

Central American integration through infrastructure development

A case study of Costa Rican hydropower

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Introduction

At the turn of the 21st century, protectionist policies in Latin America were largely abandoned for an agenda that promoted free trade and regional integration. Central America especially experienced an increase in international, interstate, and intraregional economic integration through trade liberalization. In 2004, such integration was on the agenda of every Central American administration, the U.S. Congress, and Mexico. The Plan Puebla-Panama (PPP) and the Central America Integrated Electricity System (SIEPAC), in particular, aimed to facilitate the success of free trade by increasing energy production and transmission on a unified regional power grid (Mesoamerica, 2011). Meanwhile, for the United States, a free trade agreement (FTA) with Central America would bring it a step closer to realizing a hemispheric trade bloc while securing market access for its products. Isthmus states considered the potential for a Central America Free Trade Agreement (CAFTA) with the United States, their largest trading partner, as an opportunity to enter the global market on a united front. A decade and a half on, CAFTA, PPP, and SIEPAC are interwoven, complimentary initiatives that exemplify a shift towards increased free trade and development throughout the region. As such, to understand one, the other must be examined.¹

Viewed as the backbone of the PPP, SIEPAC was intended to meet increasing market demands within both the region and the hemisphere through further developing the energy sector (Jaramillo & Lederman, 2006; Reid, 2007). Energy is fundamental to contemporary economies. Electricity costs, in particular, affect almost all economic production as they correspond nearly directly with costs of consumer and industrial production (Hira, 2003). Moreover, without reliable electrical infrastructure, industrial demands for other infrastructure are greatly reduced. This article examines the development of integrated infrastructure for elec-



tricity within the framework of regional integration initiatives in Central America, focusing on the key role electricity development plays within a state as well as resistance to these initiatives.

As a case study, we focus our attention on Costa Rica, the last state to ratify CAFTA and the regional leader in energy production. Costa Rica's economic and social development success stands out as an anomaly in the Central American equation. Much of the country's success is attributable to its "hydropower capital." Water in rivers that produce energy through hydropower generation is considered by some to be the country's greatest natural resource, positioning Costa Rica as the largest producer of electricity in the region. For more than half a century, laws and agencies have regulated these water resources for state interests. Over the past two decades, however, Costa Rica experienced a shift in line with broad-based regional initiatives to increase energy production and trade.

Against this backdrop, the approach we adopt aligns with Agnew's (2011, p. 468) argument that water politics should be examined as the "complex intersection of institutional, economic, and ideological conditions at national, state, and local levels that have actually made the flow of water possible." Studying resource conflicts involves recognizing water to be more than a fixed local resource, an independent force in geopolitical conflict, or the leading actor in a drama involving economic and urban growth versus nature (Agnew, 2011). Linking water politics and economics so as to undertake nuanced analyses of ideological and institutional conditions is an important challenge, one that becomes even more significant when examining hydropower, an arena in which water and energy conflicts are intertwined.

Exercises of state power have long influenced the character of hydropower development (Evenden, 2009), but what of the regional influences on decision-making? Making political sense of Costa Rican energy policy strategies requires a multi-scalar approach that looks at both regional and state scales. Perrault's (2008) approach is relevant here—examining who, how, where, and why decisions are made in ways that identify the active reconfiguration by actors and institutions across articulated scales. Vogel (2007) takes this point a bit further, suggesting that scale is more complex than it may seem on the surface of water and that hydropower issues as differing jurisdictional levels may not derive from distinct sources of authority but may instead be linked. The result may be an absence of neatly ordered geographic scales aligned in any sort of mutually exclusive, clearly hierarchical or vertically structured pattern. In this light, hydropower's significance in regional integration can be made sense of through its context with other scales: global, state, as well as local.

Infrastructure development and the Plan Puebla-Panama (PPP)

In Central America, the 1990s brought about numerous bilateral FTAs with Mexico, the United States, and South American states. Trade in Central America Common Market states increased 17% between 1990 and 2004 as well, a gain demonstrating relative progress in trade liberalization. Unfortunately, according to World Bank reports, trade progress did not keep pace with rapid increases in poverty. This inconsistency contradicts neo-liberal economic theory, which promotes trade liberalization as the key to long-term poverty reduction (Winters & McCulloch, 2004). Interpretation of the discrepancy by economists signaled a need for infrastructure investments to support the liberalized trade bloc. As a result, Central American states amplified efforts to reform policies that facilitated service privatization and encouraged foreign direct investment (FDI) (Hussain, 2006).

Economic diversification, according to Reid (2007), often requires increased infrastructure improvements to meet efficiency demands. If infrastructure cannot provide sufficient movement of products and labor, productivity will not increase, minimizing the efficacy of trade as an economic growth mechanism (Jaramillo & Lederman, 2006). Thus, in addition to liberalizing markets through FTAs to lure foreign capital investment, states may also improve infrastructure. Consequently, energy, along with transportation and telecommunication systems, is considered indispensable for optimizing manufacturing and trade (Haggard, 2000; Jaramillo & Lederman, 2006). While improving and extending infrastructure is crucial to attract extraregional investment, integration of infrastructure is also important. Perceived benefits associated with integrating energy infrastructure are cost efficiencies, increased service coverage, quality improvements, enhanced security, reduced production costs, and expanded market size (Hira, 2003).

To facilitate increased infrastructure efficiency and competitiveness within Central America and Mexico, the PPP was developed. On 5 September 2000,² President Vicente Fox of Mexico proposed this plan to Central American states to promote economic and social development as well as regional integration (Hussain, 2006; Stenzel, 2006). His rationale was to integrate infrastructure in the southern states of Mexico, which lagged behind the rest of the country in development, to that of Central American states with which they were more convergent. The goal was to facilitate integrated regional emergence in world markets (Lopez-Calva & Rustig, 2004). In December 2001, Mexico, Guatemala, Belize, Honduras, El Salvador, Nicaragua, Panama, and Costa Rica signed the pact, with Colombia joining in 2004 (EIA, 2007; Stenzel, 2006). Initial PPP plans served eight purposes with the two highest priorities being highway construction and

establishing SIEPAC. Designed to prevent industry and products from migrating away from North American control, the PPP connects FTAs within a grander integration scheme (Hussain, 2006; Jaramillo & Lederman, 2006).

The physical grid for SIEPAC consists of 1,800 km of 230 KW transmission lines that connect newly constructed energy production facilities to new factory and mine development zones through 15 substations in six countries. The Interamerican Development Bank invested USD 6.5 million in technical research grants from 1996 to 2010. Initial cost estimates totaled USD 409 million; however, the cost to date totals USD 505 million (Mesoamerica, 2014). The Empresa Proprietaria de la Red (EPR), a partnership of energy companies from member states that is housed in Costa Rica, was established for the construction, ownership, and operation of the transmission line (IADB, 2006). Electricity is sold on the Mercado Eléctrico Regional (MER), a regional electricity market (Mesoamerica, 2014) and regulated by the Comisión Regional de Interconexión Eléctrica or Regional Electric Interconnection Commission (CRIE). This supranational organization is tasked with ensuring transparency and proper functioning of the market, promoting competition, and managing both transmission and generation of power on the grid (EIA, 2007; USAID, 2006). Energy sector integration through SIEPAC was viewed by proponents as having the same potentials that Hira (2003) outlined: increasing competition, improving system security, reducing transaction costs, and consolidating assets. Yet, the PPP faced resistance from grassroots groups from its inception. The secretive nature of negotiations, threats of continued U.S. hegemony, and the potential for negative impacts on Indigenous groups through the construction of new dams in the region raised concerns (BIC, 2007; Hussain, 2006). At the time of conception, SIEPAC alone was set to impact an estimated 65 million people of 100 different linguistic groups across eight countries. Estimates total the creation of 1,100 temporary construction jobs, a small number relative to the regional population and with limited financial benefits for residents. By contrast, companies based outside the region were expected to reap handsome profits from project design, finance, and construction (BIC, 2007; Hussain, 2006).

Lopez-Calva and Rustig (2004) suggest that the PPP may be viewed as a policy experiment to facilitate the United States' plans for the Free Trade Area of the Americas (FTAA). While currently moribund, the FTAA proposed the creation of a united hemispheric trade bloc for the 34 states (Beck, 2004; Moreno, 2003; Stenzel, 2006). FTAA is relevant here because it points to the United States' intention for CAFTA to reach beyond the immediate treaty between member states. As such, SIEPAC is slated to connect to South America's Initiative for Integration of Regional Infra-

structure (IIRSA) and the Trans-Texas Corridor into the United States, part of the larger North America Super Corridor (NASCO) (NASCO, 2009). According to the director of the Executive Unit, these projects would supply “an endless chain of energy” spanning the hemisphere (Stenzel, 2006). If the FTAA or another such hemispheric trade bloc emerges, the three integrated systems together would provide for the infrastructure and regulatory framework necessary to facilitate expansive trade (BIC, 2007).

Support for and resistance to CAFTA

On 5 August 2004, a mere year after negotiations, and while the PPP took shape, Central American countries entered into a multilateral agreement with the United States to ensure and expand access to U.S. markets and vice versa. Intended to increase market access for goods and investment by lowering trade barriers and amending regulations for services between the member countries, agricultural, textile, and apparel goods were designated as CAFTA priorities (Finley-Brook & Hoyt, 2009; Jaramillo & Lederman, 2006; Stenzel, 2006). To proponents, CAFTA completed the missing link for increased economic activity and growth in the region (Jaramillo & Lederman, 2006). Hira (2003) observed that free trade in general is considered a positive development in international growth, even if it requires greater coordination. Coordination, in this case, involves political-economic integration of the regional trade bloc. Supporters believed “trickle down” benefits would reach citizens through the expansion of industry in the region boosting demand for U.S. goods and reducing poverty (Stenzel, 2006).

An alternate analysis views trade liberalization and subsequent industry expansion as instigating greater wage disparity. While the scenarios presented by supporters of FTAs suggest an overall increase in specialized productivity and wages, critics hold that the “trickle down” effect fails due to less competitive sectors exiting with the result of greater unemployment (Hanson, 2009). Opponents further claim CAFTA advances capitalist interests of multinational corporations and U.S. investors by assuring that they face few regulatory restrictions to their operations generally resulting in unbridled corporate power and increased income disparity, both domestically and internationally (Beck, 2004; Finley-Brook & Hoyt, 2009; Moreno, 2003).

Until recently, private participation in energy production and distribution was limited by laws and/or largely public monopolistic control within the member states. As the privatization trend swept through Central America, government protectionist measures presented challenges for

investors (CAESS, 2008). Because granting new concessions in some cases was hampered by multiple registration procedures over extensive time periods, CAFTA strategists believed state regulations should be relaxed to promote timely entry of firms to the region and facilitate new industry. Under guidelines set forth by CAFTA, these procedures would reduce to a single step when possible. Domestic policy and regulatory reforms within member states centered on increasing competition in the service sectors—that is, telecommunications, financial services, and most importantly for this study, the energy sector (Jaramillo & Lederman, 2006). Jose Merino del Río of Costa Rica called moves to market opening, deregulation, and privatization the “unholy trinity of market fundamentalism” (Hussain, 2006). Privatization within the electricity sector would benefit corporations that acquired concessions or assets at low cost to then establish private monopolies or duopolies in production and distribution. To that end, public sector services were taken over through privatization measures by multinational companies whose logic was largely based on markets and profits (Moreno, 2003).

Looked at historically, critics viewed CAFTA as transcending mere economic decision-making for the sake of development and instead as a continuation of Monroe Doctrine policies. Although CAFTA was touted as a means to further economic development for Central America, critics saw it as another attempt by U.S. interests to facilitate their own access to resources and economies. This would extend state security not for Central American countries but for the United States (Dalby, 2007; Finley-Brook, 2012). As Former U.S. Secretary of State Colin Powell put it, the “objective is to ensure control by U.S. businesses over a territory that ranges from the North Pole to Antarctica, with free access, without any obstacle or difficulty for our products, services, technology and capital throughout the hemisphere” (Moreno, 2003, pg. 10). Opponents interpreted this as neo-colonial encroachment on state sovereignty, especially as FTA policies may supersede laws of members that are based solely on state interests (Lindo, 2006). Adding to concerns about greater U.S. intervention, opponents criticized CAFTA for its focus on corporate profits over human rights and sustainability; further exacerbating income inequality; increasing foreign debt; and contributing to environmental degradation (Finley-Brook & Hoyt, 2009). Further concerns centered on CAFTA harming Central America through declines in family living conditions due to increased unemployment from failed state businesses; increased service prices; increased migration; and displacement of vulnerable communities and peoples (Beck, 2004; Lindo, 2006; Moreno, 2003; Trejos, 2007). Resistance was further bolstered by closed-door negotiations that included few representatives of civil society (Condo et al., 2005; Hussain, 2006; Willis & Seiz, 2012).

CAFTA's lack of environmental safeguards

Comparing provisions of CAFTA to NAFTA, economist Maria Trejos and legal expert Victoria Lindo pointed out concerns over environmental protection. These concerns were, in part, because natural resources are made available to international firms who secured "rights" to these resources through the treaty (Lindo, 2006; Trejos, 2007). Despite provisions designed for environmental protection within CAFTA's framework, critics claimed that the convoluted language and legalities of CAFTA outweigh state and local laws making true environmental protection infeasible (Beck, 2004). In particular, two CAFTA treaty articles stand out with respect to the environment, Articles 10.7 and 17.1.

Lindo (2006) explains that in Article 10.7 Expropriation and Compensation, "equivalent to expropriation" refers to any action taken by a government that a firm deems a limiting measure to their investment. The article permits firms to demand compensation for state laws or regulations that could threaten real or potential profits (Beck, 2004; Lindo, 2006; Trejos, 2007). Ostensibly, this provision was designed to provide a secure environment for shareholder confidence in their investments abroad. Nonetheless, environmental advocates claimed it instead strengthened multinational control over natural resources by weakening state authority over foreign investment (Trejos, 2007). This provision could facilitate unrestricted private sector entry into newly liberalized markets to allow unfettered access to prime natural resources located strategically close to the United States for resources and markets.

Similarly, Article 17.1 Enforcement of Environmental Laws appears to be a stipulation to deter countries from permitting environmentally harmful development and provides citizens an avenue to redress environmental violations. However, this provision is considered weak as the maximum annual fine is set at USD15 million, when by contrast there is a seemingly limitless potential remuneration for "expropriation and compensation" under Article 10.7 (Jaramillo & Lederman, 2006).

Beck (2004), Lindo (2006), and Trejos (2007) indicated, as a result of these contradictory provisions, states may face no other option but to allow development that they would otherwise prohibit due to the treaty loopholes. In this vein, Hira explained:

[regional] integration may make the problem of dealing with externalities that much more difficult. The level of state dedication to dealing with labor adjustment and the environmental problems may be watered down to the threshold level of the least dedicated partner, and it may simply be harder to organize and implement new environmental regulations. As the relative strength of corporations increases, furthermore, the level

of regulatory power by state governments or a coordinated international body may weaken commensurately (2003, p. 33).

Hydropower development in Costa Rica

Hydroelectric power facilities produced 51% of Central America's overall electricity supply in 2005. In 2006, all energy produced by hydropower was consumed. The remaining demand was largely met through costly imported fossil fuels (EIA, 2007). Regional hydroelectricity production is expected to rise significantly due to instability in global oil supplies, renewable energy trends, and the integration of the electricity grid. New dams provide energy for domestic uses; however, most power produced is expected to be sold on the integrated grid to supply industry within the region and to the United States (Stenzel, 2006). Benefits of hydropower over other energy sources include the ease with which it can produce peak load energy as well as its low operating costs after the initial investment, long plant life, efficient energy conversion, and concurrent provision of other water uses, such as irrigation, water supply, recreation facilitation, flood control, and navigational improvements (IHA et al., 2000). Critics, however, cite that instability in water regimes due to climate change has made hydropower a less reliable source of energy, and negative impacts of project construction and operation make hydropower development neither a renewable nor a sustainable resource (Duran, 2009; FECON, 2002; Lindo, 2006).

Costa Rica produces the majority of its electricity by hydropower and the country is the dominant hydroelectric producer in the region (Clough, 2009). Costa Rica's geographical situation on an inter-oceanic and inter-continental isthmus, together with steep terrain reaching over 3,800 meters, provides a mosaic of microclimates that support one of the most bio-diverse countries on the planet. With a tropical climate, precipitation collects in thousands of springs, creeks, and rivers to form 34 watersheds in a territory of 50,000 square kilometers³ (CIA, 2010). With annual rainfall averaging 330 centimeters (11 feet), water seems abundant and is viewed as an "inexhaustible" and "free" natural resource (Miranda et al., 2007). Abundant water coupled with steep terrain provide the vertical gain required for large dam projects, creating an ideal situation for hydropower production.

Costa Rica's energy development began in 1884, when the Costa Rica Electric Company provided waterwheel power to 25 street lamps in San Jose, making it the third city in the world to have electric lights, after Paris and New York. Legislation designed to regulate water for its hydraulic

potential (Rodriguez, 2000) drew interest from foreign investors, particularly the American Foreign Power and Light Company. This subsidiary of the Electric Bond and Share Company (EBASCO) quickly became a virtual monopoly over other electrical services in the country (Fay & Morrison, 2005; Rodriguez, 2000). In 1928, resistance formed due to concerns over the monopolization of the electricity sector and the control of hydrological resources by foreign private interests from the United States, both of which were deemed contrary to the socioeconomic development of the state. Legislation (Law No. 77) nationalized hydrological resources and established the National Electricity Service (SNE), the first service sector regulation agency that could collect taxes, control consumer tariffs, and build projects. The American Foreign Power and Light Company monopoly was challenged by this assertion of state control (Rodriguez, 2000). The following decades were wrought with challenges over tariffs, service provision, and concessions between the public and private sector, a situation that continues even today.

Seeking resolution to the country's energy problems, President Calderon Guardia asked U.S. President F.D. Roosevelt in 1940 for assistance. Julius Krugg from the Tennessee Valley Authority arrived to assess the situation. He suggested consolidating the three private companies of EBASCO into one entity; from this merger the *Compañía Nacional de Fuerza y Luz* (CNFL) was created⁴ (Rodriguez, 2000). Krugg, a strong believer in state-run sectors, advised that the current laws and regulating authority, as well as project development financing, were inadequate to deal with burgeoning energy sector demands. In response, Law No. 258 was passed granting the SNE fiscal oversight of electric companies, authority over tariff regulation, and the ability to implement penalties for stealing energy or unauthorized utilization of hydrologic resources for the generation of electricity. The Water Law of 1942, No. 276, established both surface and groundwater as public goods and therefore property of the state (Aguilar-Schramm et al., 2001; Miranda et al., 2007; Rodriguez, 2000). The law also created the regulatory framework for water resources and elaborated on the state's right to authorize, regulate, control, and administer all waters, while permitting the creation of additional organizations that would direct water use, conservation, and regulation (Miranda et al., 2007).

In 1949, revolutionary President Figueres created as a social project, the *Instituto Costarricense de Electricidad* (ICE) under decree of Law No. 449. According to Law No. 449, it was ICE's duty "to promote the enhanced understanding and exploitation of the country's resources of wealth" by exploring the hydropower potential of the country, among other resources. As ICE evolved, its tasks came to include the generation, transmission,

and distribution of electricity as well as the construction and maintenance of related infrastructure (ICE, 1988), which Chamberlain (2007) pointed out was intended to enhance state economic development. Established as a not-for-profit institution, ICE in turn offered all of its services at cost to ensure access to energy for the wellbeing of the entire population. ICE's financing was generated through the company's provision of services as well as from international development agency loans and foreign aid (ICE, 1988). From the first waterwheel in 1884, the state energy sector expanded to 29 large hydropower facilities in 2015. These facilities are owned and operated by ICE and CNFL, which were the only entities entitled to build dams in the country until 1990 (ICE, 1988; Rodriguez, 2000).

According to a 1988 report by ICE, the institution was designed to be autonomous and at liberty to make its own decisions. Autonomy, however, proved to be short lived. Carlos Sojo (2004) described the gradually diminishing autonomy of ICE (and other Costa Rican institutions) as government increased its influence over decisions. In 1962, a new law called for the inclusion of a State Minister on the board of directors. In 1968, autonomy was further limited to administration alone. Meanwhile, in 1968, CNFL was virtually taken over by ICE by means of Law No. 4197, which granted 93.74% of the shares to ICE and the remainder to Costa Rican investors (ICE, 1988). Merging the two power entities formed a vertically integrated monopoly in energy production and supply across the country (Chamberlain, 2007; Fay & Morrison, 2005; ICE, 1988). This was the first time private investors could hold interest in electrical generation infrastructure in Costa Rica. In 1970, another law established a board of directors for ICE, in which the majority were appointed by the executive administration, and in 1974, further curtailing autonomy, a political appointee was designated with powers superior to those of the General Manager (Sojo, 2004). ICE's ability to make nonpartisan decisions separate from administrative interests was compromised, giving rise to scandals concerning the operations of ICE over the past three decades under several ICE Directors and Costa Rican presidents.

Privatization of hydropower in Costa Rica

Following the global economic crisis of the 1980s that gave way to "Washington Consensus" policy reform advice and nearing the end of the Cold War that put Costa Rica in a position of strategic geopolitical importance to the United States, the country was encouraged to undertake neoliberal reforms to facilitate globalization (Sojo, 2004; Vanden, 2002). USAID and other lending institutions recommended that Costa Rica abandon its pro-

tectionist, social welfare state in exchange for a neoliberal platform that included less state intervention (especially in regard to the free flow of goods and capital) and increase the privatization of public services. This meant opening the energy sector to investment from transnational capital and corporations and the inflow of their products (Vanden, 2002).

Oscar Arias Sanchez assumed the presidency for his first term in 1986 based on a campaign platform built on restructuring the economy. Discussions about privatization began shortly after (Sojo, 2004; Vanden, 2002). According to reports by Costa Rica's Minister of National Planning and Political Economy, private investment in the energy sector was necessary due to reduced external funding from multinational financial institutions for major project development (MIDEPLAN, 2009). Yet, privatization opponents pointed out that, unlike other inefficient bureaucratic agencies in the region, ICE was still functioning successfully and serving the public as constitutionally decreed as a not-for-profit entity (Chamberlain, 2007). Notwithstanding ICE's argued success, 14 "non-strategic" components of the company were outsourced to the private sector in 1987, although for the time being ICE remained in charge of the planning, development, and operation of all large infrastructure projects (Salas-Picado, 1995).

Further privatization arrived in 1990 with new legislation concerning energy production. Law No. 7200 allowed the production and sale of energy to ICE from private, limited capacity hydroelectric power plants known as cogenerators (Chamberlain, 2007; Fay & Morrison, 2005; Aguilar-Schramm et al, 2001). Law No. 7200 made private electricity production a viable option in Costa Rica about the same time negotiations were underway to create SIEPAC (Ruiz-Caro, 2006). To obtain a private permit as a cogenerator, a rigorous certification process was required. First, a company had to request permission from ICE and acquire a declaration of eligibility. Privatization proponents described the process as an impediment to development and a continuation of what they deemed as an ineffective energy sector monopoly (Staff Writer, 2008). If a certificate was granted from ICE, then the newly formed Public Service Regulating Authority (ARESEP), which replaced the SNE in 1996, decided whether to authorize the production of hydroelectricity and set the tariffs. In addition, the 1995 Harmonious Law of the Environment (*Ley Orgánica del Ambiente*), designed to promote conservation and sustainable use of the environment for the public interest, stipulated that an environmental impact assessment (EIA) must be conducted for electricity projects and this EIA must be approved by the Secretary of Environment (Aguilar-Schramm et al., 2001; Fay & Morrison, 2005; Rodriguez, 2000). Each step had to be completed before any permit was authorized to develop electricity or alter rivers and waterways. No restrictions were made to the number of proj-

ects that could be constructed within a watershed; however, there was a limit to the amount of electricity that each cogenerating plant could produce (Lindo, 2006). Opponents point out that this configuration was counterproductive to the state's goal to generate large quantities of electricity at low cost with minimal damage to the environment.

The Harmonious Law of the Environment seems to reflect a shift towards looking at the environment as an integrated system. However, according to members of the Federación Costarricense para la Conservación del Ambiente (FECON), a statewide forum for environmental resistance, in practice the EIA does little to define the overall environmental viability of a project. Instead, the EIA outlines the impacts and describes mitigation strategies for individual project proposals, but it does not consider the effect of multiple projects within a watershed (Duran, 2009; FECON, 2002). Several of Costa Rica's watersheds have multiple hydropower generating dam projects on a single river; for example, the Río Reventazón has five large dams, including Central America's largest dam, while the Río San Carlos has 29 hydropower facilities (Arias, 2014; Duran, 2009).

Initially, each cogenerating facility capacity was set at 20 MW and supply to ICE was limited to 15% of the state's energy supply. Permits were to last up to 15 years, at which time the operation would have to request renewal (Duran, 2009). Up to 35% of shares could be owned by foreigners while Costa Rica citizens would retain the remaining 65% (Fay & Morrison, 2005).

Opposition focused on tariff changes. Electricity was to be purchased by ICE at higher rates than they were capable of generating electricity as a not-for-profit-entity. Many private cogenerators had contracts for purchase by ICE at the avoided cost of thermal energy, a price increase of up to nine times higher than ICE-generated hydropower costs. FECON (2002) reported privately generated power cost up to three times the amount of ICE's own electrical generation. Furthermore, ICE was obliged by law to purchase all electricity produced by cogenerators, whether needed or not. For example, energy produced at non-peak times when demands reduced was still a mandatory purchase for ICE (Segnini, 2000). In 1995, under the administration of President Jose Maria Figueres, Law No. 7508 increased private production limits to 30% of the state total, extended permits from 15 to 20 years, and allowed foreign shares up to 65% (MIDEPLAN, 2009; Segnini, 2000). Enlarging the proportion of foreign shares increased the potential for capital flight and diminished the potential for state economic development through private facilities.

Segnini published an article in *La Nación* newspaper in 2000 explaining the costs of private energy purchases. According to their report, 89% of private companies charge 21.63 colones per KWH, while the remain-

ing 11% charged 16.37 colones per KWH. Meanwhile, ICE was capable of producing a KWH for 5.45 colones. In addition, *La Nación* emphasized that ICE sold energy at a rate of 12.37 colones per KWH, which resulted in a minimum loss of a 34% based on what the institution purchased electricity from private companies. They also reported that between 1999 and 2000, the Arenal Reservoir released 77,600 MW worth of water without generating electricity, while ICE was legally obliged to purchase the same amount from the cogenerators at a cost of 1.416 million colones, roughly USD 5,664,000 (Segnini, 2000). Based on tariff prices, the cost to ICE could have been as low as USD 1,866,000. This price increase translated into higher consumer electric bills and, as was indicated by the newspaper's investigation, turned into a contentious topic.

In 2000, ICE's President, Rafael Sequeira, admitted that these costs were exceptionally high but stated that until the concessions expired, nothing could be done to change them. He further explained that when the original concessions were made, the cost projections did not predict such large tariff increases. The director of ACOPE (Asociación Costarricense de Productores de Energía), a private energy production association in Costa Rica, insisted that assurances for 24 hours/day purchases was the only way that cogenerators could comply with financial obligations to investors, which totaled around USD 400 million dollars for the 19 plants with round-the-clock production. Nevertheless, 10 private facilities built later had clauses limiting production to peak hours, which exempted ICE from nighttime purchases (Segnini, 2000).

According to sociologist Osvaldo Duran (2009), these laws, contracts, and tariffs were illegal based on the constitutional decree that created ICE. Moreover, Duran stated that ICE directors, who are presidential appointees, were in collusion with private interests. According to witnesses in communities around Arenal reservoir, the largest energy facility in 2000, ICE emptied the reservoir without generating electricity to create a perceived need for more private facilities while legislation was being debated. This situation was reported again in 2007, when there was a countrywide blackout along with pressures to increase hydropower development (Duran, 2009).

Costa Rican opposition and transition to CAFTA

For negotiators, Costa Rica's membership in CATFA was especially significant because it was the richest and most stable in the region and therefore the most attractive to U.S. investors (Finley-Brook, 2012). CAFTA proponents' claimed that the country stood to benefit more than any other from

the presence of a highly educated workforce and a lower dependence on agricultural exports (Kane, 2006). Due to the state education system, Costa Rica reports nearly a 97% literacy rate and has a highly skilled labor pool ideal for manufacturing jobs that were expected to enter the country with CAFTA, much like the USD 300 million INTEL plant already well established in the country (Carlsen & Kohlstedt, 2009; Vanden, 2002). The opposition, however, pointed out that Costa Rica had more to lose for the same reasons, arguing that CAFTA would result in decreased wages, jobs, and social services (Moreno, 2003).

Costa Rican President Abel Pacheco signed the CAFTA treaty in 2004, despite concerns over demands by U.S. negotiators to privatize Costa Rica's state-run insurance company, INS, and the telecommunications sector of ICE (Kane, 2006; Willis & Seiz, 2012). Unlike neighboring states, however, the trade agreement was not immediately ratified by the legislature, largely due to fear of large-scale social unrest (Willis & Seiz, 2012). Instead, legislative actions stalled, which was supported by a large percentage of the population (AWID, 2007). Before ratification, 13 new laws relating to permitting and intellectual property rights had to be passed, a process that proved difficult in a divided congress (Kane, 2006; Fernandez, 2007; Trejos, 2007). Marjorie Gamboa from the University of Costa Rica stated that "the problem [with these concessions] is that the owners are mostly politicians, former presidents and influential families who have attempted to privatize secretly, internally, in silence" (quoted in Kane, 2006 pg. 26). For instance, state records linked the families of both Oscar Arias (Law 7200) and Jose Maria Figueres (Law 7508) to investments in hydropower generating facilities that benefit from the new laws (Chamberlain, 2007; Duran, 2009). This scenario raises questions about the legitimate need for private power generation and the extent of conflicts of interests in hydro-power policy decisions.

In 2002, when the government discussed reevaluating tariff rates on cogenerating plants, the Overseas Private Investment Corporation, the guarantee company of the Figueres family's two hydropower facilities, made it clear to the government that they would take legal action if tariffs were modified. In 2001 and 2002, these facilities earned the families USD32,595,330 (Duran, 2009). While the two incidences are not directly linked, the use of political power to achieve financial gains through neoliberal reforms is suggested. CAFTA opponents also had concerns that ratification would compromise the unique state model of a social democracy that Costa Rica had maintained for several decades. Perceived threats emerged from a neoliberal platform of privatization, deregulation, and unrestricted market access for foreign corporations; all which the state had largely managed to avoid (Kane, 2006).

As debates and stalling over CAFTA persisted, presidential elections were underway in 2005 with two main candidates—Otton Solís, campaigning on a platform for further negotiations before ratification of CAFTA, and pro-CAFTA Oscar Arias vying for his second term in office (Sonray, 2008). Due to a narrow margin in voting results with 0.5% of votes in Arias' favor, a manual recount was arranged by the Supreme Elections Tribunal (TSE). In total, 18,169 votes made the difference and Arias again assumed the presidency in 2006. Once Arias took office, the TSE was called into action again, this time to organize a state referendum at the behest of a petition requested by a former opposition presidential candidate, José Miguel Corrales (Thomas, 2007). The referendum held on 7 October 2007, the first in the history of Costa Rica, was the first time in world history a mechanism of direct democracy was used to decide the ratification of an FTA (Willis & Seiz, 2012). Regional integration and economic policy through CAFTA was both influencing state policy and vice versa. The referendum would decide the fate of the new laws concerning CAFTA ratification that had stalled in congress.

Organized resistance, the movement "Vote No," quickly gained strength as discontent mounted over perceived fraud, threats to sovereignty, and government legitimacy (AWID, 2007; Bindman, 2008; Fernandez, 2007; Kane, 2006; Willis & Seiz, 2012). Notwithstanding, roughly two weeks before the referendum, a memo dated July 29th addressed to the president and his brother, the Minister of the President, Rodrigo Arias, was leaked to the public. Written by the second Vice President Kevin Casas and Congressman Fernando Sanchez, Arias' cousin, the letter, now known as the "Memorandum of Fear" outlined a plan for a campaign that would scare the country into voting "Yes" (AWID, 2007). The tactic seemed to work as the "Yes" vote won by a narrow margin of 51.6% to the 48.4% "No" despite earlier polls that indicated the "No" to be clearly ahead of the "Yes" (Willis & Seiz, 2012).

Conclusions

This study illustrates regional influences on policies made at the state level and examines how a state, in turn, affects regional development and integration. International development policies, such as regional integration schemes and FTAs like CAFTA, impact the decision-making arena for energy sector reform in Costa Rica.

Soon after electricity's invention, markets developed around the generation and distribution of this new resource. In Costa Rica, potential profits encouraged foreign capital to seize the opportunity to exploit the

hydropower resources at the turn of the 20th century. This time period was also the first in which resistance movements formed around energy sector development, ultimately prompting the state to arbitrate between the interests of the American Foreign Power and Light Company and state resource autonomy and exploitation. The Liga Civica movement led to the SNE, which later brought about the nationalization of the power sector and strict regulation over hydropower resources.

Over the last half-century Costa Rica, asserted itself as a regional leader in political stability, development, and energy production. Costa Rica's ability to thrive in an otherwise unstable geopolitical environment is, in large part, due to the creation of a strong welfare state and a state-run energy sector (Finley-Brook, 2012). Utilizing vast hydrological resources as the foundation for energy supply allowed for near-constant growth and benefited state industry. As an autonomous institution, ICE managed to efficiently generate and distribute power to nearly the entire population of Costa Rica for decades, despite its share of problems and scandals. Unlike the state energy sectors of other Latin American countries, ICE was considered a model of efficiency for utility management and service. In addition, the energy sector was profitable (Fay & Morrison, 2005).

Yet over time, economic and political pressures that influenced state policy challenged this situation. In recent years, Costa Rica has been subject to development policies of international financial institutions and hemispheric economic policy. For instance, the global economic climate of the 1980s led to the onset of neoliberal reforms. Today in Costa Rica, the cumulative result of decades of international political and economic influences has loosened the state's grip on the energy sector, particularly on hydropower resources and power generation infrastructure.

Simultaneously, the formation of resistance movements in Costa Rica to prevent further privatization, integration, and hydropower development initiatives, especially since the turn of the 21st century, has provided a counterbalance. Supranational influences on development and governance policy, in turn, created the grounds for expansion of resistance movements that today extend from Costa Rica to the regional level and beyond. As CAFTA was negotiated, organized resistance formed in response to threats to state autonomy, natural resources, and rights. What is more, the state's legitimacy was called into question. As Costa Rican presidential administrations bent to regional pressures and deployed practices antithetical to democratic processes, the transparency of decision-making was called into question. An example was the tactics employed during the referendum to sway voters to ratify CAFTA, including those suggested in the "Memorandum of Fear." Consequently, new laws that would facilitate private control over hydropower have been repeatedly denounced by

opponents. Despite calls by neoliberal reform advocates to fully privatize state utilities, resistance in Costa Rica made it much more difficult to do so.

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NOTES

1. *Sistema Integrado de la Electricidad para los Países de América Central* in Spanish.
2. This entity was conceived in 1987 during the first phase of structural adjustments in the region by Central American governments and Spain. In 1995, the countries agreed to continue with the plan, later bundled into the PPP (Ruiz-Caro, 2006).
3. This is roughly the size of the U.S. state of West Virginia or the European country of Greece.
4. CNFL would remain the main electricity company in the country until ICE's inception in 1949 (Chamberlain, 2007; ICE, 1988).

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