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OF THE FEDERAL RESERVE BANK OF MINNEAPOLIS

Discount rate adjusted downward

The June 9 discount rate change at the Minneapolis Federal Reserve Bank was of particular interest to Ninth district member banks because a strong decline in gross demand deposits (largely seasonal), along with a continuing heavy loan demand, had placed many banks in a tightened liquidity position. As a result, district member banks as a group had for several months found it necessary to borrow a relatively large percent of their required reserves from the Federal Reserve Bank of Minneapolis — a larger proportion than was true for the country as a whole. Another measure of the liquidity position of district member banks, the loan-to-deposit ratio, increased at country member banks from 45.9 percent in May 1959 to 50.2 percent in May 1960. For reserve city banks, the ratio increased from 54.6 to 63.7 percent. The increase in these district loan-to-deposit ratios was noticeably larger than for the country as a whole.

It should be noted, however, that in the Ninth district there usually exists a strong seasonal deposit outflow during the first half of the year accompanied by a seasonal pickup of loans in the spring. Bank deposits usually improve markedly in the last half of the year as crops and livestock are marketed in larger volume. There appear to

In this issue:

Automation tackles paperwork as check boom grows . . . . . page 6

Canadian imports to supply district's expanding natural gas industry . . . page 8

be good reasons to expect the usual pattern to be repeated this year.

Currently, the 1960 crop prospects are exceptionally good. Soil moisture as of mid-June was generally adequate over most of the district and favorable June growing conditions may do much to offset the effects of a late spring in southern Minnesota. Furthermore, a continued buildup in livestock numbers from last summer indicates that marketings later in 1960 are likely to be maintained or even increased. Livestock prices have been relatively good and the immediate price outlook for cattle and hogs is reported favorable.

The seasonal increase in district employment since the first of the year has been about normal with some additional strength noted in the latest period for which statistics are available — mid-April to mid-May. Employers in mid-June expected a normal seasonal trend in employment at least through July. Iron ore shipments from the Duluth-Superior region through May 1960 were at a near record for any year since the close of the Korean War and 15 percent above this period last year. Department store retail sales and bank debits for May were both on the plus side in moderate amounts compared with a year earlier.

In general, the Ninth district economy appears reasonably strong and healthy at this time with no particularly strong upward or downward trends observable among the area's major economic indicaters.

The following selected topics describe particular aspects of the district's current economic scene:

CONSTRUCTION OUTPACES 1959

The amount of district construction contracts awarded in April decidedly rose more than is usual seasonally, and even outpaced April 1959 when the awarding of contracts was stimulated by the anticipated steel strike. The amount of contracts awarded in March aggregated $82 million and in April rose to $138 million. Contracts awarded in May in district states for which figures are available (Minnesota, North Dakota and South Dakota) also exceeded last year's total by 8 percent.

In the nation, the dollar value of total construction contracts rose materially during the spring months. The adjusted index[1] rose from 235 percent and 234 percent of the 1947-49 base period in January and February to 252 percent and 266 percent this March and April.

Employment on district construction projects in early winter held up better than in previous years. Some projects delayed by a shortage of structural steel in the fall of 1959 were carried through to completion. On a seasonally adjusted basis, employment then declined from January to April inclusively, the index falling from 146 percent to 135 percent of the 1947-49 base period. A vigorous upswing in activity on construction projects in this district began in late April and in early May. The rise in employment exceeded the usual seasonal increase, the adjusted index rising to 140 percent in May.

In the nation, seasonally adjusted employment on construction projects also declined somewhat from February through April. However, the adjusted value of new construction put-in-place has remained quite stable in the first five months of this year. The decline in private construction was offset by an increase in public construction.

The chief factor in the decline in private construction has been the downward trend in home building. In this district, the number of new dwelling units authorized by building permits as compared with a year ago declined about 33 percent in January, 22 percent in February and over 40 percent in both March and April. The decrease has been greatest in the building of single family houses.

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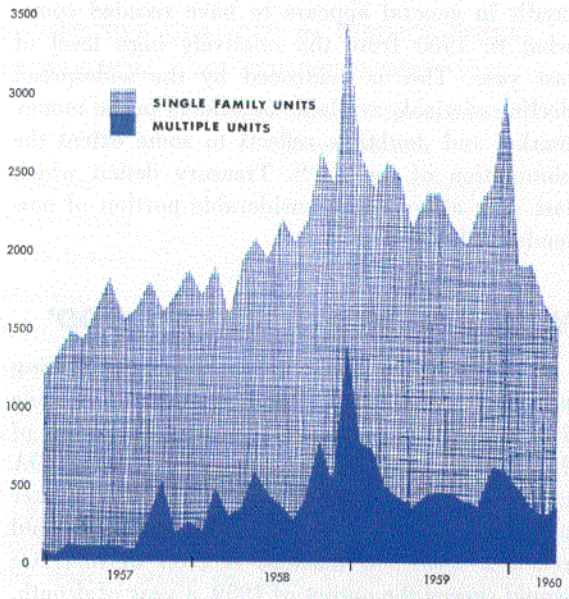
[1]The F. W. Dodge Corporation index of construction contracts.

Ninth district dwelling units authorized by permit

(seasonally adjusted)



Building of apartment houses in this district rose sharply in both 1957 and 1958 and remained high through 1959. In the Twin Cities metropolitan area, where most of this type of building has been concentrated, evidence indicates a tapering off during the latter half of this year. Builders have cancelled some plans to start new apartment houses as they have observed that the market is becoming saturated.

In other metropolitan areas of this district, Duluth, Superior and Sioux Falls, no multiple dwelling units were authorized by permit during the first four months of this year. The market in these centers apparently is already weak. In Duluth and Superior, results of a survey made in April indicate that a relatively large number of vacant apartments were being offered at very reasonable rentals.

The downward trend in the building of single family houses may be nearing an end, however. In the district, the number of single family units authorized by permit reached a peak in April 1959, then fell off during the rest of the year. This trend continued in the first four months of this year, and in April, the number of single family units authorized was less than half the year-ago figure.

Recently, evidence of a strengthening in the housing market has appeared. During the recent carpenters' strike in the Twin Cities some of the inventory of unsold new houses was liquidated. The backlog of orders of large project builders has been growing, and in general, builders are optimistic in regard to the outlook for housing starts this summer. This view is held in spite of the fact that interest rates in the metropolitan areas of the district remain in the 6 to 6½ percent range and Twin Cities mortgage bankers anticipate no easing of conventional mortgage terms. Early in May the Federal Housing Administration authorized a lower down payment schedule for higher-priced houses under the FHA program, which may increase the applications for this type of financing.

In the nation, private nonfarm housing starts on a seasonally adjusted annual rate rose by 10,000 units in both March and April. Construction contract awards for May reveal an increase in housing starts among large project builders.

If the downward trend in residential building does no more than level off, the continued strong showing in nonresidential building and heavy engineering projects should begin to have a stronger impact on total construction activity.

DISTRICT BANKS IN TIGHT RESERVE POSITION

In the last three weeks of May both reserve city and country member banks in the district experienced deposit losses. Daily average gross demand deposits dropped $14 million at reserve city banks and $27 million at country banks from the week ending May 11 through the week ending June 1. Comparable reductions occurred during

the matching period of 1959. From the beginning of this year through the week ending June 1, gross demand deposits in the district dropped 10½ percent at reserve city banks and 8 percent at country member banks. In contrast, during the like period of the preceding year, respective cuts of 8½ percent and 6½ percent were recorded.

Loans at district country banks rose $15 million in May. For the year through May, loans at country banks have increased $59 million. Major country banks (weekly reporting) accounted for only $3 million of this increase. In May reserve city banks added $7 million to their outstanding loans. For the first five months of 1960 their loans were up $32 million.

Further loan growth, along with deposit losses, have continued to keep district banks under relatively great pressure to borrow from their Federal Reserve bank and from other sources. Despite the fact that average borrowings in May fell from the levels reached in April, district banks continued to borrow substantial amounts relative both to other banks and to their own past performance.

DISCOUNT RATE DROPS TO 3½ %

On June 3 the Federal Reserve Banks of Philadelphia and San Francisco reduced the discount rate from 4 percent to 3½ percent. By June 14 the other reserve banks had announced similar reductions. At the Federal Reserve Bank of Minneapolis, the cut became effective June 10.

The discount rate action reflected an accumulation of evidence that the danger of excessive credit expansion and excessive spending is now considerably less than was true in September of 1959, when the rate was moved to 4 percent from 3½ percent. Other short term money rates had declined substantially previous to the discount rate action.

The nation's money supply, for example, has been under the year-earlier figure for several months; the same is true of member bank reserve balances. And the level of member bank borrowing nationally has been well below the 1959 average in recent weeks. Indeed, the demand for credit in general appears to have receded somewhat in 1960 from the relatively high level of last year. This is evidenced by the widespread decline of yields available to lenders in the money market and doubtless reflects to some extent the elimination of the U. S. Treasury deficit which last year absorbed a considerable portion of new lendable funds.

WHEAT CROP PROSPECTS 'GOOD'

Crop prospects in the district's wheat producing areas were reported as good to excellent on June 1. The favorable crop and moisture conditions of June 1 were the basis upon which the USDA crop reporters estimated that the 1960 total winter and spring wheat crops in the district would reach 294,464,000 bushels. A crop of this size would exceed the output of 1959, a year of drouth, by one-third. The 294 million bushel district estimate would fall short of the 1958 record crop by 11 percent.

Combined winter and spring wheat production in the United States is expected to reach 1,271 million bushels this year, 13 percent above the crop of 1959 and 13 percent below the very large crop of 1958.

The anticipated increase in winter wheat production in Montana, the district's major winter wheat state, is based almost entirely upon increased acreage; the 1960 yield estimate in Montana is 26 bushels per acre, compared with 25 bushels per acre realized in 1959. South Dakota's 1960 winter wheat acreage was expanded 45 percent because of favorable planting conditions last fall. In addition to a substantial increase in acreage, 1960 winter wheat yields in South Dakota are expected to reach 27 bushels per acre, up very sharply from the 15-bushel rate of 1959. Minnesota's relatively minor winter wheat crop is expected to be maintained at slightly over one-

half million bushels; a 25 percent acreage cut is expected to be more than offset by yield increases.

PROSPECTIVE CHANGES IN DISTRICT WHEAT PRODUCTION, 1960 COMPARED WITH 1959

	Winter Wheat	Spring Wheat
	percent increase	
Minnesota	2	no change
North Dakota		27
South Dakota	161	169
Montana	19	23
Ninth District	36	33
United States	10	23

Data based on four states wholly within district. 1960 data based on USDA's June 1 crop forecast.

Early USDA estimates of spring wheat acreages indicate that the production increases forecast for the district states on June 1 are largely tied to expectations of greater yields.

Realization of the expected increase of 33 percent in wheat output this year compared with 1959 would have a substantial impact on district farm incomes in that over the years approximately 17 percent of the total cash receipts from farm marketings in the district are derived from sales of wheat. Dependence upon wheat is greatest in North Dakota, where two-fifths of total cash receipts are derived from it; in Montana one-third of the cash income is from wheat.

FARM LAND VALUES CHANGE

Ninth district states experienced divergent changes in land values during the four-month period ended March 1, 1960. The U. S. Department of Agriculture estimated increases in land values of 1 percent in Montana, 2 percent in South Dakota and 3 percent in North Dakota during the period November 1959-March 1960, while in Minnesota a 2 percent drop was indicated.

Increases reported in the value of farmlands during the four months were largely confined to the western United States; all of the states from North Dakota south to Texas, Wyoming, Nevada and the Pacific coast states recorded advances of 2 and 3 percent. Favorable wheat and range prospects in the plains combined with a continued strong land demand for farm and ranch enlargement probably account for the advances in this region.

The greatest weakness in land values appeared in the corn belt and lake states, where slight decreases or little change were noted. USDA reporters indicated the demand for land had eased noticeably in the corn belt during the past winter and spring compared with a year ago. Nationally, the rate of sales of farmlands this spring was

PERCENT CHANGE IN AVERAGE VALUE OF FARM REAL ESTATE

	Increase during year ending March 1		
	1958	1959	1960
Minnesota	7	6	1
North Dakota	8	10	2
South Dakota	7	10	1
Montana	6	7	4
United States	6	8	3

reported to be down, but only slightly, from the level of a year ago. In the corn belt, however, farmland sales were off quite sharply from the sales volume of early 1959.

The annual rate of increase in district farmland values slowed considerably during the year ended March 1, 1960. Nationally, land values advanced 3 percent during this time. The smallest increases during the last year were noted in the corn belt, lake states, and northern plains states. Only in Illinois, where farmland values were unchanged, did values fail to continue upward during the last year.

Machines to 'read' new style check

Machines capable of "reading" are now being put to work in an effort to cope with the mounting volume of checks flowing through the nation's banking system.

The job faced by present check-handling procedures is enormous . . . and growing. An estimated 12 billion checks were written in the U. S. in 1959, each requiring manual handling several times in the process of collection. As if this weren't enough, the volume is expected to increase by a billion checks annually, reaching 22 billion by 1970.

This prospect gave impetus to studies of the feasibility of mechanized check handling several years ago. Committees representing office equipment manufacturers, check printers, and the Federal Reserve system participated with the American Bankers Association in a program which resulted in the development of new check-reading machines. The plan was approved in principle in 1956, but details were not worked out until recently.

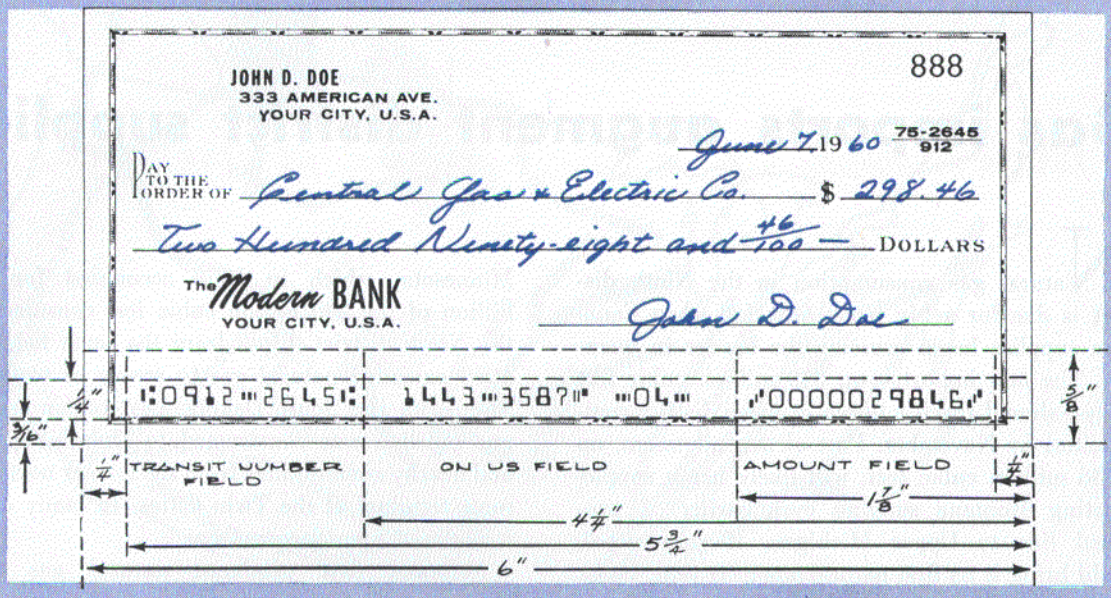
Machines now in production are capable of gathering information from checks through a newly-developed "common machine language." Characters of the language are printed on specific areas of bank checks with ink containing iron oxide. As checks are fed into the machine, each character is magnetized and emits a distinctive signal recognized by the machine. The machine can then electronically sort, list and prove deposits of checks.

Many large banks are already converting internal operations to utilize magnetic ink character equipment. Reports are also appearing in banking publications on the feasibility of cooperative electronic accounting centers for country banks. The Federal Reserve system has scheduled pilot installations of automatic check handling equipment beginning this year at Boston, New York, Philadelphia, Chicago and San Francisco Federal Reserve Banks.

Mechanized check handling stands to benefit check writers as well as banks. Present standards of efficiency and collection speed could not stand long in the face of mounting check volume without such advances in technique as the magnetic ink system represents.

However, the full potential for mechanized check handling through magnetic ink-encoded checks and the machines that read them cannot be realized unless the new style check is universally used. For this reason, banks of all sizes are being urged to begin preprinting their checks with the routing symbol-transit number in magnetic ink. Many printers are already equipped to handle the new style. Customers ordering checks directly from printers should contact their banks prior to reorder dates for information on printing requirements for magnetic ink-encoded checks.

Publication No. 147 of the Bank Management Commission of the American Bankers Association, *The Common Machine Language for Mechanized Check Handling*, contains the specifications for magnetic ink printing of checks. A supplementary booklet, No. 149, *A Progress Report*, amends several of the specifications. Booklet No. 147 is available for $1 and Booklet No. 149 for $.25 from the American Bankers Association, 12 East 36th Street, New York 16, New York.



The check illustrated above is coded with the new common machine language for magnetic ink checks. Portions printed in black are the magnetic ink symbols, especially designed to be readable by human operators as well as by magnetic sensing devices. Codes appearing in the *transit number field* will be preprinted on all checks and used for sorting the checks in the collection process. The *on us field* would be used by drawee banks for special codes, such as customer's account numbers and transaction codes, to meet their own internal accounting requirements. Not all banks will be using this field. The *amount field* on the check will be blank at the time the customer writes the check. (Check writer's entries are shown in color.) The intention is that the code amount field will be filled in with magnetic ink by one of the first banks handling the item in the collection process. Thus all checks would have to undergo manual handling at least once, in order to receive coding of amount; savings of time and expenses in processing will accrue in subsequent handlings where operations may become nearly fully automatic.[1]

Under the ABA plan, checks must be no less than 2¾ inches or no greater than 3⅔ inches in width, and no less than 6 inches or no greater than 8¾ inches in length. Within these limits, placement of the code field is fixed with respect to the right hand edge and the bottom of the check, as indicated by the dimensions in the drawing.

1. Big corporations, etc., might encode amounts at the time the check is written.

Gas imports augment district supplies

Natural gas consumption in the Ninth district is due for a big boost next fall when Canadian supplies begin crossing the border in quantity. The new imports—up 240 million cubic feet daily—should reach a dozen or more district communities by November. Part of this allotment, up to 36 million cubic feet, will likely begin supplementing Montana supplies even earlier. A proposed line to Upper Michigan, if constructed, could bring it its first natural gas next year.

If all plans go through, additional natural gas will be available to every state in the Ninth district, a "deficit area" in American natural gas production. Even the two of its states which do produce it—Montana and North Dakota—must import to meet their own needs.

Natural gas is a highly sought item on consumers' lists because of its cleanliness, convenience, reliability and relatively low cost. Its use has expanded phenomenally in recent years. But most major areas of U. S. gas production are already fairly well defined. Extensions and discoveries of additional reserves within the areas are still potentially large, and sources are in no immediate danger of exhaustion. Reserves can eventually be absorbed by existing markets, however, and are thus committed to them.

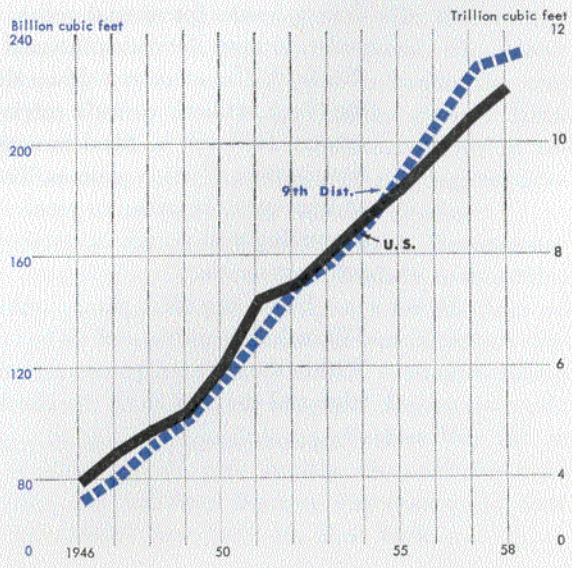
Southwest has been major source

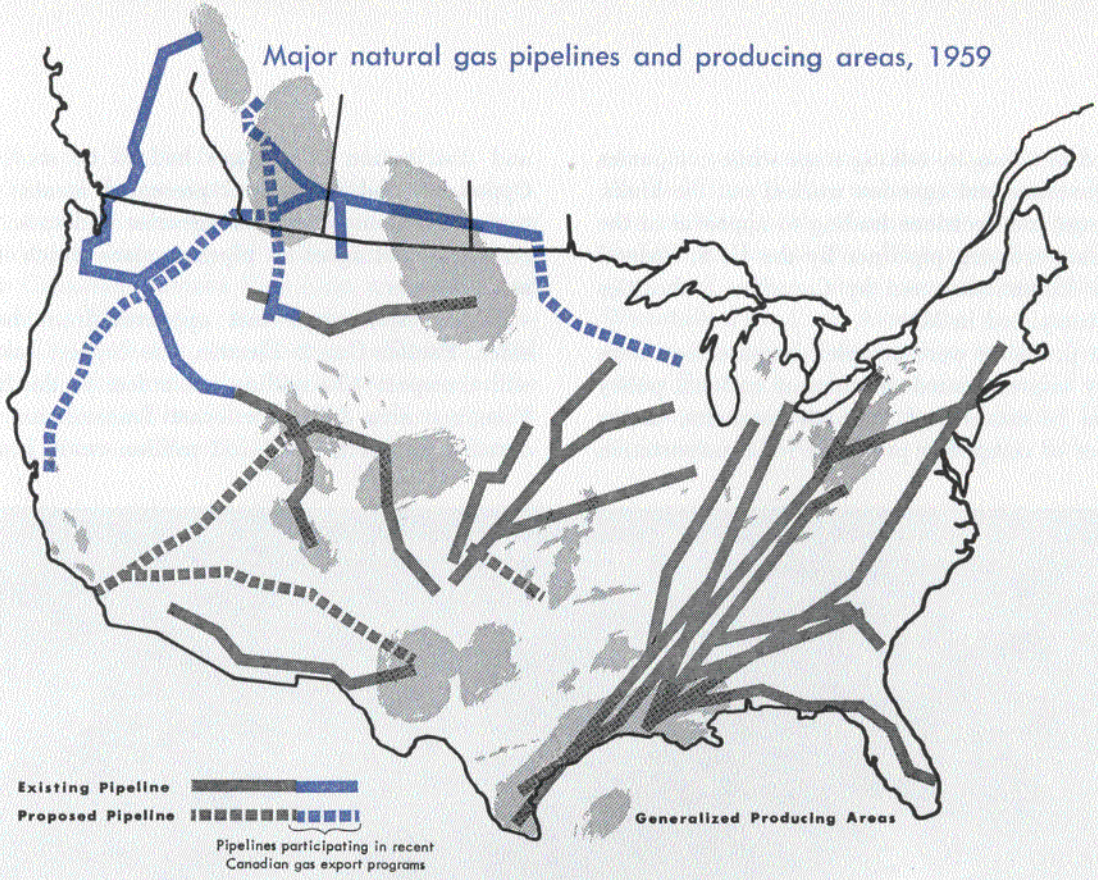
The Hugoton field of southwestern Kansas and the Texas and Oklahoma panhandles has been the principle supplier of this area, having first introduced natural gas to Minneapolis in 1934 via a Northern Natural Gas Co. pipeline. Additional large volumes now come from the Permian Basin in New Mexico. Over a trillion cubic feet of gas from these fields have subsequently traveled to Minnesota, which in 1958 accounted for 149 billion of the 236 billion cubic feet consumed in the Ninth district. Lines from the same fields by 1958 extended natural gas to scores of towns in Minnesota and South Dakota. Last year a natural gas pipeline was constructed to Duluth-Superior and nearby communities from the former northernmost terminal at the Twin Cities. In many cases, it replaced manufactured gas.

Montana first produced natural gas commercially in 1915. Amounts taken rose to 35 billion cubic feet yearly in the 1940s, leveling in recent years to around 31 billion, with an annual value at the well of close to $2 million. Part of this gas is sent to western North and South Dakota.

North Dakota's production last year stood at

Consumption of natural gas in the Ninth district and the United States, 1946-1958





19½ billion cubic feet, down a billion from 1958. Most of its natural gas is taken from wells drilled primarily for oil.

In Minnesota, North Dakota and Montana, natural gas consumption is divided about evenly between residential and commercial (hotels, stores, etc.) customers on the one hand and industrial customers on the other. South Dakota commercial and residential use is about double industrial use. In the Ninth district, as in the United States as a whole, industry uses natural gas primarily as a fuel. In Minnesota, over 40 billion cubic feet, or more than half of the total consumed by industry, is used to generate electricity in utility plants.

The Ninth district has a total of 557,000 residential consumers of natural gas, and 46,000 commercial consumers. Effective residential rates, which are "noninterruptible," may be three or four times as high as rates to industrial consumers, whose service may be cut off when residential demand requires. Minnesota, which is farthest from its supply area, paid an average retail residential rate of 97¢ a thousand cubic feet; North Dakota averaged 77¢, Montana 64¢ and South Dakota 50¢ in 1958. Together, consumers in the Ninth district — residential, commercial and industrial — bought $123,870,000 worth of natural gas in 1958. Yet potential demand was far from satisfied. The availability of additional gas supplies led to the very substantial expansion program now underway.

New supplies from western Canada

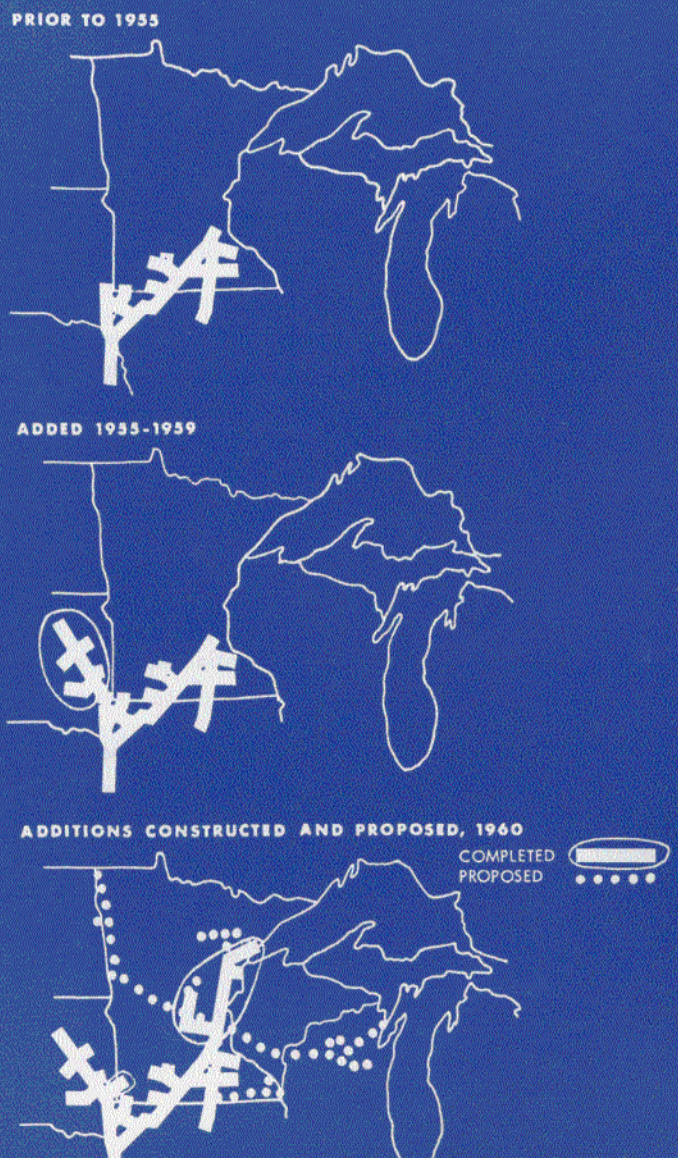
The growth of known natural gas reserves in Alberta had insured Canada of more than it could expect to use in the next 25 years, or hope to develop without the impetus of U. S. markets. Montana began importing small amounts of Alberta gas in 1952, but large scale imports re-

mained in a lengthy talking stage while companies and governmental agencies worked out the kinks. Hearings and decisions leading to approval of the boundary-crossing pipelines by the U. S. Federal Power Commission and by Canadian authorities were completed in May.

The problems were complex because they were largely unprecedented. Matters of national policy had to be established by both countries, and a number of competing proposals for transportation and distribution of the gas had to be studied. Opponents and proponents presented months of testimony. Companies and agencies had to settle on prices and agree on pipeline plans which met at the border.

Four major plans met approval from both sides. Pacific Gas & Electric, the biggest taker, will transport 459 million cubic feet to the San Francisco area daily. Westcoast Transmission secured a permit to send 152 million cubic feet a

Natural gas pipelines in eastern portion of Ninth district

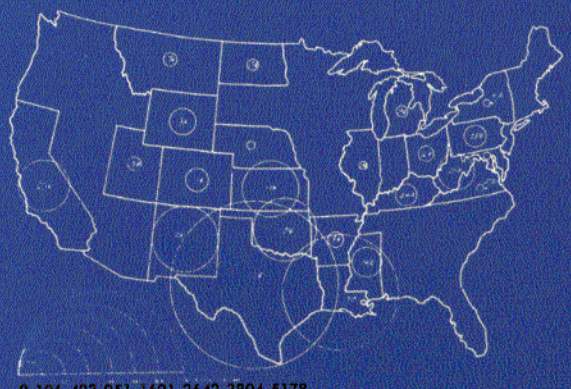


day to the Pacific Northwest.

Two of the projects involve the Ninth district. Montana, located next door to the Alberta gas fields, will import its 36 million cubic feet daily via Canadian-Montana Pipe Line, a subsidiary of Montana Power Co. Midwestern Gas Transmission Co., with the second largest allotment (204 million cubic feet daily) has let contracts for the first sections of its 500-mile, $52 million pipeline from Emerson, Manitoba, to Marshfield, Wisconsin. The pipeline's route moves southward along the Red River Valley and southeast across Minnesota to Marshfield, where some of the gas leaves the district for eastern Wisconsin, Lower Michigan, and other areas served by Michigan-Wisconsin Pipe Line. Along the way, gas will be sold to a number of distributors such as Northern States Power Co., which announced a $12 million expansion program to service North Dakota, Minnesota and Wisconsin customers, now using

Natural gas production and consumption, 1958

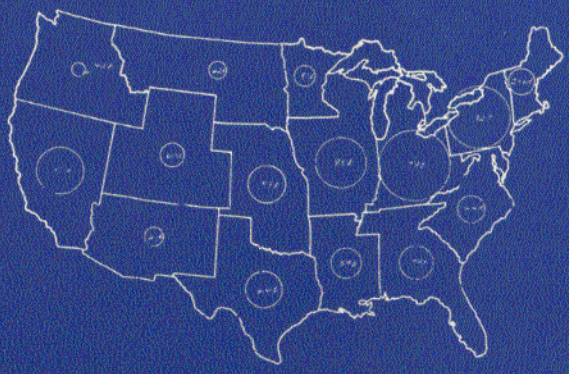
MARKETED PRODUCTION, BY STATE, WITH AVERAGE VALUE AT WELL



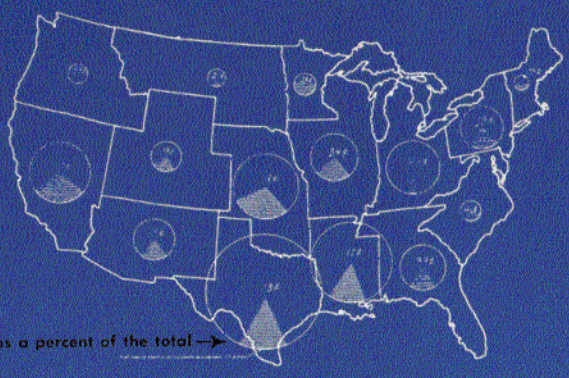
0-106-423-951-1691-2642-3804-5178
billions of cubic feet

¢ Figure shows average value per Mc.f. at point of production or consumption

RESIDENTIAL AND COMMERCIAL CONSUMPTION, BY REGION, WITH AVERAGE VALUE AT POINT OF CONSUMPTION



INDUSTRIAL CONSUMPTION, BY REGION, WITH AVERAGE VALUE AT POINT OF CONSUMPTION



Fuel used at electric utility plants as a percent of the total →

Source: Minerals Yearbook, 1958.

manufactured gas, and to extend service to new customers. Other buyers include Montana-Dakota Utilities Co. and United Petroleum Co., both of Minneapolis, who also plan to expand services to old customers and extend it to new ones.

Some of the district cities earmarked for service from the imported gas are: Fargo and Grand Forks, North Dakota; East Grand Forks, Detroit Lakes, Moorhead, and Crookston, Minnesota; and Eau Claire, Menomonie and Chippewa Falls, Wisconsin.

The Canadian gas will be carried by pipeline from Marshfield to Marinette, Wisconsin, at the tip of Upper Michigan. Expansion into Upper Michigan is not completely worked out yet, and will depend on the assurance of sufficient markets, a major factor of which would be iron ore processing plants, to justify the cost of a pipeline.

As the network of piplines which will transport Canadian gas is constructed, expansion of facilities from traditional southwestern sources continues. Northern Natural Gas and Iron Ranges Natural Gas Co. recently signed contracts to bring southwestern gas to taconite plants at Silver Bay, involving the construction of a line from Duluth. Plans are also being made for natural gas delivery to the Mesabi Iron Range area. Northern Natural Gas has plans for extensions from its main line to several new markets. NSP is expanding natural gas service through the use of U. S. supplies to such cities as Winona, Minnesota, and La Crosse, Wisconsin.

Natural gas and the future

Natural gas pipeline projects underway in the Ninth district mirror the rapid expansion which has characterized the industry as a whole through the entire postwar era.

Today's proven reserves of natural gas, however, are no real indication of the life of the resource. Far from it. The industry relies on continuous discovery and extension of reserves to replenish the tremendous volumes produced each year. For example, in spite of the high rate of consumption in 1959, total reserves in the United States at year's end reached an all-time record level of more than 262 trillion cubic feet. Those of Canada exceeded 26 trillion feet, likewise a record level. While some 12 trillion cubic feet of natural gas were drawn against U. S. reserves in 1959, nearly 21 trillion cubic feet were added through discoveries and extensions; in Canada nearly 4 trillion (by conservative calculation) were added to reserves, while consumption depleted stocks by only half a trillion.

Ultimately, of course, the inescapable facts of an exhaustible resource must catch up with the industry and the consumer. As reserves are depleted the favorable price relationship that gas has enjoyed to other fuels may gradually disappear. Industrial uses dependent on low rates will probably be affected most strongly. Eventually consumers may turn heavily to the abundant supplies of coal or possibly to gas derived from coal or oil produced from oil shales. But this situation is years in the future. It seems clear that until then growth in natural gas usage will continue. In the heavy consuming area of the Ninth district, remote from large supplies of natural fuels of all types, the economical pipeline movement of natural gas both from traditional U. S. sources and from newly added Canadian supplies should foster considerable growth in usage in years to come.

—C. Nelson and R. Lindman