**Energy efficiency**

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Pakistan faces the worst repercussions of the climate crisis despite its small carbon footprint. The country is geographically connected to the roof of the world with the highest mountain ranges, and their glacier melt is giving way to devastating floods in the monsoon. The recent disasters are a wake-up call and require immediate action by the government.

All stakeholders need to create an outreach programme, and we at an individual level can start with energy conservation. Amidst the pressing need to address the climate crisis by cutting greenhouse gas emissions and reducing carbon footprint, energy efficiency makes sense.

Energy efficiency means consuming less energy to achieve the same results, and it is the best way to reduce gas emissions to achieve our climate goals. A small fraction of energy efficiency is energy conservation, which will help lower the electricity bills at both the residential and commercial levels. As a result, businesses will be more competitive and efficiently manage energy demand. All of this also means few gas emissions as few fossil fuels will be burnt for energy.

The recent government schemes like the National Energy Efficiency and Conservation (NEEC) Policy 2022, the first-ever Energy Efficiency and Conservation (EE&C) Policy in Pakistan, etc, focus strongly on electricity conservation, which requires all citizens to be more environmentally cognizant and to examine their energy use more closely. This has resulted in a mind shift for some segments of the population, but a large impact will be across the board and will require a lifestyle shift. It will compel large industrial energy users to document their usage and report on potential options to improve their energy conservation methods, and all others to proactively work towards doing more with less.

Energy conservation is central to managing Pakistan’s path through the energy crisis we see today. All of us -- individuals, businesses, governments and green groups -- must recognize the benefits of less consumption and join forces to call for a sustainable economic recovery, with energy conservation and reduction in demand at the core.

How will energy conservation help enterprises in cost savings to see a tangible impact on business operations? There are three areas that will allow businesses to take advantage of energy conservation efforts:

Cost: soaring electricity prices and gas shortages mean the costs of energy are constantly rising. If a consumer can reduce their energy consumption, it can help them keep their costs down.

Infrastructure: as electricity demand at peak times increases, we need to build more efficient ways to deliver it to homes and businesses. This applies to poles and wires for the electricity network, pipelines, and equipment in the gas industry, plus other equipment for industrial users. The costs for this extra infrastructure are passed on to consumers. If we can slow down growth in demand, or even reduce our energy consumption through conservation measures, we can avoid the added infrastructure costs.

Carbon footprint: most energy used in Pakistan still comes from carbon-based sources with varying degrees of associated emissions. Even though we are seeing a transition to renewables, the costs are too high, and on the other hand, it is expected that natural gas will continue to be in shortage for many years to come. If we can use electricity and all renewable energy wisely and efficiently, we can help Pakistan become more energy secure.

The starting points can be: more efficient and controllable appliances and equipment, especially for heating and cooling; improved shading and thermal envelopes (improving the way a building’s walls, ceiling, and floors prevent heat transfer); smart metres to measure energy use; distributed energy generation and storage, such as wind and solar; fuel switching (replacing inefficient fuels with cleaner and economical alternatives); equipment, training, and advice for better energy management.

With the abundant natural gas reserves, Pakistan somehow got delayed in the urgent realization of conservation measures. We have been lucky to have low energy prices for many decades. We have further experienced a lack of growth and development in energy, particularly solar and wind power, given governments have paid little attention to the issue. And things need to change now.

It is important to include Pakistan’s energy conservation plan in the national climate action and energy policies. The governments must endeavour to monitor progress in conservation and its impact. The plan must mention previous efforts to accelerate energy conservation with regulation and financial incentives. It must take cues from the conservation plans of Western countries such as Germany.

Germany’s Energy Efficiency Strategy 2050 sets out a long-term pathway for strengthening the German energy efficiency policy. In this way, it also makes an appropriate contribution to achieving the EU energy efficiency target (of reducing primary and final energy consumption by at least 32.5 per cent by 2030).

The strategy sets a new energy efficiency target for 2030, bringing together the necessary measures in a new national energy efficiency action plan (NEEAP 2.0) and contains guidelines on how the dialogue process on the Energy Efficiency Roadmap 2050 should be designed.

And as much as the government might do to play its role, it does not relieve all of us of the responsibility. Let’s all join hands in this endeavour. It is the duty of every citizen to play their part in energy conservation so there is more for everybody to share, today and for future generations to come.

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