

GREEN ENERGY AND GREEN ECONOMY ACT, 2009: A “FIT”-ING POLICY FOR NORTH AMERICA?

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I. INTRODUCTION

On April 29, 1998, Canada became one of the first countries in the world to ratify the Kyoto Protocol,¹ an international agreement aimed at curbing the effects of climate change and global warming.² In adopting the Kyoto Protocol, Canada pledged to reduce its greenhouse gas emissions by 6%³ within the five-year period spanning from 2008 to 2012.⁴ Following Canada's national commitment to preserving the environment, individual provinces began setting long-term goals aimed at reducing individual emissions and helping Canada to meet the Kyoto obligations.⁵

For example, Ontario Premier Dalton McGuinty has made global climate change and the reduction of greenhouse gas emissions in Ontario a primary focus of many of his initiatives.⁶ This Comment will discuss the major changes and policy implementations made in Ontario, which have put the province "on the edge of creating one of the greenest and cleanest electricity profiles anywhere in the world."⁷ Beginning with the

1. *Canada-Kyoto Timeline*, CBC NEWS (Feb. 14, 2007), <http://www.cbc.ca/news/background/kyoto/timeline.html> [hereinafter *Canada-Kyoto Timeline*]; see Jesse S. Lotay, *Subprime Carbon: Fashioning an Appropriate Regulatory and Legislative Response to the Emerging U.S. Carbon Market to Avoid a Repeat of History in Carbon Structured Finance and Derivative Instruments*, 32 HOUS. J. INT'L L. 459, 460 (2010).

2. Tracy C. Davis, Recent Development, *Breaking Ground without Lifting a Shovel: Ecuador's Plan to Leave its Oil in the Ground*, 30 HOUS. J. INT'L L. 243, 256 n.84 (2008); see Kyoto Protocol to the United Nations Framework on Climate Change, adopted on Dec. 11, 1997, 37 ILM 22, <http://unfccc.int/resource/docs/convkp/kpeng.pdf>.

3. See *Canada-Kyoto Timeline*, *supra* note 1 (explaining that this pledge was to reduce these emissions 6% from the levels present in 1990).

4. *Id.*; see J. Scott Childs, *Continental Cap-and-Trade: Canada, the United States, and Climate Change Partnership in North America*, 32 HOUS. J. INT'L L. 393, 402-03 (2010).

5. Mark S. Winfield, *The Ontario Climate Strategy: Reasonable Targets, But Where's the Plan to Get There?*, GREEN ECONOMICS (June 29, 2007), <http://www.greeneconomics.ca/op-ed/1490>.

6. See Dalton McGuinty, Premier of Ontario, Remarks at the Shared Air Summit (June 20, 2007), <http://news.ontario.ca/opo/en/2007/06/remarks-by-dalton-mcguinty-premier-of-ontario-at-the-shared-air-summit.html>.

7. Press Release, Ont. Ministry of Energy and Infrastructure, Ontario Coal Closure Launches Countdown to Green Energy (Sept. 3, 2009), available at

commitment to cease coal-fired power production by 2014—embodied in Ontario Regulation 496/07⁸ and the Green Energy and Green Economy Act⁹—Ontario has taken numerous policy and legislative steps to reduce greenhouse gas emissions. The “most ambitious and far[-]reaching” step in this process has been the passage of the Green Energy and Green Economy Act of 2009.¹⁰ This Act breaks new ground in North America by establishing a European-style feed-in tariff program and making a commitment to advance renewable energy generation and climate control efforts.¹¹ This Comment will break down the various provisions of the Green Energy and Green Economy Act of 2009 and address the impact these provisions will make on renewable energy generation in Ontario. Additionally, this Comment will briefly discuss U.S. reluctance to implement feed-in tariff legislation and how policy implementations like Ontario’s may affect the U.S. energy market.

II. ONTARIO’S PLAN FOR CESSATION OF COAL-FIRED GENERATION

Ontario’s efforts to become a leader in the fight against global climate change and greenhouse gas production began in 2003, when newly elected Ontario Premier Dalton McGuinty pledged to phase out coal-fired power generation by 2007.¹² At

<http://news.ontario.ca/mei/en/2009/09/ontario-coal-closure-launches-countdown-to-green-energy.html> [hereinafter Ontario Coal Closure Launches Countdown to Green Energy].

8. Env’tl Comm’n of Ontario, Review of Posted Decision: Ontario Regulation 496/07 under the EPA—Cessation of Coal Use (2008), <http://www.eco.on.ca/eng/uploads/Supplement/2007-08/Decision%20Reviews/MOE-010-0945%20Coal%20Reg.pdf>; see Cessation of Coal Use—Atikokan, Lambton, Nanticoke and Thunder Bay Generating Stations, O. Reg. 497/07 (Can.).

9. News Release, Green Energy Act Alliance, Ontario Gives Green Energy Act the Green Light (May 14, 2009) [hereinafter Ontario Gives Green Energy Act the Green Light] available at <http://www.greenenergyact.ca/Page.asp?PageID=122&ContentID=1259>.

10. News Release, Ont. Ministry of Energy and Infrastructure, Proposed Green Energy Act Attracts Industry-Wide Support (Feb. 23, 2009) [hereinafter Industry-Wide Support], available at <http://www.mei.gov.on.ca/en/pdf/gea-quotes.pdf> (quoting Hermann Scheer, Gen. Chairman of the World Council for Renewable Energy).

11. Paul Gipe, *Ontario Launches Comprehensive System of Feed-in Tariffs*, GRIST (Sept. 25, 2009), <http://www.grist.org/article/2009-09-25-ontario-launches-comprehensive-system-of-feed-in-tariffs/>.

12. Kenneth P. Green, *Ontario’s Coal Shut-Down is Good Politics, but Bad Policy*,

the time, Ontario's five coal-fired power plants produced as much air pollution as 6.2 million cars and were major contributors to Ontario's \$10 billion annual air-pollution-related expenses.¹³ In the following years, plans were implemented to replace coal-fired generation facilities with cleaner sources within the earliest practical timeframe.¹⁴ Despite numerous delays,¹⁵ Ontario took a promising step toward eliminating coal-fired electricity generation in July 2007.

A. *Ontario Regulation 496/07*

On July 12, 2007, Ontario's Ministry of the Environment (the "Ontario MOE" or the "MOE") proposed a regulation developed to reduce green house gas emissions.¹⁶ The regulation officially called for the cessation of the use of coal for power generation at certain power stations throughout Ontario, with all coal use to be phased out by December 31, 2014.¹⁷ Specifically, the regulation affected the four remaining coal-generating plants in Ontario: the Atikokan, Lambton, Nanticoke (Canada's No. 1 air polluter),¹⁸ and Thunder Bay stations.¹⁹ These four plants produced 6434 megawatts of electricity and accounted for approximately one-fifth of the province's total supply of power.²⁰ This massive amount of coal-fired power generation brings with it an equally impressive

FRASER FORUM, July 1, 2007, <http://www.aei.org/article/26669>.

13. Jack Gibbons, *Phasing Out Coal: 15-Month Progress Report* 17 (2005), http://www.toronto.ca/taf/pdf/phasing_out_coal.pdf.

14. See ONTARIO CLEAN AIR ALLIANCE, THE ONTARIO POWER AUTHORITY'S COAL PHASE-OUT STRATEGY: A CRITICAL REVIEW 2, 1 (2007), <http://www.cleanairalliance.org/files/active/0/phase%20out%20strategy%20review.pdf> [hereinafter STRATEGY REVIEW] (stating that on June 13, 2006, Ontario's Minister of Energy, Dwight Duncan, tasked the Ontario Power Authority to develop a plan to implement the policy goals of phasing out coal power generation by 2014); see also Owen L. Anderson, *Introduction*, 29 HOUS. J. INT'L L. 271, 271 (2007) (noting the intense public interest in renewable energy in 2006).

15. See Green, *supra* note 12 (stating that although pledged to be shut down by 2007, the target date has been changed first to 2009, and now to 2014).

16. See Env't'l Comm'n of Ontario, *supra* note 8.

17. See O. Reg. 497/07, *supra* note 8.

18. See Gibbons, *supra* note 13, at 17.

19. See O. Reg. 497/07, *supra* note 8.

20. See Env't'l Comm'n of Ontario, *supra* note 8.

level of pollution²¹ and has prompted Ontario's push to "seize any opportunity for major progress on reducing emissions."²²

Despite criticism that Ontario is bowing as Canada feels pressure to meet Kyoto Protocol commitments and speculation that cessation of coal-fired generation will result in only trivial emission reductions,²³ the Ontario MOE received an overall positive review of proposed Regulation 467/07.²⁴ The initiative was supported by 74% of those who commented on the proposal notice as well as the Environmental Commission of Ontario.²⁵ With this positive reaction and the goal of ending coal-fired generation squarely in sight, Ontario Regulation 496/07 came into force on August 24, 2007.²⁶

B. Implications of Ontario's Coal Phase-Out

Successful elimination of coal-fired power generation in Ontario will impact more than the environment; it will also be a substantial improvement on Ontarians' health and quality of life.²⁷ The possibility of a coal phase-out has been called "the single largest climate initiative being undertaken anywhere in North America."²⁸ If successful, Ontario would be one of the first regions in the world to completely phase out coal-fired electricity generation.²⁹ Although a complete coal phase-out looked unlikely six years ago, a new report by the Ontario Clean Air Alliance projects that such a phase-out could be complete by the

21. See *id.* (noting that, in 2006, Ontario's four coal-fired plants emitted about 24.7 million tons of greenhouse gas).

22. ONTARIO CLEAN AIR ALLIANCE, *ONTARIO'S COAL PHASE-OUT: A MAJOR CLIMATE ACCOMPLISHMENT WITHIN OUR GRASP 4* (2009), <http://www.cleanairalliance.org/files/active/0/coalprogress-final.pdf> [hereinafter *WITHIN OUR GRASP*].

23. Green, *supra* note 12.

24. See *Env'tl Comm'n of Ontario*, *supra* note 8.

25. See *id.*

26. See *O. Reg. 497/07*, *supra* note 8.

27. See *STRATEGY REVIEW*, *supra* note 14, at 6 (noting drastic reductions in the asthma attacks).

28. *Coal Phase-Out Can be Accomplished by 2010*, OCAA (Feb. 2, 2009), <http://www.cleanairalliance.org/node/649> [hereinafter *Coal Phase-Out Can be Accomplished by 2010*].

29. See *Ontario Coal Closure Launches Countdown to Green Energy*, *supra* note 7.

year 2010—five years ahead of schedule.³⁰ The environmental impacts of such a quick coal phase-out are staggering:

- Greenhouse emissions will be reduced at a rate equivalent to taking 2.3 million cars off the road each year 2010–2014.³¹
- Fewer lives will be lost; 668 lives will be saved each year in Ontario alone.³²
- Up to 333,660 asthma attacks will be prevented each year.³³
- The phase-out alone could account for 50–80% of Ontario's 2010 target emission reductions under the Kyoto Protocol.³⁴

Ontarians will enjoy significant public health and environmental benefits from the coal phase-out, but the economic effects of the phase-out won't stop at the Ontario border.³⁵ For example, as of 2008, almost one-half of Ontario's coal-produced electricity was exported to the United States, where it was often consumed instead of electricity produced through more expensive methods.³⁶ Despite the lower costs enjoyed by U.S. consumers, recent Ontarian proposals have focused on cutting production in the name of environmentalism.³⁷ This should leave no doubt that U.S. utility companies and their consumers will be affected by Ontario's coal phase-out and eventual shift toward renewable development and the era of the feed-in tariff.³⁸

30. See *Coal Phase-Out Can be Accomplished by 2010*, *supra* note 28.

31. *Id.*

32. See STRATEGY REVIEW, *supra* note 14, at 6.

33. See *id.*

34. *Id.*

35. See *Coal Phase-Out Can be Accomplished by 2010*, *supra* note 28.

36. *Id.*

37. See WITHIN OUR GRASP, *supra* note 22, at 2 (“[These exports] are not required to keep our neighbors’ lights on[,] and they add to air quality problems on both sides of the [U.S.-Canada] border”); see also Kim Talus, *Access to Gas Markets: A Comparative Study on Access to LNG Terminals in the European Union and the United States*, 31 HOUS. J. INT’L L. 343, 352 (2009) (noting increased usage of natural gas because it is more environmentally friendly than coal and crude oil).

38. See Luis E. Cuervo, *OPEC from Myth to Reality*, 30 HOUS. J. INT’L L. 433, 533–34 (2008) (noting the current era of globalization and interdependence of national energy policies).

III. FEED-IN TARIFFS

A. *Feed-In Tariff Definition*

Feed-in tariffs are one of many forms of government regulation used to subsidize the production of renewable energy.³⁹ Key to their success is the effective reduction of investment risks for renewable energy generators.⁴⁰ The concept is simple: Utility companies must purchase electricity from renewable sources at a government-fixed “premium” rate for a guaranteed number of years.⁴¹ The purchase must encompass the total output of the producer and guarantee full access to the electricity grid.⁴²

The rate to be paid by utility companies is set above the wholesale price of non-renewable energy to “reflect[] the value of the social and environmental benefits of the renewable energy”⁴³ and to defray the initial investment costs of developing renewable energy projects—even to the point of guaranteeing “that project investors obtain a reasonable rate of return” on their investment.⁴⁴ To encourage diversity in renewable energy generation, several project-specific factors—including the type of technology used, and the size of the project—can affect the difference between the government-fixed rate and the wholesale

39. See Gilbert E. Metcalf & David Weisbach, *The Design of a Carbon Tax*, 33 HARV. ENVTL. L. REV. 499, 552–56 (2009) (briefly describing the U.S. regulation regimes currently in effect).

40. Lincoln L. Davies, *Power Forward: The Argument for a National RPS*, 42 CONN. L. REV. 1339, 1371–72 (2010); Martin Lythgoe, *Renewable Generation in Argentina: Past Failures and a Plan for Future Success*, 31 HOUS. J. INT’L L. 263, 320–23 (2009) (“[T]he feed-in system implemented by Germany is more effective than the one in the United Kingdom [which does not use feed-in tariffs] because it more effectively reduces risk for renewable generators.”).

41. Metcalf & Weisbach, *supra* note 39, at 554–55.

42. See KARLYNN CORY, TOBY COUTRE & CLAIRE KREYCIK, FEED-IN TARIFF POLICY: DESIGN, IMPLEMENTATION, AND RPS POLICY INTERACTIONS 2 (2009), available at <http://www.nrel.gov/docs/fy09osti/45549.pdf> [hereinafter DESIGN, IMPLEMENTATION, AND RPS POLICY INTERACTIONS].

43. See Tyler Hagenbuch, Note, *Establishing an Aggressive Legal Framework for the Future of Wind Energy in Europe*, 42 VAND. J. TRANSNAT’L L. 1595, 1609 (2009).

44. DESIGN, IMPLEMENTATION, AND RPS POLICY INTERACTIONS, *supra* note 42, at 2; see Hagenbuch, *supra* note 43, at 1609–10 (“[T]his premium makes it possible for renewable energy start-ups to compete against fossil fuel burning producers that externalize the costs of their energy production.”).

price of non-renewable energy.⁴⁵ After a price is set, the financial cost of implementation is divided up and passed on to energy consumers; individually, each consumer faces only negligible rate hikes.⁴⁶

B. Feed-in Tariff Policy

Feed-in tariffs are based on the theory that the initial capital costs of developing renewable energy deter investors because they are prohibitively high, but investors will not be deterred by those initial costs if they are guaranteed a certain level of return over time.⁴⁷ Accurate calculation of the tariff to be applied is vital.⁴⁸ “If the feed-in tariff is set too low, it will not provide sufficient incentives to the investors, thereby defeating the purpose. If the feed-in tariff is too high, it will create high rent and not be cost-effective.”⁴⁹ Governments have developed two main methods for calculating the ideal tariff.⁵⁰ One

45. DESIGN, IMPLEMENTATION, AND RPS POLICY INTERACTIONS, *supra* note 42, at 7.

46. Hagenbuch, *supra* note 43, at 1609; *see* Metcalf & Weisbach, *supra* note 39, at 555 (noting that this formula may reduce the “politically motivated price volatility” seen where the federal government—not the consumers—bears the financial).

47. *See* Steven Ferrey, Chad Laurent & Cameron Ferrey, *Fire and Ice: World Renewable Energy and Carbon Control Mechanisms Confront Constitutional Barriers*, 20 DUKE ENVTL. L. & POL’Y F. 125, 170–71 (2010) (“Feed-in tariffs increase the price of certain renewable technologies to an amount that is deemed *administratively and politically necessary to encourage their development.*”) (emphasis added).

48. *See* Darrell Blakeway, Book Review, *Energy Autonomy: Getting Serious about Renewable Energy*, By Hermann Scheer, *Earthscan 2007*, 29 ENERGY L.J. 217, 225 (2008) (“The effectiveness of such feed-in tariffs depends on how high the premiums are, and, obviously, it is possible to set the premiums higher than necessary to stimulate the amount of development wanted or needed.”); Robin J. Lunt, Comment, *Recharging U.S. Energy Policy: Advocating for a National Renewable Portfolio Standard*, 25 UCLA J. ENVTL. L. & POL’Y 371393 n.109 (2007) (“Feed-in tariffs present the risk of over funding if the renewable technologies become more efficient and cost effective while the tariff remains static.”); *see also* Timothy P. Duane, *Greening the Grid: Implementing Climate Change Policy Through Energy Efficiency, Renewable Portfolio Standards, and Strategic Transmission System Investments*, 34 VT. L. REV. 711, 763–64 (2010) (noting that excessive feed-in tariffs have spurred incredible new investment at the cost of an enormous economic burden on consumers that has led to drastic tariff reductions and a counterproductive “boom-and-bust technology development cycle”).

49. Xiaodong Wang, *Legal and Policy Frameworks for Renewable Energy to Mitigate Climate Change*, SUSTAINABLE DEV. L. & POL’Y, Winter 2007, at 17, 20 (noting that feed-in tariffs are relatively simple once they are in place but that “it is tricky to set up the feed-in tariff level at the beginning”).

50. DESIGN, IMPLEMENTATION, AND RPS POLICY INTERACTIONS, *supra* note 42, at 2.

approach bases the tariff amount on “the value of [renewable energy] generation to the utility and/or society,” and the other focuses on “the levelized cost of [renewable energy] generation.”⁵¹

The first approach determines the level of payment based on the value of the renewable energy, either to the utility or to society.⁵² This value can be determined by assessing the utility’s avoided costs⁵³ or by internalizing the external costs⁵⁴ of other sources of electricity generation.⁵⁵ By definition, external costs are not borne by the energy producer; instead “society bears these unaccounted-for costs in the form of increased health care expenses, depleted agricultural resources, and a reduced quality of life.”⁵⁶ These factors can be difficult to quantify, and this “value-based” approach is potentially complex as a result.⁵⁷

In contrast, several European feed-in tariff policies take the “cost-based” approach.⁵⁸ Under this method, a project’s reasonable costs are administratively determined in advance, and a stipulated return on investment is paid on top of the

51. *Id.*

52. *Id.*

53. “Avoided costs’ refers to the estimated cost of supplying electricity if it were done by means of other supply sources. Interpretations of what constitutes avoided costs differ widely from one jurisdiction to the other.” TOBY COUTRE & KARLYNN CORY, STATE CLEAN ENERGY POLICIES ANALYSIS (SCEPA) PROJECT: AN ANALYSIS OF RENEWABLE ENERGY FEED-IN TARIFFS IN THE UNITED STATES 2 n.4 (2009), available at <http://www.nrel.gov/docs/fy09osti/45551.pdf> [hereinafter SCEPA PROJECT].

54. See Nicholle Winters, Note, *Carbon Dioxide: A Pollutant in the Air, but is the EPA Correct that It is not an “Air Pollutant”?*, 104 COLUM. L. REV. 1996, 2018 (2004) (“The cost of goods and services prior to environmental regulation is not necessarily a true reflection of their full economic cost—often numerous externalities are not factored into the ‘before’ cost, resulting in market distortions.”); cf. James L. Beebe, *Inherently Safer Technology: The Cure for Chemical Plants Which Are Dangerous by Design*, 28 HOUS. J. INT’L L. 239, 271–72 (2006) (arguing that required periodic inspections of plants producing dangerous chemicals should be funded by the companies that produce those chemicals as a way to internalize their external cost).

55. See DESIGN, IMPLEMENTATION, AND RPS POLICY INTERACTIONS, *supra* note 42, at 2.

56. Margaret Tortorella, *Will the Commerce Clause “Pull the Plug” on Minnesota’s Quantification of the Environmental Externalities of Electricity Production?*, 79 MINN. L. REV. 1547, 1547 (1995).

57. See DESIGN, IMPLEMENTATION, AND RPS POLICY INTERACTIONS, *supra* note 42, at 2.

58. *Id.* at 2–3.

recovery of those costs.⁵⁹ This method has an advantage over the value-based approach because investors are assured from the outset their returns will exceed the actual generation costs and that they will be able to obtain reasonable returns on their investments.⁶⁰ The cost-based approach has evolved through many years of trial and error, and decades of European experimentation with this model have made it clear that certain factors must be present for a feed-in tariff policy to be effective.⁶¹ A successful policy provides tariffs for all levels of development, factors in the type of technology used in each installation, guarantees long-term security on investment, is simple to administer, and is easily explained for public acceptance.⁶²

C. Feed-in Tariff History

Today, feed-in tariffs are most often associated with European energy regulation,⁶³ but the first “proto-feed-in law” was implemented decades ago in the United States.⁶⁴ Looking to diversify the U.S. energy market and spur investment in renewable energy, Congress passed the Public Utilities Regulatory Policies Act (PURPA) in 1978.⁶⁵ PURPA itself had characteristics like those of modern feed-in tariffs,⁶⁶ but California’s remarkably aggressive implementation resulted in Standard Offer Contract No. 4, a policy that did not use the term

59. See *Evolution of Feed-In Tariffs*, *supra* note 64, at 3.

60. See DESIGN, IMPLEMENTATION, AND RPS POLICY INTERACTIONS, *supra* note 42, at 2–3.

61. See MIGUEL MENDONÇA, FEED-IN TARIFFS: ACCELERATING THE DEPLOYMENT OF RENEWABLE ENERGY 103–04 (2007).

62. See *id.*

63. SCEPA PROJECT, *supra* note 53, 10–11.

64. MENDONÇA, *supra* note 61, at 26; see Paul Gipe, *Evolution of Feed-in Tariffs*, WIND-WORKS, Oct. 6, 2010, at 1, available at <http://wind-works.org/FeedLaws/EvolutionofFeed-inTariffs.html> (follow “Evolution of Feed In Tariffs.doc” hyperlink) [hereinafter *Evolution of Feed-In Tariffs*].

65. Richard R. Bradley, *Over the River and (Around) the Woods to Grandma’s House We Go: Long-Term Firm Transmission Rights, Transmission Market Power & Gaming Strategies in a Deregulated Market—An International Comparison*, 30 HOUS. J. INT’L L. 327, 332–33 (2008); MENDONÇA, *supra* note 61, at 26.

66. Bradley, *supra* note 65, at 333–34 (“Basically, PURPA required utilities to buy power from qualifying facilities and to connect those qualifying facilities to the electricity grid.”).

“feed-in tariff” but otherwise laid the groundwork for those modern regulations.⁶⁷

Under Standard Offer Contract No. 4, renewable energy producers were offered a fixed rate per kilowatt-hour (kWh) for the long-term avoided costs of conventional power generation over a ten-year period.⁶⁸ Other “Standard Offer Contracts” promulgated by California were based on wholesale electricity costs at the time of delivery.⁶⁹ Standard Offer Contract No. 4 was instrumental in California’s development of 1200 MW of new wind generation in the decade after it was implemented, but the subsequent collapse of the price of oil prevented California from issuing any standard offer contracts after 1984.⁷⁰

In 1991, Germany implemented the *Stromeinspeisungsgesetz* (StrEG),⁷¹ a basic feed-in law designed to help stimulate renewable electricity generation.⁷² Instead of setting tariff rates using the avoided cost or wholesale rate methods utilized under California’s standard offer contracts, the StrEG set tariffs using a percentage based on retail electricity rates.⁷³ This method more accurately fit the German electricity rate model of taxing consumption, but the variability of rates left developers with an unstable and unpredictable revenue stream.⁷⁴ These concerns led Germany to adopt an innovative new model of feed-in tariff legislation that has become the archetype for similar legislation developed throughout the

67. Jan Hamrin, *China’s New Renewable Energy Law: The California Connection*, 36 GOLDEN GATE U. L. REV. 413, 415 n.4 (2006); see SCEPA PROJECT, *supra* note 53, at 11.

68. *Evolution of Feed-In Tariffs*, *supra* note 64.

69. *Id.*

70. *Id.*; see SCEPA PROJECT, *supra* note 53, at 11.

71. Gesetz über die Einspeisung von Strom aus erneuerbaren Energien in das öffentliche Netz [StrEG] [Act on Feeding Electricity from Renewable Energies into the Public Grid], Dec. 7, 1990, BGBl. I at 2633, last amended by Gesetz, Apr. 24, 1998, BGBl. I at 730, translated in *The Original Electricity Feed Law in Germany*, WIND-WORKS, <http://www.wind-works.org/FeedLaws/Germany/ARTsDE.html> (last visited Nov. 21, 2010).

72. See MENDONÇA, *supra* note 61, at 27 (calling it “a relatively simple one-page bill for assisting producers of electricity from small hydro stations”).

73. *Evolution of Feed-In Tariffs*, *supra* note 64, at 2.

74. MENDONÇA, *supra* note 61, at 27.

world.⁷⁵ This new version is sometimes referred to as an Advanced Renewable Tariff.⁷⁶

In 2000, Germany introduced the *Erneuerbare-Energien-Gesetz* (EEG) [the Renewable Energy Sources Act],⁷⁷ a law that has subsequently served as a model for feed-in tariff legislation enacted around the world.⁷⁸ The EEG's main innovation was its rate structure; its tariffs included a reasonable, pre-determined profit margin on top of a variable base price determined by the project-specific cost of generation.⁷⁹ This rate structure allowed policymakers to selectively support installations of a certain size or those using a certain technology, and it encouraged innovation by decreasing the tariffs over time.⁸⁰ Coupled with guaranteed access to the grid, this advanced feed-in tariff model has resulted in substantial success both in Germany and abroad.⁸¹

Since the inception of the EEG, the number of countries, states, and provinces that have adopted feed-in tariffs has multiplied by a factor of six—from thirteen in 2000 to seventy-eight by early 2010.⁸² The demand for renewable energy continues to rise, and installation costs are steadily declining.⁸³

75. See *Evolution of Feed-In Tariffs*, *supra* note 64, at 2; Jennifer Taylor, Valerie Kitchell & Julia Balabanowia, *A Fine Act to Follow*, 34 *ALTERNATIVES J.*, no. 6, 2008 at 18, 19 [hereinafter *A Fine Act to Follow*].

76. Elizabeth Block, *AltaTerra FiT Freak Gives Web Conference*, RENEWABLE ENERGY FOCUS (Mar. 9, 2010), <http://www.renewableenergyfocus.com/blog/> (citing this as the term preferred by wind-energy advocate Paul Gipe).

77. Gesetz für den Vorrang Erneuerbarer Energien [EEG] [Renewable Energy Sources Act], Mar. 29, 2000, BGBl. I at 305, last amended by Gesetz, July 21, 2004, BGBl. I at 1918, *translated in* <http://www.bmu.de/files/pdfs/allgemein/application/pdf/res-act.pdf>.

78. See *Evolution of Feed-In Tariffs*, *supra* note 64, at 2–3; *A Fine Act to Follow*, *supra* note 75, at 19.

79. MENDONÇA, *supra* note 61, at 32.

80. *Id.*

81. See RENEWABLE ENERGY POLICY NETWORK FOR THE 21ST CENTURY, RENEWABLES 2010 GLOBAL STATUS REPORT 62, 67 (2010), http://www.ren21.net/Portals/97/documents/GSR/REN21_GSR_2010_full_revised%20Sept2010.pdf [hereinafter RENEWABLES 2010 GLOBAL STATUS REPORT].

82. *Id.* at 62.

83. See *id.* at 30.

D. Success In Germany

The fact that the EEG has become the model for feed-in tariff programs around the world should come as no surprise; the policy implementations have created, basically from scratch, one of the world's strongest renewable energy industries.⁸⁴ Largely attributable to the country's feed-in tariff program, the rapid development of Germany's renewable energy industry has had incredible ecological and economical effects.⁸⁵ Germany's use of renewable energy resulted in the creation of more than 300,000 jobs by 2009,⁸⁶ and in that year alone, the renewable energy industry accounted for the avoidance of almost 118 million tons of CO₂,⁸⁷ a total investment of €20 billion (about \$27 billion),⁸⁸ and an additional €16 billion (about \$22 billion) created through the operation of power plants using renewable energy.⁸⁹ By 2009, renewable energy sources represented 16.1% of Germany's total gross electricity consumption⁹⁰ and 8.9% of the country's primary energy consumption.⁹¹

Instead of relying on huge government subsidies, Germany has produced these results largely by raising the electricity costs of each household approximately €3.4 per billing cycle.⁹² That ability to jumpstart investment in renewable energy while avoiding excessive government subsidies has made Germany's policies especially attractive to governments trying to meet target levels of reliance on renewable energy.⁹³ As it shuts down its coal-fired power plants, Ontario is doing just that.⁹⁴

84. See JANET LAUGHLIN SAWIN, MAINSTREAMING RENEWABLE ENERGY IN THE 21ST CENTURY 28 (2004).

85. See generally FED. MINISTRY FOR THE ENV'T, NATURE CONSERVATION AND NUCLEAR SAFETY, RENEWABLE ENERGY SOURCES IN FIGURES (2010) (Ger.), available at http://www.erneuerbare-energien.de/files/english/pdf/application/pdf/broschuere_ee_zahl_en_en_bf.pdf.

86. *Id.* at 27.

87. *Id.* at 18.

88. *Id.* at 25.

89. *Id.*

90. *Id.* at 11.

91. *Id.*

92. *Id.* at 28.

93. See *id.*

94. See O. Reg. 497/07, *supra* note 8.

IV. GREEN ENERGY AND GREEN ECONOMY ACT

“Ontario is quickly emerging as a global leader in renewable energy with policies that rival those of the renewable energy superpowers in Europe and elsewhere.”⁹⁵ These words, spoken by “tireless champion of renewable energy” Hermann Scheer,⁹⁶ only begin to describe Ontario’s progress toward reducing greenhouse gas emissions and leading a new wave of investment in renewable energy generation.⁹⁷ The Green Energy and Green Economy Act⁹⁸ is the crown jewel among the policies Scheer praised so highly.⁹⁹ Similar feed-in tariff programs have been successfully implemented across Europe in countries looking to promote renewable energy development.¹⁰⁰ “Ontario has chosen wisely and will surely reap the rewards.”¹⁰¹

As a highly anticipated bill, the Act was first proposed to the Ontario legislature on February 23, 2009.¹⁰² Building on Ontario’s groundbreaking plans to eliminate the use of coal-fired generators,¹⁰³ the bill was intended to provide a strong incentive for investment in renewable energy while reducing the risk of that investment.¹⁰⁴ Those ideas were met with widespread popular support; one poll found an incredible 87% of Ontarians

95. *Ontario Government Announces Details of Feed-in Tariff Program, Including Domestic Content Rules*, GREEN BUS., Sept. 25, 2009, <http://www.green-business.ca/Legal-Regulatory/Features/ontario-government-announces-details-of-feed-in-tariff-program-including-domestic-content-requirements-and-new-facilitation-office.html>.

96. Kate Connolly, *Hermann Scheer Obituary*, GUARDIAN, Oct. 18, 2010, at 37.

97. *See Ontario Government Announces Details*, *supra* note 95 (citing one assessment that Ontario is undergoing a “renewable energy revolution”); *see also* Tracey M. Roberts, *Mitigating the Distributional Impacts of Climate Change Policy*, 67 WASH. & LEE L. REV. 209, 211 n.4 (2010) (describing Ontario as part of The Western Climate Initiative, a group of Canadian provinces and U.S. states aiming to reduce greenhouse gas emissions through the development of cap-and-trade systems).

98. Green Energy and Green Economy Act, 2009 S.O. 2009, c. 12 (Can.).

99. *See Ontario Government Announces Details*, *supra* note 95;

100. *See id.*

101. *Id.* (again quoting Scheer).

102. Sharon Wong et al., *Ontario’s New Green Energy Act Set to Energize the Province with Renewable Energy*, BLAKES (Feb. 24, 2009), http://www.blakes.com/english/view_disc.asp?ID=2939.

103. Susan Taylor & Nicole Mordant, *Rich Ontario Incentives Woo Green Power Investors*, REUTERS, Oct. 6, 2009 [hereinafter *Rich Ontario Incentives*].

104. *See* Wong et al., *supra* note 102.

to be in favor of the bill.¹⁰⁵ Less than three months after it was first proposed, the bill received royal assent and became law on May 14, 2009.¹⁰⁶

As a practical matter, the Act repealed or amended many existing pieces of legislation as part of its overall goal of stimulating renewable energy growth within Ontario.¹⁰⁷ Though additional regulations would still be required to implement it, the Green Energy and Green Economy Act laid the groundwork for promising renewable energy developments in Ontario.¹⁰⁸ Most importantly, the Act allowed for the development of European style feed-in tariffs, priority grid access, and a new approval system to regulate and facilitate the development of renewable energy facilities in conjunction with neighboring communities.¹⁰⁹ Finally, in the fall of 2009, these innovative changes began to be implemented,¹¹⁰ thereby completing the final step in creating “the most advanced pieces of renewable energy legislation in North America.”¹¹¹

A. *European-Style Feed-In Tariff*

A European-style feed-in tariff is the “heart and soul” of the Green Energy and Green Economy Act.¹¹² It allows the Ontario government to facilitate the development of renewable electricity generation by standardizing relevant rules and regulations, contractual provisions, and electricity prices.¹¹³ Overall, this scheme serves to lower barriers to investment in renewable energy faced by commercial developers and

105. News Release, Green Energy Act Alliance, Poll Show [sic] Overwhelming Support for Ontario Green Energy Act (Apr. 26, 2009) available at <http://www.greenenergyact.ca/Page.asp?PageID=122&ContentID=1228>.

106. George Vegh, *The “Green Energy Act”: Green Energy Unbounded*, Mondaq Bus. Briefing, July 20, 2009, <http://www.mondaq.com/canada/article.asp?articleid=82886>.

107. *Id.*; see Green Energy and Green Economy Act, 2009.

108. See Wong et al., *supra* note 102.

109. *Id.*; see Sven Hombach, *Guest article: Ontario, Canada Set to Become a Wind Power-house*, WIND POWER L. BLOG (June 26, 2009), <http://windpowerlaw.info> [hereinafter *Wind Powerhouse*].

110. *Evolution of Feed-In Tariffs*, *supra* note 64, at 4.

111. Ontario Gives Green Energy Act the Green Light, *supra* note 9.

112. *Wind Powerhouse*, *supra* note 109.

113. See Wong et al., *supra* note 102.

homeowners alike.¹¹⁴ On top of that increased investor confidence, domestic content requirements will bolster Ontario's job market.¹¹⁵ The ambitious policy objectives embodied in the Green Energy and Green Economy Act are made possible by several key features of the feed-in tariff program:

- It provides for a broad variety of renewable energy technologies—biogas, biomass, landfill gas, solar photovoltaic (PV), wind, and waterpower.¹¹⁶
- Generators of all sizes can participate; those maintained by individual homeowners are on the same regulatory footing as those maintained by immense corporations.¹¹⁷
- The government-set prices cover initial project costs plus reasonable rates of return over twenty years.¹¹⁸
- Community-based and aboriginal projects are targeted for additional especially incentives.¹¹⁹
- It streamlines the procedure for obtaining renewable energy generation contracts.¹²⁰
- The price structure can be tailored to fit project-specific characteristics like the technology used and the size of the project.¹²¹
- It requires a certain percentage of a project's goods and labor to originate from Ontario.¹²²

The number of eligible production sources is a major component of the Green Energy and Green Economy Act.¹²³ Under the Act, a renewable energy source is an "energy source that is renewed by natural processes and includes wind, water,

114. Press Release, Ont. Ministry of Energy and Infrastructure, Ontario Makes It Easier, Faster to Grow Green Energy (Sept. 24, 2009), *available at* <http://news.ontario.ca/mei/en/2009/09/ontario-makes-it-easier-faster-to-grow-green-energy.html>.

115. *See id.*

116. *See id.*

117. *See id.*

118. *See id.*

119. *See id.*

120. *See id.*

121. *See id.*

122. *See id.*

123. *See* Green Energy and Green Economy Act, 2009 sched. A, § 1.

biomass, biogas, biofuel, solar energy, geothermal energy, tidal forces and such other energy sources as may be prescribed.”¹²⁴ The wide array of sources that can participate in the feed-in tariff program will ensure (1) opportunities in different geographic locations across the province, and (2) a market for both large- and small-scale investment.¹²⁵ Conventional large-scale renewable generation operations that rely on wind and solar resources will no longer be the only viable methods; alternatives like landfill gas and biomass electricity generation will also be subsidized.¹²⁶ These options allow investors to benefit from the Act even where the wind patterns, available tracts of land, or bodies of water necessary for more conventional methods of generation are not present.¹²⁷ Alongside its typical feed-in tariff program, the Act also includes a “microFIT”¹²⁸ program designed to encourage small-scale investment and renewable energy projects.¹²⁹

1. Commercial/Community Scale Feed-In Program

In general, Ontario’s feed-in tariff program will encourage project development by providing a firm commitment to purchase the qualified electricity at a set, long term-price.¹³⁰ In addition to that long-term stability, the Green Energy and Green Economy Act’s standardized procedures will help to

124. *Id.*

125. See Brad A. Kopetsky, Comment, *Deutschland Über Alles: Why German Regulations Need to Conquer the Divided U.S. Renewable-Energy Framework to Save Clean Tech (and the World)*, 2008 WIS. L. REV. 941, 977 (2008) (arguing that the United States should adopt a similar approach to “provide a quantifiable clean-tech market, reduce excessive investment risk, and allow for economies of scale and innovation”).

126. ONTARIO POWER AUTHORITY, FEED-IN TARIFF PROGRAM—PROGRAM OVERVIEW VERSION 1.1 2 (2009), http://fit.powerauthority.on.ca/Storage/97/10759_FIT-Program-Overview_v1.1.1.pdf [hereinafter FEED-IN TARIFF OVERVIEW].

127. See Kopetsky, *supra* note 125, at 981–82 (“The broad definition would also allow for a maximum adoption rate and avoid the myopic favoring of one technology over another.”) (internal citation omitted).

128. FEED-IN TARIFF OVERVIEW, *supra* note 126, at 2. Feed-in tariffs are sometimes referred to as “FITs.” See *id.*

129. ONT. POWER AUTHORITY, MICRO FEED-IN TARIFF PROGRAM—PROGRAM OVERVIEW 1 (2010), <http://microfit.powerauthority.on.ca/pdf/microFIT-Program-Overview.pdf> [hereinafter MICROFIT OVERVIEW].

130. See Edna Sussman et al., *Climate Change Adaptation: Fostering Progress through Law and Regulation*, 18 N.Y.U. ENVTL. L.J. 55, 148–50 (2010).

ensure a straightforward and efficient path to development.¹³¹ This combination of profit guarantee and simplicity is unprecedented in North America and puts Ontario “at the forefront of progress, a dynamic force for change.”¹³²

The central premise of any feed-in tariff program is its pricing structure.¹³³ Ontario’s pricing structure considers both the type of fuel used for generation and capacity.¹³⁴ For projects larger than the microFIT program’s 10-kilowatt (kW) generation ceiling, the relevant tariffs (in Canadian cents per kWh) fall within the following ranges:

- Biomass: 13.0–13.8
- Biogas: 10.4–19.5
- Waterpower: 12.2–13.1
- Landfill gas: 10.3–11.1
- Solar PV: 44.3–71.3
- Wind: 13.5–19.0.¹³⁵

The wide variation of these prices evidences a primary goal of the Act: providing a return on investment sufficient to cover the cost of that particular type of project installation *and* a reasonable profit.¹³⁶ However, the overall feed-in tariff scheme

131. See FEED-IN TARIFF OVERVIEW, *supra* note 126, at 4 (“The principal requirements are that [an eligible] project be located in Ontario and be fueled by a renewable fuel source.”); JOHN FARRELL, FEED-IN TARIFFS IN AMERICA: DRIVING THE ECONOMY WITH RENEWABLE ENERGY POLICY THAT WORKS 15 (2009) http://www.boell.de/downloads/ecology/FIT_in_America_web.pdf (“A typical [U.S.] power purchase agreement between a producer and the utility is 85 pages. In Germany, the contract is 2–4 pages.”).

132. See Industry-Wide Support, *supra* note 10 (quoting Toronto Board of Trade Chair Paul Massara).

133. Lee Barken, *Feed-in Tariffs Take Center Stage at AREDAY 2 Summit* TRIPLE PUNDIT, Oct. 5, 2010, <http://triplepundit.com/2010/10/feed-in-tariffs-take-center-stage-at-areday-2010-renewable-energy-conference>.

134. See ONTARIO POWER AUTHORITY, FEED-IN TARIFF PRICES FOR RENEWABLE ENERGY PROJECTS IN ONTARIO (2010), http://fit.powerauthority.on.ca/storage/102/11128_FIT_Price_Schedule_August_13_2010.pdf [Hereinafter FEED-IN TARIFF RULES].

135. *Id.* Canadian cents are roughly equivalent to U.S. cents. See Claire Sibonney, *Loonie Closes At Parity for First Time Since April*, REUTERS, Nov. 10, 2010.

136. See WILSON RICKERSON, FLORIAN BENNHOLD & JAMES BRADBURY, FEED-IN TARIFFS AND RENEWABLE ENERGY IN THE USA—A POLICY UPDATE 2 (2008), http://www.wind-works.org/FeedLaws/USA/Feed-in_Tariffs_and_Renewable_Energy_in_the_USA_-_a_Policy_Update.pdf.

goes beyond basic price setting to include domestic content requirements and support for aboriginal and community projects to help fully implement the Act and spur economic growth in Ontario.¹³⁷

Another major goal of the Act was to create local, green jobs while spurring economic growth throughout various Ontarian industries.¹³⁸ This is made clear by the Act's requirement that—to be eligible for the feed-in tariff program—renewable energy projects be made using a certain percentage of parts and labor originating from Ontario.¹³⁹ This minimum percentage requirement varies by generation type and increases over time.¹⁴⁰ For wind power, a minimum of 25% domestic content is required until January 1, 2012, when that requirement jumps to 50%.¹⁴¹ Solar projects start with a 50% requirement that swells to 60% on January 1, 2011.¹⁴²

A project's level of domestic content is determined through a point-based system where each project component is associated with a pre-determined number of domestic content percentage points.¹⁴³ The percentage points associated with each project component are added together to form a total domestic content percentage.¹⁴⁴ Some groups have characterized the current wind

137. See FEED-IN TARIFF OVERVIEW, *supra* note 126, at 5–6, 7–9.

138. See ROBERT POLLIN & HEIDI GARRETT-PELTIER, BUILDING THE GREEN ECONOMY: EMPLOYMENT EFFECTS OF GREEN ENERGY INVESTMENTS FOR ONTARIO 4 (2009), http://www.greenenergyact.ca/Storage/25/1722_PERI_ON_Green_Jobs_Report.pdf.

139. Green Energy and Green Economy Act, 2009, sched. B, § 7; see Helen Newland & Sven Hombach, *Wind Development in Ontario and The Green Energy and Green Economy Act, 2009: The New Rules of Engagement*, FOCUS ON RENEWABLE ENERGY (Fraser Milner Casgrain, Toronto, Ont.), Oct. 2009, available at <http://www.industrymailout.com/Industry/LandingPage.aspx?id=447682&p=1> [hereinafter *New Rules of Engagement*] (“Importantly, ‘domestic’ in the context of [the Green Energy and Green Economy Act] refers to Ontario content, not Canadian content.”); see also ONT. POWER AUTHORITY, FEED-IN TARIFF CONTRACT VERSION 1.3.1 sched. 1, ex. D (2010), http://fit.powerauthority.on.ca/Storage/101/11061_Fit_Contract_Version_1.3.1.pdf [hereinafter FEED-IN TARIFF CONTRACT].

140. See FEED-IN TARIFF OVERVIEW, *supra* note 126, at 5.

141. See *id.*

142. See *id.*

143. See *New Rules of Engagement*, *supra* note 139.

144. See *id.* (“For example, it is possible to gain [16% of] domestic content simply by casting the wind turbine blades in Ontario, while only [2% is] allocated to the winding

power domestic content requirements as being too low,¹⁴⁵ but Minister of Energy and Infrastructure George Smitherman has said he expects these requirements to “help create more than 50,000 direct and indirect jobs” in Ontario over the first three years of its existence.¹⁴⁶

In addition to its domestic content requirements, the Act provides special assistance to projects undertaken by small communities, groups, and aboriginal peoples.¹⁴⁷ Compared to deep-pocketed commercial developers, these groups face relatively higher project costs and greater barriers to development, so the Ontarian legislature provided additional incentives to level the playing field and secure the viability of these smaller projects.¹⁴⁸ In particular, these smaller groups benefit from: (1) reduced security payments and (2) additional subsidies—termed “price adders”—for their electricity.¹⁴⁹ Projects controlled by an aboriginal group or a community¹⁵⁰ must make security payments of only \$5 per kW regardless of the project’s method of generation.¹⁵¹ The “price adder” allows for projects with at least 10% equity ownership by aboriginal groups or communities to be paid an increased price based on the project’s level of equity ownership and generation type.¹⁵² For example, a community with 50% control over a 10 MW wind project would be eligible to receive the standard contract price per kWh, plus an additional 1.0 cent/kWh under the “price adder” program.¹⁵³ These incentive programs will subsidize the

of pad mount transformers in Ontario”); *see also* FEED-IN TARIFF CONTRACT, *supra* note 139, at ex. D.

145. *See Ontario Government Announces Details*, *supra* note 95.

146. Ontario, Legislative Assembly, Official Report of Debates (Hansard), 39th Parl. 1st sess., No. 112 (23 February 2009) at 4951.

147. Green Energy and Green Economy Act, 2009 sched. B, § 5(2).

148. FEED-IN TARIFF OVERVIEW, *supra* note 126, at 7.

149. *See id.*

150. *See id.* (noting that a 50% participation rate is required).

151. *Id.*

152. *See id.* The price adder for aboriginal projects ranges from 0.6–1.5 cents/kWh; community price adders range from 0.4–1.0 cents/kWh. *Id.* This price is added to the standard feed-in tariff price. *Id.*

153. *Id.*

high costs of renewable generation and increase the number of smaller scale projects throughout Ontario.¹⁵⁴

2. *MicroFIT Program*

The microFIT program is designed to encourage development of small-scale electricity generation projects in both urban and rural areas throughout Ontario.¹⁵⁵ The program targets homeowners, farmers, small business owners, and other small institutions, such as churches and schools.¹⁵⁶ If eligible, these smaller entities can receive a fixed rate long-term (twenty-year) contract for the purchase of electricity produced from their renewable energy project.¹⁵⁷ In addition to requirements similar to those found under the normal feed-in tariff rules, to qualify for a microFIT contract, a project must also (1) have a manufacturer-rated generating capacity of 10 kW or less,¹⁵⁸ (2) be connected to an electricity distribution system,¹⁵⁹ and (3) utilize “net metering” to accurately calculate electricity production and payment information.¹⁶⁰

Developers looking to take advantage of the microFIT program may choose from a range of participation opportunities: They can (1) own their own project, (2) lease their property to a

154. See Press Release, Ont. Ministry of Energy and Infrastructure, Ontario’s Ten Steps to Green Energy (Sept. 24, 2009), available at <http://news.ontario.ca/mei/en/2009/09/ontarios-ten-steps-to-green-energy-1.html> [hereinafter Ontario’s Ten Steps to Green Energy]; *Ontario’s MicroFIT Subsidy for Small Solar is a Hit*, SUSTAINABLEBUSINESS.COM NEWS (Jan. 15, 2010), <http://www.sustainablebusiness.com/index.cfm/go/news.display/id/19571> (describing the success of the MicroFit program in encouraging small-scale solar projects).

155. See MICROFIT OVERVIEW, *supra* note 129, at 1.

156. See *id.*

157. See *id.* at 11–12 (listing contract prices in cents/kWh for different forms of generation).

158. *Id.* at 8.

159. *Id.* Beyond the ten MW threshold, feed-in tariff projects have the option of connecting to the transmission system. FEED-IN TARIFF OVERVIEW, *supra* note 126, at 13.

160. See MICROFIT OVERVIEW, *supra* note 129, at 1; see also Kamal R. Zaidi, *Solar Energy Policy in Canada: An Overview of Recent Legislative and Community-Based Trends Toward a Coherent Renewable Energy Sustainability Framework*, 17 MO. ENVTL. L. & POL’Y REV. 108, 135 (2009) (“[N]et metering . . . is a method to quantify electricity by calculating overall usage of home or business electricity consumption, taking into account electricity used from the community grid and the installed [MicroFIT-qualified generator].”).

renewable energy developer, (3) lease equipment for a project, or (4) or combine forces with others in the community to develop a group project.¹⁶¹ These options and relatively simple guidelines of the microFIT program are intended to encourage small-scale renewable energy generation through the active participation of local communities and municipal governments.¹⁶² The success of new energy systems partially depends on decentralized, distributed power generation facilities that take advantage of emerging “smart grid” technology and meet the demands of burgeoning local methods of electric transportation.¹⁶³ Ontario’s microFIT program—and others like it—will help spawn such a network.

B. Other Highlights of the Green Energy and Green Economy Act

In addition to the development of a European-style feed-in tariff, the Green Energy and Green Economy Act contains numerous other provisions designed to enhance the effectiveness of the feed-in tariff and overall goal of increasing Ontario’s stature as a green energy leader.¹⁶⁴ These provisions include a right to connect and priority grid access for renewable resources, a new process for Renewable Energy Approvals (REAs), and the

161. See MICROFIT OVERVIEW, *supra* note 129 at 2.

162. See *id.* at 2, 7; see also Giancarlo Guardia Gonzalez, *The Camisea Project: Developing Legal Frameworks for Avoiding Social and Environmental Conflicts in Sensitive Areas*, 31 HOUS. J. INT’L L. 213, 231 (2009) (“Citizen participation has become a very important element in the development of natural resource projects, and it seems to be one of the most efficient tools to prevent environmental damage and social conflicts.”).

163. Ellie Carroll, Comment, *Twenty-Five Years in the Making: Why Sustainable Development has Evaded the U.N., and How Community-Driven Development Offers the Solution*, 32 HOUS. J. INT’L L. 545, 576 (2010); see Hope M. Babcock, *Responsible Environmental Behavior, Energy Conservation, and Compact Fluorescent Bulbs: You Can Lead a Horse to Water, but Can You Make It Drink?*, 37 HOFSTRA L. REV. 943, 957 (2009) (defining the smart grid as “a computer-based network of sensors and control devices on the nation’s high-voltage transmission networks, coupled with instantaneous communications among grid managers, generators and customers”) (internal quotation marks omitted).

164. See Industry-Wide Support, *supra* note 10 (“If the regulations and directives to follow result in a culture of conservation being created and open opportunity for greening our supply mix that also creates 50,000 manufacturing jobs, we will no doubt be able to call ourselves a world leader in installed green energy within the next decade.”) (quoting Green Energy Act Alliance Chair Deborah Doncaster).

creation of the Ontario Renewable Energy Facilitation Office.¹⁶⁵ These provisions will allow the Ontario government and interested developers to efficiently and quickly work together from the initial project design and application to final connection to Ontario's burgeoning smart grid.¹⁶⁶

One traditional disadvantage to the development of renewable energy projects is the bottleneck created by developers waiting for their generating facilities to be connected to the electrical grid.¹⁶⁷ Developers are usually given a position in line, while being forced to wait for an indefinite period to gain a connection, or possibly being denied access entirely.¹⁶⁸ The Act addressed this by establishing priority access to the grid for renewable projects.¹⁶⁹ Under the Act, once renewable generation facilities are ready to connect to the grid, they jump ahead of traditional generation projects in line to be connected.¹⁷⁰ Renewable energy projects all receive preferential treatment over traditional generation projects, but all renewable generation projects have the same relative priority; wind and solar projects are treated the same, for example.¹⁷¹ On top of the Act's "right to connect," priority grid access should foster developer confidence by ensuring quick connection to the grid and thus an opportunity to see quick returns on investment.¹⁷²

The Act's new REA process was designed to ensure that the increase in renewable generation facilities are developed in a way that will not cause any harm to the environment, human health, or Ontario's culture or natural heritage.¹⁷³ In addition, the streamlined REA process will assist developers by improving

165. See *New Rules of Engagement*, *supra* note 139; *Ontario Government Announces Details*, *supra* note 95.

166. See Press Release, Ont. Ministry of Energy and Infrastructure, Ontario to Invest in Smart Electricity Grid (Feb. 5, 2009), *available at* <http://www.news.ontario.ca/opo/en/2009/02/ontario-to-invest-in-smart-electricity-grid.html> [hereinafter Ontario to Invest in Smart Electricity Grid].

167. *Wind Powerhouse*, *supra* note 109.

168. See *id.*; see also *New Rules of Engagement*, *supra* note 139.

169. Green Energy and Green Economy Act, 2009 sched. B, § 10.

170. See *New Rules of Engagement*, *supra* note 139.

171. See *id.*

172. Green Energy and Green Economy Act, 2009 sched. B, § 8.

173. *Id.* sched. G, § 4; see Ontario's Ten Steps to Green Energy, *supra* note 154.

certainty and efficiency in the permitting process.¹⁷⁴ A few key policies are worth noting:

- New setback requirements and noise limits were introduced to reduce the effect of renewable energy projects on neighboring properties and communities; these vary by the type of technology used and include the largest wind setback requirements in Canada, the United States and eight European countries.¹⁷⁵
- Environmental approvals processes were integrated to provide clear rules and requirements and greater transparency.¹⁷⁶
- Projects became subject to specific consultation processes and requirements, including a requirement of at least two public consultation meetings for each renewable energy project.¹⁷⁷
- Approval processes will be coordinated to ensure a six-month service guarantee per project.¹⁷⁸

These clear and specific requirements have streamlined the application process and should provide developers with more certainty and ease in the planning and environmental application phases of their projects.¹⁷⁹

The theme of streamlining and facilitating the processes involved in bringing a renewable energy project to fruition continues with the creation of the Renewable Energy Facilitation Office (REFO), a “one-stop shop” designed to help large- and small-scale developers implement their renewable energy projects.¹⁸⁰ The REFO will help developers, communities

174. See Wong et al., *supra* note 102.

175. See *Ontario Government Announces Details*, *supra* note 95; see also *New Rules of Engagement*, *supra* note 139.

176. See *Ontario Government Announces Details*, *supra* note 95.

177. See *New Rules of Engagement*, *supra* note 139.

178. See *Ontario Government Announces Details*, *supra* note 95.

179. See Wong et al., *supra* note 102; Press Release, Ont. Ministry of Energy and Infrastructure, Green Energy Act Will Attract Investment, Create Jobs (Sep. 24, 2009), available at <http://news.ontario.ca/opo/en/2009/09/green-energy-act-will-attract-investment-create-jobs.html> [hereinafter Green Energy Act Will Attract Investment, Create Jobs].

180. Green Energy Act Will Attract Investment, Create Jobs, *supra* note 179; see Green Energy and Green Economy Act, 2009 sched. A, § 11;

and individuals by providing an easy access point for information, serving as a liaison between various ministries and agencies involved in the renewable energy process, and setting up coordinated meetings to better understand project requirements.¹⁸¹ The REFO will improve the speed of and lessen the costly setbacks that are encountered when developing a renewable power facility by ensuring that all parties have full understanding of the new requirements.¹⁸² The combination of “the new feed-in tariffs and approval process provide an excellent environment for the renewable energy industry.”¹⁸³

C. Impact on Ontario

“Ontario has taken the lead in Canada and set the ground rules for doing green business. Now investors, renewable energy companies and skilled workers can really move our green economy forward.”¹⁸⁴ One of the Green Energy and Green Economy’s main objectives is to provide a vehicle for green energy investment to ultimately spur growth in Ontario’s economy.¹⁸⁵ Those goals manifest themselves in three primary ways: increased local investment, job creation, and the growth of renewable energy generation.¹⁸⁶

In addition to the promotion of a cleaner environment, the growth of Ontario’s green economy will come from increased levels of investment and development expected with the Act’s implementation.¹⁸⁷ The combination of 25–50% domestic content requirements and the price structure and incentives of the feed

181. See FEED-IN TARIFF OVERVIEW, *supra* note 126, at 3.

182. See *id.*

183. See *Ontario Government Announces Details*, *supra* note 95 (quoting Community Power Fund Executive Director Deb Doncaster).

184. Press Release, Invest Ont., Green Energy Rules Make Ontario, Canada a North American Leader (Sept. 24, 2009) (quoting Premier McGuinty) *available at* <http://www.sse.gov.on.ca/medt/investinontario/en/Pages/NewsRelease.aspx?NewsId=31> [hereinafter North American Leader].

185. Green Energy and Green Economy Act, 2009 sched. A, pmbl.

186. See North American Leader, *supra* note 184.

187. Press Release, David Ramsay, Ontario Supports Local Investments in Green Energy (Sept. 23, 2009) (“These changes not only give us an economic advantage, they will protect our environment, combat climate change and create a healthier future for Ontarians”) (quoting Minister of Environment John Gerretsen) *available at* <http://www.davidramsay.com/pressreleases.aspx?id=111>.

in-tariff program has created a green energy investment zone in Ontario.¹⁸⁸ The program's value was demonstrated less than a week after the province began accepting feed-in tariff applications, when two substantial green energy acquisitions were made.¹⁸⁹ One of these acquisitions, made by Canadian Hydro Developers Inc., may eventually result in the world's largest offshore wind farm in Lake Erie.¹⁹⁰ These acquisitions bolster green energy manufacturers' optimistic projections and foster confidence for an era of strong renewable energy development in Ontario.¹⁹¹

One of the Act's most direct effects will be the creation of new jobs throughout the province.¹⁹² Estimates of just how many Ontarian jobs will be created have varied widely—from 50,000 over the Act's first three years¹⁹³ to 90,000 each year.¹⁹⁴ Many of the jobs will be created by the need to upgrade the province's electricity transmission and distribution system, therefore providing growth in the manufacturing and construction sectors.¹⁹⁵ This growth, however, is not limited to purely manual labor; experts predict broad job creation spanning sectors such as the creation of employment for a wide range of occupations, including, but not limited to: financial auditors, lawyers, secretaries, accountants, building inspectors, and engineers.¹⁹⁶ Not only will this job growth impact a variety of sectors, but it will also create jobs likely to pay at least \$20 per hour.¹⁹⁷ As a result, everyday Ontarians will reap the rewards of a stronger economy.¹⁹⁸

188. See Ontario Makes It Easier, Faster to Grow Green Energy, *supra* note 114.

189. See *Rich Ontario Incentives*, *supra* note 103.

190. *Id.*

191. See *id.*

192. See generally Industry-Wide Support, *supra* note 10.

193. Ontario, Legislative Assembly, Official Report of Debates (Hansard), 39th Parl. 1st sess., No. 112 (23 February 2009) at 4951.

194. Ontario Gives Green Energy Act the Green Light, *supra* note 9.

195. POLLIN & HEIDI GARRETT-PELTIER, *supra* note 138, at 4.

196. See *id.* at 22.

197. See *id.* at 23.

198. See *id.* at 4.

Finally, the Act will help spur broad increases in energy conservation efforts.¹⁹⁹ It is predicted that the implementation of the act will increase the number of wind turbines from 670 in use today, to approximately 975 by the year 2012.²⁰⁰ This 45% increase in wind production, coupled with a projected 15,700 MW renewable energy capacity by 2025,²⁰¹ will assuredly cause changes to be made in electricity handling and distribution.²⁰² To meet the new demands, Ontario has already approved twenty new transmission projects and upgrades to six core transmission networks.²⁰³ The upgrade projects alone, to be built in areas prime for renewable energy development, are expected to create more than 20,000 jobs.²⁰⁴

V. ONTARIO'S IMPACT ON THE UNITED STATES

Despite the novel policy implementations and optimistic projections for the success of Canada's feed-in tariff program, the United States continues to be mired in "a byzantine mix of tax incentives, rebates, state mandates, and utility programs."²⁰⁵ The combination of state and federal mandates and incentive programs creates a complex and bewildering road of bureaucracy and red tape for a company or individual wishing to develop a renewable energy project.²⁰⁶ A feed-in tariff

199. See Industry-Wide Support, *supra* note 10 (noting that the Act "will certainly help build a new clean economy, green collar jobs . . . as well as *creat[e] a culture of conservation* throughout the province") (quoting Canadian Solar Industries Association Executive Director Elizabeth McDonald) (emphasis added).

200. See Green Energy Act Will Attract Investment, Create Jobs, *supra* note 179.

201. News Release, Ont. Ministry of Natural Res., Ontario Lays Foundation for Offshore Wind Power (Jan. 17, 2008) *available at* http://www.mnr.gov.on.ca/en/Newsroom/LatestNews/MNR_E004126.html.

202. See Green Energy Act Will Attract Investment, Create Jobs, *supra* note 179.

203. See Ontario's Ten Steps to Green Energy, *supra* note 154.

204. *Id.*

205. See FARRELL, *supra* note 131, at 4; see also Dan Haugen, *Why Isn't the U.S. Embracing Feed-in Tariffs?*, SOLVECLIMATE NEWS, Mar. 24, 2009, <http://solveclimateneeds.com/news/20090324/why-isnt-us-embracing-feed-tariffs?page=show> ("Currently, most renewable energy incentives in the United States come in the form of tax credits, which are only valuable to companies with large enough profits that want to lower their tax burdens.").

206. See FARRELL, *supra* note 131, at 4; see also MENDONÇA, *supra* note 61, at 70 (stating that the Renewable Portfolio Standard (RPS) policies used in the United States tend to be expensive and difficult to administer).

program like Ontario's could complement current U.S. policies in fostering greater renewable energy development.²⁰⁷

A. Current U.S. Policies and Reluctance

The most common renewable support policy in the United States is the Renewable Portfolio Standard (RPS), which requires electric utility companies to provide renewable energy to their customers as a percentage of daily energy use.²⁰⁸ Unlike feed-in programs, which encourage new supply development by setting a guaranteed purchase price, RPS policies focus on the quantity of energy required to be provided, but leaves the purchase price to be determined by the free market.²⁰⁹ Because most funding comes directly from government programs or through other similar government funded subsidies, and not through set rates, RPS systems create additional complications by requiring cumbersome paperwork processes, lengthy contract negotiations, and possible corporate structuring or restructuring to gain eligibility for these incentives.²¹⁰ The effects of these additional hurdles to new renewable energy development have created increased uncertainty associated with project financing, higher contract rate failures, relatively low levels of local and community scale renewable energy development, and a high level of market concentration caused by a limited number of investors.²¹¹ In line with established U.S. tradition, the RPS system leaves compliance and investment primarily up to the free market, but feed-in tariff advocates argue that a switch to a

207. See DESIGN, IMPLEMENTATION, AND RPS POLICY INTERACTIONS, *supra* note 42, at 8–11. By encouraging domestic energy production, a U.S. feed-in tariff program would also help increase the security of U.S. energy assets. See Richard A. Leibert, Comment, *The War on Energy: Why the United States and the International Community Need Cohesive Energy Infrastructure Security Policy*, 29 HOUS. J. INT'L L. 453, 455 (2007).

208. *Id.* at 8 (noting that twenty-eight states and the District of Columbia have mandatory RPS policies, and five states currently have voluntary RPS policies in place).

209. See *id.* at 9–11.

210. FARRELL, *supra* note 131, at 14 (“In the [United States] a producer must juggle periodically expiring incentives, [fifty] independent renewable energy markets, hard-to-use tax credits, and complex and protracted negotiations with utilities over contracts nearly a hundred pages long.”).

211. DESIGN, IMPLEMENTATION, AND RPS POLICY INTERACTIONS, *supra* note 42, at 8.

feed-in tariff system would allow for “simpler, more effective[,] and less expensive” renewable energy development.²¹²

Feed-in policies are the driving force behind rapid renewable energy growth in Europe, but the United States has been reluctant to follow Europe’s lead.²¹³ Much of this reluctance is attributable to investor-owned utility companies that, by supporting feed-in tariffs, would effectively be advocating for the destruction of their own energy supply monopolies.²¹⁴ A manager at one of these utility companies candidly admitted as much: “The honest truth is we earn our returns by building plants and putting them into rate base and making profits on them. [A feed-in tariff] does take away that opportunity of utilities to earn on their investments. . . . If you really, really want us to love this stuff, figure out a way we can make some money on it.”²¹⁵

The concentration on profits, combined with the traditional American economical aversion to governmental price setting has created one of the largest hurdles for a feed-in tariff policy in the United States thus far.²¹⁶ It is obvious, however, that change must come.²¹⁷

212. See Haugen, *supra* note 205.

213. See RICKERSON, BENNHOLD & BRADBURY, *supra* note 136, at 1.

214. See Haugen, *supra* note 205 (noting that feed-in tariffs make entry into power generation easier, because generators earn a profit for each kWh produced, regardless of how large or small their development).

215. See Haugen, *supra* note 205 (quoting Betsy Engelking, a resource planning and bidding manager for Xcel Energy).

216. See *id.*

217. See Natalie Jean Kurz, Comment, *Corn Ethanol: Setting Straight a Misguided Attempt to Free the United States from Foreign Oil*, 31 HOUS. J. INT’L L. 377, 378 (2009) (noting “burgeoning American policy regarding the production of renewable fuels”); see also Luis E. Cuervo, *The Uncertain Fate of Venezuela’s Black Pearl: The Petrostate and its Ambiguous Oil and Gas Legislation*, 32 HOUS. J. INT’L L. 637, 640 (2010) (noting that U.S. dependence on Venezuelan oil gives the country “undue ability to impact U.S. security and economy”) (quoting Letter from Richard Lugar, Chairman of U.S. Senate Committee on Foreign Relations, to Condoleezza Rice, Secretary of State (July 20, 2006) available at http://lugar.senate.gov/energy/venezuela/pdf/ GAO_Letter_to_Rice.pdf); Arthur B. Culvahouse, Jr., *A Practical Guide to International Sanctions Law and Lore: Mamas, Don’t Let Your Children Grow Up to Be Sanctions Lawyers*, 32 HOUS. J. INT’L L. 587, 603 (2010) (noting the sanctions faced by energy companies doing business with Iran)

While current RPS policies will require development of approximately 60 gigawatts of electricity by 2025, this expansion will only account for 15% of the total projected electricity demand.²¹⁸ Clearly, the RPS system cannot and will not be revamped over night, however, it has been suggested that feed-in tariffs could be used to complement the existing RPS system.²¹⁹

B. A Possible Emergence of Change

The beauty of a complementary system comprised of an RPS and a feed-in policy is that where one policy falls short, the other can fill in the gap.²²⁰ Several RPS policy targets could benefit from feed-in tariffs:

- Project-financing support: Guaranteed revenue streams help investors secure financing for project development.²²¹
- Cost-effective procurement mechanism: Stable investment and guaranteed terms provide cost effective renewable development.²²²
- Hedge against project delays and cancellations: Government-implemented criteria and payment levels establish a level of transparency in project siting and access to transmission lines.²²³
- Focus on “reasonable cost” renewables: Utility companies can focus on actual project development costs and budget for investment returns.²²⁴
- Assured support for emerging technologies: Feed-in tariffs include risk premiums for development of new renewable technologies, but RPS systems place the additional risks of new technology on investors.²²⁵

218. See RICKERSON, BENNHOLD & BRADBURY, *supra* note 136, at 1.

219. See DESIGN, IMPLEMENTATION, AND RPS POLICY INTERACTIONS, *supra* note 42, at 9–11.

220. *See id.*

221. *Id.* at 10.

222. *Id.*

223. *Id.*

224. *Id.*

225. *Id.* at 11.

- Ratepayer backing: Guaranteed ratepayer backing provides investment certainty and insulates utilities from retroactive regulatory rulings.²²⁶

These possible benefits and complements have helped to fuel the beginning of a state and local policy shift in the U.S, renewable energy regulatory community.²²⁷ Much like the way European support for feed-in tariffs began in municipalities and expanded to the national level, communities and state legislatures around the United States have taken action to implement their own feed-in like policy schemes.²²⁸

Though many believe politics are the major obstacle to a national feed-in tariff policy, smaller communities are seeing past political barriers to develop strong renewable energy policy.²²⁹ In February of 2009, the Gainesville City Commission unanimously passed a landmark renewable energy plan and put Gainesville, Florida on track to become a model for renewable energy policy throughout the United States.²³⁰ Based on European models, Gainesville's solar PV feed-in tariff program is the first of its kind in the United States, and it guarantees rates of \$0.32 per kWh for twenty years.²³¹ This type of municipal implementation may be the perfect starting point to build support for feed-in tariffs because smaller utilities have fewer stakeholders and therefore more room for innovation in their rate and regulatory structures.²³² Just like it did in Europe, support for feed-in tariffs may be making its way up from municipal levels and into state and federal spotlights in

226. *Id.*

227. See RICKERSON, BENNHOLD & BRADBURY, *supra* note 136, at 15.

228. See Haugen, *supra* note 205.

229. *Id.* ("More local efforts will turn up across the country, but as far as a nationwide movement, [feed-in tariff expert John Farrell] said: 'I just don't think we have the political will to do it'").

230. See *Gainesville Solar Feed-in Tariff a Done Deal*, RENEWABLEENERGYWORLD.COM, Feb. 9, 2009, <http://www.renewableenergyworld.com/rea/news/article/2009/02/gainesville-solar-feed-in-tariff-a-done-deal> ("Gainesville knew what it wanted and set about doing it. They didn't spend years in endless discussions. Gainesville could well become the model for action elsewhere in the [United States] ") (quoting Paul Gipe).

231. See *id.*

232. See Haugen, *supra* note 205.

the United States as more communities see successful results.²³³ As of March 2009, at least ten states had proposed legislation outlining policy initiatives that shared some features with feed-in tariffs, and more states considering the introduction of such legislation.²³⁴ The trend toward feed-in adoption is mounting, as several states have moved from mere proposals, to solid renewable energy plans.²³⁵

On May 27, 2009 Vermont established a statewide feed-in tariff program designed to encourage the development of renewable energy facilities.²³⁶ In addition to long-term price guarantees for various forms of renewable generation, Vermont's new program also established new energy-related building standards, created a clean energy development fund, and allowed for the placement of wind projects on state lands.²³⁷ Hawaii and California have followed Vermont's lead, and both states have taken significant steps toward feed-in tariffs.²³⁸

The original Hawaii plan called for incentives encouraging wind, solar, and hydroelectric projects.²³⁹ It laid out the basic principles for establishing feed-in tariff rates but postponed

233. *See id.*

234. *See id.*

235. *Compare id.* (noting ten states with policies similar to feed-in tariffs introduced in their legislatures by March 2009), *with* RICKERSON, BENHOLD & BRADBURY, *supra* note 136, at 3 (showing only six states with those policies introduced by March 2008).

236. *See* Paul Gipe, *Vermont FITs Become Law: The Mouse that Roared*, RENEWABLEENERGYWORLD.COM, June 1, 2009, <http://www.renewableenergyworld.com/rea/news/article/2009/06/vermont-fits-become-law-the-mouse-that-roared> ("This law puts Vermont in a leadership role on renewable energy policy and will help to bring vibrant growth and development to our local renewable energy industry.") (quoting Renewable Energy Vermont Executive Director Andrew Perchlick); *see also* Vermont Energy Act of 2009, 2009–2010 Vt. Adv. Legis. Serv. 45 (LexisNexis) *available at* <http://www.leg.state.vt.us/docs/2010/acts/act045.pdf> (last visited Nov. 21, 2010).

237. *See generally* Vermont Energy Act of 2009, 2009–2010 Vt. Adv. Legis. Serv. 45 (LexisNexis) *available at* <http://www.leg.state.vt.us/docs/2010/acts/act045.pdf> (last visited Nov. 21, 2010).

238. Order Setting Forth General Principles for the Implementation of FITs (Docket No. 2008-0273) at 101 (Haw. P.U.C. Sept. 25, 2009), *available at* <http://www.dsireusa.org/documents/Incentives/HI29F.pdf>; Tiffany Hsu, *Schwarzenegger signs solar bills AB 920 and SB 32*, GREENSPACE (Oct. 12, 2009, 11:24 AM), <http://latimesblogs.latimes.com/greenspace>.

239. Order Setting Forth General Principles for the Implementation of FITs (Docket No. 2008-0273) at 31.

setting the exact rates themselves.²⁴⁰ By October 2010, much of the price structure had been settled,²⁴¹ and only the rates to be afforded the largest projects remains to be decided.²⁴² The long-term contracts coupled with guaranteed incentives provided to smaller scale producers will be a major factor in weaning Hawaii from foreign oil.²⁴³

California amended its limited feed-in tariff program to allow greater participation among solar generators.²⁴⁴ Before the amendment, there was a 1.5-MW cap on the amount of electricity those generators could sell utilities under the feed-in tariff program; the amendment raised the cap to double that: 3 MW.²⁴⁵ Based on the goal of meeting its RPS requirements, California's new amendment will also require all investor-owned utilities with customer bases of 75,000 or more to make a feed-in tariff available to their customers.²⁴⁶

These examples demonstrate the possible beginning of a shift in renewable energy policy as more municipalities and states take advantage of feed-in tariff regimes—especially considered alongside the Obama administration's commitment to green energy development.²⁴⁷ However, advocates of feed-in tariffs must overcome several more hurdles to convince the U.S.

240. *See id.* at 2 (“FIT tariffs, which will include specific FIT rates, shall be filed with commission in the next phase of this proceeding.”).

241. Order Approving FIT Tiers 1 and 2 Tariffs, Standard Agreement and Interconnection Procedures (Docket No. 2008-0273) at 1 (Haw. P.U.C. Oct. 13, 2010), available at http://www.dsireusa.org/documents/Incentives/HI29F_2.pdf.

242. *See id.* at 3 n.4 (defining “Tier 3” as including those projects “[g]reater than Tier 2 maximums and up to and including the lesser of 5 MW on Oahu and 2.72 MW on Maui and Hawaii or 1% of the system peak load from the previous year, except that wind generation is precluded on Maui and Hawaii”).

243. *See* Order Setting Forth General Principles for the Implementation of FITs (Docket No. 2008-0273) at 15.

244. *See* Hsu, *supra* note 238; *see also* S.B. 32, 2009 Leg., Reg. Sess. (Cal. 2009) available at http://leginfo.ca.gov/pub/09-10/bill/sen/sb_0001-0050/sb_32_bill_20090915_enrolled.pdf.

245. *See* Cal. S.B. 32 at 4–5.

246. *See id.*

247. *Obama State of the Union: Addresses Clean Energy Jobs, Support for Climate Bill*, HUFFINGTON POST (Jan. 28, 2010), http://www.huffingtonpost.com/2010/01/28/obama-state-of-the-union_n_440155.html; Ben Block, *North American Feed-in Tariff Policies Take Off*, WORLDWATCH INST. (Aug. 12, 2009), <http://www.worldwatch.org/node/6221>.

federal government to adopt a feed-in tariff system like Ontario's.²⁴⁸

248. See RICKERSON, BENNHOLD & BRADBURY, *supra* note 136, at 12–14 (noting three main potential conflicts: (1) guaranteed or priority interconnection agreements conflict with existing “open access” rules; (2) generally, states are very protective of their electric ratemaking power; and (3) currently, utility cost recovery is primarily left up to state control as well).