

Energy Policies to promote Renewable Energy Technologies; Learning from Asian Countries Experiences

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Abstract

Overview

Energy is a requirement for sustainable development. The limitation of fossil energy sources in one side and environmental issues in the other side have led to the countries attempt to develop renewable energy technologies. But utilization of renewable energies encounters different challenges in countries. The leading countries in renewable energy technologies have implemented different policies to promote innovation in renewable energy technologies including feed-in tariffs, tax incentives, tradable certificate, production quotas and public research and development expenditures. Learning from advanced countries experience and combination with indigenous factors will accelerate other countries innovation system development in renewable energies sector.

Most of Asian countries have good potential to use this energy sources, some of them benefit sun rays and the others has strong wind streams. So the development of using renewable energy sources is one of the most important issues for these countries considering their rapid economic growth rate. Meanwhile the renewable energy policies have a huge role in promoting the innovation in this sector. Current research work will investigate main drivers, barriers and strategies in Asian countries innovation system in energy sector for implementing innovation in renewable energy technologies.

Objectives

At the final stages of this research work it is expected to find some common factors among selected countries to obtain following objectives:

1. Comparing advanced Asian countries energy policies for promoting innovation in renewable energy technologies
2. Identifying main drivers, barriers and system failures in renewable energy sector
3. Developing an energy policy pattern using advanced Asian countries experience for promoting and commercializing of new technologies in renewable energies industry

4.

Methodology and Data Sources

This section of proposal presents the plan for obtaining the discussed objectives which mentioned above. At first step innovation systems case study of some selected countries will be evaluated and after identifying their advantages and system failures the results will be compared and finally a comprehensive pattern will be developed for the other countries. Data sources for analysis are available on some websites which provide datasets related to countries renewable energy sector. Also information about countries energy policies published by International Energy Agency will be used as main data source.

Keywords: innovation, energy policy, drivers, barriers, renewable energy

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