18. Power to the stakeholders: how co-production turned around a green energy blunder in Ontario, Canada

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INTRODUCTION

In 2009, the Canadian province of Ontario launched an ambitious policy to significantly increase its production of wind and solar power. The policy featured an investment agreement, negotiated in secret, between the political executive and Samsung C&T of South Korea, the terms of which transferred billions of dollars to Samsung over a 20-year period. In exchange, Samsung would provide 2,500 megawatts of installed wind and solar capacity and establish four equipment manufacturing facilities in the province. The policy prompted immediate criticism from consumers, Samsung's competitors, and residents opposed to wind farms. Moreover, implementation was delayed by stalled negotiations between Samsung and local governments – notably, the autonomous Six Nations government – whose land was required to site the investment. In the end, the project was scaled back to 1,340 megawatts, and three of the four equipment manufacturing facilities set up under agreement closed within 10 years of establishment.

Although the investment agreement is widely considered as ill-conceived, the policy achieved its primary objective: wind and solar now account for 10 percent of Ontario's energy mix. This chapter explores how a poorly devised political mission was saved from failure. Research based on confidential interviews and document analysis suggests that bureaucratic brokerage of co-production arrangements was a critical factor contributing to the policy's contested success.

This case is highly relevant for the study of positive public administration because it sheds light on problems confronted in the execution of bold political missions, the likes of which are apparently necessary to address current crises (Mazzucato, 2021). Consistent with Ostrom's research program, this chapter takes a political economy approach to the study of public administration and

governance (Ostrom and Ostrom, 1971; Ostrom, 2010). Viewed through a political economy lens, the case demonstrates that executives in the Canadian Westminster political system face comparatively few veto players capable of frustrating political missions (Lijphart, 2012; Savoie, 1999; Tsebelis, 2002; White, 1994). However, the same institutions permit executives to neglect civil society actors whose support may prove instrumental for policy success (Bradford, 2003). Thus, an institutional tension exists whereby advantages associated with executive-dominance of the political agenda are undermined by what Gary Miller and Andrew Whitford (2016) call "political moral hazard."

This chapter argues that ancillary governance institutions are required to curb institutional pathologies toward short-sightedness. Importantly, these ancillary governance institutions need not detract from institutional comparative advantages associated with executive agenda-setting (cf., Hall and Soskice, 2001; Witt and Jackson, 2016). Rather, governance arrangements that leverage stakeholder resources and co-opt potential opponents may be established and administered during policy implementation without interfering with the ability of the political executive to set mission-oriented policy agendas (Herrmann, 2008; Ornston and Schulze-Cleven, 2015). However, ancillary institutions are not automatic (e.g., constitutionalized), but must rather be devised and sustained (Jones and Bachelor, 1993).

The rest of the chapter is divided into two main sections, one empirical and one theoretical. The empirical section provides an event analysis of Ontario's green energy policy based on policy documents and interviews with government and stakeholder representatives. The theoretical section examines the case data through a political economy lens on positive public administration, whereby political agenda-setting and policy implementation are conceived as a two-stage game in which public entrepreneurs serve distinct initiation and coordination functions (cf., Grossman and Hart, 1986; Schneider et al., 1995). The model illustrates how risks associated with green transformations necessitate political coordination of producer networks during policy implementation. Thus, public entrepreneurship does not end with the initiation of political missions but rather continues to implementation (Fiorina and Shepsle, 1989). The concluding section discusses possible implications for governance of political missions.

ONTARIO'S GREEN ENERGY SAGA (2003–2018)

Ontario's push for renewable energy began in 2003, shortly after the Liberal Party took power under the leadership of Dalton McGuinty. The government immediately announced plans to phase out coal-fired electricity generation by 2014, making Ontario the first jurisdiction in North America to wean itself

off coal. At the time, coal power comprised 25 percent (7,560 megawatts) of Ontario's energy mix. Notably, the bulk of the phase-out was initially accomplished by expanding natural gas and nuclear power generation (Winfield and Saherwala, 2022). Yet, by 2008, plans were in the works to introduce significant wind and solar generating capacity to the province, thereby further reducing reliance on electricity from fossil fuels.

Plans to develop renewable energy were coupled with economic objectives in the aftermath of the 2008 financial crisis, which hit the automotive sector particularly hard. In response, the McGuinty Liberal government passed the Green Energy and Green Economy Act in 2009, which was followed by a Green Energy Investment Agreement between the Province of Ontario and Samsung C&T of South Korea. These two policies are the focus of this study.

Institutional Backdrop

McGuinty's green energy ambitions were facilitated by Canada's political institutions, which bestow considerable policymaking authority onto provincial premiers (Savoie, 1999; White, 1994). Canada's electoral system is based on the English Westminster model, according to which parliamentary seats are assigned by electoral district based on a single-member plurality formula. The leader of the party with a majority of seats in the legislature forms the executive council, otherwise known as Cabinet. Because a vote of non-confidence in the legislature can bring down the government, a convention of strong party discipline has evolved (Kam, 2009). Consequently, Cabinet sets the legislative agenda (Tsebelis, 2002).

Unlike the United Kingdom, Canada is a federation whose provinces are among the most powerful subnational governments in the world in terms of constitutional authority to regulate society and raise revenue. While the federal legislature is bicameral, provincial legislatures are unicameral and highly disciplined. Moreover, municipal governments in Canada are constitutionally "creatures of the provinces" and therefore subordinate to provincial governments. Thus, provincial premiers confront very few veto players capable of frustrating political ambitions in areas of provincial jurisdiction. Yet, as the following discussion illustrates, autonomous Indigenous governments constitute an important exception in cases where provincial designs encroach on the territorial sovereignty of Indigenous Nations. Canadian legislatures also feature an independent and non-partisan Office of the Auditor General, which has after-the-fact investigative powers to authoritatively report on perceived mismanagement of public money.

The Green Energy Act and the Samsung Deal

The Green Energy and Green Economy Act of 2009 – colloquially known as the Green Energy Act – was intended to simultaneously promote renewable power generation and equipment manufacturing in the province of Ontario. The primary instrument was a generous feed-in tariff rate offered to producers of wind and solar power, contingent on a local content requirement that a portion of equipment used for electricity generation was manufactured in Ontario. Policymakers hoped (and claimed) that incentives would attract green energy investment to the province, encourage realignment of the ailing southern Ontario industrial base toward green energy manufacturing and create 50,000 jobs.

Governance reforms contained in the Green Energy Act exemplify the concentration of authority typical of the Canadian political system. Specifically, the Act reversed two previous instances of devolution. One reversal replaced municipal regulations governing renewable energy projects with a centralized and expedited process administered by the provincial Ministry of Energy, thereby stripping local governments of their devolved power to veto renewable energy projects. The other reversal recentralized responsibility to develop and approve Ontario's Long-Term Energy Plan, which had previously been assigned to arm's-length entities, the Ontario Power Authority and Ontario Energy Board, in 2004. Recentralization of authority within the provincial executive was justified on the basis that it was necessary to execute a bold political mission in support of renewable energy, the centerpiece of which was the Green Energy Act.

Yet, five months after the passage of the Green Energy Act in May 2009, the government also announced that it had struck a $7 billion investment deal with a "Korean consortium" consisting of Samsung C&T and South Korea's state-owned electricity utility, KEPCO. The Green Energy Investment Agreement – colloquially known as "the Samsung deal" – guaranteed Samsung 20-year power purchase agreements worth $10.5 billion as well as economic development subsidies worth $437 million. In exchange, Samsung agreed to install 2,500 megawatts of wind and solar capacity over five phases and create 900 full-time manufacturing jobs by setting up four equipment manufacturing plants in the province. The intention was for the manufacturing facilities to supply equipment to electricity producers seeking to fulfill local content requirements stipulated by the Green Energy Act.

The Samsung deal was highly controversial among electricity consumers, existing equipment manufacturers, power generators, system operators and even ministers within McGuinty's Cabinet. From the perspective of consumers and industry representatives, Samsung got a "sweetheart deal" that promised two decades of above-market electricity rates, exclusive economic develop-

ment subsidies and priority access to scarce space on the electricity transmission grid. Within government, agency heads and several members of Cabinet were upset at being kept in the dark about the impending deal prior to reading about it in the *Toronto Star* in September 2009.

According to interview respondents and internal government documents, Samsung approached the Office of the Premier in fall 2008, which promptly assigned responsibility for negotiating the deal to the Minister of Energy and Infrastructure, George Smitherman (Ontario Renewables and Energy Facilitation Branch, 2011). According to Smitherman, "I was an economic nationalist before Trump, and I had concluded that, if we were going to make a big play in Green Energy, it needed to have an element of industrial policy" (Smitherman, 2019: 137–138). Although many industry players believe Ontario had sufficient manufacturing capability to meet the local content requirements contained in the Green Energy Act, proponents of the Samsung deal argue that Samsung's investment was a necessary complement to the Green Energy Act. As one supporter put it, "to suggest you're going to roll out a model that has domestic content when we don't already have the domestic supply looked a little weird […] by having one player, a significant player with a big enough order book at their command, they would definitely have capacity and, it turns out, the mandate to help to make sure that our domestic content obligations were not impractical."

Phase 1 of the project included plans to install wind and solar farms in Ontario's Haldimand Tract, both on and adjacent to the sovereign territory of the Six Nations of the Grand River. Smitherman therefore introduced Samsung representatives to members of the Six Nations Elected Council, who then undertook siting talks and land surveys over the summer of 2009. Notably, Samsung and the Six Nations did not conclude a memorandum of understanding until January 2010, some two and a half months after the Green Energy Investment Agreement between Samsung and the government was approved by Cabinet.

The Cabinet meeting that confirmed the Samsung deal was tense by all accounts. Anonymous sources indicate contention was focused on three aspects of the policy: the feed-in tariff approach preferred by Energy and Infrastructure, the "scale of the arrangement with Samsung," and "the process by which it was arrived at." Objections notwithstanding, the Samsung deal is reported to have passed a vote in Cabinet with Premier McGuinty's support. Smitherman left provincial politics shortly afterward to run as a mayoral candidate in Toronto's 2010 municipal election.

Implementation Challenges

Although the Six Nations Elected Council and Samsung drafted a memorandum of understanding in January 2010 that signaled mutual interest in partnering on power generation projects, the parties broke off negotiations within a year, citing a failure to reach satisfactory terms (Montour, 2012). With Six Nations territory off the table, Samsung set about securing alternative siting arrangements with the support of government officials. Accordingly, the government-owned Ontario Realty Corporation began evicting tenant farmers from 2,000 hectares of government-owned Crown Land bordering the Six Nations territory so that it could be surveyed for project siting.

Elsewhere in Ontario, local politicians were Janus-faced toward Ontario's green energy policies. On one hand, local politicians competed fiercely in their attempts to entice the Korean consortium to set up its manufacturing plants in their communities, mobilizing local and regional economic development agencies in a bid to save and otherwise create jobs in a recessionary economic climate. On the other hand, the same local politicians proved responsive to NIMBY-ism ("not in my backyard"), which took the form of organized resident resistance to perceived externalities associated with generating facilities and transmission lines.

Although the Green Energy Act stripped local governments of their power to veto power generation projects, wind farms were met with counter-mobilization on the part of the nuclear industry and a citizen group called Wind Concerns Ontario. Opposition groups delayed breaking ground on generation projects by lobbying for health and environmental impact assessments (McRobert et al., 2016). Although the assessments ultimately found no cause for halting the projects outright, an electoral calculus was made in the interim to reinstate local governments' authority to veto power generation facilities. The Haldimand County Council then issued a moratorium on industrial wind development in March 2011.

With siting challenges threatening to sink the project, Minister of Aboriginal Affairs, Brad Duguid, urged the Six Nations Elected Council to resume negotiations with Samsung in October 2011 (Montour, 2012). However, the Haudenosaunee Confederacy Council, which represents the traditional leadership of the Six Nations, opposed the negotiations. A cease-and-desist order issued to Samsung by the Haudenosaunee Confederacy Council in November 2011 cast additional doubt over whether siting renewable energy projects on Six Nations territory would ever be feasible.

Delays on breaking ground led the government to revise the Green Energy Investment Agreement on two occasions. The first revision came in July 2011, after Samsung failed to meet its milestone for the first 1,000 megawatts of capacity. Although Samsung was granted a one-year extension to meet

the milestone, the government slashed the value of the contract by $327 million. The second amendment came in June 2013 after Samsung failed to meet its Phase 3 and 4 construction deadlines and job creation requirements. Consequently, the Samsung deal was reduced to $5.4 billion in exchange for 1,340 megawatts of capacity (compared to $10.5 billion for 2,500 megawatts as originally agreed).

Realizing that it was significantly behind schedule and having neglected to develop its own green energy capabilities, Samsung attempted to subcontract its obligations to third parties. As stated by a high-level official in a confidential interview, "Samsung was very clever […] if you look across the supply chain, Samsung didn't actually build anything; others took the risk and Samsung sat at the top of the pyramid while everybody else was doing the heavy lifting." Yet, negotiations were initially hampered by what interviewees describe as Samsung's aggressive negotiating style and top-down management. According to former Samsung employees hired to coordinate the investment, spending initially had to be approved by the headquarters in Seoul, which drastically slowed the pace at which projects could roll out.

By the end of 2013, the situation was further complicated by two consequential developments that had been roiling out of the limelight since 2011. One was the significant downgrading of Ontario's projected demand for renewable energy, which was embodied in a revised Long-Term Energy Plan compiled with input from previously disenfranchised arm's length agencies at the behest of the Auditor General (Ontario, 2013; Auditor General of Ontario, 2011). The other was a World Trade Organization (WTO) ruling that the local content provisions in the Green Energy Act were in contravention of international trade law. The WTO ruling, along with substantial reductions to Ontario's projected electricity demand in its revised Long-Term Energy Plan, significantly curtailed the size of the domestic green energy market created by government policies.

Although such a fate was never certain, it was anticipated. As an anonymous senior bureaucrat from the Ministry of Economic Development and Trade explained: "while you're incubating a cluster there's some policy justification for giving extra support, such as local content requirements – which everybody knew were illegal, that was no surprise; the question was when would they get knocked down and if we would be past the incubation phase and self-sustaining by then." Arguably, the fact that the Ministry of Economic Development and Trade was not apprised of the manufacturing commitments contained in the Samsung deal until the eve of their announcement undermined the ministry's capacity to incubate a green energy cluster when conditions were favorable. Nevertheless, as chronicled in the next section, officials from the Ministry of Economic Development and Trade, along with colleagues located elsewhere

in the provincial bureaucracy and arms-length agencies, were instrumental in coordinating investments in green energy manufacturing.

Bureaucratic Brokerage and Co-production

As explained by Ostrom (1996), co-production involves the combination of factors of production by actors situated within different organizations, whereby factors of production conventionally consist of land, labor and capital (i.e., equipment). Regarding labor, skills training and accreditation in North America is typically treated as a pseudo-public good provided by colleges and universities (Hall and Soskice, 2001). Accordingly, government was proactive in facilitating the supply of skilled labor required for Ontario's green transition. Specifically, the Ministry of Research and Innovation and Ontario Centres of Excellence "put a strong focus on alternative energies at Ontario's colleges and universities" in anticipation of induced demand created by the feed-in tariff and local content provisions in the Green Energy Act (Ontario Renewables and Energy Facilitation Branch, 2009). This focus complemented "green collar training" approved by the Ontario Power Authority at St. Clair College and the University of Windsor, as well as programs administered through the Ministry of Northern Development and Mines in partnership with Brookfield Power and Sault College. By contrast, government response to the undersupply of land and capital was belated and reactive, as it was assumed that supplying these factors of production would be Samsung's responsibility under the Green Energy Investment Agreement.

According to interview respondents, it became obvious early on that Samsung did not possess the capabilities to fulfill either its power generation or manufacturing obligations. Consequently, officials from the Ministry of Economic Development and Trade were tasked with attracting manufacturing firms to the province with whom Samsung could partner. As stated by one senior official, "our ministry was not set up for cold calls in a brand-new industry […] so I had my staff digging up 'top ten solar companies in the world' and that's literally how we started, with cold calls to people who had never even heard of our province let alone what we were doing." Eventually, investment subsidies were offered to Siemens, CS Wind, Celestica, and Canadian Solar to fulfill Samsung's commitment to set up four manufacturing facilities in the province. Meanwhile, officials from the Ministry of Energy and Infrastructure coordinated negotiations between Samsung and major North American power generation and distribution partners, making KEPCO's participation in the project unnecessary.

Officials interviewed for this study attribute hiccups at the negotiation table to cultural differences regarding regulatory expectations and deference afforded to conglomerates. As summarized by one regulator, "in Korea, the

government and companies tend to have a lot of authority and they don't spend years engaging local communities, but that's not how it works in Canada." The sentiment was echoed by a project developer: "Samsung was kind of throwing its weight around, acting as if they didn't need to do what the government was telling them to do […] I kept telling them the government will cancel the contract if you're not careful." Samsung's negotiations with industry partners were apparently characterized by similar bullishness: "when negotiating a deal with Siemens, the officials back in Korea kept telling us to go back and squeeze them for more […] I advised them not to do that because it would sour the business relationship."

Government officials, meanwhile, showed little acquiescence. According to a regulator involved in transmission and distribution planning "government was holding the fire to Samsung's feet to make sure these things got built." As noted above, government made good on its promise to enforce the terms of the Green Energy Investment Agreement in July 2011 when it slashed Samsung's payment by $327 million as penalty for the company's failure to meet its deadline to produce its first 1,000 megawatts. Government's incentive to closely monitor the terms of the Samsung deal was heightened by a 2011 value-for-money audit conducted by the Auditor General of Ontario, which found (among other missteps) that "no economic analysis or business case was done to determine whether the agreement with the consortium was economically prudent and cost-effective" (Auditor General of Ontario, 2011: 91).

Facing criticism from the Auditor General, several governance reforms were initiated during policy implementation that facilitated co-production among the large and growing list of involved parties. These ancillary governance institutions included a Clean Energy Task Force "to advise the Ministers of Energy and Economic Development and Innovation to help connect companies in the energy sector" as well as an inter-ministerial Renewable Energy Committee "to help monitor the progress of projects though the approvals process" (Ontario Renewables and Energy Facilitation Branch, 2013b). The latter committee was instrumental in reducing red tape hindering Samsung's ability to meet its timelines under the Green Energy Investment Agreement (Ontario Ministry of Energy and Infrastructure, 2012). As mentioned above, after being shut out from earlier negotiations, the Ontario Power Authority reclaimed its responsibility to devise and submit the provincial Long-Term Energy Plan for approval by the Ontario Energy Board. Following the review of the Long-Term Energy Plan, these agencies, along with the Independent Electricity Systems Operator worked with government ministries and industry players to negotiate lower feed-in tariff rates, reduce surplus generation, and apprise affected stakeholders of proposed changes. These governance innovations and attendant re-negotiations were estimated to result in annual savings

between $70 million and $200 million (Auditor General of Ontario, 2013: 312).

Outside of government, members of Samsung's local development team secured greater decision making autonomy from corporate headquarters in an attempt to smooth the negotiation process with industry players whose assets were required to commence production. As a developer commenting on the cumbersome top-down approval process recalled, "I said, look, this is not efficient […] I recommend that we put a budget together, then you review it, push back on whatever you want, but once it's approved, then I have the ability to spend any and all funds on that budget without coming to you unless there's a deviation from what was agreed […] it took a long time, about six months, for Samsung to accept that concept."

Having failed to obtain cooperation from partners using an aggressive negotiating strategy, Samsung shifted to a more conciliatory stance. After resuming negotiations with Samsung in October 2011, the Six Nations Elected Council and Samsung drafted a preliminary term sheet in February 2012, which included a 20-year profit-sharing agreement worth $48.2 million, a $400,000 scholarship fund, and a jobs and training agreement (Six Nations Elected Council, 2012). Following a month-long community engagement process, which was reported to have generated 70 percent approval for wind and solar siting among residents of the Six Nations, Chief Bill Montour of the Six Nations Elected Council wrote the Haudenosaunee Confederacy Council seeking its approval for the Grand Renewable Energy Project (Montour, 2012). Although the Haudenosaunee Confederacy Council lifted its cease-and-desist order against Samsung's land surveyors in May 2012, the Council continued to oppose the project pending a separate Impact Benefit Agreement with Samsung, which was not finalized till late 2013 (Ontario Renewables and Energy Facilitation Branch, 2013a).

Meanwhile, in the face of resistance to projects outside Six Nations territory, Samsung negotiated over $65 million in transfers to landholders and communities to solicit their cooperation on renewable energy projects (Haldimand County, 2018). Although Mayor Ken Hewitt supported the Haldimand County Council's 2011 moratorium on industrial wind farms, Hewitt became a vocal supporter of the Samsung project within a year (and even appeared in Samsung television commercials). Hewitt's change of heart coincided with the successful negotiation of a $40 million Community Vibrancy Fund, to be paid out in $2 million annual increments from Samsung and its generation partners (Pattern Energy, NextEra, and Capital Power) (Ontario Renewables and Energy Facilitation Branch, 2012). Although most attention was focused on compensation for accommodating wind farms, overcoming local resistance to transmission lines was also crucial for policy success. As pointed out by the Auditor General, failure to properly integrate renewable energy projects into

the main transmission grid resulted in wasted electricity, for which premium rates were nevertheless paid prior to renegotiation of feed-in tariff schedules after 2013 (Auditor General of Ontario, 2011).

Finally, as mentioned above, government reduced the size of the rent paid to Samsung by renegotiating the Green Energy Investment Agreement a second time in June 2013. The move was prompted by the bureaucracy in a memorandum to Cabinet advising the government to cancel the agreement outright if Samsung declined to renegotiate on the basis that Samsung "missed key commitments" (Ontario Ministry of Energy and Infrastructure, 2013). Officials within the Ministry of Energy and Infrastructure thus remained vigilant in monitoring and enforcing the terms of the contract. Importantly, this second renegotiation of the Samsung deal coincided with the preparation of yet another Auditor General report alleging government mismanagement of Ontario's green transition (Auditor General of Ontario, 2013). Notably, the government's terms included "increasing local engagement for all future renewable energy projects under the revised agreement" emphasizing that "the Korean Consortium will be required to obtain municipal council support resolutions for new renewable energy projects before moving forward" (Ontario Renewables and Energy Facilitation Branch, 2013a).

On the preceding point, one of the most striking features of this case is the executive's about-face during policy implementation. Whereas agenda-setting was characterized by intentional efforts to centralize authority in the hands of the political executive, policy implementation was characterized by a reversal in the opposite direction: toward devolution, delegation, and stakeholder engagement necessary for successful co-production. The following section attempts to explain which of these governance attributes is responsible for the policy's successes and which is responsible for its shortcomings. On one hand, the policy met its objective of introducing significantly more green energy to Ontario's electricity system. On the other hand, installed capacity never reached the initial goal of 10,700 megawatts from wind and solar and the policy did not foster a thriving green energy manufacturing sector.[1] Indeed, three of the four manufacturing plants established under the Samsung deal closed within 10 years of establishment. The policy also drew much political ire. Arguably, avoidable mistakes contributed to the politicization of renewable energy. In the run up to the 2014 provincial election, the Progressive Conservative opposition sought to capture votes from the policy's opponents by promising to scrap the Green Energy Act if elected. Although the Liberals won a majority in the 2014 election, their energy policy blunders made electricity prices nagging electoral liability. As damage control, the government introduced a 25 percent rate subsidy in April 2017, which it financed through borrowing. Nevertheless, the Progressive Conservatives won a majority in the 2018 election. As promised, the Progressive Conservatives rescinded the

Green Energy Act in 2019 on the basis that high feed-in tariff rates and associated electricity prices made Ontario industry economically uncompetitive. Penalties paid by the government for canceling procurement contracts were transferred to the public debt.

APPLYING THE CASE TO A MODEL OF POSITIVE PUBLIC ADMINISTRATION

This section analyzes the case of Ontario's green energy transition through a political economy lens on public administration inspired by the work of Elinor and Vincent Ostrom (Ostrom and Ostrom, 1971). Consistent with the current research program on positive public administration, Elinor Ostrom's seminal work on co-production started off by identifying positive empirical examples of successful co-production from which she then extrapolated lessons by applying tools of political economy to explain policy success (Ostrom, 1996; cf., Douglas et al., 2021).

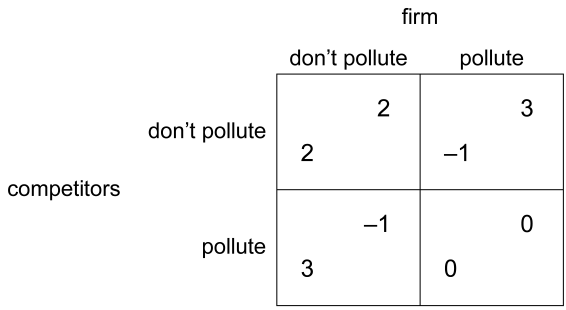
From a political economy perspective, actors' incentives to engage in certain behaviors are considered a function of their opportunity costs (i.e., whether they expect to be made better off relative to alternative courses of action available to them) (Milgrom and Roberts, 1992). Because co-production involves collective action that is costly to coordinate, demand exists for a "public entrepreneur" to facilitate solutions to coordination games played by stakeholders (Schneider et al., 1995). The following discussion integrates these three aspects of the political economy perspective – opportunity costs, public entrepreneurship, and coordination games – into a model of co-production capable of explaining Ontario's green energy transition.

Agenda-setting and Implementation as a Two-stage Game

As noted previously, agenda-setting powers in the Canadian political system are largely the prerogative of provincial Cabinets (Brownsey and Howlett, 2001; White, 1994). This is especially true in the energy domain, which falls foremostly within the provincial jurisdiction per the Canadian constitution. Accordingly, policy innovations that affect the provincial energy supply require at least tacit approval of the political executive.[2] In short, Cabinet sets the energy policy agenda (Tsebelis, 2002).

In the case of Ontario's green energy transition, Cabinet's policy agenda sought to mobilize a renewable energy industry. Government mobilization of industry was thought to be necessary because markets for sustainable technology are uncompetitive with conventional substitutes in the presence of unpriced externalities (Ontario Panel on the Role of Government, 2004: 48). Consequently, in a pure market context, industry is incentivized to pollute

in order to remain competitive. This is true even if the actors that comprise industry value environmental sustainability, due to wariness of free-riding and "hypocritical cooperation" under voluntary schemes (Heckathornn, 1998). As depicted in Figure 18.1, the game played between any given firm and its competitors is a prisoner's dilemma.



Source: Author.

Figure 18.1 Joint payoffs with unpriced externalities in the prisoner's dilemma of green transitions

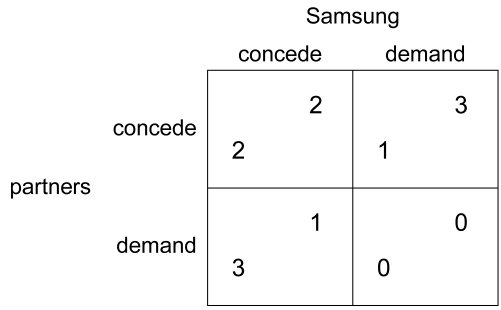
Figure 18.1 depicts a game matrix with joint payoffs for two players given two choices: pollute or don't pollute. The payoff for any particular firm is listed in the top-right of each cell, while the payoff for the firm's competitors is listed in the bottom-left. Payoffs are meaningful only in a relative sense (i.e., relative to other joint payoffs in the game matrix), whereby each player prefers a higher payoff for itself. An equilibrium exists when it is in no player's interest to switch strategies. As shown in Figure 18.1, although it is in the collective interest to mutually refrain from polluting, the dominant strategy is to pollute; mutual pollution is the equilibrium (Hardin, 1982). Substantively, in the absence of market-correcting interventions, the possibility of free-riding on the compliance of others creates a situation that is not in the players' best interest. Thus, although pollution is collectively costly, individual actors stand to gain from unpriced externalities. Environmental perseveration is therefore a common pool resource problem (Ostrom, 1990). Moreover, in the absence of effective enforcement, signaling cooperative intentions between players is merely "cheap talk" that does not change the payoffs of the game. Rather, credible signals from an actor capable of incentivizing compliance are required to break the polluting equilibrium by altering the opportunity costs of the players. Public entrepreneurs fulfill this this role, whereby entrepreneurship is defined as the act of moving production of goods and services to a socially preferred equilibrium (Casson, 1982; Schneider et al., 1995).

In the case of Ontario's green energy transition, incentives took the form of lucrative feed-in tariff contracts, economic development adders, and local content requirements, which complemented conventional hard law regulations on end-of-pipe emissions. The creation of a renewable energy market via public policy was thus an exercise in public entrepreneurship carried out by an entrepreneurial state (cf., Mazzucato, 2021; Schneider et al., 1995). Yet, as discussed later, entrepreneurs need not be government actors. Entrepreneurs must, however, satisfy a reputational criterion for being able to credibly commit to contracts that stipulate incentives for cooperation and sanctions for defection (Bianco and Bates, 1990; Ostrom, 1990). Given that the creation of markets for renewable energy requires some combination of powers monopolized by the state (i.e., regulatory powers and public finance), it is natural that entrepreneurship during agenda-setting involved government in this case.

The political executive apparently fulfilled the reputational requirement noted above, as evidenced by the mobilization of a green energy industry in Ontario. Analytically, industry actors were motivated by government action to move en masse to a new, socially optimal market equilibrium. However, the government later reneged on commitments made during agenda-setting by abandoning its local content requirements at the behest of the WTO and by reducing feed-in tariff rates by about 20 percent in 2013 (Ontario Renewables and Energy Facilitation Branch, 2013b). Although some government reversals were a consequence of Samsung's failure to meet its commitments, it turned out to be virtually impossible for Samsung to live up to its commitments without public coordination of co-production during implementation, which came mostly as an afterthought. Contracts established during agenda-setting were "incomplete" as they did not fully stipulate roles and responsibilities in the delivery of goods and services (cf., Klein, 2018). Thus, despite their air of credibility, signals sent to industry via the Green Energy Act and Green Energy Investment Agreement promised more than the executive could deliver. In drafting incomplete contracts, Cabinet fell prey to what Miller and Whitford (2016) call "political moral hazard" by neglecting due diligence during agenda-setting. As a result, government alienated stakeholders whose participation was required for policy success.

Bringing disenfranchised stakeholders on-side required bureaucratic brokerage of negotiations between owners of specific factors of production. From a political economy perspective, co-production during implementation is a second-level bargaining game over the distribution of benefits and burdens from co-production. Figure 18.2 models a game played between Samsung and its partners, the form of which is chicken: players may either demand concessions or concede to partners, with mutual concession corresponding with an equitable distribution of benefits. However, each player may extract rent (i.e., a higher payout than necessary) from their partners by playing

a demand strategy. In a one-shot negotiation game, the equilibrium solution is no solution at all: both parties play a bull-headed demand strategy, which results in the termination of negotiations. In the case at hand, Samsung's initial demands were not met with concessions by potential partners. Instead, the Six Nations Elected Council broke off negotiations and the Haldimand County Council issued a moratorium on industrial wind farms. It only was after government officials issued sanctions for failure to meet agreed-upon milestones that Samsung adopted a conciliatory stance toward its negotiation partners in subsequent iterations of the game, which were arranged by government actors. Again, public entrepreneurs were responsible for breaking the non-cooperative equilibrium in favor of the socially optimal outcome.



Source: Author.

Figure 18.2 Joint payoffs from distribution in chicken bargaining game

As to whether public entrepreneurship is strictly necessary for successful co-production, that depends on whether expected benefits from negotiation exceed players' opportunity costs, keeping in mind that negotiation entails additional transaction costs (Scharpf, 1997). In this case, the bureaucracy facilitated negotiations between Samsung and its partners by absorbing transaction costs. Indeed, a great deal of contractual minutiae remained unsettled after Cabinet signed the Samsung deal. A facilitator from the Ministry of Energy and Infrastructure described the Ministry's role as follows: "If something's not in a signed contract, then it's open for discussion, so we would try to discuss things […] there were often discussions about why we can't do this and why we can't do that […] all kinds of staging things needed to be coordinated between government and all the parties." Notably, most actors in the nascent policy network were inexperienced, lacking the familiarity, trust, and information required for a self-governing and self-sustaining policy regime (cf., Jones and Bachelor, 1993). Many interview respondents from both government and industry credit the provincial bureaucracy with a high degree of patience and

professionalism, which complemented its tough headedness in holding industry players accountable for living up to their commitments.

The preceding discussion illustrates how the same executive-dominated institutions responsible for initiating a political mission undermined policy success during implementation. Thankfully, ancillary governance institutions were eventually devised that fostered successful co-production. As discussed in the conclusion, possible lessons for positive public administration center on how planners might inject greater foresight and proactiveness into the policy process by institutionalizing beneficial governance arrangements.

CONCLUSION

Ontario's green energy transition is an apt case for drawing lessons about positive public administration because it embodies a laudable political mission to "make markets" for sustainable energy (cf., Mazzucato, 2021). As a result of the policies surveyed in this chapter, Ontario became the first North American jurisdiction to launch a comprehensive feed-in tariff program and phase out coal-fired electricity. The haste with which the policy was rolled out was intentional, as being a first mover was crucial for meeting the province's industrial policy objectives. Yet, lack of foresight and proper planning resulted in many blunders, foremost among which was the failure to foster a durable green energy manufacturing sector in the province. Ironically, the same executive-dominated institutions that expedited agenda-setting undermined successful implementation by neglecting stakeholders whose support and participation was required for policy success. Although many stakeholders were won over thanks to bureaucratic brokerage during implementation, higher than necessary electricity prices served to alienate the electorate writ large, which eventually voted in a government that reversed the green energy commitments previously made.

Governance lessons were extrapolated with the help of a political economy perspective on positive public administration inspired by Elinor and Vincent Ostrom, whereby agenda-setting and implementation were modeled as a two-stage game (Ostrom and Ostrom, 1971). The model illustrated that green energy transitions require incentives to offset opportunity costs and overcome a commons dilemma. In this case, government mobilized industry actors by implementing generous feed-in tariff rates and subsidizing equipment manufacturing via economic development adders and local content requirements. Commitments made by the political executive apparently were sufficient to stimulate considerable investment in green energy. In particular, the special treatment afforded to Samsung C&T in the controversial Green Energy Investment Agreement proved to be more than sufficient to reorient Samsung's commercial operations toward green energy.

As explained in the institutional background section, the political executive in Ontario confronted few *de jure* veto players when setting its green energy agenda. So long as the Samsung deal resonated with the Premier, it would obtain approval in Cabinet over objections from other ministers. However, the contract struck between Samsung and the political executive remained "incomplete" in the absence of approval from *de facto* veto players whose assets were required to bring Samsung's obligations to fruition. As it happened, Samsung lacked necessary factors of production to make good on its agreement with the province – specifically, land to site the investment and capital to establish power generation and equipment manufacturing facilities.

Collective action required for co-production posed a problem insofar as asset holders' incentives were not aligned *ex ante* with the objectives of the Samsung deal. Potential industry partners were alienated by preferential treatment afforded to Samsung, while landholders perceived the costs of hosting generation facilities to outweigh benefits. Nevertheless, Samsung initially pursued a bullish strategy when negotiating the distribution of benefits from co-production. In analytical terms, Samsung attempted to exploit monopoly advantages bestowed to it by its contract with the government to force bargaining concessions from its partners. The latter were unreceptive, however, which created delays that threatened Samsung's ability fulfill its obligations to the government. Fortunately, the government was incentivized by close scrutiny on the part of the Auditor General to exercise vigilance in enforcing the terms of the Samsung deal. Samsung therefore adopted a more conciliatory stance toward its partners in subsequent negotiations, which were organized and facilitated by the bureaucracy. In its capacity to enforce compliance with contractual obligations and absorb transaction costs of repeat negotiations, the bureaucracy successfully brokered co-production. Had it not, the policy would have failed.

Positive public administration is about the identification of successful policies from which transferable lessons may be drawn. Although Ontario's green energy policies were not unequivocally successful, few are (Compton and 't Hart, 2019). Detailed event analysis permits analysts to distinguish between positive and negative elements of complex cases (see also Flinders, Chapter 3 in this volume), while concepts and tools from political economy have powerful heuristic value for simplifying complexity and extrapolating lessons. Taken together, the approach gives analytical substance to the call to integrate "micro, meso and macro conditions and the interplay between agent and institutional context" (Douglas et al., 2021: 443). For example, this chapter modeled policy preferences "at the micro level" as a function of actors' assets and opportunity costs, implementation "at meso level" as coordination games played by actors whose assets were required for co-production, and

agenda-setting "at the macro level" as the distribution of veto players in the Canadian political system.

The analysis demonstrated that although there is virtue in expediency during agenda-setting, complex policies like this one benefit from consensus-building among stakeholders. It should go without saying that stakeholder buy-in is crucial when their assets are required for policy success. Yet, this case exemplifies that concentrated executive authority in liberal market economies is a double-edge sword. On the one hand, executive decision making is beneficial for expeditious implementation of bold political missions. On the other hand, the same institutions permit executives to neglect due diligence, make promises they cannot keep, and otherwise engage in "political moral hazard" by shifting unnecessary costs and risk onto society (cf., Miller and Whitford, 2016). Although Mazzucato (2021) convincingly argues that "socialization of risk" is a necessary component of daring political missions, a balance may be struck between stifling risk aversion and political recklessness.

This case makes plain that Auditor General oversight does not always effectively mitigate against political moral hazard, perhaps because it occurs after-the-fact. Curbing pathological tendencies associated with liberal institutions is instead a matter of proactively implementing ancillary mechanisms in support of co-production. Had the executive proactively fostered co-production from the outset, Ontario's green energy transition would have been much less tumultuous. Although defenders of the status quo might argue that consensus-building is antithetical to liberal comparative institutional advantage, multi-stakeholder mobilization is often required for policy success because government typically lacks the means to directly deliver goods and services to citizens (Wilder, 2022; Howlett, 2000). Consequently, appropriate policy design is often belatedly and reactively articulated during implementation, if it is articulated at all.

As to whether there is an inevitable trade-off between expediency required for bold political missions and consultative policymaking at the agenda-setting stage, ancillary institutions need not detract from advantages of agenda-setting expediency if government maintains its absolute veto. There are many instances of "private self-coordination in the shadow of hierarchy" whereby government is an enforcer and enabler of last resort (Scharpf, 1997). Such arrangements are consistent with current governance literature on innovation and industrial policy, which makes a case for "agencification," that is, delegated policymaking authority to arm's length agencies and non-state actors (Azoulay et al., 2019; Breznitz and Ornston, 2013). The evidence compiled to date suggests that multi-stakeholder governance can and does work in Canada's executive-dominated political system (Montpetit, 2016). At this point, social scientists and planners possess some broad guiding principles regarding how to successfully govern co-production, but further research

remains to be done regarding how fragmented "external economies" may be leveraged to solve pressing social, economic, and environmental problems in ways that are politically tenable and socially equitable.

NOTES

1. At the time of writing, Ontario's electricity mix had approximately 8,000 megawatts of wind and solar capacity (5,000 MW wind and 3,000 MW solar).
2. As discussed in the concluding section, political executives can (and perhaps should) delegate authority to independent agencies as a means curbing "political moral hazard," thereby increasing confidence in government's ability to credibly commit to long-term objectives like environmental sustainability (Miller and Whitford, 2016). In such cases, agencies are considered to possess delegated agenda-setting authority in "the shadow of hierarchy" (Scharpf, 1997).

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