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Using contextual analysis method to predict new energy development of Hohhot

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Abstract

Contextual analysis method is used to predict new energy development of Hohhot from 2010 to 2020. Through the structure of different scenarios, we could predict that the new energy in the total energy consumption will reach the proportion of 13.8%, 6.5% and 3% under three different development scenarios by 2020. Then the contextual assessment is carried out and the corresponding policies and measures for the different scenarios are put forward. According to China's Energy Technology Development Roadmap and the actual situation in Hohhot, this paper recommends the optimal situation of the program and the corresponding policies and measures. Practice shows that the contextual analysis for the prediction and policy formulation will have a practical significance.

Keywords: Contextual analysis; New energy development; Contextual predic

1. Introduction

The development and utilization of new energy not only affect the future development trend of the energy of society, but also relate to the scale and the direction of future development of the local economy. Therefore, one important function of local government is to make new energy development plans. The planning faces to the future, and will be full of uncertainty. This uncertainty is “inter-subjectivity”, it means that planners and planning object is an exchanges and understanding relationship rather than an antagonistic relationship between subject and object. Therefore, simply using the traditional method of

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objective analysis, such as econometric and operations methods, or completely depending on subjective assumptions cannot be adopted when local governments making new energy development plans. A new planning approach which meets the "inter-subjective" should be explored. This paper provides a planning approach called contextual analysis method which meeting "inter-subjectivity" requirement.

The uncertainties we will face in the future are complex and changeable. In response to the challenges of uncertainty, we divide it into four levels basing on the characteristics of contextual analysis [1-2]. The first level: a clear prospect, the second level: there are several possible prospects, the third level: the prospect of a certain range, the fourth level: uncertainty.

Contextual analysis is to analyze the complex reality of the environment and possible information. Analyzing the possible future scenarios and scenarios of path dependence. On this basis, it provides the unity of uncertainty of future decision-making information that the specific contextual for decision-maker through a comprehensive analysis of the current contextual (includes consideration of future information). Decision-makers according to the specific contextual "contingency" in the management and decision-making, the decision use is in the consideration of the current best arrangements [3-5].

2. Related concepts of contextual analysis

Contextual analysis includes two key steps and four basic elements. Two key steps are scenario structure and contextual assessment. Four basic elements are scenario, framing, anchoring and time [6-7].

Scenario structure is the base of contextual analysis. Its purpose is to produce some important scenarios, in external environment which have changed.

Contextual assessment which is after completed the construction of important scenarios is in the terms of current position to assess the influence of the occurrence of the important scenarios to the individual and social consequences. It is the core of contextual analysis.

Scenario is a concept that based on the state of the world which is evolved the information. Taking into account is incompleteness, it does not require future state to be exhaustive, but must be mutually exclusive.

Framing refers to the manner of describing the contextual. And anchoring is the answer to clues that appear to offer something. Contextual analysis requires designing scenarios (break framing), correct choice of the anchoring determined according to specific issues, there is no uniform pattern.

Time chosen, reflects the period in which we hope to manage risk. The choices of the range of time are a subjective act. The selection of time scope means implicitly that choosing the description of uncertainty about future is expected.

3. The development status of Hohhot's new energy

The new energy mentioned in this paper is mainly about the industries which have been formed in Hohhot and the new energy which have applicability prospects, including: solar, wind, biomass and geothermal.

Solar PV: Have been built in Inner Mongolia Shenzhou Silicon solar PV project construction 100KWP. Some PV power generation projects are under construction. Total 11.1 MWP. The full productions are expected to generate electricity in 2011.

Wind power: At of the end of 2009, seven wind power projects have got resource allocation form Inner Mongolia Autonomous Region Development and Reform Commission in Hohhot, a total of 350 000 KW.

Biomass: The end of 2008, Hohhot complete $8m^3$ 14 000 household biogas digesters, breeding areas linked families and gas engineering 4, farms and medium-sized biogas project 2.