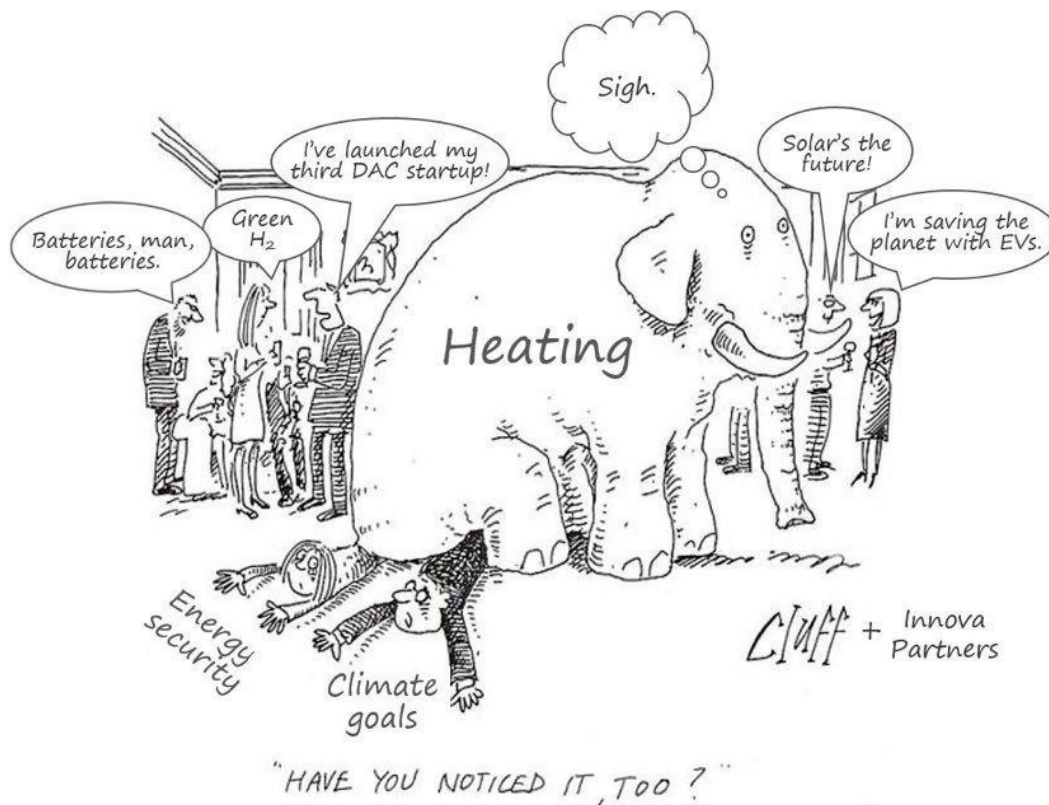




Hot Water & Heat, the Elephant in the Decarbonization Room; Why Gas is Part of the Solution

By Neil Skidell

The energy required to heat our buildings and produce hot water for domestic use is by far the largest use in the built environment and in particular dense urban environments like New York City. It is the “elephant in the room.”



There is no debate that our buildings need to follow a path to decarbonization; but this must be done in a logical fashion following the general transformation to renewable resources. Three core principles of **cost, carbon, and confidence** must be followed to achieve beneficial decarbonization. That's correct—decarbonization must be beneficial to society and that means it must be achieved without upsetting the delicate balance of real estate operating costs and allowable rents.

What is Decarbonization? And how does it differ from Electrification? Why is Fuel Diversity required?

Decarbonization can be defined as accelerating transformation towards a low-carbon future. A noble effort at the macro or policy level but very challenging to implement at the micro or building level, especially in cold climates. This should not be confused with electrification, decarbonization is the goal, electrification is merely one tool in the box to help us get there.

Electricity by itself is currently an insufficient resource to feed the elephant; it is currently not practical nor possible for a single fuel (Electricity), delivered through a single system (The Grid), using a single technology (Heat Pumps) to always deliver heat and hot water to all buildings and in all weather conditions. Perhaps in the future, or in fantasy land, but not today or even in the next 10 years. The fuel mix and carbon related to electricity production is beyond the scope of this article.

Heating and Hot Water in homes and buildings has long been provided by a variety of fuels (Natural Gas, Oil, Propane and Electricity) and system types selected by an engineer or contractor as the most appropriate for the intended use. This allows building owners

Hot Water & Heat, the elephant in the decarbonization room; why gas is part of the solution, continued

and operators the choices required to achieve the desired balance of energy & capital **cost, carbon, and confidence**.

It is vital to maintain this choice as not all buildings are created equally, they differ in size, materials of construction, year of construction, types of use and occupancy and with that diversity comes heating and hot water needs that vary greatly.

Political Desire Vs. Reality

Politicians say we need to decarbonize building heating and domestic hot water so let's just switch to electricity and call it a day. Simple to say and easy to understand but inquiring minds say WHAT? In cold climates? In New York State? So what if it takes about 3x the energy input to heat a building vs cool a building. So what if even using the best available heat pump technology it costs at least 2x and as much as 4x as heating with gas. So what if it requires abandoning infrastructure with 2/3 of its useful life left that was installed as best available technology 10 years ago to comply with banning of #6 oil? So what if it involves disrupting the lives of millions of people to allow unnecessary construction in their apartments that will likely decrease their comfort? So what if in the foreseeable future there are no measurable emissions reductions on a systemic basis? So what if we stop providing basic services to tenants so that building owners can fund this expense and pay the increased operating and utility costs? So what if people die because the electric supply becomes unstable and inadequate?

We need to preserve the availability of natural gas as a building fuel in New York State. Energy decisions for critical systems such as heat and hot water must be made considering the three core pillars of **cost, carbon, and confidence**.

To successfully, economically, and safely decarbonize heat and hot water fuel choice is required. Fuel choice should not be a policy decision and is a fundamental requirement to preserve the safety, security, and comfort of our built environment.



The real story is that of hybridization, different fuels and different systems all working together to achieve the requirements of **cost, carbon, and confidence**. No one fuel or solution by itself can achieve decarbonization in the near term. Different fuels have different qualities, cost structures and implementation challenges beyond the scope of this article.

Market Forces will play a role.

To have a thriving market that provides fuels for heating and hot water policy must allow for the best technology to be

deployed for each use. Often the best economics AND lowest emissions are provided by a combination of technologies and for that to happen **policy must allow the continued use of natural gas**. Market forces will dictate the rest of the story.

We need to separate the political ideal of Decarbonization from the reality of Decarbonizing buildings in cold climates. People's lives and economic stature need to be maintained as we, as a society, progress through the transition to clean energy. At the micro level (buildings) it does no good to force economic distress in the form of unneeded capital investment and increased energy costs. To make matters worse, deploying capital and precious operating income to satisfy political folly in the name of improving people's lives instead of actually improving people's lives is the worst form of hypocrisy.

Neil J. Skidell is the Managing Director, Green Solutions at The PAR Group. He leads the development and implementation of Carbon reduction strategies for commercial, life sciences, healthcare, and multi-family residential customers through the

application of state-of-the-art HVAC and Plumbing technologies. He is an expert in the strategic use of technology to solve energy and water safety, conservation, generation and utilization challenges.

The PAR Group is New York's preeminent provider of plumbing, heating & air conditioning, fire protection and green solution services. Neil can be contacted at [niskidell@pargroup.com](mailto:nskidell@pargroup.com).

Winners of the 2023-24 Eugene and Raymond Cardoza Memorial Scholarship



From L to R: Scholarship Recipients Noah S. Rickman, Nicole M. Radliff, Kamila Utko; UA Plumbers Union Local No. 1 Business Manager Paul O'Connor; ACP President Robert Greenberg; Scholarship Recipient Thomas R. Mansfield; Christina Genovese, Cardoza Plumbing (daughter of Raymond Cardoza, granddaughter of Eugene Cardoza)

The 2024 winners of the Eugene & Raymond Cardoza Memorial Scholarship Program have been determined by a panel of Fordham professors. Further information on the scholarship program can be found on the Association of Contracting Plumbers' website (acpcny.org). Five recipients will receive \$5,000 a year towards a collegiate education. As a reminder, all scholarship applications are reviewed by an independent panel of educators and selections are based upon academic achievement, community service, and extracurricular activities.

**The Trustees of the Promotion Fund and the ACP Executive Board are happy to announce the following 2024 winners:
Sean Hasretli, Thomas R. Mansfield, Nicole M. Radliff, Noah S. Rickman, Kamila Utko**

Congratulations to all the winners, we wish you luck on your future endeavors!

Stay Ahead of the Curve.

Carbon Reduction


NYC Local Law 97 Mandate

- NYC LOCAL LAW 97 ENACTED IN 2019
- EMISSIONS LIMITS BEGIN BY 2024
- 40% REDUCTION BY 2030
- 80% REDUCTION BY 2050


Water Conservation

Stormwater Reuse / Sustainable Practice

- DEP MANDATED CONTROLLED RELEASE RATE OF STORMWATER INTO THE CITY MAINS
- SUSTAINABLE DESIGN PRACTICES FOCUSING ON WATER CONSERVATION



Lync by Watts "AEGIS"
CO₂ DHW Heat Pumps



FPS "RainyDay" Rain Water
Harvesting System

COMPLETE SYSTEM SOLUTIONS WITH HANDS-ON SUPPORT FROM DESIGN THROUGH INSTALLATION.

Plumbing & Fire Protection Pumps

Flygt
Grundfos
Peerless Pumps
Stancor

System Fabricators

Envirosep
FPS
Grundfos Engineered Systems (GES)
SyncroFlo
VC Systems & Controls

Water Heaters & Heat Recovery

AERCO
Aldrich
Envirosep
FPS DHWG Series
Hubbell Heaters & DHW Heat Pumps
Lync CO₂ DHW Heat Pumps

Heat Trace & Water Detection

nVent Raychem
nVent Tracetek

Natural Gas & Propane-Air

Spencer Turbine

Valves, Controls, & Accessories

American Valve
Amtrol
Firetrol
Fleetway Water Systems Controller
Flood Mitigation Systems
FPS Sub-Rig
Revere Control Systems
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SERVICE NOTICE

NEW REQUIREMENT: Construction Inspection Sign Off Prior to Occupancy Requests in DOB NOW: Inspections

Effective Monday, May 13, 2024, all requests for construction sign off must be submitted in **DOB NOW: Inspections**. Requests sent by email to ConstructionIR mailboxes will not be processed.

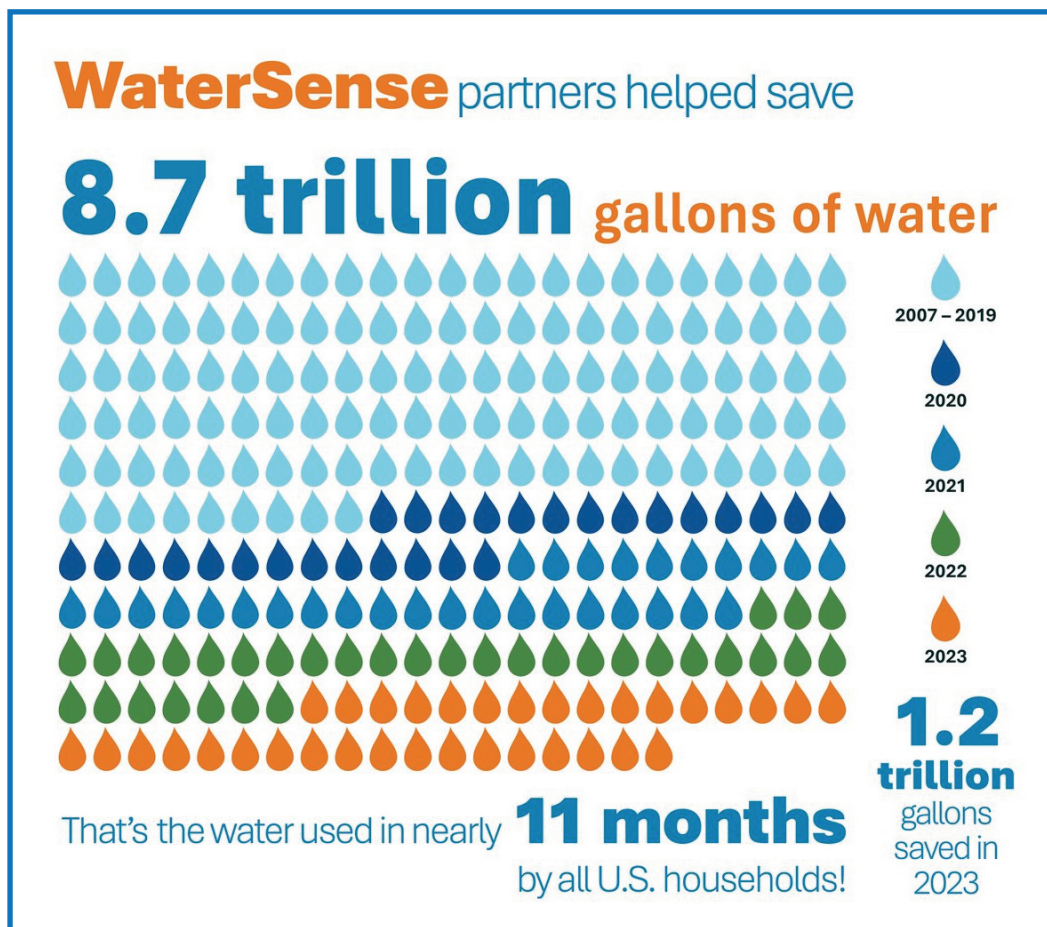
Requests for construction sign off are submitted by selecting **Construction Sign Off Prior to Occupancy** via the Actions tab for DOB NOW: Build jobs and the **Request Inspection** selection for BIS jobs. Indicate **Office Review** in the beginning of the Requester Comments section for DOB NOW jobs or the Additional Information section for BIS jobs before stating any additional wording of the request.



Requests submitted indicating Office Review will be reviewed by the Quality Assurance Team. There are no changes to the existing process for requesting physical construction inspections.

Visit the **DOB NOW: Inspections Resources** page for the **Construction Inspection Sign Off for DOB NOW: Build NB/ALT-CO Jobs** and **BIS Requesting, Cancelling and Viewing Results** guide and additional resources. For assistance, submit an inquiry to the **DOB NOW Help Form** at nyc.gov/dobnowhelp.

For general questions about the construction sign off request process, email QAconstruction@buildings.nyc.gov or call (212) 323-7253.



THE PIPECASTER is published by the Plumbing Foundation City of New York, Inc.

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CITY OF NEW YORK**

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**EMPIRE STATE
UNIVERSITY**

Please see below the SUNY Empire State University / Construction Trades License Training Corp. 7-Hour Master Plumber and Master Fire Suppression Contractor License Renewal Course Schedule for 2024!

**July 24 • August 21 • September 25 • October 23 • November 20
December 19 (Thursday) or January 8, 2025 (TBD)**

These courses are all in-house with recorded video. The courses are held at our office at 535 8th Ave, Floor 17, New York, NY 10018. We are not holding virtual courses.

You can access registration information here: nyconstructiontrades.org

THE PLUMBING FOUNDATION'S ENVIRONMENTAL STATEMENT

Since its establishment in 1986, the Plumbing Foundation has worked diligently to ensure the plumbing industry has as little a "carbon footprint" on New York City as possible. The plumbing industry has historically utilized environmentally friendly materials such as recycled cast-iron and copper piping/fittings. The Foundation will continue in its role of protecting New York City as well as being an advocate for the environment by strengthening its water/sanitary regulations and thereby reducing wasteful water consumption in the City.

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2024 NYS Legislative Session Wrap-Up

The NYS Legislature had its last “scheduled” session day on Thursday, June 6 but extended session through the early morning of Saturday, June 8. It was similar to 2023 in that it was not the most productive year, with another late budget (passed over the weekend of April 20th) leaving little time for other legislative priorities to move through committees between May and June.

Congestion Pricing

As has been the buzz throughout June, Governor Kathy Hochul announced a pause to the implementation of the congestion pricing program (which was set to start June 30, 2024) citing unforeseen consequences and the impact of COVID on small businesses that are still struggling. The Plumbing Foundation commends the Governor for this action, as it truly will have a negative impact on businesses



and residents of the so-called “central business district.” However, this created a last minute frenzy in the state legislature with several ideas proposed to close the gap for the MTA on the expected funding from the tolling program. At one point, Governor Hochul proposed an increase on NYC businesses, but which was not adopted by the Legislature. MTA CEO Janno Lieber has indicated that the MTA may have to increase fares and cut services, halt certain projects, and consider layoffs. As of the date of this printing, NYC Comptroller Brad Lander held a press conference where he and other stakeholders said they are developing a legal strategy to challenge the Governor’s decision.

NY HEAT Act

As a reminder, Governor Hochul proposed the Affordable Gas Transition Act (AGTA) in her executive budget, a similar proposal to the NY Home Energy Affordable Transition Act (NY HEAT Act) whereby the 100-foot rule, a subsidy for new gas hookups, would be eliminated. Fortunately, this was not adopted in the budget but was heavily pushed by the Senate in the final weeks of session; the Senate already passed the NY HEAT Act in March of this year, but sponsors and advocates urged the Assembly to pass. Fortunately, the bill was not a priority for the Assembly, and did not pass.

Modular Construction

As for the Plumbing Foundation's modular construction legislation requiring all modular construction projects in NYC to comply with licensing requirements, which was passed by both houses in 2022 and vetoed by Governor Hochul, due to several factors including the delayed budget adoption, it did not pass this year. It made it to the Senate Finance Committee but was held amidst talks with the City. The Plumbing Foundation continues to prioritize this legislation as modular construction becomes more prevalent.

Other

The major legislation that did pass both houses at the end of session included: SAFE for Kids Act (requiring parental consent for social media use) and the Child Data Protection Act (prohibiting websites from collecting and using minors’ information without informed consent); Climate Change Superfund Act (creating a climate change adaptation cost recovery program targeting big oil companies, similar to Vermont’s recent law); NYC red light cameras (authorizing an expansion of red light cameras); absentee ballot drop boxes (authorizing local boards of elections to set up absentee ballot drop boxes); and speeding up downstate casino licenses (requiring the Gaming Commission to choose by March 2026). All bills are subject to approval/veto by Governor Hochul.

Some of the relevant legislation that failed to pass both houses included: the NY Heat Act (mentioned above); Packaging Reduction and Recycling Infrastructure Act (reducing single use plastics); and the Bucks for Boilers Act (creating new fund to push electrification and prohibiting in-kind replacement of fossil fuel equipment).

As always is the case, the state legislature never formally “gavels out” in the event of a need for a special session later in the year. While this is extremely rare, the Plumbing Foundation will notify the industry in such a case.



NYC.ID Now required for DOB NOW Filings



May 3, 2024

SERVICE NOTICE

New DOB NOW Login Process Requiring NYC.ID Account

Beginning June 3, 2024, all existing and new DOB NOW users are required to have a NYC.ID account. Visit nyc.gov/dobnowtips for more information.

- Users will complete a one-time process of creating an NYC.ID account.
- An NYC.ID account is required to access DOB NOW: *Build, Safety, BIS Options, and Licensing*.
- DOB NOW: *Inspections* and eFiling account registration is not changing and will not require an NYC.ID account

New York City is launching single sign-on accounts called NYC.ID for all online services as part of the **MyCity** initiative. Beginning on Monday, June 3, 2024, DOB NOW is integrating with NYC.ID, and **users without an NYC.ID account will not be able to access DOB NOW: *Build, Safety, BIS Options, and Licensing***.

Existing DOB NOW Users

On June 3, 2024, or later, follow these steps to create an NYC.ID:

- Go to nyc.gov/dobnow and enter the email address associated with your eFiling account or DOB NOW profile (the email you have used in the past to login to DOB NOW) and select the **Login** button.
- To continue to have access to all your filings in DOB NOW, it is critical that you use the same email address when first creating your NYC.ID.
- The system will automatically redirect you to the NYC.ID registration page. Complete the fields and select **Create Account**.
- Check your email for an activation link from NYC.ID and click on the link. You will not be able to login to DOB NOW unless you activate your NYC.ID account.

Log into DOB NOW to view, sign and submit jobs, filings, and applications.

Enter your NYC.ID email address:

Email:

Login

If you need an NYC.ID

Create Account

New login process as of June 3, 2024. Visit www.nyc.gov/dobnowtips for more information.

If you are a returning DOB NOW user who does not have a NYC.ID, select Create Account above and use the same email address as your eFiling account or DOB NOW profile to access your DOB NOW records.

Need more help? Contact us.

NYC.ID

The Official Website of the City of New York

NYC

DOB NOW

Use your NYC.ID to access DOB NOW. Visit www.nyc.gov/dobnowtips for resources, FAQs, and videos.

Create Account

All fields are required.

Email

Email Address

Confirm Email Address:

- Once your NYC.ID is active, return to the DOB NOW login page. Enter your email in the field and click **Login**. You will be taken to the NYC.ID login page. Once you login to NYC.ID you will be directed to the DOB NOW landing page to select a module and begin using DOB NOW. This is how you will login to DOB NOW from now on and any existing filings associated with your email address will appear on your dashboard.

Training & Support

Visit nyc.gov/dobnowtips for step-by-step guides, FAQs, training videos, and a schedule of in-person and online sessions for one-on-one support post launch. Inquiries may also be submitted via the **DOB NOW Help Form** at nyc.gov/dobnowhelp.