

Appendix B

Natural Gas Pipeline and System Expansions, 1997-2000

A great deal of new pipeline capability has been proposed for development throughout North America between now and the turn of the century. The most extensive development is focused on expanding the deliverability of Canadian gas to the U.S. Midwest and Northeast and to Canadian markets. Several new pipelines and system expansions are planned that not only would improve access to natural gas supplies in Western Canada but also to production from the developing areas, such as the Sable Island field in Eastern Canada. The second-largest focus is on improving access to the increasing deep-water production in the Gulf of Mexico. Next are those projects whose objectives are to increase the flow of lower-cost supplies located in the Central United States to markets located primarily in the Midwest. Currently, the capability to do so is limited in some areas. The latter series of expansions will be competing, to some degree, with the projects slated to increase flows of Western Canadian gas to the Midwest marketplace.

Although there is a question as to whether or not the market can support all these expansions, it must be kept in mind that these projects can proceed only if sufficient commitments are entered into by future customers.¹²⁰ Most of the proposed projects have, or are, undergoing market-testing through “open-season” offerings whereby potential customers have placed bids for future capacity on the proposed projects. The planned capacity of the proposed projects usually reflects the results of these open seasons and indicates that, at least at the moment, local distribution companies and other major customers believe demand will grow sufficiently to support the incremental supplies destined for these markets.

This appendix examines expansions to the North American natural gas pipeline network during 1997 and the nature and type of proposed pipeline projects announced or approved for construction during the next several years in the United States. It includes those projects in Canada and Mexico that tie in with U.S. markets or projects. Additional details on some of the proposed projects and an analysis of their potential impact on a regional basis or on the overall North American natural gas pipeline network may be found in the main body of the report.

¹²⁰Without firm customer commitments, neither the necessary regulatory approval nor any needed external financing will be forthcoming. Nevertheless, it is possible that some customers might back out of these commitments after initial regulatory approval, thereby leaving the final implementation of a project in doubt.

Overview

At least 41 pipeline expansion projects were completed and placed in service in the United States during 1997 (Figure B1) representing more than 6.3 billion cubic feet per day (Bcf/d) of added pipeline capacity. These projects either added capacity directly to the interstate network, improved local intrastate service, or expanded access to producing fields or natural gas market centers. Seven of the projects increased interregional transmission capability by 750 million cubic feet per day (MMcf/d): 513 MMcf/d in the United States and 237 MMcf/d into Mexico (Tables ES1 and B1). These projects, plus others, increased overall daily interstate capability by a little more than 2 percent, or 4.6 Bcf, which is double the interstate capacity added in 1996.¹²¹ Moreover, the total number of completed projects in the United States was substantially more than in 1995 (41 vs. 26).

Almost all the natural gas pipeline projects slated for completion in 1997 were placed in service on schedule.¹²² Two were canceled because of changes in market conditions or competitive pressures. A few others were postponed while their original designs were reevaluated in light of conditional regulatory approval or shifts in construction priorities.

As of February 1998, the Energy Information Administration was tracking more than 100 proposed pipeline expansions and new pipeline projects at various stages of development in the United States, Canada, and Mexico, with planned in-service dates between 1998 and the end of 2000 (Figure B2). A number of these projects are slated to be phased in over several years or are jurisdictionally segmented (for instance, U.S. versus Canadian segments). If all U.S. projects were completed, overall daily deliverability on the national network would increase by almost 30 billion cubic feet (3 gathering system projects in the Gulf of Mexico and 11 Canadian projects, some of which are counted in the U.S. projects, are not included). Of all phases/projects, 62 are proposed for completion in 1998, 38 in 1999, and 20 in 2000. Thirty-nine of the projects call for development of new pipeline systems or facilities at new international border points (Table B2).

¹²¹Energy Information Administration, “Natural Gas Pipeline and System Expansions,” *Natural Gas Monthly*, DOE/EIA-0130(97/04) Washington, DC, April 1997).

¹²²Energy Information Administration, “Natural Gas Pipeline and System Expansions,” *Natural Gas Monthly* (April 1997), Table SR2.

Table B1. Major Natural Gas Pipeline Construction Projects Completed in 1997, by Terminating Region

Year	Ends in State	Begins in State	Region	Map Key	Pipeline/Project Name	FERC Docket Number	In Service Date	New or Expansion	Miles	Cost Estimate (million \$)	Added Capacity (MMcf/d)
Canada											
1997	QU	SK	Canada	1	TransCanada System Expn	--	11-1-97	Expn	128	NA	119
1997	NY	QU	Canada	2	TransCanada Import (Iroquois NY)	--	11-1-97	Expn	NA	NA	24
1997	NY	QU	Canada	3	TransCanada Import (Chippawa NY)	--	11-1-97	Expn	NA	NA	48
1997	NY	QU	Canada	4	TransCanada Import (Niagara NY)	--	11-1-97	Expn	NA	NA	39
1997	MN	SK	Canada	5	TransCanada Import (Noyes MN)	--	11-1-97	Expn	NA	NA	56
Central											
1997	WY	WY	Central	6	CIG Wind River Lateral Expn	CP96-289	11-1-97	Expn	NA	11	40
1997	ND	SK	Canada	7	ISP "Solution Gas" Imports	CP96-684	11-1-97	New	1	1	3
1997	MO	WY	Central	8	KN Interstate Pony Express	CP96-477	8-1-97	New	850	154	255
1997	WY	WY	Central	9	MIGC HiLight Plant Expn	CP97-183	10-1-97	Expn	NA	6	45
1997	NE	CO	Central	10	Trailblazer Eastward Expn	CP96-506	11-1-97	Expn	445	NA	105
1997	KS	WY	Central	11	Williams Gas WY-KS Expn	CP97-7	12-15-97	Expn	NA	9	30
1997	MO	KS	Central	12	Williams Gas KS-MO Expn	CP97-776	11-1-97	Expn	13	6	21
1997	CO	WY	Central	13	Wyoming Interstate Eastward	CP96-288	8-1-97	Expn	NA	40	192
Midwest											
1997	MI	IL	Midwest	14	ANR Michigan Leg Expn	CP96-641	12-1-97	Expn	12	19	135
1997	WI	KS	Central	15	Northern Natural Peak Day 2000 I	CP97-25	11-1-97	Expn	39	102	244
1997	WI	MB	Canada	16	Viking System-Wide Expn	CP97-93	11-1-97	Expn	30	28	62
Northeast											
1997	CT	CT	Northeast	17	Algonquin Electric Load Lateral	CP96-201	11-1-97	Expn	8	15	82
1997	PA	WV	Northeast	18	CNG Seasonal Service Expn	CP96-492	12-15-97	Expn	NA	1	30
1997	VA	PA	Northeast	19	CNG PL-1 Phase I	CP96-492	11-1-97	Expn	NA	15	19
1997	VA	VA	Northeast	20	Columbia/Commonwealth PL Expn	NA	11-1-97	Expn	NA	NA	18
1997	VA	PA	Northeast	21	Columbia Gas Market Expn I	CP96-213	11-1-97	Expn	379	22	242
1997	VA	TN	Southeast	22	East Tennessee System Wide	CP96-696	11-1-97	Expn	6	13	24
1997	MD	DE	Northeast	23	Eastern Shore Bridgeville Expn	CP96-97	11-1-97	Expn	29	7	5
1997	PA	NY	Northeast	24	National Fuel Niagara Expn	CP96-545	11-1-97	Expn	139	6	25
1997	PA	PA	Northeast	25	Texas Eastern Virginia Natural Expn	CP96-606	11-1-97	Expn	NA	NA	20
1997	PA	PA	Northeast	26	Texas Eastern Columbia Expn	CP96-559	11-1-97	Expn	81	67	142
1997	PA	PA	Northeast	27	Texas Eastern Line 1-A Expn	CP97-276	12-31-97	Expn	23	13	128
1997	PA	PA	Northeast	28	Transco Pocono Project	CP97-328	11-1-97	Expn	5	10	37
Southeast											
1997	AL	AL	Southeast	29	MidCoast Pipeline System Expn	CP97-343	11-1-97	Expn	NA	2	8
1997	SC	GA	Southeast	30	SONAT Zone 3 GA-SC-TN	CP96-541	11-1-97	Expn	27	36	45
1997	SC	SC	Southeast	31	South Carolina Pipeline Expn	--	11-1-97	Expn	NA	10	200
1997	NC	NC	Southeast	32	Transco Maiden Lateral Expn	CP97-193	12-1-97	Expn	18	13	38
1997	SC	MS	Southeast	33	Transco Sunbelt Project	NA	11-1-97	Expn	570	85	145
Southwest											
1997	GM	GM	Offshore	34	DIGS Main Pass Gathering	CP97-300	12-20-97	New	63	54	200
1997	TX	TX	Southwest	35	Delhi Pipeline South Texas Expn	--	11-1-97	Expn	53	NA	90
1997	LA	GM	Offshore	36	Discovery Pipeline	CP96-712	11-1-97	New	147	189	600
1997	TX	AZ	Western	37	El Paso Havasu Crossover	CP96-321	11-1-97	Expn	98	20	180
1997	GM	GM	Offshore	38	Garden Banks Offshore System	CP96-113	11-1-97	New	50	NA	600
1997	LA	GM	Offshore	39	Koch Bastian Bay	CP96-572	11-1-97	Expn	16	NA	861
1997	GM	GM	Offshore	40	Manta Ray Gathering System	CP96-796	11-1-97	New	47	60	300
1997	LA	GM	Offshore	41	Nautilus System	CP96-790	11-1-97	New	87	121	600
1997	OK	OK	Southwest	42	Transok West-to-East System Expn	--	11-1-97	Expn	130	75	255
1997	NM	NM	Southwest	43	Transwestern Bloomfield Expn	CP97-286	12-1-97	Expn	--	NA	25
Western											
1997	CA	NV	Western	44	Paiute Pipeline North Tahoe Lateral	CP94-29	12-15-97	New	23	10	13
Mexico											
1997	MX	CA	Western	45	SoCal Calxico/Mexicali Export	NA	7-31-97	New	1	^a	25
1997	MX	TX	Southwest	46	El Paso Samalayucca II	CP93-252	12-20-97	New	21	15	212

^aLess than \$1 million. All cost estimates are in U.S. dollars.

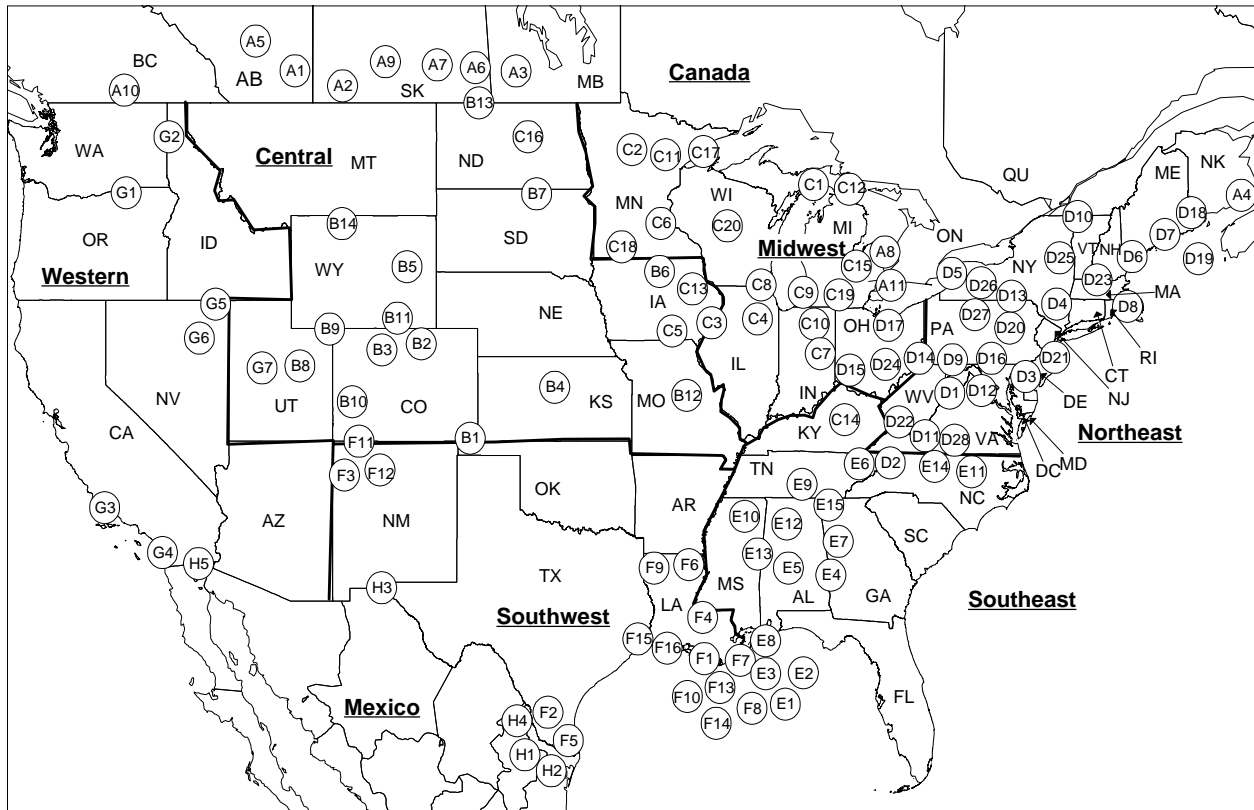
MMcf/d = Million cubic feet per day. Expn = Expansion. NA = Not available. -- = Not applicable.

CIG = Colorado Interstate Gas Co.; CNG = CNG Transmission Co; DIGS = Dauphin Island Gathering System; GM = Gulf of Mexico; NGPL = Natural Gas Pipeline Co. of America; NSPC = Northern States Power Co.; SoCal = Southern California Gas Co.; SONAT = Southern Natural Gas Co.; Tenneco = Tennessee Gas Pipeline Co.; TCPL = TransCanada Pipeline Ltd.; Transco = Transcontinental Gas Pipeline Co.

Note: Bold underlined items indicate project crosses regional boundary.

Source: Energy Information Administration, EIAGIS-NG Geographic Information System, Natural Gas Proposed Pipeline Construction Database, as of March 1998, compiled from Federal Energy Regulatory Commission filings and various industry news sources.

Figure B2. General Location of Major Proposed Natural Gas Pipeline Construction Projects, 1998-2000
(Keyed to Table B2)



Source: Energy Information Administration (EIA), EIAGIS-NG Geographic Information System, Natural Gas Pipeline Construction Database, as of March 1998.

resources in the Gulf of Mexico and, specifically, in the deeper waters (greater than 200 meters) of offshore Louisiana, Alabama, and Mississippi. In 1997, six natural gas pipeline projects were completed in the Gulf, representing a total of 3.2 Bcf/d of new pipeline capacity (Table B1). Three of these projects now bring an additional 2.1 Bcf/d to onshore Louisiana, while the other three (1.1 Bcf/d) operate as gathering systems linking producing platforms in the Gulf with mainlines directed to onshore facilities. The largest of the new systems include the Nautilus and Texaco Discovery pipelines, both with capacities of 0.6 Bcf/d.

At least 10 offshore projects, representing more than 3.7 Bcf/d of capacity, have been proposed for development in 1998/1999. Most of these projects would reach into the deep water area of the Gulf to tap several new production sources

being developed there—most notably in the Ship Shoal, Green Canyon, Destin Corridor, Garden Banks, and Mississippi Canyon areas.¹²⁴ Companies such as Shell Oil, Transcontinental Pipeline, and Williams Natural Gas Transmission are involved (Table B2). Development of offshore and deep water pipeline-related projects represents 52 percent of the 3.7 Bcf/d of planned additions in the Southwest Region and 44 percent of the 4.0 Bcf/d in the Southeast Region.

The remaining proposed onshore expansion projects in the Southwest Region are designed primarily to increase access to supplies in the east and south Texas and in the San Juan Basin of New Mexico. Several proposed projects in south Texas are designed to support exports to Mexico, if and when the connecting export facilities are finally put in place.

¹²⁴Three projects would direct supply to the Southeast (Alabama and Mississippi) and three to the Southwest (Louisiana). The other projects would be gathering systems.

Table B2. Major Proposed Natural Gas Pipeline Construction Projects, by Terminating Region and Planned In-Service Year, 1998–2000

Year	Ends in State	Begins in State	Region	Map Key	Pipeline/Project Name	FERC Docket Number	Status As of 3-31-98 ^a	New or Expansion	Miles	Cost Estimate (million \$)	Added Capacity (MMcf/d)
Canada											
1998	SK	AB	Canada	A1	Alberta Energy/TransCanada Expn	--	Approved	Expn	71	18	200
1998	SK	SK	Canada	A2	Foothills Pipeline Eastern Expn	--	Approved	New	70	18	700
1998	QU	SK	Canada	A3	TransCanada 1998 System Expn	--	Pending	Expn	235	840	447
1999	NB	NS	Canada	A4	Maritimes & Northeast Phase II	--	Pending	New	386	434	465
1999	AB	AB	Canada	A5	NOVA System Expn	--	Pending	Expn	125	1,070	2,250
1999	QU	SK	Canada	A6	TransCanada System 1999 Expn	--	Pending	Expn	NA	NA	NA
1999	MB	AB	Canada	A7	TransCanada Voyageur Link	--	Announced	Expn	NA	NA	1,400
1999	ON	MI	Midwest	A8	Vector Pipeline (Canada Portion)	--	Pending	New	15	24	1,000
2000	SK	BC	Canada	A9	Alliance Pipeline (Canada Portion)	--	Pending	New	982	700	1,325
2000	BC	BC	Canada	A10	ANG Kootenay Pacific Pipeline	--	Pending	New	351	381	550
2000	ON	MI	Midwest	A11	TriStatePipeline (Canada Portion)	--	Announced	Expn	NA	NA	300
Total New Capacity											8,637
Central											
1998	CO	CO	Central	B1	CIG Campo Lateral	CP97-769	Approved	Expn	115	21	81
1998	CO	CO	Central	B2	PSCO Front Range	--	Pending	Expn	53	25	269
1998	WY	CO	Central	B3	KN Interstate Front Runner	CP97-707	Pending	New	109	NA	254
1998	NE	OK	Southwest	B4	NGPL Amarillo Upgrade	CP94-577	Approved	Expn	14	33	-25
1998	WY	WY	Central	B5	MIGC Southern Mainline Expn	CP98-125	Pending	Expn	NA	6	40
1998	IA	IA	Central	B6	Northern Border Harper Expn	CP95-194	Approved	Expn	142	NA	962
1998	IA	SK	Canada	B7	Northern Border Monchy Expn	CP95-194	Approved	Expn	243	797	700
1998	WY	UT	Central	B8	Questar Utah Mainline Expn	CP98-66	Approved	Expn	NA	8	90
1998	UT	WY	Central	B9	Questar Mainline (Line 58) Expn	CP96-820	Approved	Expn	41	18	55
1998	CO	CO	Central	B10	TransColorado Pipeline (Northern)	CP90-1777	Approved	New	266	184	300
1998	WY	WY	Central	B11	WIG Larimie Compressor Expn	CP98-128	Pending	Expn	NA	15	52
1998	MO	MO	Central	B12	Williams Natural Gas St Louis Expn	--	Announced	Expn	200	NA	52
2000	ND	SK	Canada	B13	Alliance Pipeline (Import Station)	CP97-169	Approved	New	1	139	1,600
2000	WY	SK	Canada	B14	Altamont Pipeline	CP90-1372	Approved	New	620	139	737
Total New Capacity											5,143
Midwest											
1998	MI	MI	Midwest	C1	Great Lakes Security Looping II	CP96-297	Approved	Expn	25	44	0
1998	MI	MB	Canada	C2	Great Lakes System Wide Expn	CP96-647	Approved	Expn	72	149	129
1998	IL	IA	Central	C3	NGPL Amarillo Expn	CP96-27	Approved	Expn	4	24	110
1998	IL	IA	Central	C4	Northern Border Manhattan Extn	CP95-194	Approved	New	200	NA	648
1998	WI	KS	Central	C5	Northern Natural Peak Day 2000 II	CP97-25	Approved	Expn	5	NA	32
1998	MN	MN	Midwest	C6	Northern Natural Line D Expn	CP98-132	Approved	Expn	10	9	40
1998	OH	IN	Midwest	C7	Texas Eastern Spectrum Expn	CP97-626	On hold	Expn	114	31	305
1999	WI	IL	Midwest	C8	ANR IL-WI Expn	CP97-765	Approved	Expn	11	24	116
1999	OH	IL	Midwest	C9	ANR Independence Tie-in Expn	CP97-319	Pending	Expn	30	NA	750
1999	IN	IL	Midwest	C10	Crossroads/CNG	--	Announced	Expn	20	NA	150
1999	MN	MN	Midwest	C11	Great Lakes Carlton Project	CP98-96	Pending	Expn	4	9	67
1998	MI	MI	Midwest	C12	Great Lakes Sault Looping	CP98-143	Pending	Expn	14	11	0
1999	IL	IA	Central	C13	Northern Natural Gas East Leg 2000	--	Announced	Expn	264	835	450
1999	OH	TN	Southeast	C14	Tenneco Eastern Express	--	Announced	Expn	NA	200	500
1999	MI	IL	Midwest	C15	Vector Pipeline (US Portion)	--	Pending	New	328	447	1,000
2000	IL	SK	Canada	C16	Alliance Project (US Portion)	CP97-168	Pending	New	886	600	1,325
2000	MI	MB	Canada	C17	Great Lakes 300 Expn	CP98-309	Pending	Expn	258	620	312
2000	IN	SK	Canada	C16	Northern Border Project 2000	--	Announced	Expn	NA	NA	400
2000	MI	IL	Midwest	C19	TriState Pipeline Project	--	Announced	New	275	NA	500
2000	IL	MB	Canada	C20	Viking Voyageur Project	NA	Pending	New	773	1,240	1,400
Total New Capacity											8,234
Northeast											
1998	VA	PA	Northeast	D1	Columbia Gas Market Expn II	CP96-213	Pending	Expn	379	21	167
1998	VA	VA	Northeast	D2	East Tenn Roanoke Expn	CP98-40	Pending	Expn	60	NA	10
1998	MD	DE	Northeast	D3	Eastern Shore System Expn	NA	Pending	Expn	98	NA	5
1998	NY	QU	Canada	D4	Iroquois Import Expn	CP96-687	Pending	Expn	200	22	35
1998	PA	NY	Northeast	D5	National Fuel Niagara/Leidy I	CP98-94	Approved	Expn	139	5	23
1998	ME	MA	Northeast	D6	Portland/Maritimes & Northeast I	CP97-238	Approved	New	100	175	631
1998	ME	QU	Canada	D7	Portland Pipeline Project	CP95-248	Approved	New	293	303	178
1998	MA	MA	Northeast	D8	Tenneco/DOMAC	CP96-164	Pending	New	8	26	55
1998	PA	PA	Northeast	D9	Texas Eastern Virginia Natural Expn	CP96-606	Pending	Expn	NA	NA	20
1998	VT	QU	Canada	D10	Vermont Gas System Import Expn	CP97-324	Approved	Expn	190	NA	9
1998	VA	VA	Northeast	D11	VNG Saltville P-25 Line	--	Approved	Expn	72	15	30
1999	VA	PA	Northeast	D12	CNG PL-1 Phase II	CP96-492	On Hold	Expn	NA	NA	25
1999	NY	ON	Canada	D13	Columbia's Millennium PL	CP98-150	Pending	New	442	683	700
1999	PA	WV	Northeast	D14	CNG SSE Expn	CP96-492	On Hold	Expn	40	35	178
1999	PA	OH	Midwest	D15	CNG Market Value Project	NA	Announced	Expn	NA	NA	150
1999	VA	PA	Northeast	D16	CNG MAS (Market Area Storage)	CP97-774	Pending	Expn	NA	NA	10
1999	VA	PA	Northeast	D1	Columbia Gas Market Expn III	CP96-213	Pending	Expn	379	20	108
1999	PA	OH	Midwest	D17	Independence Pipeline	CP97-315	Pending	New	400	678	1,001
1999	ME	NB	Canada	D18	Maritimes & Northeast II (US Portion)	CP96-809	Approved	New	386	425	440
1999	ME	QU	Canada	D7	Portland Pipeline 1999 Expn	--	Announced	Expn	NA	NA	500
1999	PA	PA	Northeast	D9	Texas Eastern Virginia Natural Expn	CP96-606	Pending	Expn	NA	NA	12
1999	NY	PA	Northeast	D20	Transco MarketLink Expn	--	Announced	Expn	2	600	400
1999	NY	NJ	Northeast	D21	Duke Energy Crossbay Project	--	Announced	New	44	NA	700
1999	VA	VA	Northeast	D22	VNG Saltville P-24 Line	--	Pending	Expn	40	NA	50

Table B2. Major Proposed Natural Gas Pipeline Construction Projects, by Terminating Region and Planned In-Service Year, 1998–2000 (Continued)

Year	Ends in State	Begins in State	Region	Map Key	Pipeline/Project Name	FERC Docket Number	Status As of 3-31-98 ^a	New or Expansion	Miles	Cost Estimate (million \$)	Added Capacity (MMcf/d)
2000	MA	NH	Northeast	D23	Algonquin HubLine Project	--	Announced	New	70	NA	600
2000	NY	IL	Midwest	D24	Duke Energy Spectrum PL	--	Announced	Expn	370	600	500
2000	NF	NH	Canada	D19	MarineLine Subsea Project	CP98-30	On hold	New	1,570	3,500	400
2000	NY	QU	Canada	D25	Iroquois NY City Expn	--	Announced	Expn	27	NA	160
2000	PA	ON	Canada	D26	Tenneco Niagara-Leidy Expn	--	Announced	Expn	NA	NA	200
2000	MA	TN	Southeast	D27	Tenneco Eastern Express 2000	--	Announced	Expn	NA	200	700
2000	PA	PA	Northeast	D9	Texas Eastern Virginia Natural Expn	CP96-606	Pending	Expn	NA	NA	12
2000	VA	VA	Northeast	D28	VNG Tidewater Intrastate PL	--	Announced	New	350	NA	315
Total New Capacity											8,324
Southeast											
1998	AL	GM	Offshore	E1	DIGS (Dauphin Island) Phase II	CP98-6	Approved	Expn	13	19	169
1998	MS	GM	Offshore	E2	Destin Corridor Offshore	CP96-655	Approved	New	220	294	1,000
1998	GM	GM	Offshore	E3	Destin Main Pass Laterals	CP98-238	Pending	Expn	13	19	230
1998	GA	AL	Southeast	E4	SONAT Zone 2 & 3 Expn	CP96-526	Approved	Expn	NA	52	65
1998	AL	AL	Southeast	E5	SONAT Dallas County Expn	CP97-691	Approved	Expn	3	4	34
1998	TN	TN	Southeast	E6	Tengasco East Tennessee PL Link	--	Approved	New	10	6	10
1998	GA	AL	Southeast	E7	Transco Cherokee Project	CP97-331	Approved	Expn	16	68	87
1998	MS	GM	Offshore	E8	Transco Mobile Bay Expn	CP97-92	Approved	Expn	76	120	350
1998	AL	TN	Southeast	E9	U.S. Gypsum Lateral	CP97-202	Approved	New	15	4	21
1999	KY	LA	Southwest	E10	Columbia Gulf Mainline Expn	--	Announced	Expn	820	NA	218
1999	NC	NC	Southeast	E11	Cardinal Pipeline (Transco)	--	Approved	Expn	67	98	140
1999	GA	AL	Southeast	E12	SONAT/East Tenn Connection	CP96-153	Approved	Expn	123	66	76
1999	TN	LA	Southwest	E13	Tenneco Express 500 Expn	NA	Announced	Expn	NA	NA	220
1999	NC	NC	Southeast	E14	Transco Pine Needle LNG Link	CP96-134	Approved	New	1	1	400
2000	TN	GA	Southeast	E15	Cumberland Pipeline (Transco)	--	Pending	Expn	NA	NA	200
Total New Capacity											3,221
Southwest											
1998	LA	GM	Offshore	F1	ANR Conch Project	CP97-71	Approved	Expn	37	51	461
1998	TX	TX	Southwest	F2	Coastal States Roma Export Line	--	Approved	New	18	51	170
1998	NM	NM	Southwest	F3	El Paso San Juan Expn	--	Pending	Expn	34	4	116
1998	LA	LA	Southwest	F4	Mid-Louisiana Baton-Rouge Expn	--	Announced	Expn	25	NA	100
1998	TX	TX	Southwest	F5	MidCon Texas Pipeline	CP96-140	Approved	New	15	1	270
1998	LA	LA	Southwest	F6	Noram Gas Trans Line-F Expn	CP97-724	Approved	Expn	90	32	170
1998	LA	GM	Offshore	F7	Shell Mississippi Canyon Expn	NA	Announced	Expn	NA	NA	300
1998	LA	LA	Offshore	F8	Tenneco South Pass 77 Expn	CP98-220	Pending	Expn	--	1	400
1998	LA	LA	Southwest	F9	Texas Gas PL Houghton Expn	CP97-656	Approved	Expn	NA	6	115
1998	GM	GM	Offshore	F10	Transco Sealeg Project	CP96-758	Approved	Expn	51	80	331
1998	NM	CO	Central	F11	Transwestern San Juan Expn I	CP97-516	Approved	Expn	33	21	115
1998	NM	NM	Southwest	F12	Transwestern San Juan Expn II	CP97-516	Approved	Expn	110	21	130
1998	LA	GM	Offshore	F13	Trunkline Terrebone Expn	CP97-105	Approved	Expn	145	52	500
1998	GM	GM	Offshore	F14	Williams Natural Gas Genesis Expn	--	Pending	New	35	NA	72
1999	LA	TX	Southwest	F15	ANR Katy Project	--	On hold	New	220	51	200
1999	LA	GM	Offshore	F16	Transco Crossover Project	--	Announced	New/Expn	170	NA	264
Total New Capacity											3,715
Western											
1998	WA	OR	Western	G1	Northwest PL Columbia River Extn	--	Announced	Expn	NA	17	50
1998	WA	BC	Canada	G2	PGT Mainline Expn	--	Announced	Expn	--	6	76
1998	CA	CA	Western	G3	Pacific Offshore Santa Barbara Expn	--	Approved	Expn	NA	NA	20
1998	CA	CA	Western	G4	San Diego G&E Pipeline 2000	CP93-117	Approved	New	80	85	40
1999	NV	ID	Western	G5	NWPL Silver Gem Lateral	--	Announced	New	121	79	93
1999	NV	NV	Western	G6	Pauite Silver Gem/Elko Expn	--	Announced	Expn	43	NA	55
2000	NV	UT	Central	G7	CIG Utah-Nevada Line	--	Announced	New	360	NA	250
Total New Capacity											584
Mexico											
1998	MX	TX	Southwest	H1	Coastal States Roma Export Point	CP96-770	Approved	New	1	NA	170
1998	MX	TX	Southwest	H2	MidCon Texas Roma Export Point	CP96-583	Approved	Expn	1	NA	270
1999	MX	NM	Southwest	H3	PNM Gas Services Export	CP93-98	Approved	New	NA	NA	35
1999	MX	TX	Southwest	H4	Houston Pipeline Export	CP92-417	On hold	New	22	NA	600
1999	MX	CA	Western	H5	SoCal Project Vecinos	CP94-207	Approved	New	8	100	300
Total New Capacity											1,375

^aAnnounced = Prior to filing with regulatory authorities. Pending = Before regulatory authority for review and acceptance. Approved = Fully or conditionally approved by regulating authority; may or may not be under construction. On Hold = May be canceled or postponed due to changed market or regulatory conditions.

^bCost and added capacity are the same for this and previous line item.

MMcf/d = Million cubic feet per day. Expn = Expansion. NA = Not available. -- = Not applicable. Extn = Extension. CIG = Colorado Interstate Gas Co.; CNG = CNG Transmission Co; DIGS = Dauphin Island Gathering System; GM = Gulf of Mexico; NGPL = Natural Gas Pipeline Co. of America; NSPC = Northern States Power Co.; NWPL = Northwest Pipeline Co.; PSCO = Public Service Co. of Colorado; SoCal = Southern California Gas Co.; SONAT = Southern Natural Gas Co.; Tenneco = Tennessee Gas Pipeline Co.; TCPL = TransCanada Pipeline Ltd.; Transco = Transcontinental Gas Pipeline Co.; VNG = Virginia Natural Gas Co.

Notes: All cost estimates are in U.S. dollars. Bold underlined items indicate project crosses regional boundary.

Source: Energy Information Administration, EIAGIS-NG Geographic Information System, Natural Gas Proposed Pipeline Construction Database, as of March 1998, compiled from Federal Energy Regulatory Commission filings and various industry news sources.

San Juan Basin (New Mexico) Access

Until recently, the capacity available to move gas from the San Juan Basin area eastward was limited. The rapid development of the area's coalbed methane and other supplies in the area during the late 1980's led to an excess in productive capacity. Originally the new production was expected to be consumed in the California market, and pipeline capacity was developed with that in mind. Today, however, the emphasis is on finding ways to expand deliverability for producers in the basin and move some of this supply eastward to link with market centers in the Texas Panhandle as well as those located in the Waha area of southwestern Texas. From there the gas could be redirected through northern and eastern Texas to Midwest and Northeast markets. The two major interstate pipeline companies in the area, Transwestern Pipeline Company and El Paso Natural Gas Company, have undertaken efforts to expand and enhance facilities on their respective systems, which would allow them to direct more production eastward to the Waha/Permian Basin centers.

In 1997, both pipeline companies completed projects that improved deliverability out of the San Juan Basin and planned several additional projects that would relieve the ongoing capacity constraint issue in the area. For instance, Transwestern Pipeline Company added an additional 25 MMcf/d with the expansion of compression on its system within the basin (Table B1). It also has Federal Energy Regulatory Commission (FERC) approval to expand its local capabilities by 245 MMcf/d in 1998. El Paso Natural Gas Company also plans to expand its local San Juan Basin capabilities by 116 MMcf/d in 1998 (pending FERC approval) in response to rising production demands.

In addition, with the completion of the full TransColorado Pipeline system (from northern Colorado to northern New Mexico) in 1998, a portion of its 0.3 Bcf/d capacity could be available to local producers/shippers on an as-available basis.

The El Paso Natural Gas Company's completed its Havasu Crossover expansion project in mid-1997. This project uses expanded capacity on the westward-bound portion of the system to move supplies that are redirected eastward (either physically or by displacement) just east of the California border. The expansion upgraded the Havasu Crossover, which links the north and south parts of the El Paso system. These system enhancements increased El Paso deliverability in the Waha area of West Texas by an additional 180 MMcf/d.

Potential East and South Texas Expansions

Although no pipeline projects have been proposed for the area, the Cotton Valley Trend of East Texas is expected to

become a major new source of gas production over the next several years. The same is true of the area around Southeast Texas. In 1997, Delhi Pipeline Company and several other intrastate pipelines expanded parts of their gathering and mainline systems to accommodate current and future new production. The question remains, however, whether current interstate capacity levels, which are not fully utilized at the present, can handle the new production without expansion. The proposed ANR Katy project, which was, in part, targeted at shippers who potentially might want to access this new production, did not generate as much interest as the company expected when an "open-season" was offered in mid-1997. The future of the project is currently under review by the company.

Rocky Mountain Area Access

In the past, Rocky Mountain supplies (Colorado, Wyoming and Utah) generally moved to a strong southern California gas market, but the current emphasis of area producers is to increase their presence in local energy markets and to extend their customer base further in U.S. Midwestern and Eastern markets. Customers in the Midwest and East are also very interested in having greater access to these relatively lower priced supplies.

In 1997, several natural gas pipeline projects were completed that furthered that goal. For instance, KN Interstate Pipeline Company placed its "Pony Express" line (0.26 Bcf/d) in service in August and the Trailblazer/Overthrust/Wyoming Interstate system (0.1 to 0.2 Bcf/d) expansion was completed in the last quarter of the year. The latter expansion increased the system's deliverability to its interconnection with the Natural Gas Pipeline Company of America's Amarillo line, which transports supplies to the Midwest Region.

The proposed pipeline expansion projects in the area, for the most part, target expanding regional service as an outlet for expanding area production. Two major project proposals, the KN Interstate Pipeline Company's Front Runner projects (Table B2), both intend to transport Wyoming supplies to a growing Denver, Colorado, marketplace. The Questar Pipeline Company proposes to expand its capabilities in the Salt Lake City area.

In addition to the expanding production in areas of the Rocky Mountains located in Wyoming, Utah, and northern Colorado, the Powder River area of southern Montana and northern Wyoming is expected to develop into a major producing area over the next decade. Already several of the pipeline projects discussed earlier have anticipated access to this area's production in their design.

Improved Access to Canadian Supply

During 1997, the TransCanada Pipeline system increased its domestic deliverability by 119 MMcf/d and expanded several of its export points to the United States. However, only one of the interconnecting U.S. pipelines (Viking Gas Transmission Company) expanded its capacity accordingly. The TransCanada export upgrades were primarily to alleviate some of its own limitations. Most of the U.S. pipelines were already capable of accepting the increased flows.

The completion of these projects in 1997 only partially relieved the existing capacity constraint problem on the TransCanada system. Flow restrictions on the system have limited western Alberta (Canada) natural gas producers' access to markets to the east during the past several years. However, within Canada, a number of projects are planned that will improve operational flows significantly and add to export capability. Although it is doubtful that all will be built, 11 projects within Canada, representing more than 8.6 Bcf/d of new capacity,¹²⁵ have been proposed for development by the end of 2000. Several, like the NOVA system expansion and the new ANG Kootenay Pacific Pipeline, would increase production area exit capacity. However, the bulk of the new capacity that is being proposed would be longhaul system capacity targeted for eastern Canadian natural gas markets (which are growing rapidly) and to expand export capabilities (Figure B3).

Reflecting the growing Canadian production and desire to flow more of that gas to U.S. markets, 14 projects have been proposed that could add as much as 5.9 Bcf/d to U.S. import capacity from Canada during the next 3 years, an increase of 52 percent from the 1997 level.¹²⁶ The volume increase is 17 percent more than the total Canadian import capacity added from 1991 through 1997, 5.0 Bcf/d (see Chapter 3). This anticipated growth also reflects the continuing U.S. demand for Canadian natural gas, especially in the Midwest and Northeast regions.

These efforts include several very large projects. For example, a new natural gas pipeline (the Alliance project) would bring gas from British Columbia to the Chicago, Illinois, area along the right-of-way of an existing oil pipeline. Several other projects are competing with the Alliance project, including

¹²⁵Final capacity levels for TransCanada Pipeline Company's 1999 expansion effort were not available as of March 1998.

¹²⁶Does not include two projects, representing 1.1 Bcf/d capacity, whose chances of success are marginal. It also does not include the Columbia Millennium project into the Northeast Region whose capacity is tied in with the import capacity into the Midwest and the 1.6 Bcf/d Alliance Pipeline import station, which for the most part is accounted for in that project.

the Viking Voyageur Pipeline, which is a 1.4 Bcf/d line between the Noyes, Minnesota, import point and the Chicago, Illinois, area, and the Northern Border Project 2000, which is a 400 MMcf/d expansion¹²⁷ that includes a proposal to extend the system to Indiana and possibly to the Michigan-Canada border to serve the Ontario marketplace. (Note: In late April 1998 the sponsors of the Viking Voyageur Project announced that it was unlikely that they would be able to secure enough future shipper commitments and available production in Canada to make the project viable at its proposed level. As a result, the project may terminate or downsize. Since its 1999/2000 expansion plans are predicated in part upon the Viking Project, TransCanada Pipeline's expansion plans may have to cut back as well.) In addition, Great Lakes Gas Transmission in the Midwest Region and Iroquois Transmission in the Northeast plan to expand their existing systems by 441 and 160 MMcf/d, respectively, during the next several years.

Because of the growing demand for Western Canadian supplies in Eastern Canada and the United States, TransCanada Pipeline Ltd. applied to the Canadian National Energy Board in early 1998 to extend its expansion plans to accommodate an interconnection with the Viking Voyageur project and larger potential demand in the Canadian domestic market. The new capacity would be phased in over 2 years beginning in 1999. Currently, TransCanada is in the process of revising its expansion plans for 1999 to reflect its commitments to the Voyageur expansion.

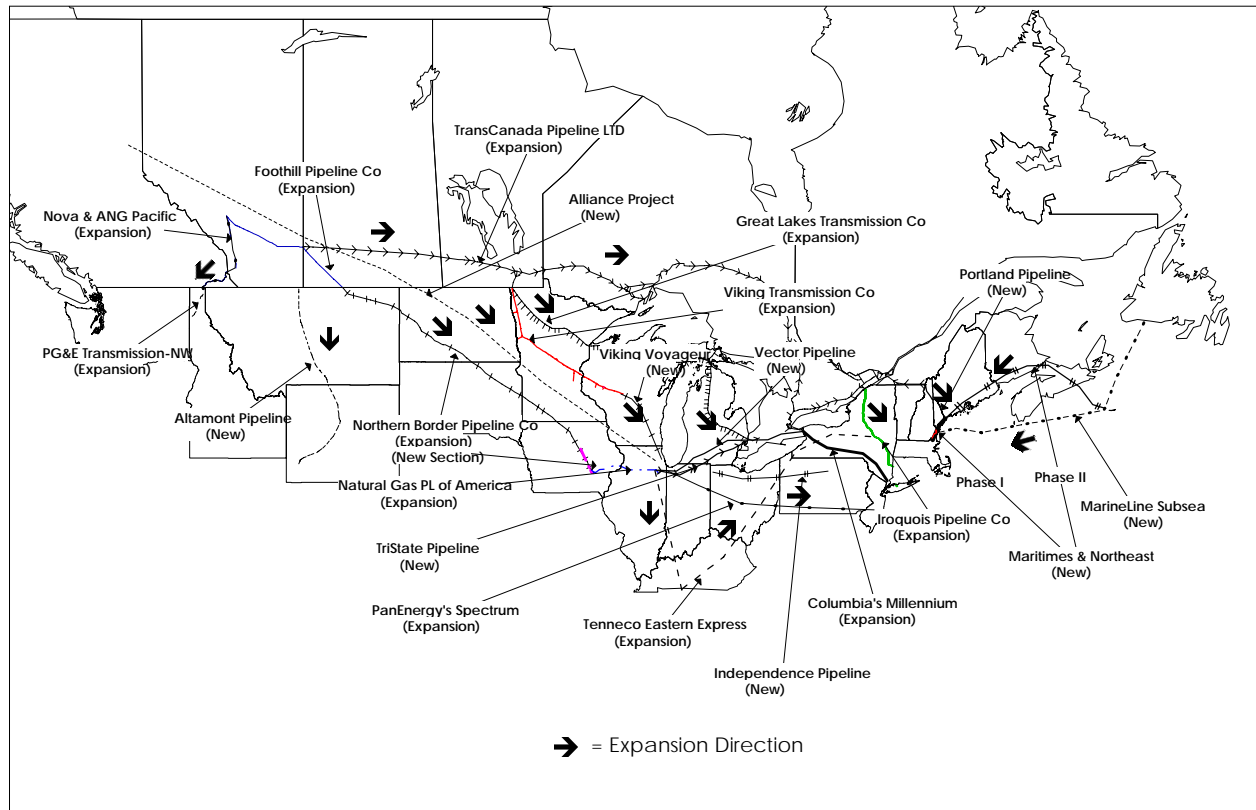
In August 1996, the Federal Energy Regulatory Commission approved construction of the Northern Border Pipeline Company expansion project, which would add 0.7 Bcf/d to import capacity at the Montana border. Correspondingly, Foothills Pipe Line Ltd. of Canada, which interconnects with Northern Border Pipeline at Monchy, Montana, would expand its eastern leg by the same amount.

On the Canadian east coast, several new pipelines have been proposed to move gas supplies being developed off the Canadian Atlantic coast near Sable Island to markets in Canada and the United States (Table B2). The Maritimes & Northeast pipeline project would move Sable Island supplies to the Northeastern United States. The Maritimes & Northeast pipeline project's route will take it directly into the State of Maine and through New Hampshire to interconnections with the Tennessee Gas Pipeline system in Massachusetts. Another project, the MarineLine Subsea pipeline has been proposed.¹²⁸ It would not only provide an alternative transportation route

¹²⁷Original plans were for a 1.3 Bcf/d expansion, but the project's size has been cut because of less-than-expected market interest.

¹²⁸In March 1998, this project was placed in an inactive status, pending completion of additional geological and geophysical surveys.

Figure B3. Planned Projects Related to Imports of Canadian Gas, 1998-2000



Source: Energy Information Administration (EIA), EIAGIS-NG Geographic Information System, Natural Gas Pipeline Construction Database, as of March 1998.

from Sable Island but also would handle receipts (supplies) from as far north as Newfoundland, through a sea route passing through the Sable Island fields and southward to landfall in New Hampshire.

Market Areas

Midwest

In 1997, only three interstate pipeline projects were completed in the Midwest Region (Table B1), adding 441 MMcf/d of new capacity. These projects represented an increase to intraregional capacity of only about one-half of 1 percent. However, one project (ANR Michigan Leg expansion) resolves a capacity bottleneck in the region, while the other two expanded deliverability to growing markets in Wisconsin and vicinity.

Based upon current proposals, natural gas pipeline deliverability to the Midwest Region will grow substantially

by the end of 2000, with 8.2 Bcf/d of new interstate capacity planned overall, the second highest of the six regions. But what really distinguishes the growth in the Midwest is that the vast majority of new capacity would be on newly built trunklines or extensions to existing pipelines bringing supplies from Canada. Ten of these projects would increase interregional deliverability by a total of 5.3 Bcf/d. The Midwest will be the terminus for the Alliance project, which alone would increase area service by 1.3 Bcf/d. Excluding the extension of Canadian supplies via the Northern Border Pipeline to Manhattan, Illinois (near Chicago), and Natural Gas Pipeline Company of America's (NGPL) Amarillo expansion (110 MMcf/d) destined for the same area, the Midwest Region's access to Canadian supplies could increase by as much as 117 percent (3.6 Bcf/d) from the 1997 level (3.0 Bcf/d).

Two new pipelines, TriState (0.5 Bcf/d) and Vector (1.0 Bcf/d), have been proposed to tranship supplies arriving via Voyageur, Alliance, and Northern Border pipelines in the Chicago area to markets in eastern Michigan and southern

Ontario, Canada. The Vector pipeline would provide an integral link in support of Columbia Gas Transmission Company's Millennium project, which has been proposed to begin gas deliveries in the fall of 1999 to customers in the Northeast (see next section). Vector would tranship supplies through Canada via the Union Gas System (Ontario) from the St. Clair export point and Dawn (Ontario) storage to the Millennium pipeline at Niagara, New York.

Northeast

More pipeline expansion projects were completed in the Northeast Region in 1997 than in any other part of North America. Twelve projects, accounting for about 770 MMcf/d of additional deliverability, or 2 percent of intraregional pipeline capabilities, were placed in service. However, only one of these projects (24 MMcf/d) increased interregional deliverability (Table B1). The capacity increase within the region was exceeded only in the Southwest Region. Almost all of the projects were to improve deliverability within local markets or to address bottlenecks that were limiting service in areas of growing demand. Texas Eastern Transmission's several expansion projects were implemented primarily to resolve the latter problem.

The Northeast has the most natural gas pipeline projects (28) slated for development and they represent the largest amount of proposed new pipeline capacity within any region of the United States, 8.3 Bcf/d. Several of the projects are continuations of ones that began in 1996 or 1997 and are being phased in over several years. While many of the proposed projects are smaller regional expansions serving local market areas, more than 59 percent of the added capacity would be on pipeline systems delivering from outside the Northeast Region. Of the 5.0 Bcf/d of proposed new interregional capacity, more than 53 percent would carry supplies originating in Canada.

Many of these projects have been planned because of expectations that an excess deliverability situation could occur in the Chicago area if all the projects slated to bring Canadian supplies into the Midwest are completed. This possibility has spurred several companies to plan large-scale projects that would extend some of this new capacity further eastward to Northeast markets. For example, ANR Pipeline Company and Transcontinental Gas Pipeline Company have proposed the jointly owned Independence project, which could carry 1.0 Bcf/d from ANR's line in northwestern Ohio to a major interconnection with Transcontinental's line in Leidy, Pennsylvania, a major hub serving the Northeastern marketplace. The new line would also be attractive to Canadian-gas shippers seeking an alternative route to Northeast markets. It could also provide an alternative route and opportunity for shippers now moving gas from the

Southwest to the Midwest to reach customers in the Northeast.

Other projects that would move some of the new Midwestern pipeline supplies eastward include Tennessee Gas Pipeline Company's proposed Eastern Express project and Duke Energy Corporation's Spectrum project. These two projects alone represent a total of 1.2 Bcf/d of new capacity into the Northeast. Including the Independence and Millennium projects, as well as other import projects slated for development during the next several years, new capacity into the region could reach 5.2 Bcf/d, adding significantly to the 12.4 Bcf/d existing at the close of 1997.

The Spectrum project (0.5 Bcf/d) would extend from the Chicago, Illinois, area to New York and New England, mostly using expanded facilities along Duke Energy's affiliated pipelines: Panhandle Eastern, Texas Eastern, and Algonquin Gas Transmission systems (west to east). In addition, an interconnection with another affiliate, Trunkline Gas Company, could be utilized to move gas supplies from the Southwest Region if appropriate (as could the Panhandle Eastern Pipeline system). The Eastern Express project (0.7 Bcf/d) would utilize Midwestern Gas Transmission Company (an affiliate of Tennessee Gas Pipeline Company) to ship supplies southward (or through displacement) to Tennessee Gas's interconnection in northern Tennessee and then, through expanded facilities on its existing system, transport supplies from the Midwest to the east coast. In addition, the Eastern Express project would include expansion (0.2 Bcf/d) of Tennessee Gas's pipeline between its Niagara, New York, import point and its interconnections near Leidy, Pennsylvania, and its northern line extending directly to New England.

Canadian import expansions slated for development in 1998 and 1999 will result in increased capacity at several import points into the Northeastern United States and development of at least one new import point (for Columbia Gas Transmission's Millennium project). For example, in response to TransCanada's multiyear expansion plans, Iroquois Pipeline Company has proposed to expand its system by about 195 MMcf/d, phased in during 1998 and 2000. Also supported by the TransCanada expansion will be the new Portland Natural Gas Pipeline (178 MMcf/d), which would replace and expand Granite State Pipeline Company's leased line (31 MMcf/d) that currently brings Canadian gas to Maine via Vermont and New Hampshire. Combined with the Millennium import level of 0.7 Bcf/d and several import expansions related to other projects, direct Canadian export capacity to the U.S. Northeast could increase by about 2.6 Bcf/d by the end of 2000, a 91-percent increase over the 1997 level.

Planned expansions in the Northeast Region are also somewhat unique in that several projects represent cooperative efforts among regional pipeline systems. For example, the Texas Eastern expansion of service to some of its Virginia and eastern Pennsylvania service areas depends partly upon the completion of the CNG Transmission PL-1 line and Seasonal Service expansion projects, including improvements to storage deliverability. Columbia Gas Transmission, with its "Market Expansion" project, is also planning improvements (especially to storage services) on its system that would increase deliverability to several major interconnections with these same pipelines. National Fuel Gas Supply Company, another major regional system, has proposed upgrades to its system based upon the eventual completion of projects by Columbia, CNG, and Texas Eastern. In particular, National Fuel's project will complement CNG's planned improvement to its system for flowing gas between Leidy, Pennsylvania, a major storage area and hub interconnection point, and Steuben County, New York, and then northward where CNG and National Fuel have major interconnections. The first phases of several of these projects were completed in 1997.

Of the 28 singular projects planned within the region representing 8.3 Bcf/d of new capacity, a number are either directly or indirectly linked by mutual service needs or partnerships.¹²⁹ These projects constitute about 18 percent, or 1.1 Bcf/d, of the new capacity additions in the region.

Southeast

Natural gas pipeline expansions completed in the Southeast Region in 1997 (436 MMcf/d) were intended mainly to improve Deliverability within the region, primarily in North and South Carolina, Georgia, and Alabama. These expansions represent less than 1 percent of the total 1996 regional pipeline capacity levels (Table ES1). One system, Transcontinental Gas Pipeline Company, was involved in three of the five projects completed in 1997. In addition to increasing service from its North Carolina mainline, completion of its Sunbelt project supported the expansion of the South Carolina Pipeline system, which was also completed in 1997.

Fifteen expansion projects, representing a potential 3.2 Bcf/d of new capacity development, are proposed for the Southeast Region. About 54 percent of this capacity is geared toward improving regional access to deep water production in the Gulf of Mexico. Offshore projects represent about 1.7 Bcf/d

of proposed capacity additions, all of which are scheduled to be in service sometime in 1998.

Five of these projects (1.2 Bcf/d of expansion capacity) represent an increased commitment by Transcontinental Gas Pipeline Company to customers within the region. Four other projects also represent greater service to regional markets, especially in the Atlanta, Georgia, area and the service territory of Atlanta Gas Light Company. Growth in the regional industrial market is helping to spur demand for additional natural gas supplies.

Also not to be overlooked in the expansion mix are the several projects that are designed to transport some of the growing Southwest regional production through the Southeast to markets in the Midwest and Northeast. The Tennessee Gas Pipeline Company's Express 500 is one such proposal, with up to 0.2 Bcf/d additional capacity to be added by 2000, increasing the existing capacity of its Line 500 located within the region. Columbia Gulf Transmission Company also will increase its mainline capacity by more than 0.2 Bcf/d. For the past several years, Columbia Gulf system has been operating below its original design capacity because of an aging infrastructure; the problem would be resolved with the completion of this project.

Mexico Market

Several projects have been proposed to add to the export capability of U.S. natural gas companies located near the border with Mexico (Table B2), although only two projects (237 MMcf/d) were completed in 1997. These were the first new export points to Mexico installed in 5 years (Table B1). None of the proposed projects represents enhancements to import capabilities, currently at about 350 MMcf/d, a figure that has not changed since the 1980s. All of the proposed projects are to support mostly industrial and power generation customers located in the border area.

If completed, the currently proposed projects would represent about 1.4 Bcf/d of additional export capacity (Table B2). Currently (1997), export capacity to Mexico stands at 1.1 Bcf/d. Several of the proposed projects are competing within and for the same market. For example, Both the MidCon-Texas Pipeline Company (Figure B2) and Coastal States Gas Transmission Company are seeking to negotiate with Mexican buyers for firm shipping agreements to essentially the same general area. Nevertheless, both companies view their projects as proceeding regardless of the outcome of negotiations. These two companies also have plans to construct pipelines within Mexico that will link with their border crossing project and Texas intrastate pipeline construction projects.

¹²⁹Transcontinental Gas Pipeline Company and Tennessee Gas Pipeline Company also have several projects in the region that will benefit from and support expansions in the region.

Most of the proposed projects have been proceeding slowly for environmental, economic, and regulatory reasons. One obstacle has been overcome with the installation of Mexico's newly formed regulatory authority, the Comisión de Energía (CRE). The CRE has issued less restrictive regulations on foreign investment in Mexico, which affects the ownership and operation of pipeline facilities owned by others. In the fall of 1996, the CRE announced its first award of a (privatization) license permitting the development of a local gas distribution system in the Baja area of northern Mexico.¹³⁰ This action may hasten the approval and final implementation of several similar local service development proposals, which are linked to pending U.S. export proposals that have remained dormant for several years.

In December 1997, construction was completed on the El Paso Energy Company's Samalayucca project, which links Texas supply sources with customers in Mexico's Chihuahua State. The 45-mile, 210 MMcf/d pipeline is the first pipeline located in Mexico owned in part by a U.S. company. A major customer of the project will be a 700 megawatt combined-cycle electric generating plant located in Samalayucca, Mexico, which will begin operations in late 1998.

Summary

The amount of new capacity proposed for development by the end of 2000 is significant and, if fully implemented, would represent a 9-percent increase in intraregional capacity from the 1996 level and a 17-percent increase in interregional

capacity (Table ES1). Although it is unlikely that all proposed expansions will be completed, additional projects continue to be proposed. During 1997 and early 1998, for instance, at least 22 pipeline companies instituted open-season exercises for 26 projects, with the expectation that the market will support additional expansion plans. These proposals, while not all successful, included expansions in all regions of the country.

Beyond what has already been proposed, there are areas of the country where additional pipeline expansion plans might develop in response to changing market profiles and the development of new supply sources. For instance, deep-water development in the Gulf of Mexico will continue over the next decade and with it could come additional complementary onshore expansions. In addition, the expanding production in areas of Texas and the Rocky Mountains will place pressure on local pipeline systems to expand their capabilities to reach nearby and distant markets. As a consequence, utilization rates on interconnecting interstate pipelines should increase and, in some cases, necessitate the development of new capacity on some systems.

The upcoming major increase in capacity from Canada to the U.S. Midwest may also spur additional development of new pipelines, or expansions of existing lines, that can provide alternative capacity for transshipment of some of this gas to the U.S. Northeast. Already several of the proposed Midwest-to-Northeast expansion projects are premised on the assumption that excess capacity into the Chicago, Illinois, area could develop over the next several years as new (proposed Canadian source) pipelines are completed during the interim.

¹³⁰The award was made to a consortium consisting of Pacific Enterprises International (PEI), Enova International Corporation, and Proxima. The license will permit the group to transport gas from PEI's local system in lower California into the city of Mexicali in northern Mexico.