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能源企业全球竞争力蓝皮书

BLUE BOOK OF ENERGY COMPANIES

No.1

能源企业全球竞争力报告

(2018)

中国人民大学国际能源战略研究中心

主编／许勤华

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导　言

《能源企业全球竞争力报告》旨在通过对全球能源企业进行多视角的综合分析，弥补国内外已有的能源企业对比分析的不足，为企业经营者、客户、供应商、投资者、政府部门、研究机构和社会公众提供一个观察能源企业竞争力的角度，帮助读者更加全面地了解和分析全球能源企业状况，从而为形成相关判断和决策提供支撑或参考。

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摘　要

本报告通过梳理企业竞争力的概念和评估方法，总结已有主要竞争力对比分析的效果，提出了自己的竞争力分析框架。本报告的分析框架包括五个维度（即一级指标）和十一个二级指标。五个维度包括规模、效率、成长、安全和研发，每个维度下面对应若干个二级指标。其中，规模维度通过总收入和总资产规模来衡量，效率维度的衡量指标包括资产收益率、人均营收和人均利润，成长维度的衡量指标包括近三年年均收入增长率和近三年年均净资产增长率，安全维度的衡量指标为资产负债率和流动比率，研发维度的衡量标准为研发费用和研发强度。同时，根据能源行业特点、竞争力评估要求和数据可得性及完备性，对不同维度和不同指标赋予特定的权重。本报告在对数据序列进行合理的标准化处理后，逐级往上合成各个指标和维度的得分，最后汇总成综合得分，作为能源企业竞争力综合评价的客观基础。

此次报告的主要结论包括如下内容：

第一，在能源企业全球 500 强中，美国入选企业最多，为 127 家；中国（含香港、台湾企业）居次席，为 104 家；日本第三，为 34 家。与2017 年榜单相比，美国企业减少4 家，中国企业增加3 家，日本减少 2 家。美中日三国继续占据总榜 500 强中超过一半的名额。其他入选企业数量较多的国家还有加拿大（30 家）、印度（17 家）、英国（15 家）、俄罗斯（13 家）、巴西（10 家）等。

总榜单前 100 强中，美国占 27 席，中国占 17 席，俄罗斯占 7 席，加拿大、印度和日本各占 5 席，英国占 4 席。与 2017 年榜单不同的是，美国的埃克森美孚公司、菲利普 66 公司和瓦莱罗能源公司

包揽总榜单前三。美国能源企业在2017财年中可谓表现强势。

第二，从企业规模上看，能源行业呈现出产业分化的特点。油气行业是能源行业中的龙头，其总资产均值和营业收入均值均高出整个能源行业均值两倍，体现了行业资产重、投入高、产出高的特点。可再生能源行业作为新兴行业，规模上难以和传统能源行业相提并论，体现出行业轻、小的特点。电力行业、能源装备制造和服务行业以及煤炭行业的规模介于前面二者之间。煤炭企业价格下跌、资产缩水和中国等消费国的“去煤化”使得行业规模呈现下滑，部分地区电力行业竞争加剧和产能过剩也抑制了行业规模增长。

第三，从效率维度看，油气行业同样体现出传统能源行业的成熟和优势，效率为能源行业中最高。电力行业人均营收和资产收益率低于油气行业，人均利润差距明显。煤炭行业资产收益率较高，但人均利润较低。能源装备制造与服务行业的资产收益率较低，人均利润最低。可再生能源行业的资产收益率最低，但人均营收和人均利润处于中等位置。

第四，从成长维度看，整个能源行业的营业收入与利润自2017年以来处于回暖阶段。与2017年榜单相比，总体指标数据都有了大幅改善。油气和煤炭行业改善幅度最大。可再生能源企业在营业收入和净资产方面都表现出持续增长的态势。

第五，从安全维度看，油气行业负债率最低，流动比率较高，体现行业资本密集、投资风险高和资金储备要求多的特点，也是行业整体抗风险意识高的体现。电力和煤炭行业负债率较高，尽管2017年煤炭行业回暖，但在长期的高负债压力下，其安全维度表现的改善有限。

第六，从研发维度看，传统能源行业研发强度较低，反映了行业技术成熟度较高的特点。能源装备制造与服务和可再生能源行业研发强度最高，体现出这些领域依靠技术进步和产品升级的竞争获得发展

优势的行业生态。

第七，在煤炭企业全球竞争力排名30强中，中国企业占据了20个，在数量上远远超过其他国家。中国是全球煤炭行业的主导国家，一是因为煤炭是中国的主体能源，二是中国的煤炭生产和消费都占据了全球约一半的分量。但是，中国煤炭企业在效率方面表现差强人意。在所有入选的中国企业中，仅有2家企业的效率高于上榜企业平均水平。

第八，在油气企业全球竞争力排名100强中，美国入选企业最多，为27家；中国居次席，为13家；加拿大第三，为9家；俄罗斯第四，为8家。美中加俄四国占据了油气企业100强中一半以上名额。伴随着中国成为世界上最大的原油进口国和第二大石油消费国，中国油气企业在全球的竞争力和影响力也不断上升。除了中东主要产油国的国家石油公司因资料不公开无法评估外，中国与美加俄已逐渐主导了全球油气产业的发展。相对国外油气企业，中国企业在规模、成长和研发维度上表现较为突出，但在效率和安全方面有所不足。

第九，在电力企业全球竞争力排名100强中，美国上榜企业最多，有22个，中国紧随其后，有21家，中美两国企业合计占据榜单近一半的名额。前20强中中国企业占据绝对优势，共占有6席，德国紧随其后，占3席。中国企业在综合得分、规模、成长、安全和研发维度方面明显超过国际平均水平，彰显电力大国的综合实力。但同时中国企业在效率维度方面表现有所不足。如果排除港台地区的电力企业、地方电力公司和核电企业，余下的中国国有大型电力公司在效率维度方面要低于全球和中国的上榜企业平均水平。

第十，在可再生能源企业100强中，中国企业（不包括港澳台企业）共计53家，在数量上远远超过其他国家，占据可再生能源榜单100强的半壁江山。美国以入围10家企业位居第二，中国台湾地区紧随美国入围6家企业。德国和西班牙成为欧洲可再生能源企业上榜

最多的两个国家，分别入围了 5 家企业和 4 家企业，其中前 20 强中中国大陆企业占有 9 席，丹麦、西班牙和德国均为 2 席，澳大利亚企业首次挺进前 20 强。位列前三的企业分别属于丹麦、西班牙和美国。从中可以看出，一方面，欧美老牌可再生能源企业优势明显；另一方面，中国可再生能源企业整体竞争力强大。

第十一，在能源装备制造与服务企业前 20 强中，有 7 家是中国企业，超过总数的 1/3。德国有 3 家，美国和日本各有 2 家公司上榜。其中前 5 强分别来自德国、瑞士、日本、美国和丹麦五个国家。可以看出，中国在前 20 强中占有众多席位，老牌工业强国企业也保持一定的竞争优势。

第十二，中国能源企业 100 强排名中，电力企业最多，有 35 家；油气企业次之，达 28 家。煤炭企业和可再生能源企业分别是 22 家和 16 家。能源装备与服务企业 7 家，位居最后。前 20 名中包括两家台湾地区企业和一家香港企业。中国海洋石油集团有限公司高居中国企业 100 强榜单首位。

总的来看，和国际企业对比，中国能源企业在规模和成长维度上表现较为突出，在效率、安全和研发维度上则有待进一步提升。

Abstract

This report summarizes the results of the existing main competitiveness analysis models and comes up with its own competitiveness analysis framework by going through the concepts of corporate competitiveness and their assessment methods. The analysis framework of this report includes five dimensions (*i. e.* primary indicators) and elevensecondary indicators. The five dimensions include Scale, Efficiency, Growth, Security, and R&D. There are several corresponding secondary indicators under each dimension. Among them, the metrics of Scale include revenue and the total amount of assets, the metrics of efficiency include the return on assets (ROA), revenue per capita and profit per capita, the metrics of Growth include the growth rate of revenue and the growth rate of net assets over the previous three years, the metrics of security include the debt to asset ratio and the current ratio, and the metrics of R&D include the R&D spending and the intensity of R&D spending. Also, this report gives specific weights to different dimensions and different indicators in accordance with the characteristics of the energy sector, the requirements for competitiveness assessment, as well as the availability and completeness of data. After reasonably normalizing the data series, this report combines the score of each indicator and each dimension upward level-by-level to eventually get the overall score, which will be used as the objective basis for the general assessment of an energy company's competitiveness.

The main conclusions of this report include the following:

1. On the list of the top 500 global energy companies, the United States is in the first place with 127 companies; China (including companies

in Hong Kong and Taiwan) is in the second place with 104 companies; Japan is in the third place with 34 companies. Compared to the 2017 list, the number of US companies is reduced by 4, the number of Chinese companies is increased by 3, and the number of Japanese companies is alsoincreased by 2; the United States, China, and Japan continue to take more than half of the spots on the top 500 list. Other countries with a relatively big number of companies on the list include Canada (30), India (17), UK (15), Russia (13) and Brazil (10).

On the top 100 list, the United States has 27 companies, China has 17companies, Russia has 7 companies, Canada, India and Japan have 5 companies each, UK has 4 companies. What is different from the 2017 list is that US companies ExxonMobil, Phillips 66, and Valero Energy take the top 3 spots. The performance of the US energy companies during fiscal year of 2017 was really strong.

2. The scale of companies shows that there is differentiation in the energy sector. The oil & gas industry is the leader in the energy sector, and both the average value of total assets and the average value of revenue in this industry are two times higher than the average value of the entire energy sector, a demonstration of this industry's characteristics—heavy assets, high inputs, and high outputs. The renewable energy industry as an emerging industry is hard to be on a par with the traditional energy industry in terms of scale, characterized by being light and small. The scale of the global power industry, energy equipment manufacturing & service industry, and coal industry is between the two. The scale of the coal industry is declining as a result of coal price drop, coal asset shrinking, and the effort of coal consumption countries such as China to stop using coal. In some regions, the intensified competition and the excessive production capacity of the power industry have also curbed the growth of the industry's scale.

3. On the efficiency dimension, the oil & gas industry has demonstrated the maturity and advantage of the traditional energy industry too. Its efficiency is the highest in the energy sector. The power industry's

per capita revenue and return on assets (ROA) are lower than those of the oil & gas industry, and the gap in per capita profit is obvious. The coal industry's ROA is higher, but its per capita profit is the lowest in the entire energy sector. The ROA of the equipment manufacturing industry and the traditional energy industry is the lowest, but their per capita profit is higher than that of the coal industry. The renewable energy industry's per capita revenue and ROA are the lowest, but its per capita profit is higher than that of the equipment manufacturing industry and the coal industry.

4. On the growth dimension, the entire energy sector's revenue has been declining since 2017, with the oil & gas industry and the coal industry being affected the most, but renewable energy companies are able to stand out in the weak global energy sector, with their revenue and net assets continuing to grow.

5. On the security dimension, the oil & gas industry's debt ratio is the lowest in the entire energy sector, and its current ratio is also higher, a demonstration of this industry's characteristics of being capital intensive, of high investment risks, and of the requirement for companies to be financially strong. The coal industry's debt ratio is high. The weak coal prices as well as the declining demand and revenue have led to the deteriorating financial conditions of coal companies.

6. On the R&D dimension, the traditional energy industry has a relatively low R&D intensity, a reflection of the industry's high maturity level in terms of technology. The equipment manufacturing industry and the renewable energy industry have the highest R&D intensity, a reflection of these two industries relying on technological progress and product upgrade to gain a competitive edge for growth.

7. Among the top 30 global coal companies in terms of competitiveness, 20 are Chinese companies. China is far ahead of other countries in terms of this number. China is a dominating country in the global coal industry, because first, coal is the main energy source in China, and second, China's coal production and consumption is about half of the

global total. But, the performance of China's coal companies in efficiency is not very good. Among all the Chinese coal companies on the list, only two companies are higher than the average level of the companies on the list in terms of efficiency.

8. Among the top 100 global oil & gas companies in terms of competitiveness, the United States is No. 1 with 27 companies, followed by China with 13 companies, and Canada and Russia are in the third and fourth places with 9 and 8 companies, respectively. Together, the four countries (the United States, China, Canada, and Russia) account for more than half of the top 100 global oil & gas companies. With China becoming the world's largest crude oil importer and second-largest oil consumer, the competitiveness and influence of China's oil & gas companies in the world are also increasing. Compared to foreign oil & gas companies, the performance of China's oil & gas companies in growth and R&D is prominent, their scale is on a par with the global average, but their performance in efficiency and security is not good enough.

9. Among the top 100 global power companies in terms of competitiveness, almost half of them are Chinese companies and US companies: there are 22 US companies and 21 Chinese companies. On the top 20 list, Chinese companies take 6 spots and German companies take 3 spots. Chinese companies are slightly above the international average level in terms of the overall score, scale, growth, security, and R&D, but are obviously lower than the international average level in terms of efficiency. If the power companies in Hong Kong and Taiwan as well as the local power companies and nuclear power companies are excluded, then the remaining major state-owned power companies of China will be lower than the average level of global and Chinese companies on the list on the efficiency dimension.

10. Among the top 100 renewable energy companies, 53 are Chinese companies (excluding Hong Kong and Taiwan companies). This number is far more than that of other countries, accounting for over half of the top

100 renewable energy companies. The United States comes second with 10 companies on the list. Chinese Taiwan closely follows the United States to have 6 companies on the list. Germany and Spain are the two countries in Europe having the most renewable energy companies on the list: they have 5 companies and 4 companies on the list respectively. Among the top 20 companies, Mainland China takes 9 spots, Denmark, Spain and Germany take 2 spots each, and Australia has one company on the list for the first time. The top 3 companies are from Denmark, Spain, Finland, and the United Statesres pectively. This shows that, on the one hand, the established renewable energy companies from the western countries have an obvious advantage; and on the other hand, China's renewable energy companies as a whole are very competitive.

11. Among the top 20 global energy equipment manufacturing & service companies, 8 are Chinese companies, more than 1/3 of the total number. Germany and Japan have 2 companies on the list each. The top 5 companies are from Germany, the United States, Germany, China, Denmark, and Spain respectively. This shows that China takes multiple spots on the top 20 list, while most of the traditional industrial countries still have certain competitiveness.

12. On the list of the top 100 Chinese companies, power companies have the largest number, followed by oil & gas companies. There are 28 oil & gas companies, 35 traditional power companies, 22 coal companies, 16 renewable energy companies, and 7 equipment manufacturing & service companies. The top 20 companies include two Chinese Taiwan companies and one Chinese Hong Kong company. China National Offshore Oil Corporation (CNOOC) is No. 1 on the list of the top 100 Chinese companies.

In general, compared to international companies, the performance of China's energy companies on the dimensions of scale and growth is prominent, but their performance on the dimensions of efficiency, securityand R&Dis yet to be improved.

目　录