

Decoupling of energy and growth in Pakistan

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Pakistan's energy demand has risen by 2.4%, but 25% of the population still lacks electricity. Shortages and unreliability leave over 90 million under-met. New energy supplies are needed to meet the growing demand and address under and unmet energy needs.

Renewable energy is gaining attention, but fossil fuels continue to dominate, resulting in increased carbon emissions, environmental challenges, higher production costs, and financial pressure on the national exchequer. This requires efficient energy use or decoupling economic growth from energy consumption.

Improving energy efficiency can be a cost-effective way to address the energy challenges faced by the country. It can minimize environmental concerns, ease production costs, and promote economic growth. Many developed nations have decoupled economic growth from energy consumption, demonstrating that higher income levels don't necessarily translate into more energy usage.

It is more cost-effective to save energy than producing it. Improving energy efficiency can close the gap between supply and demand, reducing the need for new energy sources. To achieve this, we must focus on managing demand through energy conservation rather than denying access to unserved or underserved people.

Pakistan must implement a comprehensive and innovative approach to unlock its energy efficiency potential to ensure national energy security and reduce reliance on imported energy sources. It is more cost-effective.

After several consultation rounds, the National Energy Efficiency and Conservation Policy prepared by the National Energy Efficiency and Conservation Authority was approved early this year. This is the second such policy.

The first-ever energy conservation policy was designed by ENERCON in 2006. Before NEECA, ENERCON was created by the government in 1987. However, after the 18th Amendment of the Constitution, it was dissolved. Despite the 2006 policy, ENERCON failed to gain support from various groups and, ultimately, failed in its implementation.

Unless serious efforts are made, the newly approved policy may suffer the same fate. In Pakistan, policy initiatives need implementation. Successful implementation of policy initiatives in Pakistan requires effective coordination at all levels, including the local level. This is how several countries

have achieved improvement in energy intensity.

Serious efforts have to be made towards reducing technical and non-technical losses in the electricity and gas sectors. We are losing almost 20% of the electricity produced in these losses; likewise, more than 17% in SSGCL and about 12% in SNGPL of gas is lost in unaccounted-for-gas (UFGs).

Despite tall claims, I don't see any improvement; despite the diminishing indigenous resources in the gas sectors, these losses have increased over the years. In the energy balance, Since FY2006, losses have increased by 26%.

On the power generation side, there is an enormous burden of capacity payments. For FY2024, these were estimated to be almost Rs 2 trillion. This amount adds to the circular debt when this capacity is not utilized or lost due to inefficiency (system losses) — Rs 93 billion was added to the circular debt due to system losses from July to April FY2023.

The subsidized electricity and gas and enormous cross-subsidy across consumer categories are the reason for the inefficient use of these resources. As long as we consider electricity or gas as a right and not a private good and continue subsidizing these utilities, stopping the misuse of these energy sources is impossible.

For electricity and gas, prepaid smart meters are the solution to save energy or to increase productive use. A serious effort towards this can prevent energy misuse and wrong billing by energy companies. Controlling inefficient resource use can also be achieved through energy price management, that is, prices without subsidies and cross-subsidies. Replacing the tariff-based subsidies with direct transfers to the targeted population is a much better option.

It should be mandatory for NEECA to conduct energy audits on a larger scale, covering buildings, industries, public transportation, and agricultural tube wells. In the building sector, retrofits for existing buildings must follow energy audits by incorporating energy-efficient equipment and implementing energy conservation guidelines. It is also crucial to enforce building codes for all new constructions, which should be ensured during the map approval stage.

In the transport sector, implementing cost-reflective road pricing and parking fees can prevent the unnecessary use of private cars and save fuel. This must be prioritized to reduce road congestion and energy efficiency. Fuel rationing in the public sector (as a role model), as done by the Philippines in 2006, can significantly reduce fuel and energy import bill use.

Pakistan's industrial sector has the potential for expansion. Replacing outdated technology in existing units and using energy-efficient practices in new ones can save significant energy costs to increase industrial competitiveness. In the agriculture sector, efficient use of water pumps is vital.

Although the NEECA Policy mentions incentives, relying solely on them without implementing fines

or penalties may not lead to the desired outcomes. It is crucial to prioritize raising awareness on this issue immediately. Japan serves as an excellent example of how effective this strategy can be. In just a few weeks in 2011, they dramatically increased awareness of energy use and efficiency.

Additionally, NEECA should survey the market for energy-efficient appliances and assess their affordability and long-term viability for the average Pakistani. It is also crucial to consider the availability of these appliances in small cities, not just large urban centers.

It is necessary to have an organized strategy to decouple energy from growth. Technological advancements and institutional improvements can boost energy efficiency, enhance competitiveness in international markets, and promote economic growth.

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