

Energy and Development
in South America:
Conflict and Cooperation

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and Francisco Rojas Aravena
With Jessica Varat*

First South American Energy Summit © Eduardo Morales/epa/Corbis
Front Row L-R- Colombian President Álvaro Uribe, Chilean President Michelle Bachelet,
Bolivian President Evo Morales, Venezuelan President Hugo Chávez,
Brazilian President Luiz Inácio Lula da Silva

Back Row L-R- Uruguayan Vice-President Rodolfo Nin Novoa,
Ecuadorian President Rafael Correa, Guyanan Prime Minister Samuel Hinds

Oil Rig in Stormy Sea © Steve Bloom/Getty

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The Crisis in the Argentine Energy Sector and Its Regional Impact

Thomas Andrew O'Keefe

INTRODUCTION

Argentina's current energy crisis is primarily the result of internal political dynamics. In response to the fury of the Argentine people towards their entire political class following the implosion of the economy in 2001 and 2002, the transition governments that followed adopted populist measures and put the burden of "paying" for the collapse of the Convertibility Plan—which had tied the Argentine *peso* in a one-to-one parity with the U.S. dollar for a decade—on foreign investors. In May 2003, Néstor Kirchner assumed the presidency by default with only 22 percent of the vote after Carlos Menem, who knew he would be defeated by a landslide, pulled out of the second round. Kirchner's initially weak position provided him with little maneuvering space to dismantle the anti-market policies in the energy sector that he had inherited from his predecessors. Although the eventual recovery of the Argentine economy gave Kirchner the opportunity to dismantle these measures, which by 2004 were producing bottlenecks in the entire energy sector, he chose not to. Instead, he prioritized his personal ambitions and consolidated his political base so as to facilitate the election of his wife to the presidency in October 2007.

NATURAL GAS

The state-owned *Gas del Estado* was established in 1946 to transport and distribute natural gas to end-users. Natural gas production, however, was the monopoly of the state petroleum company *Yacimientos Petrolíferos del Estado* or YPF. In 1993 *Gas del Estado* was replaced by two private sector transport firms (*i.e.*, *Transportadores de Gas del Norte* or TGN and *Transportadores de Gas del Sur* or TGS) and eight private sector regional distributors. YPF was also privatized in 1993 and concessions to explore and extract natural gas were opened up to private sector competition.

Law 24.076 of May 1992 established the general regulatory framework for the transport and distribution of natural gas by private firms. Production of natural gas, however, remained subject to Argentina's 1967 Hydrocarbons law (Law 17.319). The Secretariat of Energy was given jurisdiction over the exploration and production of natural gas and the authority to determine conditions for the export or importation of natural gas. The *Ente Nacional Regulador del Gas* or ENARGAS was entrusted with regulatory oversight of the transport and distribution of natural gas and the approval of rate changes.

Until 2002, rates for natural gas were based on its wellhead market price as well as a fee for transport and distribution services. The charge for transport and distribution services was set by ENARGAS for five-year periods in U.S. dollars and adjusted every six months for inflation based on the U.S. Consumer Price Index. Any increases in federal, provincial, or municipal taxes were automatically passed on to the consumer. In addition, transport and distribution firms could petition ENARGAS for increases within five-year periods based on unforeseen circumstances. Increases in the market price of natural gas at the source could only be "passed through" to the end-user if authorized by ENARGAS following a public hearing.

In January 2002 the federal government used the recently approved Economic Emergency Law to convert rates for natural gas into Argentine pesos on a one-to-one basis (even though the real rate of exchange was closer to three pesos for every dollar) and froze them at 2001 levels. Legally, the freeze did not cover the price of natural gas charged by producers, which could still be sold at market rates (albeit in pesos). The failure of ENARGAS to approve any pass-through of price increases to end-users, however, meant that natural gas prices for domestic sales (where the bulk of Argentine production was directed) became frozen as well. This situation created an important incentive to export, although this was tempered by a 20 percent export or retention tax introduced in 2002 (increased to 45 percent on exports to Chile in July 2006). Furthermore, in 2004 the Secretariat of Energy began restricting natural gas exports until national demand was satisfied. Given severe shortages in Argentine gas supplies since 2004, exports to Chile have frequently been interrupted during the winter months, forcing Chilean companies to shut down production. During the winter of 2007 in the Southern Hemisphere, supplies to residential users in Chile were also affected for the first time.

In mid-2004 the federal government negotiated a schedule of increases on the wellhead price for natural gas sold to larger industrial and commercial users. As of July 2005 businesses have been paying the full market price for natural gas.

The federal government is still negotiating, however, increases in transport and distribution rates for larger industrial and business customers. Negotiations have been complicated by government demands that the private sector firms first drop their international arbitration claims against Argentina for losses sustained in the 2002 following the forced conversion of utility charges into pesos at an artificial rate of exchange and price freezes. Some see this negotiating stance as a ploy to force frustrated foreign firms to sell their assets to politically well-connected Argentine firms at bargain basement prices. In mid-2005 and again in January 2007, the Kirchner administration imposed a hefty special tax over the transport rate for natural gas purchased by businesses in order to pay for pipeline improvements. Natural gas rates for residential users were to remain frozen until after the December 10, 2007, inauguration of the new president, Cristina Fernández de Kirchner, but this has yet to occur.

Given that the bulk of Argentine natural gas is consumed domestically, the federal government's 2002 intervention in the market mechanism for determining prices undermined any incentive for producers to explore and expand natural gas reserves. It also destroyed any incentive for transporters to increase capacity, although constraints in transport capacity were already a problem throughout the 1990s. Furthermore, artificially low natural gas prices induced a surge in demand that eventually outstripped supply. All of these factors have contributed to severe gas shortages since 2004 and have required that the federal government restrict natural gas exports as well as import natural gas and substitute fuels to run power plants.¹ The irony is that the federal government has "subsidized" the purchase of these foreign fuel substitutes with general revenue collected from taxpayers, while refusing to allow natural gas producers in Argentina to pass on the true cost of their fuel to this same group of Argentines. The federal government prefers to exercise control over this revenue flow rather than allow it to go directly from consumers to the private sector producers. The federal government has also used tax revenue to overcome pipeline constraints and developed an electronic spot market for natural gas, thereby allowing large customers to negotiate contracts directly with producers.

It would be unfair to lay the entire blame for the current problems affecting Argentina's natural gas sector solely on the 2002 intervention in market rates. Since the late 1990s, no new gas fields were developed in Argentina. This was, in part, the result of the recession that engulfed Argentina beginning in 1998. But some observers also attribute this to the 1999 sale of YPF (responsible for 60 percent of Argentine natural gas production) to the Spanish firm REPSOL. Soon after acquiring YPF, REPSOL was said to have been more interested in

paying down the massive debt it incurred in purchasing YPF rather than investing in the exploration of new fields or in increasing yields from existing reserves through the use of expensive new technology. In addition, the company owned cheaper-to-operate gas fields in neighboring Bolivia. It was only after polls indicated that Evo Morales was likely to become President of Bolivia in the December 2005 elections and he threatened to re-nationalize the Bolivian hydrocarbons sector if elected (coupled with concurrent Argentine threats to revoke underinvested concessions) that REPSOL-YPF was finally pushed to announce new investments in Argentina in late 2005. Little of this investment, however, actually materialized.

ELECTRICITY

In December 1991, the Argentine Congress ratified Law 24.065, which split the Argentine electricity sector into three separate components: (1) generation;

(2) transmission; and (3) distribution. This law authorized the Secretariat of Energy to set overall electricity policy and establish rules on investment and network access. Approval of rate changes and the issuance and enforcement of regulations governing the transmission and distribution of electricity was the responsibility of the newly created *Ente Nacional Regulador de la Electricidad* (ENRE). Law 24.065 also established a not-for-profit entity, which later became the *Compañía Administradora del Mercado Mayorista Eléctrico* (CAMMESA), to oversee administration of a wholesale spot market for electricity sold to distributors or directly to large users.

Under the 1991 Argentine electricity legislation, generation (which involves the actual production of electricity from different energy sources) was completely deregulated and prices were based on actual production costs. Electricity was generally sold through a competitive wholesale spot market administered by CAMMESA. The law, however, also recognized the right of large users to enter into fixed-rate contracts directly with the owners of generators and to have nondiscriminatory access to the transmission networks. Transmission and distribution companies were given monopolies within designated territories and their prices were regulated by ENRE.

Before January 2002, end-user rates for the transmission and distribution of electricity were based on ENRE-approved five-year tariff schedules in U.S. dollars. Within the five-year period, transmission and distribution rates were subject to automatic twice-a-year adjustments for inflation (based on the U.S.

Consumer Price Index) as well as any increases in federal, provincial, and municipal government taxes. In addition, unforeseen costs could also lead to higher end-user rates if authorized by ENRE following a public hearing. When the distributor bought electricity on the spot market, buyers were sheltered from seasonal price gyrations by a CAMMESA Stabilization Fund. The basic concept behind this fund was that distributors would deposit the excess collected from end-users when wholesale spot market charges fell below the tariff rate on file with ENRE. Conversely, distributors would be compensated for unexpected increases due to seasonal factors that could not be passed on to users by taking money out of the Stabilization Fund.

As occurred with the natural gas sector, the Argentine government used the economic emergency law passed by Congress in January 2002 to convert end-user charges for electricity into Argentine pesos at a one-to-one parity that did not reflect the actual market rate of exchange of at least three pesos to one U.S. dollar. The same legislation also froze rates that transmission and distribution companies could charge consumers at 2001 levels. Owners of generators were technically still allowed to charge market prices for producing electricity, albeit tempered by various formulas for calculating “real” costs. Rather than pass on any increases to consumers, however, the federal government forced the CAMMESA Stabilization Fund to pay for them. Given its grossly expanded new mandate, the Stabilization Fund ran out of cash by mid-2003. After this point, CAMMESA began “paying” the privately owned generators with Argentine government bonds.

In mid-2004, the federal government authorized a partial pass-through of higher generation costs to larger industrial and commercial users. As was the case for natural gas rates, however, tariff hikes for transmission and distribution services were delayed by the Kirchner administration’s insistence that the private firms first drop their international arbitration claims. These claims are based on alleged breaches by the Argentine government of bilateral investment treaties when it forcibly converted utility tariffs into pesos and froze them in 2002. Meanwhile, electricity rates for all residential users—albeit not the taxes in their bills—remain frozen.

The Kirchner administration initially claimed in mid-2004 that increased revenue collected from higher electricity generation prices paid by larger industrial and commercial users would replenish the CAMMESA Stabilization Fund and allow redemption of the bonds issued to generator owners. Despite this promise, the private generator owners have yet to see their outstanding bonds redeemed. Instead, the Secretariat of Energy in July 2004 came up with a new

scheme that required generator owners to deposit 65 percent of their bonds in a trust fund called the *Fondo de Inversión en el Mercado Eléctrico Mayorista* (FONIVEMEM). The bonds are supposed to be redeemed for cash to build two new thermal plants in Buenos Aires and Rosario. In return for this forced investment, the generator owners will receive shares in the new plants. Because it was unclear at the time where the natural gas to supply the new plants was supposed to come from, many generator owners initially balked at handing over their bonds. In response, the Secretariat of Energy in February 2005 announced that it would forcibly require these recalcitrant firms to direct 100 percent of their bonds to FONIVEMEM or risk never being able to redeem them.

The strong-arm tactics used to get private-sector generator owners to contribute to FONIVEMEM illustrate the Kirchner administration's antagonistic relationship with foreign utility firms. At the same time, they also indicate a grudging acknowledgment of the financial and technological constraints that prevent outright re-nationalization of the electricity sector and its return to the public sector. Instead, the Kirchner administration appeared to be trying to establish a system whereby the discretionary powers of private firms are circumscribed and the government assumes a preponderant role in directing investment decisions.

Given that throughout the 1990s the reliance on natural gas to generate electricity in Argentina increased so dramatically, it is no surprise that the electricity sector has also been negatively impacted by the increasing shortages in natural gas in the country since 2004. In addition to importing natural gas and substitute fuels, the Argentine government has also been forced to use the conversion plant located in Garabí (just over the Argentine border in the southern Brazilian state of Rio Grande do Sul) that connects the Argentine and Brazilian grids to import electricity from Brazil. This is a particularly ironic turn of events given that Garabí was built in 2000 primarily to support Brazil's hydro-dependent electricity grid with what was then thought to be cheaper, more abundant, and more reliable Argentine natural gas-generated electricity.

CONCLUSION

President Néstor Kirchner's failure to fully restore the market mechanism for setting prices for energy consumption in Argentina may have facilitated his wife's election as president, but it now means that the burden for restoring price equilibrium will fall squarely on her shoulders. Given energy shortages in the

winter of 2007 that forced halts in production and are already eating away at Argentina's recent impressive gains in GDP, Cristina Fernández de Kirchner will have no choice but to act early on in her administration, particularly if winter in 2008 is as cold as it was in 2007 and the drought in the Southern Cone persists. Adding to the need to take immediate action is the fact that Bolivia halved the amount of natural gas it committed itself to export to Argentina in 2007 and faces even greater supply constraints in 2008. The political calculation is that she will act early in her term so as to permit enough time for memories of the pain of the restructuring to dim before she or her husband decide to announce a decision to run again in 2011. One thing that may help President Fernández de Kirchner is the fact that the biggest beneficiaries of pesification and the price freeze on energy rates have been the middle class. This is the same group that has also benefited from the economic recovery that the country has experienced since 2003. Presumably their pocket books are now fuller and bank accounts replenished, so they are less likely to take to the streets if energy prices suddenly increase. In addition, if domestic supplies begin to increase as a result of restored market based incentives to invest, the government could compensate for the higher electricity prices by lowering the hefty taxes it currently charges through utility bills.² Up to now, the revenue raised from those taxes has been used to finance the purchase of imported natural gas, electricity, as well as substitute fuel oil. Interestingly, the poor in Argentina—the presumed base of the Kirchners' *Justicialista* party—primarily use liquefied petroleum gas (LPG) that comes in metal containers, and prices for LPG were never frozen.

NOTES

1. In October 2006 Argentine President Néstor Kirchner and Bolivian President Evo Morales signed a new agreement under which Bolivia guaranteed to provide Argentina with 22.7 million cubic meters of natural gas per day for the next 20 years. In return, Argentina agreed to pay a higher charge than it had previously been accustomed to of five U.S. dollars per million BTU's, although this price was to be adjusted every six months based on comparative prices for diesel and fuel oil. Since 2004, Argentina has also used *Petróleos de Venezuela SA* as a broker-financier to import fuel oil in order to operate older thermal plants in coastal Argentina or the newer dual combination thermal plants that can operate on either natural gas or fuel oil.
2. It is estimated that in 2003 some 33 percent of the average residential end user's bill in Buenos Aires represented taxes, while in the case of Entre Rios more than 60 percent of the electricity bill was made up of taxes. Overall, Argentine taxes on electric

utility bills are reputed to be among the highest in Latin America, averaging 30 percent versus 11 percent in Chile or 1 percent in Venezuela. See, Fundación para el Desarrollo Eléctrico, *Informe Sobre la Demanda del Consumo Eléctrico Argentino* (Buenos Aires: FUNDELEC, 2003), Annex I.