

## **Impact Assessment of the Changes in the Energy Sources on the Chilean Mining Sector**

Topic: Modeling the Chilean Economy to Analyze the Future of its Mining Sector

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Chile's economy is heavily dependent on the copper mining sector. The mining sector, in its production process, requires large amounts of energy consumption. Therefore, all the variations that occur in the energy sector have important effects on the economy of Chile.

This paper will analyze the combined effects that the transformation of the energy sector and the aging of mining deposits produce on the gross domestic product and the aggregate and sectoral distribution of employment in the economy of Chile.

On the one hand, since the beginning of the 20th century, the government has embarked on a profound process of renewal of the energy matrix, which in recent years has focused on increasing the share of non-conventional renewable energy production. In this framework, investments in the energy sector are making Chile one of the leading countries in the consumption and production of so-called clean energy. Additionally, during 2017 and 2018 the energy transmission system throughout the country has been integrated, increasing the sector's competition.

On the other hand, the copper mining sector is suffering an aging process, which leads to a lower proportion of copper in the deposits, and an increase in production costs. According to Cochilco, which is the state agency that advises the government in the mining sector, in the period 2001-2013 production has remained relatively stable, while energy consumption has increased at a rate of 4.3% per year.