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Experts back it for price stability and energy security

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PETALING JAYA: The true value of nuclear power for Malaysia lies not in slashing electricity bills overnight, but in ensuring decades of stable and predictable prices, say experts.

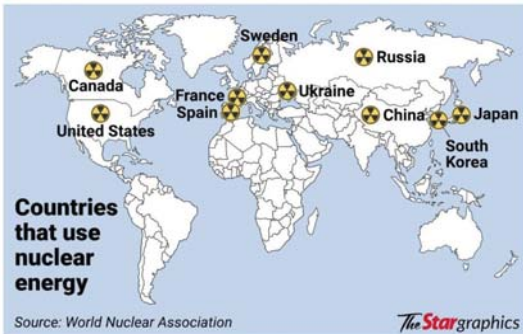
They also say the sector can create thousands of jobs for generations to come and spark renewed interest in science and engineering, delivering both economic and educational benefits for Malaysia.

Assoc Prof Dr Khoo Kok Siong said nuclear power could provide long-term stable prices over the next 40 to 60 years.

"Once a nuclear plant is operating, its costs are steady and predictable, helping shield both households and industries from fluctuations in global fuel prices.

"International experience shows that nuclear energy can bring stability to electricity prices, but whether bills actually go down depends very much on financing, construction costs, and how governments choose to set tariffs and subsidies," added Khoo, who heads the Nuclear Technology Research Centre at the Faculty of Science and Technology in Universiti Kebangsaan Malaysia.

He also said that nuclear energy was one of the most heavily regulated fields globally.



"Countries adopting nuclear energy must follow international standards set by the International Atomic Energy Agency, which provides safety reviews, peer missions and ongoing oversight to ensure plants are designed and run responsibly."

He said all energy sources carry their own risks, citing the health impacts and accidents associated with coal mining, as well as the explosion hazards faced by gas plants, among others.

"Nuclear accidents, while rare, leave lasting impressions such as those at Chernobyl or Fukushima.

"After Fukushima, Japan shut down all its reactors, but due to energy security and demand pressures, it restarted a number of them in recent years.

"This shows that even advanced economies still see nuclear as a necessary option."

Khoo said nuclear energy offered steady and reliable power while helping Malaysia reduce its dependence on fossil fuels.

"However, introducing nuclear energy is a long process, taking into account infrastructure, training a skilled workforce and setting up regulations.

"It may realistically take well

over a decade before the first plant becomes operational, depending on national priorities and how quickly decisions are made," he said.

Universiti Tenaga Nasional's Institute of Nuclear Energy director Dr Mohd Syukri Yahya said nuclear energy would help ensure Malaysian consumers and industries continue to enjoy affordable, stable and clean electricity into the future.

"It is less about a quick discount on your next bill, and more about guaranteeing that Malaysia's power stays affordable and reliable for the next generation."

He added that nuclear energy was a century-long investment with a multibillion-ringgit impact and enormous spillover benefits.

During the five to seven-year construction phase for nuclear power plants, he said each gigawatt (GW) of capacity would require between 5,000 and 10,000 workers across various trades and stages.

"Once operational, every GW supports around 1,000 permanent jobs for six decades or more, in operations, maintenance, safety and support functions.

"Even decommissioning creates thousands more jobs over the next decade or more."

Mohd Syukri added that

education and research fields would also produce benefits, noting that the country was facing a declining interest among students in science, technology, engineering and mathematics (STEM) fields.

"Nuclear energy also operates under the strictest global governance through the 3S (safety, security and safeguards) regime.

"This ensures reactors are designed, built, operated and monitored to the highest international standards, under the watchful eye of both national regulators and global institutions," he said.

Universiti Teknologi Malaysia's Dr Nor Ezzaty Ahmad said public trust and education must go hand in hand with policy development when it comes to nuclear energy adoption.

"Engage transparently, scientifically, and respectfully with all stakeholders.

"Knowledge transfer should be done strategically so that we are not too dependent on outside resources in the future.

"A good policy on nuclear waste management must be developed to ensure that the waste is managed properly and to ensure a safer environment," she said.