

## POWER to the PEOPLE

### Energy analyst Chuenchom Sangarasri Greacen is making the technocrats accountable for sloppy energy policy

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It is an area that involves everybody, but only very few understand, let alone are able to communicate it to the less informed. One of the few exceptional people who is able to do this is Chuenchom Sangarasri Greacen, and we Thai consumers as well as the many fighting against large-scale power development projects, have a lot to thank this lady for.



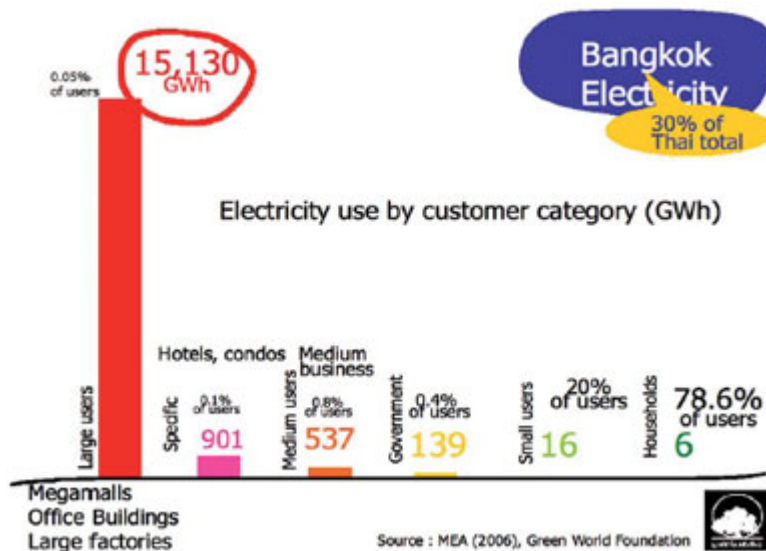
Why? For years, the field of national energy planning has been the exclusive realm of a tightly knitted group of technocrats. The majority of the Thai public simply accepts whatever figures and interpretations cited to them in the justifications for ever-rising electricity bills, the construction of huge power plants, the importation of more and more electricity from our neighbours, the privatisation of state enterprises in charge of energy supply, and last but not least, the introduction of nuclear energy. Due to a lack of information in such technically loaded terrain, most Thais feel the experts must be right, that their forecasts of the country's future demands for electricity must be unquestionably prophetic and in line with national interests.

But thanks to Chuenchom's quiet dedication, number crunching and critical reassessments of models presented by those in the corridors of power, an alternative picture of energy emerges. Perhaps, the energy analyst argues boldly, we might not have needed as many as 34 power plants than stipulated in the original Power Development Plan, or PDP, (2007 to 2021) had there been more transparency in the policy boardroom and more efficiency in energy management. (the total sum has later been scaled back in the PDP's revised version approved early this year) And why should nuclear reactors be a constant must-have in every scenario postulated in the PDP \_ regardless of forecasts of economic growth? Who has actually benefited from the historic two-minute sell-out of Petroleum Authority of Thailand (PTT) stocks

during the Thaksin regime? Who might have reaped another windfall had a similar scheme to privatise the Electricity Generating Authority of Thailand (Egat) not been halted by ! the Administrative Court (due in large parts to Chuenchom's well-researched analyses submitted as counter-evidence to the court)? Shall we, as Thai taxpayers, have to endure the reckless planning by energy czars that resulted in excessive power supply well beyond the standards of developed countries? (As of last year, the reserve margin was 29 percent, compared to the official target of 15 percent.)

Another aspect of Chuenchom's extensive campaigning has been the search for alternatives to mainstream energy issues. With her husband, Chris Greacen, the couple has set up a non-profit organisation, Palang Thai ([www.palangthai.org](http://www.palangthai.org)), which has been working on three core areas \_ monitoring energy policy, procuring small-scale hydro or solar powered energy supply to medical units and refugees' camps along the Thai-Burmese borders and supporting "Very Small Power Producers" (VSPP) drive in communities around Thailand.

For Chuenchom, the ultimate goal is to push for a transformation in power management that embraces "peace, environmental sustainability and social justice," she stressed.



However, her path has been far from rosy. Chuenchom laments how the Thai establishment continues to adopt a top-down approach to energy policy and planning. Moreover, she noted, they subscribe to the conventional notion that the more electricity generated, even when not needed, the more "secure" the future of the nation is.

"They are not aware that energy efficiency can bring about

[national] security as well. Instead, they believe that as a developing country, we have not yet attained the level of consumption that rich nations enjoy. So they keep

harping, 'Just build more and more power plants, there's no need to worry, for all the electricity will be finally spent anyway!'

"Little do these people realise how much electricity Thailand has been actually consuming. And in terms of the impact on climate change, we have already surpassed the world's average."

Chuenchom noted that Thailand ranks 21st in carbon emissions, at 344 million tonnes, but has the world's second highest annual growth rate of carbon-dioxide emission, estimated at 12 percent per year! (It should be noted that most of the energy generated is gobbled up by only a few users, namely, industrial factories, huge shopping complexes and office buildings \_ see graphic by the Green World Foundation.)

Besides, environmental concerns are a huge financial burden on Thai ratepayers, notably through an item on the electricity bill called "FT" (Fuel tariffs). In one of their papers, Chuenchom and her husband argue how the so-called "cost plus" structure has unwittingly provided a strong incentive for substantial over-investment in electricity generation: The government has set a fixed rate of return to be equal to a certain percentage of expenditures, which means that the more utilities spent, the more profits they are allowed to accrue. The superfluous power supply, especially after the financial crisis of 1997/98, together with the volatility of fossil fuel prices, have been conveniently absorbed by consumers who have had no say in how the national energy system should be managed.

After all, the ability to "play with" the figures might be due to the fact that there is a sort of revolving door game among Thailand's few decision-makers. In effect, an individual or his or her affiliates can sit on committees that both forecast future demands and design how many plants and what types of fuels are needed, as well as screen and approve projects. Such concentrations of power has indeed allowed little room for independent regulation and, one might even say, innovation of ideas that look at the future from broader and more inclusive and caring perspectives.

But Chuenchom is not the type to give up. A few acquaintances say they have been impressed by her tireless energy and optimism in trying to turn things around. Her solid research and back-up data, coupled with her straightforward but non-confrontational personality, has won her way around otherwise conflict-rife spheres, be they the closed-door meetings of energy planners or fierce public debates between proponents of mega projects and their opponents.

One even recalled a sight of Chuenchom boarding a train, strapped with her two toddler children, heading out into the villages in the Northeast or in the South to give talks to the rural folk about how national energy policies might affect their lives. "She once confided she felt a bit worried whether or not she could make some technical ideas clear and simple enough for the villagers to understand," said the friend.

Such a way of life is light years away from Chuenchom's former posting as a young hotshot government officer at the National Energy Policy and Planning Office (EPPO). An extremely bright woman \_ she was a former recipient of the much-coveted King's Scholarship \_ the thirty-something woman would have had little difficulty climbing up the hierarchical ladder had she stayed on the same track.

However, after four years at the EPPO, Chuenchom decided to quit the government job and started Palang Thai with her husband.

In retrospect, the first seed of self-transformation has probably been sown since her days studying environmental science in the United States. Chuenchom says the interdisciplinary curriculum, plus her exposure to different cultures and peoples, has taught her to see the inter-connectedness of everything, and that technology may not be the sole answer.

Despite the limitations of Thai bureaucracy, Chuenchom managed to push for change in her own small ways. One initiative she pursued with her colleagues during her tenure at EPPO was to facilitate the adoption of a programme to buy power from "very small-scale power producers", also known as "net metering" or "VSPP". Her husband, Chris, with help from a specialist friend, also stepped in to help draft the first versions of regulations in this emerging sector. Eventually, in May 2002, Thailand became the first developing country to issue a law allowing VSPPs, originally referring to those who produce no more than one-megawatt of renewable energy, to resell the electricity back to the national grid.

Again, Chuenchom added that her goals have always been to promote broader access and an alternative structure and approach in the field of energy \_ one that is more democratic, less centralised (it is estimated that about seventy percent of electricity can be lost during transmission through the national grid), allowing participation by consumers and villagers themselves. In December 2006, the government amended the 2002 regulation by increasing the ceiling threshold for potential sellers to under 10 megawatts. This has led to an explosion of renewable energy development in Thailand. The VSPPs have since been flourishing; as of June of this year, 1,265 very small power producers have proposed selling a combined 6,300 megawatts to the system.

It's not all perfect, however.

"Several large biomass power plants are having a considerable environmental impact and are facing community opposition," she noted. "Work needs to be done by project developers to involve local communities in the decision-making process from the beginning. Also, work needs to be done by policymakers to target environmental review requirements more precisely on power plants even if they squeeze under the current 10-megawatt threshold of environmental impact assessment requirements."

Chuenchom continues to explore new channels to influence policymakers. With funding from the US-based Blue Moon Foundation, last year the Palang Thai group organised a one-week "study trip" where they invited several key players in the energy field \_ four then-recently appointed Energy Commissioners, a handful of executives from electricity and natural gas utilities and National Energy Policy and Planning Office, Democrat parliamentarian Alongkorn Pollabut, and representatives from some NGOs and media \_ to visit the US states of Oregon and Washington.

Why the trip? According to Chuenchom, the Pacific Northwest region can offer so many invaluable lessons to Thailand both in regard to past mistakes and how citizens have since learned to make their state-wide energy management more sustainable,

democratic and efficient. It was also to be the very first overseas excursion for some members of Thailand's Energy Regulatory Commission upon taking their new positions since the relevant law went into effect last year, as well as a forum where they could interact with their counterparts from another country and with different sectors across the board.

For Sarinee Achavanantakul, Thammasat lecturer in business and finance and editor of OpenOnline, the study trip was eye-opening in that the US examples show how the concept of "energy efficiency" (EE) can become a viable and serious choice of investment on the same par as other conventional plans, and not an "afterthought" as has been the practice in Thailand.

"Whenever they make a plan about building a power generator, they try to include every possible cost into their accounting \_ construction expenditure as well as the cost of potential social and environmental impacts for current and future generations. Some choices might appear cheap now, but when taking the future costs of, say, the disposal of radioactive waste into consideration, they might become too expensive. On the other hand, what seems costly now, for example establishing solar- and wind-powered energy sources, might be in fact much cheaper in the long run.

"The bottom-up and decentralised approach also enables representatives from low-income sectors to take part in the decision-making process, to provide information on what low-powered housing is like."

Such an integrated resource planning process does not come out of a vacuum. Chuenchom said during the 1970s and 1980s, the state governments of Oregon and Washington were at a similar stage as Thailand is now: Planners had projected a tremendous rise in power demands and up to 27 nuclear reactors were thus slated for construction. The ambitious scheme fell in a spectacular flop, however, largely due to delays, drastic cost over-runs, and high interest rates. The electricity rates then skyrocketed by up to 500 percent; there was a severe drop in demand; and the failed projects prompted the largest bond default, at the time about \$2.25 billion, in US history.

In the end, only one nuclear plant was completed; four others in varying stages of completion were shut down or "mothballed" at a colossal cost to rate-payers in Washington and Oregon.

"The rate-payers in the region became extremely irate," described Chuenchom. "They staged protests and finally a law was passed which stipulated that from then on every energy policy must be the 'most integrated and cheapest' possible, and secondly, that energy efficiency must always be the first priority.

"Moreover, another law in Oregon dictates nuclear reactors will be built in the state only when the government can find permanent solutions to the waste issue (and even then, a citizen referendum is still needed to authorise the construction)."

Chuenchom and Sarinee recall seeing the gruesome rows of thick concrete pipes containing spent plutonium surrounded by armed around-the-clock security guards. For the "waste", if stolen, could be reprocessed ("enriched") and turned into deadly

atomic bombs that have similar, or even more destructive capacities than those that ravaged the cities of Hiroshima and Nagasaki at the end of World War II.

For Chuenchom, that is a telling scene. She said her past critiques of Thailand's energy management have come from the "left side of the brain", the use of arguments and technical reasoning, but when it comes to the nuclear issue, she wants to do a campaign warning the public of its danger from a mother's stance, appealing to common sense.

"As a mother, I want to be able to give my children the good things I have had the opportunity to enjoy. And I see nuclear energy as something that completely goes against the principles of peace, sustainability and justice that I believe in.

"It is a technology that is based on risk, can induce war and other violence, and block freedom of thoughts. It will leave behind a host of problems \_ such as radioactive waste \_ to the younger generations. I thus take it as my responsibility to ensure a safe and clean future for my children."

**Relate Search:** [Chuenchom Sangarasri Greacen](#), [Power Development Plan](#)