

Chapter 6

CURRENT ACCOUNT DEFICIT OF TURKEY: IS RENEWABLE ENERGY A SOLUTION?

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Introduction

It is impossible for today's societies to satisfy the basic needs unless reaching energy in an economic, safe and environmentally friendly way. Satisfying the basic needs is positively related with the access to the energy.

Especially following Industrial Revolution, due to the need to supply energy from reliable resources, aroused energy related environmental problems. In spite of those effects, reliable fossil resources are being employed for stable energy supply, while renewable energy technologies being improved.

Turkey's manufacturing sector needs capital and intermediate goods to keep production. Thus in order to balance the current account, Turkey needs to reduce import; which also tmeans production. For a demographically growing country, giving up economic growth is not an option: Turkey needs to create employment.

Since the beginning of 2000s, keeping up with the global economic growth, Turkey went through a rapid economic growth and accordingly, an increased energy demand. In order to satisfy this demand, Turkey changed the structure of energy market, sped up the energy investments, focused on new technologies and of course, approved "Renewable Energy Act" for diversification and lower import purposes.

There are a lot of studies in Turkey that suggest renewable energy technologies for current account deficit problem. Examining Turkey's import structure, capital and intermediate goods have the largest share. Thus whichever investment is fulfilled, there will be huge import. This arises the question if renewable energy technologies are really can be a solution for current account deficit problem. Since Turkey doesn't have the technology, primary energy import may be replaced by renewable energy capital goods.

In this study, Turkey's energy and external equilibrium, economic effects of renewable energy investments are shown and comparisons are carried out between conventional and renewable energy investments in terms of current account.

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Conclusion

As a developing country with significant energy deficit, Turkey needs energy production and on the other side, in order to decrease primary energy import, invests in renewable energy technologies which are expensive and also imported.

To eliminate the problem of insufficient primary energy, renewable energy is the only alternative in short and middle run. However, renewable energy technologies are far from meeting energy demand of Turkey as of today. Still, it is vital in terms of reliability and environment.

As for the effects of renewable energy on Turkey's current account deficit, the answer is problematic and depends on the decision makers. Conventional electricity generation investments require low initial investment costs but those technologies require high import for long period of time. In this case, import is installed in long terms.

Renewable energy generation technologies require high initial investment cost but there is no need for imported fuel. Still, for renewable energy technologies, a significant share of initial investment is imported which results a considerable amount of import share in each kWh generated.

According to the data, the best alternative is hardcoal thermal power plant in terms of both import cost and total cost but in this case; reliability decreases while import dependency increases together with environmental concerns.

Since Turkey has every problem one country may have, there is no absolute right way to solve the problem. Even without energy deficit, Turkey would have suffered from current account deficit. Renewable technology is needed to be imported since there is no technological infrastructure. Additional precautions like incentive for domestically produced materials also increase the cost of the electricity for economy.

To sum up, with the current situation of renewable technologies, -advancing rapidly- renewable electricity is not competitive compared to conventional technologies. But still, for countries like Turkey (lacks primary energy) renewable technologies provides protection from primary energy price volatility.

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