INDONESIA CASE STUDY

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As of Megawati Sukarnoputri's ascension to the presidency of Indonesia in mid-2001, the process of reform in the electric power sector had not progressed far. A brief spurt of reform-oriented activity in the aftermath of the 1997-98 Asian financial crisis lost momentum as the country failed to regain economic and political stability. Nevertheless, the Indonesian experience usefully illuminates constraints on the inclusion of environmental objectives and other elements of the public benefits agenda in power sector reform, as well as limitations on the leadership of international donor agencies in this arena.

Background

The Electric Power Sector in Indonesia

As in many other countries, the contours of the electric power sector in Indonesia have been shaped in part by the country's history, geography, and natural resource endowment. Although there had been private commercial production of electricity during the Dutch colonial period and briefly following independence in 1945, the national government has taken the lead role in the development and administration of the electric power sector in Indonesia for the last half-century (Suhud, 2000). The National Electric Power Company (*Perusahaan Umum Lisktrik Negara*, hereafter PLN) was established in 1950, and has taken a lead role in the rapid development of the sector (GOI, 1998). By the 1990s, PLN was one of the largest such companies in the world, with some 22 million customers and more than 50,000 employees (Suhud, 2000).

Indonesia's archipelagic geography poses particular problems for electrification, and precludes a single unified grid. Three-quarters of PLN's total installed capacity of 20.5 GW is concentrated in the Java-Bali system. The remaining 5.3 GW of PLN's capacity are distributed among 12 electrification regions outside Java and Bali. Currently, all transmission and distribution networks are owned and operated by PLN. More than 70 percent of the transmission network and about half of the distribution network is concentrated in Java.

PLN's installed capacity represents only 58 percent of Indonesia's total, however, with most of the rest captive power for the manufacturing industry. Captive power has been installed mainly by facilities without easy access to PLN's distribution grid (almost half is outside Java and Bali), or to provide back-up for PLN's unreliable service (Kristov, 1995). Approximately 60 percent of captive power capacity is estimated to come from diesel generators, and about a quarter from co-generation plants.

In PLN's Java-Bali system, which has been the focus of restructuring efforts and thus is the focus of this chapter, gas and coal are the dominant sources of electricity. Gas combined cycle generation and coal-fired steam constituted about 6 and 6.5 GW, respectively, or about 85 percent of the total, in 1998. Gas and coal are expected to continue to be the main sources of electricity in the Java-Bali system, as large hydropower projects are believed to have reached peak energy production (PLN, 1998).

Electricity development in Indonesia has experienced extraordinarily high growth rates over the last twenty years. PLN's installed capacity grew at a rate of 15 percent per year between 1982 and 1989 (Pape, 1999), and overall growth continued at 10 percent per year between 1990 and 1998 (PLN, 2000). Even during the financial crisis in 1998 (described below) when the economy experienced negative growth of 15 percent, growth in the power sector continued at four percent per year. In light of Indonesia's 55 percent electrification rate (80 percent on Java and Bali; 20 percent on other islands), there is still considerable room for continued growth. Indeed, the Indonesian government projects demand to increase by 8.9 percent per year between 2000 and 2010 in Java and Bali, and 10 percent per year outside Java and Bali (Ministry of Energy and Mineral Resources, 2000).

In addition to being an important driver and reflection of Indonesia's economic development, the power sector also plays significant social and political roles. Provision of electricity at low uniform rates to consumers throughout the archipelago has symbolized a commitment to social equity within and between islands. As in other countries, populist sentiment has proven a political constraint on raising electricity tariffs. Maintenance of low uniform rates has required cross subsidies within the power sector as well as between the power sector and the national budget, which have not been transparent. Box X summarizes the recent history of electricity reform in Indonesia.

The Special Relationship with the World Bank

The World Bank's involvement in the power sector in the 1980s was emblematic of the Bank's special relationship with the Government of Indonesia during that period.[1] The oil crisis in the 1970s had focused the Government's attention on the need for structural reform in the sector – which was based on provincial oil-fired steam plants and diesel-based self-generation – in order to release those fuels to the lucrative export market.[2] World Bank staff worked closely with technocrats in the government to pursue a joint long-term agenda of investment and reform to integrate the system and expand capacity based on coal and hydropower. This collaboration was characterized by one Bank official as a "model relationship with a borrower" in the context of a "golden age at the dawn of Indonesian reform".[3]

In the 1980s, Indonesia was the Bank's largest borrower in the power sector, and by mid-1989 the Bank had financed 18 projects in the sector (World Bank, 1996). As a complement to this large loan portfolio, the Bank also produced analytical reports (so-

[1] For a description of how Indonesia was the "jewel in the Bank's operational crown" in that era, see Kapur, Lewis, and Webb, 1997.
[2] Not for attribution interview, June 21, 2000.
[3] Not for attribution interview, June 21, 2000.

called “Economic and Sector Work”, or ESW) on the Indonesian power sector at an unusually high rate averaging one per year from 1981 to 1988 (World Bank, 1989).

The Bank’s ability to exercise influence through the persuasiveness of its analysis and its partnership with the technocrats was demonstrated in 1987 when a power struggle came to a head inside the Government of Indonesia over whether or not to invest in nuclear power. Future President Habibie, then Minister of Research and Technology, was the main proponent of the nuclear option. His case was bolstered by a parade of Western heads of state who visited Jakarta peddling agreements on technical cooperation designed to generate business for Western corporations. While these governments and corporations and their partners in the Indonesian nuclear agency produced massive studies in favor of nuclear power, opponents in the Ministry of Finance were able to prevail by utilizing a modest analysis by the World Bank showing the high cost of nuclear compared to coal.[4]

Many of the issues that would arise in the context of power sector restructuring in the late 1990s were foreshadowed in the Bank’s lending and policy dialogue with the Government of Indonesia in the 1980s. Most importantly, the joint agenda of the Bank and the technocrats focused on the corporatization of PLN. A 1989 Power Sector Institutional Development Review recommended that in order to meet the demand for rapid expansion, PLN should pursue a strategy of “deregulation, decentralization, and competition” in order to move “from bureaucracy to enterprise” (World Bank, 1989). The impetus for these restructuring prescriptions was the need to attract private capital to finance the growth in generation capacity necessary to meet soaring demand for electricity (interview with World Bank official, July 10, 2000). Box 4.1 provides a chronology of power restructuring in Indonesia during this period.

Box 4.1. Chronology of Efforts to Restructure Indonesia’s Power Sector	
1985	New Electricity Law passed
1989	World Bank sector review recommends introduction of competition and possible eventual privatization
1990	President Suharto approves first Independent Power Producer (IPP) project
1992	Implementing regulations for 1985 law promulgated as Presidential Decree No. 37, which encouraged private participation in the sector and corporatized the national power company (PLN)
1994 – 1997	25 additional IPP projects signed
1997	Asian financial crisis sweeps Indonesia, bankrupting PLN
January 1998	World Bank announces end to lending in the sector due to disapproval of IPP developments
May 1998	Civil unrest – in part driven by tariff increases – forces President Suharto to step down
August 1998	Habibie government announces power sector restructuring policy, issuing the “White Paper” following a workshop with donors
March 1999	Asian Development Bank announces $400 million in loans to support Indonesia’s power sector restructuring program
October 1999	Indonesia’s first democratic elections replace Habibie with Abdurrahman

[4] A World Bank official described the relative heft of the competing studies as “three big elephants versus a little mule” (not for attribution interview, June 21, 2000).

	Wahid
February 2000	Controversy erupts in the Parliament and in the press over proposed tariff increases
August 2001	Adburrahman Wahid is replaced by Megawati Sukarnoputri
October 2001	Parliament passes new oil and gas law

The 1989 sector review suggested the possibility of breaking up PLN into smaller units that might eventually be candidates for privatization later on. In addition, the report suggested that the Government of Indonesia consider creating an environment in which private power producers could compete with PLN. The report was prescient, however, in cautioning that while privately owned power plants were a potentially attractive option, "their economic advantages for Indonesia cannot be taken for granted and need to be evaluated with care" (World Bank, 1989).

The Era of Independent Power Producers

Finance of the Paiton Thermal Power Project in 1989 marked the beginning of the end of the World Bank's special relationship with the Indonesian Government in the power sector, in large part because it coincided with the advent of Indonesia's experiment with private participation in the sector. While the project itself was satisfactorily completed in 1995, two issues arose during its implementation that would strain cooperation to its limits in the late 1990s. First was the issue of corruption, which appears between the lines of the project's Implementation Completion Report prepared by the World Bank:

> It is interesting to note that, for contracts awarded through competitive bidding, the actual costs were slightly less than the estimated costs for all contracts, whereas for contracts awarded through direct negotiation, such as in the case of bilateral cofinancing, the actual costs came out to be significantly higher than the estimated costs (World Bank, 1996).

Second was the issue of excess generating capacity on Java, a prospective problem that would be exacerbated by whole generation of independent power projects initiated in the early 1990s.

The door had been opened to private sector participation in electricity generation by a law passed in 1985. However, the law only came into effect when the necessary accompanying regulations were promulgated through Presidential Decree No. 37 in 1992, which encouraged the participation of private enterprises in electricity generation, transmission, and distribution. The Decree also changed PLN's status from a public utility to a public company, marking the corporatization of PLN. The Decree was based on a GOI policy paper, "Goals and Policies for the Development of the Electric Power Subsector", which laid out a restructuring agenda that would transform the state-led monopoly into an entirely competitive but regulated, multi-buyer/multi-seller system. An unfortunate feature of the Decree was that it opened the door to unsolicited proposals for the private production of electricity (interview with World Bank official, July 10, 2000).

A study commissioned from Norplan A/S in 1993 provided an institutional framework for restructuring, which included unbundling of the generation, transmission, and distribution functions of PLN (Norplan A/S, 1993). At the time, the privatization of electricity generation was opposed by the head of PLN's research division, who argued that privately-supplied electricity would be almost 50 percent higher than PLN's costs due to equity return requirements and interest rates (Sudja, 1993). However, a later study found that if all hidden subsidies were taken into account, PLN's true generation costs would increase by 46 percent (Kristov, 1995).

Even prior to the 1992 Decree's enactment, however, in 1990 then-President Suharto had agreed to develop another coal-fired power plant at the Paiton site as the first private power project in Indonesia, which was soon followed by another. Because the new plants reached financial closure before the World Bank-supported plant at the site began operations, and were financed under "take-or-pay" contracts, PLN would be forced to utilize their capacity in preference to power from the first plant, thereby undermining the economics of the Bank's investment (World Bank, 1996). The World Bank and an advisor from USAID had counseled the GOI to "start small" in its experimentation with private power production to reduce risk. Future President Habibie, however, wanted to "start big", and – in contrast to the fate of his nuclear ambitions in the 1980s -- got his way with the two plants at the Paiton site. Again, his case was aided by the commercial interests of donor governments: U.S. President Clinton's visit to Indonesia in late 1994 for the APEC meeting put pressure on both governments to have deals ready for his signature. Clearly, the influence of the World Bank and its technocratic allies in the government had been eclipsed by other actors.

During the period 1994-1997, 25 more power-purchase agreements (PPAs) were issued and signed with independent power producers (IPPs). The majority of these agreements were based on unsolicited, non-transparent bidding processes, and resulted in overpriced, dollar-pegged, take-or-pay conditions that greatly favored project investors. Box 4.1 details the Philippines not dissimilar experiences with IPPs and take-or-pay contracts. The number and location of these projects were driven by the interests of private developers, who often had close connections to the President's family and cronies. Many were also linked with North American, European, and Japanese corporations that were in turn backed by bilateral export credit and guarantee agencies.[5] The level of corruption seen in these deals has been characterized as "staggering" (Fried, 2000).

The PPAs for new installed capacity did not reflect PLN's long-term plans for development of generation and transmission capacity. Indeed, many of the new plants would produce unneeded power, sometimes far from existing transmission lines. The World Bank had first expressed concerns about the "looming problem" of excess capacity in late 1993, even before the surge of unneeded PPAs. Bank officials subsequently

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[5] Ironically, even as World Bank officials in Jakarta were trying to discourage the frenzy of PPAs, the World Bank Group's Multilateral Investment and Guarantee Agency (MIGA) was helping to facilitate them, providing a $15 million guarantee for U.S.-based Enron Corporation's participation in a power plant project. When the Indonesian government decided to suspend the project in 2000, Enron demanded compensation, resulting in a pay-out by MIGA (FOE, 2001).

Box 4.2 IPPs, Stranded Debt and Electricity Reform in the Philippines

During 1992-93 the Philippines sustained power outages and brownouts that resulted from weaknesses in power project planning and implementation by the Government of the Philippines (GOP) and its National Power Corporation (Napocor). In response to this crisis the Ramos administration negotiated build-own-operate or build-own-transfer contracts between Napocor and independent power producers (IPPs) that would permit quick expansion of power generation capacity and improve the reliability and quality of electricity supply.

These contracts were bundled with long-term power purchase agreements (PPAs) on terms very favorable to the IPPs. The agreements required Napocor to purchase minimum amounts of electricity generated by IPPs (known as a take-or-pay contract) and were denominated in foreign currency. The contracts themselves also included mandatory buy-back clauses should the government fail to honor its take or pay contracts. During this period the Asian Development Bank, the World Bank, and the Japan Export-Import Bank (now the Japan Bank for International Cooperation) were providing technical assistance to the GOP to undertake comprehensive power sector reforms. These lending institutions welcomed the entry of IPPs. They believed their entry was consistent with their policy advise that included creating space for the entry of the private sector, introducing market competition, and unbundling the sector into separate generation, transmission and distribution functions.

Even before the Asian financial crisis in 1997 a number of problems were evident with IPP contracts. The electricity prices Napocor agreed to pay under the PPAs were nearly twice the cost of power from Napocor-owned and operated plants (1.86 Pesos per Kwh versus 0.99 per Kwh). As IPPs increased their share in the power generation mix (from 25% in 1995 to 40% in 1997) this exerted upward pressure on electricity tariffs, already the second highest in Asia after Japan. The PPAs were inherently uneconomical because they were set high above Napocor's cost of power and what the market would bear in a competitive environment.

In addition, BOT and BOO contracts, basically payments for the power plants built by the IPPs, entered Napocor's books as long-term debt in the form of lease obligations. This worsened Napocor's already high debt to equity ratio from 0.62 in 1995 to 0.81 in 1997. During 1995-1997 Napocor's long-term debt increased 169.9%. Most of this increase was driven by the rise in obligations to IPPs. The debt taken on to pay the IPP contracts, however, had shorter maturities (5-8 years) relative to the debt held as concesssional loans or bond issues (11 years). Finally, Napocor could only write off depreciation charges for the IPP power plants over the expected life of these assets (20 years), but it was obligated to pay lease obligations to IPPs over a much shorter time frame.

The onset of the Asian Financial crisis plunged Napocor into a deeper financial crisis. The devaluation of the Philippine peso worsened Napocor's debt burden. Its revenues and domestic cash flow were denominated in pesos, but its obligations under the PPAs were set in foreign denominated currency. As a consequence, Napocor's operating losses ballooned to 5.9 billion pesos by 1999 as the institution tried to service debt obligations and cover its take or pay contracts. Relief was provided by multilateral and export credit institutions ($300 million from the Asian Development Bank, and $400 million each from the World Bank and Japan's Bank for Internatioal Cooperation). But the release of tranches of these financial packages was conditioned on the passage of legislation that would privatize Napocor, vertically unbundle the electricity sector into competitive or regulated electricity markets, and eliminate cross-subsidies among consumer groups, and improvements in Napocor's financial performance.

The question of what institutions or economic groups would assume responsibility for Napocor's stranded debts under the proposed reforms created widespread political controversy in 1999 and 2000. Domestic constituencies critiqued the GOP's proposed solution contained in legislation under consideration before the Philippine congress: imposition of a universal levy on electricity consumers. The private buyers of Napocor's debts would not assume any of its existing liabilities, and there were no provisions for renegotiation of IPP contracts. The PPAs were to be transferred to buyers of Napocor's generating assets, but the government would cover the cost differential between the price to be paid under the PPAs, and the market price of power. This burden would also be transferred to electricity consumers in the proposed levy.

These controversies and the political crisis generated by the impeachment of President Estrada in 2000 stalled the passage of the reform legislation championed by international donors. Napocor was caught between donors and domestic constituencies on this issue. The election of Gloria Macapagal-Arroyo in May 2001 and a renewed effort by Arroyo's government to build a domestic constituency for the passage of reform legislation (built through a stakeholder consultation process supported by the USAID mission in the Philippines) broke the deadlock. In June 2001 the Philippine Senate and House of Representatives passed the Electric Industry Reform Act (EIRA) that preserved the original reform program supported by donors but that included some key concessions to domestic constituencies, including a 5% peso cut in electricity tariffs for the poorest populations and recognition that PPAs would need to be renegotiated.

Sources: Asian Development Bank. November 1998. "Report and Recommendation of the President to the Board of Directors on a Proposed Loan and Technical Assistance Grants to the Republic of the Philippines for the Power Restructuring Program. Report No. RRP: PHI 31216; Deidre Sheehan. June 14, 2001. "The Price of Power." Far Eastern Economic Review; Winrock International. 2001. Renewable Energy State of Industry Reports No. 1 and 2. May and August; Denis T. Carpio. 199?. "Power Industry Restructuring in the Philippines: Issues and Altenative Solutions. Conference paper. 17th Congress of the World Energy Council; USAID. No date. Philippines Activity Data Sheet; Lira Dalangin. May 26, 2001. "Filipinos to pay P619 yearly for Napocor debt: Work group." Posted on www.inq7.net/brk/2001/may/26/brkpol_8-1.html.; Susanne Wong. No date. "An Overview of ADB's Support for Energy Sector Reform." Briefing Paper 10. International Rivers Network.

"raised this issue repeatedly at high levels of authority in its continuing policy dialogue with GOI" (World Bank, 1996), including forceful representations by the Country Director in mid-1994.[6] In November of that year, the Bank sent a strongly worded letter warning of the prospective $8 billion dollar cost ("a staggering figure") that PLN would incur over the next ten years from excess capacity. Bringing down the excess capacity reserve margin – one of the highest in the world -- was made a condition of the Second Power Transmission and Distribution Project in 1996 (World Bank, 1996).

Financial Crisis and Political Change

In mid-1997, the Asian financial crisis swept through Indonesia. The Indonesian currency, the Rupiah, lost 80 percent of its value in only four months. Prices soared, capital fled the country, factories closed, and some 50 million people fell below the poverty line, joining the 30 million people already there. Indonesia, which unlike many developing countries had until 1997 escaped the discipline of externally-imposed stabilization and structural adjustment programs, was forced to request a bail-out package organized by the International Monetary Fund (IMF) in September.

[6] Information in this and the three subsequent paragraphs is based on a not for attribution interview, July 10, 2000.

The financial crisis caused chaos among the government agencies, private developers and financiers, and international financial institutions involved in the Indonesian power sector. PLN was plunging into bankruptcy. The value of revenues in Rupiah declined even as dollar-denominated debts, take-or-pay contracts, and spare-parts prices soared. Projects that had been of questionable viability even before the crisis became even less defensible in light of a crashing economy and currency. Between July and December, a flurry of communications regarding projects in various stages of development ricocheted among the President's office, the Ministry of Mines and Energy, PLN, the World Bank, and the IMF.

Of particular concern was alleged corruption associated with the proposed Tanjung Jati C power plant, an IPP project linked to President Suharto's daughter. In a November 1997 letter to the Ministry of Mines and Energy, the World Bank's Country Director suggested that the project be reconsidered. After the signing of the deal was announced in December, the Country Director informed the Ministry in January that there would be no new loans to PLN. The "special relationship" between the World Bank and the Indonesian power sector had definitively come to an end.

Soon the economic crisis led to political crisis as well. By March and April, 1998, riots and protests were spreading. Some of the protests were sparked by price increases mandated by the IMF. Tens of thousands of students took to the streets, eventually taking over the Parliament building. Ultimately, President Suharto stepped down in May, and was replaced by his vice president, Habibie.

Reformasi in the Power Sector

Historically, major changes in Indonesia's trade and industrial policy have been linked o major political and economic crises (Pangestu, 1996). In mid-1998, it appeared that the political and economic events of the preceding months had set the stage for restructuring of the power sector. *Reformasi total* was the slogan on everyone's lips, and it appeared that radical changes in the way the country was governed were in progress. Restructuring of the power sector appeared inevitable, as PLN's financial viability had been destroyed by the combination of the economic crisis and the accumulation of ill-considered PPAs. Suddenly, the unbundling agenda laid out in the 1993 Norplan A/S report gained momentum, largely due to the need to privatize as many PLN components as possible to generate cash and staunch financial hemorrhage.

IMF Conditionality and Kuntoro's Leadership

The power sector in particular was a focus for reform for both the government and the international donor community in responding to the economic crisis. In a series of Letters in Intent and supporting documents, the government made commitments to the IMF that included: establishing the legal and regulatory framework to create a competitive electricity market; restructuring of the organization of PLN; adjustment of electricity tariffs; and rationalizing power purchases from PPAs (GOI, 19xx).

Ironically, even though Habibie-promoted nuclear and IPP schemes had been antithetical to the World Bank's agenda in the power sector, as President, Habibie created conditions favorable to reform. Kuntoro Mangkusubroto, the Minister of Mines and Energy, was one among "as good a crop of ministers as you could hope for", according to one World Bank official.[7] Kuntoro quickly set about fulfilling Indonesia's commitments to the IMF to reform the electricity and oil and gas sectors. He commissioned independent audits of PLN and Pertamina, the national oil company, and pushed for the formulation and passage of new legislation to govern each sector.

Kuntoro himself took a personal interest in the design of power sector reforms and building constituencies for them. He is said to have carefully corrected and commented on five drafts of a "White Paper" that laid out the content of the proposed reforms (interview with ADB official, July 13, 2000). While the White Paper was under development, Kuntoro had periodic breakfast meetings with key stakeholders in the power sector. These included government officials, businesspeople, and non-governmental activists. Despite the exclusive appearance of by-invitation breakfasts with the Minister, these meetings were among the first attempts to open up participation in power sector decision-making. The so-called "breakfast club" evolved into a formal organization – the Indonesian Electricity Society – to serve as a forum for exchange between the Minister and stakeholder representatives.

In August, the Minister convened a major workshop at which the draft White Paper was discussed by representatives of various government and donor agencies. The White Paper was then released to the public, and was later cited in a subsequent Letter of Intent to the IMF as the basis for the government's power sector restructuring policy (GOI, 2000?).

Content of the Proposed Reform

The August 1998 White Paper articulated four objectives for power sector restructuring: the restoration of financial viability, competition, transparency, and more efficient private sector participation. The six areas targeted for reform are: industry restructuring and unbundling; introduction of competition; tariff-setting, cost recovery, and removal of subsidies; rationalization and expansion of private sector participation; redefinition of the government's role; and strengthening of the legal and regulatory framework (GOI, 1998).

The restructuring agenda put forth in the White Paper aims to separate the commercial, social, and regulatory functions of PLN. In the restructured sector, electricity producers would operate commercially and be financially independent of the government. Social functions would be continued by the government, which would provide transparent subsidies to poor regions and customers from a Social Electricity Development Fund. Regulatory roles would be played by a new, autonomous agency distinct from the Minister of Mines and Energy to be established under a new Electricity Law, to be enacted by 1999.

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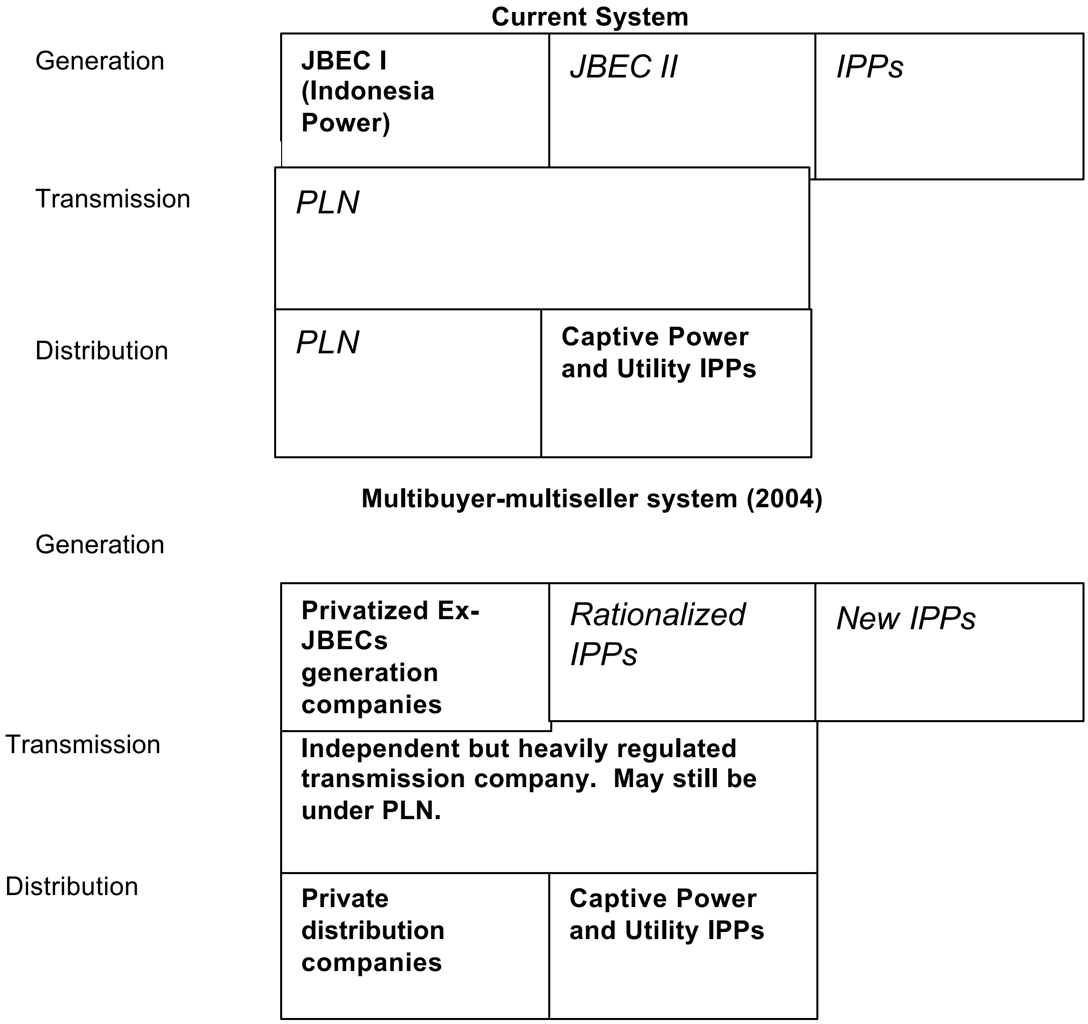
[7] Not for attribution interview, July 10, 2000.

According to the 1998 plan, the independent regulatory body, an independent transmission company, and an independent regional company would begin operation in 2000, while subsidies were gradually removed. Generation and distribution companies would operate under the supervision of the JBECs. A PLN Services company would be the only remaining component of the former monopoly. It was expected that in 2001-2002, independent generation and distribution companies would begin to emerge, while the ones controlled by JBEC would either be privatized or enter into direct competition with the IPPs. It was expected that a complete multiple buyer/multiple seller system would emerge by 2003, as all generation and distribution companies would be independent, and JBEC privatized. Figure 4.1 compares the system in 1998 to the one envisioned for 2003.

Figure 4.1:
Evolution of the Jawa-Bali Electricity System



Many of the details of the restructuring process were to be treated separately in three additional documents (GOI, 1998). A tariff code, with the status of a Presidential Decree, would establish tariff structures and subsidy mechanisms. A Ministerial-level planning and competitive tendering code would detail planning arrangements and procedures for bidding on generation and transmission projects. Finally, a Ministerial-level grid code would govern operation of power transmission, scheduling, and dispatch. The fate of much of the public benefits agenda would reside in these documents, which were being written by donor-funded consultants (interview, ADB official, July 13, 2000).

The Role of International Donor Agencies

International donor agencies played important roles in the power sector reform process. The 1997-98 financial crisis transformed the World Bank's overall relationship with the Government of Indonesia. Instead of a large portfolio of project lending in various sectors, the Bank now focused on a policy reform agenda leveraged through a series of Policy Reform Support Loans coordinated with the conditionalities of the IMF bail-out package. Among the conditionalities prepared by World Bank staff were those related to the power sector. The World Bank was a key participant in a flurry of activities focused on power sector reform in mid-1998. In July, the Bank drafted the White Paper mapping out the restructuring plan championed by Minister Kuntoro, and according to an international consultant involved in the process, was primarily responsible for the "public benefits" content that it contained.[8]

The Asian Development Bank (ADB) also played an increasingly important role. At the time of the August 1998 workshop, an ADB mission was in Jakarta to begin preparation of a power sector loan. Indeed, according to an ADB official, the Bank had forced the production of the White Paper as a condition for assistance (interview, July13, 2000). In March of 1999, the ADB's board approved a $380 million loan to support the government's restructuring agenda, and an additional $20 million technical assistance loan for "capacity-building to establish a competitive electricity market" (ADB website, March 1999). Co-financing in the amount of $400 million was arranged from the Japanese Export-Import Bank.

The ADB and the World Bank worked out an informal division of labor in the power sector: ADB took the lead on sectoral restructuring issues, while the World Bank focused on PLN corporate and financial restructuring. Thus the ADB would support technical assistance for development of the draft law, the tariff, procurement, and grid codes, as well as development of a new regulatory body.

One of the objectives of ADB support was to build public acceptance of the electricity price increases that would be necessary to restore PLN's financial viability, while protecting the interests of consumers (ibid). Toward this agenda, the ADB loan supported the convening of a multi-stakeholder Working Group on Restructuring, which brought together non-governmental organizations, industry lobbyists, and government officials.

[8] Not for attribution interview, July 13, 2000.

The United States Agency for International Development (USAID) played an interesting role in Indonesia's power sector restructuring process. Over the last decade, USAID has financed a series of experts to advice the Indonesian government on power sector issues. In 1990, the USAID-funded advisor based in Jakarta had joined the World Bank in cautioning the Indonesian government against its headlong rush into private participation in electricity production with the two large Paiton projects (interview with World Bank official, July 10, 2000). The expert's advice was reportedly an irritant to the U.S. Ambassador, as it conflicted with the Embassy's agenda of promoting U.S. commercial interests in the sector (ibid).

A conflict of interest within the U.S. Government regarding IPPs arose again after the financial crisis, when the government of Indonesia canceled a PPA for a geothermal energy plant with California Energy. California Energy's investment had been guaranteed by the U.S. Overseas Private Investment Corporation (OPIC), and after the company went to arbitration and won, OPIC had to pay out $300 million [check], which the Government of Indonesia then had to reimburse. As soon as the case entered arbitration, USAID had to withdraw an advisor providing legal advice to the government on how to deal with the IPP issue (interview with USAID officials, July 12, 2000). According to USAID officials in Jakarta, although PLN officials requested further assistance to help them deal with the issue, USAID had to say no.

USAID has otherwise been active in power sector restructuring debates, and participated in the August 1998 workshop that finalized the White Paper. According to USAID staff in Jakarta, USAID has been the main voice among donors raising environmental concerns, in particular championing a grid code that would include renewable energy sources without penalty (interview, July 12, 2000). USAID has also been a major funder of Indonesian NGOs such as the Indonesian Consumers Union, and has encouraged them to speak out in the power sector restructuring process (ibid).

The Process Stalls

With the power sector restructuring White Paper and donor assistance in place, reform was expected to progress quickly. In a March 1999 Letter of Intent, the government articulated its expectation that a new Electricity Law would be finished and passed by December 1999 (IMF, 1999). However, a series of factors conspired to stall the process.

First, there is some indication that key officials in the Indonesian government chose to prioritize reform of the oil and gas sector. While the oil and gas sector and the electric power sector were inextricably linked through distorted pricing of fuels, the former was seen as more difficult to reform due to the higher financial stakes (interview with World Bank official, November 15, 2000). In addition, PLN was seen as more prepared for restructuring than the national oil company (Pertamina), so priority attention was given to the latter (ibid; interview with ADB official, July13, 2000).

Then in October 1999, the first democratically-elected People's Consultative Assembly was convened, and selected Abudurrahman Wahid as President. When a new cabinet was formed, Kuntoro lost his position as Minister of Mines and Energy. The new government expressed its intention to proceed with power sector reform, and in January 2000 agreed to speed up the restructuring of a number of state-owned corporations, including PLN (GOI, 2000). But after Kuntoro's departure, little progress was achieved. According to an international consultant, the new leadership in the Ministry was not supportive of the restructuring agenda (interview, July 13, 2000), while many PLN employees had resented Kuntoro's leadership on the issue (interview with USAID officials, July 12, 2000).

The most significant stumbling block was the difficulty of the government in raising electricity tariffs, which in May 1999 were still above PLN's production costs (IMF, 1999). Within the Ministry, key officials responsible for drafting the new Electricity Law harbored doubts about proposed tariff increases. According to an international consultant, the May 1997 riots "didn't do much to encourage people in government to make hard decisions" (interview, July 13, 2000). Proposed tariff increases would later prove controversial when the draft law was submitted to the Parliament, and was opposed by students, and the left-wing Peoples Democratic Party (Suara Pembaruan, March 2, 2000).

In February 2000, a national controversy erupted when a group of NGOs was reported to have supported a proposed 55 percent increase as part of a package discussed in the ADB-supported Working Group. The NGOs were excoriated in the press, described as being "biased against the people" (Suara Pembaruan, February 9, 2000), and even accused of taking bribes (interview interviews with NGO leaders, July 11 and 13, 2000). In March, Kuntoro, who by then had been appointed President of PLN, was the target of student protests against electricity price increases (Rakyat Merdeka, March 25, 2000).

Industry associations also took the opportunity oppose electricity price increases. The Indonesian Textile Association, though not an energy-intensive industry, threatened that increased tariffs would cause lay-offs. Their lobbying efforts directed at the Ministry of Trade and Industry, the Ministry of Labor, and President Wahid were soon followed by similar special pleading from the Chamber of Commerce, the Indonesian Railway Company, and the hotel industry (BI, SP, R, and BI, 2000).

Another obstacle to the reform process was the difficulty faced by PLN in negotiating payment terms with the IPPs (GOI, 2000). Yet another was the distraction of controversy over President Wahid's leadership, which eventually led to his replacement by Megawati Sukarnoputri in August 2001. As of late 2001, the Parliament had failed to schedule hearings on the Draft Electricity Law.

[insert table with chronology of reform process]

The Public Benefits Agenda

The public benefits agenda -- specifically concerns regarding social equity, environmental protection, and good governance – received uneven attention in the design of Indonesia's power sector restructuring process.

Concern about Social Equity

Indonesia's power sector restructuring agenda has focused almost exclusively on Java and Bali. The August 1998 White Paper justifies this focus, suggesting that the Java-Bali electricity system is sufficiently mature for commercialization, while the smaller, more isolated systems on other islands, characterized by higher costs and lower electrification rates, should be restructured more slowly (GOI, 1998). Mobilization of private resources for the sector on Java and Bali would enable the government to focus limited public finance on other islands, "where it is most needed" (ibid).

At the time the August 1998 White Paper was being drafted, there was strong consensus among all parties about the need to protect social equity as part of the restructuring process. All participants were aware of the symbolic importance of affordable electricity in Indonesia historically. For example, the World Bank had recognized in its sector review ten years earlier the government's social objectives related to "equality" – i.e., the provision of electrification throughout the archipelago – and "fairness", i.e., the maintenance of electricity rates at affordable levels (World Bank, 1989).

In 1998, however, participants were also keenly aware that protests against price increases had helped bring down the Suharto regime. Indeed, concerns over the impacts of restructuring on the poor motivated the most significant sources of opposition to reform. Populist sentiments, expressed by student demonstrators and the popular press, denounced proposed tariff increases, and muted the voices of more sophisticated NGOs who understood that the preponderance of existing subsidies were captured by the non-poor at the expense of the national development budget (need reference).

A second source of opposition to reform related to its likely impact on employment, including from PLN's own labor union. The union undoubtedly feared job losses in the process of unbundling and once PLN was exposed to competition. However, the union criticized the proposed restructuring as unconstitutional. Article 33 of the Indonesian Constitution states that "branches of production that have large implications to the life of the general public should come under the control of the state".

Concern about Environmental Sustainability

In contrast to the first-order concern about social equity, concern about environmental sustainability was at best a third-order consideration in the design of Indonesia's power sector reform. Historically, the World Bank had worked with PLN to promote environmental protection at the project level. The 1989 sector review noted "environmental preservation" as among the objectives PLN had been asked to pursue. According to World Bank staff, PLN's performance in addressing the environmental and social impacts of its projects in the 1980s was "a shining model of how it should be done", pioneering best practices in resettlement for hydropower projects and mitigation of emissions from coal plants.[9] The Paiton Thermal Power Project -- financed the same year that the World Bank formalized an environmental assessment policy in 1989 --

[9] Not for attribution interview, June 21, 2000.

included among its objectives to "strengthen the Government's environmental monitoring capability as well as its ability to formulate and enforce environmental standards in the energy sector". According to the project's Implementation Completion Report, significant results were achieved (World Bank, 1996).

However, environmental concerns do not appear to have influenced the design of power sector restructuring. The August 1998 White Paper makes brief references to incentives for energy efficiency in tariff-setting as the last of six objectives (led by cost-recovery) under that section of the paper. The White Paper makes no reference to incentives for the development of renewable resources, and no mention of environmental objectives per se.

Concern about Good Governance

In the earliest discussions of power sector reform in Indonesia, attention to good governance included calls for increased financial transparency in the various subsidized transactions between PLN, the government, and consumers (World Bank, 1989). However, the focus of the reform effort was on narrowing, rather than broadening, participation in decision-making. As part of the corporatization process, the Bank's 1989 sector review recommended streamlining decision-making to reduce the "micromanagement" of PLN by government officials (World Bank, 1989). At that time, neither other ministries – such as the Ministry of Environment – nor civil society actors were on the radar screen as potential contributors to the process of reform.

By the late 1990s, attention to good governance in the Indonesia power sector restructuring process continued to focus on increasing the financial transparency of the sector, and added concern about stakeholder participation in the reform process itself. Very little attention was devoted to challenge of creating a new independent regulatory body to govern private participation in the electricity market.

In the era of *reformasi*, one thing that government, donor, and civil society actors could agree on was the need for increased transparency. Transparency was one of the four objectives of power sector restructuring articulated in the August White Paper. Among World Bank/IMF conditionalities was a requirement that the government undertake an independent audit of PLN (LOI, 19xx), and NGOs demanded that the results of the audit be made public (ref). Concerns raised by the IPP deals had put anti-corruption efforts high on the NGO advocacy agenda.

There was also an attempt to increase stakeholder participation in the reform process itself. As mentioned above, Minister Kuntoro conducted his own outreach early in the process through the "breakfast club". Later, a $20 million component of the ADB loan was allocated to develop constituencies for power sector reform through public awareness-building and engagement in the process. Accordingly, a multi-stakeholder Working Group on Power Sector Restructuring was set up. However, participation in an ADB-sponsored forum was controversial within the Indonesian NGO community. Due to a general perception that the ADB was not an institution working in the interest of Indonesia's long-term sustainable development, and a particular unwillingness to be associated with the expenditure of loan funds that would add to Indonesia's debt burden, several key NGOs refused to participate.

Perhaps due to the slow pace of reform, as of 2001 little attention had been paid by any participants in the reform process to the governance challenge of developing an independent regulatory function. The August 1998 White Paper envisioned that an autonomous agency reporting to the Minister of Mines and Energy would be created by the new Electricity Law. The new agency would be vested with regulatory authority for the entire energy sector, including electricity, gas, and oil, and would issue licenses and supervise compliance. Given the recent history of corruption and political interference in the sector, in addition to the technical and managerial capacity that will be required to regulate the complexity of the proposed system, this governance challenge has been under-appreciated.

Conclusion

The Indonesian experience with power sector restructuring was profoundly influenced by several contextual factors. The 1997 financial crisis and ongoing economic crisis both stimulated and complicated power sector restructuring. On the one hand, the collapse of the currency bankrupted the national electric utility; on the other hand, it made constituencies for labor (PLN employees union) and consumers (students and NGOs) more likely to oppose any reform that implied job losses or price increases.

At the same time, the legacy of independent power producers and purchase agreements strongly colored the domestic and international politics of power sector restructuring in Indonesia. Attention to the power sector on the part of domestic and international NGOs focused on the high degree of corruption associated with the agreements, and the likelihood that Indonesian consumers and taxpayers would end up shouldering the public and private debt incurred. The deep involvement of bilateral export credit and guarantee agencies in tainted deals constrained the ability of institutions such as the World Bank and USAID from providing technical assistance to the government to help remove this barrier to restructuring.

The 1998-99 political transitions created a context in which political roles and constituencies were in flux. The climate of *reformasi total* that followed the fall of Suharto opened political space for attention to increased transparency and NGO-participation in government decision-making, as well as an increasingly meaningful role for the Parliament. However, a charismatic Minister of Mines and Energy who championed restructuring in the Habibie cabinet was replaced with Wahid's election.

The international donor community has played an important, but ultimately limited role in Indonesia's power sector restructuring process. The World Bank had a long history of power sector project loans and policy analysis, and had encouraged the Government to pursue corporatization as early as the 1980s. However, the increasingly scandalous IPP agreements led the World Bank to terminate lending to the sector in 1998, and its involvement in restructuring debates after 1998 has been limited. The IMF (at the World Bank's urging) included power sector reform as one of many structural conditionalities in its series of bail-out packages starting in 1998. The Asian Development Bank, through a $400 million loan for power sector restructuring, encouraged attention to public participation in the design of power sector restructuring, but many NGOs – not wanting to participate in activity funded by loans that would add to the country's debt burden – refused to participate. Finally, USAID has historically provided valuable advisors to the sector, but has been constrained by the emergence of IPP-related disputes.

The public benefits agenda received uneven attention in Indonesia's power sector reform debates. Concern about promoting equity in the context of power sector restructuring was widely shared among domestic and international, government and non-government constituencies, and was not controversial. The White Paper produced in August 1998 included specific provisions to continue subsidies to poor regions and poor consumers, and dealt with labor issues. Environmental implications of power sector restructuring received very little attention in the design process. A handful of NGOs have promoted more attention to efficiency and renewables, but environment was not a first-order consideration of any of the principals in the process. Improved governance has been a general theme of restructuring discussions, but the preponderance of attention has been focused on increasing financial transparency in the sector. Very little detailed consideration has been given to the structure and functioning of an independent regulatory body.