Seven (7) Reasons against the Revival of BNPP

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Executive Summary

The Bataan Nuclear Power Plant (BNPP) represents the flawed and wasteful programs and policies that have resulted in untold suffering, poverty, and environmental degradation. It symbolizes the people's resistance against administrations' practices of rent-seeking and cronyism across decades.

Today the proponents of House Bill 4631 are pushing for the immediate rehabilitation, commissioning and commercial operation of the BNPP to address an alleged energy crisis. Contrary to claims, reviving the mothballed Power Plant will put the larger public in great danger of nuclear and geological catastrophes, and will place undue burden to poor Filipinos and to our crisis-stricken economy.

Below are the seven major reasons culled from the position papers of the Panel of Resource Speakers during the hearing conducted by the Committee on Appropriations on the proposed BNPP revival last February 2, 2009:

1. The BNPP Bill lacks feasibility study. Safety concerns had led the Aquino government to mothball the BNPP in 1986, before it could start operations. After 22 years, these issues on safety remain unresolved. The state or the proponent of the bill had not done nor commissioned any recent technical, economic or financial feasibility study to justify the proposal to rehabilitate the BNPP. In effect, the bill's proponent wants Congress to authorize US$1 billion, equivalent to PhP 47 billion, to a project unsubstantiated by expert studies.

2. The BNPP is structurally defective and unsafe. The construction of the BNPP was attended by numerous irregularities among the contractors, especially on the part of the government, sacrificing safety, quality, and rigidness of methods and materials. None of those involved in the construction of the nuclear power plant could give an assurance that they complied with internationally acceptable standards. In fact, some of our fishermen in Morong were hired as welders during its construction without any briefing on safety and the hazards that their carelessness could result in.

Nuclear power plants, whose malfunction can cause some of the world's worst disasters can never be considered safe or reliable since in reality, accidents can never truly be discounted. The risks of accidents in a nuclear power plant are very prevalent and will come at very high financial and humanitarian costs, one such example is cancer as a result of exposure to nuclear radiation. A nuclear melt down, the ultimate risk of a nuclear power plant, creates immediate, serious repercussions to nearby communities, their water, and soil. The effects and rehabilitation usually last for decades.

Containment of nuclear wastes poses a grave danger to the public. Like at all reactors in the United States, the spent fuel would be kept in a pool of water beside the reactor, awaiting storage underground. A classified report by nuclear experts assembled by the U.S. National Academy of Sciences has challenged

the decision by federal regulators to allow commercial nuclear facilities to store large quantities of radioactive spent fuel in pools of water because they are very vulnerable to terrorist attacks. They are also very vulnerable to earthquakes and volcanic eruptions. The United States has failed to date to create permanent underground storage. Even if eventually sequestered underground, any leakage from it may not immediately be detected and the radioactive components may poison and kill living organisms for tens and hundreds of thousands of years.

Compounding the BNPP construction's noncompliance with major international safety standards and the dangerous nature of a nuclear power plant, to operate the BNPP would be to orchestrate a disaster.

3. The BNPP Site has an unacceptably high risk of serious damage from earthquakes, volcanism, or both. Geological studies and findings of Cabato et. al. conclude that plant's vicinity is filled with tectonic and volcanic activity that poses a great threat to the public's safety. The plant is in the vicinity of Manila Trench - Luzon Trough tectonic structures, and risks being at the epicenter of high magnitude earthquakes. The plant sits on Mt. Natib, a caldera- forming volcano with very powerful eruptions separated by long repose periods. If Natib erupts, pyroclastic flows could overwhelm Napot Point. Subic Bay, west of Mt. Natib, has faults that are actively roughly every 2,000 years, and the last activity was 3,000 years ago. Undersea faulting could generate large tsunamis that would overwhelm the nuclear plant, which is situated near the shoreline because its operation would require large amounts of cooling water. The Lubao Lineament, suspected to be a fault, may also extend under Mt. Natib. Should BNPP be rehabilitated, it will violate the IAEA Provisional Safety Standards Series no. 1 "Volcanoes and associated topics in relation to nuclear power plant siting." Reviving the BNPP without a resolution to these scientific concerns will put the larger public in grave danger of nuclear and geological catastrophes.

4. The BNPP is an unnecessary response to faulty power shortage projections. The government track record at projecting energy demand is highly questionable due to their flawed methodology. It has been proven in different studies that there is a huge disparity in projected and actual electricity demands, and between the forecasting done by government, and the calculation made by multi-sectoral agencies.

The disparity between actual and projected demand, data provided by the Department of Energy (DoE) for the period 1992-1993 clearly establishes the faulty projections made in the 1993 by Power Development Plan. Data also show that installed capacity and dependable capacity of generation plants had consistently been greater than demand for the period of 1990-2001, except in 1993 when the country was hit with El Niño that had crippled the hydroelectric plants in Mindanao. A comparison of DoE projections of demand growth for Western Visayas, and that of the Multi-Stakeholders Power Development Plan also shows the latter to be closer to actual demand.

Over-projecting demand has led to an overcapacity situation in the Philippine electricity sector for more than a decade now, and this has been proven to be as expensive – if not more – than a power shortage. As of April 2008, DoE data shows an excess generating capacity of 4,212 MW; this is the dead weight loss to the Filipino consumers, mostly households, who must pay for the excess capacity even if the plants are idle, thanks to the 'take or pay' clause in the contracts the Ramos government signed with the independent power producers (IPPs).

Meralco, as a major distributor of electricity in Luzon, sources its power from only three major power plants, namely Sta. Rita, San Lorenzo, and Quezon Power Plant Limited to service its consumers. Aside from these sources, there are a number of power plants from the total of 55 generation facilities operating in Luzon that could very easily meet base load requirements, or minimum demand for power given any time of day.

Moreover, the demand has to be recalibrated to factor in the effects of the unfolding domestic crisis and the current thrust of our service-sector driven economy. Only with the consideration for the current state of the economy, and the inclusion of the crisis indicators will forecasts be more accurate in measuring demand.

5. The BNPP would be costly to operate and accompanied by enormous hidden costs. Rehabilitation and construction costs historically and by experience of other countries exceed budget around 2-3 times the estimates. For operational costs, procurement of uranium fuel is not cost effective and is volatile to larger price hikes. Especially as the Philippines has no natural resource for uranium and only three countries are in control of 58% of its production, we will be subjecting the Filipino people to greater dependence on foreign fuel. Plant decommissioning approximately costs some US$300-450 million, as reported by the US Nuclear Regulatory Commission in 2004. Plants are not decommissioned until years after they have been shut down, and the costs will not be incurred until then. Waste storage is another problem. Even as the bill will indicate a certain amount for the storage of nuclear wastes, the long-term radio activity of nuclear wastes can outlive and outlast any facility constructed, and will defy any sort of economic planning.

The greatest cost of a nuclear facility is the possibility of a nuclear accident. A nuclear fall out results in the depletion of nutrients found in arable land and health defects to people exposed to radiation and their descendants. The cost of such an accident to lives and livelihood is immeasurable. The cost to public finance includes evacuation plans, relocation of communities, plant repairs, and rehabilitation of surroundings.

True Cost of Power Generators, in USD 2007[1]

Technology/ Power Generator	True Cost, USD 2007 (c/kWh)
Nuclear	18
Wind (on shore)	6.7
Solar (parabolic troughs)	12.8
Geothermal	8

6. The BNPP is a glaring testimony to the government's continuing wasteful debt policy at the expense of the peoples' welfare. The BNPP incurred a monster loan of US$ 2.3 billion and some US$ 640 million worth of interest payments, from an initial estimated cost of US$600 million in 1975. That the BNPP has yet to produce a single megawatt of power makes its debt fraudulent, wasteful, and useless. While the government's accounting books have already cleared the original BNPP debt, these methods of repayment have yet to be examined and successor loans of the BNPP have yet to be identified.

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1 Sovacool, B.K. and Cooper, C. Nuclear Nonsense: Why Nuclear Power is No Answer to Climate Change and the World's Post-Kyoto Energy Challenges. WM & Mary Environmental Law and Policy Review. Vol. 32:1. 2008

The bill has already indicated that US$ 1 billion is to be raised either by charging consumers an additional 10 centavos surcharge in electricity generation, or by incurring more debts. This is less of a choice than a matter of enslavement – that the people will have to pay either way because the priority of government has always been debt service over social welfare. This is better explained by over-crowded public schools, deteriorating quality of education, insufficient health services, low-cost housing that the poor cannot afford, grossly incomplete agrarian reform and inadequate support for agrarian reform beneficiaries, a steady state of joblessness to which the government's primary response it to send its citizens overseas – these are but a few of the manifestations of this mis-prioritization of debt service over addressing the needs of the poor.

The Filipino people continue to pay for the BNPP debts that an "Honor All Debts" policy has created. The people have suffered long enough by the costs created by the collusion of the financial institutions, cronies, and a few government officials. In reviving the BNPP, we exacerbate this injustice.

7. The BNPP is not an answer to Climate Crisis, nor an alternative to Renewable Energy. The claim that nuclear power plants will lessen emission of harmful gases into the atmosphere and will, thus, not exacerbate the process of climate change is false. Uranium mining, milling, leeching, plant construction, and decommissioning all produce substantial amounts greenhouse gases.

Even the International Atomic Energy Agency (IAEA) estimates say, inclusive of direct and indirect carbon emissions, wind and solar energy generators are 50 and seven times less intensive than nuclear plants, respectively. Every kWh of renewable power avoids the emission of more than one pound of CO2.

Nuclear energy distracts governments from taking the real global action necessary to tackle climate change and meet the people's energy needs. House Bill 4631 would be an outright contradiction of the vision and intent of the Renewable Energy Law that the same lawmakers from the same energy committee so enthusiastically supported and passed just last December.

CONCLUSION

Given the risks and hazards of the immediate restoration and operation of the Bataan Nuclear Power Plant, it is the constitutional obligation of our nation's lawmakers to protect the interests, safety, and well-being of the people. At the very least, that obligation should be exercised by heeding the calls of concerned civil society groups and individuals, and of the Bataan communities that continue to be haunted by the past and that will be most affected by this monstrous project.

The Panel of Resource Speakers who presented their positions during the hearing conducted by the Committee on Appropriations on the proposed BNPP revival last February 2, 2009 are:

Dr. Kelvin Rodolfo is an Adjunct Professor at the National Institute of Geological Sciences, UP-Diliman. He is also a Professor Emeritus at the Department of Earth and Environmental Sciences, University of Illinois at Chicago. He is also a DOST Balik Scientist. With Cabato and Siringan, he co-authored the paper entitled "History of sedimentary infilling and faulting in Subic Bay, Philippines revealed in high-resolution seismic reflections profiles" published in the Journal of Asian Earth Science vol. 25 in 2005.

Von Hernandez is the Executive Director of Greenpeace-Southeast Asia. Greenpeace has produced extensive studies on nuclear technology and alternative renewable energy resources.

Loretta Ann P. Rosales is a former Akbayan! party-list representative to the House of Representatives and is currently Vice President of the Freedom from Debt Coalition (FDC). She was one of the staunch oppositors of the BNPP at the height of the Marcos dictatorship. For more than two decades now, FDC continues to work on debt and development issues.

Engr. Roberto Verzola is a member of the Philippine Greens and one of the lead authors of "The Philippine Nuclear Power Plant: Plunder on a Large Scale" in the book Debts of Dishonor published by the Philippine Rural Reconstruction Movement in 1991.

The statement of the Association of Major Religious Superiors in the Philippines (AMRSP) was submitted to the Committee on Appropriations.