# Energy profile –Texas

Overview

德克萨斯州位于美国的中南部地区,是美国面积第二大州。德州年鉴将州分为四个地区：墨西哥湾沿海平原，内陆低地，大平原，盆地和山脉省。德州气候从东到西变化显著。来自墨西哥湾的温暖潮湿的空气向西扫过整个州，失去了水分。其结果是从沿海地区的湿润和亚热带气候，在该州大部分人口居住，在高原半干旱，在西部山区干旱（ 原句The Texas climate varies significantly from east to west. Warm, moist air from the Gulf of Mexico sweeps westward across the state, losing moisture as it goes. The result is a climate that ranges from humid and subtropical along the coast, where much of the state's population resides, to semi-arid on the high plains, and arid in the mountainous west.）总的来说，得克萨斯州是一个拥有丰富能源资源的大州. 整个州都有原油和天然气田，煤炭被发现在德克萨斯州东部沿海平原以及该州中北部和西南部其他产区的煤带上。得克萨斯州还拥有丰富的可再生能源资源和迅速发展的风能，居全国首位成为对风力发电。德克萨斯州有着相当数量的阳光普照，在太阳能领域也处于领先地位。适于发电地热资源存在于东得克萨斯。（原句Crude oil and natural gas fields are present across the entire state, and coal is found in bands that cut across the eastern Texas coastal plain and in other coal-producing areas in the north-central and southwestern parts of the state. Texas also has abundant renewable energy resources and has rapidly developed its wind energy, becoming first in the nation in wind generated electricity. With a significant number of sunny days across vast distances, Texas is among the leading states in solar energy potential as well. Geothermal resources suitable for power generation are present in East Texas. Additionally, uranium deposits are found in South Texas.）德克萨斯州是加州之后的第二大人口和第二大经济体。州有许多能源密集型产业，包括炼油和化工生产，并为国家的能源使用份额最大的工业部门账户。

Texas, located in the south-central part of the United States, is the second largest in size in the United States. The Texas Almanac classifies the state into four regions: Gulf Coastal Plains, Interior Lowlands, Great Plains, and Basin and Range Province. The Texas climate varies significantly from east to west. Moist air from the Gulf of Mexico sweeps westward across the state, losing moisture as it goes. As a result, the climate ranges from humid and subtropical along the coast, where much of the state's population resides, to semi-arid on the high plains, and arid in the mountainous west. Texas is a large state with a wealth of energy resources. Crude oil and natural gas fields are present across the entire state. Texas also has abundant renewable energy resources and has rapidly developed its wind energy. Besides, Texas is among the leading states in solar energy potential. Among the states, Texas has the second-largest population and the second-largest economy. The state has many energy-intensive industries, including petroleum refining and chemical manufacturing, and the industrial sector accounts for the largest share of state energy use.

Petroleum

德克萨斯州在原油储量和生产方面处于领先地位。美国已有三分之一以上的原油被证实储量。全国100多个储量最大的油田中，四分之一以上在德克萨斯州，大部分在德克萨斯州西部的二叠盆地和该州中南部。得克萨斯州生产的国家的原油超过三分之一，超过任何其他国家，甚至超过了所有的联邦近海产区。从1901年Spindletop油田的发现，到后来各个油田的陆续发现，石油在德克萨斯州的能耗占比逐渐增加，到2009年达到63%。石油的能耗占比与天然气互相关联，石油能耗占比下降的年份，天然气的能耗占比相应增加，反之亦然。在工业、商业、运输和住宅部门，石油的能耗占比都呈逐年上升趋势。

Texas is a leader in crude oil reserves and production. More than a third of the U.S. crude oil has been proved reserves. More than a quarter of the nation's 100 largest reserves are in Texas, mostly in the Permian Basin in western Texas and south-central Florida. More than a third of the country's crude oil is produced in Texas, surpassing any other country and surpassing all federal offshore areas. From the discovery of the Spindletop field in 1901 to the subsequent discovery of various oil fields, the proportion of oil in Texas in energy consumption gradually increased to 63% in 2009. The proportion of oil consumption is related to that of natural gas. The proportion of energy consumption in natural gas is correspondingly increased in the years in which the proportion of petroleum consumption is declining, and vice versa. In the industrial, commercial, transport and residential sectors, the proportion of oil in energy consumption is on the rise.

Natural gas

德克萨斯州拥有全国已探明天然气储量的四分之一，全国或部分100个最大的天然气田中几乎三分之一都位于该州。得克萨斯州也导致天然气产量全国，占美国产量的四分之一。但随着石油、煤炭、可再生资源和核电资源的增加，天然气的能耗占比整体呈下降趋势，从1960年的约45%下降至2009年的约25%。在工业、商业和住宅部门，在70年代中期以前，天然气的能耗占比高于石油，在1973年左右出现转折，天然气的能耗占比被石油超过，并且两者的差距越来越大。

Texas holds one-fourth of the nation's proved natural gas reserves and almost one-third of the 100 largest natural gas fields are located, in whole or in part, in the state. Texas also leads the nation in natural gas production, accounting for one-fourth of U.S. However, with the increase of oil, coal, renewable resources and nuclear resources, the energy consumption of natural gas has been on the whole declining from about 45% in 1960 to about 25% in 2009. In the industrial, commercial and residential sectors, by the mid-1970s, the share of natural gas in energy consumption was higher than that in oil, turning around in 1973, with the proportion of natural gas being exceeded by oil, and the gap between the two was growing .

Renewable energy

在德克萨斯州，风力几乎占了可再生资源的所有电力。

可再生资源在德克萨斯州的能耗占比逐年增加。特别是在商业和住宅部门的能源占比都增至高达25%

Wind accounts for nearly all of the electricity generated from renewable resources in Texas. The size of the state and the high levels of direct solar radiation in West Texas give the state some of the largest solar power potential in the nation. The agricultural and forestry sectors can provide Texas with abundant biomass and biofuel resources. Despite the large number of non-powered dams in Texas, the potential for further hydroelectric development is limited by lack of precipitation. Besides, Texas has a unique untapped geothermal resource: its large network of crude oil and natural gas wells. Renewable resources in Texas, the proportion of energy consumption increased year by year. In particular, the proportion of energy in the commercial and residential sectors has been as high as 25% to 30%.

Coal

德克萨斯州在德克萨斯州墨西哥湾沿岸地区的窄带中发现了大量的褐煤煤矿，以及位于德克萨斯州中北部和西南部的烟煤矿床。总体而言，该州估计可采储量超过90亿吨。得克萨斯州是第七大煤炭生产商和全国最大的褐煤生产商。德克萨斯州是最大的煤炭消费国，其二氧化碳和二氧化硫的排放量主要来自电力生产，是全国最高的。煤炭的能耗占比呈上升趋势，到2009年，达到约5%。但与其他资源相比，煤炭在各部门的能耗占比都是最低的。

Texas found large lignite coal mines in the narrow belt of Texas Gulf Coast, as well as bituminous coal deposits in north-central and southwestern Texas. Overall, the state estimates recoverable reserves of more than 9 billion tons. Texas is the seventh largest coal producer and the nation's largest lignite producer. Texas is the largest coal-consuming nation whose emissions of carbon dioxide and sulfur dioxide are mainly from electricity generation and the highest in the country. The proportion of coal's energy consumption is on the rise, reaching about 5% by 2009. However, the proportion of coal in various sectors is the lowest among all other resources.