

Smart Growth and Green Buildings Committee Newsletter

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RECAPPING AND THE FUTURE OF SGGB AND PARTNERING COMMITTEES' OCTOBER 2014 CONFERENCE CALL: FACING HIGH TIDE SUCCESSFULLY: GETTING STORMWATER POLICIES PUT INTO PRACTICE

Sean Ziadeh

The Smart Growth and Green Buildings Committee's July 2014 Newsletter (vol. 7, no. 2) was dedicated to issues surrounding stormwater management. *See* http://www.americanbar.org/content/dam/aba/publications/nr_newsletters/sg/201407_sg.authcheckdam.pdf. Sample topics addressed included institutional challenges for stormwater capture initiatives; developing programs to improve urban stormwater practices; trends in stormwater regulations; and using private incentives to improve stormwater management. Building on the valuable insight provided by the newsletter authors and a strong interest in the subject by other SEER committees, the Smart Growth and Green Buildings (SGGB) Committee, in collaboration with the Water Resources and Water Quality and Wetlands Committees, presented "Facing High Tide Successfully: Getting Stormwater Policies Put into Practice" on Tuesday, October 21, 2014. *See* <http://apps.americanbar.org/dch/committee.cfm?com=NR351900>.

Moderated by Sean Ziadeh, SGGB's State & Local Government Liaison and managing principal at Turning Leaf Solutions, PLLC, in Chicago, Illinois, the call opened with a number of stirring headlines in the news of intense rain falls and the inability of current stormwater management practices and infrastructure to handle such events.

The consequences of this are far-reaching. Just this past summer whole cities like Royal Oak, Michigan, were flooded with raw sewage leaving many home owners with flooded basements (many not covered by insurance) and treasured personal belongings left on the curbside. *See* <http://patch.com/michigan/royaloak/houses-smell-sewers-mayor-says-plea-federal-help-floods-2014>. Intense rainfalls over agricultural lands swept away fertilizers used in agriculture into Lake Erie and that then sprouted vast algae blooms making the local drinking water supply in Toledo, Ohio, unfit for human consumption. *See* <http://www.ibtimes.com/lake-erie-algae-bloom-crisis-putting-pressure-ohio-farm-states-tackle-agricultural-1660240>. An architectural treasure such as the Farnsworth House, which aptly displays a beautiful juxtaposition of modernist design within a natural context, is under threat. Located outside of Chicago, this Ludwig Mies van der Rohe creation is plagued by continuous flooding and may require a multi-million dollar effort to save it.

Alf W. Brandt led the substantive portion of the presentation with a brief overview of his article "Institutional Challenges for Stormwater Capture: The Los Angeles County Experience" appearing in the SGGB Committee's July newsletter cited above. Mr. Brandt is the legislative director for California State Assembly member Anthony Rendon (Sacramento), as well as executive director of the National Judicial College's Dividing the Waters Program. Mr. Brandt discussed the fact that too many competing objectives among the various regulating authorities over stormwater are

continued on page 3

Smart Growth and Green Buildings
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In this issue:

**Recapping and the Future of SGGB
and Partnering Committees' October
2014 Conference Call: Facing High Tide
Successfully: Getting Stormwater Policies
Put into Practice**

Sean Ziadeh.....1

**Concerns with Public Bidding for Green
Building**

Mark J. Stempler.....4

**Fueling Space Exploration and Big Screen
TVs: The Power and Need for More Solar**

Sean Ziadeh.....6

**New York City's Recent Efforts to Reduce
Buildings' Greenhouse Gas Emissions**

Chang Liu.....9

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AMERICAN BAR ASSOCIATION
**SECTION OF ENVIRONMENT,
ENERGY, AND RESOURCES**

CALENDAR OF SECTION EVENTS

January 23-25, 2015
Winter Council Meeting
Dana Point, CA

March 3, 2015
Key Environmental Issues in U.S.
Environmental Protection Agency Region 4
Georgia State Bar Conference Center
Atlanta, GA

March 26-28, 2015
**44th Spring Conference: The ABA Super
Conference on Environmental Law**
San Francisco, CA

April 15-17, 2015
Section of Litigation's Annual Conference
New Orleans, LA
Primary Sponsor: Section of Litigation

April 16-17, 2015
ABA Petroleum Marketing Attorneys' Meeting
Washington, DC

April 24-25, 2015
Spring Council Meeting
Lenox, MA

June 3-5, 2015
33rd Annual Water Law Conference
Denver, CO

October 28-31, 2015
23rd Fall Conference
Chicago, IL

**For full details, please visit
www.ambar.org/EnvironCalendar**

continued from page 1

a challenge to coordinating efforts at reforming current management strategies. Another important point Mr. Brandt raised is on perspective. In the Midwest, stormwater management connotes visions of flooding. In California, a state plagued by severe drought, stormwater is considered a valuable resource not to be squandered.

W. Blaine Early, co-chair of the Water Quality and Wetlands Committee and a member of Stites & Harbison, PLLC, Lexington, Kentucky, practicing in environmental, natural resources, and energy law, continued the discussion with an explanation of how stormwater is regulated under the Clean Water Act with a focus on general permits for Municipal Separate Storm Sewer Systems (MS4s), industry, and construction. *See* <http://water.epa.gov/polwaste/npdes/>. Mr. Early detailed the common components of stormwater ordinances adopted by local governments. From this discussion, an attendee to the call could have recognized the hierarchical relationship between regulating authorities and its complicating effect, as described by Mr. Brandt. Sharing examples of litigation related to stormwater and combined sewer overflows, which appear to be on the rise, emphasized the urgency for state and local municipalities to take action. Mr. Early finished with examples of green infrastructure as alternatives to meet regulatory requirements.

Jerome C. Tinianow, director of Sustainability for the City and County of Denver, continued the lively discussion by expanding on the benefits of green infrastructure raised by Mr. Early. He pointed out that the use of green infrastructure for stormwater management remains the exception rather than the rule in most major cities. Mr. Tinianow proposed two explanations for this situation. First, developers need more information on how to design, install, and operate green infrastructure and its benefits. Second, cities need to identify barriers to green infrastructure in current city codes and practices, remove them, and restructure incentive systems to put green infrastructure on par with grey infrastructure. Mr. Tinianow is now working on a green infrastructure manual to assist the City and County of Denver to better utilize green infrastructure practices, which

is expected to be completed sometime in early 2015.

Approximately 50 individuals attended the “Facing High Tide Successfully: Getting Stormwater Policies Put into Practice” conference call. Because of the successful turnout and the fact that stormwater management will continue to be a serious challenge for states and municipalities, a longer and more in-depth continuing legal education (CLE) program is being developed based on the conference call scheduled for February 2015. This program will feature an additional panelist, Joe Siegel, a senior attorney and an environmental collaboration and conflict resolution specialist with the U.S. Environmental Protection Agency, Region 2, Office of Regional Counsel in New York. Mr. Siegel also co-chairs EPA Region 2’s Climate Change Workgroup and is the lead regional attorney for climate change. In his work as a neutral facilitator, Mr. Siegel seeks to build bridges between diverse stakeholders and arrive at collaborative solutions. He has applied these approaches to a wide variety of environmental matters, including climate change.

SEER’s SGGB Committee and our partnering committees look forward to bringing you the next installment of “Facing High Tide Successfully: Getting Stormwater Policies Put into Practice.” In the meantime, if you have any questions on the conference call or would like information on how you may contribute to the committee’s work, please contact Jessica Chiavara, chair of the Smart Growth and Green Buildings Committee at jchiavara@techlawinc.com.

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CONCERNS WITH PUBLIC BIDDING FOR GREEN BUILDING

Mark J. Stempler

Green building may be becoming the normal standard in new construction and renovations. There are tens of thousands of green certified and registered projects in the United States alone, and that number is growing quickly. *See* <http://www.usgbc.org/articles/about-leed>. State and local governments are helping fuel the movement by incorporating sustainability requirements into public construction projects. Many government agencies have adopted specific green building certification standards, such as LEED or Green Globes, and require developers and contractors to meet those standards. But, because green construction is relatively new for those entities as well as the local governments, there are significant issues both sides must be aware of during the public procurement process.

The Procurement Process

Government agencies typically conduct a competitive solicitation to select a developer, design professional, or contractor for a construction project. This is often done through one of several procurement vehicles, and sometimes a combination of them. For example, an Invitation for Bid (IFB) is a common procurement method when the project specifications are already determined. Bidders are usually required to submit a hard price to complete the project, and the bidder with the lowest price is usually top ranked. A Request for Proposals (RFP) may be utilized when the public agency does not have a defined scope of work for a project. Proposers are often given the opportunity to be more creative in the proposal and determine the best way to proceed with a public project. Price can still be a factor, but it is not the only factor. A Request for Qualifications (RFQ) is often a request for proposers to compete for a project based on characteristics such as experience, expertise, and general ability to complete the project. Sometimes an RFQ, or the similar Request for Letters of Interest (RLI), is used to reduce the number of proposers or bidders competing for an RFP or IFB.

These types of solicitations contain defined specifications to which the bidder or proposer should respond. After the submission deadline, the agency may first review the bids or proposals to determine whether they are responsive or responsible. A bid or proposal is often considered responsive if it contains all of the information sought in the solicitation specifications. A bid or proposal is often considered responsible if it shows that the submitter has the ability to perform the contract or project at issue. Once the public agency determines which bidders or proposers meet the state criteria, it conducts an evaluation and ranks the bidders or proposers accordingly. The agency may then seek to enter into a contract with the top-ranked firm.

Green Building Procurement Challenges

Procurement for green buildings or green construction presents unique challenges. In a typical procurement model, the government agency specifies what it wants to be built, for an estimated price range, and awards the contract to the lowest bidder or best overall proposer. For green buildings, the agency should focus more on the design and building standards, and what it wants (or may be required by law) to achieve. Environmental issues should be considered and reflected in the evaluation criteria. In addition, the procuring agency should clearly define how to assess an offer, factor in environmental or performance criteria, the life-cycle costs and similar green building factors. Does the agency want a building that achieves a specified certification, like LEED Gold, or is it looking for certain performance and functionality levels, such as a percentage reduction in water usage over a comparable building, or improved indoor air quality levels, or reduced emissions, etc.? Both options involve factors that may be beyond the awardee's control. Green building ratings often involve a third-party certification. Building performance may be dependent on occupant usage. In any event, those goals must be clearly defined in the specifications. Public bidding laws usually require an apples-to-apples comparison of the bids and proposals. Bidders and proposers can gain advantages during the procurement process, however, based on the language in the specifications. For example, if a green building is sought but the green building

goals are not well defined in a solicitation, a bidder that seeks to incorporate green building components and materials may have a disadvantage over a bidder that does not. That is because green building products may entail a higher cost versus other products performing the same function. Or, green building may require additional oversight during the planning and construction phases as compared to traditional building practices. If the agency ranks the lowest-cost bidder or proposer the highest, the agency may not be getting what it wants. Further, in green building, products or projects may cost more initially during design and construction than traditional projects, but will save more money throughout the life cycle of the building. Simply choosing the cheapest bidder or proposer may cost the agency more in the long run.

One issue that has already led to bid protests is a bidder's or proposer's experience with green building. Suppose a city wants to build a government center that is to be certified LEED Platinum, and wants a firm to design and build it. That city may want a design-build firm that has built LEED or other green certified buildings before. If a proposer is to be evaluated on its green building experience, as opposed to its building experience in general, the specifications must be clear regarding that qualification. Further, the evaluation criteria should specify what weight is given to that qualification. For example, if the proposer submits the best price and a good design for the government center but has no green building experience, can it still be ranked number one? Conversely, if green building experience is not an express requirement, the city must ensure that it does not base its final ranking of proposers on that factor. In other words, it cannot choose a bidder or proposer based solely on that criterion.

The Pennsylvania Supreme Court rejected a protest on a multimillion dollar green building project based on the consideration of qualifications. In *Hampton Technologies, Inc. v. Dept. of General Services*, 610 PA 541 (Pa. 2011), an electrical contractor that submitted a proposal for a project that was to be LEED certified did not get the top ranking. The contractor alleged the agency improperly considered experience with LEED certification, despite the fact that it was not listed in the solicitation criteria. The court found the RFP did reference LEED experience in two categories

of the evaluation criteria, but ultimately rejected the protest on other grounds.

In *Hughes Group, LLC v. U.S.*, 2014 WL 1604330 (Fed. Cl. 2014), a disappointed contractor for janitorial and landscape services filed a protest against the awarding agency on a project that sought green cleaning services. The evaluation determined the contractor had an "unacceptable" rating for LEED-EB (existing building)/Green Cleaning. Since that factor was considered one of the most important components of the contract, it was held that the contractor lacked standing to protest because it could not have won the award based on the "unacceptable" green rating.

Green building on public projects raises other issues that must be considered by the agency and the bidders or proposers. What happens when a green building goal is not achieved, but the building otherwise functions properly? Will the awardee bear a penalty or some other risk in not achieving the goal? How will damages be measured? Will the award bidder or proposer provide warranties to address these issues? Are those warranties reflected in the proposal cost?

All the players must be aware of new green building requirements and evaluation criteria in the solicitations. It is critical for the procuring agency to have a well-defined plan to advertise and award such projects. Bidders and proposers must pay strict attention to the specifications and ensure that they provide the information sought and meet whatever requirements are sought in order to be deemed responsive and responsible. If any questions arise after the solicitation is advertised, bidders and proposers should determine immediately if there is a process to seek clarification of the green building specifications. Failure to do so could result in the waiver of the ability to challenge those specifications later in the procurement process.

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FUELING SPACE EXPLORATION AND BIG SCREEN TVS: THE POWER AND NEED FOR MORE SOLAR

Sean Ziadeh

“Apart from the amazing scientific results, the sheer challenge and ambition of such a mission is outstanding and illustrates how our space exploration of the solar system has become more advanced and successful. It gives us much to hope for in future missions.” This is how one commenter described the successful deployment and landing of the Philae comet probe onto comet 67P on November 12, 2014. *See* <http://www.cnn.com/2014/11/12/world/comet-landing-countdown/index.html>. As part of the European Space Agency’s Rosetta deep-space mission, launched in 2004 and decades in the making, the probe traveled over six billion kilometers to rendezvous with 67P. *See* <http://www.sustainablebusiness.com/index.cfm/go/news.display/id/25857>.

A key component to Rosetta’s success was solar power: low-intensity, low-temperature cells to be specific. The technology incorporated into Rosetta’s panels powers the probe in locations where sunlight is only 4 percent of the intensity on Earth, which according to EcoWorld exceeds the annual total energy consumed by humanity by a factor of over 20,000 times. *See* <http://www.ecoworld.com/energy-fuels/how-much-solar-energy-hits-earth.html>. If scientists can rely on solar to power such an amazing and historic mission into space, what could solar do to help address more immediate concerns over environmental degradation while continuing to power our cities and buildings, and meet our other energy needs?

Coincidentally on the very day Philae was descending to 67P, on Earth U.S. President Barack Obama and Chinese President Xi Jinping announced that both countries will curb their greenhouse gas emissions over the next two decades. Under the agreement, the United States will cut its 2005 level of carbon emissions by

26–28 percent before the year 2025. China will peak its carbon emissions by 2030 and aim to get 20 percent of its energy from zero-carbon emission sources by the same year. Ultimately, the mission to 67P was an impressive achievement, furthering the understanding of space and the creation of the planets. However, if it had failed, the consequences would have paled in comparison to the U.S. and China agreement failing to meet their goals under their carbon emissions agreement.

According to the Intergovernmental Panel on Climate Change’s (IPCC) 2014 Summary for Policymakers on Mitigation of Climate Change, annual greenhouse gas (GHG) emissions continued to grow on average by 2.2 percent per year from 2000 to 2010 compared to 1.3 percent per year from 1970 to 2000. *See* http://report.mitigation2014.org/spm/ipcc_wg3_ar5_summary-for-policymakers_approved.pdf. This was despite a growing number of climate change mitigation policies implemented during this period. The main factor for the increasing GHG emissions rate is fossil fuel combustion and industrial processes which make up about 78 percent of the total. Failing to curb this trend may result in Earth’s mean surface temperature rising anywhere from 3.7°C to 4.8°C.

Of note, the solar technology on the Rosetta deep space probe is well over ten years old. Much has happened since 2004. The R&D breakthroughs in solar and related infrastructure, particularly battery storage, have been highly positive for the solar industry. Investors seem to agree with this assessment. According to Bloomberg New Energy Finance, the solar industry grew by about \$175 billion globally in project developments during the first three quarters of 2014—up 16 percent from the same period in 2013. *See* <http://about.bnef.com/bnef-news/solar-debt-financing-on-pace-to-reach-highest-since-2010/>. Installed solar capacity is also projected for high growth; 52 gigawatts this year and 61 gigawatts in 2015, compared with 40 gigawatts in 2013.

Witnessing this growth may be as easy as looking up, since much of the expansion in solar installations is occurring on building rooftops. According to the Center for American Progress, since the year 2000 more than 1460 megawatts of residential solar installations have been set up across the country, and more than 80 percent of that capacity was added in the past four years. See <https://www.americanprogress.org/issues/green/report/2013/10/21/76013/solar-power-to-the-people-the-rise-of-rooftop-solar-among-the-middle-class/>. In 2012 alone, rooftop solar installations reached 488 megawatts, a 62 percent increase over 2011 installations and nearly double the installed capacity added in 2010.

Critics of solar energy point to the intermittency of this energy source, claiming it is not dependable for our energy needs and security. In regard to this complaint, reference the success of Ohio State University researchers in developing a rechargeable solar battery that integrates a battery and solar panel system into a single device. See <http://www.dispatch.com/content/stories/local/2014/10/03/ohio-state-solar-battery-can-be-recharged.html>. This integration helps prevent roughly 20 percent of energy lost when the solar energy is transferred to a separate battery. Solar-energy system manufacturing costs are also reduced by around 25 percent in this dual system approach.

In addition, a Chicago-based energy development firm, Glidepath, has been developing three \$20 million battery storage facilities in northern Illinois. As described by the *Chicago Tribune*, once complete, these facilities can be tapped to quickly deal with fluctuations in demand on the grid. See <http://www.chicagotribune.com/business/ct-battery-storage-0923-biz-20140922-story.html>. With a combined 60 megawatts of capacity, each site is composed of nine containers, each with 80,000 lithium-based batteries, on a footprint of about 100 feet by 200 feet. The facilities, which look like rows of shipping containers, together represent the largest project of its kind in North America and are expected to be online by spring 2015.

Research and development advances also help reduce solar energy costs. The U.S. Department of Energy's 2014 edition of *Photovoltaic (PV) System Pricing Trends* provides a high-level overview of historical, recent, and projected near-term PV system pricing trends in the United States. See <http://www.nrel.gov/docs/fy14osti/62558.pdf>. Highlights of the report include:

- Reported system prices of residential and commercial PV systems declined 6 percent to 7 percent per year, on average, from 1998 to 2013, and by 12 percent to 15 percent from 2012 to 2013, depending on system size.
- From Q4 '12 to Q4 '13, modeled system prices fell between \$0.07 per direct current (DC) watt and \$0.44 per DC watt, or 3–12 percent.
- Addressing high soft costs associated with solar installations suggests high potential for near-term installed price reductions in the United States.
- Analysts expect the system prices of both utility-scale and distributed systems to continue to fall in the near future. Distributed systems are expected to reach between \$1.50 per DC watt and \$3.00 per DC watt by 2016.

Traditional and novel financing mechanisms are also being implemented for solar projects.

- Solar companies are offering home owners leasing options to have solar PV installed on their rooftops with little to no up-front investment. SolarCity also provides its customers system monitoring, no-cost repair services, and insurance.
- State-sponsored NY Green Bank facilitates financing in the clean energy sector. The bank will also offer credit enhancement, project aggregation, and securitization support.
- Some people are even projecting that crowdfunding may supply rooftop solar projects with \$5 billion of investment within five years.

Utilities are coming to appreciate the opportunity in solar. Ameren Missouri plans on adding 500 megawatts of renewable resources, including 45 megawatts of solar power as it retires one-third of its 5400 megawatts fleet of coal-fired power plants. Further south, Tampa Electric Company is proceeding with its 2 megawatts solar canopy project at the Tampa International Airport. This canopy of solar panels on top of the airport's south economy parking garage will produce enough electricity to power up to 250 homes.

Legislation, both on the federal and state level, also supports solar energy. H.R. 5559, the "Bridge to a Clean Energy Future Act" of 2014, introduced this past September would extend critical incentives for two years in order to provide market certainty, strengthen investment, and make sure clean energy is on an even playing field with the fossil fuel industry. *See* <https://www.congress.gov/bill/113th-congress/house-bill/5559/text>. H.R. 5559 would also allow developers of solar projects to access credits at the start of construction. In addition, as of September 2014, 29 states, Washington D.C., and two territories of the United States have passed renewable portfolio standard (RPS) policies, with well over half of them having a minimum requirement for solar energy. *See* <http://www.dsireusa.org/>.

However, counter forces are at work to undermine the clean energy revolution. Arguably the strongest opposition comes from the largest stakeholders in the fossil fuel industries, most notably the Koch brothers. The New York Times Editorial Board, in its April 26, 2014, piece, "The Koch Attack on Solar Energy," alleges heavy spending by the brothers and other fossil fuel polluters to fight incentives for renewable energy. *See* http://www.nytimes.com/2014/04/27/opinion/sunday/the-koch-attack-on-solar-energy.html?_r=2. And it may be working. Groups they fund are pushing legislatures to impose surtaxes on solar panel installations, which they have succeeded doing in Oklahoma. They also may have been responsible for getting a freeze passed on Ohio's RPS requirement that 12.5 percent of the state's electric power come from renewable sources like solar.

Based on innovative breakthroughs, decreasing costs, easier financing options, and best of all, its being "clean," greater focus on solar in the renewable energy mix should be a priority among activists and policy makers. However, greater reliance on solar will raise a number of challenges above and beyond attacks by the Koch brothers. There are technical issues created when a number of small solar sources are integrated into the nation's electric grid. Legacy costs of the nation's current grid must be satisfied, and it must be decided who will pay for future improvements to the grid. A new regulatory system may be in order to oversee all this change and to ensure the quality and reliability of our nation's energy supply. But if solar energy can successfully land a probe on a comet hurtling through space, it seems reasonable that it could also help fulfill recent international agreements on curbing greenhouse emissions here on Earth.

Sean Ziadeh is principal of Turning Leaf Solutions, PLLC, and specializes in real estate, environmental law, sustainable development, and renewable energy. In addition to being designated as a LEED® Accredited Professional, Mr. Ziadeh chairs the State & Local Government Committee for the U.S. Green Building Council-Illinois Chapter and is vice chair (State & Local Government Liaison) for the ABA's Smart Growth and Green Buildings Committee. Mr. Ziadeh earned a master's degree in real estate law from John Marshall Law School (Chicago, Ill.) and a dual degree, MBA/JD, from Michigan State University.



NEW YORK CITY'S RECENT EFFORTS TO REDUCE BUILDINGS' GREENHOUSE GAS EMISSIONS

Chang Liu

On September 21, 2014, New York City (NYC) Mayor Bill de Blasio announced *One City, Built to Last: Transforming New York City's Buildings for a Low-Carbon Future* ("One City")—a plan to reduce the city's greenhouse gas (GHG) emissions by 80 percent below 2005 levels by 2050. *See* <http://www.nyc.gov/html/builttolast/pages/home/home.shtml>. Because NYC buildings contribute approximately 75 percent of the city's total GHG emissions, the main component of de Blasio's One City plan is to increase the energy efficiency of the city's buildings. *Id.* Under One City, the city plans to establish a task force of key stakeholders in the city to assist with the enactment of new laws, regulations, programs, and policies that the city will use to help reach its "80 by 50" target.

One City outlines many different initiatives that the city will employ to achieve greater energy efficiency among the city's buildings. This article will discuss only three of those proposals: (1) improving the city's green building and energy codes, (2) accelerating the heating oil conversion program under the city's Air Code regulations, and (3) modifying the city's tax exemption and abatement program to incentivize energy efficiency renovations.

I. New York City Energy Code

Under former NYC Mayor Michael Bloomberg's administration, PlaNYC was introduced as a citywide effort to address long-term challenges for the city, including sustainable growth in the face of climate change. In 2009, as part of PlaNYC, the city enacted a comprehensive set of laws regulating building energy efficiency named the *Greener, Greater Building Plan* (GGBP). *See* http://www.nyc.gov/html/gbee/downloads/pdf/greener_greater_buildings_plan.pdf. GGBP includes four sets of laws: annual benchmarking of energy usage (Local Law 84); the Energy Conservation

Code (Local Law 85); energy assessment and retro-commissioning (Local Law 87); and lighting regulations (Local Law 88). De Blasio's One City plan proposes to strengthen GGBP to further reduce building emissions and to help reach his GHG reduction target.

a. Local Law 84: Benchmarking Buildings' Energy Usage

Local Law 84 of the NYC Administrative Code (the "City Code") requires large buildings to disclose their energy usage (as well as water usage) to the public annually, including the buildings' usage of electricity, natural gas, fuel oil, and steam. *See* http://www.nyc.gov/html/planyc2030/downloads/pdf/1184of2009_benchmarking.pdf. This disclosure requirement is a helpful tool for the government and public to monitor the energy use of city buildings and identify opportunities for energy efficiency investments.

The law currently covers private buildings that exceed 50,000 square feet, multiple private buildings on the same lot that together exceed 100,000 square feet, and city buildings that exceed 10,000 square feet. *See* http://www.nyc.gov/html/planyc2030/downloads/pdf/benchmarking_summary_for_website.pdf. Under the One City plan, de Blasio will seek to expand the disclosure requirement to mid-size buildings over 25,000 square feet, which will add approximately 16,800 buildings to the program. The plan also proposes requiring this disclosure at a building's time of sale in order to provide prospective buyers and renters with information about the property's energy performance.

Failure to comply with Local Law 84's benchmark requirement is a lesser (class 3) violation and subject to a small civil penalty. *See* http://www.nyc.gov/html/dob/downloads/rules/1_RCN_102-01.pdf. However, because the law merely requires disclosure, it does not alone create a strong enough incentive for many building owners to invest in energy efficiency improvements, but rather serves more as a supportive measure that allows the city and public to get a sense of the general picture of

NYC buildings' energy usage. Accordingly, One City proposes that the city implement a “retrofit accelerator”—a program that seeks to assist private building owners accelerate efficiency retrofits, including help with interpreting the energy use data from Local Law 84, selecting appropriate projects and contractors, and obtaining permits, financing, and training.

b. Local Law 85: New York City Energy Conservation Code

The second law in GGBP—the NYC Energy Conservation Code (NYCECC or Local Law 85)—is NYC’s local energy conservation construction code that sets standards for the design, construction, and alteration of buildings to promote more efficient energy performance. *See* <http://www.nyc.gov/html/dob/downloads/pdf/ll85of2009.pdf>. The equivalent state law—the Energy Conservation Code of New York State (ECCCNYS)—sets minimum requirements for the energy performance of buildings throughout New York State, but only applies to buildings where over 50 percent of the building’s systems are being replaced. *See* <http://publicecodes.cyberregs.com/st/ny/st/b1200v07/index.htm>. However, the state energy law, which authorized ECCCNYS, expressly provides that New York municipalities may adopt more stringent energy conservation construction codes. As a result, NYCECC closed the loophole—requiring all buildings undergoing any renovation or new construction work to comply with the code’s standards, with the exception of historic properties and landmarks. *See* http://www.nyc.gov/html/planyc2030/downloads/pdf/energy_code_summary_for_website.pdf.

NYCECC requires that an energy analysis be provided with the initial application of a project that is filed with the NYC Department of Buildings (DOB). The analysis must show that the proposed alterations or construction will comply with the code’s standards, be signed by a registered design or energy professional, and be accompanied with supporting documentation. Upon completing the project, a registered design or energy professional must then sign a statement that the work complies

with NYCECC and file it with DOB.

Unlike the benchmarking law, NYCECC applies to almost all buildings in the city—public, residential, and commercial of any size and, therefore, any changes to this part of the City Code will have a broader legal effect. Enforcement, however, has been a significant problem for NYCECC. In One City, the city acknowledges this issue, noting that every renovation project that has been audited has not been in compliance. One reason for the lack of compliance is the fact that not all renovations are first examined by DOB for compliance; instead, they are merely certified by the building owners’ design professionals. Therefore, One City states that the city will strengthen DOB’s energy conservation code enforcement to include review and inspection of building renovations, although it is not clearly stated what the exact scope of this authority will be. It thus remains unseen as to how this proposal will further help the city meet the goal of reducing 650,000 metric tons of carbon dioxide equivalent emissions by 2050.

c. Local Law 87: Energy Audit and Retro-Commissioning

Another GGBP law in the City Code related to buildings’ emissions, Local Law 87, requires owners to conduct an energy assessment, or “energy audit,” and generate a retro-commissioning report. *See* http://www.nyc.gov/html/planyc2030/downloads/pdf/ll87of2009_audits_and_retro-commissioning.pdf. The energy audit is similar to the benchmarking law in some respects. For example, the energy audit requires building owners to provide detailed information about the building equipment’s energy use, but also requires the owners to identify recommendations for ways of reducing energy usage, known as “energy conservation measures.” The recommendations provide information about costs and potential savings, but the owners are not required to actually carry out these recommendations—they must only disclose them. These reports are completed by the building owners’ registered design professional, not the city government. One difference between energy audit and benchmarking is that failure to

comply with the audit requirement is a more severe violation—a class 2 penalty, which may result in a \$3000 fine and compound with relevant state law violations.

The retro-commissioning piece requires a building owner to make adjustments to building systems and equipment to ensure they meet certain standards for equipment installation and performance. Unlike the energy audit, the retro-commissioning must be conducted specifically by a certified refrigerating system operating engineer or a licensed high-pressure boiler-operating engineer, and is focused on the heating, ventilating, and air conditioning (HVAC) systems of the buildings. Although this retro-commissioning requirement is of a narrow scope, it may be more effective in improving the buildings' energy efficiency because, unlike the energy audit recommendations, it actually requires the building owner to carry out the “tune-ups” to the building's systems.

Building owners must undergo the energy audits and retro-commissioning every ten years. Also, like the benchmarking law, Local Law 87 is currently only applicable to owners of private single buildings larger than 50,000 square feet, or multi-buildings on the same lot that are larger than 100,000 square feet. According to One City, the city again plans to expand the coverage to mid-sized buildings that are larger than 25,000 square feet. However, as One City notes, most mid-sized buildings generally have less complex equipment and energy systems and, therefore, the standards may be substantially lower than those for large buildings. While the exact difference between these requirements is not indicated in the proposal, it may be reasonable for the city to set more detailed requirements for different building types (e.g., residential, commercial, etc.), rather than simply base them on dimensions. Moreover, like the benchmarking law, One City recognizes that the energy audit lacks sufficient incentive for building owners to actually invest in efficiency upgrades. Therefore, the city hopes to use the information acquired through Local Law 87 to help launch its retrofit accelerator, discussed above.

d. Local Law 88: Lighting of Non-residential Buildings

The City Code also requires large non-residential buildings to comply with a set of lighting regulations, as lighting consists of approximately 18 percent of the total energy usage in city buildings. *See* <http://www.nyc.gov/html/dob/downloads/pdf/l188of2009.pdf>. Local Law 88 requires covered buildings to upgrade their lighting systems to meet standards set by NYCECC. It also requires covered buildings to install sub-meters for non-residential buildings that currently only have one master meter for their tenants. Like the other local laws in GGBP, Local Law 88 currently covers privately owned buildings larger than 50,000 square feet. And, similar to the other laws, One City states that the city will expand coverage to non-residential buildings larger than 25,000 square feet. Compliance with Local Law 88 is mandated by 2025.

II. New York City Air Code

In addition to GGBP, the city's Air Pollution Control Code (the “Air Code”) seeks to promote greener buildings by regulating, among other things, air pollutants generated by buildings. *See* <http://codes.lp.findlaw.com/nycode/ADC/24/1>. Under the city Air Code, NYC's Department of Environmental Protection (DEP) promulgated regulations to phase out the use of the dirtiest grades of heating oil—numbers 6 and 4 “heavy” oil—in city buildings by 2015 and 2030, respectively. These buildings must convert to low-sulfur number 2 oil, biodiesel, natural gas, or steam. The goal is to drastically reduce fine particulate matter emissions from buildings, which is responsible for thousands of hospitalizations of New Yorkers each year.

Under the One City plan, the city hopes to accelerate this upgrading process using the retrofit accelerator. This upgrade will increase some building owners' costs in the short run, but is an effective way to reduce harmful air pollutants and reach the city's goal to reduce the city's total GHG emissions by 80 percent by 2050.

III. J-51 Tax Exemption and Abatement Program

Lastly, in addition to the requirements for building owners to take affirmative actions under GGBP and NYC Air Code, the City Code also authorizes incentive provisions to encourage energy efficiency investments, notably a property tax exemption and abatement program, commonly known as the “J-51 program.” See http://www.nyc.gov/html/dof/html/property/property_tax_reduc_j_51.shtml. The J-51 program specifically provides in part that increases in the assessed value of a multiple-unit residential property shall be temporarily exempt from taxation if the increase is based on alterations or improvements designed to conserve fuel, electricity, and other energy sources. Although not fully explained in One City, the mayor wants to modify J-51 to encourage improved upkeep of buildings and lower operating costs, including energy efficiency retrofits and heating oil conversion projects. These added tax incentives will certainly be a strong motivation for building

owners to purchase and install new energy-efficient equipment.

IV. Conclusion

The goals set forth in the mayor’s One City plan are very ambitious. However, a number of the proposed laws and amendments seem to be more focused on disclosure requirements, rather than mandatory upgrades and improved enforcement measures. Previous experiences have shown that most private building owners, especially mid-size and small building owners, are reluctant to upgrade any equipment or systems due to their substantial cost. There is little doubt that most newly constructed and city-owned buildings will meet the higher standards; but for the majority of existing old buildings with outdated equipment, the city may need to take more stringent legislative steps to achieve its goal.

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