Managing energy imports to save forex reserves

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Pakistan relies on imports for 49 percent of its primary energy supplies, which strains its already limited foreign exchange reserves.

As of April 2023, Pakistan's total net reserves were US$ 11.5 billion, with the State Bank of Pakistan holding US$ 4.6 billion and the remaining reserves held by scheduled banks. Furthermore, the cumulative trade balance as of April 2023 amounted to US $ 21.99 billion.

As of March 2023, Pakistan has a total debt and liabilities amounting to US$ 125.7 billion, with

almost 77 percent of it (US$ 96.3 billion) owed directly by the government to different multilateral and bilateral creditors, which puts pressure on repayment. Within the next three years, Pakistan needs to repay over US$ 77 billion.

Given that Pakistan is an economy worth US$ 376 billion with a population of around 230 million, the burden of this debt is significant. Due to the high level of debt and limited foreign exchange reserves, managing and redirecting imports to more productive use is necessary.

Energy products comprise the largest portion of imports, accounting for about 30 percent of the country's total imports.

From July 2022 to April 2023, the energy import bill for petroleum products, including LNG and LPG, amounted to nearly US$ 14 billion, 18 percent lower than in the previous fiscal year. However, this

reduction was not due to efficiency or demand management but due to less economic activity.

When it comes to petroleum usage, transport is the biggest consumer of oil products, accounting for 78 percent of the 11.3 million tons used from July 2022 to April 2023. Within this total, road transport made up 96 percent.

Despite the approval of an Electric Vehicles (EV) policy, the high cost of EVs and the absence of widespread and reliable charging infrastructure has made its adoption extremely difficult.

> The transport sector mainly relies on two petroleum products, petrol and diesel. According to research conducted at the Pakistan Institute of Development Economics (PIDE), the demand for these products in the transport sector is not greatly affected by changes in incomes or prices; demand elasticity is less than 0.36 in all cases.

Diesel demand is even less elastic, with a price elasticity of less than 0.2. Increasing prices may not help manage the demand for these products, but other conservation policies may help.

One such policy is the strict rationing of petrol quota for all government officials, which can help reduce consumption. Back in 2004, the Philippines government implemented measures to reduce petrol consumption. These included halting the purchase of official government cars, limiting unnecessary trips by government officials, and minimizing all activities that involved petroleum products.

Ministries and government agencies were also encouraged to maintain their vehicles properly, and a mandatory 10% reduction in petrol consumption was enforced for official purposes.

Additionally, official vehicles were only permitted for official business, and government vehicles were

prohibited on Sundays, official holidays, and outside regular office hours. By setting an example for the rest of the country, the government decreased the consumption of petroleum products by 8 percent in almost two years.

On the other hand, Pakistan has yet to implement comparable measures. Even though a transport monetization policy was introduced in 2011, according to the report “Cash Poor, Perk Rich” by PIDE, government vehicles are still being utilized for personal purposes.

The announcement of a 30 to 50 percent cut in the petrol quota by the Federal and Provincial governments last year was insufficient and did not seem to have been implemented.

Getting the exact number of government vehicles in the country is challenging. Reports suggest that Sindh alone has around 12000 official usable cars.

Furthermore, media reports from last year indicate that new vehicles were purchased for officials in their respective provinces and ministries despite the announced austerity measures.

Moreover, transport policy can have a significant impact on reducing oil dependency. Decisions regarding road infrastructure investments, urban transportation systems, vehicle taxation, and user costs will all influence the demand for and reliance on oil.

Implementing cost-reflective road pricing and parking fees can prevent the unnecessary use of private cars and save fuel. PIDE research, Why Pakistan Needs a Car Policy? suggests a need to alter city development policies and have a broader approach towards urban planning. This will also help in reducing the demand for petroleum products.

Another leading source of energy imports is LNG, which accounted for US$ 745.9 million in our import bill from July to April FY2023. Over 60% of this is used in power plants with long-term agreements and capacity payments, making it unviable to shut down those plants.

However, we can reduce LNG imports by managing the gas allocation and minimizing losses, such as unaccounted-for-gas (UFGs).

In households, gas is mainly used for cooking and heating, accounting for about 50% of total gas consumption. During winter, demand for electricity drops significantly, while household demand for gas more than doubles.

By rationalizing gas pricing, electrifying household heating and cooking demand, and diverting indigenous gas resources to power plants, we can significantly reduce our LNG imports in the short to

medium term.

The latest SNGPL annual report (2021) on their official website shows that they lost about 33162 MMCF as UFGs (8.6%). Similarly, SSGCL reports losses of 54779 MMCF (15.31%) as UFGs. To ensure efficiency, monitoring the supply chain closely and holding distribution companies accountable for the cost of these losses is essential, which can help reduce UFGs and release more gas for productive activities.

Likewise, Pakistan spent US$1.2 billion on coal imports between July and December 2022, with half of this amount used in power plants. PIDE research suggests that blending local coal with imported coal in a 20:80 ratio could save up to 10% of this import cost.

While renewable energy is the future, it cannot be implemented immediately, as over 90% of power

plants require capacity payments regardless of whether they generate electricity or not. In FY2022, these payments exceeded Rs 1.77 trillion and are projected to reach Rs 2.24 trillion by FY2030 due to existing projects and those in the pipeline. To avoid adding this amount to circular debt, utilising this capacity in productive activities is necessary.