The Whale and the BNPP

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ON JANUARY 26, 2017

BANGKOK, Thailand: The design, construction, operation and management of nuclear reactors require a systems-centered, immensely powerful, authoritarian but inherently unstable technological approach. Langdon Winner made this argument in his opus, The Whale and the Reactor, published by the University of Chicago Press in 1986. A classic reading in the discipline of science, technology and society, or STS, Winner’s book constructs a nuclear power plant as a socio-technological artifact, blurring the social and the technological. In the Philippines, this concept carries weight in discourses surrounding the Bataan Nuclear Power Plant (BNPP)—a hot topic in 2016, and will presumably be so in 2017 and many more years to come.

Technologically, the BNPP is touted as a facility to provide a “reliable” source of energy necessary for powering the Philippine industrial base. Socially, BNPP weaves the conditions of both modern Philippine politics, and, tangentially, the nation’s memory of Marcos’ martial law.

The seamless integration between the social and the technological requires the creation and maintenance of a particular set of social conditions to bring BNPP online—and if successful, to operate its technical system. BNPP will, thus, always function and exert great influence on Filipino social values and norms. The facility will only fundamentally change the exercise of political power and eventually the experience of Filipino citizenship.

BNPP revives our collective memory of one of the world’s most corrupt leaders. A Marcos-era project financed by a syndicated international loan, the BNPP cost $2.3 billion (from the original $600 million cost). On account of zero energy produced, its amortizations are due until 2018. BNPP has been, and should always be, an object reminding the nation of Marcos and his power play, his and his family’s “edifice complex,” corruption, and folly. One solon’s suggestion to bury the dictator there will always make perfect sense.

If BNPP had been successfully put online in the time of Marcos, he could have had easily used it to project his centralized and authoritative power. According to Winner, authoritarian is one inherent, if not key, characteristic of any nuclear power plant. To be efficiently operated and maintained, a nuclear power plant needs some form of authoritarian management style.

Top-down control is essential for various reasons. Its size and complexity, both engineering and regulatory, is one.

Yet another is its cost. BNPP, before it will be commissioned, still has to be fully assessed for its structural integrity, including obviously for safety. Sited near a fault line, one wonders how the plant could pass this rigor in the first place. Such assessment, which has to be regularly done, entails costs. If commissioned, expense for imported fuel, disposal and storage of spent fuel, operation and maintenance, and decommissioning also need to be budgeted for. Add to that costs for training generations of highly technical people in its operations. Altogether, these expenses require a society with a significant amount of wealth—unless, of course, this government would again repeat what Marcos did: ask for a loan and pass on the burden of payments to future generations of Filipinos.

The need for extremely tight security precautions is another. For a power plant whose fuel commands attraction for terrorists, BNPP has to become a highly secretive facility.

Governments could also use BNPP to strengthen the military. BNPP could easily make the Philippines a nuclear arm powerhouse. The cases of India and Pakistan, which developed nuclear energy in the early 1970s, are instructive. More than 40 years later, both get less than 5 percent of their electricity from nuclear power, while each has amassed a cache of more than 100 nuclear warheads.

Following Winner’s, BNPP can have disparate effects on our social, economic, and cultural practices. Its features can provide a convenient means of establishing new patterns of social power and authority in Filipino polity. A multifarious technology with authoritarian tendencies, BNPP, and for that matter, any nuclear power plant envisaged in the Philippines, will always be attached to a socio-technological projection of centralized, if not authoritarian, power.
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