

THE SECOND DIMENSION OF OIL DEPENDENCY IN TURKEY: PETROCHEMICAL DEMAND

SUMMARY:

Whenever the size of oil demand is questioned in Turkey, the answer always covers the oil demand of transportation. However, the petrochemical industry is a booming sector with many products and complex statistics. We would have a petroleum feedstock material demand that increases by 4-7% even if we were to be completely relieved of our external dependence or if all vehicles were operating with alternative fuels or electrical. In this Q report, we will calculate the oil equivalent size of this demand.

METHOD:

In this study, the data was derived from Turkish Statistical Institute (harmonized classification), international codes (GTIP) and energy balance tables. Since it is difficult to quantify the exact figures, the research was carried out through press reports and energy balance tables.

ANALYSIS:

The sum of all our petroleum product demand in the energy balance table for the year 2016 is 40.7 million tonnes of oil equivalent (mtoe). 6.3 mtoe of this is non-energy uses. 2 mtoe of this 6.3 mtoe is the demand for petroleum products used as raw material for petrochemical plants in Turkey. The remaining 4 mtoe is petroleum products used as raw materials in other sectors (lubrication, insulation, etc.).

By working at a capacity of 93%, Petkim meets 18% of Turkey's demand for petroleum products. It also exports some 2 mtoe. Petkim exports around 30-35% of its sales (0.6-0.7 mtoe). 1.3 mtoe is used for raw petroleum products on the domestic market. If we form a quick ratio, a demand of 7.2 mtoe for petrochemical products can be observed.

1 mtoe is equivalent around 7.14 million barrels, which in return is equal to 20.000 barrels/day.

	Demand for Petrochemicals	Lubrication, insulation etc.	Total
Million tonnes of oil equivalent	7,2	4	11,2
Barrels/Day	144.000	80.000	224.000

This figure is equivalent to half of diesel fuel demand in Turkey (2016 diesel demand 22.2 mtoe), and 1.5 times the total demand of gasoline and LPG combined (gasoline: 2.3 mtoe, LPG: 4,7 mtoe). It is important to note here that the portion of the petroleum products that was produced (transformed) only domestically and used for lubrication, insulation etc. is 4 mtoe. So, the real figure sits seven higher.

CONCLUSION:

In this Q report, where we tried to calculate only a fraction of the oil demand of what is used as raw material in Turkey, we discovered that the demand for oil outside of energy, that is to say the oil demand of petrochemicals and raw materials, is 224.000 barrels/day or equivalent to 0.22 mb/d. Including synthetic rubber and plastics would push this figure considerably higher. The government reports which determined this figure in US dollars to be much higher is available on the internet. This report concluded by claiming petrochemical's demand is half of that of diesel's. But the question of what its size would be, if we were to add plastic and other products into the equation, will be examined in later reports.