

Risks

Turkish government declared its incentives to local coal through Strategic Plan item A.2 PG1.1. The objective is defined as to increase the electricity production from local to 60 billion kWh by 2019 which base year defined as 32,9 billion in 2013. However since Zorlu Energy business strategy is based on sustainability and climate change the company invest in low carbon technology and undertake more investment to produce same amount of electricity from renewable sources.

Turkey was not the part of Kyoto Protocol but since it take into force by the parties Turkey started to adopt the requirements of the protocol locally and as a volunteer. Emission reduction projects developed under Gold Standard and VCS, local MRV is in force and with the data collected from industry through MRV Regulation, Local ETS is in preparation phase to develop an internal cap and trade scheme similar to EU ETS in the near future. Emission trading schemes generally limit the emissions release from emission intensive industries by assigning quotas and defining penalties, and set up mechanisms for trading emissions reductions achieved. As a member of the energy industry in Turkey and the owner of natural gas power plants, Zorlu Enerji is most likely to be subjected to this compliance and trading scheme this may lead to increased costs related to; purchase of carbon credits in order to meet the emissions targets, carbon taxes applied to facility based emissions or production volumes, adoption of new equipment standards and carbon dioxide equivalent (CO₂e) emissions abatement technologies, required corporate resources and systems to manage risks, achieve compliance and retrofitting of existing equipment/processes.

Global agreements is one way to fight with climate change and after Paris Agreement there are numerous scenarios on how to put a price on carbon. One of the ways may be applying carbon taxes to fuel prices in order to control and reduce global GHG emissions. Some of the countries already use different tools including taxation system to be able to gain proper funds to tackle climate change. Turkey did not signed the Paris Agreement however application of these taxation systems globally may cause an increase in natural gas prices and relatively increase our operational costs.

Within the framework of approximation to UNFCCC; Turkey has submitted its NDC stating its contribution to reduce its GHG emissions by 21% from the Business as Usual (BAU) scenario until 2030. Since November 2016, the Agreement is in force for all Parties. Turkey's contribution will be achieved through involvement of energy intensive sectors and Zorlu Enerji could be affected by operational restrictions enforced on fossil-fuel power plants and/or emissions control requirements. This may require additional capital investment and/or significantly higher operating costs.

Extreme temperature changes is an expected result of climate change with high agreement in IPCC 5th assessment report. This directly affects the efficiency of electricity generation equipments for both natural gas power plants and renewable power plants. We acknowledge that given the estimated climate change and weather patterns are likely to get more off-balance, our production equipment is more likely to get affected as well as the balance of heating and cooling days which will considerably change the electricity demand while causing a potential increase in natural gas prices.

Temperature extremes may cause disruption in the supply chain, mainly natural gas, which is transported over long distances like BTC (Baku - Tbilisi -Ceyhan) pipeline and delays in delivery of main and auxiliary equipment purchased from overseas. For natural gas delivery there are control points through pipeline however damage through the pipeline may cause late delivery of the natural gas and decrease in our production.

Due to rising awareness on climate change and carbon intensity of products and services together with the fact that Zorlu Enerji is also an electricity producer using natural gas, we see the risk of our customers shifting their electricity demand to be met by renewable energy sources. Our natural gas power plants has direct agreements with its clients which are operate in industrial zones. Some Turkish banks and solar energy system producers are planing to develop a project in industrial zones to redesign the industrial plants roofs as a solar power plants. We will be exposed to such risks emerging in Turkey but this is not expected in the near future due to regulatory and financial problems however in a timeframe it will become material.

Companies in the energy sector mainly generating electricity from fossil fuels are subject to reputational risks with regards to insufficient action taken against climate change i.e. having high GHG emissions, failing to adapt proper mitigation actions for reducing GHG emissions, not being transparent to stakeholders about the GHG emissions data (poor disclosure performance).