

The Bamínica Power Plant Project: What Went Wrong and What Can Be Learned

This project was like the Hotel California. "You can check out anytime you want but you can never leave."

There were several times along the way where we could have stopped the project but we did not have the willpower, discipline, or maturity to do it.... There was no single fatal flaw in the project. There were a bunch of things that made it ugly at the end of the day.... My view is that when you do things at the speed of light you don't have time to read the warning signs.

We allowed a transaction to go through that had a lot of pieces that should have been more heavily scrutinized and fixed because we were very hungry for a deal. The people in charge weren't able to identify all the risks. The people who could have done that were pushed away from the transaction.

Various Comments from a Bamínica Project Developer

Tom Stephens, Executive Vice President, Global Development for PowerGen Inc. (PowerGen), was evaluating the company's eight-year involvement in the Bamínica power plant project, which was now operated by a joint venture controlled by PowerGen. Stephens considered the Bamínica power plant one of PowerGen's most difficult and challenging projects. There had been problems in many different areas, including site selection, joint venture management, financing, plant construction, equipment suppliers, community relationships, and customer payments. Although the power plant was profitable, the various problems had consumed a disproportionate amount of PowerGen management time given the size of the project. As Stephens reviewed the project's history and many challenges in mid-2011, he hoped he could identify some key learning areas to apply to future projects.

PowerGen

PowerGen, Inc., a global power company with generation and distribution businesses, operated across five continents. Founded in 1987 in Houston, Texas, PowerGen built its first power plant in 1989 in Louisiana. Over the next six years, PowerGen built four more plants in the United States. The company then began looking for international opportunities.

In the early 1990s, global markets for power plant projects began to open up. PowerGen built its first plant outside the United States in Argentina and then expanded to the United Kingdom, Indonesia, China, Hungary, Brazil, Ghana, Cameroon, and several Caribbean nations, including Bamínica. Although most of the power plants used thermal fuel sources, in 2011 the company was actively

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involved in a range of projects using renewable fuel such as biomass, hydropower, solar, and wind.

Electricity Supply in Bamínica

Bamínica, a Caribbean nation with a population of about 4.5 million, had experienced robust economic growth from 2002 to 2007. During the 2008 to 2009 period, growth slowed to about 3.0% and then picked up to about 7% in 2010. Economic growth was led by exports from free-trade zones and strong performance from the construction and economic sectors. However, there was an estimated 150 MW deficit in electricity generation capacity and power outages were frequent. It was common for businesses in Bamínica to maintain backup power systems and it was acknowledged that problems with power were hampering economic growth. The head of the power company, the Corporación Bamínica de Electricidad (CBE), admitted that because of old equipment, problems with billing, and widespread power theft, only about 60% of the power actually produced was paid for. The CBE was operating on a deteriorating asset base and could not keep up with growth in demand. CBE's cost was about 12-15 cents/kWh. Electricity demand was expected to grow 9% over the next decade. Private power projects were necessary if electricity demand was to be met.

Overview of the Bamínica Project

The project was a barge-mounted 185 MW combined cycle baseload plant located at Puerto Salinas on the north coast of Bamínica. The project would be one of the largest privately owned, project-financed power plants in Latin America and, when completed, provided more than 20% of the country's average electric generation capacity. The project was owned by PowerGen/Jones Cogeneration Limited Partnership (PJCLP), a joint venture between PowerGen and Jones International (JI). Originally, each partner had a 50% ownership interest. In 2011, JI's ownership was 15% and PowerGen's share was 85%.

The plant was mounted on two seaworthy barges. One barge contained a 138kV substation and a Western Electric 75 MW turbine generator designed to burn No. 2 diesel fuel. The second barge contained a Waste Heat Recovery Steam Generator, two auxiliary boilers, and a 110 MW Western Electric steam turbine generator. The boilers burned No. 6 fuel oil. Seawater was used for cooling and then discharged into the sea outside the port area. The shore facilities included 2 × 60,000 barrel No. 6 fuel oil tanks, 2 × 60,000 barrel No. 2 fuel oil tanks, a fuel pumping facility, a utility-pipe corridor, a fuel unloading facility, a parking area, space for a cooling water discharge line, and office space. The project met all local and World Bank environmental standards.

The sole power purchaser was CBE, a general utility with generation, transmission, and distribution in Bamínica. The power purchase agreement (PPA) had a 19-year term and was structured in U.S.-style, with energy payments that allowed for pass-through to CBE of all fuel costs at market prices and operations and maintenance and capacity payments intended to cover all other project costs and provide a return on investment. The Bamínica government guaranteed the peso (the local currency) convertibility and all CBE obligations under the PPA agreement and further supported the guarantee by providing a \$24 million letter of credit. CBE payments were dollar denominated.

The project cost was \$204 million. Long-term debt for the project consisted of loan agreements with International Finance Corporation (IFC) and several other lenders, including government development banks of Germany, Holland, and the U.K. The plant became operational in simple cycle mode in 2004 and in combined cycle mode in 2006.

Project Initiation

PowerGen first became interested in Bamínica in early 2003. Several PowerGen people, including Don Williams and Jack Kirk, went to Bamínica on an exploratory visit. Williams and Kirk worked in PowerGen's development group, which was responsible for initiating and constructing projects. Williams, an engineer, was in his late 50s and had worked for various energy companies over his career. Kirk was a former U.S. military officer and was in his late 30s. Prior to joining PowerGen two years earlier, he had not had any private sector experience.

In April 2003, Williams returned to Bamínica and spent a week driving around the country. His objective was to learn as much as he could about Bamínica culture, the government, the land, other power plants, and business prospects. Based on that trip, the development team decided that PowerGen could potentially develop a diesel-powered plant of about 150 MW on the north coast.

The CBE encouraged PowerGen to make a proposal. With Jack Kirk in charge, PowerGen began preparing a proposal for the CBE. Kirk was responsible for development in Central America and the Caribbean. Prior to joining PowerGen, Kirk was a colonel in the U.S. Army. He had no project development experience or business background. Kirk joined PowerGen in 2001 and had not yet closed any deals.

In July 2003, just a few days before the proposal was to be submitted, the team discovered that Jones International (JI) and the CBE had signed an agreement in March 2003 to develop a power plant on the north coast. At this point PowerGen knew nothing about JI, a company run by Richard Jones as a one-man business. JI's only previous development was a 200 MW cogeneration facility running on natural gas in Texas. The proposed Bamínica facility would be a copy of the Texas plant but built on barges.

The PowerGen team concluded that there was room for only one plant on the north coast, so ceased work on their proposal and left Bamínica. In August 2003, Don Williams called Richard Jones. PowerGen knew that JI had signed a PPA with the CBE and had an obligation to secure a construction contract within a certain period of time. Suspecting that JI did not have the capital to develop the project, Williams thought that perhaps JI and PowerGen could work together. The conversation went as follows:

PowerGen (Williams): We want to congratulate you on your win with the CBE.

Jones: Thank you very much. I had heard about you guys and knew you were in competition against us.

PowerGen: Perhaps there is something we can do to cooperate.

Jones: I already have the PPA. Why do I need you people?

PowerGen: Well, the PPA has a pretty short window for financing—maybe we can find some way to help?

Jones: Thanks, but I already have the PPA and I don't anticipate any problems getting financing.

PowerGen subsequently learned that Jones had been to about 15 banks and none were interested in financing the project. In late August, two-and-a-half weeks after the initial PowerGen-Jones conversation, Jones called PowerGen and suggested a partnership. According to Williams:

Richard Jones sent us a confidentiality agreement to sign and it was the most screwed up agreement you have ever seen. We should never have signed it. Although the agreement never caused us any problems, it was definitely a red flag in the way it was drafted.

There were lots of problems with the PPA. Richard Jones went to Bamínica and got most of them fixed. In the end the PPA was not bad. But, combined with a customer who interpreted it differently than us and the problems with the plant, it was a disaster.

We were probably Jones's last resort. We had the ability to finance the whole project out of cash. That was one of the attractions. We told Richard that if we liked the project, we would use PowerGen's cash and put it together on a fast track basis. When we went to the board we were confident that we could finance this thing out.

In October, PowerGen received board approval to proceed with a joint venture with JI. In November, without notice to PowerGen, Jones executed a turnkey construction contract with Western Electric for \$117.25 million.

It was a bad construction contract that we immediately tried to change for the benefit of the owners. It was so one-sided it was leaning over. The only right the sponsor had was to pay. Jones said that he had to sign with Western Electric because he had a time limit to perform in the PPA. We tried to get Western Electric to make changes but they basically folded their arms and said no. For example, I wanted the operations and maintenance manuals in Spanish. Western Electric said no. Western Electric would not let us review contract details and our management refused to dig their heels in. At the end of the day, Jones and Western Electric colluded to get what Western Electric wanted.

Throughout this period there were various opportunities for PowerGen to kill the deal but nobody did because the expected returns were off the charts.

Jack Kirk had a very free hand in developing the project and was under pressure to complete a deal. That was usual in PowerGen. Developers were expected to find and close deals and were incentivized to do so. Bonuses tied to projected project performance were a significant share of developer compensation for energy infrastructure projects. Developers who did not close deals and finish projects rarely lasted long at PowerGen. Bonuses were typically paid at two stages: at the completion of project financing, and at the start-up of the project. Lead project developers determined how the bonus was shared across the development team.

Kirk was running around unsupervised because we had various other bigger deals under way. As well, Kirk was trusted. He was a guy with ice water in his veins. He was not afraid to stand up to the Bamínica government. You did not have to be around him long to have confidence in him. He seemed to have the capabilities of a PowerGen developer.

Prior to the Bamínica deal, Kirk worked on a project in Colombia that did not get PowerGen approval. Because he was a senior developer and had not yet closed any deals, "Kirk's future was largely dependent on the Bamínica project."

During the negotiation process, Jack Kirk made all the decisions and put the package together. He listened to everybody but at the end of the day he was the driver. Jack called the shots and had a pretty free hand. Once it was put together and the outside counsel and the finance people were brought in, then it went to the board.

This view of Kirk's autonomy is reflected in comments from another PowerGen manager who had some involvement early in the deal:

I took a strong position on several points. I thought we were going in the wrong direction in that (a) we were creating a situation that was unstable, and (b) we were overpaying and giving Jones too much for what he was bringing to the table. I said we needed to be more aggressive in designing the joint venture and particularly who controlled the venture, and insisting on changes to the PPA and the construction contract. In terms of experience, slickness, business sophistication, street smarts, and a willingness not to be constrained by normal ethical standards, Jones had us at a disadvantage. I thought we needed some more experience on our team. Kirk had been pretty successful in the military and was used to running his own show. He did not like interference from other people. He went to Rebecca [the head of PowerGen Latin America] and said, "I want this guy off my back." So, I was overruled.

The Partnership Agreement

Within PowerGen, Richard Jones quickly developed a reputation for being difficult to deal with and a somewhat unusual personality:

Richard Jones is an unbelievably crazy guy. You match up a wild man who believes his own b.s. with a developer who is desperate for a deal, and what do you get? We did a bit of research on Jones and learned through various law firms that he was very litigious. It turned out to be true. Richard would say in letters to us that "You will recall in our last meeting that we agreed a, b, c." when in fact we agreed x, y, z. We had to respond to everything he did, almost on a daily basis.

It was a very difficult negotiation with Jones. Because of that we didn't have as strong a partnership agreement as we should have. When the deal was cut, we did not have a lawyer sitting there full time. Part of the problem was the inexperience of Jack Kirk. There were no other deals in Latin America at that time and there was a lot of pressure to get this one going.

In late November, PowerGen and JI signed the agreement for the PowerGen/Jones Cogeneration Limited Partnership (PJCLP). According to the agreement, PowerGen Construction would oversee construction.

We knew there were problems with the construction contract. Jones thought he understood the risks because he had developed a plant in Texas. We knew that if we were interested in this transaction, we needed to get control very quickly over the unilateral decisions being made. We entered into a partnership agreement under which PowerGen was able to get vast control so that the project could get financed. As long as PowerGen had to front the money for Jones, the concept was that after the banks converted their construction finance to non-recourse project finance, we would try to control the project.

Even though the construction contract was signed between Jones and Western Electric, our outside lawyer told us not to sign. We stayed up all night with Western Electric and Sylvanto [Western Electric's construction partner] making changes to get the contract to the bare minimum. But, with the returns, we thought we could live with it. We also kept telling ourselves that Western Electric was a marquee company and they'd do the right thing. Wrong, big mistake. Western Electric was trying to make money selling turbines and they would shove them down your throat.

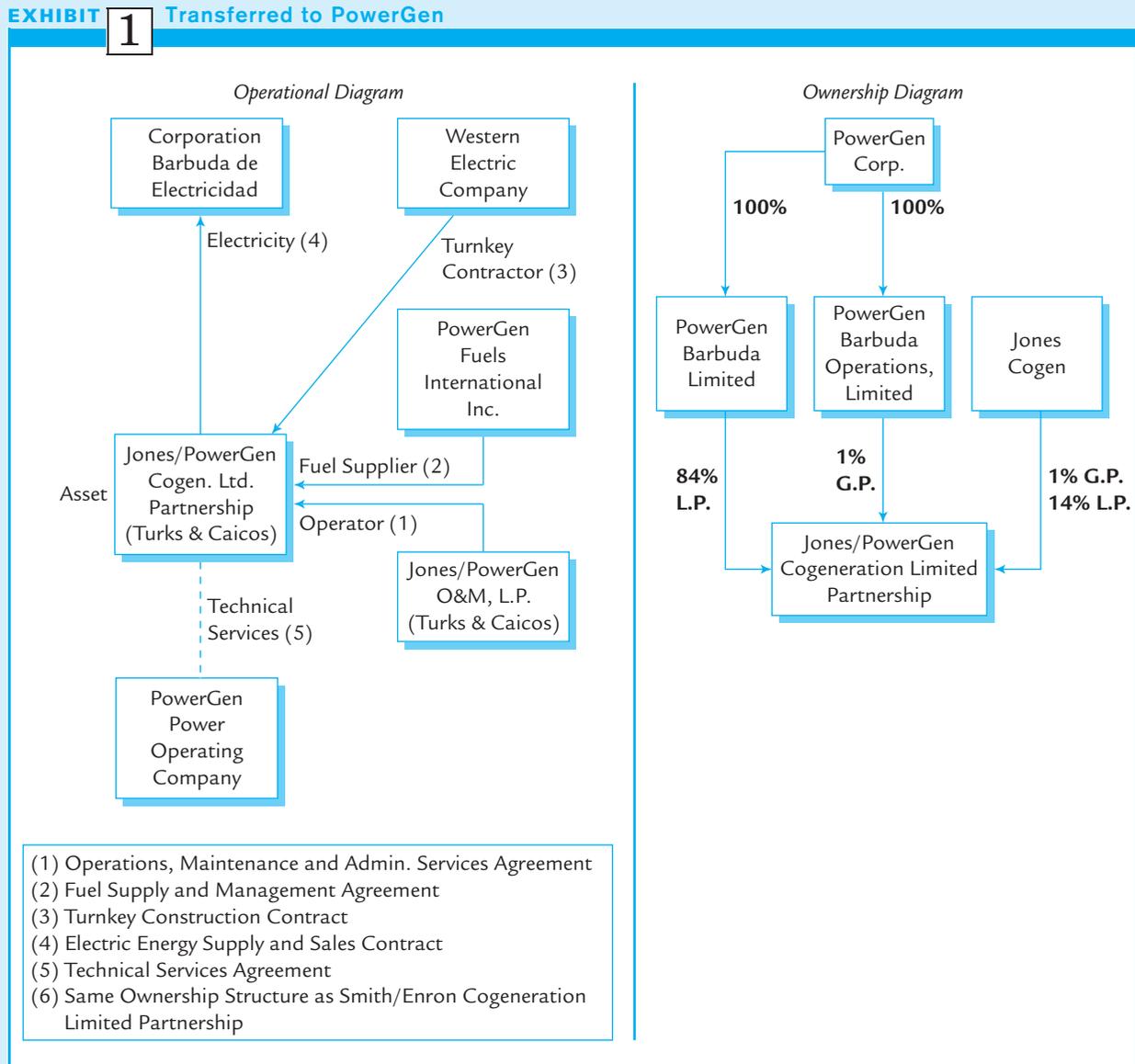
In the final negotiations with Jones, we tried to get him to make two representations: one, that the PPA was legal, valid, and enforceable under Baminica law; and two, that there were no FCPA violations. We told Jones that he had to bear the risk if any of his people bribed someone. Jones did not like that. We also told him that if the PPA was not enforceable, it was also his problem. In the end we got weaker representation on these issues than we should have.

It also became apparent to us that Jones was going to ride our coattails and that this was a mouse on the coattails of an elephant. We tried not to act like an elephant but he continually used that against us. He's a crafty guy and he played us like a piano for a while.

Partnership Details

The agreement was set up with PowerGen and JI each holding a 1% general partner interest (see Exhibit 1 for ownership structure as of 2011). Both partners initially had a limited partner interest of 49% each. Richard Jones's stake was subject to reduction unless he came up with a certain amount of money at financial close to

Jones/PowerGen Cogeneration Limited Partnership after Jones 35% Equity Share Transferred to PowerGen



repay PowerGen for carrying his out-of-pocket equity from inception to financial close (the stake was subsequently reduced). The agreement provided the following:

1. Each partner will always agree and discuss major issues, except for financing, which was exclusively in PowerGen's control.
2. Unanimous approval of the partners required for: liquidation, sale of the business, changing the name of the company, entering into agreements with partner affiliates, modifying the construction budget upwards, and modifying the distribution of development fees.
3. For all other decisions, Jones and PowerGen will collaborate.

Notwithstanding the PowerGen supervote for financing, Jones's *de facto* involvement from the beginning was that he acted like a 50% shareholder. As well, "Until the financial close, PowerGen bent over backwards to accommodate Jones's concerns, to a fault. After the financial close, we no longer had to be so accommodating." Also, the agreement did not include clear exit terms, something that would become contentious at a later date.

Site Selection

According to the PPA, the government was to provide a site for the project and provide the necessary regulatory authorizations. The government provided a site near Puerto Salinas. The site was inadequate because it would require tearing down an old bodega on the waterfront. The local government objected to the development because they had their own plans for the area. So, another site had to be found quickly because there were time deadlines in the PPA. Simple cycle power had to be available by May 2004.

Some people said that since the site was not suitable, the clock should roll over until we found a site. Some of us were not comfortable with this view. We had already given the order to Western Electric. The turbine and the barge were being built. God forbid that the barge arrives and we don't have a site. There were not a lot of choices for sites. We looked farther away from Puerto Salinas but that would have meant building a transmission line, which would have been very difficult.

Another site was located but it also had problems. Finally, a third site that CBE recommended was found. It was zoned for industrial use with the approval of the Bamínica government and the CBE against the protests of a nearby hotel. The site was at the western edge of a bay on the leeward side of a port. The hotel was on a ridge, north of the plant in a straight line. The design of the plant included exhaust stacks which were about the same height as the hotel restaurant. When the plant was under construction and during the testing phase, there was a lot of noise throughout the day and night because silencers were not included in the design of the steam relief system. In addition, although the emissions normally blew to the south, away from the hotel, there were times when the wind shifted and the emissions blew north over the hotel. Just beyond the hotel was an upscale residential neighborhood occupied primarily by foreigners.

We did a lot of emissions modeling to assure ourselves that we would not cause any problems. Our greatest concern was noise from the steam blows and the aesthetics of the property. We spent a great deal of money on landscaping and painting the tanks. We tried to make the place attractive. The folks at the hotel liked what we did but they did not like the noise. And, I believe the operators ignored directions and did a steam blow when the wind was blowing directly over the hotel. We never knew for sure if the particulate fallout came from our plant or other plants about a mile and a half across the bay.

Construction

The PowerGen development team was responsible for completing the construction and then turning the plant over to PowerGen's asset management group. There were construction problems from the beginning, leading to a series of disputes and arguments between PowerGen and the contractors. For example, one dispute began like this:

In your own [Western Electric] literature you say that it is preferred that the client put in fuel treatment, which means centrifuges. I said to Western Electric, "Where is the centrifuge." Western Electric said we don't need one and it was not included in the price. If you want one, you pay for it. So we did, for more than a half million dollars. The proposal that Western Electric signed had dual fuel filters. When we got the actual unit it had one filter. Western Electric said that they changed their standard. I had to buy them myself. Before they were installed I can't count the number of days that we had to shut the plant down because the fuel filter was plugged. They just dug their heels in and said we are Western Electric and we do it this way.

We initially thought we would not have to do a lot of oversight. We were reasonably confident that the contractors would deliver. We had never worked with Western Electric before this project. We had good feelings about them—they were supposed to be a first-rate company.

To satisfy the lenders, PowerGen's construction company oversaw the construction. Unfortunately, PowerGen overlooked some serious construction issues and Jack Kirk was not interested in hearing about construction problems. Then, Kirk left the company to join a competitor.

Our own PowerGen construction guys were not leading the parade; they were standing on the curb watching the parade go by with full confidence that we've got the best in the world and they are going to do it right. Unfortunately, Western Electric did not have their A team on the ground. They were under pressure to get things done quickly so they cut corners. I didn't figure this out until late in the game. They did a sloppy job.

We were also under pressure to get the project finished. For one thing, we had contractual deadlines that we had to meet. The project was to be transferred to PowerGen Global Power and we were told to stop screwing with the project and get it transferred over.

Throughout the construction phase, Richard Jones and his company did little or nothing. Richard was always the missing man. He was off sailing his sailboat or hunting or fishing. He might return our call or he might not. He wanted to be part of the decision-making team but he was never around to make a decision.

The Project Start-up

The project was designed in two phases. The first phase was a simple cycle power plant on a barge that generated about 75 MW. This phase was completed six months after the contract was signed. The second phase was a combined cycle power plant that included two boilers. This phase was supposed to be completed by June 2005.

The second barge was brought in, and when the performance test was run, there was major failure in the gas turbine and boilers. The result was a lengthy period of repair and disputes with the contractors. It was several months before the cause of the problem was identified and the repairs were completed. PowerGen concluded that contaminated water and other anomalies were present in the preparation for the start-up. Water quality, something Western Electric should have controlled, was not carefully monitored during commissioning and the boiler suffered extensive corrosion damage.

There were major disputes with Western Electric and Sylvanto about who was responsible for the installation problems, why they occurred, and if claims were under warranty or not. There was a major insurance issue because of a lapse in coverage. It was unclear if a major claim was a Western Electric/Sylvanto responsibility or a PJCLP responsibility.

Construction problems delayed the second phase start-up until January 2006.

Financing

PowerGen committed to a very aggressive deadline to have the power plant operating. PowerGen financed the initial development, with the understanding that long-term non-recourse financing would replace PowerGen's debt. From the beginning, Bamínica was acknowledged as a difficult place to get projects financed because (1) the government had a history of not paying its debts; (2) there was a thin foreign exchange market; and (3) there were weak banking laws.

The project was designed to be 25% equity and 75% debt. The original cost was \$204 million and the goal was to raise \$153 million. The plan was to have a single financial closing with two lenders: the World Bank's International Finance Corporation (IFC), with about \$25 million and a bond underwriter for the remainder.

A bond underwriter was selected and began due diligence. When problems with the CBE and payments for the electricity arose (see the next section), the bond underwriter withdrew from the project, leaving a huge hole in the financing. By this time PowerGen had spent about \$100 million on the project.

The IFC agreed to increase its financing to \$75 million. The remaining financing came from six different lenders, with the result that seven different financial closings were required. Each closing required an entire set of documents (legal opinions, permits, mortgage registrations, and so forth). As well, it took almost nine months longer than planned to replace PowerGen's financial exposure.

Because of all the problems, there was a low level of confidence as to when the project would perform. Everyone knew the customer was bankrupt. We were worried that if we waited one week, the lenders might run away from the project. So, as soon as a lender said yes, we went to closing. That increased the legal budget exponentially. The reason the lenders remained in the project was because there was a lot of confidence in PowerGen and the contractors and there were expectations that the Bamínica government would stand behind the project.

Richard Jones made our life difficult because he did not want to trust us, perhaps because he felt we were not getting the best deal for the joint venture. After we negotiated with the lenders, we often had to negotiate with our own partner about the financing terms. We had to convince him that it was the best deal for the partnership. The problem was that our incentives were not aligned properly. From Jones's point of view the project was fully financed by PowerGen. He did not have the same incentives as PowerGen in raising third party debt. If we did not find financing and the project tanked, PowerGen would have been out of a lot of money. Jones did not have money in the project to lose. The third party debt was cheaper than PowerGen was charging the project and, in Jones's view, PowerGen was benefiting because of this. Every time something changed he viewed this as an opportunity to improve his position.

The final closing was in April 2006 when lenders assumed the project risk, with the exception of a PowerGen debt service guarantee of \$9.6 million and approximately \$32 million of liability for certain contingent litigation and construction risk. At this time, total capital in the project was \$205 million and the third party debt portion was \$150 million.

The CBE Does Not Pay

Prior to the start-up of the second phase, there had been some minor disputes with the CBE about how PJCLP would be paid for the power, about the heat rate, the cost of fuel, and the measurement of power output. The delayed second phase start-up increased the contractual difficulties with the CBE. After the second phase startup in January 2006, the plant performed well for the first month and the invoice to the CBE became due. By contract, the monthly invoice from simple cycle to combined cycle went from about \$1 million per month to \$7 million. Under the contract, PJCLP had agreed that during the simple cycle phase the invoice would mainly cover operating costs. Once the second phase was completed, the capital return and profit billings would begin.

CBE did not have the funds to pay the first invoice. The contract allowed PJCLP to shut down the plant if payment was not received. PJCLP gave the government 10 days' notice and then shut down the plant in March 2006. It took 20 days to get the plant restarted and an agreement reached about payment. In June 2006, a new government was formed in Bamínica. The outgoing government decided they had been ill-treated by PJCLP, and again PJCLP was not paid. At this time there were disputed payments of about \$5 million dollars. PJCLP responded by filing an arbitration claim. By August 2006, the new Bamínica government was in place and had not yet responded to the claim. In September the government filed a counterclaim. By the end of 2006, the disputed amount from the PJCLP side was about \$19 million.

The problem, according to a PowerGen executive, was as follows:

Under their interpretation of PPAs, the CBE thinks they are entitled to pay based on what is delivered, notwithstanding a contractual obligation to make capacity payments and incentives or disincentives regarding the generator's performance. Even if the shut-down of the generator was caused by grid failure in Bamínica, they would take the position that "You are failing to deliver the capacity that we expected and consequently we are not paying you."

We concluded that the government and the CBE do not honor their word or the written contract. They try to find ways to weasel out of it. Part of it is their nature, and part of it is the fact that they don't have any money.

In contrast, another PowerGen manager commented:

The contract may have been too overreaching in some areas. For example, was it reasonable to expect them to pay when the plant could not perform? The CBE was an unsophisticated buyer and did not understand how the PPA really worked.

Throughout this period, management turnover in the CBE did not help:

Jl originally signed an agreement with the general administrator of the CBE, who was authorized by the president to sign a PPA. After we got involved there was a steady turnover in administrators. Some of them stayed for only a few months. The rumor was that each administrator signed a project and got a retirement deal. On one occasion we had a Monday meeting with the administrator about an issue that had to be resolved quickly. As I was having breakfast I read in the local newspaper that Sunday night the administrator was fired. Now I have a guy who doesn't know anything about the deal. I went to his office and he did not want to meet me. He said, "I have been here for less than 24 hours—I can't take this to my president." Did they understand the contract? Most of them probably never even read it.

According to public statements from the head of the CBE, payments were not made because the facility had not run up to speed and CBE did not owe nearly as much as PJCLP claimed. PJCLP was not the only company with which CBE was in

dispute. Another firm that entered Bamínica about a year after PowerGen threatened to shut down its 220 MW plant because of unpaid bills.

By the end of 2006, an ICC arbitration panel was established, with the arbitration to take place in Mexico. Meetings with the arbitration panel began in early 2007. All parties agreed on a settlement but in early 2008 the Bamínica government changed the CBE management. The new management created a new committee in charge of negotiating with PJCLP and the new committee refused to acknowledge any of the earlier negotiations. By the end of 2009, an agreement was finally reached on the disputed payments.

Settlement with the Contractors and New Problems

The plant had a series of operating problems from the start-up. Of the five major pieces of equipment, problems were experienced with each one. In addition to the start-up problems, a steam turbine blade broke in 2006. In the interim period of six months between failure and repair, the turbine was run with one less blade, reducing capacity by 10-15%. By the end of 2006, a settlement was reached with Western Electric and Sylvanto. These firms agreed to pay for the direct restart cost and to replace the steam turbine (equipment and installation costs). They also agreed to an extended warranty on the turbine and boilers. PJCLP and the contractors also agreed to jointly seek insurance claims and to jointly share any settlement. This agreement was contingent on getting approval from the lenders because part of the settlement would be release from other claims. PowerGen thought this was a good deal and asked the lenders for their approval. The new turbine was scheduled to be installed by April 2007.

The lenders would not approve the settlement. Their view was that there had been so many problems that they did not want to release anyone. PJCLP decided that the settlement would go forward without lender approval because it would not have a material adverse effect on the lenders or the project. The lenders were not pleased because they hoped PowerGen would come up with additional guarantees, which PowerGen refused to do. Nevertheless, up to this point, PJCLP had met its financial obligations to the lenders.

Not long after the settlement with the contractors, the plant began experiencing a series of tube leaks in both boilers. Each tube leak required the boiler to be shut down for at least 24 hours of repair. During the repairs it was noticed that there was buildup of slag on the tubes. The slag blocked the tubes as heat exchangers, which meant the boilers became less efficient. Various procedures were unsuccessfully tried to remove the slag, including hydro blasting and chipping the slag off the boilers. As it turned out, the boilers were not suited to the heavy fuel used by the project because they were designed for natural gas. Although the slag was common for the fuel used by PJCLP, the spacing of the boiler tubes must be wide enough to prevent a buildup on the tubes and cleaning the slag must be possible. The boilers installed had neither of these features. Unfortunately, PowerGen had no experience with boilers and did not identify the design problems created by Western Electric and its subcontractors.

The result was that PowerGen began a series of meetings with Sylvanto to determine how to fix the boilers, which had cost about \$6 million. The cost to replace the boilers was estimated to be about \$20 million. Earlier, Sylvanto had informed PowerGen in writing that the proposed boilers would run on the fuel selected for the project. When the problems first emerged, Sylvanto's response was that PJCLP

was not running the plant properly. Technical consultants were hired to show that the problem was the boilers, not PJCLP. Finally, the contractors agreed that the boilers were the wrong type for the fuel. It was not possible to change the fuel because it would destroy the economic viability of the project. In 2009, another settlement agreement was being negotiated to get new boilers. PJCLP would pay the incremental cost of the newly designed boilers (about \$4 million) and the contractors and their insurance carrier would pay an additional \$16 million for installation along with refurbishing the existing boilers in the interim period of two years.

Richard Jones's Ownership Is Reduced

The original deal with Richard Jones was that in order to become a 50% shareholder, he would have to pay cash for 40%. The other 10% would come from his origination of the deal. At the financial close in April 2006, Jones paid for 5%. An agreement was reached that gave Jones 18 months to raise \$17 million required for the remaining 35% share. In November 2007, the deadline came and Jones did not have the money. Jones asked for an indefinite deferral and PowerGen said no. PowerGen also initiated arbitration with Jones to establish its claim. Jones countersued and claimed that PowerGen had conspired to prevent him from buying his share. A six-month arbitration process was resolved in June 2008 when Jones withdrew his lawsuit and his 35% stake was transferred to PowerGen. Jones raised another lawsuit in Bamínica alleging that PowerGen fraudulently induced him to give up his share of the project. Jones claimed damages of \$169 million. In January 2000, the suit was dismissed. In 2011, Jones remained a 15% shareholder in the joint venture.

Management

Three people reported to the PJCLP executive director: the plant manager, the financial manager, and the commercial manager. The financial and commercial managers were Bamínica nationals and had been with PJCLP from the beginning. The first executive director, hired in September 2006, was an Ecuadorian and former World Bank employee. He had been the general manager of a utility in Quito. He was a strong source of technical expertise and understood the IFC. However, he was not a good politician and was ineffective in building community and government relations. A new executive director was appointed in January 2008. PJCLP was the new director's first assignment in a power company. Prior to PJCLP, the director had been general manager for several mining companies in Latin America and had worked in Bamínica. He was strong in building community relations.

Turnover in plant managers was a problem and meant that a long-term operational strategy was slow to evolve. The first permanent plant manager also began in September 2006 and was an American of Hispanic origin. He had previously worked in power plants in Michigan. He was characterized as a "difficult case" and eventually ended up with little support inside or outside the company. He was also viewed as a bit scary in that he carried a gun and was suspected of having a drinking problem. He left voluntarily in January 2008. He was followed by a temporary plant manager who stayed for about three months. In June 2008, another permanent plant manager was hired. This manager was born in Panama and had been a plant manager in Argentina and Africa.

Community Relations

As the payment dispute with CBE increased, CBE used the media aggressively. PJCLP was blamed for causing major power shortages in Bamínica because of its operational problems. CBE was able to successfully blunt PJCLP's efforts to publicize CBE's poor payment practices by arguing that PJCLP did not deserve to get paid. To overcome the media campaign, PJCLP began an aggressive community relations program. According to a PowerGen executive:

Public opinion in Bamínica was not particularly important because the public was powerless. The administration runs the country the way they want to run it. Bad press in the country does not have much effect on the relationships with the Bamínica government. Bad press is more important outside the country.

Community relations is another story. We built a relationship with the First Lady, a woman in her 70s. We were close to the mayor and some of the council members in Puerto Salinas. We held seminars using people from the university to explain the technical issues, we invited school children to tour the plant, and we sponsored local sports

PowerGen/Jones Cogeneration Limited Partnership Balance Sheets December 31, 2009 and 2010

EXHIBIT

2

Assets	2010	2009
Current assets:		
Cash	US\$ 9,964,741	US\$ 2,296,976
Accounts receivable net of allowance of US\$136,198	59,897,787	38,317,364
Inventories, mainly fuel and parts	4,577,327	3,447,421
Prepaid insurance	894,293	1,347,472
Total current assets	<u>75,334,148</u>	<u>45,409,233</u>
Pre-operating expenses	17,542,651	18,661,923
Property, plant and equipment	175,483,806	180,717,632
	<u>193,026,457</u>	<u>199,379,555</u>
	<u>US\$268,360,605</u>	<u>US\$244,788,784</u>
Liabilities and Partnership Equity		
Current liabilities:		
Current portion of long-term debt	US\$ 15,077,649	US\$ 13,336,312
Accounts payable	16,858,589	
Accounts payable to related companies	19,158,511	21,633,360
Accrued interest payable	4,809,250	1,512,285
Other accrued liabilities	4,702,396	3,093,830
Total current liabilities	<u>60,606,395</u>	<u>39,575,787</u>
Deferred income from capacity fees	5,780,049	2,709,201
Long-term debt	135,066,438	143,915,521
	<u>140,846,487</u>	<u>146,624,722</u>
Partnership equity:		
Partner contributed capital	51,077,600	51,077,600
Undistributed partnership earnings	15,830,123	7,510,679
Total equity	<u>66,907,723</u>	<u>58,588,279</u>
	<u>US\$268,360,605</u>	<u>US\$244,788,788</u>

teams. We did some training with the fire department. We bought some used fire equipment and clothing from a fire company in Fort Worth and gave it to the fire department. We bought tires for the ambulance. When we bought emergency equipment for the plant, I bought two of everything and gave half to the ambulance service. This was all done very quietly.

Unfortunately, after the project was transferred to the PowerGen operators, community relations efforts did not improve. No natural allies were created to carry us through good and bad times. The thought was, "We have an operating project. We have to go run it just as we would in the States."

Hotel Claims

During the construction period, the adjacent hotel initiated a lawsuit against the noise. The lawsuit was settled with a payment of \$1 million by PJCLP in 2005. During the construction of the second phase, the hotel began losing customers. In 2007, the hotel was permanently closed. The hotel owners, a wealthy and well-connected Bamínica family, filed an arbitration claim against PJCLP claiming that the plant had been built illegally and that the plant site should never have been developed as an industrial site. The claim maintained that the permits from the government had been given improperly.

The acknowledged cost and value of the hotel, even according to the hotel accountants, was not more than \$5 million. In 2008, a Bamínica arbitration panel awarded the hotel \$13.6 million against the project. The panel had three members

EXHIBIT 3 PowerGen/Jones Cogeneration Limited Partnership Statements of Income and Undistributed Partnership Earnings Year Ended December 31, 2009 and 2010

	2010	2009
Income:		
Energy income	US\$ 51,552,207	US\$ 46,655,458
Capacity, operation and maintenance fees	<u>38,566,090</u>	<u>37,049,085</u>
Total revenues	<u>90,115,297</u>	<u>83,704,543</u>
Cost and expenses:		
Operating costs	46,865,643	42,682,139
Depreciation of machinery and equipment	5,667,430	5,367,238
Amortization of prepaid insurance	2,217,571	2,066,118
Amortization of pre-operating expenses	1,134,984	970,878
Administrative expenses	12,322,451	<u>9,817,533</u>
	<u>68,208,079</u>	<u>60,903,906</u>
Net operating income	<u>21,910,218</u>	<u>22,800,637</u>
Interest income	4,819,080	1,786,228
Interest expense	(18,398,256)	(17,032,683)
Exchange loss	(11,598)	(31,783)
Other		(11,720)
Other income (expenses)	<u>(13,590,774)</u>	<u>(15,289,958)</u>
Net income	8,319,444	7,510,679
Undistributed partnership earnings at the beginning of year	7,510,679	
Undistributed partnership earnings at the end of year	<u>US\$ 15,830,123</u>	<u>US\$ 7,510,679</u>

but before the decision was complete, the chairman of the panel was appointed to the Bamínica Supreme Court. By law, the chairman was unable to participate in the arbitration. The remaining two panelists completed the arbitration. PJCLP appealed the arbitration ruling in the Bamínica courts, claiming that without a third panelist, the arbitration was invalid according to Bamínica rules of arbitration. In 2011, the arbitration was not settled.

The Project in 2011

Looking forward, Tom Stephens hoped to take advantage of the learning from the Bamínica project. One of the interesting outcomes was that despite all the problems and challenges, the project was profitable (see Exhibits 2 and 3 for project financial statements). Perhaps a key lesson was to take a long-term view and not let any one issue derail the entire project.

CASE DISCUSSION QUESTIONS

1. Discuss some of the major challenges that PowerGen faced as they developed the Baminica Power Plant project.
2. What factors can explain these challenges? Were these challenges due solely to institutional or cultural factors?
3. What went wrong when PowerGen was negotiating with Richard Jones? Did Richard Jones use any of the dirty negotiation tactics discussed in the negotiation chapter?
4. What steps should PowerGen have taken to ensure that the negotiations went smoothly? Why did they agree to the partnership despite the problems?
5. What would you do now? Would you end the project?