared to a partial year of revenues in 1996 and increased transportation revenues. Results for 1996 reflect only operations from January 16, 1996, when Williams acquired the remaining interest in Kern River. Prior to January 16, 1996, Kern River was accounted for on an equity basis. Northwest Pipeline's revenues increased \$3.4 million due primarily to a new rate design, effective March 1, 1997, that enabled greater short-term firm and interruptible transportation volumes, largely offset by \$7 million of adjustments to rate refund accruals in 1997 and the effect of \$9 million of revenue in 1996 associated with favorable regulatory decisions. Texas Gas' revenues decreased \$13.1 million due primarily to lower reimbursable costs passed through to customers as provided in Texas Gas' rates, including \$6 million related to the suspension of gas supply realignment cost recovery from firm transportation customers. Transco's revenues increased \$6 million due primarily to the \$14 million effect of a 1996 downward adjustment (offset in costs) to reflect a rate case settlement, \$10 million associated with new rates effective May 1, 1997, to recover costs associated with increased capital expenditures and \$6 million related to a mainline expansion placed into service in late 1996 and new services begun in late 1997, largely offset by \$23 million of lower reimbursable costs passed through to customers as provided in Transco's rates. Total throughput for Gas Pipeline decreased 146.4 TBtu, or 4 percent, as a result of the 1996 sale of the south-end facilities by Northwest Pipeline.

Costs and operating expenses and general and administrative expenses decreased \$27.2 million, or 2 percent, due primarily to \$34 million lower reimbursable costs incurred by Texas Gas and Transco and passed through to their customers, \$30 million lower operation and maintenance expenses and a \$5.4 million favorable settlement related to a prior Transco rate proceeding, partially offset by the \$14 million effect of a 1996 downward adjustment (offset in revenues) to depreciation expense reflecting a Transco rate case settlement, \$18 million higher depreciation expense and a \$5 million accrual for gas purchase contract settlement costs by Central.

Central's segment profit increased \$12.2 million due primarily to the 1997 reversal of a \$12 million potential refund associated with the sale of working gas, a \$7 million gain from the sale-in-place of natural gas from a decommissioned storage field (included in other (income) expense -- net) and a \$4 million increase in firm reserved capacity revenues, partially offset by the \$7 million accrual for other regulatory issues and a \$5 million accrual for gas purchase contract settlement costs. Kern River's segment profit increased \$5.8 million due primarily to the full year of Williams' ownership in 1997. Northwest Pipeline's segment profit decreased \$.9 million due primarily to the combined effect of the \$7 million increase to rate refund accruals in 1997 and the \$9 million recognition in 1996 of favorable regulatory actions, significantly offset by \$7 million lower operating and maintenance expenses, new transportation rates effective in 1997 and a \$3.5 million gain on the sale of system balancing gas. Transco's segment profit increased \$30.8 million due primarily to \$15 million lower operation and maintenance expenses, \$10 million higher revenues associated with new rates effective May 1, 1997, and the \$5.4 million rate proceeding settlement.

ENERGY MARKETING & TRADING'S revenues increased \$276.4 million, or 14 percent, due primarily to a \$488 million increase in marketing of crude oil and refined products from the Memphis refinery. This increase reflects increased demand for petroleum products, aggressive marketing in the Memphis and Ohio River Valley areas and \$183 million from the inclusion of Lexas Oil operations, which prior to July 1997 were unconsolidated. Partially offsetting this increase was a \$125 million decrease in revenues from energy trading and price-risk management activities, \$77 million lower marketing of natural gas liquids associated with Midstream's natural gas liquids transportation activities and a \$16 million decrease in revenues from the propane marketing business. The \$125 million decrease in revenues from energy trading and price-risk management activities resulted from the 1997 reporting on a net margin basis of certain natural gas and gas liquids marketing operations previously not considered to be included in trading operations. Excluding this decrease, energy trading and price-risk management revenues increased \$16 million due primarily to the initial income recognition from long-term electric power contracts, increased physical and notional natural gas volumes of 22 percent and 44 percent, respectively, higher petroleum trading volumes, revenues from new project financing services for energy producers and the sale of excess transportation capacity, partially offset by lower natural gas trading margins as a result of decreased price volatility. The \$77 million decrease in marketing of natural gas liquids results mainly from significantly lower natural gas liquids sales prices. The \$16 million decrease in revenues from the propane marketing business resulted from the \$24 million effect of the sale of certain propane and liquid fertilizer assets in 1996, partially offset by increased propane sales volumes primarily from acquisitions.

Costs and operating expenses increased \$335 million, or 19 percent, due primarily to \$526 million of additional costs associated with the marketing of crude oil and refined products from the Memphis refinery, \$23 million of increased operating expenses associated with propane marketing acquisitions and growth initiatives and a \$16 million increase in propane purchase costs relating to increased volumes, partially offset by the \$141 million effect of the 1997 reporting on a net margin basis of certain natural gas and gas liquids marketing operations previously not considered to be included in trading operations, \$73 million lower costs of marketing natural gas liquids associated with Midstream's natural gas liquids transportation activities and \$21 million associated with the sale of certain propane and liquid fertilizer assets. Selling, general and administrative expenses increased \$32 million, or 52 percent, due primarily to propane business acquisitions and the expenses associated with expansion of certain business growth platforms.

Segment profit decreased \$85.1 million, or 61 percent, due primarily to \$38 million lower gross margins on the marketing of crude oil and refined products from the Memphis refinery, \$32 million higher selling, general and administrative expenses, \$23 million of increased operating expenses associated with propane marketing acquisitions and growth initiatives, and \$10 million lower gross margins on propane marketing operations, partially offset by the \$16 million increase in net energy trading and price-risk management revenues and a \$6 million recovery of an account previously written off as a bad debt.

EXPLORATION & PRODUCTION'S revenues increased \$47.7 million, or 58 percent, due primarily to the \$20 million effect of higher average natural gas sales prices for company-owned production, the \$14 million effect of higher average natural gas sales prices from the sale of volumes from the Royalty Trust and royalty interest owners, and the \$9 million effect of a 21 percent increase in company-owned production volumes.

Costs and operating expenses increased \$23 million, or 32 percent, due primarily to higher Royalty Trust natural gas purchase prices, increased production activities and higher dry hole costs.

Segment profit increased \$27.5 million, from \$2.8 million in 1996, due primarily to the increase in average natural gas sales prices and company-owned production volumes, partially offset by higher expenses associated with increased activity levels.

MIDSTREAM GAS & LIQUIDS' revenues increased \$121.4 million, or 13 percent, due primarily to \$53 million related to a full year of Canadian marketing operations in 1997 as compared to four months in 1996, \$44 million of higher natural gas liquids sales from processing activities, the receipt of \$8 million of business interruption insurance proceeds related to a 1996 claim, and higher gathering, processing and condensate revenues of \$7 million, \$5 million and \$11 million, respectively. These increases were slightly offset by the impact of the January 1997 sale of the West Panhandle operations. The \$44 million increase in natural gas

liquids sales from processing activities is due to a 37 percent increase in volumes, slightly offset by lower average sales prices.

Costs and operating expenses increased \$138.5 million, or 26 percent, due primarily to \$56 million higher fuel and replacement gas purchases associated with gathering and processing activities, the \$52 million impact of a full year of Canadian marketing operations, and higher operating and maintenance and depreciation expenses.

Other (income) expense -- net for 1996 includes a \$20 million gain from the property insurance coverage associated with construction of replacement gathering facilities and \$6 million of gains from the sale of two small gathering systems, partially offset by \$5 million of environmental remediation accruals.

Segment profit decreased \$39.7 million, or 12 percent, due primarily to the \$30 million effect of lower per-unit liquids margins, an \$18 million impact of the sale of the West Panhandle operations, and \$12 million lower insurance recoveries in 1997 as compared to 1996, partially offset by the \$24 million effect of increased liquids volumes sold.

PETROLEUM SERVICES' revenues increased \$100.8 million, or 4 percent, due primarily to a \$27 million increase in ethanol sales, \$25 million from new fleet management and mobile computer technology operations, a \$24 million increase in product sales from transportation activities and \$18 million higher retail sales revenues. Ethanol sales increased as a result of 22 percent higher sales volumes, partially offset by lower average ethanol sales prices. Ethanol production was reduced during the second half of 1996 due to unfavorable market conditions. The retail sales increase reflects higher gasoline and merchandise sales following the EZ-Serve convenience stores acquisition, partially offset by lower diesel sales. A 5 percent increase in processed volumes sold was offset by slightly lower average refined product sales prices. Products pipeline shipments and average rates were comparable to 1996.

Costs and operating expenses increased \$33.6 million, or 1 percent, due primarily to a \$35 million increase in retail costs following the EZ-Serve convenience stores acquisition, \$33 million associated with the new fleet management and mobile computer technology operations, \$23 million higher product purchases associated with transportation activities, \$15 million higher operating expenses associated with increased refinery throughput and maintenance activity, and \$9 million higher costs from increased ethanol production, largely offset by \$84 million lower crude oil costs at the refineries.

Segment profit increased \$60.8 million, or 43 percent, due primarily to a \$71 million increase from petroleum refining operations and a \$15 million increase related to increased ethanol sales volumes and per-unit margins, partially offset by an \$18 million decrease from retail operations and \$9 million of losses associated with the new fleet management and mobile computer technology operations. The \$71 million petroleum refining increase reflects higher per-unit margins and 5 percent higher volumes processed, partially offset by \$10 million of higher costs associated with increased maintenance activity. The retail operations decrease reflects the additional costs associated with the implementation of strategic growth initiatives and lower per-unit margins on gasoline sales.

COMMUNICATIONS SOLUTIONS' revenues increased \$638.4 million, or 112 percent, due primarily to acquisitions which contributed revenues of approximately \$556 million, including \$536 million from the April 30, 1997, combination of the Nortel customer premise equipment sales and services operations. Additionally, increased business activity resulted in a \$119 million revenue increase in new system sales, partially offset by a \$46 million decrease in system modification revenues.

Costs and operating expenses increased \$460 million, or 105 percent, due primarily to the \$393 million impact of the combination with Nortel. In addition, costs and operating expenses increased due to \$50 million of higher costs associated with increased new systems sales activity and \$16 million of higher costs related to system modification activity. Selling, general and administrative expenses increased \$148 million, or 129 percent, due primarily to the combination with Nortel in addition to costs associated with expanding the infrastructure for future growth.

Segment profit increased \$33 million from \$14.3 million in 1996, due primarily to the combination with Nortel, partially offset by increased expenses associated with expanding the infrastructure.

NETWORK APPLICATIONS' revenues increased \$84.7 million, or 65 percent, due primarily to 1997 acquisitions which contributed revenues of approximately \$81 million

Costs and operating expenses increased \$83 million, or 86 percent, due primarily to the \$68 million impact of acquisitions and higher expenses for developing and expanding video transmission services. Selling, general and administrative expenses increased \$46 million, or 94 percent, due primarily to acquisitions and higher expenses for expanding the infrastructure for future growth.

Other (income) expense -- net in 1997 includes charges totaling \$49.8 million related to the decision and formulation of a plan to sell the learning content business (\$28 million), and the write-down of assets and development expenses associated with certain advanced applications (see Note 5).

Segment loss increased \$93.6 million to \$108.7 million, due primarily to the \$49.8 million in charges described above and the expense of developing infrastructure while integrating the most recent acquisitions.

NETWORK SERVICES' revenues increased \$31.9 million to \$43 million in 1997, reflecting \$14 million contributed by a March 1997 acquisition, \$11 million from fiber assets transferred from Network Applications in late 1997 and internal growth.

Costs and operating expenses increased \$27 million from \$5 million in 1996, reflecting a \$15 million effect of the transfer of fiber assets from Network Applications late in 1997 and \$8 million from the March 1997 acquisition.

Segment profit decreased \$2.5 million, or 43 percent, due primarily to an increase in selling, general and administrative expenses.

GENERAL CORPORATE EXPENSES increased \$22.6 million, or 31 percent, due primarily to higher employee compensation expense, \$10 million of costs related to the MAPCO acquisition and higher consulting fees. Interest accrued increased \$45.4 million, or 11 percent, due primarily to higher borrowing levels including increased borrowing under the \$1 billion bank-credit facility and Williams Holdings' commercial paper program, partially offset by a lower average interest rate. The lower average interest rate reflects lower rates on new 1997 borrowings as compared to previously outstanding borrowings. Interest capitalized increased \$15.1 million to \$23.3 million due primarily to capital expenditures for the Discovery pipeline project and Communications' fiber-optic network. For information concerning the \$44.5 million 1997 gain on sale of interest in subsidiary, see Note 2. The \$66 million 1997 gain on sales of assets results from the sale of Williams' interest in the liquids and condensate reserves in the West Panhandle field of Texas (see Note 5). The \$36.5 million 1996 gain on sales of assets results from the sale of the fertilizer and Iowa propane assets and the sale of certain communication rights (see Note 5). The \$18.2 million minority interest in (income) loss of consolidated subsidiaries in 1997 is related primarily to the 30 percent interest held by Williams Communications Solutions, LLC's minority shareholder (see Note 2). The \$12.7 million unfavorable change in other income (expense) -- net in 1997 is due primarily to the costs associated with expansion of the sale of receivables program in 1997 and the effect of \$10 million of favorable accrual adjustments in 1996, partially offset by lower environmental accruals in 1997.

The provision for income taxes on continuing operations decreased \$14.7 million, or 6 percent. The effective income tax rate in 1997 exceeds the federal statutory rate due primarily to the effects of state income taxes, substantially offset by the effect of the non-taxable gain recognized in 1997 (see Note 2) and income tax credits from coal-seam gas production. The effective tax rate in 1996 approximates the federal statutory rate as income tax credits from research activities and coal-seam gas production are offset by the effects of state income taxes. In addition, the 1996 tax provision includes recognition of favorable adjustments totaling \$13 million related to previously provided deferred income taxes on certain regulated capital projects and state income tax adjustments.

On September 10, 1996, Williams sold the net assets of the MAPCO coal business to Alliance Coal Corporation for \$236 million in cash. The sale yielded losses in 1997 and 1996 which are reported as discontinued operations along with the operating results for 1996 (see Note 3).

The 1997 extraordinary loss results from the early extinguishment of debt (see Note 7).

FINANCIAL CONDITION AND LIQUIDITY

### MAPCO Acquisition

On March 28, 1998, Williams completed the acquisition of MAPCO Inc. by exchanging 1.665 shares of Williams common stock for each outstanding share of MAPCO common stock. In addition, outstanding MAPCO employee stock options were converted into 5.7 million shares of Williams common stock. Upon completion, 98.8 million shares of Williams common stock were issued. Also in connection with the merger, 8.4 million shares of MAPCO common stock previously held in treasury were retired. These shares had a carrying value of \$253.8 million. MAPCO was engaged in the NGL pipeline, petroleum refining and marketing and propane marketing businesses, and became part of the Energy Services business unit.

The merger constituted a tax-free reorganization and has been accounted for as a pooling of interests. Accordingly, all prior period financial information presented includes the combined results of operations, financial condition and liquidity of MAPCO and Williams.

#### Liquidity

Williams considers its liquidity to come from two sources: internal liquidity, consisting of available cash investments, and external liquidity, consisting of borrowing capacity from available bank-credit facilities and Williams Holdings' commercial paper program, which can be utilized without limitation under existing loan covenants, as amended in January 1999. At December 31, 1998, Williams had access to \$738 million of liquidity including \$306 million available under its \$1 billion bank-credit facility and \$377 million of cash-equivalent investments. This compares with liquidity of \$166 million at December 31, 1997, and \$630 million at December 31, 1996. The lower liquidity level at December 31, 1997, reflected the use of the \$1 billion bank-credit facility to provide interim financing related to a debt restructuring program. This restructuring program was completed during the first quarter of 1998, and a significant portion of the \$1 billion bank-credit facility was repaid with the proceeds from long-term financings.

During 1998, Williams Holdings increased its commercial paper program to \$1 billion from \$650 million. The commercial paper program is backed by short-term bank-credit facilities totaling \$1 billion. At December 31, 1998, \$903 million of commercial paper was outstanding under the program. In January 1999, Williams Holdings' commercial paper program was increased to \$1.4 billion with the short-term bank-credit facilities increased to the same amount.

Registration statements have been filed with the Securities and Exchange Commission by Williams and Williams Holdings of Delaware, Northwest Pipeline, Texas Gas Transmission and Transcontinental Gas Pipe Line (each a wholly owned subsidiary of Williams). At December 31, 1998, approximately \$1.1 billion of shelf availability remains under these outstanding registration statements and may be used to issue a variety of debt or equity securities. The registration of an additional \$975 million of debt or equity securities by Williams is currently in process. Interest rates and market conditions will affect amounts borrowed, if any, under these arrangements. In addition, short-term uncommitted bank lines are utilized in managing liquidity. Williams believes any additional financing arrangements can be obtained on reasonable terms if required.

On November 19, 1998, Williams announced that it intends to sell a minority interest in its communications business. The initial equity offering is expected to be filed in the second quarter of 1999 and yield proceeds of \$500 million to \$750 million. In addition, Williams expects Communications to issue high-yield public debt of \$1.3 billion to \$1.5 billion in 1999. On February 8, 1999, Williams announced that, simultaneously with the public equity offering, SBC Communications plans to acquire up to a 10 percent interest in Williams' communications business for an investment of up to \$500 million. Proceeds from these

transactions will be reinvested in the continued construction of Williams' national fiber-optic network and other expansion opportunities.

During 1998, Williams entered into an agreement described as a securitized asset lease program designed to fund up to \$750 million of capital expenditures for the fiber-optic network. A total of \$463 million remains available under this agreement. See Note 13 for additional information.

Williams had a net working-capital deficit of \$907 million at December 31, 1998, compared with \$729 million at December 31, 1997. Williams manages its borrowings to keep cash and cash equivalents at a minimum and has relied on bank-credit and commercial paper facilities to provide flexibility for its cash needs. As a result, it historically has reported negative working capital.

Terms of certain borrowing agreements limit transfer of funds to Williams from its subsidiaries. The restrictions have not impeded, nor are they expected to impede, Williams' ability to meet its cash requirements in the future.

During 1999, Williams expects to finance capital expenditures, investments and working-capital requirements through cash generated from operations, Communications' initial equity and high-yield debt offerings, and the use of the available portion of its \$1 billion bank-credit facility and asset lease program, commercial paper, short-term uncommitted bank lines, private borrowings and debt or equity public offerings.

#### Operating Activities

Cash provided by continuing operating activities was: 1998 -- \$613 million; 1997 -- \$988 million; and 1996 -- \$951 million. Energy trading assets and liabilities increased in 1998 due primarily to increased physical power trading activity.

## Financing Activities

Net cash provided by financing activities was: 1998 -- \$1.8 billion; 1997 -- \$424 million; and 1996 -- \$429 million. Long-term debt proceeds, net of principal payments, were \$1.8 billion, \$18 million and \$592 million during 1998, 1997 and 1996, respectively. Notes payable payments, net of notes payable proceeds, were \$139 million during 1998. Notes payable proceeds, net of notes payable payments, were \$622 million and \$108 million during 1997 and 1996, respectively. The increase in net new borrowings during 1998, 1997 and 1996 reflects borrowings to fund capital expenditures, investments and acquisition of businesses.

The proceeds from issuance of common stock in 1998, 1997 and 1996 include benefit plan stock purchases and exercise of stock options under the stock plans.

The purchases of treasury stock in 1997 and 1996 include 2.7 million shares of common stock in the open market for \$50 million and 6.2 million shares of common stock in the open market for \$130 million, respectively. In 1996 the Williams' board of directors authorized up to \$800 million of purchases of common stock on the open market. That repurchase program was terminated during the fourth quarter of 1997.

During 1998, Williams received proceeds totaling \$335 million from the sale of limited partnerships and limited-liability company member minority interests to outside investors (see Note 14).

During the first quarter of 1998, Williams completed the restructuring of a portion of its debt portfolio that was initiated in September 1997. As of December 31, 1997, Williams had paid approximately \$1.4 billion to redeem approximately \$1.3 billion of debt with stated interest rates in excess of 8.8 percent, resulting in an extraordinary loss of \$79.1 million. During first quarter of 1998, Williams paid an additional \$54.4 million to redeem higher interest rate debt for a \$4.8 million extraordinary loss (see Note 7). The restructuring was temporarily financed with a combination of borrowings under the \$1 billion bank-credit facility, commercial paper and short-term bank agreements with commitments totaling \$1.2 billion. The restructuring was completed with the fourth-quarter 1997 and first-quarter 1998 issuance of approximately \$1.5 billion of debentures and notes with interest rates ranging from 5.91 percent to 6.625 percent and maturities from 2000 to 2008.

Long-term debt at December 31, 1998, was \$6.4 billion, compared with \$5.4 billion at December 31, 1997, and \$5 billion at December 31, 1996. At December 31, 1997 and 1996, \$696 million and \$329 million, respectively, of current debt obligations were classified as non-current obligations based on Williams' intent and ability to refinance on a long-term basis. The 1998 increase in long-term debt is due primarily to \$1.6 billion of public debt issued by Williams, \$425 million of public debt issued by Williams Holdings, \$300 million of public debt issued by Transcontinental Gas Pipe Line and new borrowings in 1998 under the bank-credit facility, partially offset by the repayment of approximately \$900 million of interim financings related to the debt restructuring program and the repayment or classification as current of \$750 million of long-term debt. The long-term debt to debt-plus-equity ratio was 59.9 percent at December 31, 1998, compared to 55.8 percent and 55.3 percent at December 31, 1997 and 1996, respectively. If short-term notes payable and long-term debt due within one year are included in the calculations, these ratios would be 64.7 percent, 59.1 percent and 57.1 percent, respectively.

## Investing Activities

Net cash used by investing activities was: 1998 -- \$2 billion; 1997 -- \$1.5 billion; and 1996 -- \$1.3 billion. Capital expenditures of Gas Pipeline, primarily to expand and modernize systems, were \$472 million in 1998, \$419 million in 1997, and \$441 million in 1996. Capital expenditures of Energy Services, primarily to expand and modernize gathering and processing facilities and refineries, were \$707 million in 1998, \$469 million in 1997, and \$406 million in 1996. Capital expenditures of Communications were \$304 million in 1998, \$276 million in 1997, and \$67 million in 1996. The 1998 and 1997 expenditures include the expansion of the fiber-optic network. Budgeted capital expenditures and investments for all business units for 1999 are estimated to be approximately \$5.2 billion, including \$2.2 billion for the fiber-optic network expansion and expenditures to expand and modernize pipeline systems, gathering and processing facilities, refineries and other international investment activities. Capital expenditures for 1999 and 2000 for the fiber-optic network are expected to total \$3.4 billion.

Subsequent to December 31, 1998, Williams exercised an option to increase its investment in the Brazilian cellular phone venture. Negotiations are currently underway, and the company could invest up to \$265 million, which is included in budgeted expenditures above, during the first quarter of 1999.

During 1998, Williams made a \$100 million advance and a \$150 million investment in a telecommunications business in Brazil. In addition, during 1998 Williams made an \$85 million investment in a Texas refined petroleum products pipeline joint venture.

On April 30, 1997, Williams and Northern Telecom (Nortel) combined their customer-premise equipment sales and services operations into a limited liability company, Williams Communications Solutions, LLC. In addition, Williams paid \$68 million to Nortel. See Note 2 for additional information. During 1997, Williams also purchased a 20 percent interest in a foreign telecommunications business for \$65 million in cash and made a \$59 million cash investment in the 50 percent owned Discovery pipeline project. During 1996, Williams acquired the remaining interest in Kern River for \$206 million in cash (see Note 2). In addition, during 1996 Williams acquired various communications technology businesses totaling \$165 million in cash.

During 1997, Williams received proceeds of \$66 million from the sale of interests in the West Panhandle field. During 1996, Williams received proceeds of \$236 million from the sale of its MAPCO coal operations (see Note 3).

### Other Commitments

During 1998, Energy Marketing & Trading entered into a 15-year contract giving Williams the right to receive fuel conversion services for purposes of generating electricity. This contract also gives Williams the right to receive installed capacity as well as certain ancillary services. Annual committed payments under the contract range from \$140 million to \$165 million, resulting in total committed payments of approximately \$2.3 billion. Williams' intent is to resell power generated as a result of this service into markets in the western region of the United States. Williams also intends to resell capacity and ancillary services into such markets as the opportunities arise.

#### NEW ACCOUNTING STANDARDS

See Note 1 for the effects of Statement of Financial Accounting Standards No. 133, "Accounting for Derivative Instruments and Hedging Activities," Statement of Position 98-5, "Reporting on the Costs of Start-Up Activities" and Emerging Issues Task Force Issue No. 98-10, "Accounting for Contracts Involved in Energy Trading and Risk Management Activities."

### **EFFECTS OF INFLATION**

Williams' cost increases in recent years have benefited from relatively low inflation rates during that time. Approximately 50 percent of Williams property, plant and equipment is at Gas Pipeline, and approximately 50 percent is at Energy Services and Communications. Approximately 80 percent of Gas Pipeline's property, plant and equipment has been acquired or constructed since 1995, a period of relatively low inflation. Gas Pipeline is subject to regulation, which limits recovery to historical cost. While amounts in excess of historical cost are not recoverable under current FERC practices, Williams believes it will be allowed to recover and earn a return based on increased actual cost incurred to replace existing assets. Cost-based regulation along with competition and other market factors may limit the ability to recover such increased costs. Within Energy Services, operating costs are influenced to a greater extent by specific price changes in oil and gas and related commodities than by changes in general inflation. Crude, refined product, natural gas and natural gas liquids prices are particularly sensitive to OPEC production levels and/or the market perceptions concerning the supply and demand balance in the near future. See Market Risk Disclosures on page 35 for additional information concerning the impact of specific price changes. The activities of Communications have historically not been significantly affected by the effects of inflation.

#### ENVTRONMENTAL

Williams is a participant in certain environmental activities in various stages involving assessment studies, cleanup operations and/or remedial processes. The sites, some of which are not currently owned by Williams (see Note 17), are being monitored by Williams, other potentially responsible parties, the U.S. Environmental Protection Agency (EPA), or other governmental authorities in a coordinated effort. In addition, Williams maintains an active monitoring program for its continued remediation and cleanup of certain sites connected with its refined products pipeline activities. Williams has both joint and several liability in some of these activities and sole responsibility in others. Current estimates of the most likely costs of such cleanup activities, after payments by other parties, are approximately \$93 million, all of which is accrued at December 31, 1998. Williams expects to seek recovery of approximately \$39 million of the accrued costs through future natural gas transmission rates and approximately \$14 million of accrued costs from states in accordance with laws permitting reimbursement of certain expenses associated with underground storage tank containment problems and repairs. Williams will fund these costs from operations and/or available bank-credit facilities. The actual costs incurred will depend on the final amount, type and extent of contamination discovered at these sites, the final cleanup standards mandated by the EPA or other governmental authorities, and other factors.

Williams is subject to the federal Clean Air Act and to the federal Clean Air Act Amendments of 1990 which require the EPA to issue new regulations. In September 1998, the EPA promulgated new rules designed to mitigate the migration of ground-level ozone in certain states. Williams estimates that capital expenditures necessary to install emission control devices over the next five years to comply with these new rules will be between \$145 million and \$190 million. The actual costs incurred will depend on the final implementation plans developed by each state to comply with these regulations.

## YEAR 2000 COMPLIANCE

Williams initiated an enterprise-wide project in 1997 to address the year 2000 compliance issue for both traditional information technology areas and non-traditional areas, including embedded technology which is prevalent throughout the company. This project focuses on all technology hardware and software, external interfaces with customers and suppliers, operations process control, automation and instrumentation systems,

and facility items. The phases of the project are awareness, inventory and assessment, renovation and replacement, testing and validation. The awareness and inventory/assessment phases of this project as they relate to both traditional and non- traditional information technology areas have been substantially completed. During the inventory and assessment phase, all systems with possible year 2000 implications were inventoried and classified into five categories: 1) highest, business critical, 2) high, compliance necessary within a short period of time following January 1, 2000, 3) medium, compliance necessary within 30 days from January 1, 2000, 4) low, compliance desirable but not required, and 5) unnecessary. Categories 1 through 3 were designated as critical and are the major focus of this project. Renovation/replacement and testing/validation of critical systems is expected to be completed by June 30, 1999, except for replacement of certain critical systems scheduled for completion by September 1, 1999. Some non-critical systems may not be compliant by January 1, 2000.

Testing and validation activities have begun and will continue throughout the process. Year 2000 test labs are in place and operational. As expected, few problems have been detected during testing for items believed to be compliant. The following table indicates the project status for traditional information technology and non-traditional areas by business unit. The tested category indicates the percentage that has been fully tested or otherwise validated as compliant. The untested category includes items that are believed to be compliant but which have not yet been validated. The not compliant category includes items which have been identified as not year 2000 compliant. The unknown category includes items identified during the assessment phase which require additional follow-up to determine whether they are compliant.

BUSINESS UNIT	TESTED	UNTESTED	NOT COMPLIANT	UNKNOWN
Traditional Information Technology:				
Gas Pipeline	53%	28%	19%	0%
Energy Services	32	49	13	6
Communications	32	47	21	0
Corporate/Other	71	21	7	1
Non-Traditional Information Technology:				
Gas Pipeline	50	33	17	0
Energy Services	32	63	2	3
Communications	21	57	17	5
Corporate/Other	84	12	2	2

Williams initiated a formal communications process with other companies in 1998 to determine the extent to which those companies are addressing year 2000 compliance. In connection with this process, Williams has sent approximately 15,000 letters and questionnaires to third parties including customers, vendors and service providers. Additional communications are being mailed during 1999. Williams is evaluating responses as they are received or otherwise investigating the status of these companies' year 2000 compliance efforts. As of December 31, 1998, approximately 33 percent of the companies contacted have responded and virtually all of these have indicated that they are already compliant or will be compliant on a timely basis. Where necessary, Williams will be working with key business partners to reduce the risk of a break in service or supply and with non-compliant companies to mitigate any material adverse effect on Williams.

Williams expects to utilize both internal resources and external contractors to complete the year 2000 compliance project. Williams has a core group of 270 people involved in this enterprise-wide project. This includes 16 individuals responsible for coordinating, organizing, managing, communicating, and monitoring the project and another 254 staff members responsible for completing the project. Depending on which phase the project is in and what area is being focused on at any given point in time, there can be an additional 500 to 1,200 employees who are also contributing a portion of their time to the completion of this project. The Communications business unit has contracted with an external contractor at a cost of approximately \$3 million to assist in all phases and various areas of the project. Gas Pipeline has contracted with an external contractor for a cost of up to \$6 million for the remediation of the customer service software. Within Energy Services, two external contractors are being utilized at a total cost of approximately \$1 million.

Several previously planned system implementations are scheduled for completion on or before September 1, 1999, which will lessen possible year 2000  $\,$ impacts. For example, a new year 2000 compliant payroll/human resources system, was implemented January 1, 1999. It replaced multiple human resources administration and payroll processing systems previously in place. The Communications business unit has a major service information management system implementation and other system implementations currently in process necessary to integrate the operations of its many components acquired in past acquisitions. These systems will address the year 2000 compliance issues in certain areas. Within the Energy Services business unit, major applications had been replaced or were being replaced by MAPCO prior to its acquisition by Williams. Those applications have been incorporated into the enterprise-wide project, and remaining system replacements are proceeding on schedule. Gas Pipeline completed implementation of a new telephone system in 1998, and a new common financial system is scheduled for completion July 1, 1999. In situations where planned system implementations will not be in service timely, alternative steps are being taken to make existing systems compliant.

Although all critical systems over which Williams has control are planned to be compliant and tested before the year 2000, Williams has identified two areas that would equate to a most reasonably likely worst case scenario. First is the possibility of service interruptions due to non-compliance by third parties. For example, power failures along the communications network or transportation systems would cause service interruptions. This risk should be minimized by the enterprise-wide communication effort and evaluation of third-party compliance plans. Another area of risk for non-compliance is the delay of system replacements scheduled for completion during 1999. The status of these systems is being closely monitored to reduce the chance of delays in completion dates. It is not possible to quantify the possible financial impact if this most reasonably likely worst case scenario were to come to fruition.

Initial contingency planning began during 1998; however, significant focus on that phase of the project will take place in 1999. Guidelines for that process were issued in January 1999 in the form of a formal business continuity plan. Contingency plans are being developed for critical business processes, critical business partners, suppliers and system replacements that experience significant delays. These plans are expected to be defined by August 31, 1999, and implemented where appropriate.

Costs incurred for new software and hardware purchases are being capitalized, and other costs are being expensed as incurred. Williams currently estimates the total cost of the enterprise-wide project, including any accelerated system replacements, to be approximately \$55 million. Prior to 1998 and during the first quarter of 1998, Williams was conducting the project awareness and inventory/assessment phases of the project and incurred costs totaling \$3 million. During the second quarter of 1998, \$2 million was spent on the renovation/replacement and testing/validation phases and completion of the inventory/assessment phase. The third and fourth quarters of 1998 focused on the renovation/replacement and testing/validation phases, and \$10 million was incurred. During the first-quarter 1999, renovation/replacement and testing/validation will continue, contingency planning will begin and \$15 million is expected to be spent. During the second quarter of 1999, the primary focus is expected to shift to testing/validation and contingency planning, and \$13 million is expected to be spent. The third and fourth quarters of 1999 will focus mainly on contingency planning and final testing with \$12 million expected to be spent. Of the \$15 million incurred to date, approximately \$12 million has been expensed, and approximately \$3 million has been capitalized. Of the \$40 million of future costs necessary to complete the project within the schedule described, approximately \$36 million will be expensed and the remainder capitalized. This estimate does not include Williams' potential share of year 2000 costs that may be incurred by partnerships and joint ventures in which the company participates but is not the operator. The costs of previously planned system replacements are not considered to be year 2000 costs and are, therefore, excluded from the amounts discussed above.

The preceding discussion contains forward-looking statements including, without limitation, statements relating to the company's plans, strategies, objectives, expectations, intentions, and adequate resources, that are made pursuant to the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. Readers are cautioned that such forward-looking statements contained in the year 2000 update are based on certain assumptions which may vary from actual results. Specifically, the dates on which the company believes the year 2000 project will be completed and computer systems will be implemented are based on

management's best estimates, which were derived utilizing numerous assumptions of future events, including the continued availability of certain resources, third-party modification plans and other factors. However, there can be no guarantee that these estimates will be achieved, or that there will not be a delay in, or increased costs associated with, the implementation of the year 2000 project. Other specific factors that might cause differences between the estimates and actual results include, but are not limited to, the availability and cost of personnel trained in these areas, the ability to locate and correct all relevant computer code, timely responses to and corrections by third parties and suppliers, the ability to implement interfaces between the new systems and the systems not being replaced, and similar uncertainties. Due to the general uncertainty inherent in the year 2000 problem, resulting in large part from the uncertainty of the year 2000 readiness of third parties, the company cannot ensure its ability to timely and cost effectively resolve problems associated with the year 2000 issue that may affect its operations and business, or expose it to third-party liability.

#### ITEM 7A. MARKET RISK DISCLOSURES

#### INTEREST RATE RISK

Williams' interest rate risk exposure primarily results from its debt portfolio which is influenced by short-term rates, primarily LIBOR-based borrowings from commercial banks and the issuance of commercial paper, and long-term U.S. Treasury rates. To mitigate the impact of fluctuations in interest rates, Williams targets to maintain a significant portion of its debt portfolio in fixed rate debt. Williams also utilizes interest-rate swaps to change the ratio of its fixed and variable rate debt portfolio based on management's assessment of future interest rates, volatility of the yield curve and Williams' ability to access the capital markets in a timely manner. Williams periodically enters into interest-rate forward contracts to establish an effective borrowing rate for anticipated long-term debt issuances. The maturity of Williams' long-term debt portfolio is influenced by the life of its operating assets.

At December 31, 1998, the amount of Williams' fixed and variable rate debt was at targeted levels. At December 31, 1997, the amount of Williams' fixed and variable rate debt was approximately the same as a result of a debt restructuring program initiated in 1997 where Williams extinguished higher cost long-term debt. In early 1998, the percent of Williams' fixed rate debt increased to targeted levels as Williams completed issuing long-term debt under the restructuring program and reduced its variable rate interim financing. Williams has traditionally maintained an investment grade credit rating as one aspect of managing its interest rate risk. In order to fund its 1999 capital expenditure plan, Williams will need to access various sources of liquidity, which will likely include traditional borrowing and leasing markets, while for its telecommunications business, Williams also anticipates accessing high-yield debt markets and equity markets.

The following tables provide information as of December 31, 1998 and 1997, about Williams' notes payable, long-term debt, interest-rate swaps and interest-rate forward contracts that are subject to interest rate risk. For notes payable and long-term debt, the table presents principal cash flows and weighted-average interest rates by expected maturity dates. For interest-rate swaps and interest-rate forward contracts, the table presents notional amounts and weighted-average interest rates by contractual maturity dates. Notional amounts are used to calculate the contractual cash flows to be exchanged under the interest-rate swaps and the settlement amounts under the interest-rate forward contracts.

	1	999	2000	2	901	2002	2	003	THERE	EAFTER	T0	TAL	DECE	MB	VALUE ER 31, 98
						(DOL	LAR	S IN M	ILLIO	NS)					
Notes payable	\$1	,053 5.9%	\$	\$		\$	\$		\$		\$1,	, 053	\$	1,	053
Fixed rate Interest rate	\$	260 6.9%	\$563 6.9%	\$1	,082 6.9%	\$995 7.0%	\$	268 7.1%	\$2,	, 615 7.5%	\$5	, 783	\$	5,	922
Variable rate Interest rate(1)	\$	130	\$	\$		\$844	\$		\$		\$	974	\$		974
Interest-rate swaps:															
Pay variable/receive fixed Pay rate(2)	\$	42	\$ 47	\$	461	\$240	\$		\$	450	\$1	, 240	\$		21
Receive rate Pay fixed/receive		6.3%	6.3%		6.3%	6.8%		6.8%		6.4%					
variable(3)	\$	172 7.8%	\$ 47 7.8%	\$	53 7.8%	\$ 59 8.0%	\$	65 8.0%	\$	284 8.0%	\$	680	\$		(67)
purchased related to anticipated long-term debt issuances(5)	\$	50	\$	\$		\$	\$		\$		\$	50	\$		

EATD \/ALLE

	1	998 	1999	2	000 	2001	2	002 	THER	EAFTER	T0 <sup>-</sup>	ΓAL 	DECEM	R VALUE MBER 31, 1997
Notes payable  Interest rate  Long-term debt, including current portion:	\$	693 6.6%	\$	\$		\$	\$		\$		\$	693	\$	693
Fixed rateInterest rate	\$	78 7.4%	\$251 7.4%	\$	274 7.4%	\$834 7.4%	\$	498 7.4%	\$1	,855 7.5%	\$3,	, 790	\$3	3,921
Variable rate Interest rate(1)	\$		\$130	\$		\$276	\$1	, 207	\$	28	\$1,	, 641	\$1	1,641
Interest-rate swaps:														
Pay variable/receive fixed Pay rate(2)	\$	36	\$ 42	\$	47	\$461	\$		\$	450	\$1,	, 036	\$	9
Receive rate Pay fixed/receive		6.3%	6.3%		6.4%	6.4%		6.8%		6.5%				
variable(3) Pay rate Receive rate(4)	\$	36 7.8%	\$172 7.8%	\$	47 7.8%	\$ 53 8.0%	\$	59 8.0%	\$	349 8.0%	\$	716	\$	(56)
Interest-rate forward contracts purchased related to anticipated long-term debt														
issuances(5)	\$1	,150	\$	\$		\$	\$		\$		\$1,	, 150	\$	(8)

- -----

- (1) LIBOR plus .30 percent and .33 percent for 1998 and 1997, respectively.
- (2) LIBOR, except \$250 million notional amount maturing after 2003 is at LIBOR less 1.04 percent and \$240 million (effective 1998) notional amount maturing in 2002 is at LIBOR plus .26 percent.
- (3) Counterparties have an option to cancel all outstanding swaps in 2001.
- (4) LIBOR.
- (5) Average locked in rate of 4.8 percent and 5.9 percent referenced to underlying Treasury securities having a weighted-average maturity of 10 years and 6 years for 1998 and 1997, respectively.

## COMMODITY PRICE RISK

Energy Marketing & Trading has trading operations that incur commodity price risk as a consequence of providing price risk management services to third-party customers. The trading operations have commodity price risk exposure associated with the crude oil, natural gas, refined products, natural gas liquids and electricity energy markets in the United States and the natural gas markets in Canada. The trading operations enter into energy contracts which include forward contracts, futures contracts, option contracts, swap agreements, commodity inventories and short- and long-term purchase and sale commitments which involve the physical delivery of an energy commodity. These energy contracts are valued at fair value and unrealized gains and losses from changes in fair value are recognized in income. The trading operations are subject to risk from changes in energy commodity market prices, the portfolio position of its financial instruments and physical commitments, the liquidity of the market in which the contract is transacted, changes in interest rates and credit risk. Energy Marketing & Trading continues to manage market risk on a portfolio basis subject to the parameters established in its trading policy. A risk control group, independent of the trading operations, monitors compliance with the established trading policy and measures the risk associated with the trading portfolio.

Energy Marketing & Trading measures the market risk in its trading portfolio on a daily basis utilizing a value at risk methodology to estimate the potential one day loss from adverse changes in the fair value of its trading operations. At December 31, 1998 and 1997, the value at risk for the trading operations was \$8 million and \$4 million, respectively. The change in the value at risk between 1998 and 1997 reflects that the market risk of the trading portfolio has changed because of increases in the size of the portfolio, changes in market prices and changes in the commodity product composition of the portfolio. As supplemental quantitative information to further understand the general risk levels of the trading portfolio, the average of the actual monthly changes in the fair value of the trading portfolio for 1998 was an increase of \$8 million. Value at risk

requires a number of key assumptions and is not necessarily representative of actual losses in fair value that could be incurred from the trading portfolio. Energy Marketing & Trading's value at risk model includes all financial instruments and physical positions and commitments in its trading portfolio and assumes that as a result of changes in commodity prices, there is a 97.5 percent probability that the one day loss in the fair value of the trading portfolio will not exceed the value at risk. The value-at-risk model uses historical simulation to estimate hypothetical movements in future market prices assuming normal market conditions based upon historical market prices. Value-at-risk does not consider that changing our trading portfolio in response to market conditions could affect market prices and could take longer to execute than the one-day holding period assumed in the value-at-risk model.

### FOREIGN CURRENCY RISK

Williams has investments in companies whose operations are located in foreign countries, of which \$95 million is accounted for using the cost method. Fair value for the cost-method investments is deemed to approximate their carrying amount, because estimating cash flows by year is not practicable given that the time frame for selling these investments is uncertain. Williams' financial results could be affected if the investments incur a permanent decline in value as a result of changes in foreign currency exchange rates and the economic conditions in foreign countries. Williams attempts to mitigate these risks by investing in different countries and business segments. Approximately 69 percent of the cost-method investments are in Asian countries and 27 percent in South American countries. Approximately 50 percent of the Asian investments and approximately 25 percent of the South American investments is in countries whose currencies have recently suffered significant devaluations and volatility. The ultimate duration and severity of the conditions in Asia and South America remain uncertain as does the long-term impact on Williams' investments.

# ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

	PAGE
Report of Independent Auditors	F 22
Consolidated Statement of Income	F-24
Consolidated Balance Sheet	F-25
Consolidated Statement of Stockholders' Equity	F-26
Consolidated Statement of Cash Flows	F-27
Notes to Consolidated Financial Statements	F-28
Quarterly Financial Data (Unaudited)	F-59

#### REPORT OF INDEPENDENT AUDITORS

To the Stockholders of The Williams Companies, Inc.

We have audited the accompanying consolidated balance sheet of The Williams Companies, Inc. as of December 31, 1998 and 1997, and the related consolidated statements of income, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 1998. Our audits also included the financial statement schedule listed in the Index at Item 14(a). These financial statements and schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule based on our audits. We did not audit the financial statements and schedules of MAPCO Inc., a wholly owned subsidiary (see Note 2), which statements reflect total assets constituting 15% of the related consolidated financial statement total for 1997, and which reflect net income constituting approximately 26% and 21% of the related consolidated financial statement totals for the years ended December 31, 1997 and 1996, respectively. Those statements and schedules were audited by other auditors whose report has been furnished to us, and our opinion, insofar as it relates to data included for MAPCO Inc. for those periods, is based solely on the report of the other auditors.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits and the report of other auditors provide a reasonable basis for our opinion.

In our opinion, based on our audits and the report of other auditors, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of The Williams Companies, Inc. at December 31, 1998 and 1997, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 1998, in conformity with generally accepted accounting principles. Also, in our opinion, based on our audits and the report of other auditors, the financial statement schedule referred to above, when considered in relation to the basic financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

ERNST & YOUNG LLP

Tulsa, Oklahoma February 26, 1999

# CONSOLIDATED STATEMENT OF INCOME

	YEAR		
	1998	1997*	1996*
		EXCEPT PER-SHA	
Revenues (Note 19): Gas Pipeline Energy Services**. Communications (Note 2). Other. Intercompany eliminations.	\$ 1,684.8 5,592.8 1,768.2 64.8 (1,452.3)	\$ 1,680.1 6,100.5 1,465.1 53.4 (1,049.6)	\$ 1,659.6 5,554.2 710.1 58.3 (1,133.2)
Total revenues	7,658.3	8,249.5	6,849.0
Segment costs and expenses: Costs and operating expenses** Selling, general and administrative expenses Other (income) expense net (Notes 2 and 5)	5,532.4 1,115.7 195.8	6,227.2 848.9 38.6	5,063.9 629.0 (19.8)
Total segment costs and expenses		7,114.7	5,673.1
General corporate expenses		95.1	72.5
Operating income (loss) (Notes 5 and 19): Gas Pipeline	610.4		
Energy Services (Note 2)	394.5 (175.0) (15.5) (89.2)	614.7 566.8 (58.1) 11.4 (95.1)	564.3 603.3 5.0 3.3 (72.5)
Total operating income	725.2	1,039.7	1,103.4
Interest accrued	(515.1) 30.6	(463.5) 23.3	(418.1) 8.2
Investing income (Note 4)	25.8 	12.6 44.5 66.0	16.6  36.5
subsidiaries (Note 2)	9.6 (19.1)	(18.2) .5	(1.4) 13.2
Income from continuing operations before extraordinary loss and income taxes	257.0 110.4	704.9 251.2	758.4 265.9
Income from continuing operations before extraordinary loss	146.6 (14.3)	453.7	492.5
Loss from discontinued operations (Note 3)  Income before extraordinary loss  Extraordinary loss (Note 7)	132.3	(6.3)  447.4 (79.1)	(32.7)  459.8
Net income	127.5	368.3	459.8
Preferred stock dividends (Note 15)	7.1	9.8	10.4
Income applicable to common stock	\$ 120.4 ======	\$ 358.5 ======	\$ 449.4 ======
Basic earnings per common share (Note 8): Income from continuing operations before extraordinary loss	\$ .32	\$ 1.08	\$ 1.16
Loss from discontinued operations (Note 3)	(.03)	(.02)	(.08)
Income before extraordinary loss Extraordinary loss (Note 7)	.29 (.01)	1.06 (.19)	1.08
Net income		\$ .87 ======	\$ 1.08 ======
Diluted earnings per common share (Note 8): Income from continuing operations before extraordinary loss	\$ .32	\$ 1.05	\$ 1.14
Loss from discontinued operations (Note 3)  Income before extraordinary loss	(.03)  .29	(.01)  1.04	(.08)  1.06
Extraordinary loss (Note 7)	(.01)	(.19)	
Net income	\$ .28 ======	\$ .85 ======	\$ 1.06 ======

<sup>\*</sup> Reclassified as described in Note 1.

\*\* Includes consumer excise taxes of \$192.9 million, \$157.8 million and \$155.9 million in 1998, 1997 and 1996, respectively.

# CONSOLIDATED BALANCE SHEET

# ASSETS

	DECEMBE	
(DOLLARS IN MILLIONS, EXCEPT PER-SHARE AMOUNTS)	1998	1997
Current assets: Cash and cash equivalents Receivables less allowance of \$30.5 (\$21.5 in 1997) Transportation and exchange gas receivable Inventories (Note 10) Energy trading assets Deferred income taxes (Note 6) Other	\$ 503.3 1,628.2 96.4 497.5 354.5 239.9 212.3	\$ 122.1 1,584.5 130.4 433.9 180.3 236.6 176.2
Total current assets	3,532.1	2,864.0
Investments (Note 4)	866.1 12,604.6 583.6 1,060.9	388.1 11,536.8 600.6 888.1
Total assets	\$18,647.3 ======	\$16,277.6 ======
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities: Notes payable (Note 13)	\$ 1,052.7 1,158.2 47.1 1,500.5 290.1 390.6	\$ 693.0 1,288.5 67.7 1,281.6 182.0 80.3
Total current liabilities	4,439.2	3,593.1
Long-term debt (Note 13)  Deferred income taxes (Note 6)  Other liabilities  Minority interest in consolidated subsidiaries (Notes 2 and	6,366.4 2,060.8 1,015.2	5,351.5 2,009.1 946.5
14) Contingent liabilities and commitments (Notes 11 and 17) Stockholders' equity (Note 15): Preferred stock, \$1 per share par value, 30 million shares authorized, 1.8 million issued in 1998, 2.5 million in	508.3	144.8
1997  Common stock, \$1 per share par value, 960 million shares authorized, 432.3 million issued in 1998, 431.5 million	102.2	142.2
in 1997Capital in excess of par valueRetained earningsAccumulated other comprehensive income (loss) (Note 18)Other	432.3 982.4 2,849.5 16.7 (78.5)	431.5 1,041.6 2,983.3 (2.5) (51.6)
Less treasury stock (at cost), 4.0 million shares of common stock in 1998 and 18.9 million in 1997	4,304.6 (47.2)	4,544.5 (311.9)
Total stockholders' equity	4,257.4	4,232.6
Total liabilities and stockholders' equity	\$18,647.3 =======	\$16,277.6 ======

See accompanying notes.

# CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY

	PREFERRED STOCK	COMMON STOCK	CAPITAL IN EXCESS OF PAR VALUE	RETAINED EARNINGS	ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS)	OTHER	TREASURY STOCK	TOTAL
			(DOLLARS IN		EXCEPT PER-SHARE	AMOUNTS)		
Balance, December 31, 1995 Net income 1996 Cash dividends	\$173.5 	\$420.7 	\$1,001.7 	\$3,307.6 459.8	\$ 	\$(61.1) 	\$(1,022.8) 	\$3,819.6 459.8
Common stock (\$.47 per share)				(148.0)				(148.0)
Common stock of pooled company Preferred stock (Note 15) MAPCO stock split effected in the form of a stock dividend from				(30.1) (10.4)				(30.1) (10.4)
treasury shares		4.6	(93.1) 33.9	(750.5)		(1.0)	843.6 12.0	49.5
Purchase of treasury stock		4.0	33.9			(1.0)		
6.2 million common							(129.6) (2.6)	(129.6) (2.6)
497,900 preferred Proceeds from sale of equity put	(12.5)		(.3)				12.8	
options Transfer of exercise price for			. 6					.6
equity put options			(16.7)					(16.7)
Tax benefit of stock-based awards ESOP loan repayment Amortization of deferred			16.0			5.5		16.0 5.5
compensationOther			.1	.3		.8		. 8 . 4
	161 0	405.0				 (EE 0)	(206.6)	
Balance, December 31, 1996  Comprehensive income: Net income 1997	161.0	425.3	942.2	2,828.7		(55.8)	(286.6)	4,014.8 368.3
Other comprehensive income (Note 18):								
Unrealized depreciation on marketable equity securities					(2.4)			(2.4)
Foreign currency translation adjustments					(.1)			(.1)
Total other comprehensive income								(2.5)
Total comprehensive income Cash dividends								365.8
Common stock (\$.54 per share) Common stock of pooled company				(171.7) (32.9)				(171.7) (32.9)
Preferred stock (Note 15) Issuance of shares 6.7 million				(9.8)				(9.8)
common		6.2	66.4			(2.9)	7.1	76.8
million common							(50.2)	(50.2)
Conversion of preferred stock 2,528 shares	(.3)		.3					
stock 741,552 shares (Note 15)	(18.5)							(18.5)
Treasury shares utilized for acquisition of business			. 9				17.8	18.7
Expiration of equity put options			4.9 26.7					4.9 26.7
Tax benefit of stock-based awards ESOP loan repayment Amortization of deferred						5.8		5.8
compensation			. 2	- <i>-</i> .7		1.3		1.3 .9
Balance, December 31, 1997		\$431.5	\$1,041.6	\$2,983.3	\$(2.5)	\$(51.6)	\$ (311.9)	\$4,232.6
Comprehensive income: Net income 1998 Other comprehensive income (Note 18):				127.5				127.5
Unrealized appreciation on marketable equity securities					24.1			24.1
Foreign currency translation adjustments					(4.9)			(4.9)
Total other comprehensive income								19.2
Total comprehensive income Cash dividends								146.7
Common stock (\$.60 per share) Common stock of pooled company				(240.3) (14.0)				(240.3) (14.0)
Preferred stock (Note 15) Issuance of shares 12.4 million				(7.1)				(7.1)

common		11.5	47.4			(.3)	10.7	69.3
Stockholders' notes issued (Note 15)						(35.7)		(35.7)
Conversion of preferred stock 704,190 shares Retirement of treasury stock 14.0	(40.0).	3.3	36.7					
million common		(14.0)	(239.8)				253.8	
Expiration of equity put options			12.3					12.3
Tax benefit of stock-based awards			83.9					83.9
ESOP loan repayment						6.3		6.3
compensation						2.8		2.8
Other			.3	.1			. 2	. 6
Balance, December 31, 1998	\$102.2	\$432.3	\$ 982.4	\$2,849.5	\$16.7	\$(78.5)	\$ (47.2)	\$4,257.4
	======	=====	=======	=======	=====	======	=======	=======

See accompanying notes.

# CONSOLIDATED STATEMENT OF CASH FLOWS

	YEARS E	,	
	1998	1997	1996
		(MILLIONS)	
Operating Activities:			
Net income	\$ 127.5	\$ 368.3	\$ 459.8
Discontinued operations	14.3	6.3	32.7
Extraordinary loss  Premium on early extinguishment of debt	4.8 (8.9)	79.1 (171.2)	
Depreciation, depletion and amortization	646.3	585.9	500.3
Provision for deferred income taxes	42.9	104.3	92.7
Provision for loss on property and other assets (Gain) loss on dispositions of property and interest in	126.8	49.8	
`subsidiary	5.9	(121.0)	(68.9)
Provision for uncollectible accounts	39.8	13.3	5.3
Minority interest in income (loss) of consolidated subsidiaries	(9.6)	18.2	1.4
Cash provided (used) by changes in assets and liabilities:	(9.0)		1.4
Receivables sold	(41.8)	188.6	(13.1)
ReceivablesInventories	(1.1) (61.6)	(180.5) (89.5)	(361.0) (11.9)
Other current assets	(58.5)	16.7	7.6
Accounts payable	(199.7)	188.0	347.2
Accrued liabilities	91.9	(37.6)	(7.4)
Changes in current energy trading assets and liabilities	(66.2)	11.0	(29.7)
Changes in non-current energy trading assets and liabilities	(44.6)	(47.7)	(37.7)
Other, including changes in non-current assets and	( )	()	(3)
liabilities	4.5	6.2	34.0
Net cash provided by continuing operations	612.7	988.2	951.3
Net cash provided by discontinued operations			21.8
Not each provided by energting activities	610.7	000 0	072 1
Net cash provided by operating activities	612.7	988.2	973.1
Financing Activities:			
Proceeds from notes payable	806.9	1,927.4	406.8
Payments of notes payable  Proceeds from long-term debt	(946.0) 3,597.0	(1,305.5) 2,217.4	(298.6) 2,000.5
Payments of long-term debt	(1,776.5)	(2,199.0)	(1,408.5)
Proceeds from issuance of common stock	78.2	72.5	56.1
Purchases of treasury stock		(50.2)	(132.2)
Dividends paid  Proceeds from sale of limited partnership and LLC member	(261.4)	(214.4)	(188.5)
interests	335.1		
Other net	(24.7)	(24.3)	(6.2)
Net cash provided by financing activities Investing Activities:	1,808.6	423.9	429.4
Property, plant and equipment: Capital expenditures	(1,708.2)	(1,340.5)	(970.4)
Proceeds from dispositions	43.1	104.2	73.8
Changes in accounts payable and accrued liabilities	87.9	(7.5)	9.3
Acquisition of businesses, net of cash acquired	(9.6)	(146.7)	(371.8)
Proceeds from sales of businesses			236.4
operations	(9.9)	(9.7)	(261.7)
Proceeds from sales of assets	11.6	71.2	66.0
Purchase of investments/advances to affiliates  Other net	(470.3) 15.3	(205.6) 24.5	(100.0) 12.3
Net cash used by investing activities	(2,040.1)	(1,510.1)	(1,306.1)
Ingrace (decrees) is each and each			
Increase (decrease) in cash and cash equivalents	381.2	(98.0)	96.4
Cash and cash equivalents at beginning of year	122.1	220.1	123.7
Cash and cash equivalents at end of year		\$ 122.1	\$ 220.1
	=======	=======	=======

See accompanying notes. F-27

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

#### NOTE 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Description of business

Operations of The Williams Companies, Inc. (Williams) are located principally in the United States and are organized into three industry groups: Gas Pipeline, Energy Services and Communications.

Gas Pipeline is comprised of five interstate natural gas pipelines located in the eastern, midsouth, Gulf Coast, midwest and northwest regions of the United States. The five Gas Pipeline operating segments have been aggregated for reporting purposes and include Williams Gas Pipelines Central, Kern River Gas Transmission, Northwest Pipeline, Texas Gas Transmission and Transcontinental Gas Pipe Line.

Energy Services includes four operating segments: Energy Marketing & Trading, Exploration & Production, Midstream Gas & Liquids, and Petroleum Services. Energy Marketing & Trading offers price-risk management services and buys, sells and arranges for transportation/transmission of energy commodities -- including natural gas and gas liquids, crude oil and refined products, and electricity -- to local distribution companies and large industrial and commercial customers in North America and retail propane marketing in the upper midwest and southeast regions. Exploration & Production includes hydrocarbon exploration and production activities in the Rocky Mountain and Gulf Coast regions. Midstream Gas & Liquids is comprised of natural gas gathering and processing facilities in the Rocky Mountain, midwest and Gulf Coast regions, natural gas liquids pipelines in the Rocky Mountain, southwest, midwest and Gulf Coast regions and an anhydrous ammonia pipeline in the midwest. Petroleum Services includes petroleum refining and marketing in Alaska and the southeast, a petroleum products pipeline and ethanol production and marketing operations in the midwest region.

Communications consists of three operating segments: Communications Solutions, Network Applications, and Network Services. Communications Solutions includes consulting, installation and maintenance of customer-premise voice, data and video equipment and services for customers throughout North America. Network Applications' operations are located principally in the United States and include video, advertising distribution, and other multimedia transmission services (via terrestrial and satellite links) for the broadcast industry as well as business audio and video conferencing services. Network Services provides fiber-optic construction, transmission and management services throughout the United States.

# Basis of presentation

Williams adopted Statement of Financial Accounting Standards (SFAS) No. 131, "Disclosures about Segments of an Enterprise and Related Information," during the fourth quarter of 1998. SFAS No. 131 establishes standards for reporting information about operating segments and related disclosures about products and services, geographic areas, and major customers. Prior year financial statements and notes have been reclassified to conform to the requirements of SFAS No. 131. (See Note 19 for segment disclosures).

On March 28, 1998, Williams completed the acquisition of MAPCO Inc. (see Note 2). The transaction has been accounted for as a pooling of interests and, accordingly, the consolidated financial statements and notes reflect the results of operations, financial position and cash flows as if the companies had been combined throughout the periods presented. The restated 1997 annual financial statements were filed with the Securities and Exchange Commission in a Form 8-K dated May 18, 1998. MAPCO was engaged in the natural gas liquids pipeline, petroleum refining and marketing and propane marketing businesses, and became part of the Energy Services business unit. Effective April 1, 1998, certain marketing activities of natural gas liquids (previously reported in Midstream Gas & Liquids) and petroleum refining (previously reported in Petroleum Services) were transferred to Energy Marketing & Trading and combined with its energy risk trading operations. As a result, revenues and segment profit amounts for 1997 and 1996 have been reclassified and reported within Energy Marketing & Trading. These marketing activities are reported through first-quarter 1998 on a "gross" basis in the Consolidated Statement of Income as revenues and segment costs within

Energy Marketing & Trading. Concurrent with completing the combination of such activities with the energy risk trading operations of Energy Marketing & Trading, the related contract rights and obligations of certain of these operations were recorded in the Consolidated Balance Sheet on a market-value basis consistent with Energy Marketing & Trading's accounting policy, and the income statement presentation relating to these operations was changed effective April 1, 1998, on a prospective basis, to reflect these revenues net of the related costs to purchase such items.

On April 30, 1997, Williams and Northern Telecom (Nortel) combined their customer-premise equipment sales and service operations into a limited liability company, Williams Communications Solutions, LLC (LLC) (see Note 2). Communications Solutions' revenues and segment profit amounts for 1997 include the operating results of the LLC beginning May 1, 1997.

#### Principles of consolidation

The consolidated financial statements include the accounts of Williams and its majority-owned subsidiaries. Companies in which Williams and its subsidiaries own 20 percent to 50 percent of the voting common stock, or otherwise exercise sufficient influence over operating and financial policies of the company, are accounted for under the equity method.

# Use of estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Actual results could differ from those estimates.

## Cash and cash equivalents

Cash and cash equivalents include demand and time deposits, certificates of deposit and other marketable securities with maturities of three months or less when acquired.

## Transportation and exchange gas imbalances

In the course of providing transportation services to customers, the natural gas pipelines may receive different quantities of gas from shippers than the quantities delivered on behalf of those shippers. Additionally, the pipelines and other Williams subsidiaries transport gas on various pipeline systems, which may deliver different quantities of gas on their behalf than the quantities of gas received. These transactions result in gas transportation and exchange imbalance receivables and payables, which are recovered or repaid in cash or through the receipt or delivery of gas in the future. Settlement of imbalances requires agreement between the pipelines and shippers as to allocations of volumes to specific transportation contracts and timing of delivery of gas based on operational conditions.

# Inventory valuation

Inventories are stated at cost, which is not in excess of market, except for certain assets held for energy trading activities by Energy Marketing & Trading, which are primarily stated at fair value. The cost of inventories is primarily determined using the average-cost method, except for certain natural gas inventories held by Transcontinental Gas Pipe Line and certain crude oil, refined products and general merchandise inventories which are determined using the last-in, first-out (LIFO) method.

# Property, plant and equipment

Property, plant and equipment is recorded at cost. Depreciation is provided primarily on the straight-line method over estimated useful lives. Gains or losses from the ordinary sale or retirement of property, plant and

equipment for regulated pipelines are credited or charged to accumulated depreciation; other gains or losses are recorded in net income.

#### Goodwill and other intangible assets

Goodwill, which represents the excess of cost over fair value of assets of businesses acquired, is amortized on a straight-line basis over periods from 10 to 30 years. Other intangible assets are amortized on a straight-line basis over periods from three to 11 years. Accumulated amortization at December 31, 1998 and 1997 was \$128.9 million and \$72.2 million, respectively. Amortization was \$49.7 million, \$29.2 million and \$15.2 million in 1998, 1997 and 1996, respectively.

### Treasury stock

Treasury stock purchases are accounted for under the cost method whereby the entire cost of the acquired stock is recorded as treasury stock. Gains and losses on the subsequent reissuance of shares are credited or charged to capital in excess of par value using the average-cost method.

## Revenue recognition

Revenues generally are recorded when services have been performed or products have been delivered. Gas Pipeline recognizes revenues based upon contractual terms and the related transportation volumes through month-end. These pipelines are subject to Federal Energy Regulatory Commission (FERC) regulations and, accordingly, certain revenues are subject to possible refunds pending final resolution of FERC orders. Williams records rate refund accruals based on management's estimate of the expected outcome of these proceedings. Communications Solutions primarily uses the percentage-of-completion method of recognizing revenues for services provided. Network Services records revenues related to the sale of portions of its fiber-optic network upon completion of the construction of the respective network segments and upon acceptance of the fiber by the purchaser. Certain of Energy Marketing & Trading's activities are accounted for at fair value as described in Energy Trading Activities.

## Energy trading activities

Energy Marketing & Trading has trading operations that enter into energy contracts to provide price-risk management services to its third-party customers. Energy contracts include forward contracts, futures contracts, option contracts, swap agreements, commodity inventories and short- and long-term purchase and sale commitments, which involve physical delivery of an energy commodity. These energy contracts are valued at fair value and, with the exception of commodity inventories, are recorded in energy trading assets, other assets and deferred charges, energy trading liabilities and other liabilities in the Consolidated Balance Sheet. The net change in fair value representing unrealized gains and losses is recognized in income currently and is recorded as revenues in the Consolidated Statement of Income. Fair value, which is subject to change in the near term, reflects management's estimates using valuation techniques that reflect the best information available in the circumstances. This information includes various factors such as quoted market prices, estimates of market prices in the absence of quoted market prices, contractual volumes, estimated volumes under option and other arrangements that result in varying volumes, other contract terms, liquidity of the market in which the contract is transacted, credit considerations, time value and volatility factors underlying the positions. Energy Marketing & Trading reports its trading operations' physical sales transactions, net of the related purchase costs, consistent with fair value accounting for such trading activities.

Williams also enters into energy derivative financial instruments and derivative commodity instruments (primarily futures contracts, option contracts and swap agreements) to hedge against market price fluctuations of certain commodity inventories and sales and purchase commitments. Unrealized and realized gains and losses on these hedge contracts are deferred and recognized in income in the same manner as the hedged

item. These contracts are initially and regularly evaluated to determine that there is a high correlation between changes in the fair value of the hedge contract and fair value of the hedged item.

#### Impairment of long-lived assets

Williams evaluates the long-lived assets, including related intangibles, of identifiable business activities for impairment when events or changes in circumstances indicate, in management's judgment, that the carrying value of such assets may not be recoverable. The determination of whether an impairment has occurred is based on management's estimate of undiscounted future cash flows attributable to the assets as compared to the carrying value of the assets. If an impairment has occurred, the amount of the impairment recognized is determined by estimating the fair value for the assets and recording a provision for loss if the carrying value is greater than fair value.

For assets identified to be disposed of in the future, the carrying value of these assets is compared to the estimated fair value less the cost to sell to determine if an impairment is required. Until the assets are disposed of, an estimate of the fair value is redetermined when related events or circumstances change.

#### Interest-rate derivatives

Williams enters into interest-rate swap agreements to modify the interest characteristics of its long-term debt. These agreements are designated with all or a portion of the principal balance and term of specific debt obligations. These agreements involve the exchange of amounts based on a fixed interest rate for amounts based on variable-interest rates without an exchange of the notional amount upon which the payments are based. The difference to be paid or received is accrued and recognized as an adjustment of interest expense. Gains and losses from terminations of interest-rate swap agreements are deferred and amortized as an adjustment of the interest expense on the outstanding debt over the remaining original term of the terminated swap agreement. In the event the designated debt is extinguished, gains and losses from terminations of interest-rate swap agreements are recognized in income.

Kern River specifically has interest-rate swap agreements that are not designated with long-term debt that are recorded in other liabilities at market value. Changes in market value are recorded as adjustments to a regulatory asset, which are expected to be recovered in transportation rates.

Williams enters into interest-rate forward contracts to lock in underlying treasury rates on anticipated long-term debt issuances. The settlement amounts upon termination of the contracts are deferred and amortized as an adjustment to interest expense of the issued long-term debt over the term of the referenced security underlying the settled forward contract.

### Capitalization of interest

Williams capitalizes interest on major projects during construction. Interest is capitalized on borrowed funds and, where regulation by the FERC exists, on internally generated funds. The rates used by regulated companies are calculated in accordance with FERC rules. Rates used by unregulated companies approximate the average interest rate on related debt. Interest capitalized on internally generated funds is included in non-operating other income (expense) -- net.

## Employee stock-based awards

Employee stock-based awards are accounted for under Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees" and related interpretations. Fixed plan common stock options do not result in compensation expense, because the exercise price of the stock options equals the market price of the underlying stock on the date of grant.

# NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED)

#### Income taxes

For certain of the periods presented, Williams and MAPCO separately included the operations of their respective subsidiaries in consolidated federal income tax returns. Williams and MAPCO will begin filing a single consolidated federal income tax return as of the date of the merger. This consolidated return will include the operations of Williams' subsidiaries. Deferred income taxes are computed using the liability method and are provided on all temporary differences between the financial basis and the tax basis of Williams' assets and liabilities.

#### Earnings per share

Basic earnings per share are based on the sum of the average number of common shares outstanding and issuable restricted and deferred shares. Diluted earnings per share include any dilutive effect of stock options, restricted stock and convertible preferred stock.

## New accounting standards

The Financial Accounting Standards Board issued SFAS No. 133, "Accounting for Derivative Instruments and Hedging Activities." SFAS No. 133 is effective for fiscal years beginning after June 15, 1999. This standard requires that all derivatives be recognized as assets or liabilities in the balance sheet and that those instruments be measured at fair value. The effect of this standard on Williams' results of operations and financial position will be evaluated in 1999.

The American Institute of Certified Public Accountants issued Statement of Position (SOP) 98-5, "Reporting on the Costs of Start-Up Activities," effective for fiscal years beginning after December 15, 1998. The SOP requires that all start-up costs be expensed and that the effect of adopting the SOP be reported as the cumulative effect of a change in accounting principle. Williams will adopt this SOP effective January 1, 1999. The effect of adopting the SOP on Williams' results of operations and financial position is not expected to be material

The Emerging Issues Task Force (EITF) reached a consensus on Issue No. 98-10, "Accounting for Contracts Involved in Energy Trading and Risk Management Activities," which is effective for fiscal years beginning after December 15, 1998. The effect of initially applying the Consensus must be reported as a cumulative effect of a change in accounting principle, and financial statements for periods prior to initial application of the Consensus may not be restated. The EITF concluded that energy trading contracts should be recorded at fair value in the balance sheet, with changes in fair value included in earnings. Energy Marketing & Trading records its energy contracts at estimated fair value, except for certain types of contracts that are not currently considered to be trading in nature. The effect of the Consensus on Williams' results of operations and financial position has yet to be determined.

## NOTE 2. ACQUISITIONS

### MAPCO

On March 28, 1998, Williams completed the acquisition of MAPCO Inc. by exchanging 1.665 shares of Williams common stock for each outstanding share of MAPCO common stock. In addition, outstanding MAPCO employee stock options were converted into 5.7 million shares of Williams common stock. Upon completion, 98.8 million shares of Williams common stock valued at \$3.1 billion, based on the closing price of Williams common stock on March 27, 1998, were issued. Also in connection with the merger, 8.4 million shares of MAPCO \$1 par value common stock previously held in treasury were retired. These shares had a carrying value of \$253.8 million.

The merger constituted a tax-free reorganization and has been accounted for as a pooling of interests. Accordingly, all prior period consolidated financial statements presented include the combined results of operations, financial position and cash flows of MAPCO and Williams. Intercompany transactions between Williams and MAPCO prior to the merger have been eliminated, and no material adjustments were necessary to conform MAPCO's accounting policies.

In connection with the merger, Williams has recognized approximately \$80 million in merger-related costs in 1998, comprised primarily of outside professional fees and early retirement and severance costs. Approximately \$51 million of these merger-related costs are included in other (income) expense-net as a component of segment profit within Energy Services for 1998 (see Note 19), and approximately \$29 million, unrelated to segments, is included in general corporate expenses. During 1997, payments of \$32.6 million were made for non-compete agreements. These costs are being amortized over one to three years from the merger completion date.

The results of operations for the separate companies prior to the merger date and the combined amounts included in the Consolidated Statement of Income follow:

	THREE MONTHS ENDED MARCH 31, 1998	YEARS ENDED DECEMBER 31,	
		1997	1996
	(MILLIONS)		
Revenues:			
Williams	\$1,136.3	\$4,417.5	\$3,537.3
MAPC0	823.8	3,847.5	3,353.1
Intercompany eliminations	(1.3)	, ,	(41.4)
Combined	\$1,958.8	\$8,249.5	\$6,849.0
Net income: Williams	\$ 59.7	\$ 271.4	\$ 362.3
MAPCO	\$ 59.7 8.4	Ф 271.4 96.9	ъ 362.3 97.5
IPA OOTTITITITITITITITITITITITITITITITITITI	0.4		97.5
Combined	\$ 68.1	\$ 368.3	\$ 459.8

## Nortel

On April 30, 1997, Williams and Nortel combined their customer-premise equipment sales and service operations into a limited liability company, Williams Communications Solutions, LLC. In addition, Williams paid \$68 million to Nortel. Williams has accounted for its 70 percent interest in the operations that Nortel contributed to the LLC as a purchase business combination, and beginning May 1, 1997, has included the results of operations of the acquired company in Williams' Consolidated Statement of Income. Accordingly, the acquired assets and liabilities, including \$168 million in accounts receivable, \$68 million in accounts payable and accrued liabilities, and \$150 million in debt obligations, were recorded based on an allocation of the purchase price, with substantially all of the cost in excess of historical carrying values allocated to goodwill.

Williams recorded the 30 percent reduction in its operations contributed to the LLC as a sale to the minority shareholder of the LLC. Williams recognized a gain of \$44.5 million based on the excess of the fair value over the net book value (approximately \$71 million) of its operations conveyed to the LLC minority interest. Income taxes were not provided on the gain, because the transaction did not affect the difference between the financial and tax bases of identifiable assets and liabilities.

If the transaction had occurred on January 1, 1996, Williams' unaudited pro forma revenues for the years ended 1997 and 1996 would have been \$8,498 million and \$7,586 million, respectively. The pro forma effect of the transaction on Williams' net income is not significant. Pro forma financial information is not necessarily

indicative of results of operations that would have occurred if the transaction had occurred on January 1, 1996, or of future results of operations of the combined companies.

#### Kern River

On January 16, 1996, Williams acquired the remaining interest in Kern River for \$206 million in cash. The acquisition was accounted for as a purchase, and the acquired assets and liabilities have been recorded based on an allocation of the purchase price, with substantially all of the cost in excess of Kern River's historical carrying value allocated to property, plant and equipment.

### NOTE 3. DISCONTINUED OPERATIONS

On September 10, 1996, substantially all of the net assets of the MAPCO coal business were sold to Alliance Coal Corporation, a corporation formed by The Beacon Group Energy Investment Fund, L.P. ("Beacon"), for \$236 million in cash. The sale resulted in losses of \$14.3 million, \$6.3 million and \$47.2 million in 1998, 1997 and 1996, respectively, (net of income tax benefits of \$7.4 million, \$.7 million and \$30 million, respectively). The losses in 1998 and 1997 include cost accruals for contractual obligations related to financial performance of the assets sold to Beacon and a 1997 income tax adjustment to the 1996 loss amount.

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#### NOTE 4. INVESTING ACTIVITIES

Investments at December 31, 1998 and 1997, are as follows:

	1998	1997
	(MILLIONS)	
Equity: Brazilian Telecommunications: Algar Telecom Leste S.A 30%	\$142.7	\$
Lightel S.A. Tecnologia da Informacao 20%	68.7	68.5
Longhorn Partners Pipeline, L.P 48%	90.0	5.0
Discovery Pipeline 50%	78.0	59.3
Other	147.6	122.7
	527.0	255.5
Cost	157.0	113.9
Advances to affiliates and other	182.1	18.7
	\$866.1	\$388.1
	=====	=====

Earnings related to equity investments are included in revenues (see Note 19).

Dividends and distributions received from investments carried on an equity basis were \$16 million in 1998 and \$7 million in both 1997 and 1996.

At December 31, 1998, certain equity investments, with a carrying value of 45 million, have a market value of 100 million.

Investing income for all of the years presented is comprised primarily of interest income.

## NOTE 5. ASSET SALES, WRITE-OFFS AND OTHER ACCRUALS

Included in the 1998 segment profit for all of the respective business units and general corporate expenses are accruals totaling approximately \$31 million related to the modification of Williams' employee benefit program associated with vesting of paid time off.

Other (income) expense -- net and Gas Pipeline's segment profit for 1998 include a charge of \$58 million related to certain long-term gas supply contracts that Williams Gas Pipelines Central entered into in 1982. The charge represents an estimate, based on recent developments, of natural gas costs that will not be recoverable from customers (see Note 17 for additional information).

Included in the 1998 other (income) expense -- net and segment profit for Energy Marketing & Trading are asset impairments totaling approximately \$14 million related to the decision to focus its retail natural gas and electric business from sales to small commercial and residential customers to large end users. The impairment primarily reflects the reduction in value of a software system and certain intangible assets associated specifically with retail energy applications that will no longer be utilized by Energy Marketing & Trading and for which management estimates the fair value to be insignificant.

Included in the 1998 other (income) expense -- net and segment profit for Petroleum Services is a \$15.5 million loss provision, including interest, for potential refunds to customers from a recent order from the FERC (see Note 17 for additional information).

Included in 1998 other (income) expense -- net in segment costs and expenses and Network Applications' segment loss is a \$23.2 million loss related to a venture involved in the technology and transmission of business information for news and educational purposes. The loss occurred as a result of Williams' re-evaluation and decision to exit the venture as Williams decided against making further investments in the venture. The loss was recorded in the third quarter, and Williams abandoned the venture during the fourth quarter. The loss primarily consists of \$17 million from impairing the total carrying amount of the investment and \$5 million from recognition of contractual obligations that will continue after the abandonment. During the fourth quarter of 1998, \$2 million of contractual obligations were paid. Williams' share of losses from the venture is not significant to consolidated net income for any periods presented.

Included in 1997 other (income) expense -- net in segment costs and expenses and Network Applications' segment loss are impairments and other charges totaling \$49.8 million. In the fourth quarter of 1997, Communications made the decision and committed to a plan to sell the learning content business, which resulted in a loss of \$28 million. The loss consisted of a \$21 million impairment of the assets to fair value less cost to sell and recognition of \$7 million in exit costs primarily consisting of employee-related costs and contractual obligations. Fair value was based on management's estimate of the expected net proceeds to be received. During 1998, the learning content business was sold with a resulting \$2 million reduction in 1998 expenses. During 1998, \$5 million of exit costs were paid. The results of operations and the effect of suspending amortization for the learning content business included in consolidated net income are not significant for any of the periods presented.

Additionally, in the fourth quarter of 1997, Communications' management evaluated certain Network Applications' business activities because of indications that their carrying values may not be recoverable. This resulted in impairments of \$17 million, based upon management's estimate as to the ultimate recovery of these evaluated activities.

In 1997, Williams sold its interest in the natural gas liquids and condensate reserves in the West Panhandle field of Texas for \$66 million in cash. The sale resulted in a \$66 million pre-tax gain on the transaction, because the related reserves had no book value.

In 1996, Williams recognized a pre-tax gain of \$15.7 million from the sale of certain communication rights for approximately \$38 million.

Also in 1996, Williams sold its Iowa propane and liquid fertilizer assets as well as its remaining liquid fertilizer assets in Arkansas, Illinois, Indiana, Minnesota, Ohio and Wisconsin for \$43 million in cash, resulting in a pre-tax gain of \$20.8 million.

# NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED)

# NOTE 6. PROVISION FOR INCOME TAXES

The provision for income taxes from continuing operations includes:

	1998	1997	1996
		(MILLIONS)	
Current:			
Federal	\$ 57.8	\$121.5	\$154.1
State	5.1	23.1	19.1
Foreign	4.6	2.3	
	67.5	146.9	173.2
Deferred:			
Federal	32.2	90.4	76.5
State	10.7	13.9	16.2
	42.9	104.3	92.7
Total provision	\$110.4	\$251.2	\$265.9
	=====	=====	=====

Reconciliations from the provision for income taxes from continuing operations at the federal statutory rate to the provision for income taxes are as follows:

	1998	1997	1996
		(MILLIONS)	
Provision at statutory rate	\$ 89.9	\$246.7	\$265.4
State income taxes (net of federal benefit) Non-deductible costs, including goodwill	10.3	24.8	24.8
amortization	11.7	8.8	3.8
Income tax credits Non-taxable gain from sale of interest in	(4.0)	(16.5)	(19.0)
subsidiary (Note 2)		(15.6)	
Other net	2.5	3.0	(9.1)
Provision for income taxes	\$110.4 =====	\$251.2 =====	\$265.9 =====

	1998	1997*
	(MILL	IONS)
Deferred tax liabilities:		
Property, plant and equipment	\$2,322.4 166.5	\$2,135.1 238.5
Total deferred tax liabilities	2,488.9	2,373.6
Deferred tax assets:		
Rate refunds	126.1	120.7
Accrued liabilities	209.1	158.3
Minimum tax credits	178.5	131.3
Other	154.3	190.8
Total deferred tax assets	668.0	601.1
Net deferred tax liabilities	\$1,820.9 ======	\$1,772.5 ======

<sup>- -----</sup>

<sup>\*</sup> Reclassified to conform to current classifications.

Cash payments for income taxes (net of refunds) were \$29 million, \$126 million and \$472 million in 1998, 1997 and 1996, respectively.

#### NOTE 7. EXTRAORDINARY LOSS

During 1998, Williams paid \$54.4 million to redeem higher interest rate debt for a \$4.8 million net loss (net of a \$2.6 million benefit for income taxes).

During 1997, Williams paid approximately \$1.4 billion to redeem approximately \$1.3 billion of debt with stated interest rates in excess of 8.8 percent, for a net loss of \$79.1 million (net of a \$46.6 million benefit for income taxes). In addition, approximately \$30 million of costs to redeem the debt have been deferred as a regulatory asset for rate recovery and are being amortized over the original term of the related debt.

#### NOTE 8. EARNINGS PER SHARE

Basic and diluted earnings per common share are computed for the years ended December 31, 1998, 1997 and 1996, as follows:

	1998	1997	1996
	`	MILLIONS, EXCE	
Income from continuing operations Preferred stock dividends	\$146.6 (7.1)	\$453.7 (9.8)	
Income from continuing operations available to common stockholders for basic earnings per share Effect of dilutive securities:	139.5	443.9	482.1
Convertible preferred stock dividends		8.7	8.8
Income from continuing operations available to common stockholders for diluted earnings per share	\$139.5 ======	\$452.6 ======	\$490.9 ======
Basic weighted-average shares Effect of dilutive securities:	425,681	412,380	414,417
Convertible preferred stockStock options	6,135	11,717 6,097	11,718 5,828
	6,135	17,814	17,546
Diluted weighted-average shares	431,816	430,194	431,963
Earnings per share from continuing operations: Basic	\$.32 ======	\$1.08 =====	\$1.16 ======
Diluted	\$.32 ======	\$1.05 =====	\$1.14 ======

During 1998, approximately 9.6 million shares related to the assumed conversion of \$3.50 convertible preferred stock have been excluded from the computation of diluted earnings per common share. Inclusion of these shares would be antidilutive. In addition, options to purchase approximately 5 million shares of common stock at a weighted-average exercise price of \$32.20 were outstanding at December 31, 1998, but were not included in the computation of diluted earnings per common share. Inclusion of these shares would also be antidilutive, as the exercise prices of the options exceeded the 1998 average market price of the common shares.

Options to purchase approximately 3.1 million shares of common stock at a weighted-average exercise price of \$27.93 were outstanding at December 31, 1997, but were not included in the 1997 computation of

# NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED)

diluted earnings per common share. Inclusion of these shares would have been antidilutive, as the exercise prices of the options exceeded the 1997 average market price of the common shares.

## NOTE 9. EMPLOYEE BENEFIT PLANS

The following table presents the changes in benefit obligations and plan assets for pension benefits and other postretirement benefits for the years indicated. It also presents a reconciliation of the funded status of these benefits to the amount recognized in the Consolidated Balance Sheet at December 31 of each year indicated.

	PENSION B		OTH POSTRET: BENE	IREMENT FITS
	1998	1997	1998	1997
		(MILL	IONS)	
Change in benefit obligation: Benefit obligation at beginning of year. Service cost. Interest cost. Plan participants' contributions. Amendments. Acquisition. Settlement/curtailment gain. Special termination benefit cost. Actuarial loss. Benefits paid.	\$ 969.8 41.9 70.0  (65.2)  (29.5) 35.1 134.6 (111.0)	\$794.1 34.9 63.6  .2 30.2   109.1 (62.3)	\$ 389.8 8.9 29.1 1.6 2.2  3.6 32.3 (18.5)	\$ 321.4 7.1 24.4 1.7  2.3  48.7 (15.8)
Benefit obligation at end of year	1,045.7	969.8	449.0	389.8
Change in plan assets: Fair value of plan assets at beginning of year Actual return on plan assets Acquisition Employer contributions Plan participants' contributions. Benefits paid Settlement benefits paid.	975.7 120.7 .1 53.6  (83.0) (28.0)	845.0 134.0 34.1 24.9  (62.3)	184.5 17.2  24.9 1.6 (18.5)	155.0 19.4  24.2 1.7 (15.8)
Fair value of plan assets at end of year	1,039.1	975.7	209.7	184.5
Funded status	(6.6) 97.4 (54.8) (1.7)	5.9 7.3 6.7 (2.5)	(239.3) 7.4 (.2) 57.0	(205.3) (18.1) (3.4) 61.1
Prepaid (accrued) benefit cost	\$ 34.3	\$ 17.4	\$(175.1)	\$(165.7)
Prepaid benefit cost	\$ 83.0 (48.7)	===== \$ 61.0 (43.6)	====== \$ (175.1)	====== \$ (165.7)
	\$ 34.3	\$ 17.4 =====	\$(175.1) ======	\$(165.7) ======

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED)

Net pension and other postretirement benefit expense consists of the following:

	PENSION BENEFITS		
	1998	1997	1996
	(	MILLIONS)	
Components of net periodic pension expense:			
Service cost	\$ 41.9	\$ 34.9	\$ 36.6
Interest cost	70.0	63.6	56.5
Expected return on plan assets	(89.5)	(76.9)	(68.3)
Amortization of transition asset	(.7)	(.7)	(4.4)
Amortization of prior service cost (credit)	$(\dot{4}.1)$	ì.0´	`1.1
Recognized net actuarial loss	`6.5	3.6	2.2
Regulatory asset amortization	12.2	5.3	6.3
Settlement/curtailment (gain) loss	(22.2)		4.5
Special termination benefit cost	`35.1 <sup>´</sup>		
Net periodic pension expense	\$ 49.2	\$ 30.8	\$ 34.5
	=====	=====	=====

	OTHER POSTRETIREMENT BENEFITS		BENEFITS
	1998	1997	1996
		(MILLIONS)	
Components of net periodic postretirement benefit expense:			
Service cost	\$ 8.9	\$ 7.1	\$ 6.4
Interest cost	29.1	24.4	22.7
Expected return on plan assets	(12.1)	(9.9)	(7.9)
Amortization of transition obligation	4.1	4.1	5.0
Amortization of prior service cost	.4		. 7
Recognized net actuarial loss (gain)	.2	(1.0)	(1.2)
Regulatory asset amortization	5.4	12.5	Ì1.7
Special termination benefit cost	3.6		
·			
Net periodic postretirement benefit expense	\$ 39.6	\$37.2	\$37.4
	=====	=====	=====

In connection with the MAPCO merger, Williams offered an early retirement incentive program to a certain group of employees during 1998. Texas Gas Transmission also offered an early retirement incentive program to certain employees during 1998.

The following are the weighted-average assumptions utilized as of December 31 of the year indicated.

	PENSION BENEFITS		OTHER POSTRETIREMENT BENEFITS	
	1998	1997	1998	1997
Discount rate  Expected return on plan assets  Expected return on plan assets (after tax)  Rate of compensation increase	7.0% 10 N/A 5	7.25% 10 N/A 5	7.0% 10 6 N/A	7.25% 10 6 N/A

The annual assumed rate of increase in the health care cost trend rate for 1999 is 8.1 percent to 8.9 percent, systematically decreasing to 5 percent by 2006.

Williams sponsors various nonpension postretirement benefit plans. The plans provide for retiree contributions and contain other cost-sharing features such as deductibles and coinsurance. The accounting for

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## THE WILLIAMS COMPANIES, INC.

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED)

the plans anticipates future cost-sharing changes to the written plans that are consistent with Williams' expressed intent to increase the retiree contribution rate annually, generally in line with health care cost increases, except for certain retirees whose premiums are fixed.

The health care cost trend rate assumption has a significant effect on the amounts reported. A one-percentage-point change in assumed health care cost trend rates would have the following effects:

	1-PERCENTAGE- POINT INCREASE	1-PERCENTAGE- POINT DECREASE	
	(MILLIONS)		
ffect on total of service and interest cost components ffect on postretirement benefit obligation		\$ (4.7) (46.2)	

The amount of postretirement benefit costs deferred as a regulatory asset at December 31, 1998 and 1997, is \$101 million and \$107 million, respectively, and is expected to be recovered through rates over approximately 17 years.

Williams maintains various defined-contribution plans. Williams recognized costs of \$42 million in 1998, \$33 million in 1997 and \$26 million in 1996 for those plans.

NOTE 10. INVENTORIES

	1998	1997
	(MILL	IONS)
Raw materials: Crude oil Other	\$ 43.2 2.0	\$ 30.5 5.2
	45.2	35.7
Finished goods: Refined products Natural gas liquids General merchandise and communications equipment	104.1 58.6 99.1	43.8
		050.4
	261.8	256.1
Materials and supplies Natural gas in underground storage Other	95.7 1.4	82.5 57.8 1.8
	\$497.5	\$433.9
	=====	=====

As of December 31, 1998 and 1997, approximately 29 percent and 17 percent of inventories, respectively, were stated at market. As of December 31, 1998 and 1997, approximately 19 percent and 28 percent of inventories, respectively, were determined using the last-in, first-out (LIFO) method. The remaining inventories were primarily determined using the average-cost method.

If inventories valued on the LIFO method at December 31, 1998 and 1997, were valued at current average cost, the amounts would increase by approximately \$14 million and \$20 million, respectively.

During 1998, lower-of-cost or market reductions of approximately \$10 million were recognized with respect to certain crude oil and refined products inventories.

## NOTE 11. PROPERTY, PLANT AND EQUIPMENT

	1998	
	(MILLI	ONS)
Cost:		
Gas Pipeline Energy Services:	\$ 8,151.5	\$ 7,684.2
Energy Marketing & Trading	434.0	345.2
Exploration & Production	368.3	318.5
Midstream Gas & Liquids	3,808.0	3,541.9
Petroleum Services	2,114.7	1,826.7
Communications:		
Communications Solutions	161.2	121.1
Network Applications	203.6	178.2
Network Services	541.2	235.7
Other	443.1	353.6
	16,225.6	,
Accumulated depreciation and depletion	(3,621.0)	(3,068.3)
	\$12,604.6 ======	\$11,536.8 ======

Commitments for construction and acquisition of property, plant and equipment are approximately \$1.4 billion at December 31, 1998. Included in this amount is \$316 million for the purchase of wireless network capacity.

## NOTE 12. ACCOUNTS PAYABLE AND ACCRUED LIABILITIES

Under Williams' cash-management system, certain subsidiaries' cash accounts reflect credit balances to the extent checks written have not been presented for payment. The amounts of these credit balances included in accounts payable are \$124 million at December 31, 1998, and \$112 million at December 31, 1997.

	1998	1997
	(MILL	IONS)
Accrued liabilities:		
Rate refunds		\$ 337.5
Employee costs	259.6	205.4
Taxes other than income taxes	127.4	112.7
Interest	127.0	89.5
Income taxes payable	31.3	69.6
Other	596.5	466.9
	\$1,500.5	\$1,281.6
	======	=======

## NOTE 13. DEBT, LEASES AND BANKING ARRANGEMENTS

# Notes payable

During 1998, Williams Holdings of Delaware, Inc.'s (Williams Holdings) commercial paper program was increased to \$1 billion. At December 31, 1998 and 1997, \$903 million and \$645 million, respectively, of commercial paper was outstanding under the program. In January 1999, the commercial paper program was increased to \$1.4 billion. In addition, Williams has entered into various other short-term credit agreements with amounts outstanding totaling \$150 million and \$48 million at December 31, 1998 and 1997, respectively.

# NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED)

The weighted-average interest rate on the outstanding short-term borrowings at December 31, 1998 and 1997, was 5.92 percent and 6.56 percent, respectively.

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		DECEMBER 31,		
	INTEREST RATE*	1998	1997	
		(MILL)	IONS)	
The Williams Companies, Inc.				
Revolving credit loans	5.8%	\$ 144.0	\$ 383.0	
2021	8.3	137.0	137.0	
Notes, 5.1% 9.625%, payable through 2012** Williams Gas Pipelines Central	6.3	2,159.5	1,042.1	
Variable-rate notes, payable 1999	8.2	130.0	130.0	
Kern River Gas Transmission				
Notes, 6.42% and 6.72%, payable through 2001 Northwest Pipeline	6.7	549.9	586.4	
Debentures, 7.125% 10.65%, payable through 2025	7.6	117.4	151.6	
Notes, 6.625%, payable 2007	6.6	250.0	250.0	
Other, payable through 2002	9.0	6.7	8.3	
Texas Gas Transmission				
Debentures, 7.25%, payable 2027	7.3	99.1	99.0	
Notes, 8.625%, payable 2004	8.6	152.1	152.4	
Transcontinental Gas Pipe Line				
Revolving credit loans			160.0	
Debentures, 7.08% and 7.25%, payable 2026**	7.2	399.7	399.7	
Notes, 6.125% 8.875%, payable 2002, 2005 and 2008	7.0	426.1	128.2	
Adjustable rate note, payable 2002	5.2	150.0	150.0	
Williams Holdings of Delaware				
Revolving credit loans	5.7	550.0	200.0	
Debentures, 6.25% and 7.7%, payable 2006 and 2027	5.6	351.9	351.8	
Notes, 6.013% 8.87%, payable through 2022	7.1	960.1	625.3	
MAPCO Inc.				
Commercial paper and bank money market lines MAPCO Natural Gas Liquids, Inc.			135.8	
Notes, 6.67% 8.95%, payable through 2022	7.8	165.0	165.0	
Williams Communications Solutions, LLC	7.0	105.0	105.0	
Revolving credit loans			125.0	
	8.3	8.5	51.2	
Other, payable through 2005	0.3	6.5	51.2	
		6,757.0	5,431.8	
Current portion of long-term debt		(390.6)	(80.3)	
content botton of Tond-telm dept		(390.6)	(80.3)	
		\$6,366.4	\$5,351.5	
		=======	=======	

<sup>. .....</sup> 

 $<sup>^{\</sup>star}$  Weighted-average at December 31, 1998, including the effects of interest-rate swaps.

<sup>\*\* \$300</sup> million, 5.95% notes, payable 2010; \$200 million, 7.08% debentures, payable 2026; and \$240 million, 6.125% notes, payable 2012, are subject to redemption at par at the option of the debtholder in 2000, 2001 and 2002, respectively.

Pursuant to a debt restructuring initiated during 1997, Williams redeemed approximately \$1.3 billion of debt with stated interest rates in excess of 8.8 percent in 1997. In January 1998, Williams redeemed \$40 million of additional debt obligations. The restructuring was completed with the fourth-quarter 1997 and first-quarter 1998 issuance of approximately \$1.5 billion of debentures and notes with interest rates ranging from 5.91 percent to 6.625 percent (see Note 7 for additional information).

Under Williams' \$1 billion credit agreement, Northwest Pipeline, Transcontinental Gas Pipe Line, Texas Gas Transmission, and Williams Communications Solutions, LLC have access to various amounts of the facility, while Williams (parent) and Williams Holdings have access to all unborrowed amounts. Interest rates vary with current market conditions. In January 1999, the \$1 billion bank credit agreement was amended, adding Williams Communications Group, Inc. to the subsidiaries with access to the facility.

Interest-rate swaps with a notional value of \$690 million are currently being utilized to convert certain fixed-rate debt obligations to variable-rate obligations resulting in an effective weighted-average floating rate of 5.24 percent at December 31, 1998. Interest-rate swaps with a notional value of \$130 million are currently being utilized to convert certain variable-rate debt obligations to fixed-rate obligations resulting in an effective weighted-average fixed rate of 7.78 percent at December 31, 1998.

Certain interest-rate swap agreements relating to Kern River, which preceded the January 1996 purchase of Kern River by Williams and the subsequent Kern River debt refinancing, remain outstanding. In 1996, Kern River entered into additional interest-rate swap agreements to manage the exposure from the original interest-rate swap agreements. As described in Note 1, these interest-rate swap agreements are not designated with the Kern River debt, but when combined with interest on the debt obligations, Kern River's effective interest rate is 8.5 percent.

Aggregate minimum maturities and sinking-fund requirements, excluding lease payments, for each of the next five years are as follows:

	(MILLIONS)
1999	\$ 390
2000	563
2001	
2002	1,839
2003	268

Cash payments for interest (net of amounts capitalized) are as follows: 1998 -- \$414 million; 1997 -- \$450 million; and 1996 -- \$406 million.

Leases

Future minimum annual rentals under non-cancelable operating leases are \$181 million in 1999, \$199 million in 2000, \$152 million in 2001, \$129 million in 2002, \$83 million in 2003 and \$145 million thereafter.

Total rent expense was \$200 million in 1998, \$137 million in 1997 and \$97 million in 1996.

During 1998, Williams entered into an operating lease agreement covering a portion of its fiber-optic network. The total estimated cost of the network assets to be covered by the lease agreement is \$750 million. The lease term will include an interim term, during which the covered network assets will be constructed, that is anticipated to end no later than December 31, 1999 and a base term. The interim and base terms are expected to total five years and, if renewed, could total seven years.

Williams has an option to purchase the covered network assets during the lease term at an amount approximating the lessor's cost. Williams provides a residual value guarantee, the present value of which is

equal to a maximum of 89.9 percent of the cost of the assets under lease. The residual value guarantee is reduced by the present value of actual lease payments. In the event that Williams does not exercise its purchase option, Williams expects the fair market value of the covered network assets to substantially reduce Williams' obligation under the residual value guarantee. Williams' disclosures for future minimum annual rentals under non-cancelable operating leases do not include amounts for the residual value guarantee. As of December 31, 1998, \$287 million of costs have been incurred by the lessor.

## NOTE 14. MINORITY INTEREST

During 1998, Williams formed separate legal entities and contributed various assets to a newly-formed limited partnership, Castle Associates L.P. ("Castle"), and to a limited liability company, Williams Risk Holdings Company, LLC ("Holdings"), as a part of transactions that generated funds for Williams' general corporate use. Outside investors obtained from Williams non-controlling preferred interests in the newly formed entities for \$335 million through purchase and/or contribution. The assets and liabilities of Castle and Holdings are consolidated for financial reporting purposes. The outside investors' interests of \$335 million are reflected in "Minority interest in consolidated subsidiaries" in the Consolidated Balance Sheet. The transactions did not result in any gain or loss for Williams.

The preferred interest holders in both Castle and Holdings are entitled to a priority return based on a variable rate structure, currently ranging from approximately seven to 10 percent, in addition to their participation in the operating results of the partnership and LLC.

The Castle limited partnership agreement and associated operating documents included certain restrictive covenants and guarantees of Williams and certain of its subsidiaries. These restrictions are similar to those in the Williams' credit agreement and other debt instruments.

#### NOTE 15. STOCKHOLDERS' EQUITY

Williams' \$3.50 cumulative convertible preferred stock is redeemable by Williams beginning in November 1999, at an initial price of \$51.40 per share. Each share of \$3.50 preferred stock is convertible at the option of the holder into 4.6875 shares of Williams common stock. Dividends per share of \$3.50 were recorded in 1998, 1997 and 1996.

The remaining shares of \$2.21 cumulative preferred stock were redeemed by Williams at par (\$25) in September 1997 for a total of \$18.5 million. Dividends per share of \$1.47 were recorded in 1997, and \$2.21 in 1996.

In 1996, the Williams' board of directors adopted a Stockholder Rights Plan (the Rights  $\dot{\text{Plan}}$ ). Under the Rights Plan, each outstanding share of Williams common stock has one-third of a preferred stock purchase right attached. Under certain conditions, each right may be exercised to purchase, at an exercise price of \$140 (subject to adjustment), one two-hundredth of a share of junior participating preferred stock. The rights may be exercised only if an Acquiring Person acquires (or obtains the right to acquire) 15 percent or more of Williams common stock; or commences an offer for 15 percent or more of Williams common stock; or the board of directors determines an Adverse Person has become the owner of 10 percent or more of Williams common stock. The rights, which do not have voting rights, expire in 2006 and may be redeemed at a price of \$.01 per right prior to their expiration, or within a specified period of time after the occurrence of certain events. In the event a person becomes the owner of more than 15 percent of Williams common stock or the board of directors determines that a person is an Adverse Person, each holder of a right (except an Acquiring Person or an Adverse Person) shall have the right to receive, upon exercise, Williams common stock having a value equal to two times the exercise price of the right. In the event Williams is engaged in a merger, business combination or 50 percent or more of Williams' assets, cash flow or earnings power is sold or transferred, each holder of a right (except an Acquiring Person or an Adverse Person) shall have the right to

receive, upon exercise, common stock of the acquiring company having a value equal to two times the exercise price of the right.

Williams has several plans providing for common-stock-based awards to employees and to non-employee directors. The plans permit the granting of various types of awards including, but not limited to, stock options, stock-appreciation rights, restricted stock and deferred stock. Awards may be granted for no consideration other than prior and future services or based on certain financial performance targets being achieved. The purchase price per share for stock options and the grant price for stock-appreciation rights may not be less than the market price of the underlying stock on the date of grant. Depending upon terms of the respective plans, stock options become exercisable after three or five years, subject to accelerated vesting if certain future stock prices or if specific financial performance targets are achieved. Stock options expire 10 years after grant. At December 31, 1998, 43.3 million shares of Williams common stock were reserved for issuance pursuant to existing and future stock awards, of which 18.7 million shares were available for future grants (21.4 million at December 31, 1997).

Certain of these plans have stock option loan programs for the participants, whereby, at the time of the option exercise, the participant may elect to receive a loan from Williams in an amount limited to 80 percent of the market value of the shares associated with the exercise. A portion of the stock acquired is held as collateral over the term of the loan, which can be three or five years. Interest rates are based on the minimum applicable federal rates, and interest is paid annually. The amount of loans made during 1998 totaled approximately \$36 million.

The following summary reflects stock option activity and related information for 1998, 1997 and 1996:

	1998		19	1997		996
	OPTIONS	WEIGHTED- AVERAGE EXERCISE PRICE	OPTIONS	WEIGHTED- AVERAGE EXERCISE PRICE	OPTIONS	WEIGHTED- AVERAGE EXERCISE PRICE
			(OPTIONS	IN MILLIONS)		
Outstanding beginning of year  Granted	35.2 5.2 (4.9) (12.9) (.4)	\$17.29 31.82 12.56 18.38 28.93	29.2 12.9 (6.1)  (.8)	\$14.18 22.57 13.46  18.32	24.4 10.5 (4.7)  (1.0)	\$12.41 16.77 10.44  17.77
Outstanding end of year	22.2	\$20.94	35.2	\$17.29	29.2	\$14.18
Exercisable at end of year	17.3	\$17.85	18.8	\$13.83	15.4	\$12.26
Weighted-average grant date fair value of options granted during the year	<b></b>	\$ 8.19 =====	<b></b>	\$ 7.15 =====	<b></b>	\$ 4.80 =====

The following summary provides information about stock options outstanding and exercisable at December 31, 1998:

		STOCK OPTIONS OUTSTANDING		STOCK ( EXERC)	
RANGE OF EXERCISE PRICES	OPTIONS	WEIGHTED- AVERAGE EXERCISE PRICE	WEIGHTED- AVERAGE REMAINING CONTRACTUAL LIFE	OPTIONS	WEIGHTED- AVERAGE EXERCISE PRICE
	(MILLIONS)			(MILLIONS)	
\$4.62 to \$27.37 \$28.75 to \$49.38	17.1 5.1	\$17.62 32.20	7.4 years 9.5 years	17.1 .2	\$17.62 39.73
Total	22.2 ====	\$20.94	7.9 years	17.3 ====	\$17.85 =====

The fair value of the stock options was estimated at the date of grant using a Black-Scholes option pricing model with the following weighted-average assumptions: expected life of the stock options of approximately 5 years; volatility of the expected market price of Williams common stock of 25 percent (26 percent in 1997 and 22 percent in 1996); risk-free interest rate of 5.3 percent (6.1 percent in 1997 and 6.0 percent in 1996); and a dividend yield of 2.0 percent (1.7 percent in 1997 and 2.0 percent in 1996).

Pro forma net income and earnings per share, assuming Williams had applied the fair-value method of SFAS No. 123, "Accounting for Stock-Based Compensation," in measuring compensation cost beginning with 1996 employee stock-based awards, are as follows:

	1998		19	97	1996	
	PRO FORMA	REPORTED	PRO FORMA	REPORTED	PRO FORMA	REPORTED
Net income (Millions) Earnings per share:	\$73.2	\$127.5	\$331.0	\$368.3	\$452.9	\$459.8
BasicDiluted					\$ 1.07 \$ 1.05	\$ 1.08 \$ 1.06

Pro forma amounts for 1998 include the previously unrecognized compensation expense related to the MAPCO options converted at the time of the merger and the remaining total compensation expense from the awards made in 1997, as these awards fully vested in 1998 as a result of the accelerated vesting provision. Pro forma amounts for 1997 include compensation expense from 78 percent of the awards made in 1996, as these awards fully vested in 1997 as a result of the accelerated vesting provisions. Since compensation expense from stock options is recognized over the future years' vesting period for pro forma disclosure purposes, and additional awards generally are made each year, pro forma amounts may not be representative of future years' amounts.

Williams granted approximately 800,000 deferred shares in 1998. Deferred shares are valued at the date of award and the weighted-average grant date fair value of the shares granted was \$31.62. Approximately 15 percent of the deferred shares granted in 1998 was expensed in 1998, while the value of remaining deferred shares granted is being amortized over the vesting period. In 1998, Williams issued approximately 119,000 deferred shares previously granted. Grants made in prior years were not significant.

# NOTE 16. FINANCIAL INSTRUMENTS

## Fair-value Methods

Cash and cash equivalents and notes payable: The carrying amounts reported in the balance sheet approximate fair value due to the short-term maturity of these instruments.

Notes and other non-current receivables: For those notes with interest rates approximating market or maturities of less than three years, fair value is estimated to approximate historically recorded amounts.

Investments-cost, advances to affiliates and other: Fair value is estimated to approximate historically recorded amounts as the operations underlying these investments are in their developmental phases.

Long-term debt: The fair value of Williams' long-term debt is valued using indicative year-end traded bond market prices for publicly traded issues, while private debt is valued based on the prices of similar securities with similar terms and credit ratings. At December 31, 1998 and 1997, 74 percent and 57 percent, respectively, of Williams' long-term debt was publicly traded. Williams used the expertise of an outside investment banking firm to estimate the fair value of long-term debt.

Interest-rate swaps: Fair value is determined by discounting estimated future cash flows using forward interest rates derived from the year-end yield curve. Fair value was calculated by the financial institutions that are the counterparties to the swaps.

Interest-rate locks: Fair value is determined using year-end traded market prices for the referenced U.S. Treasury securities underlying the contracts. Fair value was calculated by the financial institutions that are parties to the locks

Energy-related trading and hedging: Energy-related trading includes forwards, options, swaps and purchase and sales commitments. Energy-related hedging includes options and swaps. Fair value reflects management's estimates using valuation techniques that reflect the best information available in the circumstances. This information includes various factors such as quoted market prices, estimates of market prices in absence of quoted market prices, contractual volumes, estimated volumes under option and other arrangements that result in varying volumes, other contract terms, liquidity of the market in which the contract is transacted, credit considerations, time value and volatility factors underlying the positions.

Carrying amounts and fair values of Williams' financial instruments

	19	98	1997			
ASSET (LIABILITY)	CARRYING AMOUNT	FAIR VALUE	CARRYING AMOUNT	FAIR VALUE		
		(MILL	IONS)	NS)		
Cash and cash equivalents	\$ 503.3	\$ 503.3	\$ 122.1	\$ 122.1		
receivables	45.2	45.2	33.5	33.5		
Investments-cost, advances to affiliates and other	325.6	325.6	102.8	102.8		
Notes payable Long-term debt, including current	(1,052.7)	(1,052.7)	(693.0)	(693.0)		
portion	` '	` '	(5,430.8)	` '		
Interest-rate swaps	, ,	• • • •	(51.1)	, ,		
Interest-rate locks Energy-related trading:		(.3)		(8.3)		
Assets	548.1	548.1	324.9	324.9		
Liabilities Energy-related hedging:	(491.6)	(491.6)	(383.7)	(383.7)		
Assets		7.0	. 9	13.3		
Liabilities	(.7)	(10.2)	(.3)	(8.8)		

The preceding asset and liability amounts for energy-related hedging represent unrealized gains or losses and do not include the related deferred amounts.

The 1998 average fair value of the energy-related trading assets and liabilities is \$485 million and \$518 million, respectively. The 1997 average fair value of the energy-related trading assets and liabilities is \$258 million and \$345 million, respectively.

Williams has recorded liabilities of \$18 million and \$21 million at December 31, 1998 and 1997, respectively, for certain guarantees that represent the estimated fair value of these financial instruments.

Off-balance-sheet credit and market risk

Williams is a participant in the following transactions and arrangements that involve financial instruments that have off-balance-sheet risk of accounting loss. It is not practicable to estimate the fair value of these off-balance-sheet financial instruments because of their unusual nature and unique characteristics.

In 1997, Williams entered into agreements to sell, on an ongoing basis, certain of their accounts receivable. At December 31, 1998 and 1997, \$302 million and \$343 million have been sold, respectively.

In connection with the 1995 sale of Williams' network services operations, Williams has been indemnified by LDDS against any losses related to retained guarantees of \$113 million and \$135 million at December 31, 1998 and 1997, respectively, for lease rental obligations.

Williams has issued other guarantees and letters of credit with off-balance-sheet risk that total approximately \$83 million and \$56 million at December 31, 1998 and 1997, respectively. Williams believes it will not have to perform under these agreements, because the likelihood of default by the primary party is remote and/or because of certain indemnifications received from other third parties.

## Energy trading activities

Williams, through Energy Marketing & Trading, provides price-risk management services associated with the energy industry to its customers. These services are provided through a variety of energy contracts including forward contracts, futures contracts, option contracts, swap agreements and purchase and sale commitments. See Note 1 for a description of the accounting for these trading activities. The net gain from trading activities was \$112.6 million, \$125.8 million and \$99.2 million in 1998, 1997 and 1996, respectively.

Energy Marketing & Trading enters into contracts which involve physical delivery of an energy commodity. Prices under these contracts are both fixed and variable. These contracts involve both firm commitments requiring fixed volumes and option and other arrangements that result in varying volumes. Swap arrangements call for Energy Marketing & Trading to make payments to (or receive payments from) counterparties based upon the differential between a fixed and variable price or variable prices for different locations. Energy Marketing & Trading buys and sells financial option contracts which give the buyer the right to exercise the option and receive the difference between a predetermined strike price and a market price at the date of exercise. The prices for forwards, swap, option and physical contracts consider exchange quoted prices or management's estimates based on the best information available. Energy Marketing & Trading also enters into futures contracts, which are commitments to either purchase or sell a commodity at a future date for a specified price and are generally settled in cash, but may be settled through delivery of the underlying commodity. The market prices for futures contracts are based on exchange quotations.

Energy Marketing & Trading is subject to market risk from changes in energy commodity market prices, the portfolio position of its financial instruments and physical commitments, the liquidity of the market in which the contract is transacted, changes in interest rates and credit risk.

Energy Marketing & Trading manages market risk on a portfolio basis through established trading policy guidelines which are monitored on an ongoing basis. Energy Marketing & Trading attempts to minimize credit-risk exposure to trading counterparties and brokers through formal credit policies and monitoring procedures. In the normal course of business, collateral is not required for financial instruments with credit risk.

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED)

The notional quantities for trading activities at December 31 are as follows:

	1998		1997*	
	PAYOR RECEIVER		PAY0R	RECEIVER
Fixed price: Natural gas (TBtu)	185.2 28.6	23.6	1,262.5 68.7 15.0	59.6 14.0
Natural gas (TBtu)Refined products, NGL's and crude (MMBbls) Power (Terawatt Hrs)	,	1,537.4 44.8 .8	1,898.3 1.9 .1	,

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#### \* Restated

The net cash inflow related to these contracts at December 31, 1998, was \$96 million, and the net cash requirement at December 31, 1997, was \$92 million. At December 31, 1998, the cash inflows extend primarily through 2007.

#### Concentration of credit risk

Williams' cash equivalents consist of high-quality securities placed with various major financial institutions with high credit ratings. Williams' investment policy limits its credit exposure to any one issuer/obligor.

At December 31, 1998 and 1997, approximately 33 percent and 48 percent, respectively, of receivables are for the sale or transportation of natural gas and related products or services. Approximately 19 percent and 22 percent of receivables at December 31, 1998 and 1997, respectively, are for the sale or transportation of petroleum products. Approximately 39 percent and 25 percent of receivables at December 31, 1998 and 1997, respectively, are for communications and related services. Natural gas customers include pipelines, distribution companies, producers, gas marketers and industrial users primarily located in the eastern, northwestern and midwestern United States. Petroleum products customers include wholesale, commercial, governmental, industrial and individual consumers and independent dealers located primarily in Alaska and the mid-south and southeastern United States. Communications' customers include numerous corporations. As a general policy, collateral is not required for receivables, but customers' financial condition and credit worthiness are evaluated regularly.

## NOTE 17. CONTINGENT LIABILITIES AND COMMITMENTS

Rate and regulatory matters and related litigation

Williams' interstate pipeline subsidiaries, including Williams Pipe Line, have various regulatory proceedings pending. As a result of rulings in certain of these proceedings, a portion of the revenues of these subsidiaries has been collected subject to refund. The natural gas pipeline subsidiaries have reserved \$343 million for potential refund as of December 31, 1998.

In 1997, the Federal Energy Regulatory Commission (FERC) issued orders addressing, among other things, the authorized rates of return for three of the Williams' interstate natural gas pipeline subsidiaries. All of the orders involve rate cases that became effective between 1993 and 1995 and, in each instance, these cases have been superseded by more recently filed rate cases. In the three orders, the FERC continued its practice of utilizing a methodology for calculating rates of return that incorporates a long-term growth rate component. However, the long-term growth rate component used by the FERC is now a projection of U.S. gross domestic product growth rates. Generally, calculating rates of return utilizing a methodology which includes a long-term growth rate component results in rates of return that are lower than they would be if the long-term growth rate component were not included in the methodology. Each of the three pipeline subsidiaries challenged its

respective FERC order in an effort to have the FERC change its rate-of-return methodology with respect to these and other rate cases. In October 1997, the FERC voted not to reconsider an order issued in one of the three pipeline proceedings, but convened a conference on January 30, 1998, to consider, on an industry-wide basis, issues with respect to pipeline rates of return. In July 1998, the FERC issued orders in the other two pipeline rate cases, again modifying its rate-of-return methodology by adopting a formula that gives less weight to the long-term growth component. This most recent formula modification results in somewhat higher rates of return compared to the rates of return calculated under the FERC's prior formula. Neither pipeline has made any changes to its accounting reserves pending resolution of the issues discussed above.

In 1992, the FERC issued Order 636, Order 636-A and Order 636-B. These orders, which were challenged in various respects by various parties in proceedings ruled on by the U.S. Court of Appeals for the D.C. Circuit, required interstate gas pipeline companies to change the manner in which they provide services. Williams' gas pipelines subsidiaries implemented restructurings in 1993.

The only appeal challenging Northwest Pipeline's restructuring has been dismissed. On April 14, 1998, all appeals concerning Transcontinental Gas Pipe Line's restructuring were denied by the D.C. Circuit. Williams Gas Pipeline Central's restructuring appeal was remanded to FERC. The appeal of Texas Gas' restructuring remains pending. On February 27, 1997, the FERC issued Order No. 636-C in response to the D.C. Circuit's partial remand of the three previous 636 orders. In that order, the FERC reaffirmed that pipelines should be exempt from sharing gas supply realignment costs. Rehearing of Order 636-C was denied in Order 636-D. Orders 636-C and 636-D have been appealed.

Recently, the FERC issued a Notice of Proposed Rulemaking (NOPR) and a Notice of Inquiry (NOI), proposing revisions to regulatory policies for interstate natural gas transportation service. In the NOPR, the FERC proposes to eliminate the rate cap on short-term transportation services and implement regulatory policies that are intended to maximize competition in the short-term transportation market, mitigate the ability of firms to exercise residual monopoly power and provide opportunities for greater flexibility in the provision of pipeline services and to revise certain other rate and certificate policies. In the NOI, the FERC seeks comments on its pricing policies in the existing long-term market and pricing policies for new capacity. The deadline for comments on the NOPR and NOI has been extended until the second quarter of 1999.

As a result of the Order 636 decisions described, each of the natural gas pipeline subsidiaries has undertaken the reformation or termination of its respective gas supply contracts. None of the pipelines has any significant pending supplier take-or-pay, ratable-take or minimum-take claims. Central is continuing efforts to recover certain gas supply realignment costs which arose from supplier take-or-pay contracts.

Current FERC policy associated with Orders 436 and 500 requires interstate gas pipelines to absorb some of the cost of reforming gas supply contracts before allowing any recovery through direct bill or surcharges to transportation as well as sales commodity rates. Under Orders 636, 636-A, 636-B, 636-C and 636-D, costs incurred to comply with these rules are permitted to be recovered in full, although a percentage of such costs must be allocated to interruptible transportation service.

Pursuant to a stipulation and agreement approved by the FERC, Williams Gas Pipeline Central (Central) has made 15 filings to recover take-or-pay and gas supply realignment costs of \$78.9 from its customers. An intervenor filed a protest seeking to have the FERC review the prudence of certain of the costs covered by these filings. On July 31, 1996, the administrative law judge issued an initial decision rejecting the intervenor's prudency challenge. On September 30, 1997, the FERC, by a two-to-one vote, reversed the administrative law judge's decision and determined that three contracts were imprudently entered into in 1982. Central has filed for rehearing, and management is vigorously defending the prudency of these contracts. An intervenor also filed a protest seeking to have the FERC decide whether non-settlement costs are eligible for recovery under Order No. 636. In January 1997, the FERC held that none of the non-settlement costs and only 75 percent of settlement costs could be recovered by Central if the costs were not eligible for recovery

under Order No. 636. This order was affirmed on rehearing in April 1997. On June 16, 1998, a FERC administrative law judge issued an initial decision finding that Central had not met all the tests necessary to show that these costs were eligible for recovery under Order No. 636. On July 20, 1998, Central filed exceptions to the administrative law judge's decision, which in turn must be acted upon by the FERC. If the FERC's final ruling on eligibility is unfavorable, Central will appeal those orders to the courts. On May 29, 1998, FERC approved an Order which permitted Central to conduct a reverse auction of the gas purchase contracts which are the subject of the prudence challenges outlined above. No party bid less than the fixed maximum price in the approved auction and, as a result, the contracts were not assigned. In accordance with FERC's Orders, on September 30, 1998, Central filed a request for authority to conduct a second reverse auction of the contracts. Under the approved reverse auction, Central was granted authority to assign the contracts to bidders at or below an aggregate reserve price of \$112.6 million. If no unaffiliated bidders were willing to accept assignment on those terms, Central was authorized to assign the contracts to an affiliate or a third party and recover \$112.6 million from its customers subject to the outcome of the prudence and eligibility cases described above. The FERC also approved an extension of the recovery mechanism for non-settlement costs through February 1, 1999.

Through the end of the third quarter, Williams and Central were unable to reasonably estimate the ultimate costs to be incurred because of the uncertainties pertaining to the outcome of issues pending at FERC and the status of settlement negotiations with producers. However, on January 21, 1999, Central assigned its obligations under the largest of the three contracts to an unaffiliated third party and paid the third party \$100 million. Central also agreed to pay the third party a total of \$18 million in installments over the next five years. Central received indemnities from the third party and a release of its obligations under the contract. No parties submitted bids at the second reverse auction, and in accordance with the tariff provisions for the reverse auction, Central assigned the two smaller contracts to an affiliate effective February 1, 1999. As a result of these assignments, Central has no remaining market price gas contracts. Central will file with the FERC to recover all costs relative to the three contracts. At December 31, 1998, Central has accrued a liability related to these contracts of \$122.2 million.

During the fourth quarter and continuing into 1999, Central has been negotiating with the FERC and state regulators to resolve the amount of costs which are recoverable from its customers. As a result of these negotiations, Central expensed \$58 million of costs previously expected to be recovered and capitalized as a regulatory asset. At December 31, 1998, Central has \$61.4 million remaining regulatory asset representing an estimate of costs to be recovered in the future. If Central does not reach a settlement and prevail in these FERC proceedings or any subsequent appeals, the maximum loss could be the total of the regulatory asset and \$40 million of previously recovered but protested costs. While Central cannot predict the final outcome of the FERC's rulings on contract prudency and cost recovery under Order 636, Williams and Central continue to believe that they entered into the gas purchase contracts in a prudent manner under FERC rules in place at the time, and that these costs will ultimately be found eligible for recovery.

In September 1995, Texas Gas received FERC approval of a settlement regarding Texas Gas' recovery of gas supply realignment costs. Through December 31, 1998, Texas Gas has paid approximately \$76 million and expects to pay no more than \$80 million for gas supply realignment costs, primarily as a result of contract terminations. Texas Gas has recovered approximately \$66 million, plus interest, in gas supply realignment costs.

The foregoing accruals are in accordance with Williams' accounting policies regarding the establishment of such accruals which take into consideration estimated total exposure, as discounted and risk-weighted, as well as costs and other risks associated with the difference between the time costs are incurred and the time such costs are recovered from customers. The estimated portion of such costs recoverable from customers is deferred or recorded as a regulatory asset based on an estimate of expected recovery of the amounts allowed by FERC policy. While Williams believes that these accruals are adequate and the associated regulatory assets

are appropriate, costs actually incurred and amounts actually recovered from customers will depend upon the outcome of various court and FERC proceedings, the success of settlement negotiations and various other factors, not all of which are presently foreseeable.

On July 15, 1998, Williams Pipe Line (WPL) received an Order from the FERC which affirmed an administrative law judge's 1996 initial decision regarding rate-making proceedings for the period September 15, 1990 through May 1, 1992. The FERC has ruled that WPL did not meet its burden of establishing that its transportation rates in its 12 less competitive markets were just and reasonable for the period and has ordered refunds. WPL continues to believe it should prevail upon appeal regarding collected rates for that period. However, due to this FERC decision, WPL accrued \$15.5 million, including interest, in the second quarter of 1998, for potential refunds to customers for the issues described above. Since May 1, 1992, WPL has collected and recognized as revenues \$151 million in noncompetitive markets that are in excess of tariff rates previously approved by the FERC and that are subject to refund with interest. WPL believes that the tariff rates collected in these markets during this period will be justified in accordance with the FERC's cost-basis guidelines and will be making the appropriate filings with the FERC to support this position.

#### Environmental matters

Since 1989, Texas Gas and Transcontinental Gas Pipe Line have had studies under way to test certain of their facilities for the presence of toxic and hazardous substances to determine to what extent, if any, remediation may be necessary. Transcontinental Gas Pipe Line has responded to data requests regarding such potential contamination of certain of its sites. The costs of any such remediation will depend upon the scope of the remediation. At December 31, 1998, these subsidiaries had reserves totaling approximately \$27 million for these costs.

Certain Williams subsidiaries, including Texas Gas and Transcontinental Gas Pipe Line, have been identified as potentially responsible parties (PRP) at various Superfund and state waste disposal sites. In addition, these subsidiaries have incurred, or are alleged to have incurred, various other hazardous materials removal or remediation obligations under environmental laws. Although no assurances can be given, Williams does not believe that these obligations or the PRP status of these subsidiaries will have a material adverse effect on its financial position, results of operations or net cash flows.

Transcontinental Gas Pipe Line, Texas Gas and Central have identified polychlorinated biphenyl (PCB) contamination in air compressor systems, soils and related properties at certain compressor station sites. Transcontinental Gas Pipe Line, Texas Gas and Central have also been involved in negotiations with the U.S. Environmental Protection Agency (EPA) and state agencies to develop screening, sampling and cleanup programs. In addition, negotiations with certain environmental authorities and other programs concerning investigative and remedial actions relative to potential mercury contamination at certain gas metering sites have been commenced by Central, Texas Gas and Transcontinental Gas Pipe Line. As of December 31, 1998, Central had recorded a liability for approximately \$12 million, representing the current estimate of future environmental cleanup costs to be incurred over the next six to ten years. The Midstream Gas & Liquids unit of Energy Services (WES) has recorded an aggregate liability of approximately \$10 million, representing the current estimate of its future environmental and remediation costs, including approximately \$5 million relating to former Central facilities. Texas Gas and Transcontinental Gas Pipe Line likewise had recorded liabilities for these costs which are included in the \$27 million reserve mentioned above. Actual costs incurred will depend on the actual number of contaminated sites identified, the actual amount and extent of contamination discovered, the final cleanup standards mandated by the EPA and other governmental authorities and other factors. Texas Gas, Transcontinental Gas Pipe Line and Central have deferred these costs as incurred pending recovery through future rates and other means.

WES also accrues environmental remediation costs for its petroleum products pipelines, retail petroleum, refining and propane marketing operations primarily related to soil and groundwater contamination. At

December 31, 1998, WES and its subsidiaries had reserves, in addition to the reserves listed above, totaling approximately \$31 million. WES recognizes receivables related to environmental remediation costs from state funds as a result of laws permitting states to reimburse certain expenses associated with underground storage tank problems and repairs. At December 31, 1998, WES and its subsidiaries had receivables totaling \$14 million.

In connection with the 1987 sale of the assets of Agrico Chemical Company, Williams agreed to indemnify the purchaser for environmental cleanup costs resulting from certain conditions at specified locations to the extent such costs exceed a specified amount. At December 31, 1998, Williams had approximately \$12 million accrued for such excess costs. The actual costs incurred will depend on the actual amount and extent of contamination discovered, the final cleanup standards mandated by the EPA or other governmental authorities, and other factors.

A lawsuit was filed in May 1993, in a state court in Colorado in which certain claims have been made against various defendants, including Northwest Pipeline, contending that gas exploration and development activities in portions of the San Juan Basin have caused air, water and other contamination. The plaintiffs in the case sought certification of a plaintiff class. In June 1994, the lawsuit was dismissed for failure to join an indispensable party over which the state court had no jurisdiction. The Colorado court of appeals has affirmed the dismissal and remanded the case to Colorado district court for action consistent with the appeals court's decision. Since June 1994, eight individual lawsuits have been filed against Northwest Pipeline and others in U.S. district court in Colorado, making essentially the same claims. The district court has stayed all of the cases involving Northwest Pipeline until the plaintiffs exhaust their remedies before the Southern Ute Indian Tribal Court. Some plaintiffs filed cases in the Tribal Court, but none named Northwest Pipeline as a defendant.

## Other legal matters

In 1988, certain royalty owners in a producing field in Cameron Parish, Louisiana, brought suit against a Williams subsidiary and other working interest owners seeking additional royalties or lease cancellation. An amended petition later added a second Williams subsidiary, Williams and additional working interest owners. All other defendants have been dismissed or have settled with plaintiffs. In their recently amended damage claim, the plaintiffs asserted royalty underpayments plus interest of approximately \$12 million. The claimed damages are attributable to all working interests for a period of about 15 years. One of the two Williams subsidiaries sued owned a one-half interest in the field and served as operator for approximately eight years. The other subsidiary purchased produced gas from the field. Plaintiffs also request punitive damages equal to double the alleged damages and attorneys' fees. Williams believes all royalties due from its subsidiaries were properly paid, that the field was properly operated, and that it is not responsible for any amounts due from any other working interests or for the period after its subsidiary had sold its interest and terminated its status as operator of the field. The litigation pending in Cameron Parish, Louisiana, has recently been settled for payments aggregating approximately \$9 million, for which reserves have been fully accrued.

On April 7, 1992, a liquefied petroleum gas explosion occurred near an underground salt dome storage facility located near Brenham, Texas and owned by an affiliate of MAPCO Inc., Seminole Pipeline Company ("Seminole"). MAPCO Inc., as well as Seminole, Mid-America Pipeline Company, MAPCO Natural Gas Liquids Inc., and other non-MAPCO entities were named as defendants in civil action lawsuits filed in state district courts located in four Texas counties. Seminole and the above-mentioned subsidiaries of MAPCO Inc. have settled in excess of 1,600 claims in these lawsuits. The only lawsuit remaining is the Dallmeyer case which was tried before a jury in Harris County. In Dallmeyer, the judgment rendered in March 1996 against defendants Seminole and MAPCO Inc. and its subsidiaries totaled approximately \$72 million which included nearly \$65 million of punitive damages awarded to the 21 plaintiffs. Both plaintiffs and defendants have appealed the Dallmeyer judgment to the Court of Appeals for the Fourteenth District of Texas in Harris

County. The defendants seek to have the judgment modified in many respects, including the elimination of punitive damages as well as a portion of the actual damages awarded. If the defendants prevail on appeal, it will result in an award significantly less than the judgment. The plaintiffs have cross-appealed and seek to modify the judgment to increase the total award plus interest to exceed \$155 million. In February and March 1998, the defendants entered into settlement agreements involving 17 of the 21 plaintiffs to finally resolve their claims against all defendants for an aggregate payment of approximately \$10 million. These settlements have satisfied and reduced the judgment on appeal by approximately \$42 million. As to the remaining four plaintiffs, the Court of Appeals issued its decision on October 15, 1998, which, while denying all of the plaintiffs' cross-appeal issues, affirmed in part and reversed in part the trial court's judgment. The defendants had entered into settlement agreements with the remaining plaintiffs which, in light of the decision, Williams believes will provide for aggregate payments of approximately \$13.6 million, the full amount of which has been previously accrued.

In 1991, the Southern Ute Indian Tribe (the Tribe) filed a lawsuit against Williams Production Company (Williams Production), a wholly owned subsidiary of Williams, and other gas producers in the San Juan Basin area, alleging that certain coal strata were reserved by the United States for the benefit of the Tribe and that the extraction of coal-seam gas from the coal strata was wrongful. The Tribe seeks compensation for the value of the coal-seam gas. The Tribe also seeks an order transferring to the Tribe ownership of all of the defendants' equipment and facilities utilized in the extraction of the coal-seam gas. In September 1994, the court granted summary judgment in favor of the defendants, and the Tribe lodged an interlocutory appeal with the U.S. Court of Appeals for the Tenth Circuit. Williams Production agreed to indemnify the Williams Coal Seam Gas Royalty Trust (Trust) against any losses that may arise in respect of certain properties subject to the lawsuit. On July 16, 1997, the U.S. Court of Appeals for the Tenth Circuit reversed the decision of the district court, held that the Tribe owns the coal-seam gas produced from certain coal strata on fee lands within the exterior boundaries of the Tribe's reservation, and remanded the case to the district court for further proceedings. On September 16, 1997, Amoco Production Company, the class representative for the defendant class (of which Williams Production is a part), filed its motion for rehearing en banc before the Court of Appeals. On July 20, 1998, the Court of Appeals sitting en banc affirmed the panel's decision. The Supreme Court has granted a writ of certiorari in respect of this decision.

Williams Communications, Inc. filed suit on March 20, 1998, against WorldCom Network Services, Inc. (WorldCom) in district court in Tulsa County in order to prevent WorldCom from disconnecting any of Williams' equipment on the WorldCom network. This suit sought a declaratory judgment that the single fiber retained by Williams on the WorldCom network could be used for specified multimedia uses, and that WorldCom was required to permit Williams to purchase additional fiber either acquired or constructed by WorldCom. WorldCom had denied Williams' claim and had asserted various counterclaims for monetary damages, rescission and injunctive relief. This lawsuit was settled on July 9, 1998. settlement resolves all claims for monetary damages, permitted uses of Williams' fiber on the WorldCom network and Williams' right to purchase additional fiber on WorldCom fiber builds. There was no significant financial impact to Williams as a result of the settlement.

In connection with agreements to resolve take-or-pay and other contract claims and to amend gas purchase contracts, Transcontinental Gas Pipe Line and Texas Gas each entered into certain settlements with producers which may require the indemnification of certain claims for additional royalties which the producers may be required to pay as a result of such settlements. As a result of such settlements, Transcontinental Gas Pipe Line is currently defending two lawsuits brought by producers. In one of the cases, a jury verdict found that Transcontinental Gas Pipe Line was required to pay a producer damages of \$23.3 million including \$3.8 million in attorneys' fees. Transcontinental Gas Pipe Line is pursuing an appeal. In the other case, a producer has asserted damages, including interest calculated through December 31, 1997, of approximately \$6 million. Producers have received and may receive other demands, which could result in additional claims. Indemnification for royalties will depend on, among other things, the specific lease provisions between the

producer and the lessor and the terms of the settlement between the producer and either Transcontinental Gas Pipe Line or Texas Gas. Texas Gas may file to recover 75 percent of any such additional amounts it may be required to pay pursuant to indemnities for royalties under the provisions of Order 528.

In connection with the sale of certain coal assets in 1996, MAPCO entered into a Letter Agreement with the buyer providing for indemnification by MAPCO for reductions in the price or tonnage of coal delivered under a certain pre-existing Coal Sales Agreement dated December 1, 1986. The Letter Agreement effective for reductions during the period July 1, 1996 through December 31, 2002 and provides for indemnification for such reductions as incurred on a quarterly basis. The buyer has stated it is entitled to indemnification from MAPCO for amounts of \$7.8 million through June 30, 1998, and may claim indemnification for additional amounts in the future. MAPCO has filed for declaratory relief as to certain aspects of the buyer's claims. MAPCO also believes it would be entitled to substantial set-offs and credits against any amounts determined to be due and has accrued a liability representing an estimate of amounts it expects to incur in satisfaction of this indemnity. The parties are currently pursuing settlement negotiations as a part of a mediation.

In 1998, the United States Department of Justice informed Williams that Jack Grynberg, an individual, had filed claims in the United States District Court for the District of Colorado under the False Claims Act against Williams and certain of its wholly owned subsidiaries including Williams Gas Pipeline Central, Kern River Gas Transmission, Northwest Pipeline, Williams Gas Pipeline Company, Transcontinental Gas Pipe Line Corporation, Texas Gas, Williams Field Services Company, and Williams Production Company. Mr. Grynberg has also filed claims against approximately 300 other energy companies and alleges that the defendants violated the False Claims Act in connection with the measurement and purchase of hydrocarbons. The relief sought is an unspecified amount of royalties allegedly not paid to the federal government, treble damages, a civil penalty, attorneys' fees, and costs.

In addition to the foregoing, various other proceedings are pending against Williams or its subsidiaries which are incidental to their operations.

#### Summarv

While no assurances may be given, Williams does not believe that the ultimate resolution of the foregoing matters, taken as a whole and after consideration of amounts accrued, insurance coverage, recovery from customers or other indemnification arrangements, will have a materially adverse effect upon Williams' future financial position, results of operations or cash flow requirements.

## Other matters

During the second quarter of 1998, Energy Marketing & Trading entered into a 15-year contract giving Williams the right to receive fuel conversion services for purposes of generating electricity. This contract also gives Williams the right to receive installed capacity and certain ancillary services. Annual committed payments under the contract range from \$140 million to \$165 million, resulting in total committed payments of approximately \$2.3 billion.

## NOTE 18. ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS)

The table below presents changes in the components of accumulated other comprehensive income (loss).

	INCOME (LOSS)			
	UNREALIZED APPRECIATION (DEPRECIATION) ON SECURITIES (M.	FOREIGN CURRENCY TRANSLATIONILLIONS)	TOTAL	
Balance at December 31, 1996	\$	\$	\$	
Pre-income tax amountIncome tax benefit	(3.9) 1.5	(.1)	(4.0) 1.5	
Balance at December 31, 1997	(2.4)	(.1)	(2.5)	
1998 change: Pre-income tax amount	39.4 (15.3)	(4.9)	34.5 (15.3)	
	24.1	(4.9) =====	19.2	
Balance at December 31, 1998	\$ 21.7 =====	\$(5.0) =====	\$ 16.7 =====	

## NOTE 19. SEGMENT DISCLOSURES

Williams evaluates performance based upon segment profit or loss from operations which includes revenues from external and internal customers, equity earnings, operating costs and expenses, and depreciation, depletion and amortization. The accounting policies of the segments are the same as those described in Note 1, Summary of Significant Accounting Policies. Intersegment sales are generally accounted for as if the sales were to unaffiliated third parties, that is, at current market prices.

Williams' reportable segments are strategic business units that offer different products and services. The segments are managed separately because each segment requires different technology, marketing strategies and industry knowledge. Other includes investments in international energy and communications-related ventures, as well as corporate operations.

The following table reflects the reconciliation of segment profit, per the table on page 63, to operating income as reported on the Consolidated Statement of Income.

	1998	1997	1996
		(MILLIONS)	)
Segment profit General corporate expenses		. ,	. ,
Operating income	\$725.2 =====	\$1,039.7 ======	\$1,103.4 ======

# NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED)

The following geographic area data includes revenues from external customers based on product shipment origin and long-lived assets based upon physical location.

	1998	1997	1996
		(MILLIONS)	
Revenues from external customers:			
United StatesOther	\$ 7,488.2 181.0	. ,	\$ 6,837.8 5.1
Total	\$ 7,669.2 =======	\$ 8,241.6 ======	\$ 6,842.9 ======
Long-lived assets:			
United States	\$12,937.4	\$12,010.5	\$11,051.4
Other	250.8	126.9	2.0
	\$13,188.2	\$12,137.4	\$11,053.4
	=======	========	=======

Long-lived assets are comprised of property, plant and equipment, goodwill and other intangible assets.

# NOTES TO CONSOLIDATED FINANCIAL STATEMENTS -- (CONTINUED)

		REVEN	UES					
	EXTERNAL CUSTOMERS	INTER- SEGMENT	EQUITY EARNINGS (LOSSES)	TOTAL	SEGMENT PROFIT (LOSS)	TOTAL ASSETS	EQUITY METHOD INVESTMENTS	ADDITIONS TO LONG- LIVED ASSETS
				(MILI	_IONS)			
1998								
Gas Pipeline Energy Services	\$1,633.5	\$ 51.1	\$ .2	\$ 1,684.8	\$ 610.4	\$ 8,386.2	\$ 8.9	\$ 485.0
Energy Marketing & Trading	2,025.3	(111.5)*	(6.7) 	1,907.1	39.0	2,596.8	. 8	27.3 58.1
Exploration & Production  Midstream Gas & Liquids	33.5 799.0	105.8 63.7	8.2	139.3 870.9	27.2 225.7	359.1 3,201.8	129.1	342.6
Petroleum Services	1,417.2	1,257.9	. 4	2,675.5	153.3	2,525.2	96.0	264.2
Merger-related costs					(50.7)			
	4,275.0	1,315.9	1.9	5,592.8	394.5	8,682.9	225.9	692.2
Communications Solutions	1,366.8			1 266 9	(54.1)	946.4		68.5
Network Applications	205.4	4.8	(3.7)	1,366.8 206.5	(94.6)	295.6	.5	55.3
Network Services	145.2	49.7		194.9	(26.3)	822.9		283.8
	1 717 /	 E4 E	(2.7)	1 760 2	(175.0)	2 064 0		407.6
	1,717.4	54.5	(3.7)	1,768.2	(175.0)	2,064.9	.5 	407.6
Other	43.3	30.8	(9.3)	64.8	(15.5)	5,140.2	291.7	160.5
Eliminations		(1,452.3)		(1,452.3)		(5,626.9)		
Total		\$	\$(10.9)	\$ 7,658.3	\$ 814.4	\$18,647.3	\$527.0	\$1,745.3
	======	=======	=====	=======	=======	=======	=====	======
1997	<b>#4</b> 606 0	Ф 50.7	ф г	<b>#</b> 1 COO 1	Ф C14 7	<b>#</b> 0 202 0	Ф 6 7	Ф 405 0
Gas Pipeline Energy Services	\$1,626.9	\$ 52.7	\$ .5	\$ 1,680.1	\$ 614.7	\$ 8,202.8	\$ 6.7	\$ 435.9
Energy Marketing & Trading	2,018.2	232.2	(5.6)	2,244.8	53.4	1,688.8	1.8	102.4
Exploration & Production	3.6	126.5		130.1	30.3	367.2		63.3
Midstream Gas & Liquids Petroleum Services	929.1 2,192.9	100.5 502.7	. 4	1,029.6 2,696.0	282.3 200.8	3,188.3 1,836.8	87.5 9.6	212.0 150.5
Tetrofediii Services								
	5,143.8	961.9	(5.2)	6,100.5	566.8	7,081.1	98.9	528.2
Communications								
Communications Solutions	1,206.5			1,206.5	47.3	869.0		247.5
Network Applications	213.1	4.9	(2.4)	215.6	(108.7)	329.6	3.8	98.9
Network Services	22.0	21.0		43.0	3.3	240.1	2.3	178.2
	1,441.6	25.9	(2.4)	1,465.1	(58.1)	1,438.7	6.1	524.6
Other Eliminations	29.3	9.1 (1,049.6)	15.0 	53.4 (1,049.6)	11.4 	2,476.7 (2,921.7)	143.8	208.7
EIIIIIIIations		(1,049.0)		(1,049.0)		(2,921.7)		
Total	\$8,241.6	\$	\$ 7.9	\$ 8,249.5	\$1,134.8	\$16,277.6	\$255.5	\$1,697.4
1996	======	=======	=====	=======	======	=======	=====	======
Gas Pipeline	\$1,609.8	\$ 47.9	\$ 1.9	\$ 1,659.6	\$ 564.3	\$ 7,833.4	\$ 5.5	\$1,432.2
Energy Marketing & Trading	1,548.3	424.9	(4.8)	1,968.4	138.5	1,544.7	. 9	26.3
Exploration & Production	25.3	57.1		82.4	2.8	256.8		30.3
Midstream Gas & Liquids Petroleum Services	817.8 2,091.6	90.3 503.4	.1 .2	908.2 2,595.2	322.0 140.0	2,974.6 1,705.8	47.4 4.3	245.2 111.0
retroited Gervinessir								
	4,483.0	1,075.7	(4.5)	5,554.2	603.3	6,481.9	52.6	412.8
Communications								
Communications Solutions	568.1			568.1	14.3	344.6		36.9
Network Applications	130.7	1.8	(1.6)	130.9	(15.1)	148.6	6.6	193.0
Network Services	11.1			11.1	5.8	212.7		
	709.9	1.8	(1.6)	710.1	5.0	705.9	6.6	229.9
Othor	40.2	7 0	10.2	E9 2	2 2	1 061 4	 EO 9	24.0
Other Eliminations	40.2	7.8 (1,133.2)	10.3	58.3 (1,133.2)	3.3	1,961.4 (2,393.1)	59.8 	34.8
Total		\$	\$ 6.1	\$ 6,849.0	\$1,175.9	\$14,589.5	\$124.5	\$2,109.7
	=======	=======	=====	=======	======	=======	=====	=======

DEPRECIATION,
DEPLETION &
AMORTIZATION
(MILLIONS)

# 1998

Gas Pipeline	\$287.0
Energy Services	
Energy Marketing & Trading	30.1
Exploration & Production	26.0
Midstream Gas & Liquids	121.6

Petroleum Services Merger-related costs	70.8 
Communications	248.5
Communications Solutions Network Applications Network Services	36.9 33.7 13.2
Other	83.8  27.0
Eliminations	
Total	\$646.3 =====
1997 Gas Pipeline Energy Services	\$273.0
Energy Marketing & Trading Exploration & Production Midstream Gas & Liquids Petroleum Services	20.8 12.6 131.9 67.8  233.1
Communications Communications Solutions Network Applications Network Services	29.7 33.1 4.0
Other	66.8  13.0 
Total	\$585.9 =====
1996 Gas Pipeline Energy Services	\$241.4
Energy Marketing & Trading Exploration & Production Midstream Gas & Liquids Petroleum Services	16.9 10.5 124.3 64.1  215.8
Communications Communications Solutions Network Applications Network Services	16.0 14.9  30.9
OtherEliminations	12.2  \$500.3
Total	\$500.3 =====

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<sup>\*</sup> Energy Marketing & Trading intercompany cost of sales, which are netted in revenues consistent with fair-value accounting, exceed intercompany revenues in 1998.

## QUARTERLY FINANCIAL DATA (UNAUDITED)

Summarized quarterly financial data are as follows (millions, except per-share amounts). Certain amounts have been reclassified as described in Note 1 of Notes to Consolidated Financial Statements.

	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER
1998				
Revenues	\$1,958.8	\$1,774.3	\$1,886.8	\$2,038.4
Costs and operating expenses	1,423.1	1,259.1	1,377.2	1,473.0
<pre>Income (loss) before extraordinary loss</pre>	72.9	60.7	32.1	(33.4)
Net income (loss)	68.1	60.7	32.1	(33.4)
Basic earnings per common share:				
Income (loss) before extraordinary loss	.17	.14	.07	(.08)
Net income (loss)	.16	.14	.07	(.08)
Diluted earnings per common share:				
Income (loss) before extraordinary loss	.17	.14	. 07	(.08)
Net income (loss)	.16	. 14	. 07	(.08)
Revenues	\$1,931.3	\$1,873.0	\$2,100.9	\$2,344.3
Costs and operating expenses	1,425.6	1,419.2	1,609.5	1,772.9
Income before extraordinary loss	178.6	118.5	87.4	62.9
Net income	178.6	118.5	13.7	57.5
Basic earnings per common share:				
Income before extraordinary loss	. 43	. 28	.21	.14
Net income	.43	. 28	.03	.13
Diluted earnings per common share:				
Income before extraordinary loss	.42	. 28	. 20	.14
Net income	.42	. 28	.03	. 13

The sum of earnings per share for the four quarters may not equal the total earnings per share for the year due to changes in the average number of common shares outstanding.

First-quarter, second-quarter, third-quarter, and fourth-quarter 1998 net income includes approximately \$59 million, \$9 million, \$6 million and \$6 million, respectively, of pre-tax merger-related costs (see Note 2).

Second-quarter 1998 net income also includes a pre-tax \$15.5 million loss provision for potential refunds to customers (see Note 5). Third-quarter 1998 net income includes \$17 million in pre-tax credit loss accruals for certain retail energy activities. In addition, third-quarter 1998 includes a \$23.2 million pre-tax loss related to a venture involved in the technology and transmission of business information for news and educational purposes (see Note 5).

First-quarter 1997 net income includes a pre-tax \$66 million gain related to the sale of the interest in the West Panhandle field (see Note 5). Second-quarter 1997 net income includes a \$44.5 million gain related to the combination of Williams' and Nortel's customer-premise equipment sales and service business (see Note 2). Third-quarter 1997 net income includes an extraordinary loss of \$74 million related to the restructuring of Williams' debt portfolio (see Note 7).

Selected comparative fourth-quarter data are as follows (millions, except per-share amounts).

	1998	1997
Operating income (loss): Gas Pipeline Energy Services. Communications. Other. General corporate expenses.	1.1	\$ 160.3 155.9 (52.6) 3.7 (38.1)
Total operating income  Interest expense net  Investing income  Minority interest in (income) loss of consolidated	102.3 (137.1) 6.2	(111.0)
subsidiaries Other expense net		(5.6) (1.4)
Income (loss) from continuing operations before extraordinary loss and income taxes		
Income (loss) from continuing operations before extraordinary loss		(6.3)
Income (loss) before extraordinary loss	(33.4)	
Net income (loss)	\$ (33.4) ======	\$ 57.5 ======
Basic and diluted earnings (loss) per common share	\$ (.08) =====	\$ .13 ======

The fourth-quarter 1998 operating income includes accruals totaling approximately \$31 million related to the modification of Williams' employees benefit program (see Note 5). Fourth-quarter 1998 segment profit for Gas Pipeline includes a charge of \$58 million related to certain long-term gas supply contracts (see Note 5), while Energy Services segment profit includes \$14 million for asset impairments related to the decision to change the focus of its retail natural gas and electric business (see Note 5).

Communications' fourth-quarter 1997 segment loss includes charges totaling approximately \$49.8 million, related to the decision and commitment to a plan to sell the learning content business, and the impairment of several advanced applications projects (see Note 5). In addition, 1997 general corporate expenses include approximately \$10 million in costs related to the MAPCO acquisition (see Note 2) and approximately \$19 million of MAPCO's pre-merger general corporate expense.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

# INDEX TO CONSOLIDATED FINANCIAL STATEMENTS ITEM 14(A) 1 AND 2

	PAGE
Covered by report of independent auditors:	
Consolidated statement of income for the three years ended	F-24
December 31, 1998	
Consolidated balance sheet at December 31, 1998 and	F-25
1997	
Consolidated statement of stockholders' equity for the	F-26
three years ended December 31, 1998	
Consolidated statement of cash flows for the three years	F-27
ended December 31, 1998	
Notes to consolidated financial statements	F-28
Schedules for the three years ended December 31, 1998:	
II Valuation and qualifying accounts	F-62
, , ,	F-02
Not covered by report of independent auditors:	
Ouarterly financial data (unaudited)	F-59

All other schedules have been omitted since the required information is not present or is not present in amounts sufficient to require submission of the schedule, or because the information required is included in the financial statements and notes thereto.

# SCHEDULE II -- VALUATION AND QUALIFYING ACCOUNTS(A)

		ADD1	ITIONS		
	BEGINNING BALANCE	TO COSTS AND EXPENSES	OTHER	DEDUCTIONS(B)	ENDING BALANCE
			(MILLIONS)		
Year ended December 31, 1998: Allowance for doubtful accounts					
Receivables	\$21.5	\$39.8	\$	\$30.8	\$30.5
Other assets	4.6			4.6	
Price-risk management credit reserves	7.7	5.3			13.0
Year ended December 31, 1997:					
Allowance for doubtful accounts					
Receivables	11.4	13.3	7.0(c)	10.2	21.5
Other assets	4.6				4.6
Price-risk management credit reserves	7.6	.1			7.7
Year ended December 31, 1996:					
Allowance for doubtful accounts					
Receivables	12.8	5.3	1.4(c)	8.1	11.4
Other assets	1.6	3.0			4.6
Price-risk management credit reserves	8.3	(.7)			7.6

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<sup>(</sup>a) Deducted from related assets.

<sup>(</sup>b) Represents balances written off, net of recoveries and reclassifications.

<sup>(</sup>c) Primarily relates to acquisitions of businesses.

PART III

#### ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT

The information regarding the Directors and nominees for Director of Williams required by Item 401 of Regulation S-K is presented under the heading "Election of Directors" in Williams' Proxy Statement prepared for the solicitation of proxies in connection with the Annual Meeting of Stockholders of the Company for 1999 (the "Proxy Statement"), which information is incorporated by reference herein. A copy of the Proxy Statement is filed as an exhibit to the Form 10-K. Information regarding the executive officers of Williams is presented following Item 4 herein, as permitted by General Instruction G(3) to Form 10-K and Instruction 3 to Item 401(b) of Regulation S-K. Information required by Item 405 of Regulation S-K is included under the heading "Compliance with Section 16(a) of the Securities Exchange Act of 1934" in the Proxy Statement, which information is incorporated by reference herein.

## ITEM 11. EXECUTIVE COMPENSATION

The information required by Item 402 of Regulation S-K regarding executive compensation is presented under the headings "Election of Directors" and "Executive Compensation and Other Information" in the Proxy Statement, which information is incorporated by reference herein. Notwithstanding the foregoing, the information provided under the headings "Compensation Committee Report on Executive Compensation" and "Stockholder Return Performance Presentation" in the Proxy Statement are not incorporated by reference herein. A copy of the Proxy Statement is filed as an exhibit to the Form 10-K.

#### ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The information regarding the security ownership of certain beneficial owners and management required by Item 403 of Regulation S-K is presented under the headings "Security Ownership of Certain Beneficial Owners and Management" in the Proxy Statement, which information is incorporated by reference herein. A copy of the Proxy Statement is filed as an exhibit to the Form 10-K.

#### ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

The information regarding certain relationships and related transactions required by Item 404 of Regulation S-K is presented under the heading "Certain Relationships and Related Transactions" in the Proxy Statement, which information is incorporated by reference herein. A copy of the Proxy Statement is filed as an exhibit to the Form 10-K.

#### PART IV

# ITEM 14. EXHIBITS, FINANCIAL STATEMENT SCHEDULES AND REPORTS ON FORM 8-K

- (a) 1 and 2. The financial statements and schedule listed in the accompanying index to consolidated financial statements are filed as part of this annual report.
- (a) 3 and (c). The exhibits listed below are filed as part of this annual report.

EXHIBIT NO. DESCRIPTION

Exhibit 2 --

\*(a) -- Agreement and Plan of Merger, dated as of November 23, 1997, and as amended on January 25, 1998, among The Williams Companies, Inc., MAPCO Inc. and TML Acquisition Corp. (filed as Exhibit 2.1 to Williams' Registration Statement on Form S-4, filed January 27, 1998).

EXHIBIT NO.

#### DESCRIPTION

Exhibit 3 \*(a)

- -- Restated Certificate of Incorporation of Williams (filed as Exhibit 4(a) to Form 8-B Registration Statement, filed August 20, 1987).
- \*(b) Certificate of Amendment of Restated Certificate of Incorporation, dated May 20, 1994 (filed as Exhibit 3(d) to Form 10-K for the fiscal year ended December 31,
- \*(c) Certificate of Amendment of Restated Certificate of Incorporation dated May 16, 1997 (filed as Exhibit 4.3 to the Registration Statement on Form S-8 filed November 21,
- \*(d) Certificate of Amendment of Restated Certificate of Incorporation, dated February 26, 1998 (filed as Exhibit 3(d) to Form 10-K for the fiscal year ended December 31, 1997).
- Certificate of Designation with respect to the \$3.50 Cumulative Convertible Preferred Stock (filed as Exhibit \*(e) 3.1(c) to the Prospectus and Information Statement to Amendment No. 2 to the Registration Statement on Form S-4, filed March 30, 1995).
- \*(f) -- Certificate of Increase of Authorized Number of Shares of Series A Junior Participating Preferred Stock (filed as Exhibit 3(f) to Form 10-K for the fiscal year ended December 31, 1995).
- \*(g) Certificate of Increase of Authorized Number of Shares of Series A Junior Participating Preferred Stock, dated December 31, 1997 (filed as Exhibit 3(g) to Form 10-K for the fiscal year ended December 31, 1997).
- \*(h) Rights Agreement, dated as of February 6, 1996, between Williams and First Chicago Trust Company of New York (filed as Exhibit 4 to Williams Form 8-K filed January
- \*(i) By-laws of Williams, as amended (filed, as amended, as Exhibit 3 to Form 10-Q for the quarter ended September 30, 1996).

Exhibit 4

- \*(a) -- Form of Senior Debt Indenture between the Company and Chase Manhattan Bank (formerly Chemical Bank), Trustee, relating to the 10 1/4% Debentures, due 2020; the 9 3/8% Debentures, due 2021; Medium-Term Notes (9.10%-9.31%), due 2001; the 7 1/2% Notes, due 1999, and the 8 7/8% Debentures, due 2012 (filed as Exhibit 4.1 to Form S-3 Registration Statement No. 33-33294, filed February 2, 1900) 1990).
- Second Amended and Restated Credit Agreement, dated as of July 23, 1997, among Williams and certain of its \*(b) subsidiaries and the banks named therein and Citibank, N.A., as agent (filed as Exhibit 4(c) to Form 10-K for the fiscal year ended December 31, 1997).
- (c) Amendment dated January 26, 1999, to Second Amended and Restated Credit Agreement dated July 23, 1997, among Williams and certain of its subsidiaries and the banks named therein and Citibank, N.A., as agent.
- \*(d) Form of Senior Debt Indenture between the Company and The First National Bank of Chicago, Trustee, relating to 6 1/2% Notes due 2002; 6 5/8% Notes due 2004; floating rate notes due 2000; 6 1/8% Notes due 2001; 6.20% Notes due 2002; 6 1/2% Notes due 2006; 5.95% Structured Putable/Remarketable Securities due 2010; and 6 1/8% Mandatory Putable/Remarketable Securities due 2012 (filed as Exhibit 4.1 to Registration Statement on Form S-3 filed September 8, 1997).

EXHIBIT NO. DESCRIPTION

- \*(e) -- Form of Debenture representing \$360,000,000 principal amount of 6% Convertible Subordinated Debenture Due 2005 (filed as Exhibit 4.7 to the Registration Statement on Form S-8, filed August 30, 1996).
- \*(f) -- Form of Warrant to purchase 11,305,720 shares of the Common Stock of the Company (filed as Exhibit 4.8 to the Registration Statement on Form S-8, filed August 30, 1996).
- \*(g) -- Indenture dated May 1, 1990, between Transco Energy
  Company and The Bank of New York, as Trustee (filed as an
  Exhibit to Transco Energy Company's Form 8-K dated June
  25, 1990).
- \*(h) -- First Supplemental Indenture dated June 20, 1990, between Transco Energy Company and The Bank of New York, as Trustee (filed as an Exhibit to Transco Energy Company's Form 8-K dated June 25, 1990).
- \*(i) -- Second Supplemental Indenture dated November 29, 1990, between Transco Energy Company and The Bank of New York, as Trustee (filed as an Exhibit to Transco Energy Company's Form 8-K dated December 7, 1990).
- \*(j) -- Third Supplemental Indenture dated April 23, 1991, between Transco Energy Company and The Bank of New York, as Trustee (filed as an Exhibit to Transco Energy Company's Form 8-K dated April 30, 1991).
- \*(k) -- Fourth Supplemental Indenture dated August 22, 1991, between Transco Energy Company and The Bank of New York, as Trustee (filed as an Exhibit to Transco Energy Company's Form 8-K dated August 27, 1991).
- (1) -- Fifth Supplemental Indenture dated May 1, 1995, among Transco Energy Company, Williams, and The Bank of New York, Trustee.

Exhibit 10(iii) -- Compensatory Plans and Management Contracts

- \*(a) -- The Williams Companies, Inc. Supplemental Retirement Plan, effective as of January 1, 1988 (filed as Exhibit 10(iii)(c) to Form 10-K for the year ended December 31, 1987).
- \*(b) -- Form of Employment Agreement, dated January 1, 1990, between Williams and certain executive officers (filed as Exhibit 10(iii)(d) to Form 10-K for the year ended December 31, 1989).
- December 31, 1989).

  \*(c) -- Form of The Williams Companies, Inc. Change in Control Protection Plan between Williams and employees (filed as Exhibit 10(iii)(e) to Form 10-K for the year ended December 31, 1989).
- \*(d) -- The Williams Companies, Inc. 1985 Stock Option Plan (filed as Exhibit A to Williams' Proxy Statement, dated March 13, 1985).
- \*(e) -- The Williams Companies, Inc. 1988 Stock Option Plan for Non-Employee Directors (filed as Exhibit A to Williams' Proxy Statement, dated March 14, 1988).
- \*(f) -- The Williams Companies, Inc. 1990 Stock Plan (filed as Exhibit A to Williams' Proxy Statement, dated March 12, 1990).
- \*(g) -- The Williams Companies, Inc. Stock Plan for Non-Officer Employees (filed as Exhibit 10(iii)(g) to Form 10-K for the fiscal year ended December 31, 1995).
- \*(h) -- The Williams Companies, Inc. 1996 Stock Plan (filed as Exhibit A to Williams' Proxy Statement, dated March 27, 1996).
- \*(i) -- The Williams Companies, Inc. 1996 Stock Plan for Non-Employee Directors (filed as Exhibit B to Williams' Proxy Statement, dated March 27, 1996).

EXHIBIT NO.	DESCRIPTION
*(j) -	- Indemnification Agreement, effective as of August 1, 1986, between Williams and members of the Board of Directors and certain officers of Williams (filed as Exhibit 10(iii)(e) to Form 10-K for the year ended December 31, 1986).
*(k) -	- The Williams Communications Stock Plan (filed as Exhibit 99 to the Registration Statement on Form S-8, filed on August 14, 1998).
(1) -	- The Williams International Stock Plan.
, ,	<ul> <li>Form of Stock Option Secured Promissory Note and Pledge Agreement between Williams and certain employees, officers, and non-employee directors.</li> </ul>
Exhibit 12 -	- Computation of Ratio of Earnings to Combined Fixed Charges and Preferred Stock Dividend Requirements.
Exhibit 20 -	- Definitive Proxy Statement of Williams for 1999 (as filed with the Commission on March 29, 1999).
	- Subsidiaries of the registrant.
	- Consent of Independent Auditors, Ernst & Young LLP.
Exhibit 24 -	<ul> <li>Consent of Independent Auditors, Deloitte &amp; Touche LLP.</li> <li>Power of Attorney together with certified resolution.</li> <li>Financial Data Schedule.</li> </ul>
Exhibit 99 -	- Opinion of Independent Auditors, Deloitte & Touche LLP.

## (b) Reports on Form 8-K.

On October 21, 1998, Williams filed a report on Form 8-K to report third quarter earnings.

On November 23, 1998, Williams filed a report on Form 8-K to report that the Board of Directors of The Williams Companies, Inc. has authorized Williams Communications Group, Inc., a wholly-owned subsidiary of the Company to sell a minority interest in its business to the public.

(d) The financial statements of partially-owned companies are not presented herein since none of them individually, or in the aggregate, constitute a significant subsidiary.

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<sup>\*</sup> Each such exhibit has heretofore been filed with the Securities and Exchange Commission as part of the filing indicated and is incorporated herein by reference.

## SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

THE WILLIAMS COMPANIES, INC. (Registrant)

By: /s/ SHAWNA L. GEHRES

Shawna L. Gehres Attorney-in-fact

Dated: March 29, 1999

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant in the capacities and on the dates indicated.

SIGNATURE	TITLE 
/s/ KEITH E. BAILEY* Keith E. Bailey	Chairman of the Board, President, Chief Executive Officer (Principal Executive Officer) and Director
/s/ JACK D. MCCARTHY*  Jack D. McCarthy	Senior Vice President Finance (Principal Financial Officer)
/s/ GARY R. BELITZ* Gary R. Belitz	Controller (Principal Accounting Officer)
/s/ GLENN A. COX*	Director 
/s/ THOMAS H. CRUIKSHANK*  Thomas H. Cruikshank	
/s/ WILLIAM E. GREEN*	Director 
William E. Green /s/ PATRICIA L. HIGGINS*	
Patricia L. Higgins /s/ W.R. HOWELL*	Director 
W. R. Howell /s/ ROBERT J. LAFORTUNE*	Director
Robert J. LaFortune /s/ JAMES C. LEWIS*	
James C. Lewis /s/ JACK A. MACALLISTER*	
Jack A. MacAllister	

SIGNATURE /s/ FRANK T. MACINNIS Director Frank T. MacInnis /s/ PETER C. MEINIG\* Director Peter C. Meinig /s/ KAY A. ORR\* Director Kay A. Orr /s/ GORDON R. PARKER\* Director Gordon R. Parker /s/ JOSEPH H. WILLIAMS\* Director Joseph H. Williams By: /s/ SHAWNA L. GEHRES

TITLE

Shawna L. Gehres

Attorney-in-fact

Dated: March 29, 1999

# EXHIBIT INDEX

XHIBIT	DECEDITATION
NUMBER	DESCRIPTION
4(c)	Amendment to Second Amended and Restated Credit Agreement.
4(1)	Fifth Supplemental Indenture Dated as of May 1, 1995, among Transco Energy Company, Williams, and The Bank of New York, Trustee.
10(iii)(l)	The Williams International Stock Plan.
10(iii)(m)	Form of Stock Option Secured Promissory Note and Pledge Agreement between Williams and certain employees, officers, and non-employee directors.
12	Computation of Ratio of Earnings to Combined Fixed Charges and Preferred Stock Dividend Requirements.
21	Subsidiaries of the registrant.
23(a)	Consent of Independent Auditors, Ernst & Young LLP.
23(b)	Consent of Independent Auditors, Deloitte & Touche LLP.
24	Power of Attorney together with certified resolution.
27	Financial Data Schedule.
99	Opinion of Independent Auditors, Deloitte & Touche LLP.

#### AMENDMENT TO SECOND AMENDED AND RESTATED CREDIT AGREEMENT DATED AS OF JULY 23, 1997

DATED AS OF JANUARY 26, 1999

THIS AMENDMENT (herein called this "Amendment") is made and entered into this 26th day of January, 1999, by and among the Borrowers, the Agent and the Banks. In consideration of the mutual covenants and agreements contained herein, the Borrowers, the Agent and the Banks hereby agree as set forth herein.

#### WITNESSETH:

WHEREAS, the Borrowers, the Agent and certain of the Banks are parties to the Second Amended and Restated Credit Agreement dated as of July 23, 1997 (the "1997 Credit Agreement"); and

WHEREAS, the Borrowers have requested that the 1997 Credit Agreement be further amended, and the parties hereto have agreed to do so on the terms and conditions set forth herein; and

WHEREAS, Williams Communications Group, Inc. ("WCG") intends to become a Borrower pursuant to the 1997 Credit Agreement and the Banks have agreed to the inclusion of WCG in such capacity subject to the terms hereof.

NOW, THEREFORE, in consideration of the mutual covenants and agreements contained herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Borrowers, the Agent and the Banks agree as follows:

- 1. Unless the context otherwise requires or unless otherwise expressly defined herein, the terms defined in the 1997 Credit Agreement shall have the same meanings whenever used in this Amendment.
- 2. The definition of "Applicable Margin" as listed in ARTICLE I DEFINITIONS AND ACCOUNTING TERMS is hereby amended as follows:
- (a) Clause (i) of the definition of "Applicable Margin" is hereby amended and restated in its entirety to read as follows:

- (i) as to any Eurodollar Rate Advance to any Borrower (other than (x) WilTel during such times as WilTel is Unrated and (y) WCG at any time), the rate per annum set forth in Schedule XI under the heading "Applicable Margin" for the relevant Rating Category applicable to such Borrower from time to time;
- (b) Clause (iii) of the definition of "Applicable Margin" is hereby amended and restated in its entirety to read as follows:

(iii) for each day during such times as WilTel is Unrated, as to any Eurodollar Rate Advance to WilTel at such times subsequent to January 26, 1999, the rate per annum set forth in the following table for the relevant Applicable WilTel Debt to EBITDA Ratio for such day:

	Applicable	e Margin
Applicable	If 50% or less	
	of Commitment	
EBITDA Ratio	drawn	
Less than or equal to 1.0	. 375%	. 500%
Greater than 1.0 and less than or equal to 1.75	. 500%	. 625%
Greater than 1.75 and less than or equal to 2.5	. 625%	. 750%
Greater than 2.5 and less than or equal to 3.5	.750%	. 875%
Greater than 3.5 and less than or equal to 4.5	1.00%	1.125%
Greater than 4.5 and less than or equal to 5.5	1.25%	1.50%
Greater than 5.5	1.50%	2.00%

(c) The following clause (iv) is added to the definition of "Applicable Margin" immediately following clause (iii) of such definition:

and (iv) as to any Eurodollar Rate Advance to WCG as Borrower, the Applicable Margin in effect with respect to WHD on such date, as determined pursuant to clause (i) of this definition.

3. The definition of "WilTel" as listed in ARTICLE I DEFINITIONS AND ACCOUNTING TERMS is hereby deleted and replaced with the following:

"WilTel" means Williams Communications Solutions, LLC, a Delaware limited liability company.

- 4. The definition of "Borrowers" as listed in ARTICLE I DEFINITIONS AND ACCOUNTING TERMS is hereby amended to delete WPL and to add "WCG".
- 5. ARTICLE I DEFINITIONS AND ACCOUNTING TERMS is hereby amended to add the following terms:

"Guaranty" means that certain guaranty dated January 26, 1999 duly executed and delivered to the Agent by WHD in substantially the form of Exhibit I.

"Permitted WCG Liens" means Liens specifically described on Schedule TX-A.

"WCG" means Williams Communications Group, Inc., a Delaware corporation.

- 6. Section 3.02 Additional Conditions Precedent to Each A Borrowing is hereby amended to add the following subpart (a)(iv):
  - (a)(iv) The Guaranty has been executed and delivered by WHD and remains in full force and effect.
- 7. Section 3.03 Conditions Precedent to Each B Borrowing is hereby amended to add the following subpart (iii)(a)(5):
  - (iii)(a)(5) The Guaranty has been executed and delivered by WHD and remains in full force and effect.
- 8. Section 4.1 Representations and Warranties is hereby amended by adding thereto the following additional clause (n):
  - (n) The Borrower has (i) reviewed the areas within its business and operations and those of its Subsidiaries which could be adversely affected by failure to become "Year 2000 Compliant" (that is, that computer applications, imbedded microchips and other systems

used by any of the Borrower or its Subsidiaries or their material vendors, will be able properly to recognize and perform date-sensitive functions involving certain dates prior to and any date after December 31, 1999); (ii) developed a detailed plan and timetable to become Year 2000 Compliant in a timely manner; and (iii) committed adequate resources to support its plan to become Year 2000 Compliant in a timely manner. Based on such review and plan the Borrower reasonably believes that it and its Subsidiaries will become Year 2000 Compliant on a timely basis except to the extent that a failure to do so would not reasonably be expected to have a material adverse effect on the business, assets or financial condition of the Borrower and its Subsidiaries, taken as a whole, or on the ability of the Borrower to perform its obligations hereunder.

- 9. Section 5.02 Negative Covenants, is hereby amended as follows:
- (a) By adding to clause (a) Liens, Etc. thereof the following additional subclause:
- (viii) WCG and its Non-Borrowing Subsidiaries may create, incur, assume or suffer to exist Permitted WCG Liens
- (b) By deleting subparts (b) Debt, (i) and (ii) and replacing them with the following:
- (b) Debt. (i) in the case of TWC, permit the ratio of (A) the aggregate amount of all Debt of TWC and its Subsidiaries on a Consolidated basis to (B) the sum of the Consolidated Net Worth of TWC plus the aggregate amount of all Debt of TWC and its Subsidiaries on a Consolidated basis to exceed (1) 0.7 to 1.0 at any time during the period beginning on January 1, 1999 through December 31, 2000, (2) 0.675 to 1.0 at any time during the period beginning on January 1, 2001 through December 31, 2001, or (3) 0.65 to 1.0 at any time during the period beginning on January 1, 2002 through the term of this Agreement;
- (ii) in the case of WHD, permit the ratio of (A) the aggregate amount of all Debt of WHD and its Subsidiaries on a Consolidated basis to (B) the sum of the Consolidated Net Worth of WHD plus the aggregate amount of all Debt of WHD and its Subsidiaries on a consolidated basis to exceed (1) 0.6 to 1.0 at any time during the period beginning on January 1, 1999 through December 31, 2000, (2) 0.575 to 1.0 at any time during the period beginning on January 1, 2001 through December 31, 2001, or (3) 0.55 to 1.0 at any time during the period beginning on January 1, 2002 through the term of this Agreement; and

- (c) By adding in clause (f) Maintenance of Ownership of Certain Subsidiaries immediately after the reference to "WilTel" in phrases (1) and (2) of such clause (f) a reference to WCG.
- (d) By amending and restating subpart (vii) of clause (j) Sale and Lease-Back Transactions to read as follows:
- (vii) paragraph (x) of Schedule IX in the case of WilTel and its Subsidiaries or Schedule IX-A in the case of WCG and its Subsidiaries.
- 10. Section 6.01 Events of Default is hereby amended by adding the word "or" after the semi-colon ending clause (i) thereof and adding the following clause (j) to such Section 6.01:
  - (j) As to WCG as Borrower, the Guaranty shall (except in accordance with its terms), in whole or in part, terminate, cease to be effective or cease to be the legally valid, binding and enforceable obligation of WHD as guarantor thereunder; any Borrower or any Subsidiary or Affiliate of a Borrower shall, directly or indirectly, contest in any manner such effectiveness, validity, binding nature or enforceability;
- 11. Schedule II "Borrower Information" is hereby amended by adding thereto the following information: Williams Communications Group, One Williams Center, Suite 4800, Tulsa, Oklahoma 74172, Attention: Patti J. Kastl, Telecopier: (918) 588-4755.
- 12. Schedule IX-A "Permitted WCG Liens" is hereby added to the 1997 Credit Agreement in the form of Schedule IX-A attached hereto.
- 13. The total Commitments of the Banks to WCG shall be in the aggregate amount of \$400,000,000 and each Bank?s Commitment to WCG as of the date hereof shall be forty percent (40%) of its Commitment to WHD pursuant to the 1997 Credit Agreement as hereby amended. Schedule X of the 1997 Credit Agreement is hereby deemed to be amended to add such Commitment of each Bank to WCG thereto and to delete the Commitment of each Bank to WPL.
- 14. Schedule XI "Rating Categories" is hereby deleted in its entirety and replaced with the Schedule XI attached to this Amendment.
- 15. Exhibit I "Form of Guaranty", attached to this Amendment, is hereby added to the Agreement as Exhibit I.
- 16. To induce the Banks, the Co-Agents and the Agent to enter into this Amendment, each of the Borrowers hereby reaffirms and WCG makes with respect to itself, as of the date  $\frac{1}{2}$

hereof, those representations and warranties contained in Article IV of the 1997 Credit Agreement (except to the extent such representations and warranties relate solely to an earlier date) and additionally each Borrower represents and warrants as follows:

- (a) The execution, delivery and performance by WCG of this Amendment and its Notes and the consummation of the transactions contemplated by this Amendment are within WCG?s corporate powers, have been duly authorized by all necessary corporate action, do not contravene (i) WCG?s charter or by-laws, or (ii) law or any contractual restriction binding on or affecting WCG and will not result in or require the creation or imposition of any Lien prohibited by the 1997 Credit Agreement, as amended hereby. At the time of each borrowing of any Advance by WCG, such borrowing and the use of the proceeds of such Advance will be within WCG?s corporate powers, will have been duly authorized by all necessary corporate action, will not contravene (i) WCG?s charter or by-laws, or (ii) law or any contractual restriction binding on or affecting WCG and will not result in or require the creation or imposition of any Lien prohibited by the 1997 Credit Agreement, as amended hereby.
- (b) No authorization or approval or other action by, and no notice to or filing with, any governmental authority or regulatory body is required for the due execution, delivery and performance by WCG of this Amendment or its Notes, or the performance of the 1997 Credit Agreement as amended hereby or the consummation of the transactions contemplated by this Amendment and the 1997 Credit Agreement as hereby amended. At the time of each borrowing of any Advance by WCG, no authorization or approval or other action by, and no notice to or filing with, any governmental authority or regulatory body will be required for such borrowing or the use of the proceeds of such Advance.
- (c) This Amendment has been duly executed and delivered by WCG. This Amendment and the 1997 Credit Agreement, as amended hereby, are the legal, valid and binding obligations of WCG enforceable against WCG in accordance with their terms, except as such enforceability may be limited by any applicable bankruptcy, insolvency, reorganization, moratorium or similar law affecting creditors? rights generally and by general principles of equity. The A Notes of WCG are, and when executed the B Notes of WCG will be, the legal, valid and binding obligations of WCG enforceable against WCG in accordance with their respective terms, except as such enforceability may be limited by any applicable bankruptcy, insolvency, reorganization, moratorium or similar law affecting creditors? rights generally and by general principles of equity.
- (d) The execution, delivery and performance by WHD of its Guaranty and the consummation of the transactions contemplated by this Amendment and such Guaranty are within WHD?s corporate powers, have been duly authorized by all necessary corporate action, do not contravene (i) WHD?s charter or by-laws, or (ii) law or any contractual restriction binding on

or affecting WHD and will not result in or require the creation or imposition of any Lien prohibited by the 1997 Credit Agreement, as amended hereby.

- (e) The Guaranty and this Amendment have each been duly executed and delivered by WHD and each constitutes the legal, valid and binding obligations of WHD enforceable against WHD in accordance with its respective terms, except as such enforceability may be limited by any applicable bankruptcy, insolvency, reorganization, moratorium or similar law affecting creditors? rights generally and by general principles of equity.
- (f) No authorization or approval or other action by, and no notice to or filing with, any governmental authority or regulatory body is required for the due execution, delivery and performance by WHD of this Amendment or its Guaranty or the consummation of the transactions contemplated by this Amendment or its Guaranty.
- (g) The execution, delivery and performance by each Borrower other than WCG (such Borrowers the "Existing Borrowers") of this Amendment and the consummation of the transactions contemplated by this Amendment are within such Existing Borrower?s corporate or limited liability company powers, have been duly authorized by all necessary corporate or limited liability company action, do not contravene (i) such Existing Borrower?s charter, by-laws, or formation agreement, or (ii) law or any contractual restriction binding on or affecting such Existing Borrower and will not result in or require the creation or imposition of any Lien prohibited by the 1997 Credit Agreement, as amended hereby.
- (h) No authorization or approval or other action by, and no notice to or filing with, any governmental authority or regulatory body is required for the due execution, delivery and performance by any Existing Borrower of this Amendment or the consummation of the transactions contemplated by this Amendment.
- (i) This Amendment has been duly executed and delivered by each Existing Borrower. This Amendment is the legal, valid and binding obligation of each Existing Borrower enforceable against each Existing Borrower in accordance with its terms, except as such enforceability may be limited by any applicable bankruptcy, insolvency, reorganization, moratorium or similar law affecting creditors? rights generally and by general principles of equity.
- 17. The obligation of each Bank to make its initial Advance to WCG on or after the date hereof is conditioned on the receipt by the Agent on or before the date of such Advance of the following:

- (a) A certificate of the Secretary or an Assistant Secretary of WCG as to (i) its by-laws and all changes which have been made, if any, to its Certificate of Incorporation since the date of certification of such Certificate delivered pursuant to item (b) below, (ii) resolutions of the Board of Directors or the Executive Committee thereof then in full force and effect authorizing the borrowing in an amount equal to or greater than \$400,000,000 and the execution, delivery and performance of such documents, certificates and notes and all other actions necessary to effect such and (iii) the incumbency and signatures of those of its officers authorized to act with respect to this Amendment;
- (b) A copy of the Certificate of Incorporation of WCG, certified by the Secretary of State of Delaware and attesting to its existence and good standing;
- (c) A certificate of the Secretary or an Assistant Secretary of WHD as to (i) its by-laws, (ii) resolutions of the Board of Directors or Executive Committee thereof then in full force and effect authorizing the execution, delivery and performance of the Guaranty, and (iii) the incumbency and signatures of those of its officers authorized to act with respect to this Amendment and the Guaranty;
- (d) The A Notes of WCG, duly executed to the order of each of the respective Banks, substantially in the form of Exhibit A-1 to the 1997 Credit Agreement in the aggregate principal amount of \$400,000,000;
  - (e) The Guaranty, duly executed by WHD; and
- (f) An opinion of William G. von Glahn, General Counsel of TWC, delivered on behalf of WCG and WHD substantially in the form of Exhibit A attached hereto.
- 18. The 1997 Credit Agreement as hereby amended is hereby ratified and confirmed in all respects. The execution, delivery and effectiveness of this Amendment shall not, except as expressly provided herein, operate as a waiver of any right, power or remedy of the Agent or the Banks under the 1997 Credit Agreement. All references to the Credit Agreement in any other document, instrument, agreement or writing shall hereafter be deemed to refer to the 1997 Credit Agreement as amended hereby.
- 19. The provisions of the 1997 Credit Agreement not specifically amended herein will be interpreted so as to be consistent with this Amendment; if, however, any discrepancy exists between such provisions in the 1997 Credit Agreement and this Amendment, such discrepancy shall be resolved in favor of this Amendment.

- 20. THIS AMENDMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK, WITHOUT REGARD TO CONFLICT OF LAW PRINCIPLES, AND ANY APPLICABLE LAWS OF THE UNITED STATES OF AMERICA, IN ALL RESPECTS, INCLUDING CONSTRUCTION, VALIDITY AND PERFORMANCE.
- 21. This Amendment shall be effective as of January 26, 1999 and shall be binding upon the parties hereto and upon their respective successors, heirs and permitted assigns.
- 22. This Amendment may be executed in any number of counterparts, all of which taken together shall constitute one and the same instrument, and any party hereto may execute this Amendment by signing one or more counterparts.

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be executed by their respective officers thereunto duly authorized, as of the date first written above.

THE WILLIAMS COMPANIES, INC.	TEXAS GAS TRANSMISSION CORPORATION
Ву:	Ву:
Name:	Name:
Title:	Title:
TRANSCONTINENTAL GAS PIPE LINE CORPORATION	WILLIAMS COMMUNICATIONS GROUP, INC.
ву:	By:
Name:	Name:
Title:	Title:
WILLIAMS HOLDINGS OF DELAWARE, INC.	WILLIAMS COMMUNICATIONS SOLUTIONS, L.L.C.
ву:	By:
Name:	Name:
Title:	Title:
NORTHWEST PIPELINE CORPORATION	
Зу:	
Name:	

AGENT:	
CITIBANK, N.A., as Agent	
Ву:	
Title:	
BANKS:	
CITIBANK, N.A.	CREDIT LYONNAIS NEW YORK BRANCH
Ву:	Ву:
Title:	Title:
BANK OF AMERICA NATIONAL TRUST AND SAVINGS ASSOCIATION	THE FIRST NATIONAL BANK OF CHICAGO
Ву:	Ву:
Title:	Title:
THE CHASE MANHATTAN BANK	BANK OF MONTREAL
Ву:	By:
Title:	Title:
CIBC INC.	THE BANK OF NEW YORK
Ву:	Ву:
Title:	Title:
	THE BANK OF NOVA SCOTIA
	Ву:
	Title:

Title:

Title:

3y:
Title:
THE SAKURA BANK, LIMITED
2011
3y:
Title:
THE BANK OF TOKYO-MITSUBISHI, LTD.
3y:
Title:
JBS AG, STAMFORD BRANCH
3y:
Title:
NATIONS BANK N.A.
3у:
,

Title:

INDUSTRIAL BANK OF JAPAN TRUST COMPANY

TRANSCO ENERGY COMPANY

THE WILLIAMS COMPANIES, INC.

and

THE BANK OF NEW YORK

Trustee

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FIFTH SUPPLEMENTAL INDENTURE

Dated as of May 1, 1995

Supplementing the Indenture dated as of May 1, 1990, as amended

# FIFTH SUPPLEMENTAL INDENTURE

FIFTH SUPPLEMENTAL INDENTURE (the "Fifth Supplemental Indenture"), dated as of May 1, 1995, by and among Transco Energy Company, a Delaware corporation ("Transco"), The Williams Companies, Inc., a Delaware corporation ("Williams"), and The Bank of New York, a New York banking corporation, as Trustee (the "Trustee").

#### WITNESSETH:

WHEREAS, Transco and the Trustee have entered into an Indenture dated as of May 1, 1990 (as amended by a First Supplemental Indenture dated as of June 20, 1990, a Second Supplemental Indenture dated as of November 29, 1990, a Third Supplemental Indenture dated as of April 23, 1991 and a Fourth Supplemental Indenture dated as of August 22, 1991, the "Indenture"), pursuant to which Indenture Transco has issued certain 9 5/8% Notes due 2000, 9 7/8% Debentures due 2020, 9 1/2% Notes due 1995, 9 1/8% Notes due 1998 and 9 3/8% Notes due 2001 (collectively, the "Notes"); and

WHEREAS, Williams desires to assume, pursuant hereto and effective as of the date hereof, all of Transco's obligations in respect of the Notes in connection with the transfer (the "Transfer") of certain of Transco's assets to Williams following the merger of WC Acquisition Corp., a Delaware corporation and a wholly-owned subsidiary of Williams ("Sub"), with and into Transco pursuant to an Agreement and Plan of Merger dated as of December 12, 1994 by and among Transco, Williams and Sub; and

WHEREAS, pursuant to the Transfer, Transco will assign and transfer to Williams all of the outstanding capital stock of Texas Gas Transmission Corporation, Transcontinental Gas Pipe Line Corporation, Transco Gas Marketing Company and Transco Coal Company, each a Delaware corporation and a wholly-owned subsidiary of Transco, such subsidiaries constituting the properties and assets of Transco substantially as an entirety; and

WHEREAS, Article Thirteen of the Indenture requires, in the event of a transfer of Transco's properties and assets substantially as an entirety, that the successor to such assets expressly assume, by supple-

mental indenture, certain of Transco's obligations in respect of the Notes

NOW, THEREFORE, for and in consideration of the premises and the mutual covenants contained herein and in the Indenture and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Transco, Williams, and the Trustee hereby agree as follows:

Section 1. Definitions. Capitalized terms which are used but not defined herein shall have the meanings ascribed to such terms in the Indenture.

Section 2. Assumption of Certain Obligations.

- (a) Williams hereby expressly assumes (i) the due and punctual payment of the principal of, premium, if any, on, interest on, and any Additional Amounts payable under Section 6.09 of the Indenture in respect of, the Notes and (ii) the performance of all of the covenants provided for in the Indenture to be performed or observed by Transco.
- (b) Transco and the Trustee hereby acknowledge that Williams shall succeed to, and be substituted for, and may exercise every right and power of, Transco under the Indenture with the same effect as if Williams had been named therein.
- Section 3. Effect of Fifth Supplemental Indenture. From and after the execution and delivery of this Fifth Supplemental Indenture, the Indenture shall be deemed to be modified as herein provided, but except as modified hereby, the Indenture shall continue in full force and effect. The Indenture as modified hereby shall be read, taken and construed as one and the same instrument.

Section 4. Notice. Any notice or communication by the Trustee to Williams is duly given if in writing and delivered in person or by express mail service to the address set forth below:

The Williams Companies, Inc. One Williams Center Tulsa, Oklahoma 74172 Attention: General Counsel

Section 5. Governing Law. This Fifth Supplemental Indenture shall be governed by and construed in accordance with the laws of the State of New York (regardless of the laws that might otherwise govern under applicable principles of conflicts of laws) as to all matters, including, without limitation, matters of validity, construction, effect, performance and remedies.

Section 6. Counterparts. This Fifth Supplemental Indenture may be executed in any number of counterparts, each of which; when so executed and delivered, shall be an original, but such counterparts shall together constitute but one and the same instrument.

IN WITNESS WHEREOF, each of Transco, Williams and the Trustee has caused this Fifth Supplemental Indenture to be executed on its behalf by its duly authorized officer and has caused its official seal to be impressed hereon and attested by one of its duly authorized officers, all as of the day and year first above written.

[SEAL] TRANSCO ENERGY COMPANY

Attest

/s/ BOBBY E. POTTS

Name: Bobby E. Potts

Title: Assistant Secretary

By: /s/ JACK D. MCCARTHY

Name: Jack D. McCarthy

Title: Vice-President

[SEAL] THE WILLIAMS COMPANIES, INC.

Attest

/s/ BOBBY E. POTTS

Name: Bobby E. Potts

Title: Assistant Secretary

Name: Jack D. McCarthy

Title: Senior Vice-President
Finance and Chief
Financial Officer

[SEAL] THE BANK OF NEW YORK, AS TRUSTEE

Attest

By:/s/ ROBERT F. MCINTYRE
----Name: Robert F. McIntyre

Name: Marie E. Trimboli Title: Assistant Treasurer

# THE WILLIAMS INTERNATIONAL STOCK PLAN

# SECTION 1

# PURPOSES AND EFFECTIVE DATE

- 1.01 Purposes. The objectives of the THE WILLIAMS INTERNATIONAL STOCK PLAN (the "Plan") are to promote the long-term financial success of WILLIAMS INTERNATIONAL COMPANY, INC. (the "Company") by providing a compensation program to enable Williams International to (i) retain employees who are critical to Williams International's success; (ii) recognize and reward employee performance; and (iii) provide incentives for key employees that are consistent with The Williams Companies, Inc. ("Williams") stockholder interests and values.
- $\,$  1.02 Effective Date. The Plan shall become effective as of May 20, 1998.

#### SECTION 2

#### **DEFINITIONS**

- 2.01 Definitions. In addition to the terms defined elsewhere in the Plan, the following terms as used in the Plan shall have the following meanings when used with initial capital letters:
- 2.01.1 "Affiliate" means any entity, other than Williams International, in which Williams owns, directly or indirectly, at least 20 percent of the combined voting power of all classes of stock of such entity or at least 20 percent of the ownership interest in such entity.
- 2.01.2 "Award" means any Option, Deferred Stock, Dividend Equivalent or any other right or interest relating to Shares or cash granted under the Plan.
- 2.01.3 "Award Agreement" means any written agreement, contract, notice to a Participant or other instrument or document between Williams International and the Participant evidencing an Award.
  - 2.01.4 "Board" means the Board of Directors of Williams.
  - 2.01.5 "CEO" means the Chief Executive Officer of Williams.
- 2.01.6 "Code" means the Internal Revenue Code of 1986, as amended from time to time. References to any provision of the Code include regulations thereunder and successor provisions and regulations thereto.
- 2.01.7 "Deferred Stock" means a right, granted under the terms of the Plan, to receive Shares at the end of a specified deferral period.

- 2.01.8 "Disability" means disability as defined under the terms of the Williams Consolidated Pension Plan or any successor plan.
- 2.01.9 "Dividend Equivalent" means a right, granted under the terms of the Plan, to receive payments equal to dividends paid on Shares.
- 2.01.10 "Fair Market Value" of a Share means, as of any given date, the closing price of a Share reported in the table entitled "New York Stock Exchange Composition Transactions" contained in The Wall Street Journal (or an equivalent successor table ) for such date or, if no such closing sales price was reported for such date, for the most recent trading day prior to such date for which a closing sales price was reported.
- 2.01.11 "Option" means a right, granted under the terms of the Plan, to purchase Shares at a specific price during specified time periods.
- 2.01.12 "Participant" means any employee of Williams International or an Affiliate granted an Award which remains outstanding under the Plan.
- ${\tt 2.01.13}$  "Person" is as defined in the Securities Exchange Act of 1934, as amended.
- 2.01.14 "Shares" means shares of the Common Stock of Williams, \$1.00 par value, and such other securities of Williams or Williams International as may be substituted or resubstituted for Shares under the terms of the Plan.

Definitions of the terms "Change of Control", "Potential Change of Control", "Change of Control Price", "Related Party" and "Voting Securities" are set forth in Section 9 hereof.

# SECTION 3

# ADMINISTRATION

- 3.01 The Plan shall be administered by the CEO. The CEO shall have full and final authority to take the following actions, in each case subject to, and consistent with, the provisions of the Plan:
  - (i) to designate Participants;
- $\mbox{\ \ (ii)}$  to determine the type or types of Awards to be granted to each Participant;
- (iii) to determine the number of Awards to be granted, the number of Shares or amount of cash to which an Award will relate, the terms and conditions of any Award (including, but not limited to, any exercise price, grant price or purchase price, any limitations or restrictions, any schedule for or performance conditions relating to the lapse of limitations, forfeiture restrictions or restrictions on exercisability or transferability, and accelerations or waivers thereof, based in each case on such considerations as the CEO shall determine), and all other matters to be determined in connection with an Award;

- (iv) to determine whether, to what extent and under what circumstances an Award may be settled in, or the exercise price of an Award may be paid in, cash, Shares, other Awards or other property, or an Award may be accelerated, vested, canceled, forfeited or surrendered;
- (v) to determine whether, to what extent and under what circumstances cash, Shares, other Awards, other property and other amounts payable with respect to an Award shall be deferred either automatically, at the election of the CEO or at the election of the Participant;
- (vi) to prescribe the form of each Award Agreement, which need not be identical for each Participant;
- (vii) to adopt, amend, suspend, waive and rescind such rules and regulations and approve such agents as may be deemed necessary or advisable to administer the Plan;
- (viii) to correct any defect or supply any omission or reconsider any inconsistency, and to construe and interpret the Plan, the rules and regulations, any Award Agreement or any other instrument entered into, or relating to, an Award under the Plan; and
- $\,$  (ix) to make all other decisions and determinations as may be required under the terms of the Plan or as may be deemed necessary or advisable for the administration of the Plan.

Any action of the CEO with respect to the Plan shall be final, conclusive and binding on all persons, including Williams International, Williams, Affiliates, Participants, any person claiming rights under the Plan from or through any Participant, except to the extent the CEO may subsequently modify, or take further action not inconsistent with, prior action. The express grant of any specific power to the CEO, and the taking of any action by the CEO, shall not be construed as limiting the power or authority of the CEO. The CEO may delegate to officers or managers of Williams International or of any Affiliate the authority to perform specific functions under the Plan. Any and all powers, authorizations or discretions granted by the Plan to the CEO shall likewise be exercisable at any time by the Board of Directors of Williams International or the board of directors of Williams.

#### SECTION 4

# SHARES SUBJECT TO THE PLAN

4.01 Shares Reserved and Available. Subject to adjustment as provided in Section 8.01 hereof, the total number of Shares reserved and available for distribution under the Plan shall be five hundred thousand (500,000) Shares.

For purposes of this Section 4.01, the number of Shares to which an Award relates shall be counted against the number of Shares reserved and available under the Plan at the time of grant of the Award, unless such number of Shares cannot be determined at that time in which case the number of Shares actually distributed pursuant to the Award shall be counted against the number of Shares reserved and available under the Plan at the time of distribution; provided, however, that Awards related to or retroactively added to, or granted in tandem with, substituted for or converted into, other Awards shall be counted or not counted against the number of Shares reserved and available under the Plan in accordance with procedures adopted by the CEO so as to ensure appropriate counting but to avoid double counting; and, provided further, that the number of Shares deemed to be issued under the Plan upon exercise or settlement of an Award shall be reduced by the number of Shares surrendered by the Participant or withheld by Williams International in payment of the exercise price of the Award and withholding taxes relating to the Award.

If any Shares to which an Award relates are forfeited, or payment is made to the Participant in the form of cash or other property other than Shares, or the Award otherwise terminates without payment being made to the Participant in the form of Shares, any Shares counted against the number of Shares reserved and available under the Plan with respect to such Award shall, to the extent of any such forfeiture, alternative payment or termination, again be available for Awards under the Plan. Any Shares distributed pursuant to an Award may consist, in whole or in part, of authorized and unissued Shares, or of treasury Shares, including Shares repurchased by Williams International or Williams for purposes of the Plan.

#### SECTION 5

#### **ELIGIBILITY**

5.01 Awards may be granted only to individuals who are key employees of Williams International or Affiliates as may be selected from time to time in the sole and exclusive discretion of the CEO.

#### SECTION 6

# SPECIFIC TERMS OF AWARDS

6.01 General. Awards may be granted on the terms and conditions set forth in this Section 6. In addition, the CEO may impose on any Award or the exercise or settlement thereof, at the date of grant or thereafter (subject to the terms of Section 10.01), such additional terms and conditions, not inconsistent with the provisions of the Plan, as the CEO shall determine, including terms requiring forfeiture of Awards in the event of termination of employment by the Participant. Except as may be required under the Delaware General Corporation Law or as provided in Sections 6.06 or 7.01, Awards shall be granted for no consideration other than prior and future services.

- 6.02 Options. The CEO is authorized to grant Options on the following terms and conditions:
- (i) Exercise Price. The exercise price per Share purchasable under an Option shall be determined by the CEO; provided, however, that such exercise price shall not be less than the Fair Market Value of a Share on the date of grant of such Option and in no event shall be less than the par value of a Share;
- (ii) Option Term. Subject to the terms of the Plan and any applicable Award Agreement, the term of each Option shall be determined by the CEO;
- (iii) Methods of Exercise. Subject to the terms of the Plan, the CEO shall determine the time or times at which an Option may be exercised in whole or in part, the methods by which such exercise price shall be paid or deemed paid, and the form of such payment, including, without limitation, cash, Shares, other outstanding Awards or other property (including notes or other contractual obligations of Participants to make payment on a deferred basis, to the extent permitted by law).
- $\,$  6.03 Deferred Stock. The CEO is authorized to grant Deferred Stock on the following terms and conditions:
- (i) Issuance and Limitations. Delivery of Shares shall occur upon expiration of the deferred period specific for the Award by the CEO. In addition, an Award of Deferred Stock shall be subject to such limitations as the CEO may impose, which limitations may lapse at the expiration of the deferral period or at other specified times, separately or in combination, in installments or otherwise, as the CEO shall determine at the time of grant or thereafter. A Participant awarded Deferred Stock shall have no voting rights and will have no rights to receive dividends in respect of such Deferred Stock.
- (ii) Forfeiture. Except as otherwise determined by the CEO, upon termination of employment (as determined under criteria established by the CEO) during the applicable deferral period, Deferred Stock that is at the time subject to deferral (other than a deferral at the election of the Participant) shall be forfeited; provided, however, that the CEO may provide, by rule or regulation or in any Award Agreement, that forfeiture of Deferred Stock may be waived in whole or in part in the event of termination resulting from specified causes, and the CEO may in other cases waive in whole or in part the forfeiture of Deferred Stock.
- 6.04 Dividend Equivalents. The CEO is authorized to grant Awards of Dividend Equivalents. Dividend Equivalents shall confer upon the Participant rights to receive payments equal to interest or dividends, when and if paid, with respect to a number of Shares determined by the CEO. The CEO may provide that Dividend Equivalents shall be paid or distributed when accrued or shall be deemed to have been reinvested in additional Shares or additional Awards or otherwise reinvested.

6.05 Other Stock-Based Awards. The CEO is authorized, subject to limitations under applicable law, to grant such other Awards that are denominated or payable in, valued in whole or in part by reference to, or otherwise based on, or related to, Shares, as deemed by the CEO to be consistent with the purposes of the Plan including, without limitation, Shares awarded which are not subject to any restrictions or conditions, convertible or exchangeable debt securities or other rights convertible or exchangeable into Shares, Awards valued by reference to the value of securities of or the performance of Williams International or specified Affiliates, and Awards payable in the securities of Williams International or Affiliates. Except as may be provided elsewhere herein, Shares granted under this Section 6.05 shall be purchased for such consideration, paid for by such methods and in such forms, including, without limitation, cash, Shares, outstanding Awards or other property, as the CEO shall determine, provided, however, that the value of such consideration shall not be less per share than the Fair Market Value of a Share on the date of grant of such purchase right and in no event shall be less per share than the par value of a Share.

6.06 Exchange Provisions. The CEO may at any time offer to exchange or buy out any previously granted Award for a payment in cash, Shares or another Award, based on such terms and conditions as the CEO shall determine and communicate to the Participant at the time that such offer is made.

#### SECTION 7

# GENERAL TERMS OF AWARDS

7.01 Stand-Alone, Tandem and Substitute Awards. Awards granted under the Plan may, in the discretion of the CEO, be granted either alone or in addition to, in tandem with, or in substitution for, any other Award granted under the Plan or any other plan of Williams, Williams International or any Affiliate, subject to the terms of the Plan. If an Award is granted in substitution for another Award or award, the CEO shall require the surrender of such other Award or award in consideration for the grant of the new Award. Awards granted in addition to or in tandem with other Awards or awards may be granted either at the same time as or at a different time from the grant of such other Award or awards. The exercise price of any Option or the purchase price of any other Award conferring a right to purchase Shares:

(i) granted in substitution for an outstanding Award or award shall either be not less than the Fair Market Value of Shares at the date such substitute Award is granted or not less than such Fair Market Value at that date reduced to reflect the Fair Market Value of the Award or award required to be surrendered by the Participant as a condition to receipt of a substitute Award: or

(ii) retroactively granted in tandem with an outstanding Award or award shall be either not less than the Fair Market Value of Shares at the date of grant of the later Award or the Fair Market Value at the date of grant of the earlier Award or award.

7.02 Term of Awards. The term of each Award shall be for such period as may be determined by the CEO.

7.03 Form of Payment of Awards. Subject to the terms of the Plan and any applicable Award Agreement, payments or substitutions for payments upon the grant or exercise of any Award may be made in such forms as the CEO shall determine, including, without limitation, cash, Deferred Stock, Shares, other Awards of other property, and may be made in a single payment or substitution in installments or on a deferred basis, in each case in accordance with rules and procedures established by the CEO. Such rules and procedures may include, without limitation, provisions for the payment or crediting of reasonable interest on installment or deferred payments on the grant or crediting of Dividend Equivalents in respect of installment or deferred payments denominated in Shares. The CEO may also permit or require the deferral of any award payment, subject to rules and procedures as may be established, which may include provisions for the payment or crediting of interest, or dividend equivalents, including converting such credits into deferred Share equivalents.

7.04 Limitations on Transferability. Awards and other rights under the Plan shall not be transferable by a Participant except by will or the laws of descent and distribution (or, in the event of the Participant's death, to a designated beneficiary), and, if exercisable, shall be exercisable during the lifetime of a Participant only by such Participant or such Participant's quardian or local representatives. guardian or legal representative; provided, however, that except as otherwise provided by the CEO, Awards and other rights may be transferred to one or more Persons during the lifetime of the Participant in connection with the Participant's estate planning, and may be exercised by such transferees in accordance with the terms of such Award consistent with the registration of the offer and sale of Shares on Form S-8 or Form S-3 or such other registration form of the Securities and Exchange Commission as may then be filed and effective with respect to the Plan, and permitted by the CEO. Awards and other rights under the Plan may not be pledged, mortgaged, hypothecated, or otherwise encumbered to or in favor of any Person other than Williams, Williams International or an Affiliate, and shall not be subject to any lien, obligation or liability of a Participant or transferee to any Person other than Williams, Williams International or any Affiliate. If so determined by the CEO, a Participant may, in the manner established by the CEO, designate a beneficiary or beneficiaries to exercise the rights of the Participant, and to receive any distribution with respect to any Award upon the death of the Participant. A transferee, beneficiary, guardian, legal representative or other Person claiming any rights under the Plan from or through any Participant shall be subject to all the terms and conditions of the Plan and any Award Agreement applicable to such Participant, except to the extent the Plan and Award Agreement otherwise provide with respect to such Persons, and to any additional restrictions or limitations deemed necessary or appropriate by the CEO.

7.05 Registration and Listing Compliance. Neither Williams nor Williams International shall be obligated to issue or deliver Shares in connection with any Award or take any other action under the Plan in a transaction subject to the registration requirements of the Securities Act of 1933, as amended, or any other federal or state securities law, any requirement under any listing agreement between Williams and any national securities exchange or automated quotation system, or any other law, regulation, or contractual obligation of Williams or Williams International, until Williams and Williams International are satisfied that such laws, regulations and any other obligations have been satisfied.

7.06 Share Certificates. All certificates for Shares delivered under the terms of the Plan shall be subject to such stop-transfer orders and other restrictions as the CEO may deem advisable under federal or state securities laws, rules and regulations thereunder, and the rules of any national securities exchange or automated quotation system on which the Shares are listed or quoted. The CEO may cause a legend to be placed on any such certificates to make appropriate reference to such restrictions or limitations that may be applicable to the Shares. In addition, during any period in which Awards or Shares are subject to restrictions or limitations under the Plan or any Award Agreement, or during any period during which delivery or receipt of an Award or Shares has been deferred by the CEO or a Participant, the CEO may require the Participant to enter into an agreement providing that certificates representing Shares issuable or issued pursuant to an Award shall remain in the physical custody of Williams International or such Person as the CEO may designate.

7.07 Performance-Based Awards. The CEO may designate any Award as subject to specified performance conditions. The performance objectives for an Award shall consist of one or more business criteria and a targeted level or levels of performance with respect to such criteria, as specified by the CEO. The levels of performance required with respect to such business criteria may be expressed in absolute or relative levels. Achievement of performance objectives with respect to such Awards shall be measured over a period of not less than one year nor more than five years, as the CEO may specify. Performance objectives may differ for such Awards to different Participants. The CEO shall specify the weighting to be given to each performance objective for purposes of determining the final amount payable with respect to any such Award. The CEO may, in the CEO's discretion, reduce the amount of a payout otherwise to be made in connection with an Award subject to this Section 7.07, but may not exercise discretion to increase such amount, and the CEO may consider other performance criteria in exercising such discretion. All determinations by the CEO as to the achievement of performance objectives shall be in writing. The CEO may not delegate any responsibility with respect to an Award subject to this Section 7.07. The CEO also has the discretion to adjust performance objectives to reflect the impact of acquisitions or dispositions of assets or other events that impact targeted levels of performance that were not contemplated at the time the Award was made.

# SECTION 8

#### ADJUSTMENT PROVISIONS

8.01 In the event that the CEO shall determine that any dividend or other distribution (whether in the form of cash, Shares, other securities, or property), recapitalization, forward or reverse stock split, reorganization, merger, consolidation, split-up, spin-off, combination, repurchase, exchange of Shares or other securities of Williams, or other similar corporate transactions or event affects the Shares such that an adjustment is determined by the CEO to be appropriate in order to prevent dilution or enlargement of Participant's rights under the Plan, then the CEO shall, in such

manner as deemed equitable, adjust any and all of: (i) the number and kind of Shares which may thereafter be issued in connection with Awards; (ii) the number and kind of Shares issued or issuable with respect to outstanding Awards; (iii) the exercise price, grant price or purchase price relating to any Award or, if deemed appropriate, make provision for a cash payment with respect to any outstanding Award. In addition, the CEO is authorized to make adjustments in the terms and conditions of, and the criteria in, Awards in recognition of unusual or nonrecurring events (including, without limitation, events described in this Section) affecting Williams, Williams International or any Affiliate or the financial statements of Williams, Williams International or any Affiliate, or in response to changes in applicable laws, regulations or accounting principles.

#### SECTION 9

# CHANGE OF CONTROL PROVISIONS

9.01 Creation and Funding of a Trust. Upon the earlier of a Potential Change of Control as defined in Section 9.02.2, unless the Board adopts a resolution within ten business days following the date the Potential Change of Control arises to the effect that such action is not necessary to secure any payments hereunder, or a Change of Control as defined in Section 9.02.1, williams International shall deposit with the trustee of a trust for the benefit of Participants monies or other property having a Fair Market Value at least equal to the net present value of cash, Shares and other property potentially payable or distributable in connection with Awards outstanding at that date. The trust shall be an irrevocable grantor trust which shall preserve the "unfunded" status of Awards under the Plan, and shall contain other terms and conditions substantially as specified for trusts authorized under Williams' employment agreements with executives.

9.02 Definitions of Certain Terms. For purposes of this Section 9, the following definitions, in addition to those set forth in Section 2.01, shall apply:

9.02.1 "Change of Control" means and will be deemed to have occurred if: (i) any Person, other than Williams or a Related Party, is or becomes the "beneficial owner" (as defined in Rule 13d-3 under the Securities Exchange Act of 1934, as amended), directly or indirectly, of securities of Williams representing 15 percent or more of the total voting power of all the then outstanding Voting Securities; or (ii) a Person, other than Williams or a Related Party, purchases or otherwise acquires, under a tender offer, securities representing 15 percent or more of the total voting power of all the then outstanding Voting Securities; or (iii) the individuals (a) who as of the effective date of the Plan constitute the Board or (b) who thereafter are elected to the Board and whose election, or nomination for election, to the Board was approved by a vote of at least two-thirds (2/3) of the directors then still in office who either were directors as of the effective date of the Plan or whose election or nomination for election was previously so approved, cease for any reason to constitute a majority thereof; or (iv) the stockholders of Williams approve a merger, consolidation, recapitalization or reorganization of Williams or an acquisition by Williams, or consummation of any such transaction if stockholder approval is not obtained, other than any such transaction which

would result in the Voting Securities outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity) at least 65 percent of the total voting power represented by the Voting Securities of such surviving entity outstanding immediately after such transaction if the voting rights of each Voting Security relative to the other Voting Securities were not altered in such transaction; or (v) the stockholders of Williams approve a plan of complete liquidation of Williams or an agreement for the sale or disposition by Williams of all or substantially all of Williams' assets other than any such transaction which would result in a Related Party owning or acquiring more than 50 percent of the assets owned by Williams immediately prior to the transaction; or (vi) the Board adopts a resolution to the effect that a Change of Control has occurred or adopts a resolution to the effect that a Potential Change of Control has arisen and the transaction giving rise to such resolution has been thereafter approved by the stockholders of Williams or been consummated if such approval is not sought.

9.02.2 "Potential Change of Control" means and will be deemed to have arisen if: (i) Williams enters into an agreement, the consummation of which would result in the occurrence of a Change of Control; or (ii) any Person (including Williams) publicly announces an intention to take or to consider taking actions which if consummated would constitute a Change of Control; or (iii) any Person, other than a Related Party, files with the Securities and Exchange Commission a Schedule 13D pursuant to Rule 13d-1 under the Securities Exchange Act of 1934 with respect to Voting Securities; or (iv) any Person, other than Williams or a Related Party, files with the Federal Trade Commission a notification and report form pursuant to the Hart-Scott-Rodino Antitrust Improvements Act of 1976 with respect to any Voting Securities or a major portion of the assets of Williams; or (v) the Board adopts a resolution to the effect that, for purposes of the Plan, a Potential Change of Control has arisen. A Potential Change of Control will be deemed to continue (i) with respect to an agreement within the purview of clause "(i)" of the preceding sentence, until the agreement is canceled or terminated; or (ii) with respect to an announcement within the purview of clause "(ii)" of the preceding sentence, until the Person making the announcement publicly abandons the stated intention or fails to act on such intention for a period of twelve (12) calendar months; or (iii) with respect to either the filing of a Schedule 13D within the purview of clause "(iii)" of the preceding sentence or the filing of a notification and report form within the purview of clause "(iv)" of the preceding sentence with respect to Voting Securities, until the Person involved publicly announces that its ownership or acquisition of the Voting Securities is for investment purposes only and not for the purpose of seeking a Change of Control or such Person disposes of the Voting Securities; or (iv) with respect to any Potential Change of Control until a Change of Control has occurred or the Board, on reasonable belief after due investigation, adopts a resolution that the Potential Change of Control has ceased to exist.

9.02.3 "Related Party" means: (i) a majority-owned subsidiary of Williams; or (ii) an employee or group of employees of Williams or any majority-owned subsidiary of Williams; or (iii) a trustee or other fiduciary holding securities under an employee benefit plan of Williams or any majority-owned subsidiary of Williams; or (iv) a corporation owned directly or indirectly by the stockholders of Williams in substantially the same proportion as their ownership of Voting Securities.

9.02.4 "Voting Securities" means any securities of Williams which carry the right to vote generally in the election of directors.

#### SECTION 10

# AMENDMENTS TO AND TERMINATION OF THE PLAN

10.01 The Board or Williams International may amend, alter, suspend, discontinue or terminate the Plan without the consent of Participants; provided, however, that, without the consent of a Participant, no amendment, alteration, suspension, discontinuation or termination of the Plan may materially and adversely affect the rights of such Participant under any Award theretofore granted to such Participant. The CEO may waive any conditions or rights under, or amend, alter, suspend, discontinue or terminate any Award theretofore granted, prospectively or retrospectively; provided, however, that, without the consent of a Participant, no amendment, alteration, suspension, discontinuation or termination of any Award may materially and adversely affect the rights of such Participant under any Award theretofore granted to such Participant.

# SECTION 11

#### GENERAL PROVISIONS

11.01 No Rights to Awards. Nothing contained in the Plan shall give any Participant or employee any claim to be granted any Award under the Plan, nor give rise to any obligation for uniformity of treatment of Participants and employees.

11.02 Withholding. Williams, Williams International or any Affiliate is authorized to withhold from any Award granted or any payment due under the Plan, including from a distribution of Shares, amounts of withholding taxes due with respect to an Award, its exercise or any payment thereunder, and to take such actions as the CEO may deem necessary or advisable to enable Williams, Williams International or any Affiliate to satisfy obligations for the payment of such taxes. This authority shall include authority to withhold or receive Shares, Awards or other property, and to make cash payments in respect thereof in satisfaction of such tax obligations.

11.03 No Right of Employment. Nothing contained in the Plan shall confer, and no grant of an Award shall be construed as conferring, upon any Participant any right to continue in the employ of Williams International or any Affiliate or to interfere in any way with the right of Williams International or any Affiliate to terminate a Participant's employment at any time or increase or decrease a Participant's compensation from the rate in existence at the time of granting of an Award.

11.04 Unfunded Status of Awards. The Plan is intended to constitute an "unfunded" plan for incentive and deferred compensation. With respect to any payments not yet made to a Participant

pursuant to an Award, nothing contained in the Plan or any Award shall give any such Participant any rights that are greater than those of a general creditor of Williams International.

- 11.05 No Limit on Other Compensatory Arrangements. Nothing contained in this Plan shall prevent Williams, Williams International or an Affiliate from adopting other or additional compensation arrangements (which may include, without limitation, employment agreements and arrangements which relate to Awards under the Plan), and such arrangements may be either generally applicable or applicable only in specific cases.
- 11.06 No Fractional Shares. No fractional Shares shall be issued or delivered pursuant to the Plan or any Award. The CEO shall determine whether cash, other Awards or other property shall be issued or paid in lieu of fractional Shares or whether such fractional Shares or any rights thereto shall be forfeited or otherwise eliminated.
- 11.07 Governing Law. The validity, interpretation, construction and effect of the Plan and any rules and regulations relating to the Plan shall be governed by the laws of the State of Delaware and applicable federal laws.
- 11.08 Severability. If any provision of the Plan is or becomes or is deemed invalid, illegal or unenforceable in any jurisdiction, or would disqualify the Plan or any Award under any law deemed applicable by the CEO, such provision shall be construed or deemed amended to conform to applicable laws or if it cannot be construed or deemed amended without, in the determination of the CEO, materially altering the intent of the Plan, it shall be stricken and the remainder of the Plan shall remain in full force and effect.

Date:

# SECURED PROMISSORY NOTE AND PLEDGE AGREEMENT

Tulsa, Oklahoma
FOR VALUE RECEIVED, I ("Maker"), promise to pay to the order of THE WILLIAMS COMPANIES, INC. ("Williams"), a Delaware
corporation, at its office in Tulsa, Oklahoma, the principal sum
(\$) plus interest from the date hereof at the rate hereinafter set forth. Payments of principal and interest due under this Secured Promissory Note and Pledge Agreement (the "Note") shall be
made in lawful money of the United States of America and shall be paid in accordance with the following terms and conditions:
1. This Note shall mature and the principal amount hereof shall be due

- and payable in full at the earliest of:
  - (a) \_\_\_\_\_
- (b) Thirty (30) days following Maker's termination of employment with Williams or its subsidiaries for any reason; or
  - (c) Maker's failure to make any payment of principal or interest within fifteen (15) days after such payment is due.

This Note may be prepaid in full at any time. No partial prepayments shall be made without the prior consent of the holder of this Note.

- 2. The unpaid principal amount of this Note outstanding from time to time shall bear interest at a per annum rate of \_\_\_\_\_%, as shall be fixed by Williams after the execution of this Note at a rate equal to the "Minimum Interest Rate". Interest shall be payable on December 31 of each year; provided, however, that at such time as the unpaid principal amount of this Note is payable in full, all unpaid interest accruing to such date also shall be paid.
- 3. For purposes of this Note, "Minimum Interest Rate" shall mean the per annum equivalent of the lowest interest rate that can be stated as of the date of this Note under applicable federal income tax laws (disregarding any de minimis exception recognized under such laws) without imputing income to the Maker or creating original issue discount or its equivalent.
- 4. For the purpose of securing the payment of the principal of and interest on this Note, Maker acknowledges that this Note shall be deemed a full recourse Note secured by any and all assets now or hereafter acquired by Maker, and, specifically, Maker does hereby pledge, transfer and deliver a stock certificate to Williams representing \_\_\_\_\_\_ shares of Williams Common Stock, together with a stock power endorsed by Maker in blank. Such certificate shall be registered in the name of Maker and is represented by Maker to be owned free and clear of any claims or liens other than the claim or lien hereby created and acknowledged. Maker shall retain the voting and dividend rights to the

Williams Common Stock while the certificate is in the possession of Williams. In the event of default under the terms of this Note, Maker does hereby constitute and appoint the Secretary of Williams as the attorney-in-fact of Maker to transfer the stock on the books of Williams, with full power of substitution in the premises. Maker further agrees that such stock shall not be released to Maker until all indebtedness, including both the principal of and interest on this Note, has been paid in full to Williams, except at the discretion of Williams, if another stock certificate that represents other shares of Williams Common Stock owned by Maker is substituted as security. On and after the maturity of this Note by its terms, Williams is hereby expressly authorized by Maker, at any time and from time to time and with or without notice, to sell, transfer and deliver the whole or any part of such stock, either at public or private sale, through any broker or at any exchange, whether within or without the State of Oklahoma, and with or without advertising the time or place of such sale. Maker further agrees that, after deducting all costs and expenses of any such sale, including reasonable attorney's fees, and after the payment in full of the principal and interest due on this Note, the balance, if any, of the proceeds of such sale may be applied to the payment of any other indebtedness which Maker owes to Williams, whether due or not due, whether direct or contingent, and whether owing individually or in connection with others not parties hereto. After payment of all of the aforesaid amounts to Williams, any remaining balance shall be paid to Maker. To the extent such balance is less than the principal and interest due on this Note, Williams may make claim against any and all other assets of Maker to the extent of the payment owed to Williams under this Note.

- 5. Annually, in March of each year, the Company shall conduct a review of the adequacy of the collateral pledged hereunder in the form of Williams Common Stock. If the value of the collateral is determined to be less than or equal to the outstanding balance of the loan, Maker shall be required to pledge additional Common Stock to restore the collateral to 125 percent of the loan balance or, alternatively, make a cash payment to the Company to reduce the outstanding balance of the loan to equal 80 percent of the value of the collateral. If the value of the collateral is determined to exceed the outstanding balance of the loan by 50 percent or more, Maker shall be entitled to borrow an additional sum from the Company up to an amount which, when added to the current loan balance, shall equal 80 percent of the value of the collateral at such time.
- 6. This Note has been executed by Maker to evidence the obligation of Maker to make certain payments to Williams or its assignee. This Note is subject to all of the terms and conditions of certain stock option agreement(s) between Maker and Williams.
- 7. Subject only to any limitation imposed by applicable law, Maker also agrees to pay all expenses, including reasonable attorneys' fees and legal expenses, incurred by the holder of this Note in attempting to collect any amounts payable hereunder which are not paid when due, whether by acceleration or otherwise.
- 8. This Note is made under and governed by the laws of the State of Oklahoma, without regard to conflict of laws principles.
- 9. Maker hereby waives presentment, demand, notice of dishonor and protest.

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1 EXHIBIT 12

# THE WILLIAMS COMPANIES, INC. AND SUBSIDIARIES COMPUTATION OF RATIO OF EARNINGS TO COMBINED FIXED CHARGES AND PREFERRED STOCK DIVIDEND REQUIREMENTS (Dollars in millions)

Years Ended December 31. 1998 1997 1996 1995 1994 -------------------------Earnings: Income from continuing operations before extraordinary loss and \$ 257.0 505.0 \$ 325.9 income taxes \$ 704.9 \$ 758.4 \$ Interest expense--net 484.5 440.6 410.5 321.8 193.3 Rental expense representative of interest factor 49.1 39.5 32.8 32.5 15.3 Preferred dividends of subsidiaries - -- -3.7 Interest accrued--50% owned company 6.2 1.3 30.7 31.7 Minority interest in (income) loss of consolidated subsidiaries (9.6)18.2 1.4 12.3 1.6 0ther 22.4 3.2 6.3 8.0 4.5 Total earnings as adjusted plus fixed charges 809.6 \$ 1,206.4 \$ 1,210.7 914.0 \$ 572.3 ====== ======= ======= Combined fixed charges and preferred stock dividend requirements: Interest expense--net Capitalized interest 484.5 440.6 410.5 \$ 321.8 193 3 30.6 23.3 8.2 16.2 6.0 Rental expense representative of interest factor 49.1 39.5 32.8 32.5 15.3 Pretax effect of dividends on preferred stock of the Company Pretax effect of dividends on 12.4 16.1 16.2 18.0 13.1 preferred stock of subsidiaries - -- -5.8 Interest accrued--50% owned company 6.2 1.3 30.7 31.7 \_\_\_\_\_ Combined fixed charges and preferred stock dividend requirements \$ 582.8 519.5 \$ 469.0 425.0 259.4 ======= ======= ======= ======= Ratio of earnings to combined fixed charges and preferred stock dividend requirements 1.39 2.32 2.58 2.15 2.21

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	JURISDICTION OF INCORPORATION	OWNED BY IMMEDIATE PARENT
Laughton, L.L.C.	Delaware	100%
Castle Associates, L.P.	Delaware	77.10%
Williams Gas Pipeline Company	Delaware	100%
Kern River Acquisition Corporation	Delaware	100%
Kern River Gas Transmission Company	Texas	100%
Kern River Funding Corporation	Delaware	100%
Northwest Pipeline Corporation	Delaware	100%
NWP Enterprises, Inc.	Delaware	100%
Texas Gas Transmission Corporation	Delaware	100%
TGT Enterprises, Inc.	Delaware	100%
Transcontinental Gas Pipe Line Corporation	Delaware	100%
Cardinal Operating Company	Delaware	100%
Cross Bay Operating Company	Delaware	100%
Cumberland Operating Company	Delaware	100%
Independence Operating Company	Delaware	100%
Marsh Resources, Inc.	Delaware	100%
Pine Needle Operating Company	Delaware	100%
TGPL Enterprises, Inc.	Delaware	100%
TRANSCO CROSS BAY COMPANY	Delaware	100%
Cross Bay Pipeline Company, L.L.C.	Delaware	37.50%
TransCardinal Company	Delaware	100%
TransCarolina LNG Company	Delaware	100%
TransCumberland Pipeline Company	Delaware	100%
Transco Independence Pipeline Company	Delaware	100%
WGP Enterprises, Inc.	Delaware	100%
Williams Gas Processing - Gulf Coast Company, LP.	Delaware	100%
Williams Gas Pipeline - Alliance U.S., Inc.	Delaware	100%
Williams Gas Pipelines Central, Inc.	Delaware	100%
Williams Storage Company	Delaware	100%
Williams Western Pipeline Company	Delaware	100%
Kern River Funding Corporation	Delaware	100%
Williams Holdings of Delaware, Inc.	Delaware	100%
Apco Argentina Inc.	Cayman Islands	68.96%
Apco Properties Ltd.	Cayman Islands	100%
Beech Grove Processing Company	Tennessee	100%
Tennessee Processing Company	Delaware	100%
Inland Ports, Inc.	Tennessee	100%
Langside Limited	Bermuda	100%
MAPCO Petroleum Inc.	Delaware	100%
Alaska Blimpie Co-Op, Inc.	Oklahoma	100%

	JURISDICTION OF INCORPORATION	OWNED BY IMMEDIATE PARENT
MAPCO Gathering & Transportation, L.L.C.	Oklahoma	100%
Nationwide Direct Fuel Network, L.L.C.	Oklahoma	100%
Valley Towing Service, Inc.	Tennessee	100%
Williams Alaska Petroleum, Inc.	Alaska	100%
Williams Express, Inc.	Alaska	100%
Williams Petroleum Pipeline Systems, Inc.	Delaware	100%
Williams Refining, L.L.C.	Delaware	100%
Williams TravelCenters, Inc.	Delaware	100%
Realco Realty Corp.	Delaware	100%
Realco of Crown Center, Inc.	Delaware	100%
Realco of San Antonio, Inc.	Delaware	100%
The Tennessee Coal Company	Delaware	100%
Transco Energy Company	Delaware	100%
Energy Tech, Inc.	Delaware	100%
Transco Coal Gas Company	Delaware	100%
Transco Energy Investment Company	Delaware	100%
Transco Exploration Company	Delaware	100%
Transco Gas Company	Delaware	100%
Border Gas, Inc.	Delaware	10%
Liberty Operating Company	Delaware	100%
NESP Supply Corp.	Delaware	33.33%
Transco Liberty Pipeline Company	Delaware	100%
Transeastern Gas Pipeline Company, Inc.	Delaware	100%
Transco P-S Company	Delaware	100%
Transco Resources, Inc.	Delaware	100%
Magnolia Methane Corp.	Delaware	100%
Transco Terminal Company	Delaware Delaware	100%
Transco Tower Realty, Inc. Tulsa Williams Company	Delaware Delaware	100% 100%
Valley View Coal, Inc.	Tennessee	100%
WHD Enterprises, Inc.	Delaware	100%
WilMart, Inc.	Delaware	100%
Williams Acquisition Holding Company, Inc.	New Jersey	100%
Agrico Foreign Sales Corporation	Guam	100%
Fishhawk Ranch, Inc.	Florida	100%
Reserveco Inc.	Delaware	15%
Williams Acquisition Holding Company, Inc. (Del)	Delaware	100%
Williams Aircraft, Inc.	Delaware	100%
ChoiceSeat, L.L.C.	Delaware	100%
Volunteer Energy, L.L.C.	Delaware	100%
Volunteer-Phoenix Energy, Inc.	Ohio	80%
Williams Indonesia, L.L.C.	Delaware	100%
Williams International Investments (Cayman) Limited	Cayman Islands	100%
AIF	Cayman Islands	6.41%
Williams Resource Center, L.L.C.	Delaware	100%
Williams Communications Group, Inc.	Delaware	100%

	JURISDICTION OF	OWNED BY
	INCORPORATION	IMMEDIATE
		PARENT
		4.000/
Critical Connections, Inc.	Delaware	100%
WCS Communications Systems, Inc.	Delaware	100%
WCS Microwave Services, Inc.	Nevada	100%
Williams Communications, Inc.	Delaware	100%
ChoiceSeat, L.L.C.	Delaware	100%
Global Access Telecommunications Services (UK), Inc.	Delaware	100%
Vyvx of Virginia, Inc.	Virginia	100%
Williams Communications Solutions, LLC	Delaware	100%
WCS, Inc.	Delaware	100%
WilTel Communications Canada, Inc.	Ontario	100%
Williams Learning Network, Inc.	Delaware	100%
Williams Wireless, Inc.	Delaware	100%
Williams Energy Company	Delaware	100%
Williams Energy Services	Delaware	100%
Longhorn Enterprises of Texas, Inc.	Delaware	100%
MAPCO Inc. (DE)	Delaware	100%
FleetOne, L.L.C.	Delaware	100%
FleetOne Inc.	Delaware	100%
FleetOne de Mexico, S.A. de C.V.	Mexico	100%
Servicios FleetOne de Mexico, S.A. de C.V.	Mexico	100%
Gas Supply, L.L.C.	Delaware	100%
MAPCO Alaska Inc.	Alaska	100%
MAPCO Canada Inc.	Canada	100%
MAPCO Energy Services, L.L.C.	Delaware	100%
MAPCO Energy, L.L.C.	Delaware	100%
MAPCO Impressions Inc.	Oklahoma	100%
MAPCO Inc. (NV)	Nevada	100%
MAPCO Indonesia Inc.	Delaware	100%
P.T. MAPCO Indonesia	Indonesia	100%
MAPCO Minerals Corporation	Delaware	100%
MAPCO Supply and Trading, L.L.C.	Delaware	100%
TouchStar Technologies, L.L.C.	Delaware	100%
Aurex Sp. zo.o	Poland	49%
Clean Fueling Technologies, Inc.	Texas	100%
ESPAGAS USA, Inc.	Delaware	100%
ESPAGAS, S.A. de C.V.	Mexico	100%
SERVICIOS DE ESPAGAS, S.A. de C.V.	Mexico	100%
TouchStar Europe, B.V. o.i.	Netherlands	100%
TouchStar Technologies, Ltd.	U.K.	100%
TouchSystems (Australia) Pty. Ltd.	Australia	100%
TouchSystems (Pty) Ltd.	South Africa	100%
Williams Equities, Inc.	Delaware	100%
Williams International Energy, Inc.	Delaware	100%
WPX Enterprises, Inc.	Delaware	100%
Williams Production - Gulf Coast Company, L.P.	Delaware	100%
Williams Distributed Power Services, Inc.	Delaware	100%

	JURISDICTION OF INCORPORATION	OWNED BY IMMEDIATE PARENT
Williams Energy Group Services, Inc.	Delaware	100%
Williams Energy Ventures, Inc.	Delaware	100%
Nebraska Energy, L.L.C.	Kansas	71%
Wiljet, LLC	Arizona	50%
Williams Ethanol Services, Inc.	Delaware	100%
Williams Field Services Group, Inc.	Delaware	100%
Carbon County UCG, Inc.	Delaware	100%
Trans-Jeff Chemical Corporation	Delaware	100%
WFS - Gas Gathering Company	Delaware	100%
WFS - Offshore Gathering Company	Delaware	100%
WFS - Pipeline Company	Delaware	100%
WFS - Liquids Company	Delaware	100%
HI-BOL Pipeline Company	Delaware	100%
WFS - NGL Pipeline Company, Inc.	Delaware	100%
Tri-States NGL Pipeline, L.L.C.	Delaware	16.67%
WILPRISE Pipeline Company, L.L.C.	Delaware	50%
WFS - OCS Gathering Co.	Delaware	100%
WFS - Production Services Company	Delaware	100%
WFS Enterprises, Inc.	Delaware	100%
Williams Field Services - Gulf Coast Company, L.P.	Delaware	100%
WFS Fractionation Company	Delaware	100%
WFS Management Co.	Delaware	100%
Williams CNG Company	Delaware	100%
Williams Field Services Company	Utah	100%
Williams Gas Processing - Blanco, Inc.	Delaware	100%
Williams Gas Processing - Kansas Hugoton Company	Delaware	100%
Williams Gas Processing - Mid-Continent Region Company		100%
Williams Gas Processing - Wamsutter Company	Delaware	100%
Williams Gas Processing Company	Delaware	100%
Williams Power Company	Delaware	100%
Williams Merchant Services Company, Inc.	Delaware	100%
Williams Energy Marketing & Trading Company	Delaware	100%
EnergyVision, LLC	Delaware	100%
Excel Energy Technologies, Ltd.	Delaware	100%
FT&T, Inc.	Delaware	100%
Hazleton Fuel Management Company	Delaware	100%
Hazleton Pipeline Company	Delaware	100%
TM Cogeneration Company	Delaware	100%
Millennium Energy Fund, L.L.C.	Delaware	2%
Rio Vista Energy Marketing Company, L.L.C.	Delaware	50%
TransNetwork Holding Company	Delaware	100%
Williams Energy Network, Inc.	Delaware	100%
Transco Energy Marketing Company	Delaware	100%
TXG Gas Marketing Company	Delaware	100%
Williams Gas Company	Delaware	100%
Utility Management Corporation	Delaware	100%

	JURISDICTION OF INCORPORATION	OWNED BY IMMEDIATE PARENT
Williams Independence Marketing Company	Delaware	100%
Williams Pipe Line Company	Delaware	100%
WillBros Terminal Company	Delaware	100%
Williams Pipe Line Company of Wisconsin	Wisconsin	100%
Williams Terminals Company	Delaware	100%
Williams Production Company	Delaware	100%
WFS Gas Resources Company	Delaware	100%
Williams Generation Company - Hazleton	Delaware	100%
Williams Environmental Services Company	Delaware	100%
Williams Exploration Company	Delaware	100%
Rainbow Resources, Inc.	Colorado	100%
Williams Headquarters Acquisition Company	Delaware	100%
Williams Headquarters Building Company	Delaware	100%
Garrison, L.L.C.	Delaware	100%
Parkco, L.L.C.	Oklahoma	50%
Williams Headquarters Building, L.L.C.	Delaware	100%
Williams Headquarters Management Company	Delaware	100%
Williams Hugoton Compression Services, Inc.	Delaware	100%
Williams Information Services Corporation	Delaware	100%
Williams International Company	Delaware	100%
Williams International Bermuda Limited	Bermuda	100%
Williams International Australian Telecom Limited	Cayman Islands	100%
Williams International Cusiana-Cupiagua Limited	Cayman Islands	100%
Williams International Ecuadorian Ventures Bermuda Limited	Bermuda	100%
Williams International El Furrial Limited	Cayman Islands	100%
WilPro Energy Services (El Furrial) Limited	Cayman Islands	66.67%
Williams International Guara Limited	Cayman Islands	100%
WilPro Energy Services (Guara) Limited	Cayman Islands	100%
Williams International Investment Ventures (Cayman) Limited	Cayman Islands	100%
Williams International Investments (Cayman) Limited	Cayman Islands	100%
Williams International Jose Limited	Cayman Islands	100%
Williams International Oil & Gas (Venezuela) Limited	Cayman Islands	100%
Williams International Operations (Venezuela) Limited	Cayman Islands	100%
Williams International Pigap Limited	Cayman Islands	100%
WilPro Energy Services (Pigap II) Limited	Cayman Islands	70%
Williams International Pipeline Company	Delaware	100%
Williams International Services Company	Nevada	100%
Worldwide Services Limited	Cayman Islands	100%
Williams International Telecom Limited	Cayman Islands	100%
Williams International Telecom. Investments (Cayman) Limited	Cayman Islands	100%
AIF Telecom Fund	Cayman Islands	100%
Williams International Ventures Bermuda Ltd.	Bermuda	100%
Free Port Terminal Company Limited	Bermuda	65%
FPT Marketing Company Limited	Bermuda	100%
Transportadora de Gas Zapata	Mexico	37%
Williams International Ventures Company	Delaware	100%

	JURISDICTION OF INCORPORATION	OWNED BY IMMEDIATE PARENT
Powertel Pty Limited	Australia	100%
WilTel Communications Pty Limited	Australia	100%
Williams Learning Network (UK) Limited	England	100%
Williams Learning Center, Inc.	Delaware	100%
Williams Midstream Natural Gas Liquids, Inc.	Delaware	100%
Williams Natural Gas Liquids, Inc.	Delaware	100%
Bayou Black Liquids Pipeline Company	Delaware	100%
MAPCO Ammonia Pipeline Inc.	Delaware	100%
Mid-America Pipeline Company	Delaware	100%
Denali Pipeline Company	Alaska	100%
Juarez Pipeline Company	Delaware	100%
Rio Grande Pipeline Company - PT	Texas	45%
MAPL Investments, Inc.	Delaware	100%
Seminole Pipeline Company	Delaware	80%
Thermogas Company	Delaware	100%
Farmers Thermogas of Southern Kentucky, LLC	Kentucky	50%
Shelby Energy Thermogas, L.L.C.	Kentucky	50%
Thermogas Energy, LLC	Delaware	100%
Clark Energy/Thermogas, L.L.C.	Kentucky	50%
Jackson Thermogas Energy, LLC	Kentucky	50%
Williams Fertilizer, Inc.	Delaware	100%
Williams Gas Energy, Inc.	Delaware	100%
Williams West Texas NGL Pipeline Company	Delaware	100%
Williams One-Call Services, Inc.	Delaware	100%
Williams Pipeline Services Company	Delaware	100%
Williams Relocation Management, Inc.	Delaware	100%
Williams Sodium Products Company	Delaware	100%
American Soda, L.L.P.	Colorado	60%
American Soda, L.L.P. No.2	Colorado	60%
Williams Strategic Sourcing, Inc.	Delaware	100%
Williams Underground Gas Storage Company	Delaware	100%
Kiowa Gas Storage, L.L.C.	Delaware	50%
Williams Western Holding Company, Inc.	Delaware	100%
Northwest Alaskan Pipeline Company	Delaware	100%
Northwest Argentina Corporation	Utah	100%
Northwest Border Pipeline Company	Delaware	100%
Northern Border Intermediate Limited Partnership	Delaware	0.17%
Northern Border Partners, L.P.	Delaware	4.38%
Northwest Land Company	Delaware	100%
Williams Risk Holdings, L.L.C.	Delaware	100%
Williams WPC - I, Inc.	Delaware	100%
Williams Risk Management L.L.C.	Delaware	100%
Williams WPC - II, Inc.	Delaware	100%
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# CONSENT OF INDEPENDENT AUDITORS

We consent to the incorporation by reference in the following registration statements on Form S-3 and related prospectuses and in the following registration statements on Form S-8 of The Williams Companies, Inc. of our report dated February 26, 1999, with respect to the consolidated financial statements and schedule of The Williams Companies, Inc. included in this Annual Report (Form 10-K) for the year ended December 31, 1998:

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Form S-3: Registration No. 333-20929
Registration No. 333-29185
Registration No. 333-66141

Form S-8: Registration No. 33-36770; Registration No. 33-44381;
Registration No. 33-40979; Registration No. 33-45550;
Registration No. 33-43999; Registration No. 33-51539;
Registration No. 33-51543; Registration No. 33-51551;
Registration No. 33-51549; Registration No. 33-51547;
Registration No. 33-51545; Registration No. 33-621;
Registration No. 33-51545; Registration No. 333-03957;
Registration No. 333-33735; Registration No. 333-30095;
Registration No. 333-48945; and Registration No. 333-61597.
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ERNST & YOUNG LLP

Tulsa, Oklahoma March 26, 1999

# INDEPENDENT AUDITORS' CONSENT

We consent to the incorporation by reference in the registration statements of The Williams Companies, Inc. shown below of our report dated January 27, 1998 (March 3, 1998, as to Notes 2 and 16 to the MAPCO Inc. consolidated financial statements) with respect to the consolidated financial statements of MAPCO Inc., which report includes explanatory paragraphs relating to certain litigation to which MAPCO Inc. is a defendant and the change in its method of accounting for business process reengineering activities to conform to the consensus reached by the Emerging Issues Task Force in Issue No. 97-13, appearing in this Annual Report of The Williams Companies, Inc. on Form 10-K for the year ended December 31, 1998.

Form S-3:	Registration No. Registration No. Registration No.	333-29185	
Form S-8:	Registration No.	33-40979 33-43999 33-51543 33-51549 33-51545 33-58671 333-03957 333-40721 333-30095	Registration No. 33-44381 Registration No. 33-45550 Registration No. 33-51539 Registration No. 33-51551 Registration No. 33-51547 Registration No. 33-56521 Registration No. 333-11151 Registration No. 333-33735 Registration No. 333-48945

Deloitte & Touche LLP Tulsa, Oklahoma March 26, 1999

#### THE WILLIAMS COMPANIES, INC.

# POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS that each of the undersigned individuals, in their capacity as a director or officer, or both, as hereinafter set forth below their signature, of THE WILLIAMS COMPANIES, INC., a Delaware corporation ("Williams"), does hereby constitute and appoint WILLIAM G. VON GLAHN, SHAWNA L. GEHRES, and REBECCA H. HILBORNE their true and lawful attorneys and each of them (with full power to act without the others) their true and lawful attorneys for them and in their name and in their capacity as a director or officer, or both, of Williams, as hereinafter set forth below their signature, to sign Williams' Annual Report to the Securities and Exchange Commission on Form 10-K for the fiscal year ended December 31, 1998, and any and all amendments thereto or all instruments necessary or incidental in connection therewith; and

THAT the undersigned Williams does hereby constitute and appoint WILLIAM G. VON GLAHN, SHAWNA L. GEHRES, and REBECCA H. HILBORNE its true and lawful attorneys and each of them (with full power to act without the others) its true and lawful attorney for it and in its name and on its behalf to sign said Form 10-K and any and all amendments thereto and any and all instruments necessary or incidental in connection therewith.

Each of said attorneys shall have full power of substitution and resubstitution, and said attorneys or any of them or any substitute appointed by any of them hereunder shall have full power and authority to do and perform in the name and on behalf of each of the undersigned, in any and all capacities, every act whatsoever requisite or necessary to be done in the premises, as fully to all intents and purposes as each of the undersigned might or could do in person, the undersigned hereby ratifying and approving the acts of said attorneys or any of them or of any such substitute pursuant hereto.

 $\,$  IN WITNESS WHEREOF, the undersigned have executed this instrument, all as of the 24th day of January, 1999.

/s/ Keith E. Bailey

/s/ Jack D. McCarthy

Keith E. Bailey Chairman of the Board, President and Chief Executive Office (Principal Executive Officer)

Jack D. McCarthy Senior Vice President (Principal Financial Officer)

/s/ Gary R. Belitz

Gary R. Belitz Controller

(Principal Accounting Officer)

/s/ Glenn A. Cox	/s/ Thomas H. Cruikshank
Glenn A. Cox Director	Thomas H. Cruikshank Director
/s/ William E. Green	/s/ Patricia L. Higgins
William E. Green Director	Patricia L. Higgins Director
/s/ W. R. Howell	/s/ Robert J. LaFortune
W.R. Howell Director	Robert J. LaFortune Director
/s/ James C. Lewis	/s/ Jack A. MacAllister
James C. Lewis Director	Jack A. MacAllister Director
/s/ Frank T. MacInnis	/s/ Peter C. Meining
Frank T. MacInnis Director	Peter C. Meinig Director
/s/ Kay A. Orr	/s/ Gordon R. Parker
Kay A. Orr Director	Gordon R. Parker Director
/s/ Joseph H. Williams	
	Joseph H. Williams Director
	THE WILLIAMS COMPANIES, INC.
	By /s/ William G. von Glahn
ATTEST:	William G. von Glahn Senior Vice President
/s/ Shawna L. Gehres	
Shawna L. Gehres Secretary	

I, the undersigned, Shawna L. Gehres, Assistant Secretary of THE WILLIAMS COMPANIES, INC., a Delaware company (hereinafter called the "Company"), do hereby certify that at a meeting of the Board of Directors of the Company, duly convened and held on January 24, 1999, at which a quorum of said Board was present and acting throughout, the following resolution was duly adopted:

RESOLVED that the Chairman of the Board, the President or any Vice President of the Company be, and each of them hereby is, authorized and empowered to execute a Power of Attorney for use in connection with the execution and filing, for and on behalf of the Company, under the Securities Exchange Act of 1934, of the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 1998

I further certify that the foregoing resolution have not been modified, revoked or rescinded and is in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the corporate seal of THE WILLIAMS COMPANIES, INC. this 11th day of March 1999.

/s/ Shawna L. Gehres
Shawna L. Gehres
Assistant Secretary

[CORPORATE SEAL]

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JAN-01-1998
DEC-31-1998
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497,475
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(4,762)
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                             127,549
.28
.28
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#### INDEPENDENT AUDITORS' REPORT

To the Board of Directors and Stockholders of MAPCO Inc.:

We have audited the consolidated balance sheet of MAPCO Inc. and subsidiaries as of December 31, 1997, and the related consolidated statements of income, changes in stockholders' equity, and cash flows for each of the two years in the period ended December 31, 1997 (none of which are presented herein). Our audits also included the financial statement schedules listed at Item 14(a)2 in the MAPCO Inc. 1997 Annual Report on Form 10-K (not presented herein). These financial statements and financial statement schedules are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and financial statement schedules based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of MAPCO Inc. and subsidiaries at December 31, 1997, and the results of their operations and their cash flows for each of the two years in the period ended December 31, 1997, in conformity with generally accepted accounting principles. Also, in our opinion, such financial statement schedules, when considered in relation to the basic consolidated financial statements taken as a whole, present fairly in all material respects the information set forth therein.

As discussed in Note 16 to the MAPCO Inc. consolidated financial statements (Note 17 to the consolidated financial statements of The Williams Companies, Inc.), MAPCO Inc. is a defendant in litigation relating to an LPG explosion in April 1992, that occurred near an underground salt dome storage facility located near Brenham, Texas.

Effective October 1, 1997, MAPCO Inc. changed its method of accounting for business process reengineering activities to conform to the consensus reached by the Emerging Issues Task Force in Issue No. 97-13.

Deloitte & Touche LLP Tulsa, Oklahoma January 27, 1998 (March 3, 1998, as to Notes 2 and 16 to the MAPCO Inc. consolidated financial statements)