

Analysis of the reasons for France to promote the full nationalization of Electricite De France

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Abstract. Affected by the Russia-Ukraine war, France was deeply in the energy crisis, and the French government promoted the full nationalization of the state-controlled EDF. The research shows that there are two main reasons for the full nationalization of EDF: one is to solve its increasingly serious debt problem; The second is to encourage it to focus on nuclear power development and promote France's energy independence and energy transformation.

Keywords: EDF, full nationalization, energy independence.

1. Introduction

In 2022, the outbreak of the Russia-Ukraine war, Europe has been highly dependent on Russia's energy supply for a long time was forced to cut off, Europe is deeply in the energy crisis, and countries have adjusted their energy policies to promote "energy relief" and "energy independence" and other strategic goals, especially to completely get rid of energy dependence on Russia. It was against this backdrop that the French government pushed for the full nationalisation of Electricite de France (EDF) [1].

EDF is Europe's largest energy utility and nuclear power operator, covering electricity, natural gas, energy trading and services, and implementing integrated power generation, distribution and distribution operations in France, occupying an absolute dominant position in power supply. EDF is a state-controlled energy company, with the French government holding around 84%, private and institutional investors around 15% and employees around 1% before full nationalisation.

On July 6, 2022, French Prime Minister Bernard Borner announced that the French government would acquire the remaining 16% of EDF to achieve 100% control. The offer, which is expected to be launched at the end of September, will offer minority shareholders 12 euros per share and is expected to cost 9.7 billion euros overall.

On February 3, 2023, the French government's shareholding in EDF was raised to 90.08%.

On May 23, 2023, the French Authority for Financial Markets announced that the French government had held 97.69% of the shares of EDF and had filed an application to implement a compulsory withdrawal, forcing the remaining stock holders to sell their shares [2]. On the same day, French Economy and Finance Minister Le Maire said that from June 8, France will hold 100 percent of EDF shares, so as to achieve the full nationalization of EDF.

At this point, the full nationalization of EDF is about to be fully landed, and this large energy enterprise, which is ranked among the top 500 enterprises in the world and has an important influence in the world, is about to become a state-owned enterprise 100% controlled by the French government.

2. Reasons for full nationalization

The French government has made clear its intention to push for full nationalisation of EDF. In general, it is trying to solve two problems: first, it is trying to solve EDF's growing debt problem; The second is to refocus EDF's business on nuclear power, thereby promoting France's energy independence and energy transition.

(1) Pressure on EDF's sustainable development under the energy crisis

EDF's finances deteriorated. In February 2022, EDF's high debt-to-asset ratio and loss expectations led several credit rating agencies to downgrade its credit rating in February this year and warn of

further downgrades. In 2022, EDF nuclear power production fell by 22.7% (reduced by 81.7TWh of electricity), the annual loss of 17.94 billion euros, and the asset-liability ratio further climbed to 87.99%. From the stock market performance, EDF's share price has fallen from 33 euros at the beginning of the listing to about 9 euros before the announcement of full nationalization, fully reflecting the capital market's lack of confidence in EDF's future.

First, soaring energy prices have led to a sharp rise in power generation costs, but they cannot be fully transmitted to end users, and EDF bears the pressure of rising costs. Most of France's uranium ore and about 17% of its natural gas come from Russia. After the outbreak of the Russia-Ukraine war, European sanctions against Russia led to a rapid rise in prices of natural gas and oil in Europe, which led to a rapid and substantial rise in electricity prices. Among them, France is the most serious situation, its January to June 2022 before the market average monthly price as high as 234.87 euros/MW-hour, an increase of nearly 300%, higher than the increase in Germany and the United Kingdom (Germany increased by nearly 230%, the United Kingdom increased by nearly 200%). In order to prevent the negative effects of soaring electricity prices, such as social hyperinflation and impact on residents' normal life, the French government has strictly and effectively controlled the rise in terminal retail electricity prices, and the daily electricity prices of residents have only risen by 4%, and most of the rising costs are borne by EDF, thus aggravating its financial predicament. EDF's corporate debt will rise from €74 billion in 2021 to just over €90 billion and is expected to exceed €100 billion by 2023[3].

The second is that the cooling systems of nuclear reactors suffer from unexpected stress corrosion, and EDF is forced to buy high-priced electricity from the wholesale market while bearing the high cost of nuclear power operation and maintenance. Nuclear power production in France accounts for about 70% of the country's electricity supply, and EDF is the main nuclear operator, operating 56 nuclear power stations in the country. At the same time of the outbreak of the Russian-Ukrainian war, EDF's 12 nuclear reactors cooling system stress corrosion problems, forced to temporarily shut down and is expected to be unable to repair within the year, coupled with other normal shutdown maintenance of nuclear power plants, about half of EDF's nuclear power plants in 2022 standstill, resulting in its continued reduction of power generation plan in 2022. France's electricity production and supply have been strained. To meet its energy supply contracts, EDF has been forced to buy electricity on international wholesale markets, where prices have soared. For example, in June 2022, France had a net import of about 60 MWh of electricity to Germany, compared to a net export of about 30 MWh in the same month last year.

Third, the EU and France imposed anti-monopoly sanctions on EDF, limiting the fixed proportion of nuclear power to implement lower electricity prices, affecting the sustainable development of EDF. Before the energy crisis, EDF's financial burden was already relatively serious, and its asset-liability ratio exceeded 80% for many years. The main cause of this dilemma is the nuclear business, the key reason is that the European Union and France introduced antitrust rules in 1999, which allow EDF competitors to buy a quarter of their nuclear power generation at a fixed price of 42 euros/MWh, to hedge EDF's monopoly in the electricity market. EDF argues that the regulation has left its electricity prices too low and inflexible, putting EDF in an unfair position to compete. At present, nuclear power projects are considered to be the biggest risk factor for EDF's credit rating [4].

(2) To maintain national energy security and promote energy transformation, EDF needs to focus on nuclear power

Under the situation of European energy crisis, EDF, as a listed company, has a great contradiction between its pure profit orientation and the country's need to increase investment in new nuclear power plants, and comprehensive nationalization has become an effective practical choice.

First, France readjusts its nuclear power development strategy and puts nuclear power at the core of achieving France's energy independence and clean and low-carbon energy. After the Fukushima nuclear accident in Japan, under the global anti-nuclear public opinion, France has tried to reduce the proportion of nuclear power, former President Hollande proposed to reduce the proportion of nuclear power generation to 50% by 2025, and current President Macron announced in 2018 that 14 nuclear

power plants would be closed by 2035. Under the new situation of energy crisis, the French government believes that the volatility of new energy and the growth of electricity demand cannot guarantee the security of national energy supply, and nuclear power is the key to reducing energy dependence and the proportion of fossil energy, so it re-examined and adjusted its energy strategy, and took nuclear power as the core of the plan to ensure national energy security and combat climate change. In February 2022, French President Emmanuel Macron proposed that France will have six EPR nuclear reactors in Xinjiang in the future, and asked EDF to start a feasibility study for another eight nuclear reactors in Xinjiang.

Second, to implement the nuclear power development strategy, France needs to enhance its control over EDF and enhance EDF's strategic execution. The construction of nuclear power projects has the characteristics of large investment, long cycle and high operating costs [5]. The new nuclear power project plan proposed by France is expected to require more than 51 billion euros of investment. Under the current energy crisis situation, the new nuclear power project will inevitably have a significant impact on the profitability of EDF, and it is an inevitable choice to rely on the government to provide financing. By fully nationalizing EDF, it would be able to free it from the profit-making drive of private investors and focus more on the nuclear business, optimally serving France's strategic energy objectives.

3. The conclusions and recommendations

Once upon a time, EDF's public listing generated a lot of attention around the world. Since its listing, the French government has always owned more than 80% of the majority shares. Now EDF has been fully nationalised as a result of the French government's energy strategy in response to the energy crisis. In this process, we can learn from two aspects:

First, nationalization, listing and other enterprise restructuring are originally tools and means, when the external environmental conditions change, the goal has undergone strategic adjustment, tools and means will change or spiral adjustment. Therefore, we may not regard the French government's full nationalization of EDF as an act of anti-market reform.

Second, energy security is the core goal of the healthy development of the energy industry, and state-owned holding is a powerful measure to ensure energy security. For the key areas and important links related to China's energy security and promoting clean energy transformation, we still need to always maintain absolute state-owned ownership.

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