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Michael B. Gerrard
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A Case for a New York Carbon Tax

Andrew Ratzkin

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This article considers the case for a New York carbon tax.[1] *Imposing a price on fossil fuel combustion is considered by many observers with a wide array of ideological, political, and academic commitments to be the keystone strategy for reducing greenhouse gas (GHG) emissions causing global warming. This article reports on pending legislation and economic studies of proposed state-level carbon taxes in New York and elsewhere in the United States, while also considering the experience of British Columbia, the most prominent example of an existing subnational carbon tax. The article also reviews competing design considerations for a carbon tax, including how to address regressivity, alternatives for allocation of the revenue raised by the tax, and environmental justice. Some special considerations exist in New York, including an existing, relatively robust strategy for continued electric sector decarbonization, and generally high existing tax rates in other areas of the economy.*[2] *Finally, the article addresses concerns over the potential for "leakage" and competitive disadvantage, and considers possible ways to address these concerns, including the potential to proceed with a carbon tax on a multi-state or regional basis.*

Introduction

Amid the broad retreat from federal climate policy commitments,[3] attention is increasingly turning to state efforts to control GHG emissions, including state actions to impose a

[1] The term "carbon tax" is shorthand for a tax on carbon dioxide (CO_2) emissions, the principal greenhouse gas (GHG). I continue with that usage, but use the term to refer to a tax on GHG emissions more broadly. The term "CO_2e" is used to refer to the global warming impact of any gas, as measured against the atmospheric warming effect of a metric ton of CO_2.

[2] *See, e.g.*, *Taxes in New York*, TAX FOUND., https://taxfoundation.org/state/new-york/ (last visited Oct. 11, 2017) (reporting New York to be the highest-taxed state in the nation: first in individual income tax collections per capita; first in combined state and local tax burden; ninth-highest combined state and local sales tax rate; fourth-highest gasoline tax rate; fifth in property tax collections per capita; and forty-ninth in state business tax climate ranking).

[3] Administration reversals on climate policy include: abandonment of the Clean Power Plan, reconsideration of motor vehicle emissions and fuel efficiency standards; rescission of executive actions covering the oil and gas industry; defunding of climate science, monitoring, and adaptation efforts; restriction of public availability of climate-related data; and declaration of intent to withdraw from the Paris Agreement of the United Nations Framework Convention on Climate Change. *See* Exec. Order No. 13783, 82 Fed. Reg. (Mar. 31, 2017). For a good collection of Trump administration actions on climate and other environmental policy, see Michael Greshko et al., *A Running List of How Trump Is Changing the Environment*, NAT'L GEOGRAPHIC (last updated Aug. 23, 2017), http://news.nationalgeographic.com/2017/03/how-trump-is-changing-science-environment/. At the time of this writing, the Trump administration had recently proposed the Grid Resiliency Pricing Rule, which would subsidize coal and nuclear electric generation by requiring independent system operators to allow cost recovery by electric generating units maintaining at least a 90-day fuel supply on premises. 82 Fed. Reg. 46940 (Oct. 10, 2017).

price on GHG emissions from fossil fuels.[4] New York is prominent among these states.[5]

While politics is never predictable, and anything could happen in the context of proposed federal tax reform,[6] the smarter money—for now—says the near-term prospect of adopting carbon pricing at the federal level, already a difficult proposition, has faded substantially since the 2016 election. Even under the Obama administration and a Democratic Congress, the last serious legislative effort to adopt carbon pricing at the federal level failed. In its attempt to gain leverage over the Senate, the Obama administration had threatened to go around Congress and pursue a regulatory strategy using executive branch rulemaking powers under the Clean Air Act. These threats, however, did not ultimately move enough senators,[7] and in the end the administration was left with no option other than to pursue executive action only. The result was the Clean Power Plan, promulgated pursuant to Section 111(d) of the Clean Air Act,[8] to regulate electric-sector GHG emissions, originally seen as a second-best alternative to federal legislation with an economy-wide scope.[9] The vulnerability of executive-only action to reversal by a subsequent administration, now coming to fruition, was another reason why it was not the favored alternative. The obstacles to a federally imposed carbon price that emerged during the initial years of the Obama administration have become only more daunting under the combination of the Trump administration and a Republican-controlled Congress. Recourse to the states is therefore both an opportunity to return to first principles—carbon pricing as the primary tool to address GHG emissions—as well as a practical necessity under current political conditions.

One sign of reorientation to state arenas is that Citizens' Climate Lobby (CCL)—the leading group advocating for a carbon price in the United States[10] and heretofore devoted only to legislation on the federal level—recently decided to support its local chapters advocating for state-level carbon taxes.[11] Another sign of increased receptivity to carbon pricing at the state level is the recent study of electric-sector-wide carbon pricing prepared for the New York Independent System Operator (NYISO), the operator of New York's electric grid.[12] It remains

[4] Legislative proposals to impose an economy-wide price on GHG emissions have been advanced in Massachusetts (H 1726, An Act to Promote Green Infrastructure, Reduce Greenhouse Gas Emissions, and Create Jobs, and S 1821, An Act Combatting Climate Change, discussed at *About the Bills*, CLIMATEXCHANGE, https://climate-xchange.org/massachusetts-campaign/about-the-bill/ (last visited Oct. 10, 2017); Rhode Island (H 5369, Clean Energy Investment and Carbon Pricing Act of 2017); Connecticut (Raised Bill No. 7247, An Act Establishing a Carbon Price for Fossil Fuels Sold in Connecticut); Vermont (H.531, An act relating to establishing a carbon pollution fee in Vermont, and H.532, An act relating to replacing statewide education tax revenue with a fee on carbon dioxide pollution); Oregon (LC 1242); and Washington (HB 1646, Promoting an equitable clean energy economy by creating a carbon tax that allows investment in clean energy, clean air, healthy forests, and Washington's communities, and companion bill, SB 5509). This list excludes states that impose a price on carbon emitted in the generation of electricity only, principally via the Regional Greenhouse Gas Initiative, and more broadly via California's cap-and-trade system promulgated under its Global Warming Solutions Act of 2006. *See Assembly Bill 32 Overview*, CAL. AIR RES. BOARD (CARB), https://www.arb.ca.gov/cc/ab32/ab32.htm (last reviewed Aug. 5, 2014). With the enactment of AB 398 in 2017, the California program was extended for 10 years.

[5] In New York, A107 (An act to amend the tax law, in relation to establishing a tax on carbon-based fuels to mitigate greenhouse gas emissions causing anthropogenic climate change), previously introduced in the state assembly in 2015, and its companion bill in the New York State Senate, S2846, have accumulated 29 sponsors, co-sponsors, and multi-sponsors as of this writing. A separate carbon tax bill, supported by New York Renews (NY Renews), is expected to be introduced shortly. *Our Policies*, N.Y. RENEWS, https://www.nyrenews.org/about/#anchor-link-just-transistion (last visited Oct. 9, 2017).

[6] Kevin Liptak, *WH: US Staying Out of Climate Accord*, CNN (Sept. 17, 2017, 1:21 PM), http://www.cnn.com/2017/09/16/politics/trump-paris-climate-deal/index.html; Esme Cribb, *McMaster: Trump Open To Reentering Paris Accord To Advance US 'Prosperity,'* TALKING POINTS MEMO: LIVEWIRE (Sept. 17, 2017, 10:17 AM), http://talkingpointsmemo.com/livewire/mcmaster-denies-trump-reversing-position-on-paris-accord; Joe Kennedy, *A Tax on Carbon Could Be the Answer to Corporate Tax Reform*, THE HILL (Aug. 18, 2017, 3:40 PM), http://thehill.com/blogs/pundits-blog/economy-budget/347124-how-a-carbon-tax-could-save-corporate-tax-reform; Lisa Friedman, *Some Democrats See Tax Overhaul as a Path to Taxing Carbon*, N.Y. TIMES, Aug. 17, 2017, https://www.nytimes.com/2017/08/17/climate/carbon-tax-reform-climate-change.html; Editorial, *Our View: Bipartisan Carbon Tax No Longer Pie in Sky*, ARIZ. DAILY SUN, Sept. 16, 2017, http://azdailysun.com/opinion/editorial/bipartisan-carbon-tax-no-longer-pie-in-sky/article_340ce8ba-9419-53c7-8d69-77a06c5d4e22.html.

[7] Evan Lehmann, *Senate Abandons Climate Effort, Dealing Blow to President*, N.Y. TIMES, July 23, 2010, http://www.nytimes.com/cwire/2010/07/23/23climatewire-senate-abandons-climate-effort-dealing-blow-88864.html ("White House will continue to pressure lawmakers with its biggest stick: U.S. EPA regulations on carbon"). For an astute postmortem on the failure of the carbon pricing bill to reach the Senate floor, see Ryan Lizza, *As the World Burns: How the Senate and the White House Missed Their Best Chance to Deal with Climate Change*, NEW YORKER, Oct. 11, 2010, https://www.newyorker.com/magazine/2010/10/11/as-the-world-burns.

[8] 80 Fed. Reg. 64662 (Oct. 23, 2015).

[9] See *Waxman-Markey Short Summary*, CTR. FOR CLIMATE & ENERGY SOLUTIONS, https://www.c2es.org/federal/congress/111/acesa-short-summary (last visited Oct. 10, 2017) (bill established economy-wide goals for all sources, including but not limited to those covered by the cap-and-trade program).

[10] Citizens' Climate Lobby (CCL) has grown from approximately 33,000 registered supporters in October 2016 to over 76,000 members one year later. Over the same period, the number of CCL chapters in the U.S. grew from 287 to 367. Correspondence with Iona Lutey, CCL Regional Coordinator (Sept. 15, 2017) (on file with author).

[11] Even as CCL has succeeded in winning new members and congressional adherents to its bipartisan Climate Solutions Caucus (at 60 members at the time of this writing), *Climate Solutions Caucus*, CITIZENS' CLIMATE LOBBY, https://citizensclimatelobby.org/climate-solutions-caucus/ (last visited Oct. 10, 2017), it has come to recognize the importance of also working on the state level. Presentation of Iona Lutey, CCL Regional Coordinator (June 29, 2017) (on file with the author).

[12] SAM NEWELL ET AL., BRATTLE GROUP, PRICING CARBON INTO NYISO'S WHOLESALE ENERGY MARKET TO SUPPORT NEW YORK'S DECARBONIZATION GOALS (Aug. 10, 2017) [hereinafter NYISO REPORT], http://www.nyiso.com/public/webdocs/markets_operations/documents/Studies_and_Reports/Studies/Market_Studies/Pricing_Carbon_into_NYISOs_Wholesale_Energy_Market.pdf.

to be seen whether the newfound willingness of the state to consider carbon pricing across the electric sector may signal receptivity to the efficacy of carbon pricing more broadly.

New York Not on Track to Meet Own Goals

New York has impressive state goals for reducing GHG emissions—40% from 1990 levels by 2030, and 80% by 2050.[13] Yet, to date, New York has not adopted, or even proposed, a mechanism to drive down economy-wide GHG emissions adequate to reach this goal.[14] While New York has adopted many piecemeal measures, none of these are equal to the task, individually or collectively.[15] The primary focus of New York's energy policy has been on the electric sector.[16] For example, programs such as the Regional Greenhouse Gas Initiative (RGGI)[17] and New York's original renewables mandate, the Renewable Portfolio Standard (RPS),[18] and more generally the stringency of New York's power plant and clean air permitting processes, have already succeeded in decarbonizing New York's electric sector to a significant extent. Factor in the presence of significant hydro and nuclear generating stations among the state's baseload operating plants, and New York already enjoys one of the least carbon-intensive electric sectors in the nation.[19] Other policies, such as Reforming the Energy Vision (REV),[20] the Clean Energy Standard (CES),[21] newly announced planned enhancements to RGGI,[22] and NYISO's examination of the potential for using carbon pricing,[23] make it apparent that New York is maintaining its laser focus on the electric sector.[24] But, perhaps limited by its own success, New York now faces an

[13] Exec. Order No. 24, 9 CRR-NY 7.24 (2009).

[14] *See, e.g.*, JUSTIN GUNDLACH & ROMANY WEBB, SABIN CTR. FOR CLIMATE CHANGE LAW, COLUMBIA LAW SCH., CARBON PRICING IN NEW YORK ISO MARKETS: FEDERAL AND STATE ISSUES, at v–vi (Feb. 2017), http://columbiaclimatelaw.com/files/2017/02/Gundlach-Webb-2017-02-Carbon-Pricing-in-NYISO-Markets.pdf (New York has "articulated long-term targets for emissions reductions that will not be achieved without the adoption of further specific policy measures in the future").

[15] See NYISO REPORT, *supra* note 12, at iv ("To help decarbonize the transportation, commercial, residential, and industrial sectors, New York has energy efficiency programs and other policies, although nothing as extensive as" the Clean Energy Standard, New York's renewables mandate applied to electric utilities and other load-serving entities). The disparity between goals and means is not unique to New York. *See, e.g.*, MARC BRESLOW ET AL., MASS. DEPT. OF ENERGY RES., ANALYSIS OF A CARBON FEE OR TAX AS A MECHANISM TO REDUCE GHG EMISSIONS IN MASSACHUSETTS 22 (Dec. 2014) [hereafter MASS. DOER REPORT], http://www.mass.gov/eea/docs/doer/fuels/mass-carbon-tax-study.pdf ("Although Massachusetts has a number of important laws that help to reduce GHG emissions, there is no comprehensive policy that serves as a deterrent to emissions by companies and households."). New York and other states in the U.S. Climate Alliance recently announced that they are on track to meet or exceed the targets of the Paris Climate Agreement. *See* Press Release, Governor Andrew M. Cuomo, Governor Cuomo and U.S. Climate Alliance Announce States are on Track to Meet or Exceed Targets of Paris Climate Agreement (Sept. 20, 2017), https://www.governor.ny.gov/news/governor-cuomo-and-us-climate-alliance-announce-states-are-track-meet-or-exceed-targets-paris. Those targets are substantially more modest than New York's own emissions reduction goals. *See* Ctr. for Climate & Energy Solutions, *2020 Country Emissions Targets*, https://www.c2es.org/international/history-international-negotiations/2020-targets (last visited Oct. 16, 2017) (U.S. pledged target "[i]n the range of 17% below 2005 levels by 2020"). Although the U.S. Climate Alliance states projected reductions in excess of the U.S. Paris targets—24 to 29% reductions in GHG emissions from 2005 levels by 2025—those reductions would also be well short of New York's state goals.

[16] New York's initiatives in the sectors responsible for the remaining 80% of state GHG emissions are much more scattershot. *See, e.g.*, N.Y. STATE ENERGY PLANNING BD., THE ENERGY TO LEAD: 2015 NEW YORK STATE ENERGY PLAN (VOLUME 1), at 65–109 (2015) (STATE ENERGY PLAN) (listing numerous disparate initiatives in the form of narrowly targeted subsidies and programs).

[17] RGGI claims credit for a 50% reduction in electric-sector GHG emissions in the participating states. *See, e.g.*, Press Release, RGGI Inc., RGGI States Announce Proposed Program Changes: Additional 30% Emissions Cap Decline by 2030, at 2 (Aug. 23, 2017), https://www.rggi.org/docs/ProgramReview/2017/08-23-17/Announcement_Proposed_Program_Changes.pdf.

[18] *Renewable Portfolio Standard*, NYSERDA: CLEAN ENERGY STANDARD, https://www.nyserda.ny.gov/All-Programs/Programs/Clean-Energy-Standard/Renewable-Portfolio-Standard (last visited Oct. 10, 2017) (the goal of the RPS was to increase the proportion of renewable energy New Yorkers used from 19.3% (using 2004 as the baseline year) to at least 25% by the end of 2013).

[19] *See* Allison Bailes, *How Dirty Is Your State's Electricity?*, ENERGY VANGUARD (Sept. 2, 2016), https://www.energyvanguard.com/blog/how-dirty-is-your-states-electricity (showing graph of "Carbon Intensity of Electricity by US State" based on 2012 U.S. EPA Emissions & Generation Resource Integrated Database).

[20] It is doubtful that New York's well-known electric-sector program, "Reforming the Energy Vision" or "REV," which focuses primarily on decentralizing rather than decarbonizing electric generation, can succeed in reducing even electric-sector emissions, as the State's own assessment has found. *See* N.Y. STATE DEPT. OF PUB. SERV., FINAL GENERIC ENVIRONMENTAL IMPACT STATEMENT IN CASE 14-M-0101 - REFORMING THE ENERGY VISION AND CASE 14-M-0094 - CLEAN ENERGY FUND, at 5-2 (Aug. 2, 2015), http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId=%7B9E35CB6F-9B7D-4220-9CD4-B254C0FB4551%7D (prospect of REV to drive fossil fuel displacement is "all uncertain"). Hence, the State has also commenced plans to supplement REV with more traditional command-and-control-like initiatives such as the Clean Energy Standard (CES), RGGI enhancements, and the NYISO proposal.

[21] Case Nos. 15-E-0302 and 16-E-0270, Order Adopting a Clean Energy Standard (N.Y. Pub. Serv. Comm'n Aug. 1, 2016) [hereinafter CES Order]. The CES requires that New York load-serving entities (utilities and energy service companies and others serving the retail market within a regulated utility territory) procure 50% of electric generation from renewable sources by 2030. CES Order at 2, 78–79.

[22] See RGGI Inc., *supra* note 17.

[23] See NYISO REPORT, *supra* note 12.

[24] There are good policy reasons for doing so, not the least of which is the potential of the electric sector to take market share from transportation and space-heating over the long term. The cleaner the electric sector is, the greater the emissions reductions from this shift will be.

electric sector with relatively limited gains remaining to be made. New York's electric sector accounted for 18% of GHG emissions by 2014,[25] down from 28% in 1990.[26] Even if the sector were zeroed out, New York emissions would drop only another 18%, not close to its GHG reduction goals, unless action is taken in other sectors. There are just not enough GHG emissions left in this sector to get New York over the line. Something else must be done to deliver economy-wide reductions in GHG emissions.

Economists across the ideological and political spectrum are in agreement that introducing a price signal on GHG emissions is the single most effective measure that can be taken to influence the billions of energy-affecting decisions taken daily.[27] This viewpoint rests on the basic insight that making something more expensive, by imposing a tax or other price signal, means that people will buy less of it and tend to favor substitutes and/or consume less.[28] The rationale for imposing additional cost on the purchase of fossil fuels is that doing so is necessary to reflect the externality cost—unchecked climate change—associated with GHG pollution.[29] Given a sufficient price signal disincentivizing purchases of carbon-based fuels, individual consumers and producers will decide what mix of conservation, efficiency, and carbon-free energy sources such as wind, solar, nuclear, and hydro to deploy. A carbon tax is also relatively unbureaucratic.[30]

Emissions Reductions Bona Fides

Modeling and analyses, as well as some real-life experiments,[31] have tended to confirm what economics tells us—that carbon pricing has the potential to reduce GHG emissions dramatically. Carbon pricing is also highly synergistic with other GHG reduction policies.[32] Analyses of recent federal-level Democratic and Republican proposals have projected GHG emissions reductions of 49.4% by 2030[33] and 28% by 2025,[34] respectively.

[25] U.S. ENERGY INFORMATION ADMINISTRATION, ENERGY-RELATED CARBON DIOXIDE EMISSIONS AT THE STATE LEVEL, 2000-2014, at 10 tbl. 3 (Jan. 2017), https://www.eia.gov/environment/emissions/state/analysis/pdf/table3.pdf; *see also* NYISO REPORT, *supra* note 12, at 2 fig.1. Over this period, New York's electric sector fell from being the leading source of GHG emissions to being the third-highest source, with the transportation sector accounting more than twice the amount of emissions. *Id.*

[26] N.Y. STATE ENERGY RESEARCH & DEV. AUTH. (NYSERDA), NEW YORK STATE GREENHOUSE GAS INVENTORY: 1990–2014, at S-5 tbl. S-2 (Feb. 2017), https://www.nyserda.ny.gov/-/media/Files/EDPPP/Energy-Prices/Energy-Statistics/greenhouse-gas-inventory.pdf.

[27] *See, e.g.*, *Pigou Club*, WIKIPEDIA https://en.wikipedia.org/wiki/Pigou_Club (last visited Oct. 10, 2017) (reported members); *Scientists and Economists*, CARBON TAX CTR., https://www.carbontax.org/scientists-economists/ (last visited Oct. 10, 2017).

[28] Taxes that operate under this assumption are called "Pigouvian taxes," in honor of Arthur Cecil Pigou who postulated that a market price that failed to reflect externality costs could be corrected by the introduction of a tax to reflect such costs. The "costs" of air pollution, including GHG emissions that result from burning fossil fuels, are classic externalities because they are not reflected in the purchase price of the fuel absent an intervention, such as the imposition of an "adder" to reflect the environmental cost of emissions.

[29] In theory, GHG emissions reductions could also be achieved through highly intrusive, prescriptive, bureaucratic, and ultimately more inefficient and expensive measures such as command-and-control regulations (for example, dictating maximum GHG emissions per unit of energy produced), subsidy regimes (in which the government must determine which technologies to support instead of letting the market operate), or even nationalization (which would be based on the conceit that the government would know how to reduce emissions and finance the related capital expense to do so). Such alternatives are plainly in tension with the prevailing American ethos. The complex subsidy model has characterized much of New York's energy policy to date. Indeed, much of the promotion of renewables in the State Energy Plan revolves around one form of subsidy or another. *See* STATE ENERGY PLAN, *supra* note 16, at 26–41. A carbon price, on the other hand, more closely aligns with the predominant economic and political worldview of smaller government and private sector decision-making.

[30] *See, e.g.*, NYISO Report, *supra* note 12, at 20 (comparing administrative burden of carbon cap-and-trade policy).

[31] In the United Kingdom, where CO_2 emissions are now at their lowest levels since 1894, a carbon tax—in place since 2013 and which doubled to £18/ton in 2015—has been credited with a decisive role in dramatically reducing coal-based emissions. Simon Evans, *Analysis: UK Carbon Emissions Fell 6% in 2016 After Record Drop in Coal Use*, CARBON BRIEF (Mar. 6, 2017, 12:32 AM), https://www.carbonbrief.org/analysis-uk-cuts-carbon-record-coal-drop. In British Columbia, the Ministry of Finance reports that from 2007 to 2014, the province saw a 5.5% decrease in emissions, while the population increased by 8.1% and its real gross domestic product increased by 12.4%. *British Columbia's Revenue-Neutral Carbon Tax*, B.C., http://www2.gov.bc.ca/gov/content/environment/climate-change/planning-and-action/carbon-tax (last visited Oct. 10, 2017).

[32] See ADELE C. MORRIS ET AL., BROOKINGS INST., STATE-LEVEL CARBON TAXES: OPTIONS AND OPPORTUNITIES FOR POLICYMAKERS 28–29 (July 28, 2016) [hereinafter BROOKINGS REPORT], https://www.brookings.edu/wp-content/uploads/2016/07/State-level-carbon-taxes-Options-and-opportunities-for-policymakers.pdf (carbon tax generates market signals throughout the energy supply chain; imposed on top of existing climate and energy policies it can incentivize additional abatement up to marginal costs reflected in tax rate); NYISO REPORT, *supra* note 12, at 62 (in electric sector, a "carbon charge would thus complement existing, more targeted clean energy policies; by identifying additional sources of low-cost abatement, a carbon charge would improve the economic efficiency of meeting the state's energy and environmental goals"); Bill McKibben, Opinion, *Why We Need a Carbon Tax And Why It Won't Be Enough*, YALE ENV'T 360 (Sept. 12, 2016), https://e360.yale.edu/features/why_we_need_a_carbon_tax_and_why_it_won_be_enough (carbon taxation "the one big action that encompasses all the others").

[33] See the Carbon Tax Center's analysis of the Managed Carbon Price Act of 2014. *Bills*, CARBON TAX CTR., https://www.carbontax.org/bills/ (last visited Oct. 10, 2017).

[34] The conservative Climate Leadership Council (CLC) proposal to tax CO_2 emissions at $40 per ton beginning in 2019, and rising annually at inflation plus 2%, has been estimated to achieve a 26–28% reduction in CO_2 emissions from 2005 levels by 2025. DAVID BAILEY & DAVID BOOKBINDER, CLIMATE LEADERSHIP COUNCIL, A WINNING TRADE: HOW REPLACING THE OBAMA-ERA CLIMATE REGULATIONS WITH A CARBON DIVIDENDS PROGRAM STARTING AT $40/TON WOULD YIELD FAR GREATER EMISSIONS REDUCTIONS 3–4 (Feb. 2017), https://www.clcouncil.org/wp-content/uploads/2017/02/A_Winning_Trade.pdf; *accord* Charles Komanoff, *Baker-Shultz Carbon Tax Would Let U.S. Keep Its Paris Pledge*, CARBON TAX CTR. (May 30, 2017), https://www.carbontax.org/blog/2017/05/30/baker-shultz-carbon-tax-would-let-u-s-keep-its-paris-pledge/ (evaluating CLC proposal and finding 27% reduction from 2005 levels by 2025).

Analyses of state-level proposals in New York,[35] Massachusetts,[36] Rhode Island,[37] Vermont,[38] Oregon,[39] and Washington[40] have projected economy-wide decreases in GHG emissions ranging from 5% to over 40% compared to business as usual cases, depending on the tax level and other factors. In British Columbia, the best example of an existing subnational carbon tax, the Ministry of Finance reports Canada-leading reductions in GHG emissions of 5.5% between 2007 and 2014 even though the tax topped out at the relatively modest value of C$30 per ton in 2012.[41]

Reduction of GHG emissions, and the fossil fuel combustion that creates them, can also be expected to yield important "co-benefits" by reducing emissions of other pollutants that also are byproducts of combustion.[42] Unlike GHG emissions, which are harmful globally in the aggregate, companion emissions such as nitrogen oxides, sulfur oxides, particulate matter, and hazardous air pollutants, cause adverse public health to immediate or local receptors (i.e., people nearby the emissions). Consequently, to the extent that combustion of GHG-emitting fuels declines, so also will public exposure to such "conventional" pollutants long regulated by environmental agencies. Communities hosting industrial facilities and major transportation arterials, typically lower-income and minority communities,[43] would accordingly benefit from the reduction of these "co-pollutants."

Economic Impact

Beyond the emissions reductions that are the animating impetus for implementation of a carbon tax, several studies have concluded that, even as stand-alone fiscal policy, a well-designed state-level carbon tax can improve outcomes in relevant indicia such as state gross domestic product, employment,

[35] A proposed carbon tax in New York starting at $35/metric ton and rising $15 per year until reaching $180 per ton has been projected to reduce GHG emissions by 35.9% by 2040 compared to a no-action scenario. Sara Hsu, A Carbon Tax for New York State 11, http://gelfny.org/wp-content/uploads/2015/12/NYSCarbonTaxWhiltePaper.pdf [https://perma.cc/ZL37-C2DB].

[36] The Massachusetts Department of Energy Resources study modeled three scenarios of carbon taxes beginning at $10/ton and rising to $50, $75, and $100 by 2040, respectively. The low, medium, and high cases modeled economy-wide GHG emissions reductions of approximately 5–10% below the no-tax base case scenario. MASS. DOER REPORT, *supra* note 15, at 110 fig.V.3. The relatively modest drops in emissions in the Massachusetts study are attributed to a relatively inelastic demand for fossil fuels, especially over the short term; the relatively small commodity price increases resulting from the carbon tax rates modeled; and Massachusetts's status as a relatively low CO_2-emitting state. *Id.* at 112.

[37] A study of a carbon tax in Rhode Island projected GHG emissions reductions ranging between approximately 20% and 42% below 1990 levels (and approximately 22% and 44% from business as usual (BAU)) by 2040 attributable to a tax of $15/metric ton rising $5 per year until reaching $135/ton. The difference of outcomes in the model is attributed to varying policy choices with respect to allocation of the revenues raised. SCOTT NYSTROM, REG'L ECON. MODELS, INC. (REMI), THE ECONOMIC, FISCAL, EMISSIONS, AND DEMOGRAPHIC IMPACT OF A PRICE ON CARBON DIOXIDE IN RHODE ISLAND, at 33 fig.5.1, 34 fig.5.2 (Apr. 8, 2015) [hereinafter RI REMI], http://www.energizeri.org/uploads/5/4/5/8/54586171/the_economic_fiscal_emissions_and_demographic_impact_of_a_price_on_carbon_in_ri.pdf.

[38] SCOTT NYSTROM, REMI, THE ECONOMIC, FISCAL, EMISSIONS, AND DEMOGRAPHIC IMPLICATIONS FROM A CARBON PRICE POLICY IN VERMONT 29 (Nov. 13, 2014) [hereinafter VT REMI], http://www.energyindependentvt.org/wp-content/uploads/2015/04/REMI_Final.pdf (carbon taxes starting at $5 per metric ton and topping out in three scenarios at $50, $100, and $150 per ton applied to the non-electric sectors yielded emissions reductions of 16%, 31%, and 41% from a no-tax baseline by 2040).

[39] JENNY H. LIU & JEFF RENFRO, NW. ECON. RESEARCH CTR., CARBON TAX AND SHIFT: HOW TO MAKE IT WORK FOR OREGON'S ECONOMY, at 5 fig.A & tbl.A (Mar. 1, 2013) [hereinafter OREGON NERC], https://www.pdx.edu/nerc/sites/www.pdx.edu.nerc/files/carbontax2013.pdf (utilizing British Columbia carbon tax as basis, modeled a tax on CO_2e of $10 per ton, rising $10 per year until reaching a maximum amount of $60 per ton; GHG emissions modeled to decrease by 10.6% from 1990 levels and approximately 17% from BAU case).

[40] A carbon tax rejected by voters in a referendum in Washington State in 2016 would have imposed a revenue-neutral carbon tax at an initial level of $25, rising annually by 3.5% plus inflation per year until reaching $100 per ton in 2016 dollars. *Our Policy*, CARBON WASH., http://yeson732.org/plain-language/ (last visited Oct. 10, 2017). The tax was projected to reduce GHG emissions by approximately 2% per year until 2050. Yoram Bauman, *The #1 Question from Progressives about Revenue-Neutral Carbon Taxes*, SIGHTLINE INST. (Oct. 30, 2017, 6:47 AM), http://www.sightline.org/2014/10/30/the-1-question-from-progressives-about-revenue-neutral-carbon-taxes/. A subsequent proposal from Washington's Governor Inslee would impose a tax at similar levels, but with the majority of proceeds going toward education, and the remainder primarily toward jobs and sustainable infrastructure spending. Gov. Jay Inslee, Policy Brief, *Leading the Fight Against Carbon Pollution* (Dec. 2016), http://ofm.wa.gov/budget17/highlights/201719_policybrief_CarbonPollution.pdf.

[41] *See supra* note 31.

[42] *See, e.g.*, JONATHAN J. BUONOCORE ET AL., AIR QUALITY AND HEALTH CO-BENEFITS OF A CARBON FEE-AND-REBATE BILL IN MASSACHUSETTS, https://1jf7652uqh8csljrqst8yp9l-wpengine.netdna-ssl.com/wp-content/uploads/2017/04/Study-Carbon-Pricing-and-Public-Health.pdf (last visited Oct. 10, 2017); *see also* George D. Thurston & Michelle L. Bell, *The Human Health Co-benefits of Air Quality Improvements Associated with Climate Change Mitigation*, *in* GLOBAL CLIMATE CHANGE AND PUBLIC HEALTH 137 (2014); Susan C. Anenberg et al., *Global Air Quality and Health Co-benefits of Mitigating Near-Term Climate Change Through Methane and Black Carbon Emission Controls*, 120 ENVTL. HEALTH PERSP. 831 (June 2012).

[43] *See, e.g.*, JAMES K. BOYCE & MANUEL PASTOR, ECON. FOR EQUITY & ENV'T, COOLING THE PLANET, CLEARING THE AIR: CLIMATE POLICY, CARBON PRICING, AND CO-BENEFITS 37–39 (Sept. 2012), https://www.peri.umass.edu/fileadmin/pdf/published_study/Cooling_the_Planet_Sept2012-1.pdf; Katie Valentine, *The Co-Benefits of Pricing Carbon: How Lowering Local Pollution Can Help Achieve Environmental Justice*, THINKPROGRESS (Sept. 24, 2012, 7:01 PM), https://thinkprogress.org/the-co-benefits-of-pricing-carbon-how-lowering-local-pollution-can-help-achieve-environmental-a6ae350e1ccd/.

disposable income, and income distribution.[44] In effect, there may not necessarily be a tradeoff between cutting emissions and economic growth.[45] These studies suggest that there is a double policy win available to enacting states: reduced emissions (GHGs and co-pollutants) and improved local economies. Moreover, carbon tax proposals often include mildly redistributive rebates to low- and moderate-income households intended to reverse the regressivity that would otherwise be a feature of a broad-based consumption tax. If one favors redistributive policies to ameliorate income inequality, then a carbon tax could be seen as a triple policy win.

Considerations in the Design of a State-Level Carbon Tax

Designing a state-level carbon tax should be guided by three primary considerations: effectiveness, fairness, and efficiency. Of these, the first two are essential (without the first you have no tax, without the second you have no deal), while there may be more tolerance to loosen the demands of the latter. These considerations boil down to two essential elements that are the sine qua non of any carbon tax scheme: an adequate price signal and protection against operation of the tax in such a way that it would worsen conditions for the least well off and the middle class.

Price signal. First and foremost is the price signal itself, which is the core purpose of a carbon tax. To be effective, the carbon price must be set high enough to achieve significant emissions reductions. The tax should steadily rise in accordance with a pre-existing schedule to send a clear long-term signal to the marketplace, thereby allowing economic actors sufficient time to make and implement investment decisions to lower their carbon emissions (e.g., next vehicle and appliance purchases for individuals, capital expense planning for businesses). Currently pending state carbon tax proposals range from $5–35 per ton for initial rates, with scheduled escalations to $60–185 per ton.[46]

Avoid regressivity. Broad consensus exists among carbon tax advocates that a carbon tax should not increase economic burdens on the poor and lower middle class. Like all broad consumption taxes, such as the sales tax, a carbon tax would have this result absent other interventions. Therefore, a carbon tax should be wedded to offsetting measures to protect the least well off against the regressivity that a naked carbon tax would entail.[47] Such measures might include dividend payments or refundable income tax credits focused on the lowest quintiles of the population, or an offsetting reduction in existing regressive taxes, such as sales or payroll taxes.[48] Advocates of a universal approach prefer distributing dividends evenly per capita or per household, pointing out that such a plan would also be progressive and redistributive because the collection of the tax will fall on higher income brackets in greater dollar amounts due to their greater absolute carbon footprint.[49]

These two features—an adequate price signal and protections against regressivity—are the essential minimum for any carbon tax. But they are far from the end of the story. Other important design considerations include:

- Scope of emissions covered
- Sectors covered
- Allocation of revenue and related considerations of environmental justice
- Leakage and competition
- Regional application

[44] *See* BROOKINGS REPORT, *supra* note 32, at 22 (some models suggest that carbon tax swaps can produce net pro-growth economic benefits); Peter Vail & Dallas Burtraw, *Putting Carbon Taxes to Work: Efficiency and Distributional Issues*, RES. FOR THE FUTURE (Mar. 22, 2016), http://www.rff.org/blog/2016/putting-carbon-tax-revenues-work-efficiency-and-distributional-issues (using carbon tax revenue to reduce existing distortionary taxes could lead to more economic growth); *see also* MASS. DOER REPORT, *supra* note 15, at 91–94; RI REMI, *supra* note 37, at 13–26; VT REMI, *supra* note 38, at 12–16; OREGON NERC, *supra* note 39, at 10–16. In addition, British Columbia's experience suggests that local economic benefit is compatible with carbon tax-driven emissions reductions. *See, e.g.*, NOAH MELTON & JOTHAM PETERS, NAVIUS RESEARCH INC., IS BRITISH COLUMBIA'S CARBON TAX GOOD FOR HOUSEHOLD INCOME? 10 (July 2013), http://www.naviusresearch.com/wp-content/uploads/2016/06/BC-Carbon-Tax-Full-Study.pdf (average British Columbian household is better off with the carbon tax than without); *see also British Columbia's Revenue-Neutral Carbon Tax*, *supra* note 31 (carbon tax funded reduction of 5% in first two personal income tax rates, low-income tax credit, rural homeowner benefit, reductions in general and small business corporate income tax rates, industrial property tax credit).

[45] OREGON NERC, *supra* note 39, at 20. The study additionally concluded that a well-designed carbon tax could increase competitiveness in some industries. *Id.*

[46] *See supra* notes 35–40 and accompanying text. Typically, in the proposed state carbon tax regimes, the tax is levied at the point of extraction or first sale into a state. The carbon tax bill currently pending in New York would apply the carbon tax to fossil fuel distributors and utilities. *See* N.Y. Assembly Bill No. 107 (proposing to add N.Y. TAX LAW § 289-h, among other provisions).

[47] Carbon-taxed expenditures form a greater percentage of household income at the lower brackets, although higher brackets tend to pay more carbon tax in absolute dollars. *See, e.g.*, BROOKINGS REPORT, *supra* note 32, at 21.

[48] A simple reduction of the income tax rate at the lowest brackets will not make low-income earners whole because when an emissions tax rate is high enough to produce meaningful emissions reductions, the lowest quintile is projected to pay more in carbon taxes than it pays in income tax. *See* MASS. DOER REPORT, *supra* note 15, at 55–56. Therefore, the lowest quintile's income tax payments do not form a pool sufficient to offset those taxpayers' carbon tax burden. Even making income tax credits "refundable," i.e., payable as a refund even beyond taxes paid, is only a partial solution that cannot reach nonfilers. For a thoughtful consideration of alternative measures intended to make the lowest-earning population whole, see *id.* at 43–59. The difficulty of using the tax system to fully protect the lowest income brackets has led many to favor a dividend system. *Id.*

[49] *Household Impact Study*, CCL, https://citizensclimatelobby.org/household-impact-study/ (last visited Oct. 10, 2017).

These other features are discussed below.

Scope of emissions coverage. The scope of the carbon tax should include other important GHGs, especially methane, which has 25 times the global warming potential of carbon dioxide over a 100-year period.[50] In the case of natural gas, the principal methane emissions are associated not with combustion but with fugitive emissions during the extraction and distribution processes.[51] A tax on natural gas can account for these emissions by applying the tax not just to the carbon dioxide emissions from natural gas combustion,[52] but to an imputed "methane coefficient" derived to represent the full life-cycle emissions in the natural gas production process.[53]

Without reflecting the impact and cost of methane emissions, a carbon tax would unduly favor natural gas usage. Indeed, important questions have been raised about whether, with respect to overall heat-trapping impact, U.S. GHG emissions have actually declined over the past decade, as often reported,[54] after accounting for fugitive methane releases.[55]

Treatment of electric sector emissions. A major policy consideration is whether to include the electric sector in a state-level carbon tax. A comprehensive analysis of carbon taxation in Massachusetts suggested that electric sector emissions be exempted from state carbon tax proposals because of the Commonwealth's relatively decarbonized electric generation, the small additional emissions reductions modeled, and because of complications in applying a price to the carbon content of emissions associated with imported electric generation.[56] By contrast, pending carbon tax legislation in New York maintains electric utilities within its scope.[57]

A unique consideration with respect to a New York carbon tax is the potential for NYISO to implement a price on carbon in the electric sector. A report prepared for NYISO by the Brattle Group in August 2017 (NYISO Report) recommended imposing a carbon charge of $40 per ton on electricity generated in the state and including imported electric generation within the scope of the charge in order to avoid leakage.[58] NYISO has not yet taken action on the recommendation. With the NYISO Report on the table, careful consideration should be given to determining how a carbon tax would interact with a potential NYISO charge. Were NYISO to move ahead with a carbon charge proposal, an economy-wide carbon tax would need either to exempt electricity from its scope, or credit back the NYISO price (as well as the RGGI price) to avoid double taxation. Alternatively, the NYISO charge could be eliminated in the event that a state economy-wide tax, with the electric sector within its scope, is enacted.

Far from being in tension, there is every reason to believe that the existence of an economy-wide state carbon tax would be complementary to and would strengthen the impact of the NYISO price. An economy-wide carbon tax would address two important limitations of a NYISO carbon charge rooted in the limits of NYISO's jurisdiction. First, NYISO administers wholesale pricing and dispatch on the New York electric grid. Accordingly, only grid participants would face the NYISO carbon charge.[59] As a result, a NYISO charge could encourage

[50] *Direct Global Warming Potentials*, INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (IPCC), IPCC FOURTH ASSESSMENT REPORT: CLIMATE CHANGE 2007, § 2.10.2 (2007), https://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch2s2-10-2.html. If a 20-year time comparison is used, methane has 72 times the global warming potential. *Id.* More recent IPCC data shows methane's global warming potential over these timeframes to be 34 and 86 times that of CO_2 in the 100-year and 20-year timeframes, respectively. Gayathri Vaidyanathan, *How Bad of a Greenhouse Gas Is Methane?*, SCI. AM. (Dec. 22, 2015), https://www.scientificamerican.com/article/how-bad-of-a-greenhouse-gas-is-methane/.

[51] *See, e.g.*, Clifford Krauss, *Exxon Aims to Cut Methane Leaks, a Culprit in Global Warming*, N.Y. TIMES, Sept. 25, 2017, https://www.nytimes.com/2017/09/25/business/energy-environment/exxon-methane-leaks.html.

[52] Natural gas's CO_2 emissions are substantially lower than carbon emissions associated with burning either coal or petroleum products. *How Much Carbon Dioxide Is Produced When Different Fuels Are Burned?*, U.S. ENERGY INFO. ADMIN., https://www.eia.gov/tools/faqs/faq.php?id=73&t=11 (last reviewed June 8, 2017).

[53] The Rhode Island study followed this approach. RI REMI, *supra* note 37, at 10. The Massachusetts study included a small markup related to methane leakage. *See* MASS. DOER REPORT, *supra* note 15, at 84.

[54] *See, e.g.*, *U.S. Energy-Related CO2 Emissions Fell 1.7% in 2016*, U.S. ENERGY INFO. ADMIN.: TODAY IN ENERGY (Apr. 10, 2017), https://www.eia.gov/todayinenergy/detail.php?id=30712.

[55] Joe Romm, *Methane Leaks Erase Climate Benefit of Fracked Gas, Countless Studies Find*, THINKPROGRESS (Feb. 17, 2016, 8:25 PM), https://thinkprogress.org/methane-leaks-erase-climate-benefit-of-fracked-gas-countless-studies-find-8b060b2b395d/.

[56] In reaching this recommendation, the Massachusetts study specifically excluded an expectation that a substantial percentage of the motor vehicle fleet and space heating would convert to electricity before 2040. MASS. DOER REPORT, *supra* note 15, at 36.

[57] Assembly Bill No. 107 (proposing to add N.Y. TAX LAW § 289-h, among other provisions).

[58] Several studies have suggested methodologies for determining a reasonable carbon emissions value for imported electricity. *See, e.g.*, NYISO REPORT, *supra* note 12, at 6–8, 23–26; MASS. DOER REPORT, *supra* note 15, at 38–41. In California, the CO_2e emissions rate for imported "unspecified sources" is assigned a historically- and regionally-based default rate, which suggests that the problem is not insoluble. CARB, Guidance for California's Mandatory Greenhouse Gas Emissions Reporting § 5.7 (Mar. 9, 2017), https://www.arb.ca.gov/cc/reporting/ghg-rep/ghg-rep-power/epe-faqs.pdf; *see also* NYISO REPORT, *supra* note 12, at 14.

[59] NYISO REPORT, *supra* note 12, at 18–19 (NYISO would administer the carbon charge in commitment, dispatch, and settlement processes).

leakage to "behind the meter" fossil fuel-based generation, such as dedicated natural gas- or diesel-burning units, because such units would not bear the carbon charge.[60] On the other hand, imposing a carbon tax on the fuels powering such units would equalize the playing field and eliminate the price advantage such units would otherwise enjoy over centralized NYISO-administered power generation. A second concern about the carbon charge recommended in the NYISO Report, acknowledged by its authors, is the potential for a carbon price imposed on electricity to discourage eventual electrification of transportation and space heating, an important strategic component of economy-wide decarbonization.[61] Absent a carbon charge, the fossil fuels combusted in those sectors would enjoy a corresponding price advantage over electrified transportation and heating. In fact, the NYISO Report specifically recognized the value of an economy-wide carbon tax in counterbalancing unintended disincentives to electrification[62] that an electric-sector-only carbon charge might entail.[63]

The "problem" of revenue. The effort to advance carbon taxes has been beset by a surprisingly debilitating discussion about what to do with the revenue. On one side are proponents who advocate a revenue-neutral approach in which new revenues should be either refunded to state residents or used to fund tax reductions. On the other side are those who favor using the revenue to further support renewables, mass transit and other infrastructure projects, energy efficiency measures, climate adaptation, and/or social welfare spending to protect those most vulnerable to the effects of climate change.[64]

The principal reasons that many carbon tax advocates favor revenue-neutral treatment of proceeds should be expressly stated. Much of the preference comes down to two beliefs. One is that maintaining revenue neutrality is the best way to broaden and deepen political support for a carbon tax over the long term. By basing a carbon tax on a no-growth-of-government approach, many climate activists believe that a carbon tax will be more acceptable to principled moderates and conservatives who, while recognizing the threat of unchecked climate change, also are committed to small government principles and do not want climate change policy to be the occasion to expand government. More broadly, many proponents believe that tying carbon tax revenues to highly visible periodic dividend checks or other rebates will build popularity for a carbon tax over the long term, including for increases in the tax over time so long as such increases translate directly to increased dividend checks.

In addition to these political assessments, many proponents of revenue neutrality are also attracted by the intellectual "elegance" of a revenue-neutral tax, which would drive down emissions by virtue of "internalizing" externality costs in everyday transactions without any new fiscal outlay. Other proponents of revenue neutrality argue that revenues should be allocated to judicious tax reductions. In this view, carbon taxes could be a first step in aligning taxes more generally with desired economic outcomes by removing drags on beneficial activities such as work while shifting taxation onto polluting activities that should be discouraged. In addition, several analysts find tax reductions to have a greater stimulative economic impact than dividends or rebates.[65]

These two competing alternatives within the revenue-neutral camp—dividends/rebate and offsetting tax reductions—each raise distinct forward-looking fiscal issues beyond climate policy. Dedicating carbon tax revenue to fund direct payments to individuals or households shares features with minimum or universal basic

[60] Such an untended consequence could exacerbate REV's own incentives available to decentralized fossil-burning generation units because of their grid-supporting attributes such as ready "dispatchability." *See, e.g.*, MATTHEW CHRISTIANSEN & ELIZABETH B. STEIN, THE RISE OF DG: OPTIONS FOR ADDRESSING THE ENVIRONMENTAL CONSEQUENCES OF INCREASED DISTRIBUTED GENERATION (Feb. 2016), http://guarinicenter.org/wp-content/uploads/2016/02/DG-Policy-Br-Rough-Draft-vFINAL.pdf [https://perma.cc/M6DG-SMKT]. Many large electric users, such as universities, military installations, hospitals, and industrial sites, frequently operate on-site generation units, such as simple-cycle natural gas units or fossil-burning combined heat and power units. Indeed, such configurations are often encouraged under the rubric of "micro-grids." Many other facilities have backup generation that owners may be tempted to deploy in non-emergency situations if economic incentives provide sufficient inducement. Presumably, when such units do not participate in NYISO's dispatch system, and provide power only to their host or other dedicated users, the NYISO carbon price would not apply.

[61] *See, e.g.*, CARB, FIRST UPDATE TO CLIMATE CHANGE SCOPING PLAN 101 (May 2014), https://www.arb.ca.gov/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf ("Electrification in the transportation and building sectors must coincide with decarbonization of electricity supply"); JÜRGEN WEISS ET AL., BRATTLE GROUP, ELECTRIFICATION: EMERGING OPPORTUNITIES FOR UTILITY GROWTH (Jan. 2017), http://www.brattle.com/system/news/pdfs/000/001/174/original/Electrification_Whitepaper_Final_Single_Pages.pdf (counter-narrative to utility death spiral based on electrification-driven decarbonization strategies for transportation and heating); Max Wei et al., *Deep Carbon Reductions in California Require Electrification and Integration Across Economic Sectors*, ENVTL. RES. LETTERS (Jan.-Mar. 2013), http://iopscience.iop.org/article/10.1088/1748-9326/8/1/014038.

[62] NYISO REPORT, *supra* note 12, at xi (carbon charge on all sectors would be the "most elegant solution").

[63] Two other important shortcomings of the carbon charge discussed in the NYISO Report relate to the scope and plan of the proposal, and not to its jurisdictional limitations. One is that the NYISO carbon pricing does not appear to apply to methane, or to any GHG other than CO_2, at least as conveyed in the NYISO Report. The other is that the proposal does not appear to contemplate the escalation of the carbon price over time.

[64] The use of funds to help lower-income individuals reduce their carbon footprint and therefore their exposure to the carbon tax would further both environmental and social equity goals. Programs in this vein could include increased support for home energy efficiency, electric vehicles, and mass transit.

[65] *See* BROOKINGS REPORT, *supra* note 32, at 22; OREGON NERC, *supra* note 39, at 20. *But see* MASS. DOER REPORT, *supra* note 15, at 8–9, 47–48 (tax reduction-only strategy inequitable).

income proposals that have originated well outside the confines of environmental policy[66] and suggests one funding mechanism to support such ends. On the other hand, to the extent the revenues of a carbon tax may be used to offset or displace traditional tax types, such as income, payroll, property, sales, or business activity taxes, a carbon tax suggests a means to begin to "re-base" the tax system away from incidence upon (and therefore disincentivizing) productive and useful activity—such as work, home ownership, and business formation—and toward activities society wishes to discourage, such as pollution. It is fairly easy to argue that, because of its existing tax structure,[67] New York presents a particularly strong case for using a substantial portion of the proceeds of a carbon tax to offset the state's large complement of activity-distorting taxes.

Another potential use of proceeds is payment for New York-based activities that extract GHGs from the atmosphere—the other side of the coin from taxes on GHG-emitting activity. Logically, such payments would be made at the same price per ton of GHGs applied to emissions—after all, the social cost of carbon based on its warming impact is the same for a ton of avoided emissions as a ton of pollutants removed. In fact, many scientists now believe that emissions reductions alone are no longer sufficient to avoid calamitous climate change impacts and that some sort of extraction strategy will be necessary to return atmospheric concentrations of GHGs to sustainable levels.[68] Under current market conditions, however, there is little economic incentive for doing so. More parochially, instituting a carbon payment system also holds out the prospect of making New York a center for the development of such technology, and the investment and employment that could follow.[69]

Environmental justice considerations. Environmental justice advocates frequently support the allocation of carbon tax revenue toward spending on climate adaptation and related infrastructure projects. Such proposals generally focus on protecting those most vulnerable to climate change, typically based on geographic location. It should be noted for consideration in this debate that, even in revenue-neutral formulations, a carbon tax can readily be structured to avoid regressivity and even be redistributional.[70] This is so because upper income brackets will tend to pay more carbon tax considering their generally larger (or multiple) residences and more frequent use of equipment and services requiring heat and power, such as transportation including air travel. If the rebate of revenues is level per capita or per household, then those expending less than average in absolute dollars on the carbon tax will come out ahead, even if they pay more carbon tax as a proportion of household income.[71] In fact, dedication of too great a share of carbon tax revenue to spending puts this redistributional effect at risk and will leave lower-income carbon tax payers unprotected from a carbon tax's inherent regressivity.[72]

Carbon tax proposals, therefore, can readily be designed to protect against regressivity, and can even be redistributional, even if none of the revenues are allocated to expenditures. Furthermore, as noted above, all carbon taxes will tend to depress emissions of co-pollutants emitted during fossil fuel combustion.[73] Both of these significant outcomes of a revenue-neutral carbon tax plan would tend to benefit environmental justice communities. Consequently, the debate over whether to allocate proceeds in a revenue-neutral fashion or to support spending on new projects reduces in part to differences in the perceived value of distributing proceeds in a universal fashion—to generate and maintain broad political support for the tax over the long term, including increases in the tax rate over time—versus the value of infrastructure spending (and whether such spending, targeted tax reductions, or dividends is a more effective way to allocate resources to lower- and middle-income households). Resolving such a debate is well beyond the scope of this article—the debate ranges far beyond environmental policy, as commonly understood—and the breadth of

[66] Numerous economists, activists, and Silicon Valley tech sector representatives have called for the establishment of a basic minimum or basic universal income in recognition of the employment displacement taking place due to technology and automation. *See* Frances Coppola, *Top Economists Endorse Universal Basic Income*, FORBES (Aug. 31, 2017, 2:03 AM), https://www.forbes.com/sites/francescoppola/2017/08/31/top-economists-endorse-universal-basic-income/.

[67] New York is a top-10 taxer of income, sales, property, and business taxes. *See supra* note 2.

[68] *See* Chris Mooney, *The Suddenly Urgent Quest to Remove Carbon Dioxide from the Air*, WASH. POST, Feb. 26, 2016, https://www.washingtonpost.com/news/energy-environment/wp/2016/02/26/weve-reached-the-point-where-we-need-these-bizarre-technologies-to-stop-climate-change/.

[69] Numerous technological approaches to CO_2 extraction are "in beta." *See, e.g.*, Nicola Jones, *Can Pulling Carbon from Air Make a Difference on Climate?*, YALE ENV'T 360 (Dec. 10, 2015), http://e360.yale.edu/features/can_pulling_carbon_from_air_make_a_difference_on_climate; Adele Peters, *This Machine Just Started Sucking CO2 Out of the Air to Save Us from Climate Change*, FAST CO. (May 31, 2017), https://www.fastcompany.com/40421871/this-machine-just-started-sucking-co2-out-of-the-air-to-save-us-from-climate-change; *Ctr. for Negative Carbon Emissions*, ARIZ. STATE UNIV., https://cnce.engineering.asu.edu/ (last visited Oct. 10, 2017). In the distant (and hopeful) eventuality that activity increases to the point that such payments become financially burdensome, the policy could be revisited.

[70] Both the New York bill and the Republican proposal issued by Climate Leadership Council are redistributional, allocating carbon tax proceeds raised from the top quintiles to the bottom. N.Y. Assembly Bill No. 107 (proposing to add N.Y. Tax Law § 289-j, among other provisions, which would return 60% of proceeds to low- and moderate-income residents); JAMES A. BAKER, III, ET AL., CLIMATE LEADERSHIP COUNCIL, THE CONSERVATIVE CASE FOR CARBON DIVIDENDS 2 (Feb. 2017), https://www.clcouncil.org/wp-content/uploads/2017/02/TheConservativeCaseforCarbonDividends.pdf (per U.S. Dept. of Treasury, bottom 70% would come out ahead under proposal).

[71] *Household Impact Study*, *supra* note 49.

[72] Charles Komanoff, *The Climate Solution That Boosts Income for Over 60% of Americans – The Ones Who Most Need It*, CARBON TAX CTR. (Sept. 15, 2017), https://www.carbontax.org/blog/2017/09/15/worsening-income-inequality-should-broaden-support-for-carbon-dividends/.

[73] *See supra* notes 42–43 and accompanying text.

issues involved perhaps explains the difficulty carbon tax advocates have faced to date in reaching a serviceable consensus.

One might think that those favoring action on emissions reductions could relatively easily reach consensus on second-order questions like the allocation of revenue—after all, revenue is a good problem to have, and money has the favorable property of being fungible and infinitely divisible—but the issue has been a bedeviling one. The division over how to allocate carbon tax revenue famously resulted in the failure of a 2016 carbon tax referendum, which embodied a revenue-neutral approach, in Washington State.[74] The dangers of division among carbon tax advocates over revenue allocation issues are plain to see.

One possible basis for compromise between these two well-meaning constituencies—"pure" environmental policy advocates and environmental justice communities—might be to package a carbon tax with a separate "polluter pays" assessment on fossil fuel producers and importers, along the lines of the tax that originally funded Superfund cleanups.[75] Such a revenue stream could be directed exclusively toward mitigation and "just transition" projects, while keeping the carbon tax itself revenue neutral and tied to popular dividends, rebates, or tax cuts. In the absence of an alternate revenue source for such projects, it may be money's property of infinite divisibility that will allow for hybrid solutions and compromises.

Leakage, imports, and competition. Many commentators on carbon taxes have been concerned about the potential for leakage—i.e., the possibility that purchasing may be redirected to out-of-state untaxed sources of the carbon fuels.[76] Indeed, to the extent such leakage occurs, it will frustrate the tax's emissions reduction goals as well as deprive the taxing jurisdiction of revenue. What to do?

One option is nothing. Consider: state economies that must import their fossil fuels are already "leaking" significant economic value. According to one study, in Massachusetts, which has an energy profile similar to New York in many respects,[77] 5–6% of gross state product (GSP) leaks out of state through its energy imports.[78] Several other studies have likewise projected net benefits to state economies, as measured by employment, wage growth, and GSP attributable to implementation of carbon taxation.[79] In other words, considered as an economic measure only, state-level carbon taxes repeatedly have been shown to be a net economic positive.

Additionally, revenue neutrality arguably offers its own form of antidote, at least in part, to the problem of leakage. Unlike other taxes imposed by New York over the decades, a revenue-neutral tax by definition would not be additive, and could be deliberately structured to offset some of New York's most anticompetitive and most complained-about taxes. For example, directing carbon tax proceeds to offsetting, say, sales, payroll, or property taxes that inhibit people and companies from relocating to or remaining in New York would tend to counterbalance anticompetitive effects that a carbon tax may otherwise have on price structure.

Moreover, New York's economy surely already suffers from some leakage attributable to many other taxes and regulations imposed over the course of New York's history of developing protective social legislation and financing its governmental machinery. Examples include the state's taxes on income, payroll, real property, gasoline, and business franchises; its workers compensation rates;[80] and the existing charge on carbon emissions imposed under the RGGI regime.[81] In all these cases, New York has concluded that the benefit of adopting relatively high taxes and protective legislation or regulation outweighed other considerations. New York could simply conclude that the value of a carbon tax outweighed potential concerns about competitive impacts. But as shown above, the evidence to date suggests such a tradeoff is unnecessary.

None of which is to say that measures should not be taken to mitigate adverse effects on particular sectors of the economy or population, regardless of the aggregate benefit that a carbon tax

[74] *See, e.g.*, David Roberts, *The Left vs. a Carbon Tax*, VOX (Nov. 8, 2016), https://www.vox.com/2016/10/18/13012394/i-732-carbon-tax-washington.

[75] The Superfund Revenue Act of 1986 amended the Internal Revenue Code to extend the environmental tax on petroleum and certain chemical feedstocks for five years, through 1991. *See* Superfund Amendments and Reauthorization Act of 1986, Pub. L. No. 99-499, 100 Stat. 1613.

[76] Under a state carbon tax regime, leakage pressures could be expected to manifest in the principal categories of economic activity subject to leakage under a carbon tax: purchase of gasoline and transportation fuels, wholesale and industrial electricity markets, provision of space heating, and purchase and sale of products (manufactured and agricultural). The markets for each are subject to differing dynamics bearing on the form and extent of potential leakage.

[77] Both New York and Massachusetts feature a relatively well-decarbonized electric sector, significant importation of electricity, and a largely services-based economy.

[78] MASS. DOER REPORT, *supra* note 15, at 92.

[79] MASS. DOER REPORT, *supra* note 15, at 92; *see also* supra note 44. No study reviewed for this article has concluded that leakage outweighed other economic benefits, let alone environmental benefits.

[80] *See supra* note 2. New York ranked third in a 2016 survey of workers' compensation premiums. *See* OR. DEPT. OF CONSUMER & BUS. SERV., 2016 OREGON WORKERS' COMPENSATION PREMIUM RATE RANKING SUMMARY (Oct. 2016), http://www.cbs.state.or.us/external/dir/wc_cost/files/report_summary.pdf. In the case of gasoline, where New York is already on the losing end of a tax-based price gradient with its neighboring states, some leakage surely already occurs and could increase in the event of a carbon tax further increasing the pump price. A carbon tax of $35 per ton would translate into an increase of approximately 31 cents per gallon. *See, e.g.*, Andrew Ratzkin, *You Say You Want a REV Solution: Considering New York's Marquee Energy Initiative as Climate Change Policy*, 41 COLUM. J. ENVTL. LAW 471, 511. While we would expect some loss of sales where people can with a modest effort cross to other states, cross-Hudson tolls tend to make this behavior uneconomic downstate where the majority of the population resides.

[81] *See, e.g.*, NYISO REPORT, *supra* note 12, at 8 (35–37% leakage under RGGI); SHELLEY WELTON ET AL., CTR. FOR CLIMATE CHANGE LAW, COLUMBIA LAW SCH., REGULATING ELECTRICITY IMPORTS INTO RGGI: TOWARD A LEGAL, WORKABLE SOLUTION 1 (Aug. 2013), https://web.law.columbia.edu/sites/default/files/microsites/climate-change/files/Publications/Fellows/RGGI%20paper_Final%20Aug%2021_2013.pdf (imports make up approximately 16% of New York's electricity).

would be expected to deliver. Arguably, then, a carbon tax should include offsetting tax reductions for sectors especially sensitive to out-of-state competition, such as manufacturing and agriculture. In fact, several proposed and existing subnational carbon taxes feature an offsetting tax reduction (or exemption) to address such effects.[82] In New York, a carbon tax could be coupled with industrial property tax exemptions or other forms of support, such as those long sought by New York manufacturing trade associations.[83] Although it would be complicated to implement on the state level, a feature refunding the imputed carbon tax on exported goods could also be considered.

An important counter-leakage effect of a state-level carbon tax may be the incentive the tax, if optimally designed, can give to other states to enact their own carbon taxes. For example, presume New York is taxing the carbon content of fracked gas imported from Pennsylvania, or petroleum refined in New Jersey or Texas.[84] Policymakers in these exporting states presumably would dislike the fact that New York alone would enjoy the revenue earned from such taxes. Now suppose New York's tax provides a credit to the extent that the carbon content of imported fuels has already been taxed elsewhere. In that case, it would be possible—and economically rational—for those other states to impose their own carbon tax, to retain the proceeds for themselves because doing so would not place the other states' exports to New York (or other states imposing a carbon tax) at more of a disadvantage than had already been the case. In this way, coupling a carbon tax with a carefully constructed exemption for goods already carbon-taxed could help incentivize the extension of carbon taxes to other states. Such a development would advance the carbon tax's chief policy goal because GHGs would then be taxed across a broader geographical and economic area. Of course, the spread of carbon taxation would also attenuate leakage and competitive impacts: to the extent other states follow suit, any gradient favoring untaxed jurisdictions will tend disappear.[85] Indeed, a similar dynamic has been expressly recognized as positive feature of various national-level proposals.[86] Moreover, such treatment would also tend to strengthen the constitutional bona fides of a carbon tax if challenged by out-of-state producers.[87]

[82] MASS. DOER REPORT, *supra* note 15, at 71–72; *I-732 Will Help Washington Manufacturers Comply with the New Clean Air Rule*, CARBON WASH. (Nov. 4, 2016), https://yeson732.org/i-732-will-help-manufacturers-comply-clean-air-rule/; *British Columbia's Revenue-Neutral Carbon Tax*, *supra* note 31 (industrial property tax credit).

[83] For example, for several years the Manufacturers Association of Central New York has called for the enactment of an industrial property tax credit, the Empire State Apprenticeship Program, and various small business tax credits, such as the reduction of the personal income tax rate as applied to small business. *See Legislative Memos*, MANUF. ASS'N OF CENT. N.Y., https://www.macny.org/advocacy/legislative-memos/ (last visited Oct. 16, 2017). Potentially, protection of manufacturers could extend to refunding imputed carbon taxes to in-state manufacturers of exported goods.

[84] In practice, in an energy-importing state like New York, a tax on fossil fuels would tend to function as a tax on imports, almost by definition. *But see 2016 Oil & Gas Production Data*, N.Y. DEPT. OF ENVTL. CONSERV. (July 5, 2017), http://www.dec.ny.gov/energy/36159.html (12,943 oil and gas wells reported operating in New York in 2016).

[85] It is also possible that the existence of a carbon tax could help New York defensively. If U.S. goods may face duties in retaliation for withdrawal from the Paris Agreement, New York carbon-taxed goods may be positioned to seek an exemption. *Carbon Tariffs and the EU's Steel Industry*, ECONOMIST, Feb. 16, 2017, https://www.economist.com/news/finance-and-economics/21717101-border-taxes-carbon-may-be-counterproductive-carbon-tariffs-and-eus-steel; Coral Davenport, *Diplomats Confront New Threat to Paris Climate Pact: Donald Trump*, N.Y. TIMES, Nov. 18, 2016, https://www.nytimes.com/2016/11/19/us/politics/trump-climate-change.html.

[86] BAKER ET AL., *supra* note 70, at 1 ("Border adjustments for the carbon content of both imports and exports would protect American competitiveness and punish free-riding by other nations, encouraging them to adopt carbon pricing of their own."); Ted Halstead, *A Climate Solution Where All Sides Can Win*, TED (Apr. 2017), https://www.ted.com/talks/ted_halstead_a_climate_solution_where_all_sides_can_win ("Suppose Country A adopts a carbon dividends plan, and Country B does not. Well, to level the playing field and protect the competitiveness of its industries, Country A would tax imports from Country B based on their carbon content. Fair enough. But here's where it gets really interesting, because the money raised at the border would increase the dividends going to the citizens of Country A. Well, how long do you think it would take the public in Country B to realize that that money should be going to them, and to push for a carbon dividends plan in their own land? Add a few more countries, and we get a new climate domino effect." (at minute 8:05)).

[87] Full treatment of the constitutionality of a carbon tax primarily falling on imported fuels is beyond the scope of this article. For a thorough consideration of related questions about permissibility of carbon charges on electrical imports into a state, see WELTON ET AL., *supra* note 81.

However, a few considerations are in order. First, a carbon tax should be designed to apply in a nondiscriminatory manner. In the case of New York, it may be a helpful fact that the state has an existing fossil fuel extraction industry, albeit a small one. *See 2016 Oil & Gas Production Data*, *supra* note 84. The existence of an in-state fossil fuel sector treated identically would tend to support a finding of nondiscrimination in the event of a constitutional challenge to the tax under the dormant Commerce Clause. Additionally, as noted in the text above, the availability of a carve-out for imported fuels already taxed would also support the tax against a challenge from out-of-state producers. Second, cigarette taxes, broadly directed by most states to wholly out-of-state importers for public health purposes closely analogous to the environmental and public welfare purposes of a carbon tax, are widespread and in good constitutional standing. Third, *Rocky Mountain Farmers Union v. Corey*, 730 F.3d 1070 (9th Cir. 2013)—which upheld California's application of its low carbon fuel standard to out-of-state fuel producers, not electricity—has been interpreted as "leaving ample room for novel state efforts to address climate change," Shelley Welton, *Plugging the Leaks: Can RGGI Regulate Emissions from Imported Electricity?* (Part 2), 24 ENVTL. L. IN N.Y. 193, 193 (Dec. 2013), perhaps even more so in the case of fuel importation than electricity. *See also* WELTON ET AL., *supra* note 81, at 19 (*Rocky Mountain Farmers Union* case was expected to have a "major impact in shaping how the [dormant Commerce Clause] is applied to the novel field of state carbon regulation"). Fourth, California's assessment of border-like charges to imported electricity based on carbon content also remains in good standing. NYISO REPORT, *supra* note 12, at 15. Lastly, the Federal Power Act would not apply to a carbon tax falling on fossil fuels, and therefore such a tax would face one less legal hurdle than charges on imported electricity under consideration to protect the RGGI states from leakage problems in that market.

Other jurisdictions may be induced to adopt carbon taxes not only by the incentives created by a "trading partner" state's carbon tax, but also through direct invitation to cooperate, as in the case of RGGI. Indeed, the best strategy for dealing with leakage may be the one adopted by RGGI: go regional.

Regional approach. An interstate accord to apply a carbon tax to a group of states would accomplish a number of objectives with respect to leakage. Most obviously, a regional approach would mitigate or eliminate competitive disadvantages certain businesses within a taxing state would suffer when faced with out-of-state competitors who would not otherwise be subject to a carbon tax.[88] And a regional approach would subject a greater quantity of GHG emissions to the tax and its reduction pressures, thereby increasing the overall effectiveness of the tax as a climate policy tool.

Seeking a regional tax accord certainly would be more complex than pursuing a New York-only tax due to an increased number of actors and circumstances to be considered and accommodated in designing the tax. At the same time, a regional approach could make the task of adopting a carbon tax easier politically, if lawmakers and citizens gain confidence that a level playing field will extend beyond their single state.

To be worthy of the name, any regional approach to a carbon tax should contain certain bare-minimum common features across participating jurisdictions: the types of pollutants and the sources and sectors subject to the tax should be part of a common regional floor. Similarly, agreement on the initial rate of taxation and scheduled increases are also fundamental to any pact. (However, if any jurisdiction desired to expand the scope of the application of the tax or to exceed the minimum tax rates imposed, there should be no basis for any objection by neighboring states.) Other features of the tax could be left to participating states to determine on their own. For example, allocation of revenues, whether to increase the scope or rate of taxation beyond the regional minimum, and whether to term the carbon charge a tax or fee[89] could all safely be left to each state.

Most of the states now considering a carbon tax are located together in the Northeast: Massachusetts, Connecticut, Rhode Island, and Vermont all have produced studies and/or pending legislation. Rhode Island, where the state economy is especially sensitive to Massachusetts, has already included in its study consideration of the impact of enacting a tax alone or in sync with Massachusetts.[90] These states suggest an obvious nucleus for a regional carbon tax.[91]

Several possible mechanisms suggest themselves for proceeding on a regional basis. In one scenario, the participating states could convene and adopt a common plan, using the RGGI process as a model. Another possibility is that states could proceed individually, but include conditionality in their enabling state legislation to postpone the effective date of the tax until, say, one or more abutting states adopt a carbon tax with specified minimum features.[92] In either scenario, however, it would obviously be beneficial for the states to convene to discuss the common features upon which they can mutually agree.

The Politics

While daunting, the politics of a carbon tax in New York should be more favorable than in many other states. In addition to New York's long status as an environmental leader dating back to the earliest days of environmental law, the state also has the distinct advantage of not being highly dependent economically on or beholden politically to the fossil fuel industry;[93] with a fracking ban in place, New York is not home to significant fossil fuel extraction.[94] To the extent that the fossil fuel industry contracts, most of the pain will tend to land elsewhere.

A coalition to support carbon taxes can readily be envisioned. At its center, of course, are the environmentally-minded who champion the GHG emissions reduction goals on their own terms, and businesses in competition with fossil-based fuels—such as wind, solar, biomass, heat-pump, energy efficiency

[88] BROOKINGS REPORT, *supra* note 32, at 23 ("best resolution is to harmonize carbon pricing policies across jurisdictions to eliminate distortions in trade and investment").

[89] Whether to call a carbon charge a tax or fee should in principle depend on the use of the proceeds. If the charge is fully rebated and never used to support government activity, then a strong argument can be made for calling the levy a fee.

[90] RI REMI, *supra* note 37, at 37.

[91] Washington, Oregon, and California all have considered or adopted carbon taxes and pricing to varying degrees and suggest another potential regional grouping.

[92] One model is the interstate compact on electoral college reform whereby a state would award its electoral votes to the national majority vote winner, but only after states collectively representing a majority of electoral votes had adopted like legislation. Interestingly, New York is one of 10 states that has adopted contingent legislation in this area. *National Popular Vote Interstate Compact*, WIKIPEDIA, https://en.wikipedia.org/wiki/National_Popular_Vote_Interstate_Compact (last edited Oct. 3, 2017).

[93] New York's fossil fuel industry mostly comprises distributors and retailers. Once upon a time, several of the major oil companies—Mobil, Exxon, and Texaco—had headquarters in the state. *See* James Barron, *Exxon Will Move Its Headquarters To Texas*, N.Y. TIMES, Oct. 27, 1989, http://www.nytimes.com/1989/10/27/nyregion/exxon-will-move-its-headquarters-to-texas.html; Elsa Brenner, *Morgan Stanley Seals Deal on Texaco Headquarters*, N.Y. TIMES, Mar. 31, 2002, http://www.nytimes.com/2002/03/31/nyregion/in-business-morgan-stanley-seals-deal-on-texaco-headquarters.html; Albert Scardino, *Mobil Relocating New York Headquarters to Virginia*, N.Y. TIMES, Apr. 25, 1987, http://www.nytimes.com/1987/04/25/nyregion/mobil-relocating-new-york-headquarters-to-virginia.html. Those days have long passed.

[94] *But see supra* note 87.

providers, etc.[95] This core can be expanded if a proposal and a supporting coalition are carefully constructed. For example, New York's electric utility industry, already having made significant progress in reducing its carbon profile, stands to greatly expand its market share if carbon taxes accelerate the electrification of transportation and ambient heating, both of which presently rely substantially on fossil fuels in the form of gasoline and diesel, and natural gas, propane, and heating oil, respectively.[96] Additional business support can perhaps be won by dedicating a portion of a carbon tax's proceeds to funding one or more long-standing goals of the state's manufacturing sector, such as reducing or eliminating the industrial property tax.[97] On the left side of the spectrum, climate activists have increasingly succeeded in forging links with social equity constituencies in recognition that low-income communities tend to be the most vulnerable to climate change as well as to the more traditional "co-pollutants" emitted in tandem with GHGs.[98] However, many argue that these communities have more to gain economically from government-funded investment in infrastructure needed to support an energy transition than from investment indirectly incentivized by a carbon price signal combined with the income distribution possible in a revenue-neutral scenario. While it would be interesting to test these propositions empirically or through modeling, the price of enthusiastic support among organized labor and environmental justice constituencies is likely to be support for the expenditure side of carbon tax revenue allocation.

Current Proposals

Presently in New York, one carbon tax bill has been introduced, and an additional bill is expected shortly as of this writing.[99] The pending bill, which was first introduced by Assemblymember Cahill and Senator Parker in the previous legislative session in 2015,[100] now numbers 29 sponsors, co-sponsors, and multi-sponsors.[101] It would establish an immediate carbon tax of $35 per ton, rising by $15-per-ton increments until reaching $185 per ton after 10 years. The bill attempts to straddle differences over how to allocate revenue by dedicating 60% of its proceeds to revenue-neutral purposes in the form of tax credits to the low- and moderate-income residents, while directing 40% of the proceeds to investments in climate change adaptation measures, as well as mass transit and other just transition measures. The bill in its current form therefore addresses some but not all of the concerns raised in this article. Some of the key features discussed that are lacking include a rebate or dividend mechanism that would capture nonfilers or those whose income tax liability is too small to offset their carbon burden; an offset geared toward manufacturers or farmers whose products may be subject to close price competition; a mechanism to tax imported electricity; an exemption for imported fuels or electricity already taxed; a feature to extend the tax to regional neighboring states; and a coefficient to capture fugitive methane emissions released during the life cycle of natural gas production. These features all can be addressed in negotiations as the bill advances. Indeed, one advantage of

[95] These businesses have increasing economic weight in New York and elsewhere. *See, e.g.*, Natasha Geiling, *Clean Energy Employs More People than Fossil Fuels in Nearly Every U.S. State*, THINKPROGRESS (Mar. 27, 2017, 3:28 PM), https://thinkprogress.org/clean-energy-more-jobs-than-fossil-fuels-32f615915399/; Dana Varinsky, *Solar-Energy Jobs Are Growing 12 Times as Fast as the US Economy*, BUS. INSIDER (Jan. 26, 2017, 12:06 PM), http://www.businessinsider.com/solar-energy-job-growth-2017-1.

[96] NYISO REPORT, *supra* note 12, at 2–3; WEISS ET AL., *supra* note 61.

[97] While manufacturing constitutes a much smaller share of New York's economy than it did 60 years ago, many of the jobs that remain are relatively high-paying, are often unionized, and represent economic anchors for many upstate communities. OFFICE OF THE STATE COMPTROLLER, THE CHANGING MANUFACTURING SECTOR IN UPSTATE NEW YORK: OPPORTUNITIES FOR GROWTH (June 2010), https://www.osc.state.ny.us/localgov/pubs/research/manufacturingreport.pdf (manufacturing still major force in upstate labor market, accounting for 20% of private-sector wages).

[98] *See supra* notes 42–43 and accompanying text.

[99] The NY Renews proposal is anticipated to direct 70% of carbon tax revenue to spending, and the other 30% to offsetting regressivity at the low end of the income spectrum. The initial rate of the proposed tax is expected to be $35 per ton, rising by approximately 5% per year, plus inflation, through 2050. NY Renews, Climate and Community Investment Act, Draft Policy Outline (Oct. 2017) (on file with author). The NY Renews proposed revenue distribution closely tracks the break point where the tax would become regressive. That is, a certain minimum level of refund or other offsets to lower earners is required to avoid regressive effects. Komanoff has calculated that approximately two-thirds of proceeds must be refunded in a per-capita distribution system to offset a carbon tax's regressivity. *See* Komanoff, *supra* note 72. Thus, if under such a plan more than approximately 33% of revenues were allocated to spending or other purposes, lower earners would be harmed by a carbon tax. If the upper income brackets were excluded from the rebates, and the rebates were concentrated at the lower end of the economic spectrum, then more funds would be available for spending while keeping the lowest earners whole. The NY Renews bill is expected to cut off rebates at an income level in the moderate income range; in the aggregate, a carbon tax would make earners above that level worse off. The key point here, though, is that if instead of devoting proceeds to spending, the entirety of the proceeds were devoted to rebates, the effect would be more redistributive than what NY Renews is expected to propose.

A separate calculus applies to the question of whether to distribute rebates universally or to a smaller subset of taxpayers. How one comes out on that question may rest on how one assesses the relative merits of broad political support for an escalating carbon tax versus maximizing redistribution. Famously, the social security system opted for the universal approach, which in retrospect appears to have been effective in consolidating support for the program for over 80 years.

[100] Assembly Bill No. 8372 (introduced Aug. 24, 2015); Senate Bill No. 6037 (introduced Aug. 24, 2015).

[101] Assembly Bill No. 107 (prefiled Jan. 4, 2017; sponsored by Assemblymember Cahill; 17 co-sponsors and four multi-sponsors); Senate Bill No. 2846 (introduced Jan. 17, 2017; sponsored by Senator Parker; six co-sponsors).

proceeding legislatively, as New York must, as opposed to in the form of a referendum, as was recently attempted in Washington State, is that changes and compromises can be negotiated up until adoption, whereas the text of a referendum is set months in advance of the voting.

Summary

The foregoing considerations suggest some elements that can fairly be considered settled as to what should be included in carbon tax. Other considerations are more appropriately the subject of continued discussion among stakeholders; compromises will surely have to be made.

As set forth above, any carbon tax proposal in New York should contain the following elements:

- A robust and transparent price signal escalating over time.
- Protective features to avoid regressivity.
- Scope of covered emissions broad enough to include not only carbon dioxide, but all the principal GHGs, especially fugitive methane, taxed at their carbon dioxide equivalent (CO_2e) value.
- Coverage of the electric sector, including imported electricity, either in conjunction with a NYISO carbon-pricing plan, or through direct coverage under the tax.
- An exemption or offset for imported carbon already taxed to encourage adoption of carbon taxes by other states.
- Consideration of potential efficiency gains by swapping the proceeds of carbon tax revenues for reduction of activity-inhibiting taxes. This is an especially relevant consideration in New York, considering its existing high taxation profile. For purposes of social equity, such reductions should be targeted to existing taxes disproportionately falling on lower-income populations, such as payroll, low-bracket income taxes, and/or sales taxes.
- Include a special case tax reduction for selected current state taxes imposed on manufacturing and agriculture.
- Consider a dedication of some of the proceeds to funding carbon-negative technologies, based on tons of CO_2e extracted. Especially in early years, this would be a negligible commitment of funds. If carbon extraction technologies grow significantly, adjustments could then be made, if necessary.
- In general, favor revenue neutrality over expenditures in light of the persuasive case that revenue-neutral allocations, in the form of dividends or, potentially, carefully selected tax offsets, can be more redistributive than spending measures. Recognize that while this may be an ideal position on the merits, further political accommodation may be needed.
- Consider developing a separate revenue stream dedicated to just transition and adaptation measures, perhaps analogous to the former Superfund "polluter pays" tax, such as a special levy on the fossil fuel industry or via a settlement trust funded with the proceeds from pending investor fraud lawsuits against fossil fuel companies initiated by attorneys general in New York and other states.[102]

Conclusion and Next Steps

With federal action on climate, at least for the time being, going in reverse, there is more impetus and need than ever for states to take the lead, as many have observed. Putting a price on carbon to reflect the externality cost of GHGs is generally agreed to be the single most effective measure that can be taken to reduce GHG emissions on an economy-wide basis, and is synergistic with other, more narrow policies intended to reduce GHG emissions (e.g., vehicle fuel economy standards or renewable energy tax incentives). Depressing GHG emissions will also realize health benefits by reducing emissions of co-pollutants along for the ride with GHG emissions.[103] In addition to the environmental benefits, which are the core purpose of carbon pricing, imposing a carbon tax, according to several studies and limited real-life experience, has been found to yield economic benefits to the jurisdiction imposing the tax, especially where the jurisdiction is a net importer of fossil fuels. A carbon tax can and should be structured progressively to avoid regressive features that would characterize a carbon tax unadorned by revenue-return features.

In addition to these straightforward policy benefits, carbon taxation, in its revenue-neutral variants, unavoidably introduces rising themes in current thinking on economic and fiscal policy, including basic minimum or universal income and repositioning of the tax base, and offers the potential to create a market in the development of carbon-negative technologies and other industries of the future.

Let's face it: New York is already a notoriously high tax state. Looked at one way, already-high taxes pose a significant hurdle to proposing a new one. On the other hand, a carbon tax offers New York an opportunity to start to rethink its fiscal structure. Adopting a revenue-neutral state-level carbon tax has the potential to usher

[102] Press Release, Attorney Gen. Eric T. Schneiderman, A.G. Schneiderman, Former Vice President Al Gore and a Coalition of Attorneys General from Across the Country Announce Historic State-Based Effort to Combat Climate Change (Mar. 29, 2016), https://ag.ny.gov/press-release/ag-schneiderman-former-vice-president-al-gore-and-coalition-attorneys-general-across. Such a use would be consistent with the use of funds derived from tobacco lawsuits to fund other state purposes such as education. Press Release, Attorney Gen. Eric T. Schneiderman, A.G. Schneiderman Announces $550 Million Settlement with Big Tobacco that Ensures Billions in Future Compensation to New York State, Counties, and NYC Arising Out of Landmark 1998 Agreement (Oct. 20, 2015), https://ag.ny.gov/press-release/ag-schneiderman-announces-550-million-settlement-big-tobacco-ensures-billions-future.

[103] *See supra* notes 42–43 and accompanying text.

New York to the forefront of creative fiscal policy, economic change, and innovation, as well as environmental policy. Revenue-neutral or not, however, the key imperative is to impose a price signal that can drive systemic reduction of GHG emissions.

Perhaps most important of all, adoption of a carbon tax by New York—because of its prominent profile both nationally and globally—would offer a hopeful example of progress at a time when the federal government has abandoned its leadership role on climate policy. New York's executive leadership and lawmakers should initiate discussion with nearby states about a regional carbon tax. As part of this effort, New York—along with neighboring states, if possible—should commission a study to examine the environmental and economic impacts of a regionally imposed carbon tax, and thereafter promptly enact legislation to bring the tax into effect. If successful, New York's example could be expected to be emulated and give strength to carbon taxing efforts beyond the region. The spread of carbon taxes would in turn both benefit the climate and level the playing field for early-adopter carbon-taxing states.

Andrew Ratzkin (andrew.ratzkin@gmail.com) is an environmental and energy-sector lawyer.

LEGAL DEVELOPMENTS

ASBESTOS

Second Circuit Affirmed Remand of Asbestos Action

In a summary order, the Second Circuit Court of Appeals affirmed the remand of an asbestos personal injury action to New York state court. The defendant had removed the case pursuant to the federal officer removal statute. The Second Circuit noted that the plaintiffs had abandoned all claims arising from asbestos exposure at a government facility, eliminating claims against which a government-contractor defense could be asserted, and rejected the defendant's argument that claims giving rise to original jurisdiction in federal court must be formally dismissed for a properly removed case to be remanded. The Second Circuit also rejected the argument that the federal court should have retained jurisdiction on the basis of diversity of citizenship. The Second Circuit said the defendant could only sustain removal based on diversity where diversity existed both when the case was filed and when it was removed. The court indicated that in this case there was no dispute that there was not complete diversity at the time of filing. *Chapman v. Crane Co.*, 2017 U.S. App. LEXIS 9732 (2d Cir. May 31, 2017).

Appellate Division Affirmed Ruling That Merchant Mariner's Release of Asbestos Claims Was Unenforceable

The Appellate Division, First Department, ruled that a release executed in 1997 by a plaintiff's decedent did not bar the plaintiff from bringing a personal injury action in 2015 alleging that exposure to asbestos-containing products manufactured by the defendant's predecessor in interest caused the decedent's mesothelioma. The decedent gave the release in connection with an earlier federal lawsuit also alleging exposure to asbestos. The release provided that the decedent gave up the right to bring future actions for "any new or different diagnosis that may be made" as a result of exposure. The First Department found that the defendant had not met its burden of proving that the release was enforceable under the Federal Employers' Liability Act (FELA), which requires strict scrutiny of releases. FELA applied because the alleged exposure took place while the decedent served in the Merchant Marine; the Jones Act provides merchant mariners with a right of action for injuries arising out of performance of their duties and incorporates FELA by reference. The First Department considered the context in which the decedent executed the release and determined that it was impossible to conclude that he had actually received a diagnosis at that time. Given the lack of evidence that the decedent knew of actual risks to which he was exposed, the court found that the release was unenforceable. Justice Tom dissented, writing that the release was enforceable because it was properly limited to risks known to the parties at the time of execution, including the risk of mesothelioma. *South v. Chevron Corp.* (*Matter of New York City Asbestos Litigation*), 153 A.D.3d 461 (1st Dept. 2017).

ENERGY

Appellate Division Upheld Permits for Restarted Power Plant

The Appellate Division, Third Department, affirmed dismissal of proceedings challenging permits granted by the New York State Department of Environmental Conservation (DEC) for operations at a natural gas electric generating station located on the shore of the Hudson River in the Town of Newburgh. The station was forced offline by a storm that flooded the station in October 2012 during a time in which the station's then-owner had filed for bankruptcy and was seeking to sell the station. After the storm, the owner sought authorization to sell the station to a bidder that intended to demolish it. That sale was not consummated, and the station was eventually sold to the respondent, which obtained authorization to resume operations. The Third Department found that DEC was not required to hold a public adjudicatory hearing prior to issuing final updated Title V and State Pollutant Discharge Elimination System permits for the station. On the merits, the Third Department concluded that DEC had a rational basis for its determination that a "mixing zone" where discharges of warm water from the station would cause surface water temperatures near the discharge point to occasionally exceed the regulatory maximum complied with DEC regulations. With respect to the Title V permit, the Third Department was not convinced by the petitioner's argument that the permitting process required new source review because it involved reactivation of a permanently shut-down facility. The

Third Department said DEC had rationally concluded that there was no intent to permanently shut down the station. The Third Department also rejected the contention that DEC violated the State Environmental Quality Review Act (SEQRA) by issuing a negative declaration. The court said DEC satisfied its SEQRA obligations, citing DEC's observations that the station's environmental impacts were not new "notwithstanding the puzzling insistence of petitioner that the station's brief shutdown warranted treating them as such" and that the updated permits would lessen existing impacts by eliminating coal as a fuel source. *Matter of Riverkeeper, Inc. v. New York State Department of Environmental Conservation*, 152 A.D.3d 1016, 59 N.Y.S.3d 806 (3d Dept. 2017).

INSURANCE

Second Circuit Affirmed Insurer's Liability but Remanded for Calculation of Damages

The Second Circuit Court of Appeals affirmed that an insurer was liable to a chemical manufacturer for costs incurred for environmental damage at five manufacturing sites. The Second Circuit concluded that the insurer's excess policies were triggered because the New York Court of Appeals' 2016 decision in *In re Viking Pump, Inc.* dictated that vertical exhaustion—and not the insurer's pro rata approach—should apply, meaning that the chemical manufacturer did not need to exhaust primary policies outside its chosen policy year to reach the excess layer for that policy year. The court remanded for calculation of damages using the "all sums" approach required under *In re Viking Pump, Inc.*, under which the manufacturer can "collect its total liability under any policy in effect during the periods that the damage occurred," as opposed to the pro rata method used by the district court prior to *Viking Pump* that capped recovery to losses attributable to the policy year and subsequent years. The Second Circuit also directed, however, that the district court apply the policies' prior insurance provision, pursuant to which the occurrence limits in the policy would be reduced by the amounts due under any prior excess insurance policy for a loss covered by a prior insurance policy in the same layer of coverage when the prior insurance policy was triggered by the same occurrence for which the insured sought indemnification. The Second Circuit also said the district court should determine the effect of the manufacturer's prior settlements with London Market Insurers. The Second Circuit also agreed with the district court's conclusion that a stipulation for an Alabama site only released the insurer with respect to one operable unit and rejected an argument that the district court had committed a legal error by adopting a special verdict form premised on an incorrect interpretation of the policies. In the manufacturer's cross-appeal, the Second Circuit affirmed the district court's rejection of the manufacturer's bad faith claim brought under Massachusetts law. *Olin Corp. v. OneBeacon America Insurance Co.*, 864 F.3d 130 (2d Cir. 2017).

Second Circuit Affirmed No Coverage for Plumbing Company in Love Canal Contamination Cases, Said Sewage Would Be "Pollutant"

The Second Circuit Court of Appeals affirmed a district court ruling that an insurer had no obligation to defend or indemnify its plumbing company policyholder in state court litigation involving chemical contamination at Love Canal near Niagara Falls. In an unpublished decision, the Second Circuit said the insurer had met its burden of showing that the state action's allegations fell within the policy's pollution exclusion. The Second Circuit noted that the parties disputed whether the chemicals that allegedly caused personal injuries and property contamination included sewage and that the policyholder argued that sewage might not be a "pollutant." The Second Circuit said, however, that "we have no doubt that sewage 'is generally recognized in industry or government to be harmful or toxic to persons'" and thus fell within the pollution exclusion. The Second Circuit also rejected the policyholder's argument that some allegations in the underlying complaint related to "harm caused by the force of liquids permitted to build within the sewer," finding that pressure was merely the mechanism for escape of the chemicals. The Second Circuit also rejected the argument that the exclusion was overbroad. *Cincinnati Insurance Co. v. Roy's Plumbing, Inc.*, 2017 U.S. App. LEXIS 9729 (2d Cir. May 31, 2017). [*Editor's Note:* This action was previously covered in the October 2016 issue of *Environmental Law in New York*.]

LAND USE

Appellate Division Said Construction of Comfort Stations Was Not Prohibited Use of Public Street

The Appellate Division, Second Department, upheld the City of Long Beach City Council's awarding of contracts for construction of comfort stations along the City's boardwalk. The Second Department held that the petitioners did not have standing to make claims under the State Environmental Quality Review Act because their alleged environmentally related injuries were too speculative and conjectural. The Second Department also agreed with the Supreme Court, Nassau County, that the construction of one of the comfort stations was not a prohibited use of a public street. The Second Department noted that owners of property adjacent to a highway or street possess easements of light, air, and access, but that when the fee of the highway had been transferred to the State, the State could use the highway for any public use not inconsistent with or prejudicial to its use for highway purposes. The Second Department noted that a comfort station would not completely block the petitioners' ocean view or prevent them from using a public street, and that the comfort station would be open for the purpose of serving the public. *Matter of Shapiro v. Torres*, 153 A.D.3d 835 (2d Dept. 2017).

Appellate Division Said Development Rights Were Property But Dismissed Siblings' Action to Compel Sale of Such Rights for Family Farm

In a dispute between siblings concerning the future of their family's farm, the Appellate Division, Second Department, reversed a determination by the Supreme Court, Dutchess County, that development rights did not constitute real property that three of the siblings could seek authorization to sell pursuant to Section 1602 of the Real Property Actions and Proceedings Law (RPAPL). The Second Department affirmed dismissal of the three siblings' action, however, because they had failed to establish that the proposed sale would be "expedient." The three siblings wished to sell the developments rights—against the wishes of a fourth sibling—to preserve the property's future use as a farm. The Second Department determined that the rights the three siblings sought to convey—i.e., "the right to build as many homes as are allowed by zoning and planning regulations"—were portions of the "bundle of rights comprising the maximum development capacity of the property." The development rights therefore constituted "real property, or a part thereof," for purposes of RPAPL § 1602. In finding that the siblings had not shown the sale would be expedient, the court said the plaintiffs had not presented evidence of a proposed buyer for the development rights or the value of the underlying property with and without the development rights. The siblings also did not present evidence of other tangible or intangible benefit that would be achieved by the sale, or evidence that the sale was necessary to preserve the property as an asset. *Hahn v. Hagar*, 153 A.D.3d 105, 60 N.Y.S.3d 49 (2d Dept. 2017).

Violations for Too-Tall Store Signs in Herald Square Upheld by Environmental Control Board

The New York City Environmental Control Board (ECB) upheld violations issued for outdoor non-advertising signs that exceeded the Zoning Resolution's height limits. The proceeding concerned three Victoria's Secret signs at a Herald Square store in Manhattan. The respondent argued that it could not be charged with the "Class 2" violations because the Department of Buildings (DOB) penalty schedule only allowed violations of the applicable Zoning Resolution provision to be charged as "Class 1" violations with respect to outdoor *advertising* signs. The ECB disagreed, finding that DOB had properly classified the charges. *City of New York v. T-C 2 Herald Square Owner LLC*, Appeal No. 1700670 (N.Y.C. Envtl. Control Bd. Sept. 8, 2017); *City of New York v. Victoria's Secret Stores, LLC*, Appeal No. 1700672 (N.Y.C. Envtl. Control Bd. Sept. 8, 2017).

Environmental Control Board Threw Out Duplicate Violations of Outdoor Advertising Requirements

The New York City Environmental Control Board found that summonses issued to an outdoor advertising company (OAC) for violations related to an OAC sign that was visible from the Major Deegan expressway were duplicative of summonses issued to the company that acquired the respondent company after the sign was erected. The summonses were issued after the acquisition. The ECB found that there was no evidence that the two companies were separate OACs that each had responsibility for the same sign violations. The ECB therefore dismissed the summonses issued to the respondent company. The ECB separately upheld violations against the premises owner. *City of New York v. Van Wagner Communications, LLC*, Appeal No. 1700712 (N.Y.C. Envtl. Control Bd. Aug. 17, 2017); *City of New York v. G.A.L. Manufacturing Corp.*, Appeal No. 1700713 (N.Y.C. Envtl. Control Bd. Aug. 17, 2017).

Environmental Control Board Said New Violation Was Barred by Finding of Legal Non-Conforming Use in 2015

The New York City Environmental Control Board found that res judicata barred a violation issued for a painted advertising sign by the Department of Buildings. A violation was dismissed in 2015 on the ground that a sign at the same location was a legal non-conforming use. In the new enforcement proceeding, DOB's attorney presented new evidence that the surface area of the predecessor sign had not complied with then-applicable Zoning Resolution requirements and that the cited sign therefore was not a legal non-conforming use. A hearing officer preserved the respondent's res judicata claim for appeal but sustained the violation, rejecting the respondent's non-conforming use claim. The ECB found that res judicata applied and granted the respondent's appeal. *City of New York v. 65 Jayat Realty Corp.*, Appeal No. 1700595 (N.Y.C. Envtl. Control Bd. Aug. 17, 2017).

LEAD

Broker Pleaded Guilty for Failing to Provide Notice of Lead Paint Hazard

A real estate broker based in the Town of Lockport pleaded guilty to one count of violating the Residential Lead-Based Paint Hazard Reduction Act of 1992 by failing to provide a lead paint hazard warning notice to a prospective buyer. The statute and its implementing regulations require sellers of pre-1978 dwellings to disclose known lead-based paint hazards or to certify that they have no knowledge of such hazards. The seller of a home in Lockport gave the defendant the exclusive right to sell the property and showed her a copy of an inspection report that documented the presence of lead-based paint in the home. The U.S. Attorney's Office for the Western District of New York said that after one prospective buyer cancelled a sales contract after an inspection was conducted, the defendant provided a disclosure form to a second prospective buyer in which the defendant indicated that the seller did not have knowledge of lead-based paint hazards. The buyers purchased the home in April 2014 and learned in September 2015 that their child had lead poisoning. The maximum possible sentence for the violation is a one-year

term of imprisonment, a fine of $100,000, or both. *United States v. Walck*, No. 1:17-mj-01103 (W.D.N.Y. Sept. 7, 2017).

LEGAL PROFESSION

State Supreme Court Dismissed Malpractice Action Against Law Firm That Negotiated Air Rights Transfer for Lower East Side Hotel

The Supreme Court, New York County, granted a law firm's motion for summary judgment dismissing a malpractice action filed by a client that claimed the law firm's drafting of a Zoning Lot Development Agreement (ZLDA) constituted malpractice. The legal work was done in connection with the development of a hotel on the Lower East Side of Manhattan. The client contended that the law firm—which it had retained to prepare transaction documents for the acquisition of air rights over a neighboring property and the right to build a cantilever over the neighboring property—should have drafted the ZLDA to require the adjacent property owner to consent to alterations at its building to cure a violation of the building code. The court found that undisputed facts showed that the law firm had exercised the applicable standard of care in drafting the ZLDA and that there was no evidence that alleged negligence in negotiating or drafting the ZLDA proximately caused the client's injuries. The court noted that the law firm had been retained as the transactional attorney and that the ZLDA achieved the purposes for which the law firm was retained. The court said the client presented no evidence showing that the firm was hired to obtain the adjacent property owner's consent to unspecified permanent alterations to its building to avoid possible code violations that construction of the cantilever would cause. The court found that expert testimony was necessary to assess the professional service provided by the law firm, and found that the law firm's expert established that the law firm was not obligated to discover the potential code violation or provide for the neighboring property owner's consent in the event of its client's "unilateral determination" that there might be a code violation. The court further found that the client expert's affidavit was conclusory and did not rebut the law firm expert's proof. The court also found that the client had withheld "obviously important" information about the cantilever. *180 Ludlow Development LLC v. Olshan Frome Wolosky LLP*, 2017 N.Y. Misc. LEXIS 3173 (Sup. Ct. New York County Aug. 22, 2017).

NOISE

Environmental Control Board Reinstated Noise Code Violation Against Restaurant That Refused Inspection

The New York City Environmental Control Board reinstated a violation against a restaurant owner for failing to allow New York City Department of Environmental Protection (DEP) employees to perform sound testing of equipment. The restaurant's manager denied the DEP inspectors access to equipment during the restaurant's business hours and refused to set an appointment for testing at a later time. The restaurant owner asserted that the employees were skeptical and cautious because of recent reports of thefts in the area; the respondent produced a neighborhood bulletin that recommended that residents take precautions and call 911 in response to any suspicious activity. The manager did call 911, but the inspectors left before the police arrived. While the hearing officer credited the respondent's testimony and found the manager's behavior was "not unreasonable in this day and age," the ECB found that the hearing officer's decision that no violation had occurred was not supported by the law and a preponderance of the evidence. The ECB noted it was undisputed that the DEP employees attempted to perform a noise inspection during the restaurant's normal business hours and presented badges and identification. The ECB sustained the violation, finding no reasonable basis for the manager's belief that the employees were not inspectors. *City of New York v. 61 Local LLC*, Appeal No. 1700732 (N.Y.C. Envtl. Control Bd. Sept. 8, 2017).

Contractor Successfully Defended Itself Against After-Hours Construction Violations

The New York City Environmental Control Board affirmed the dismissal of violations issued to a contractor for conducting after-hours interior demolition and debris removal without a variance or a noise mitigation plan as required by the Noise Control Code. The City inspector observed the after-hours work being conducted, but the foreman and the building super would not provide the name of the contractor performing the work. The inspector instead obtained the respondent contractor's name from current permits posted at the front of the building. A hearing officer found that the contractor presented credible evidence that it was not performing work on the floor where the cited after-hours work took place and therefore dismissed the charges. The ECB deferred to the hearing officer's credibility finding and affirmed dismissal. *City of New York v. Quest Builders Group Inc.*, Appeal No. 1700731 (N.Y.C. Envtl. Control Bd. Sept. 8, 2017).

OIL SPILLS & STORAGE

Bronx Building Owner Must Pay $83,750 and Clean Up Petroleum Spill

New York State Department of Environmental Conservation (DEC) Commissioner Basil Seggos found that a Bronx property owner was liable for on- and off-site petroleum contamination both as the current owner and as a signatory of a 2012 stipulation in which the respondent agreed to submit a remedial action work plan (RAWP) to address the contamination. (DEC staff and the respondent's contractor had disputed whether the respondent's site was the source of the off-site contamination.) In addition to

finding the respondent liable for discharging petroleum and failing to submit a RAWP and clean up the spill, the Commissioner also found that the respondent failed to register a waste oil tank within 30 days of the transfer of ownership of the facility. The Commissioner imposed a $83,750 civil penalty and also directed the respondent to clean up and remove the contamination. The respondent was required to submit a RAWP within 30 days and to complete remediation within 120 days of DEC's approval of the RAWP. *In re Carolei Realty L.L.C.*, DEC Case Nos. R2-20150202-52, R2-20150409-231, 2017 N.Y. ENV LEXIS 64 (DEC Sept. 13, 2017).

DEC Imposed $37,000 Penalty for Petroleum Tank Violations at Bronx Apartment Building

DEC Commissioner Basil Seggos ordered the owner of a Bronx apartment building to pay a civil penalty of $37,000 for failing to comply with petroleum bulk storage requirements for a 10,000 aboveground heating oil tank. The Commissioner found that the respondent had failed to register the facility within 30 days of the transfer of ownership in 2006 and also found that the respondent had failed to display a PBS certificate at the facility, equip the tank with secondary containment, mark the tank with the registration identification number and other information, color code the fill port, maintain the tank vault, and conduct and maintain records of monthly inspections. Because two duplicative causes of action were dismissed, the administrative law judge had recommended reducing the penalty from the $37,000 sought by DEC staff. The Commissioner did not accept this recommendation due to the number of violations and their duration and severity, as well as the respondent's lack of cooperation and the facility's proximity to sensitive receptors. The Commissioner ordered the respondent to submit documentation of completion of corrective action within 30 days. *In re 2363 Southern Blvd., LLC*, DEC Case No. R2-20161205-429, 2017 N.Y. ENV LEXIS 62 (DEC Sept. 11, 2017).

DEC Imposed $10,000 Penalties for Failure to Register Petroleum Tanks in New York City Buildings

DEC Commissioner Basil Seggos ordered two New York City property owners to pay $10,000 civil penalties for failing to register or renew the registration for petroleum bulk storage facilities. In one proceeding, the owner of a property in midtown Manhattan had not renewed the registration when it expired in August 2008. In the other proceeding, the owner of a Bronx property had failed to register a tank after acquiring the property in June 2012. The Commissioner noted that administrative precedent established $10,000 as the appropriate penalty for a failure to register a facility for more than five years, and $7,500 for a failure to register for between two and five years. Although the date of acquisition of the Bronx property was less than five years before the filing of DEC's complaint, the Commissioner agreed with the administrative law judge that the $10,000 penalty requested by DEC staff was authorized and appropriate since the respondent was on notice of the requested penalty amount and had still failed to register the facility more than five years after the registration was due. *In re 30 West 32nd Street Management LLC*, DEC Case No. PBS.2-365653.7.2017, 2017 N.Y. ENV LEXIS 61 (DEC Sept. 11, 2017); *In re Promesa Court Residences L.P.*, DEC Case No. PBS.2-601945.6.2017, 2017 N.Y. ENV LEXIS 63 (DEC Sept. 11, 2017).

Owner of Four Bronx Buildings Ordered to Pay $30,000 in Penalties for Failing to Register Tanks

DEC Commissioner Basil Seggos imposed a total of $30,000 in civil penalties in four proceedings involving the same respondent, a housing development fund corporation that owned four buildings in the Bronx. In each proceeding, the Commissioner concluded that the respondent had violated the Environmental Conservation Law and petroleum bulk storage regulations by failing to register aboveground storage tanks at the buildings after the transfer of ownership. The respondent acquired the buildings in December 2013 and submitted registration applications in October 2016 that DEC determined to be incomplete. The respondent—which never submitted a complete application—did not file an answer to DEC's complaint and did not appear at the adjudicatory hearing. *In re G & M Properties HP Housing Development Fund Co.*, DEC Case Nos. PBS.2-250937.6.2017, 2017 N.Y. ENV LEXIS 56 (DEC Aug. 9, 2017); DEC Case No. PBS.2-311936.6.2017, 2017 N.Y. ENV LEXIS 57 (DEC Aug. 11, 2017); DEC Case No. PBS.2-601941.2017, 2017 N.Y. ENV LEXIS 50 (DEC Aug. 15, 2017); DEC Case No. PBS.2-364665.6.2017, 2017 N.Y. ENV LEXIS 53 (DEC Aug. 19, 2017).

SEQRA/NEPA

Appellate Division Affirmed Invalidation of Local Law Classifying Drive-Through Restaurants as Type I Actions, But Said Court Should Not Have Determined That Restaurant Was Type II Action

The Appellate Division, Fourth Department, annulled a determination by the Supreme Court, Erie County, that a proposed commercial structure in the Town of Orchard Park that included a restaurant with a drive-through window was a Type II action. The Fourth Department agreed with the Supreme Court, however, that an Orchard Park law requiring that restaurants with drive-through windows be designated as Type I actions was invalid. The Fourth Department said it was inconsistent with SEQRA regulations, finding that DEC contemplated categorizing such restaurants as Type II actions. The Fourth Department said that the court should have declined to accept the plaintiff's contention that the project should be classified as a Type II action. The court therefore remitted the matter to the Town Board for a new determination. *Miranda Holdings, Inc. v. Town Board of Town of Orchard Park*, 152 A.D.3d 1234, 58 N.Y.S.3d 851 (3d Dept. 2017).

Appellate Division Affirmed Dismissal of Challenge to Wireless Tower Where Petitioners Failed to Join Site Owner

The Appellate Division, Third Department, ruled that petitioners challenging a special use permit and site plan approval for a wireless telecommunication tower facility had not established their entitlement to the relation back doctrine after failing to join the owner of the site of the proposed tower. The petitioners only joined the site owner after the Supreme Court, Sullivan County, determined that he was a necessary party and after the limitations period had expired. The Third Department found that the petitioners had failed to establish two of the three prongs of the relation back doctrine. First, they had failed to establish that the site owner was "united in interest" with the applicant, whose interest was in its business of providing wireless coverage, while the owner's interest was in the use of his property. Second, the petitioners failed to establish that the site owner knew or should have known that, but for a "mistake" by petitioners, the proceeding also would have been brought against him. The court said the petitioners' failure to realize that the site owner was legally required to be named in the proceeding was not a mistake contemplated by the relation back doctrine. *Matter of Sullivan v. Planning Board of Town of Mamakating*, 151 A.D.3d 1518, 58 N.Y.S.3d 692 (3d Dept. 2017).

State Supreme Court Vacated Site Plan Approval and Negative Declaration for Natural Gas Compressor Facility

The Supreme Court, Broome County, vacated the Town of Fenton Planning Board's approval of a site plan for a natural gas compressor facility where natural gas would be extracted from a pipeline and specialized trucks would be filled with compressed natural gas. The court also vacated the negative declaration issued by the Planning Board for the project. As a threshold matter, the court concluded that petitioners in each of the two cases challenging the project had standing. In one case, the court said the school district petitioner had standing based on its status as a "public entity entrusted with the safety and well-being of hundreds of students" and because it had identified a particular intersection at which it had traffic concerns. In the other case, the court found that some petitioners had demonstrated standing by way of proximity where their properties were 700–725 feet and 600 feet from the project, and that petitioners alleging particular traffic concerns and usage of a community park had demonstrated sufficient injury-in-fact. Petitioners who lived 1,100 feet and 5,000 feet from the project and had included only general allegations of injury were found not to have standing. On the merits, the court voided the Planning Board's designation of the project as an Unlisted action, finding that it had violated SEQRA regulations by delaying its classification of the project and that the Unlisted classification was arbitrary and capricious and unsupported by substantial evidence. The court indicated that the project should have been classified as a Type I action based on the proposed disturbance of 5.3 acres and on its proximity to the community park—the court said the project was "substantially contiguous" to the park even though an elevated highway and underground pipeline separated the park and project. Citing the *SEQR Handbook*, the court found, moreover, that the project was close enough to the park (less than 500 feet) that it should be treated as Type I based on the potential for an impact. The court also found that the Planning Board's lead agency determination and failure to conduct a coordinated review were arbitrary and capricious. The court further found that there was no evidence that the Planning Board had taken a hard look at traffic issues; in making this finding, the court refused to consider information submitted by the respondents that it found were not part of the record. The court said the Planning Board's failure to consider aquifer protection permit requirements was an additional basis for finding that the Board failed to take a hard look. The court dismissed a claim that the project had improperly been classified as a truck terminal that would not require a use variance; the court said the claim was premature because there had never been a formal interpretation of whether the project was a permitted use as a truck terminal. *Chenango Valley Central School District v. Town of Fenton Planning Board*, 2017 N.Y. Misc. LEXIS 3243 (Sup. Ct. Broome County Aug. 28, 2017).

State Supreme Court Upheld Denial of Variances for Binghamton University Student Housing Where Applicant Said Negative Declaration Was at Odds with Denial

The Supreme Court, Broome County, upheld the denial of variances for new student housing buildings near the Binghamton University campus. The court found that the Town of Vestal Zoning Board of Appeals (ZBA) had provided an adequate explanation for its decision, and that the ZBA's determination was not arbitrary or capricious. The court noted that although the ZBA had issued a negative declaration, it had found that there would be a moderate to large impact on the use or intensity of use of the land, community character, and traffic and transit. The court said that despite its conclusion that these findings did not preclude a negative declaration pursuant to SEQRA, the ZBA "certainly could have rationally reached a different conclusion on the ultimate granting of the variances." The court also said it was not irrational for the ZBA to conclude that the requested variances were "substantial" and for that factor to weigh against granting the variances. In addition, the court noted that there were alternatives to the variance request and that denial of the variances did not render the properties unusable. The court denied a request for discovery, which the petitioner had contended was warranted due to "undue influence" exerted on the ZBA between the meeting at which it approved the negative declaration and the meeting when it denied the variances. The court said the petitioner "only offers conjectures and supposition" and found that the petitioner had failed to provide a basis for granting discovery. *Feinberg-Smith Associates, Inc. v. Town of Vestal Zoning Board of Appeals*, 2017 N.Y. Misc. LEXIS 3074 (Sup. Ct. Broome County Aug. 15, 2017).

SOLID WASTE

Appellate Division Upheld Permit for Solid Waste Management Permit at Anaerobic Digestion Facilities

The Appellate Division, Fourth Department, affirmed dismissal of a challenge to a solid waste facility management permit issued by DEC for storage of the end product of processes conducted at existing anaerobic digestion facilities in the Town of Marilla. The permit applicant sought to store the end product, known as "equate," in an existing million-gallon manure storage tank prior to the product's transport and use as a fertilizer. The Fourth Department rejected the claim that DEC based its granting of the permit on an improper interpretation of the procedures set forth in its regulations, which the petitioners contended required that a permit application be accompanied by a report signed, stamped, and certified by an engineer. The court said the petitioners had established no prejudice from DEC's failure to insist that all the information provided by the applicant during the permit review process be contained in a single report. The court also rejected the claim that DEC had failed to comply with SEQRA's procedural mandates in its issuance of a negative declaration. The court noted that the applicant had prepared Part 1 of the Full Environmental Assessment Form (EAF), and had later prepared portions of Parts 2 and 3 at DEC's request. DEC subsequently concluded that the EAF was properly completed, and the Fourth Department agreed with this conclusion. The court also found that DEC had identified the relevant areas of environmental concern, taken a hard look at them, and made a reasoned elaboration of the basis for its determination. *Matter of Town of Marilla v. Travis*, 151 A.D.3d 1588, 56 N.Y.S.3d 695 (4th Dept. 2017).

Environmental Control Board Said Organic Waste Separation Requirements Applied to Food Manufacturer Based on Size of Entire Facility, Not Just Size of Food Production Area

The New York City Environmental Control Board upheld violations of the City's organic waste regulations issued to a food manufacturer. The three violations were for failing to provide and label separate containers for organic waste disposal, failing to post instructions on separation requirements, and failing to source-separate organic waste. The food manufacturer argued that its facility was not covered by the regulations, which apply to certain commercial establishments, including food manufacturers that have a floor area of at least 25,000 square feet. The food manufacturer contended that it should not be subject to the regulations because, although the square footage of its entire facility was 25,000 square feet, its food production area was only 11,200 square feet. The ECB said there was no authority for the position that only the food production area should be considered and therefore affirmed the violations. *City of New York v. Marmont Corp.*, Appeal No. 1700735 (N.Y.C. Envtl. Control Bd. Sept. 8, 2017).

WATERS

Westchester Villages Settled Citizen Suit, Agreeing to Fix Sewer Pipes by End of 2019

Two Westchester County municipalities reached agreements to resolve a Clean Water Act citizen suit brought by two environmental groups and a Connecticut shellfishing company. The plaintiffs alleged that a substantial source of pollution in Long Island Sound was sanitary sewage overflows and sewer discharges resulting from cracked pipes in Westchester County sewer systems that allowed inflow and infiltration of excessive amounts of stormwater and groundwater. In a proposed consent order submitted to the federal district court for the Southern District of New York on September 14, 2017, the Village of Mamaroneck agreed to complete a sanitary sewer evaluation study (SSES) and to remove identified sources of inflow and infiltration from its sewer system sufficient to comply with County Sewer Act flow limits by the end of 2019. The proposed consent order was subject to a 45-day waiting period to allow the federal government to review and comment on the agreement. On October 11, 2017, the court approved a similar consent order with the Village of Port Chester requiring the Village to complete an SSES by June 13, 2018 and to remediate sources of inflow and infiltration to comply with applicable flow limits by the end of 2019. The citizen suit remained pending against Westchester County and nine other Westchester municipalities. *Connecticut Fund for the Environment, Inc. d/b/a Save the Sound v. Westchester County*, No. 7:15-cv-0623-CS (S.D.N.Y. Sept. 14, 2017), 2017 U.S. Dist. LEXIS 169091 (S.D.N.Y. Oct. 11, 2017).

Former Paper Mill Employee Pleaded Guilty to Felony Violations of Clean Water Act

A resident of the Town of Gouverneur pleaded guilty to three felony counts of violating the Clean Water Act in connection with discharges of wastewater containing excessive levels of biochemical oxygen demand (BOD) into the Raquette River. The defendant was in charge of environmental compliance at a paper mill in the Town of Norfolk. He admitted that he hid and falsified data regarding the BOD levels in the mill's wastewater, allowing the facility to violate its Clean Water Act permit repeatedly between January 2013 and September 2015. He also admitted to falsifying 29 discharge monitoring reports that were submitted to DEC. The counts to which he pleaded guilty were one count charging a discharge in violation of the Clean Water Act and two charges of false statements on Clean Water Act reports. The maximum sentence for the discharge violation is up to three years in prison and a fine of $800,000; the maximum sentence for the false statement violations is two years in prison per count and a fine of $250,000 per count. The court may also require a one-year term of supervised release. *United States v. Ward*, No. 8:17-cr-00117 (N.D.N.Y. Sept. 7, 2017).

Town of Brunswick Lost Appeals Regarding Sewer System

The Appellate Division, Third Department, affirmed dismissal of two proceedings brought by the Town of Brunswick related to its use of the City of Troy's combined sewer system. The Town used the sewer system pursuant to a lease with Rensselaer County Sewer District No. 1. In the first proceeding, the Third Department ruled that the Town did not have standing to challenge a best management practice for combined sewer overflows (CSOs) that was included in the State Pollutant Discharge Elimination System permit issued to the City by DEC or to challenge clauses in its sewer rental agreement requiring the Town to pay for sewer extensions. The Third Department rejected the Town's claim that it had been "hampered in its ability to determine when to form or extend its own sewer districts" because DEC had improperly delegated its authority to make final determinations on sewer extensions to the City. The Third Department said this injury could not serve as a basis for standing because the Town had not established that DEC relinquished its decision-making authority or improperly empowered the City to make final determinations. The Third Department also said that a writ of prohibition against the City and sewer district was not warranted because there was no evidence that they had acted in excess of their authorities. In addition, the Third Department said it could not compel the sewer district to consider applications for connections to an existing sewer system, given that no such applications had ever been submitted. In addition, claims for declaratory relief were not ripe because there had been no denial of a sewer extension request or costs imposed on the Town. In the second proceeding, the Third Department agreed with the Supreme Court, Albany County, that the Town lacked standing to charge Rensselaer County and the sewer district with failing to comply with County Law § 268, which establishes procedural requirements for the County to make improvements to sewage facilities or structures. The County was required to make certain improvements to reduce CSO discharges into the Hudson River pursuant to an administrative consent order with DEC. The Third Department said that County Law § 255—which allows municipal officials to represent residents of a municipality at public hearings on establishment of county sewer districts—did not provide the Town with standing because Section 255's application was limited to "very specific" circumstances. *Matter of Town of Brunswick v. County of Rensselaer*, 152 A.D.3d 1106 (3d Dept. 2017); *Matter of Town of Brunswick v. County of Rensselaer*, 152 A.D.3d 1108, 59 N.Y.S.3d 826 (3d Dept. 2017).

NEW YORK NEWSNOTES

New Solid Waste Management Regulations Took Effect

Comprehensive revisions to DEC's solid waste management regulations went into effect on November 4, 2017. Notice of adoption of the final rules was published in *NYS Register* on September 20, 2017. The revised regulations subdivide the former Part 360 into Parts 360, 361, 362, 363, 365, and 366, creating distinct parts and subparts for particular categories of facilities. DEC also revised waste transportation regulations (Part 364) and regulations for state assistance grants to municipalities for solid waste management (Part 369). Significant substantive changes include increased tracking requirements for transportation of construction and demolition (C&D) debris and a limitation on the amount of C&D debris that may be disposed without a permit. Rules for beneficial use determinations and regulated medical waste also changed. DEC indicated that only nonsubstantive changes had been made to the version of the regulations published in the June 21, 2017 issue of *NYS Register.* The September 2017 issue of *Environmental Law in New York* covered the provisions of the June 21 proposal.

Governor Cuomo Said New York and Other States Were on Track to Achieve Paris Agreement Goals

On September 20, 2017, during Climate Week, Governor Andrew M. Cuomo announced that members of the U.S. Climate Alliance—which includes 14 states and Puerto Rico—were collectively on track to meet and possibly exceed their portion of the U.S. emissions reduction commitment under the Paris Agreement. A report published by the Alliance showed that its members were on track to achieve a 24–29% reduction in greenhouse gas emissions below 2005 levels by 2025; the U.S. commitment was to reduce emissions in the range of 17% below 2005 levels by 2020. The Alliance's members represent 36% of the U.S. population and $7.6 trillion in gross domestic product. On the same day, Governor Cuomo announced expansion of NY Green Bank to work with the private sector to raise new funds, to assist other states in establishing Green Bank offices, and to provide back-end services such as due diligence, underwriting, and general technical support to the new Green Banks.

State Took Next Steps to Transition to New Compensation System for Distributed Energy

On September 14, 2017, the New York State Public Service Commission (PSC) issued an order to allow full implementation of the first phase of a new compensation system for distributed energy systems such as solar projects. A new "Value of Distributed Energy Resources" compensation system will gradually replace net energy metering, which has been the compensation mechanism for distributed energy systems since 1997. Distributed energy systems installed before March 9, 2017 will remain on the net energy metering system for the life of their system; homeowners and small commercial customers that install solar or other small distributed systems between March 9, 2017 and January 1, 2020, will be compensated based on net energy metering for 20 years; and other systems installed after March 9, 2017 will be compensated under the new VDER system. Utilities must file tariffs to implement the methodology to become effective on November 1, 2017. The PSC said the implementation plan for the new VDER methodology established the first

compensation values for energy storage systems combined with clean energy systems and also provided for the State to continue to work with utilities to integrate storage into the grid. The PSC also said that it had taken new steps toward increasing the maximum size of solar projects from two megawatts to five megawatts.

Governor Cuomo Signed Law Easing Requirements for Municipal Sustainable Energy Loan Programs

Governor Cuomo signed a law on September 13, 2017 that removes certain barriers that the bill's sponsors said were preventing the municipal sustainable energy loan program from achieving its full potential. The law (Chapter 320) allows commercial entities that own real property where renewable energy generating systems are located to participate in the loan program even if the energy generated is to be used off site. In addition, where the property owner is a commercial entity, not-for-profit organization, or another entity that is not an individual, the law eliminates the requirement limiting the maximum loan amount to 10% of the appraised value of the property. Instead, the law gives municipalities the authority to establish requirements for the maximum amount that may be borrowed based on multiple factors, including property value, projected savings, project cost, and existing indebtedness secured by the property. The law also provided that municipalities could use State funds—rather than just federal funds—to finance their loan programs.

New Law Authorized Guidelines for Food Donations from Schools

A new state law signed by Governor Cuomo on September 13, 2017 authorizes the Departments of Education and Agriculture and Markets to develop guidelines to encourage school districts and higher education institutions to donate "excess, unused, edible food" to local voluntary food assistance programs. The law (Chapter 316) indicated that efforts to encourage such donations should be coordinated with the existing farm-to-school program established under Section 16(5-b) of the Agriculture and Markets Law. The memorandum in support of the bill cited its environmental benefits, indicating that it would reduce the amount of energy used to grow, transport, and warehouse food.

State Law Imposes Bioheating Fuel Mandate in Nassau, Suffolk, and Westchester Counties

Under a new law signed by Governor Cuomo on September 13, 2017, all heating oil sold for use in building in Nassau, Suffolk, and Westchester Counties must be bioheating fuel containing at least 5% biodiesel. The requirements go into effect on July 1, 2018. The law (Chapter 315) allows the governor to temporarily suspend the biofuel mandate by executive order if he determines that the requirement is not feasible due to lack of adequate supply of biodiesel or that meeting the requirement will impose undue financial hardship on consumers. The law, which created a new Section 19-0327 of the Environmental Conservation Law, provides that it does not preempt more stringent New York City mandates for biodiesel percentages in heating oil or prohibit sale or use of bioheating fuel with the same or greater percentage biodiesel or the sale or use of 100% biodiesel for space or water heating.

New Law Requires Recycling Programs at State Parks, Historic Sites, and Recreational Facilities

On September 13, 2017, Governor Cuomo signed legislation (Chapter 312) amending the Parks, Recreation and Historic Preservation Law to require implementation of recycling programs at State parks, historic sites, and recreational facilities for collection of materials including metal, plastic, glass, and paper. Similar legislation had been under consideration by the legislature since the 2007–08 session.

DEC Published New Draft Mute Swan Management Plan That Emphasized Non-Lethal Strategies

On September 6, 2017, DEC announced the release of a revised draft management plan for mute swans. DEC said it had modified the plan in response to comments it had received over the past three years. The mute swan—which is a non-native, invasive species brought to New York in the late 1800s for decorative purposes at estates in the Lower Hudson Valley and on Long Island—competes with native species for aquatic food plants and nesting areas. DEC previously issued draft management plans in 2014 and 2015. The new draft management plan sets forth a three-part, regionalized approach to containing and minimizing the impacts of wild populations of mute swans that emphasizes non-lethal management. DEC said the plan included public education and outreach to inform the public about the status and ecological impacts of mute swans, efforts to foster responsible possession and care of mute swans, and strategies for managing feral mute swan populations. DEC will accept comments on the draft plan through December 13, 2017. The plan is available at http://www.dec.ny.gov/animals/7076.html.

DEC Marked 25th Anniversary of Local Recycling Law Mandate

DEC announced that September 1, 2017 marked the 25th anniversary of statewide adoption of local recycling laws. Municipalities enacted their laws by September 1, 1992 pursuant to the New York State Solid Waste Management Act of 1988, which required adoption of local requirements for separation and segregation of recyclable or reusable materials from solid waste. DEC said local programs had captured more than 320 million tons of recyclable materials, reducing carbon dioxide emissions by an estimated one billion metric tons. DEC cited other programs that the State has implemented in the past 25 years that have also reduced solid waste, including investments by the Environmental Protection Fund in recycling infrastructure, recycling

coordinators, household hazardous waste management programs, and other programs; State agency efforts to increase recycling and reduce waste; the Returnable Container Act or "Bottle Bill"; organics management; the Electronic Equipment Recycling and Reuse Act of 2010; the Rechargeable Battery Recycling Act; and the Mercury Thermostat Collection Act.

New Law Extended State's Indemnification of Greenway Compact Communities Through 2022

Governor Cuomo signed a law on August 21, 2017 extending for five years the State's indemnification of Hudson River Valley communities that participate in the Greenway Compact. The State indemnifies the communities in legal actions resulting from acquisition of land or adoption or implementation of land use controls consistent with Greenway Compact, a voluntary regional compact to promote natural and cultural resource protection, conservation and management of renewable natural resources, regional planning, economic development, public access, and heritage education. The Greenway Act of 1991 established the communities' right to indemnification. The right originally extended through 1997. The expiration date has been extended multiple times, most recently until December 31, 2017. The law signed by Governor Cuomo (Chapter 190) extended the expiration date to December 31, 2022.

State Law Authorized Village of Hoosick Falls to Issue Bonds to Cover "Extraordinary" Costs and Losses Associated with Water Supply Contamination

A state law signed by Governor Cuomo on August 21, 2017 authorized the Village of Hoosick Falls to issue up to $1.5 million in serial bonds for reimbursement of "extraordinary expenses" incurred and "extraordinary revenue losses" suffered by the Village as a result of the discovery of perfluorooctanoic acid in the municipal water supply in 2014. The bonds must be issued on or before December 31, 2017. Expenses that the bonds may reimburse include operating and capital costs relating directly or indirectly to the contamination or the reduction or elimination of the contamination, as well as costs of negotiations with parties potentially liable for the contamination. Extraordinary revenue losses are measured by the extent to which budgeted water and sewer funds revenues exceeded actual revenues in fiscal years 2014-15, 2015-16, and 2016-17. The law also authorized the Village to levy an annual property tax to pay annual debt service on the bonds.

WORTH READING

Charlotte A. Biblow, *Agency Ruling Signals State Power on Greenhouse Gases*, N.Y.L.J., at 3 (Sept. 28, 2017)

Caroline Cecot, *No Fracking Way: An Empirical Look at Why New York Towns Banned Shale Development* (Geo. Mason Law & Econ. Research Paper No. 17-41, Sept. 1, 2017), https://ssrn.com/abstract=3045436

J. Mijin Cha, *Labor Leading on Climate: A Policy Platform to Address Rising Inequality and Rising Sea Levels in New York State*, 34 Pace Envtl. L. Rev. 423 (2017)

Mark A. Chertok et al., *Environmental Law: Developments in the Law of SEQRA*, 67 Syracuse L. Rev. 897 (2017)

Stephen L. Kass, *Harvey, Irma and the World*, N.Y.L.J., at 3 (Sept. 15, 2017)

Paul J. Napoli & Tate J. Kunkle, *The Emerging Crisis of PFAS Exposure*, N.Y.L.J., at 4 (Oct. 10, 2017).

UPCOMING EVENTS

December 7, 2017

16th Annual Alfred B. DelBello Land Use and Sustainable Development Conference: Reimagining the Role of Local Governments, Pace Law School, White Plains. For information, see http://www.law.pace.edu/annual-conference-2017.

December 11–12, 2017

Solar Power New York, Produced by Solar Energy Industries Association and Smart Electric Power Alliance, New York Marriott at The Brooklyn Bridge, 333 Adams Street, Brooklyn. For information, see http://events.solar/newyork/.

January 26, 2018

Environmental Law Section, NYSBA Annual Meeting, New York Hilton Midtown, 1335 Avenue of the Americas, New York City. For information, see http://www.nysba.org/am2018/.

January 31, 2018

Haub Environmental Law Distinguished Junior Scholar Lecture by Sharon Jacobs, Pace Law School, White Plains. For information, see http://www.law.pace.edu/enviro-events.

April 25, 2018

Annual Lloyd K. Garrison Lecture on Environmental Law, Pace Law School, White Plains. For information, see http://www.law.pace.edu/enviro-events.

April 25–26, 2018

Climate Change, Coasts, and Precaution: 2018 Pace Environmental Law Review Symposium, White Plains and New York City. For information, see http://www.law.pace.edu/enviro-events.

April 27, 2018

2018 RPA Assembly, Regional Plan Association, Grand Hyatt New York. 109 East 42nd Street, New York City. For information, see http://assembly.rpa.org/.

Matthew Bender & Co., Inc.

Lesley F. Vars Product Manager
Linda J. Folkman Legal Editor

For editorial questions contact Linda Folkman:
by phone at (908) 673-1548, or
by e-mail to *Linda.Folkman@lexisnexis.com.*
For all other questions call 1-800-833-9844.

POSTMASTER: Send address changes to:
Environmental Law in New York
136 Carlin Road, Conklin, N.Y. 13748-1531.

Arnold & Porter Kaye Scholer LLP

Environmental Practice Group

Washington
601 Massachusetts Ave., N.W.
Washington, D.C.
20001
(202) 942-5000
Contact:
Brian D. Israel

Denver
370 Seventeenth St., Suite 4400
Denver, CO
80202
(303) 863-1000
Contact:
Thomas Stoever

Los Angeles
777 South Figueroa St.
Los Angeles, CA
90017-5844
(213) 243-4000
Contact:
Matthew T. Heartney

New York
250 West 55th Street
New York, NY
10019-9710
(212) 836-8000
Contact:
Nelson Johnson

San Francisco
Three Embarcadero Center,
10th Floor
San Francisco, CA
94111-4024
(415) 471-3100
Contact:
Karen J. Nardi

Partners and Counsel
Daniel A. Cantor
Lawrence Culleen
Michael Daneker
Matthew J. Douglas
Kerry Dziubek
Sarah Esmaili
Michael B. Gerrard
Joel Gross
Matthew T. Heartney
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