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MONITORED THIS ISSUE:

KOODANKULAM: CRACKDOWN ON ANTI- NUCLEAR ACTIVISTS & NGO'S

On February 29, within days of Prime Minister Manmohan Singh blaming foreign-funded NGOs for instigating anti-nuclear protests against the nuclear reactors in Koodankulam, the government booked four NGOs for alleged violation of the Foreign Contributions Regulations Act (FCRA) and froze their bank accounts. Early March, 77 NGO's were put on a 'watch list'. The State deported a 49-year old German national for 'reportedly helping the protestors' and cancelled visa from Fukushima residents.

(744.6238) WISE Amsterdam – The movement against at Koodankulam began in the late 1980's after the first rumors about possible construction of nuclear reactor in the most southern part of India.

Later the opposition united under the banner of People's Movement Against Nuclear Energy (PMANE), an umbrella organization in which various organizations of the people have joined together to fight the nuclear plant, and have organized dozens of demonstrations, meetings in practically every village in the area, cycle yatras, seminars against the project.

After having sought action against 12 NGOs in Tamil Nadu - apart from the four facing cases for alleged diversion of funds - another escalation of the Indian government's actions took place. On March 2, the Indian government has put 77 foreign NGOs on its global watch list, making it difficult for their officials to get visas to India. The home ministry put together the list based on information from intelligence agencies and the suspicious conduct of representatives of these NGOs in the past. Top government sources said the watch list had been circulated to all Indian missions

and posts with an advice to "monitor" visa requests from the NGOs - a euphemism for putting the applications through greater scrutiny that would lead to delays or rejection. Officials refused to name the NGOs, insisting this would have serious diplomatic repercussions. But it was confirmed that most were from the US and European Union.

Rather than respond to substantive issues of science and safety, the United Progressive Alliance (UPA, the ruling coalition) deployed its spin doctors to change the frame. It begins with the PM announcing to the media that India's nuclear program is being derailed by NGOs funded by the Americans. Next, an innocent and unsuspecting German tourist, Rainer Hermann Sonntag, is picked up from his budget hotel at midnight, and deported on suspicion that he was illegally diverting funds to the Koodankulam campaign. "If the behavior of our politicians was shameful, the total capitulation of our media to the police version was downright frightening", according to the independent journalist Nityanand Jayaraman. "If Hermann was guilty of illegally diverting funds to any campaign, why was the government in a hurry to deport him? The press-arti-

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cles are based on anonymous sources, and unproven allegations and replete with defamatory statements." In March an already issued visa for a Japanese woman from Fukushima, invited by Greenpeace for a speakers tour, was cancelled.

Meanwhile, the home ministry has blacklisted four NGOs, two of which are church-based non-profits, for violating Foreign Contributions Regulations Act (FCRA) rules. They are Tuticorin Multipurpose Social Service Society (TMSSS), Tuticorin Diocese Association (TDA), People's Education for Action and Community Empowerment and Good Vision Charitable Trust.

TMSSS and TDA received some money from US and Germany as aid. "But we have not funded the Koodankulam protests with this foreign aid. The government has frozen our bank accounts and is trying to terrorize us with motivated campaign against the church," says Father William Santhanam, spokesperson of the Tuticorin diocese.

From 2008-2010, Good Vision, the fourth NGO facing government action, received foreign funds through CARE India, UNDP and Oxfam for implementing post-tsunami relief work. But, according to the organisation's foreign contribution account the last monetary activity was two years ago. The director of Good Vision, Mano Thangaraj, is an active politician and like many people active in the People's Movement Against Nuclear Energy (PMANE). "This is nothing but a way of terrorising leaders of the anti-KKNPP movement," he said.

On March 5, a large group of 'eminent citizens' issued a statement on the harassment of anti-nuclear activists and the government's campaign of vilification of the sustained popular movement against the Koodankulam nuclear plant. Prime Minister Manmohan Singh has trivialized the movement, and the five months-long relay fast by thousands of people, by attributing it to 'the foreign hand', or Western non-governmental organizations, without citing even remotely credible evidence. "This is part of a growing, dangerous, tendency to de-legitimize dissent. If we reduce genuine differences and disagreements with official positions to mere plots of 'subversion' by 'the foreign hand', there can be no real engagement with ideas, and no democratic debate through which divergences can be reconciled. Absence of debate on nuclear safety,

itself a life-and-death matter, can only impoverish the public discourse and our democracy. The 'foreign hand' charge sounds especially bizarre because the government has staked all on installing foreign-origin reactors and tried to dilute the nuclear liability Act under foreign pressure."

Open letter PMANE

On February 28, the People's Movement Against Nuclear Energy published an open letter, saying that fisherfolks, farmers, shopkeepers, Dalit workers, beedi-rolling women and others near the southernmost tip of India, have been fighting against the Koodankulam nuclear power project since the late 1980s.

This Russian project was shelved right after the Soviet Union's collapse and taken up again in 1997. The Indian government and Russians have constructed two huge reactors of 1000 MW each without any consent of or consultation with the local people. We have just obtained the outdated Environmental Impact Assessment (EIA) report after 23 years of long and hard struggle. The Indian nuclear authorities have not shared any basic information about the project with the public. They do not give complete and truthful answers for our questions on the 'daily routine emissions' from these reactors, the amount and management of nuclear waste, fresh water needs, impact of the coolant water on our sea and seafood, decommissioning costs and effects, Russian liability and so forth. We are deeply disturbed by all this.

Our people watched the Fukushima accident of March 11, 2011 on TV at their homes and understood the magnitude and repercussions of a nuclear accident. Right after that on July 1, 2011, the KKNPP announced the 'hot run' of the first reactor that made so much noise and smoke. Furthermore, the authorities asked the people, in a mock drill notice, to cover their nose and mouth and run for their life in case of an emergency. As a result of all these, our people in Koodankulam and Idinthakarai villages made up their minds and took to the streets on their own on August 11, 2011. Then we all together decided to host a day-long hunger strike on August 16 at Idinthakarai and a three-day fast on August 17-19 at Koodankulam. On the 17th itself authorities invited us for talks and asked us to postpone our struggle to the first week of September because of the upcoming Hindu and Muslim festivals. In a few days' time,

the chief of the Department of Atomic Energy (DAE) announced that the first reactor would go critical in September 2011.

So we embarked upon an indefinite hunger strike on September 11, 2011 and our women blocked a state road on September 13 for a few hours when the state and central governments continued to ignore us. The state Chief Minister invited us for talks on September 21 and passed a cabinet resolution the next day asking the central government to halt all the work until the fears and concerns of the local people were allayed. We ended our hunger strike on the 22nd but went on another round of indefinite hunger strike from October 9 to 16 when the talks with the Indian Prime Minister failed. We laid siege in front of the KKNPP on October 13-16, 2011 when the KKNPP authorities did not halt work at the site as per the Tamil Nadu state cabinet resolution. We ended both the indefinite hunger strike and the siege on October 16 in order for our people to participate in the local body elections on the 17th. From October 18, 2011, we have been on a relay hunger strike continuously. We have been carrying out massive rallies, village campaigns, public meetings, seminars, conferences, and other demonstrations such as shaving our heads, cooking on the street, burning the models of the nuclear plants etc. The morale of the people is still very very high.

There is no foreign country or agency or money involved in this classic people's struggle to defend our right to life and livelihood. Our fishermen, farmers, workers and women make small voluntary donations in cash and kind to sustain our simple Gandhian struggle. Our needs are very few and expenses much less. We only provide safe drinking water to the hunger strikers and visitors. People from all over Tamil Nadu (and sometimes from other parts of India) come on their own arranging their own transportation. For our own occasional travel, we hire local taxis.

Instead of understanding the people's genuine feelings and fulfilling our demands, the government has foisted serious cases of 'sedition' and 'waging war on the Indian state' on the leaders of our movement. There are as many as 180-200 cases on us. There have been police harassment, intelligence officers' stalking, concocted news reports in the pro-government media, abuse of our family members, hate mail, death threats and even physical attack.

Although India is a democracy, our Delhi government has been keen on safeguarding the interests of the multinational corporations and pleasing some powerful countries such as the United States, Russia, France etc. The welfare of the 'ordinary citizens' of India does not figure on their list of priorities. The central government and the ruling Congress party stand by the secretive nuclear agreements they have made with all different countries and consider us as stumbling blocks on their road to development. The main opposition party, Bharatiya Janata Party (Hindu nationalist party) is interested in the nuclear weapons program and making India a superpower and hence loves everything nuclear. It is ironic that these two corrupt and communal forces join hands with each other against their own people. They bend backwards to please their American and other bosses but question our integrity and nationalist credentials.

Our leaders and the group of 15 women were physically attacked on January 31, 2012 at Tirunelveli by the Congress thugs and Hindutva Fascists when we had gone for talks with the central government expert team. Now the government cuts electricity supply so often and so indiscriminately in order to drive home the message that nuclear power plant is needed for additional power. They try to create resentment and opposition among the public against our anti-nuclear struggle.

To put it all in a nutshell, this is a classic David-Goliath fight between the 'ordinary citizens' of India and the powerful Indian government supported by the rich Indian capitalists, MNCs, imperial powers and the global nuclear mafia. They promise FDI, nuclear power, development, atom bombs, security and superpower status. We demand risk-free electricity, disease-free life, unpolluted natural resources, sustainable development and harmless future. They say the Russian nuclear power plants

are safe and can withstand earthquakes and tsunamis. But we worry about their side-effects and after-effects. They speak for their scientist friends and business partners and have their eyes on commissions and kickbacks. But we fight for our children and grandchildren, our progeny, our animals and birds, our land, water, sea, air and the skies.

Sources: Open Letter PMANE, 28 February 2012 / Nityanand Jayaraman at Tehelka.com, 29 February 2012 / Hindustan Times, 2 March 2012 / Indian Express, 29 February & 2 March 2012 / "The Anti-Koodankulam Struggle and the Money Issue", by S. P. Udayakumar, Ph.D. Coordinator, Struggle Committee People's Movement Against Nuclear Energy (PMANE). March 7, 2012

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RISING ANTINUCLEAR TIDE IN SOUTH KOREA

On March 10, antinuclear groups staged a rally in the capital of South Korea, Seoul, to voice opposition to nuclear power on the eve of the first anniversary of Fukushima. Over 5,000 people, including many young people and families with children, took part in the rally. The turnout was one of the biggest in recent memory for an antinuclear demonstration. The rally adopted a declaration demanding that the government abandon its policy to promote nuclear power.

(744.6239) WISE Amsterdam – South Korea operates 21 reactors and plans to build 13 more - seven of them under construction and six others planned - by 2024 to increase the nuclear share of the country's electricity production to 48.5 percent from 31.2 percent last year. But the scheme may face a strong headwind as surveys have shown a rising antinuclear tide among the public in the wake of the Fukushima accident.

In South Korea, before the Fukushima accident, a small number of environmental groups raised voices for abandoning nuclear power, but June last year the Joint Action for Nuclear-free Society, a coalition of about 40 civic organizations was formed. A growing number of civic activists, lawyers, professors and religious leaders have participated in the movement to seek alternatives to the government's plan to expand the nuclear capacity to meet an ever-increasing demand for electricity.

In a poll taken by the Korea Energy Economics Institute in 2009, about 42 percent of Koreans favored nuclear power and 38.8 percent remained neutral. But the corresponding figures fell to 16.9 percent and 23.8 percent in a survey conducted last August. The proportion of respondents who opposed it jumped to 59.3 percent from 19.2 percent over the cited period.

Less than half felt nuclear power was dangerous in 2009 but the figure climbed to 75.6 percent in 2011 after Fukushima. Confidence in the safety of local nuclear power stations weakened from 70.5 percent to 52.6 percent.

More than 70 percent were in favor of building more reactors in 2009 but the proportion shrank to 38 percent last year. Nearly 55 percent said they found no problem with a nuclear plant being built in the area near where they lived in 2009, but only 29.5 percent replied so in 2011.

Public sentiment against nuclear power was exacerbated particularly in the provinces of North Gyeongsang, South Gyeongsang and South Jeolla and the southeastern city of Busan, where most of the reactors in operation or planned are located.

Little swayed by the surge in the anti-nuclear tide, President Lee Myung-bak committed himself to carrying out the nuclear expansion plan in a recent news conference. Lee argued that for Korea, which "does not produce a drop of oil," there is no other option but nuclear power to meet the growing demand for electricity. He said abandoning nuclear energy would cause electricity rates to rise by as much as 40 percent.

Lee, who played a decisive role in gaining a US\$40 billion deal with the United Arab Emirates in 2009 to construct and operate four reactors, reiterated his pledge to make Korea one of the five major players in the global nuclear industry. Two years ago, his adminis-

tration announced a plan to export 80 reactors by 2030 to take a 20 percent share of the world market. Lee also said it would take at least three to four decades before renewable energy becomes economically viable.

His advocacy of nuclear power has drawn criticism from antinuclear activists. "He is leading the nation in the wrong direction to make us rely on nuclear power and thus burdened with its dangers forever," Kim Hye-jeong, an activist who works for the Korean Federation for Environmental Movement said: "Lee's nuclear policy is just anachronistic and turns a blind eye to the dominant public opinion."

The Joint Action for Nuclear-free Society also issued a statement asserting Lee was either misinformed or distorted

the facts to make his case for nuclear expansion. The group said Germany has not seen higher utility bills and has continued to export electricity even after shutting down eight reactors in 2011 as part of a plan to decommission all 17 reactors by 2022.

In support of the antinuclear campaign, Seoul Mayor Park Won-soon and heads of 45 small cities, counties and wards gathered in February to adopt a declaration pledging to go nuclear-free and turn to renewable energy. Park has pushed an initiative to cut energy consumption in the capital over the coming three years by the same amount that would make it possible to do away with a nuclear reactor.

The 'no to nuclear power' movement has recently taken on an increasing

political implication as liberal and progressive opposition parties are trying to publicize their stances in the run-up to the Seoul Nuclear Security Summit slated for March 26-27. Dozens of former and incumbent lawmakers from the main opposition Democratic United Party launched a group in February to push for the country's abolition of nuclear power and transformation toward renewable energy. The DUP leaders, who have opposed Seoul's hosting of the second nuclear summit initiated by U.S. President Barack Obama, are expected to include the group's demands in the list of the party's pledges for the April 11, parliamentary elections.

Sources: The Korea Herald, 6 March 2012 / Mainichi Daily News, 11 March 2012

POLAND: THE MIELNO REFERENDUM AND THE BATTLE FOR CHOCZEWO

Poland is struggling forwards to join the nuclear club – all of Poland? No, a small village on the coast...

When after the Chernobyl catastrophe in 1986, Poland decided to abandon its only ongoing nuclear power project near the hamlet of Zarnowiec, a vast majority of the population supported the decision. Since then, a five to ten meter high concrete ruin ran full of water and is now a paradise for fishers and a colony of gulls.

(744.6240) Greenpeace Central Europe - After the Fukushima catastrophe, the situation is decisively different. On 24 February, 2012, Prime Minister Donald Tusk confirmed after a meeting with his Minister for Economy Waldemar Pawlak and the Minister for Regional Development Elżbieta Bieńkowska that Poland is determined to continue the execution of its nuclear program.

Until two years ago, this program was prepared under exclusion of any public debate and prepared for Parliament by the nuclear physicist, Zarnowiec veteran, former CEO of state utility PGE and now vice-minister for nuclear energy Hana Trojanowska. Unfortunately for the Ministry, environmental NGO Greenpeace pointed out this program had to be submitted to a strategic environmental assessment (SEA). A 900 page report was prepared in a bit more than a month and published just after Christmas 2010 – the public was given three weeks to respond. After protests by several NGOs that three weeks was not acceptable under the Aarhus and Espoo Convention, the period was prolonged to three months. After pressure, also a transboundary consultation, as

prescribed by the EU SEA Directive and the Espoo Convention was prepared. Germany, Austria, Sweden, Finland, Denmark and later also Luxembourg joined the procedure and demanded under more public pressure also three months for submissions instead of the three weeks they were granted originally. Deadline 4 January 2012.

But the Polish public was still largely asleep on the issue. Until PGE announced in December 2011 its proposal for three potential sites for a new nuclear power station. In the original SEA documentation, 42 places were indicated, from which 5 had a priority. One of the sites published in December, however, was not among those: Ganski in the municipality of Mielno on the Western Polish Baltic coast. The people in this tourist area did not accept their sudden fate and in January sufficient signatures were collected for a local referendum that took place on 12 February 2012. Within a matter of two months, many of the inhabitants of Ganski had educated themselves on nuclear issues and decided they did not want PGE to come and ruin their landscape, put the population at risk and refuse to address issues like

nuclear waste or the look for alternative ways to produce energy. During a PGE presentation in the second preferred location of Choczewo, a few days before the referendum in Mielno, people from Ganski and Mielno took the floor to inform a growingly sceptical regional population and anti-nuclear activists from the nearby larger cities of Gdansk and Gdynia of the ways that PGE was trying to manipulate the population. The PGE representatives' attempts to explain the advantages of nuclear power for the region were booed away. The referendum in Mielno ended successfully with 94% of the population against the construction of any nuclear installation in the municipality.

Vice-minister Trojanowska reacted with the remark that the people had voted far too early, and that they did not know anything about nuclear power. She announced the start of a multi-million zloty nuclear propaganda campaign, financed by the Polish state, starting on the first of March. PGE, in the mean time, is preparing a tender for the construction of 3000 MW of nuclear on the location of Ganski, Choczewo or Zarnowiec. The locations of Choczewo and Ganski are

on the sea-coast, while the Zarnowiec has two possibilities – one on a reservoir, that has insufficient cooling water for 3000 MW of capacity, and one on the coast. Preferred bidders include Areva from France, Westinghouse / Toshiba from the US and GE / Hitachi from Japan.

So far, coordinated influence from PGE (over its power as advertiser) and the government have kept any critical sound about nuclear power out of the Polish media, whereas information from the few academics that started this push, mainly from the nuclear research centre in Swierc, is spread widely. The Mielno referendum and Choczewo public meeting started to bring some change in that, and when Greenpeace nuclear campaigner Jan Haverkamp applied for the position of CEO of PGE Nuclear Energy SA shortly after, some critical arguments also started appearing in the business press. On the question whether his application was a joke,

his response that he considers seriously to take the job and close down this wing of PGE, and that the plans from PGE to build a nuclear power station are the real joke, was widely quoted.

The transboundary public procedure for the nuclear energy programme delivered in the mean time over 60.000 submissions from Germany alone – many of them over an on-line tool from the Umweltinstitut in Munich and the BUND in Brandenburg. Because of the new site choice of Ganski, the final deadline for submissions in the transboundary procedure was 27 February 2012, and the Ministries of Environment and Economy in Poland now have to take all submissions from the past year “into due account”.

In that light, the recent remarks from Tusk confirm fears that Poland lacks the sincerity to do so. And the creativity and competence to look beyond large scale centralised electricity production

– the kind of thinking it is used to with its heavy dependence on coal. Poland is for the survival of the nuclear industry next to the UK and the Czech Republic (or rather, the CEZ Republic) one of the three front states in Europe, and because of its lack of experience, the easiest to manipulate.

The Mielno referendum and the Battle for Choczewo signal, however, a turning of tides of some kind. When these small starts of public opposition will spread further along the coast, there is a good chance that the bad economics of nuclear, combined with public resistance can turn Poland around and prevent another nuclear ruin on the Baltic shores.

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CHERNOBYL: 26 YEARS LATER; SHEEP RESTRICTIONS NORWAY AND UK

26 years have gone by since the Chernobyl disaster but Norway continues to suffer the effects of and be vulnerable to nuclear fallout. Animals have been feeding off Norwegian radioactive-laced vegetation following Chernobyl's reactor number four explosion on 26 April 1986. Worst affected were mountainous parts in the Midt-Norge region following the heavy rain showers. Meanwhile, in the UK a consultation is underway about lifting all post-Chernobyl sheep restrictions.

(744.6241) WISE Amsterdam - In Norway, major quantities of meat had to be destroyed in the years following Chernobyl, with subsequent generations of mushroom and grass-loving sheep having been measured for radioactivity and treated using a method called “foddering down” ever since. The process involves feeding the animals a controlled cesium-free diet, sometimes laced with a cesium binder (normally ferrocyanides of iron, also known as Prussian blue) six weeks prior to slaughtering.

At the time of the accident, the Norwegian Ministry of Agriculture expressed fears that as many as 100,000 sheep, which spend most of the summer on semi-wild mountainside or woodland pastures, may have to be treated for radioactivity because of a bumper mushroom crop. Since then, a total of 300,000 animals have had to be treated. (Of course, the contaminated mushrooms are to be avoided too)

Chernobyl has cost Norway over 650 million Norwegian Kroner (US\$115 mil-

lion, 87 million euro) so far, according to an estimate made in September 2009. Adding to the size of the bill are the annual costs of monitoring and treatment of crops and livestock for radioactivity. This has become an annual ritual in Norway since the accident. “The decrease in radioactive contamination is slower for each year that passes. Nobody could have predicted that this would take so long,” according to Astrid Liland, departmental head at the Norwegian Radiation Protection Authority.

Lately, reports have surfaced that some sheep in certain parts of Norway contain 4,000 Becquerel per kilo of meat, almost six times higher than recommended by Norwegian Radiation Protection Authority (NRPA) officials. The Norwegian Food Safety Authority's Magnar Grudt tells NRK, “It's way above the allowed limit for meat trading. 600 Becquerel per kilo is the maximum permitted for sheep.”

Levels have not changed for the past few years and other parts of Norway

also still feeling the Chernobyl effects. 14 of 23 municipalities in the county of Nord-Trøndelag currently contain animals that will have to undergo “foddering down” after the end of this year's grazing season in the autumn.

Food Safety Authority officials underline the meat then is perfectly eatable without risk to members of the public following this process, but Magnar Grudt exclaims, “We were given measuring equipment in 1987 and learnt how to use it. Nonetheless, we never thought we would still be measuring radioactivity in sheep today. It's unthinkable.”

UK: Lifting of restrictions

In the UK, the Food and Safety Agency (FSA) is currently holding a consultation process and seeking views on the proposal to remove all remaining controls on the movement of sheep from the restricted areas, based on the assessment that the risk to consumers from radioactivity in sheep resulting from the Chernobyl nuclear accident is now very low. All restrictions were lifted in

Northern Ireland in 2000 and Scotland in 2010.

The number of farms under restriction has reduced substantially over the years; out of the nearly 10,000 farms originally restricted across the UK only eight farms in Cumbria and 299 in North Wales remain (twenty-six years later) under full restrictions, although a number of these farms in North Wales are not currently active sheep farms. In addition, 28 farms in North Wales and one in Scotland have been released from formal controls but issued with Conditional Consents or Directions. These Conditional Consents or Directions have been issued on the basis of specific conditions pertaining to individual farms. The conditions are set on a case-by-case basis but, in general, they require that sheep are kept on clean pasture or clean feed for a period of time before they are sent for slaughter.

Unconditional Consents have been issued on 41 farms in England, seven in Wales and three in Scotland. These are farms that have met the criteria for derestriction and so have been removed from all formal controls and conditions,

either pending revocation of the Food & Environmental Protection Act (FEPA) order or because the legislation does not easily permit their removal from the FEPA order.

The Food and Safety Agency has reviewed the controls that remain on the relatively small number of farms, to consider if they are still required to protect food safety. As part of this review, the use of the current limit of 1,000 Bq/kg (so higher as in Norway) as a measure of risk has been considered. Using a fixed limit of contamination, in effect, considers that sheep above 1,000 Bq/kg are unsafe and sheep below that level are safe. However, recent international guidance published by the International Commission on Radiological Protection has reinforced the view that protection from radioactivity should consider the actual risk to individuals (measured as the effective dose) rather than purely relying on a fixed limit of contamination. Therefore, the Agency has carried out an updated risk assessment to consider the actual risk to consumers from eating sheep meat originating in the restricted areas.

These controls comply with European Council Directive 96/29/Euratom, which lays down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionizing radiation. Article 53 covers intervention in cases of lasting exposure. This states that where the Member States have identified a situation leading to lasting exposure resulting from the after effects of a radiological emergency, they shall put measures in place that are necessary for the exposure risk involved. This can include monitoring of exposure and implementing any appropriate interventions. However, Article 48 of Directive 96/29 specifies that such intervention shall be undertaken only if the reduction in detriment due to radiation is sufficient to justify the harm and costs, including social costs, of the intervention; and so the updated risk assessment has led to a review considering whether this is still the case.

Sources: The Foreigner (Norwegian news in English), 17 September 2009 & 21 February 2012 / UK Food and Safety Agency, 17 November 2011

GERMANY'S ENERGIEWENDE: REDEFINING THE RULES OF THE ENERGY GAME

German energy policy is increasingly being influenced by a diverse and growing group of renewable energy supporters. They pursue a transition towards an energy system predominantly based on renewable energy. After the Fukushima nuclear disaster, these actors became dominant in Germany's energy policy arena. Consequently, the Energiewende, as the transition has been coined, has been taken up as a broad societal challenge, pursued by parties across the political spectrum and actively supported by a large part of the German public.

(744.6242) Rick Bosman - These forces, the renewable energy supporters, have convinced the Merkel government to transform the nuclear and fossil-fuel dominated energy system into one based predominantly on renewable energy sources: the "Energiewende". Germany's nuclear sector has been the first victim, but pressure on the coal sector is growing as well. The German renewables advocacy coalition will likely be able to continue to use their clout to tilt the energy playing field in their favor. Their biggest challenge will be to convince neighboring countries of the merits of the Energiewende.

The German government's rapid decision to exit from nuclear power after the Fukushima disaster on 11 March 2011, raised eyebrows across the globe. It

was generally viewed as overly hasty. It means that Germany will be one of the few industrial countries to do entirely without nuclear power.

However, even before the Atomausstieg, in 2010 the German government had taken another momentous decision, namely to transform the German energy system from one based predominantly on nuclear and fossil fuels to one based primarily on renewables. This is called the Energiewende (Energy Transition). The Atomausstieg-decision should be seen in the context of the Energiewende. It is made possible by the successful growth of the renewable energy sector and the growing influence of its supporters. Understanding this context helps to make sense of the seemingly radical recent decisions and to be able

to anticipate Germany's future energy policy, with its potentially large impact on neighboring countries and the EU as a whole.

Energy Concept

The "Energiekonzept" (Energy Concept) which sets out the direction for the Energiewende was published in September 2010 (coinciding with the Merkel's government controversial decision to reverse Germany's first nuclear exit decided on in 2002). Its main goal is that: 'Germany should become one of the most energy efficient and environmentally friendly economies of the world'. Furthermore, 'with the Energiekonzept the federal government describes the way into the renewable energy era'.

This vision has been translated into binding goals for 2050 (cut back CO₂-emissions 80-95% compared to 1990, 60% of primary energy consumption and 80% of electricity consumption to be supplied by renewables and energy efficiency to be improved 2% per year). It also includes binding intermediate targets for 2020 (35% of electricity consumption from renewables), 2030 (50%) and 2040 (65%).

The German Ministry of Economic Affairs had asked a consortium of research institutes to make scenarios for the Energiekonzept which came out in August 2010. They focused on the economic effects of the Energiewende. In August 2011, the consortium updated the work to include the Atomausstieg.

Both scenarios project that the contribution of conventional power plants will decrease over time. Furthermore, it is presumed that renewables will gradually replace conventional sources and eventually become the dominant source of electricity. Existing conventional capacity is expected to be used more intensively in the short run, to fill the gap left in the wake of the nuclear exit. In the updated scenario more investment in coal-fired power plants than the capacity currently under construction is deemed unrealistic before 2020, while in the longer run coal with CCS could play a role, albeit a minor one. Contrary to coal, natural-gas-fired plants could see an increase from 2015 on, according to the most recent scenario. Hence, in this scenario it is presumed that natural gas will fill most of the gap left by the Atomausstieg. Nevertheless, Germany is expected to remain a net exporter of electricity until 2020.

The Environmental Ministry, too, had research carried out by a consortium of research institutes led by the German Aerospace Centre. This study, called The Leitstudie, deviates from Prognos' scenarios primarily in that the share of renewables increases faster and will be larger overall. The Leitstudie shows the role of natural gas as increasing only marginally. Both studies formed important input into the formulation of the Energiekonzept and the Energiewende.

Renewables Advocacy Coalition

So what makes German energy policy so much more "progressive" than in most other countries? The explanation lies in the success of an influential coalition of renewable energy supporters, who have managed to convince a majority of the public and the political

classes that an energy system based on decentralized, renewable energy sources is feasible and indeed in many ways beneficial to the environment as well as to the economy.

Environmental interest groups were the first to argue that renewables offer an environmentally and economically friendly alternative to conventional energy sources. They argue that if external costs are included, the deployment of renewable energies is cheaper than conventional forms of energy and leads to domestic innovation and employment. With the gradual development of renewable energy, industry associations such as the Bundesverband Solarwirtschaft, Bundesverband Wind Energie and the umbrella organization Bundesverband

Erneuerbare Energien came to play an increasingly important role in the policy-making process. Also the Verband Deutscher Maschinen- und Anlagenbau (German Engineering Federation), originally not a 'green' outfit, joined this coalition in 1997 when it realized that developing renewables would mean a lot of work for its members. In September 2011, Siemens, the German engineering giant, joined as well. After the Fukushima nuclear disaster it announced that it would pull out of the nuclear energy business: 'the chapter is closed', Siemens CEO Peter Löschersaid. The company will expand its renewable energy activities instead. The renewable industry associations argue that their sector employs a lot of people (370,000 in 2010) and has large potential for growth. In 2010 investments in renewables in Germany amounted to €26.6 billion. The associations therefore represent an increasingly important pillar of the German economy.

In addition to universities and research institutes, many of which are also involved in research into renewable energy, new agencies affiliated with the German government have been founded which support further development of renewable energy. For example, the Renewable Energies Agency, which is funded by the Ministries of the Environment and Agriculture and the renewables industry, argues that renewables lead to value creation for local communities, mostly because of avoided expenditures on fossil fuel imports. The Umwelt Bundes Amt, the executive branch of the German government regarding environmental law, also provides the government with advice

regarding energy issues. It provides scientific support for an energy supply fully based on renewables.

Together, these actors cover a broad range of German society and because of their growing importance and influence, a more decentralized energy system based predominantly on renewable energy sources is increasingly viewed as a viable alternative to the current centralized conventional energy system by the general public as well as amongst decision makers.

Within the government, the leading role in the Energiewende is played by the Ministry for the Environment, which is responsible for renewable energy and nuclear safety. Environment Minister Röttgen (CDU), for example, said: 'Due to the Energiewende, the conflict between ecology and economy has finally been resolved'. Also: 'In future, the energy supply will become more decentralized, structured around the middle class, and technologically more challenging than today. It will be better tuned towards the end user, more efficient and based on local value creation. 'The Ministry of Economics and Technology, responsible for energy efficiency, energy markets and infrastructure and headed by Minister Rösler (FDP) is somewhat reluctantly following the Environment Ministry's lead.

Harmonization

The strength of the renewables advocacy coalition may be gauged from the struggle that broke out at the end of 2009 over the Renewable Energy Sources Act (RESA or EEG – Erneuerbare Energien Gesetz), and in particular the support for solar power. The then newly installed Merkel government announced plans to revise support for solar energy, possibly introducing a cap on total installed capacity. Newly installed solar capacity had grown from 42 MW in 2000 to 3,800 MW in 2009 thanks to the RESA support. It then grew to 7,400 MW in 2010. As a result of the generous support, the RESA-Umlage (the premium end users have to pay on their energy bills to cover the costs of developing renewables) had been rising steadily – from 0.2 ct/kWh in 2000 to 3.530 ct/kWh in 2011 (about €10 per household per month). Conservative powers within the governing coalition wanted to limit these costs. Therefore, a thorough revision of the RESA instrument was put on the agenda.

In response, the German solar industry started a massive campaign. Solar

firms went on strike and advertisements were placed across the country to raise awareness about the planned cutbacks. Although the solar lobby had to concede some points, its campaign was largely successful. In a compromise reached in February 2011, it was decided to increase the frequency and extent of the "degressions", the periodic reduction of feed-in tariffs, but not to put a cap on installations. After new record installations in 2011 of 7,500 MW, renewed plans for a 1,000 MW cap were announced by Economics Minister Rösler. Again, the renewables coalition managed to avert a cap, although in a deal struck in mid-February by Rösler and Röttgen, cuts in feed-in tariffs of up to 30% were agreed upon.

Moreover the initially announced revision of the RESA, which would have led to fundamental changes in the principles of the support scheme - such as cancelling the preference of renewable electricity over conventional power on the grid - did not come through. Actually, with the draft RESA for 2012, which was agreed upon after the Fukushima disaster, the Merkel government reaffirmed the basic principles of German feed-in policy, namely continued preference for renewable energy sources, an obligation to connect all renewable electricity producers to the grid and paying them a favorable price per unit of electricity for a long time period, mostly around 20 years.

And that's not all. The renewables coalition also managed to persuade the German government to reject European harmonization of renewable energy support schemes, which some people were advocating. The coalition feared that harmonization would mean the end of the RESA- scheme. The German government agreed. 'EU-harmonization would be the end of our Energiekonzept, we could throw it in the paper bin', said Environment Minister Röttgen. That marked the end of the EU-harmonization debate.

More progressive

The renewables coalition could not succeed without broad political as well as public support. It should be noted that the Atomausstieg and the Energiekonzept, which was written into law, are the products of a conservative government. The opposition in Germany is even more "progressive" when it comes to the Energiewende. This implies that within German politics consensus exists on the general direction of energy policy. Economics Minister Rösler, one of the

most conservative forces on this dossier, confirms this: 'Our goal now is to exit from nuclear power faster than previously planned', he said. 'The pace is crucially dependent on how fast we can develop alternative sources of energy. The decision to exit from nuclear power was not satisfying in itself; we therefore initiated or changed 16 laws in order to also safeguard our entrance into renewable energies and ensure a reliable energy supply.'

The German public, too, agrees on the desirability of the Energiewende. A recent poll by TNS Infratest shows that the public broadly supports the Energiewende and is even willing to pay for it: 94% is in favor of an accelerated development of renewable energy and 80% thinks the costs, which currently amount to around €10 per household per month, are 'adequate' or even 'too low'.

Large groups of people are even willing to take to the streets over energy issues, e.g. to prevent nuclear waste transports or to protest the lowering of feed-in tariffs. Energy issues directly influence people's voting behavior. Extending the lifetimes of nuclear plants proved detrimental to the federal government's approval rates and especially after Fukushima led to defeats in state elections. Most noticeably, the populous and economically important state of Baden-Württemberg, which used to be a CDU stronghold, was lost to the Greens.

An important consequence of the development of renewable energy, which may not be sufficiently appreciated outside Germany, is that the RESA has stimulated many households, farmers and small businesses to become energy producers themselves. This means that an increasing number of private people take on an active role in the Energiewende. Fully over 50% of current installed renewable capacity is owned by private citizens or farmers, compared to less than 10% by the four largest utilities. In addition, many regions are taking steps to become "energy autonomous". This trend constitutes a fundamental change in the organization of the energy system.

Criticism

Clearly the Energiewende and the Atomausstieg also have their critics in Germany, but they are unlikely to be able to turn the tide. Hit hardest are the four large utilities operating in Germany, namely Eon, RWE, Vattenfall and EnBW.

These are still heavily dependent on nuclear and coal power and have trouble reaping benefits from a policy that favors decentralized renewable energy systems. It will require huge effort and investments by these companies, which serve close to 90% of the German market, to change their business models and become more active in the energy transition.

Some feel downright threatened by the Energiewende. For example, Jürgen Grossmann, CEO of RWE, commented on the record PV-installations in 2011 by saying that 'Photovoltaic power in Germany makes as much sense as growing pineapples in Alaska'. This comment is understandable from Grossmann's point of view. To make a profit on coal-fired and nuclear power plants, they need to run as much as possible, generally 80 - 95% of the time. However, with an increasing share of variable renewable energy, which has priority in the German grid, conventional power plants need to be operated more flexibly which results in a lower capacity factor and therefore lower returns.

Furthermore, solar PV generally produces energy at times of high demand, which used to be lucrative for utilities as energy prices were also high at these times. Because they have negligible running costs, wind and solar power push down electricity prices at the power exchanges. This means that every kW of wind and solar that is installed, worsens the business case for inflexible conventional power plants. From an end user perspective, however installing solar-PV makes perfect sense, because due to technological innovations and economies of scale, the costs of solar electricity are rapidly approaching the general consumer price level for electricity.

There are also critics who argue that the Energiewende will lead to much higher costs. Energy-intensive industries in particular are concerned. They depend largely on cheap and reliable baseload power and will have to find an alternative. Predictions are that energy prices will rise because of the Atomausstieg by as much as 20% by 2030, and that this will mostly affect energy-intensive industries, since a large part of their energy comes from bilateral contracts with nuclear power plant operators.

The renewable advocacy coalition concedes that in the short run, the price of energy will probably increase, but it points out that a distinction should be

made between the price and the real cost of energy. At this moment only part of the actual energy costs are included in the kWh-price born by consumers, the rest is passed on to the public in the form of environmental damage. When accounting for these costs, most renewable sources are already cheaper than conventional energy sources.

Furthermore, the renewables advocates argue that the costs of most conventional energy sources will probably go up in future, either through the need of increased safety measures in the case of nuclear power, or by the increasing challenges in extracting fossil fuels, whereas the costs of most renewable technologies will go down, as they still have large potential for innovation and cost reduction. Studies, such as the 'Energy Concept 2050 for Germany with an European and Global Perspective' by a consortium of seven renown research institutes, including the Fraunhofer Institute for Wind Energy and Energy System Technology, show that in the long run an energy system based fully on renewables is achievable and will in the end prove cheaper than continuing business as usual, even when the costs of grid expansion and electricity storage are included.

Dogmatic focus

Some critics point out that Germany still needs to import nuclear power sometimes, which they argue is hypocritical. But the renewable energy supporters counter that a dogmatic focus on national markets is outdated anyway. After all, France also regularly buys wind and solar power from Germany when conditions favor such purchases, for example, during the recent cold spell in Europe, when France's nuclear power plants could not produce enough electricity for the country's largely electric heating systems.

Then there are experts who say that the Atomausstieg and Energiewende pose technical risks to the electricity system. Grid operators and the Bundesnetzagentur, the German Federal Network Agency, warned of the possibility of black-outs and marked the winters of 2012 and 2013 as critical. Idle capacity has been made available and Austria has been found willing to provide reserve capacity, if necessary, to stabilize the German grid. With these measures in place and great efforts from the

Transmission System Operators (TSOs), the situation is 'manageable', according to the Bundesnetzagentur.

Finally, with regard to the Atomausstieg, defenders of nuclear power point out that it will make it more difficult for Germany to reach its CO₂-reduction targets. Prognos expects that emissions will go up by 30 to 50Mt CO₂ as a result of the Atomausstieg. However, it adds that these emissions fall under the European emission trading scheme (EU-ETS) and that higher emissions in Germany will lead to higher CO₂-prices (around 1 to 2 euro increase), which will then improve conditions for new investments in low-carbon technology. On this basis, Prognos concludes that the Atomausstieg will not lead to higher CO₂-emissions EU-wide. Whether this holds true depends largely on the proper functioning of the EU-ETS.

Redefining the rules

So what can we expect of future developments in Germany? The renewables advocacy coalition is still primarily focused on cementing the status of the RESA, as we saw before. But it is also taking other actions, for example, agitating against coal-fired power.

Most vocal on this front is BUND (Friends of the Earth Germany), which leads a campaign against construction of new coal-fired power plants under the slogan 'climate killer coal'. They say their actions have led to the prohibition or cancellation of sixteen coal fired power plants so far, of which eleven in the last three years.

The negative trend for coal-fired power is confirmed by the Prognos scenario studies mentioned earlier. The first scenario study in August 2010 showed new coal-fired power plants with a total capacity of around 14 GW planned and/or under construction. However, in the updated scenario published only one year later, they lowered their estimate for new coal fired power plants to less than 11 GW. They also said that investment in new coal-fired power plants are not likely before 2020.

The renewables coalition may also be expected to use their new-found power to redefine the rules of the energy game, increasingly tilting the playing field in favor of renewables. At this moment, the energy market is still configured in a

way that favors centralized conventional sources of energy. The renewables advocates may be expected to lobby for legislation to correct market failures in the current energy system, for example by putting a price tag on pollution. This would enhance the competitiveness of renewables compared to fossil fuels. Favorable planning procedures for renewable generation capacity and the necessary (grid) infrastructure are being pushed as well.

The largest question mark for the future is probably the international dimension of the Energiewende. The German renewables coalition is quite focused on domestic issues and policies. This carries risks in the increasingly integrated European energy market.

Instead of alienating their neighboring countries with unilateral decisions and fighting harmonization of support schemes, Germany and its powerful renewables advocacy coalition might do well to channel their power to aligning its European partners in the energy transition. Strengthening cross-border interconnections of the electricity grid could reduce the costs of the transition. In addition, increased cooperation will result in the opening up of markets for Germany's leading clean tech firms.

If on the other hand, Germany will not be able to convince its neighboring countries of the merits of the Energiewende, the tensions and inefficiencies in the European market would greatly intensify, even to the extent that they could put the success of the Energiewende at risk.

Source and contact: Rick Bosman, first published in 'European Energy Review', (www.europeanenergyreview.eu), 27 February 2012.

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One year Fukushima: people demand end to nuclear power! In the weekend of 10-11 March, one year after Fukushima, hundreds of thousands of people took to the street to demonstrate against nuclear power. In Japan, many thousands demanded the abolition of nuclear power; 16,000 in Fukushima, 14,000 in Tokyo and 15,000 in Osaka were the largest demonstrations. In Germany a total of 50,000 people took part in 6 demonstrations; in the UK the largest antinuclear action in over three decades took place near Hinkley Point, where 1,000 people surrounded the nuclear power station and blocked it for 24-hours. In Switzerland 8,000 people demanded the immediate closure of nuclear power plants. In Hong Kong (China), Taipeh (Taiwan), Seoul (South Korea) and many places in North and South America, demonstrations or other actions were held too. By far the largest demonstration was right in the 'heart of the nuclear beast': in France. Demonstrators in the Rhone valley formed a human chain that stretched for 230 kilometers between Lyon and Avignon. About 60,000 people participated. This is an enormous success and one of the largest antinuclear demonstrations ever in France. This highlights a shift in public opinion and in a few weeks time presidential elections will be held with one of the two main candidates sceptical about the future importance of nuclear power in France.

The Rhone valley has Europe's highest concentration of nuclear reactors and other nuclear facilities. France's 58 nuclear reactors generate about 75 percent of the country's electricity, making it the world's most nuclear-dependent nation.

Mühleberg: Time to go. One of the world's oldest nuclear power plants in operation is Mühleberg in the Swiss canton of Bern. A boiling water reactor bought from General Electric and first put into operation in 1972, Mühleberg is aimed at by the Swiss antinuclear movement because of cracks in the vessel around the heart of the reactor. The Würgassen NPP in Germany and Millstone I in the USA were shut down because of the same problem. So when the Swiss Federal Department of Energy gave an unlimited operating license to the Mühlebergs' legal owners (BKW) in 2009, this was seen as a provocation. Neighbors of Mühleberg gathered to attack the decision in court. The city of Geneva, historically antinuclear, as well as other smaller towns gave in all 120,000 fr (100,000 euros) to finance the cost of the appeal. And finally, on March 8, the Federal Administrative Tribunal released its decision: BKW must shut down Mühleberg by end of June 2013, unless a plan to fix the numerous faults is presented and accepted. Previously, the Swiss Federal Nuclear Safety Institute released a guarantee stating Mühleberg posed no security threat. The courts' decisions gives a strong blow to this Institute, regularly criticized for its partiality in favor of the nuclear industry. After being at first very surprised by this decision, one can with hindsight acknowledge that the federal court simply took a fresh new look at nuclear safety, new since Fukushima: In Japan too, security authorities told the government that Fukushima Daiichi would resist foreseeable major natural catastrophes...

Five days after the judgment, 8000 demonstrators gathered in front of the old power plant of Mühleberg. BKW has until April 8 to decide whether they will attack the decision in the countries' highest court.

(Update: On March 14, BKW appealed the court ruling on Mühleberg)

Philippe de Rougemont, Sortir du nucléaire Suisse romande, 14 March 2012

DPRK: agreement on suspension of enrichment. North Korea (Democratic People's Republic of Korea) has agreed to implement a moratorium on long-range missile launches, nuclear tests and nuclear activities at Yongbyon, including uranium enrichment activities. The DPRK has also agreed to the return of IAEA inspectors to verify and monitor the moratorium on uranium enrichment activities at Yongbyon and confirm the disablement of the 5-MW reactor and associated facilities. In return, the US has agreed to meet with the DPRK to finalize administrative details necessary to move forward with the proposed package of 240,000 metric tons of nutritional assistance "along with the intensive monitoring required for the delivery of such assistance." This was announced on February 29, after the U.S. delegation returned from Beijing following a third exploratory round of U.S.-DPRK bilateral talks.

Press statement, US Department of State, 29 February 2012.

The mysterious flash near South Africa in 1979. A new paper written by Leonard Weiss, reviews the history of the September 22, 1979 double flash recorded by the VELA satellite and concludes that the flash was an Israeli nuclear test assisted by South Africa. The paper also relates a personal experience of the author in 1981 while working in the U.S. Senate that reinforces the conclusion. The paper calls for the declassification and release of documents that could remove any lingering uncertainty regarding the event. One of the likely reasons that the U.S. government is withholding the declassification of relevant documents is to assist Israel to maintain its policy of opacity in nuclear affairs, a policy which had its origin in a bargain made with the U.S. during the Nixon presidency, and whose abandonment accompanied by the admission that Israel violated the Limited Test Ban Treaty would create some uncomfortable political fallout for both countries. It is hard to argue that helping Israel in this way contributes to U.S. national security at a time when the U.S. demands openness in the nuclear activities of Iran, North Korea, Syria, and all other countries who may be engaged in clandestine weapon-related nuclear activities.

The Iraq war has shown the harm that can result from the politicization of intelligence in order to support a desired policy outcome whose support by the public would otherwise be problematic. In the case of the VELA event, U.S. administrations on both sides of the political fence have sought to ignore or demote the value of legitimately collected and analysed intelligence information in order to reduce or eliminate pressure to take an action with unpredictable or negative political repercussions. Obfuscating or denigrating hard intelligence data in order to avoid a political problem can be as dangerous to national security and democracy as inventing bogus intelligence in order to smooth the way into a war.

The paper 'Israel's 1979 Nuclear Test and the U.S. Government's Attempt to Cover It Up', is available at: <http://armscontrolcenter.org/IsraeliTestPDF.pdf>

WISE/NIRS NUCLEAR MONITOR

The Nuclear Information & Resource Service was founded in 1978 and is based in Washington, US. The World Information Service on Energy was set up in the same year and houses in Amsterdam, Netherlands. NIRS and WISE Amsterdam joined forces in 2000, creating a worldwide network of information and resource centers for citizens and environmental organizations concerned about nuclear power, radioactive waste, radiation, and sustainable energy issues.

The WISE/NIRS Nuclear Monitor publishes international information in English 20 times a year. A Spanish translation of this newsletter is available on the WISE Amsterdam website (www.antenna.nl/wise/esp). A Russian version is published by WISE Russia and a Ukrainian version is published by WISE Ukraine. The WISE/NIRS Nuclear Monitor can be obtained both on paper and in an email version (pdf format). Old issues are (after two months) available through the WISE Amsterdam homepage: www.antenna.nl/wise.

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