The energy consumption (ENE)–growth nexus has received much attention among research community in the recent decades. Asif and Muneer (2007) and Tuzcu and Tuzcu (2014) have also advocated the significant role of the fossil fuels in the environmental depletion. However, this link has not been explored very intensively in the case of Gulf Cooperation Council (GCC) countries what was the motivation to conduct this study at first. Besides that, the environmental concerns connected with the CO2 emissions caused by fossil fuels energy operated devices are rising at the global level. The additional motivation is connected to the fact that economic growth of these countries over performs the world average which has increased significantly the energy demand. Taking into account the fact that these countries have the significant resources of fossil fuels, this was not the problem at the first glance. Thus, GCC countries understood that the energy based on fossil fuels is not very good long–term solution. However, the energy demand is higher day by day.