

ENERGY 2050

A POLICY BRIEFING SERIES

FACTS ON NATURAL GAS

Consumption of natural gas is projected to increase by nearly 70 percent between 2001 and 2025, with an average annual growth rate of 2.2 percent. This is compared to average annual growth projections of 1.9 percent for oil and 1.6 percent for coal during the same time period.

Natural gas demand will grow faster in developing countries between 2001 and 2025, at an average annual rate of 2.9 percent, compared to 1.8 percent in the developed world. Much of the new demand in developing countries will go to meet electricity needs, while the market for natural gas in developed countries is more mature and offers less room for growth.

Growth in U.S. natural gas use is expected to be strong in the early years of the forecast but to slow after 2020, when projected higher prices erode the advantage of natural gas over coal for electricity generation.

The largest increase in natural gas production is projected for the Middle East—from 8.3 trillion cubic feet in 2001 to 18.8 trillion cubic feet in 2025. The smallest increase is projected for the industrialized countries, where production is expected to grow an average of 0.7 percent per year over the forecast period.

The disparity between the increase expected for natural gas consumption in the industrialized nations and the much smaller increase expected for their gas production indicates that they will rely on other parts of the world for more than 30 percent of their natural gas supply in 2025.

Almost three-quarters of the world's natural gas reserves are located in the Middle East, Eastern Europe, and the former Soviet Union, with Russia, Iran, and Qatar combined accounting for about 58 percent of the total.

Of the total natural gas resource base, an estimated 3,000 trillion cubic feet is in “stranded” reserves, usually located too far away from pipeline infrastructure or population centers to make transportation economical.

Until 2001, the United States had only two active receiving terminals for liquefied natural gas (LNG). Two additional, shuttered terminals were reopened in 2001 and 2003, respectively. Four new LNG terminals are expected to open on the U.S. Atlantic and Gulf Coasts before the end of the decade, with the first new terminal in more than 20 years to open on the Gulf Coast in 2007.

Existing U.S. LNG plants are expected to be at, or close to, full capacity by 2007, importing 1.4 trillion cubic feet annually, and new plants are projected to import a total of 812 billion cubic feet in 2010.

As of December 2003, there were 32 active proposals for new terminals: 21 in the United States, 4 in Baja California, Mexico (to serve both Mexico and U.S. markets), 2 in Mexico (to serve Mexican markets exclusively), 3 in the Bahamas (to serve U.S. markets), and 2 in Canada (to serve Canada and possibly also U.S. markets).

Source: Energy Information Administration, International Energy Outlook 2004: Natural Gas