

## **The Role of Domestic Coal in Turkey's Power Generation: Energy Supply versus Climate Commitments ?**

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## **Abstract**

As worldwide populations and economies grow, electricity demand is also increasing substantially. As a fast developing economy, the electricity system in Turkey faces four main challenges. First, demand for electricity is growing (the urgency for more resources). Second, there is a need to ensure that prices remain affordable. Third, energy source and supply security is critical. Last but not least, the CO<sub>2</sub> emissions need to meet the long term targets. To balance the competing aims and demands arising from growth, affordability, energy security and climate targets, public policy must create a framework that develop projects and design measures that meet these needs and ultimately deliver sustainable development.

Coal has historically been and will continue to be a significant source for power sector. “High-efficiency, low-emission” (HELE) coal technologies can help reduce the emissions produced by coal-fired power generation while enabling this important conventional energy source to contribute to meeting growing power demand. In Turkey too, coal has been one of the main sources of power. But it has not been used as much as desired by the Government. Thus, there is now a new policy drive and a renewed enthusiasm to develop nearly all domestic coal sources for power generation. There has been at the same time, much talk of the impact of Paris Climate Agreement on the energy sector and especially on coal policies of Turkish Government and its potential effects in the light of the emission targets set by Government.

The aim of this paper is to consider all above facts together in a comprehensive way with all conditions taken into account in a manner to shed light on Turkish Energy Policy. The key conclusion of the paper is as follows; the proposed model of coal development should be economically feasible, legally and politically acceptable with advanced technology. Further, the coal drive seems not to be contradicting with Country’s intended reductions of carbon emissions. Thus, (although it can have some effects on other sectors) the Paris Agreement can be said to have no real impact on coal-fired power plant projects. Rather, the real challenge in the way of coal development is overcoming the commercial, legal, technical difficulties and environmental and safety compliance.

**Keywords:** Energy Policy, Coal, Paris Agreement and Emissions, Power Plant Projects, Coal Development Models