

Philippines: A sleeping power giant, Bataan Nuclear Power Plant explained

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Sen. Nancy Binay sought a “comprehensive study” on “what to do” with the almost four-decade-old mothballed Bataan Nuclear Power Plant (BNPP) during a Senate committee hearing last Oct. 13 on the proposed budget for 2021 of the Department of Energy (DOE).

In response, Energy Secretary Alfonso Cusi [told](#) the senators that nuclear experts [from Russian and South Korean](#) firms have submitted proposals in 2017, saying that the BNPP “[can still be revived](#).”

Binay voiced her concern that the government was wasting too much money on the upkeep of the idled nuclear power plant.

During the hearing, Sen. Sherwin Gatchalian, chairman of the committee on energy, [noted](#) that for the maintenance of the BNPP, the state-owned National Power Corp. (Napocor) proposed a 76.92 percent budget increase, from P52 million for 2020 to P92 million for 2021.

President Rodrigo Duterte has ordered a consultation with the residents of Bataan on the possible revival of the BNPP, [according](#) to Presidential Spokesperson Harry Roque in his [press briefing on Oct. 1](#) in the province.

In [Executive Order No. 116](#) signed on July 24, Duterte created an inter-agency committee tasked to “conduct a study for the adoption of a national position on a Nuclear Energy Program (NEP).” The panel was authorized, among others, “to evaluate and assess the need for and viability of introducing nuclear power” into the country’s [energy mix](#), including existing facilities but “not limited” to the BNPP.

The 11-member Nuclear Energy Program Inter-Agency Committee (NEP-IAC), with the Department of Energy (DOE) as lead agency, has been given six months or until January 2021 to present its initial reports to the Office of the President. Thereafter, NEP-IAC should submit its succeeding findings every six months.

The first and only nuclear power plant in the Philippines, the BNPP never operated due to [safety concerns and issues of corruption and cronyism](#) under the late dictator Ferdinand Marcos Sr.’s regime.

Here are three things you should know about the BNPP.

What is Bataan Nuclear Power Plant?

Four years after Marcos declared [Martial law](#), the construction of the 620-megawatt BNPP began [in 1976, in response](#) to [the 1970s energy crisis](#). This aimed to lower the country’s dependence on imported oil and develop an [alternative source](#) of electricity for the Luzon grid.

Initially priced at [US\\$500 million by](#) Westinghouse Electric Co. in a [“vague, undetailed bid for two nuclear plants,”](#) the cost had ballooned to US\$2.3 billion when it was finished in 1984.

Three years into building the BNPP, the project was temporarily halted in 1979 after a [nuclear accident in Three Mile Island, Pennsylvania](#), U.S.A. This prompted the Philippine government to [reexamine](#) the safety of its own nuclear plant, [creating a commission](#) in June 1979 to investigate the “dangers that may arise from the operation of the proposed nuclear power plant.” Marcos appointed then Justice Minister Ricardo Puno and former senator Lorenzo Tañada, an anti-nuclear activist, to co-chair the Commission on the Safety of the Bataan Nuclear Power Plant. After Tañada [declined](#) the appointment, Marcos designated Puno as head of the commission, with then retired justices Conrado Vasquez and Jose Bautista as members.

In a [report](#) submitted in November 1979, the Commission [said the nuclear power](#) plant had “inadequate safeguards and could be a potential hazard to the health and safety of the public.” It also cited many defects in construction and design, including unassured storage of nuclear waste.

Upon the invitation of Tañada, [Nuclear engineer Robert Pollard](#) from the Union of Concerned Scientists ([USC](#)) also submitted an affidavit to the Commission, saying that based on his study on the BNPP, the plant is [not safe and will not be inexpensive.](#)” He later spoke before the Rotary Club of Manila, repeating his claim.

Despite the recommendations of the three-man commission, Marcos still ordered the resumption of the construction of the gigantic infrastructure in [January 1981](#), with a renegotiated contract with Westinghouse — [supposedly incorporating](#) more than 100 regulatory safety requirements.

As [protests began to mount](#) against the BNPP, Marcos was ousted in the 1986 [People Power Revolution](#).

The BNPP [was mothballed by](#) then President Corazon “Cory” Aquino in November 1986 through [Executive Order 55](#), citing safety and economic reasons. This was seven months after the Soviet Union’s [Chernobyl nuclear power plant explosion](#).

The blast instantly [killed](#) two persons, while at least 28 others died from acute radiation exposure in the course of three months. In a [2005 joint news release](#), the United Nations and World Health Organization predicted more than [4,000 more deaths](#) from exposure to radiation.

In EO 55, Aquino [designated](#) the National Power Corp. as caretaker to oversee the “preservation, maintenance and security” of the BNPP until “final disposal and/or utilization of the plant” is decided.

The Philippine government [continues](#) to pay some P40 to 50 million a year for its maintenance. In 2011, [the BNPP](#) became [a tourist attraction](#).

What issues are hounding the mothballed power plant?

Marcos and his confidants [were reported to](#) have pocketed millions of dollars from the Westinghouse and Burns and Roe contract brokered by crony businessman [Herminio Disini](#).

[Disini was](#) one of [Marcos’ golf partners](#) and husband of Paciencia Escolin, a first cousin and personal physician of former First Lady Imelda Marcos.

The government awarded Westinghouse the BNPP contract [even without](#) a concrete document bid. General Electric, which was already in talks with Napocor before the former manufacturing

company came into picture, had a [cheaper counterpart offer](#). The budget for the power plant was [loaned](#) from the United States Export-Import Bank.

[Proofs](#) of [bribery](#) were discovered from financial documents of ill-gotten wealth after the Marcos family fled Malacañang at the height of the “people power” revolution in February 1986. Disini allegedly received millions in kickbacks from Westinghouse Electric Co.

The manufacturing company [argued that Disini received](#) a “legitimate sales commission.”

After the ouster of Marcos in 1986, the Philippine government pursued a case against Westinghouse and Burns and Roe for bribery and overpricing, but lost as a [United States court dismissed](#) the suit.

In 2013, the [Supreme Court affirmed that](#) the anti-graft court [Sandiganbayan has jurisdiction](#) to litigate cases against Disini on the Bataan plant. A year earlier, the Sandiganbayan declared as “ill-gotten” the US\$50.6 million “commission” Disini received from Westinghouse and Burns and Roe for brokering the BNPP deal, and ordered him to “reconvey” the amount to the Philippine government.

Nearly 32 years since the BNPP was completed, the Filipinos [finished paying the](#) loans and interests in 2007. The government [has paid a total](#) of P64.7 billion (P43.5 billion for principal amortization and P21.2 billion in interest) for the nuclear power plant that never generated a single watt of electricity.

For critics, the BNPP serves as a [“symbol” of Marcoses’](#) 20 years of corrupt rule.

Is it safe and economical to operate the Bataan Nuclear Power Plant at this time?

In 2017, the DOE invited experts from Korea and Russia to conduct a pre-feasibility study on the integrity of the BNPP infrastructure. Proposals submitted to rehabilitate the nuclear power plant would cost between US\$[1 billion for the Korean firm](#) — that will take up to four years — and US\$2 to US\$3 billion for the [Russian company](#).

During the Oct.13 Senate hearing, Cusi [said](#) that although the feasibility inquiries had been done, the Philippine government has yet to conduct a “concrete study” on the BNPP. He added that his agency will come up with a budget estimate, taking into account Binay’s proposal for a “comprehensive study” on the viability of the nuke plant.

In an interview with CNN’s The Source in 2018, Russian Ambassador Igor Khovaev said as far as he knows, the BNPP’s technology of the plant was [“absolutely outdated”](#) and international standards are now “much higher.”

Yet, according to Carlo Arcilla, director of the Philippine Nuclear Research Institute ([PNRI](#)), an agency under the Department of Science and Technology (DOST) mandated to undertake research and development on peaceful uses of nuclear tech, BNPP is [“younger,”](#) compared with other nuclear plants in America.

He said experts from Russian nuclear firm Rosatom State Atomic Energy Corporation told him that their Russian ambassador [“made a mistake”](#) in his remarks about the BNPP.

The Bataan plant has nuclear reactors with the same design in [South Korea, Slovenia, and Brazil](#) that are still running, [according](#) to Arcilla. The PNRI chief said the Korean experts assured him that they can revive the nuclear plant because they have an exact model in their country.

On fears of having another [Chernobyl accident](#), Arcilla said it was a [“Soviet design”](#) reactor unlike

the “western style” of BNPP.

“Lahat po ng nuclear plants na Western design...may takip. Ang tawag d’yan, containment structure. Kung sakaling may aksidente, ‘di kakalat. ‘Yung nandun pong dating Chernobyl, walang ganyan.”

(All nuclear power plants with Western design...have cover. It’s called containment structure. In case of accidents, [the radiation] will not spread. The old Chernobyl did not have that).

Source: ABS-CBN News YouTube, Bataan nuclear plant can still operate, says PH nuclear research body, Oct. 3, 2020. watch from 9:00 to 9:12

However, in the interview, it was also pointed out that the nuclear power plants with the same design in Korea, Slovenia, and Brazil were still operating since the beginning, compared with the BNPP, which was never used.

Another reason for stopping the operation of BNPP in 1986 was its [proximity to](#) Mt. Natib volcano.

However, the Philippine Institute of Volcanology and Seismology (Phivolcs) [said](#) the possibility of a volcanic eruption is low and that BNPP is situated on higher ground less likely to be affected by a tsunami similar to the [Fukushima meltdown in 2011](#). Phivolcs added that the Iba, Zambales fault is 60 kilometers away.

In an interview on UNTV in 2016, Phivolcs chief Renato Solidum [said](#) tests done on charcoal deposits have revealed that Mt. Natib’s last eruption was 27,000 years ago. Phivolcs [classifies](#) Mt. Natib as “potentially active,” which means [young-looking but with no historical or analytical records of eruption](#).”

However, the [nuclear waste](#) for the BNPP remains a problem, Filipino scientist [Fabian Dayrit](#), an academician of the National Academy of Science and Technology, [told](#) ANC Matters of Fact in an interview on Oct. 7.

Dayrit said nuclear energy “[“is not sustainable”](#) as it requires the importation of nuclear fuel. He added that after a nuclear power plant reaches its maximum lifespan of [40 years](#), the decommissioning and maintenance of nuclear waste “for many years” might be expensive.

Here’s a part of the interview:

“Q: So in the long term, this could cost us a lot more money, even if it can lower the price of electricity.

Dayrit: Well, that might be possible. You are sort of charging the cost of decommissioning to the future generations. That’s not really a good thing to leave to your children and grandchildren, they might pay for decommissioning and nuclear waste.”

Source: ABS-CBN News YouTube, No place for nuclear waste: Top Filipino scientist nixes nuke plant revival | ANC, Oct. 7, 2020. watch from 5:25 to 6:00

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