balance the loads. Interruptible industrial customers buy gas with the understanding that service will be curtailed or cut off when high priority customers' requirements call for larger volumes of gas. Firm service is provided to the customers who buy gas under schedules or contracts which provide for no interruptions of service.

2. EXISTING CAPITAL PLANT

The principal investment of the gas distribution systems in this country consists of the gas main facilities. Distribution and integrated companies operated 458,640 miles of distribution pipelines, 105,470 miles of transmission pipelines and 39,300 miles of field and gathering pipeline, a total of 603,410 miles of mains in 1964. The location of these facilities by States is shown in table 4.

As noted above, there were 728 investor-owned systems and 773 municipal systems in 1965. 10 Over 93 percent of their customers were served by the 201 investor-owned and municipal gas systems with annual revenues of \$1 million or more; these large systems are con-

centrated in the more populous areas as shown in table 5.

Details on the distribution of the 1,300 utilities with less than \$1 million revenue are not available. However, further detail is available on the 773 municipal systems which reported to the AGA in 1964.11 As shown in table 6 the concentration of municipals is decidedly in the smaller markets.

It can be seen in table 7 that about 97 percent of the industry's growth has taken place in the past 55 years and 65 percent of the

growth has taken place in the past 15 years.

There is no inventory of pipe underground showing the vintage of the Nation's gas distribution mains, but the figures in table 8, which show the growth of the pipeline network since 1932, attest to the fact that about half of the pipe in use is less than 15 years old. Replacement of old pipe is sometimes necessary, usually to allow for carrying of larger volumes of gas but it is estimated that 95 percent of the pipe requirement of the gas utilities and pipelines is for new construction and 5 percent for replacement.12

Of the 736,200 miles of pipeline in 1964, 603,410 are used by distribution and integrated companies. Of the distribution and integrated company pipeline, 564,580 miles, or 93.6 percent, are operated by investor-owned utilities and the remaining 38,830 miles by municipal utilities. The distribution of the gas main by type of service and State is shown for investor-owned utilities in table 9 and for municipal

utilities in table 10.

¹⁰ Letter from Schwimmer, Apr. 14, 1966, and Government in Gas (New York: PAR Public Information Service, American Gas Association, 1965).

11 Ibid.

21 "Gas Industry Estimates Steel Needs" (New York: Russon of Statistics

[&]quot;1 1010." 12 "Gas Industry Estimates Steel Needs" (New York: Bureau of Statistics, American Gas Association, Inc., Aug. 11, 1965).