China has established a national energy commission headed by Premier Wen Jiabao to find ways to improve strategic policy-making and handle overall planning, the State Council said Wednesday.

Analysts said that China, the world's second-largest energy consumer, is facing a grim and complicated energy environment, which makes it necessary to create an agency superior to all ministries.

The National Energy Commission (NEC) will be "responsible for studying and formulating a national energy development strategy, reviewing energy security and development issues, and coordinating major programs of domestic energy exploitation and international cooperation," the State Council said in a statement.

Vice Premier Li Keqiang will be the deputy head of the commission, which comprises of 21 ministers and directors from different departments, such as the National Development and Reform Commission (NDRC), the National Energy Administration (NEA) and the central bank, it said.

The commission will act as the highest office in charge of the country's issues, the Economic Observer reported.

The energy shortage problem emerged in China, the world's third largest economy, in 2003. The nation has embarked on a campaign to secure energy supplies to satisfy the skyrocketing demand.

Lin Boqiang, director of the China Center for Energy Economics Research at Xiamen University, told the Global Times that the energy issue involves many problems, such as energy shortage and low-carbon transformation, and it concerns many departments.

"It's far beyond the mandate of the NEA, which runs under the control of the NDRC," Lin said. "The commission will promote energy reform."

The Energy Industry Ministry was dissolved during a round of departmental restructuring in 1993, meaning that China hasn't had a unified ministry devoted to administering the energy sector for 16 years.

Despite the establishment of the NEA in 2008, the central government still lacks the ability to implement a unified energy policy, as responsibility for the energy sector is currently dispersed among a number of departments, the Economic Observer said.

Guan Qingyou, an energy expert at Tsinghua University, told the Global Times that an energy strategic planning office, which considers development, security and diplomacy, is crucial when foreign-market dependence is above 50 percent.

According to statistics released by the NEA on Friday, net crude oil imported by China was 199 million tons compared with 189 million tons produced domestically, meaning 51.3 percent of its crude oil come from overseas.

Meaning, China is also under great diplomatic pressure due to the unbalanced energy structure in which the high polluting coal consumption accounts for 60 to 70 percent, Guan added.

"The performance of the NEC would be better than a unified energy ministry or the existing NEA," Guan said. "What should be considered is how to define the functions of the NEC and NEA."