

# VIETNAM ELECTRICITY INDUSTRY REPORT 2020



# EXECUTIVE SUMMARY

During 65 years of establishment and development, the Vietnam Electricity Industry has achieved certain achievements, affirming its leading role in ensuring electricity supply for socio-economic development and daily life activities of the people. However, the power sector still has some major shortcomings that have not been completely resolved, as well as many difficulties and challenges for future development.

Vietnam's electricity industry has a high monopoly since Vietnam Electricity (EVN) is the only entity that holds the dominance in all stages from production, transmission, distribution to electricity purchase and sale. The average load growth rate of Vietnam's electricity industry has consistently reached 10%/year over the past 5 years. Power loss has fallen to 6.5% in 2019, fulfilling the target one year ahead of the 5-year plan assigned by the Prime Minister. The scale of Vietnam's electricity system has ranked 23 in the world and ranked 2nd in the ASEAN. In the structure of the power generation industry, hydropower is currently the most important sector with a total number of operating enterprises up to 275, attracting more than 50% of the entire industry workforce. The amount of electricity generated by hydroelectric plants accounts for about 40% of the total. However, the hydropower potential in Vietnam has been almost fully exploited. Besides, this type of power is unstable and highly dependent on the weather, hence, power shortages in Vietnam often occur, especially in dry season.

To meet the electricity demand and annual GDP growth rate of 6.5%-7% per year, electricity sector must increase at least 11-11.5% per year. However, at present, the growth rate of electricity output is estimated at 10% which has not caught up with the market demand. Therefore, the shortage of power source is inevitable and the need to open doors to all economic sectors participating in the power sector is extremely urgent. Due to the impact of the Covid-19 epidemic on production, trading and service activities, the electricity sector was more or less affected, although not so significantly. According to the National Load Dispatch Center in the first 2 months of 2020, the electricity consumption of the whole system reached 36.2 billion kWh, equivalent to an average daily consumption of 615 million kWh / day. National electricity consumption increased by 7.5% over the same period last year.

Total demand for investment in the electricity industry by 2030 is expected to be nearly 117 billion USD, equivalent to about 6.88 billion USD/year. Of which 60.6% is for electricity, 30.4% is for transmission and distribution network. Resolution No. 55 is expected to contribute to eliminating the monopoly in the market, creating a transparent and competitive market where all economic sectors can participate in. However, in the short term, EVN will continue to hold a monopoly position in power transmission, meaning that opening to private investors may start with generators or plants with smaller scale.

# 2.1. VIETNAM'S ELECTRICITY INDUSTRY

## OVERVIEW



The Vietnamese electricity industry is highly monopolistic since Vietnam Electricity (EVN) is the only state-owned company that dominates all the stages from power generating, transmitting, distributing to electricity purchasing and selling. As for the power generation stage, due to the large demand for capital, there is the participation of private enterprises, however, the output from EVN still accounts for 55% of the total capacity.

Over the past 5 years, the average load growth rate of the Vietnam Electricity Industry has continuously reached 10%/year. The scale of the electrical system has ranked 23 in the world and second in the region after Indonesia. EVN has strived to reduce the power loss down to 6.5% in 2019,

completing the target one year ahead of the 5-year plan assigned by the Prime Minister.

Due to the low price of commercial electricity, which has not created a great motivation for private investors, the power generation industry is now heavily dependent on hydropower, with hydropower accounting for 40% of the total output. However, the potentials for hydroelectric power in Vietnam have been almost fully exploited. Besides, the nature of this type of power is unstable and greatly affected by the weather. Therefore, power shortages in Vietnam often occur, especially in the dry season. To cope with this situation, coal-fired and renewable energy-based projects

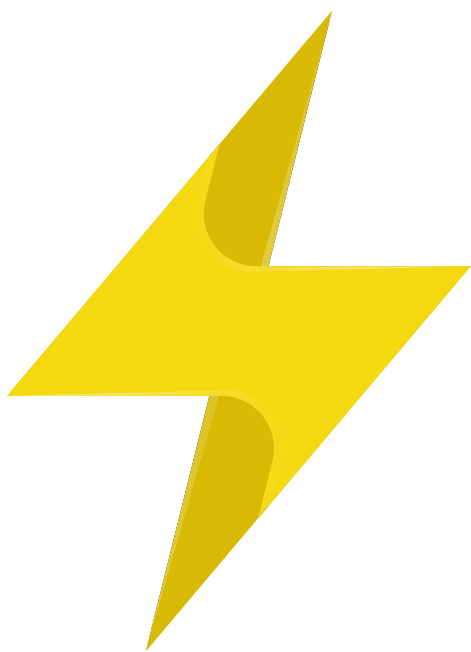




are increasingly being invested to develop in the upcoming time.

As the urbanization rate in Vietnam is steadily increasing and expected to exceed 40% by 2020, more and more offices and apartments are being built, leading to the rising demand for electricity in Vietnam. To meet the demand and catch up to the annual GDP growth rate from 6.5% to 7% per year, electricity sector must reach 11-11.5% per year. However, the current growth rate of electricity output is only 10%/year, so the shortage of power source is inevitable, and Vietnam might face some risks of power shortages by 2021. Therefore, the need of opening up the power industry for all economic sectors to participate in is extremely necessary.

Due to the impact of the Covid-19 epidemic on producing, trading and service activities, the power sector was more or less affected, though not significantly. According to the National Load Dispatch Center in the first 2 months of 2020, the electricity consumption of the whole system reached 36.2 billion kWh, equivalent to an average daily consumption of 615 million kWh/day. National electricity consumption increased by 7.5% over the same period last year.



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