

Reimbursement of Outdoor Heating Expenses for Certain Restaurants

<https://rules.cityofnewyork.us/rule/reimbursement-of-outdoor-heating-expenses-for-certain-restaurants/>

Public Comment

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Restaurant patios are typically heated using one of the three power sources:

1. Propane (liquified petroleum gas, or LPG)
2. Natural gas, or
3. Electric

As mentioned in the proposed rule for Reimbursement of Outdoor Heating Expenses for Certain Restaurants, New York City previously allowed restaurants to temporarily use propane-powered outdoor heating starting October 14, 2020 and was revoked per EEO No. 200 as of June 1, 2021. This new proposed rule would reimburse up to \$5,000 to restaurants that meet a criteria for their purchases of natural gas-fired or electric outdoor heating, to help them comply with EEO No. 200 (i.e. stop using propane).

It is clear that New York City restaurants are still reeling from the COVID-19 pandemic. According to data consolidated by Truppelli and Perez (2021) earlier this year, the revenue of “full-service restaurants” dropped by almost half from \$26 billion in 2019 pre-pandemic to \$15 billion and is still nowhere near pre-pandemic at \$18 billion as of May 2021. While I support the general approach of providing subsidies to restaurants to give them a way to continue using outdoor space more effectively through winter, I believe more consideration needs to be taken to the environment related to usage of natural gas-fired outdoor heating and it is unclear to me what environmental factors were even considered in this rule. I also believe there are other alternatives which would be even better to subsidize than what is proposed.

There are three main questions I considered in writing this public comment:

1. How can we protect restaurants economically while simultaneously protecting the environment and public health?
2. Should we promote natural gas-fired outdoor heating or give preference to electric?
3. What cost-effective alternatives could be subsidized?

Considering this is a rule which gives money to restaurants, let us first get the cost discussion out of the way. Doing a simple search on webrestaurant.com shows some common prices for natural gas-fired and electric outdoor heaters:

Heater type	Retail price
Bromic Heating BH0210003 Tungsten Smart-Heat 500 Series Natural Gas Outdoor Patio Heater - 43,000 BTU - covers 200 sq.ft.	\$1,590.00
Bromic Heating BH0420033 Black Tungsten Smart-Heat Electric Outdoor Patio Heater - 220/240V, 6000W - covers 160 sq.ft.	\$954.00

The natural gas heater cited here covers additional square footage than the electric heater, but has a higher overall cost. The natural gas heater is close to \$8/sq.ft. as compared to the electric heater at close to \$6/sq.ft. So it's clear that it's possible to support the goal of restaurant economic recovery with the lower-cost option of electric outdoor heaters.

Now, let's consider environmental and public health impacts. Particulate matter is regulated as part of the Clean Air Act, which requires that the EPA establish National Ambient Air Quality Standards (NAAQS) for particulate matter and other toxic pollutants to protect human health. There do not seem to be resources available on the particulate matter coming from outdoor heaters specifically, but we can look to indoor cooking with natural gas as an example. An article by Twiley in *The New Yorker* (2019) covered researchers that were assessing indoor cooking events and found that cooking a Thanksgiving meal on a stove which uses natural gas qualifies as an "airborne toxic event" because of how much particulate matter was generated. This proposed rule should consider more seriously the environmental and health impacts of outdoor natural gas-fired heaters and make those impacts more clear to the public. Even if these heaters are theoretically "outdoors", many of the outdoor spaces that I see restaurants seating people and I myself have sat in, are partially enclosed and so it cannot be ruled out that we could be exposing ourselves to particulate matter.

In terms of the environment, electricity is a better option than natural gas. Today, New York City has the great possibility of utilizing renewable energy sources to generate electricity. As an individual, I was recently able to choose to have my electricity come from a nearby solar-photovoltaic farm. Businesses also have this opportunity. Energy from solar and wind produces no CO₂ emissions during operation and so if we utilize more electric-powered outdoor heaters and also utilize our renewable electricity sources, we can avoid emitting CO₂. But if instead we promote natural gas-fired heaters, this contributes to CO₂ emissions.

Shortly before the propane rule came into effect, one blogger comically pointed out that "operating a gas-fired patio heater sufficient to comfortably accommodate several tables for an entire evening shift releases the same carbon emissions as Mayor de Blasio's infamous caravan emits each time it conveys him from Gracie Mansion to his Park Slope [YMCA]" (Komanoff, 2020). They estimated that a natural gas-fired heater that covers roughly 4 two-seat tables emitted 28.2 pounds of CO₂ equivalent (Komanoff, 2020). We should seriously consider whether we should be subsidizing more usage of natural gas.

I realize that this proposed rule is time-sensitive because restaurants need economic help now and "pie-in-the-sky" ideas are not helpful for short-term solutions, though I believe that the city should consider both short-term and long-term solutions. As a short-term solution, this rule should remove natural gas-fired outdoor heaters and leave only electric heaters as an option. If so many restaurants purchased natural-gas fired heaters already, then consider setting an earlier end day of reimbursement for the natural-gas fired heaters so that restaurant owners that are purchasing new heaters will lean towards the electric options.

For a combination of short-term and long-term alternatives to the widely used natural gas and electric outdoor heating, we can look to the UK as they have also been experiencing the move to outdoors by restaurants but with a focus on the environmental impacts. A study published by Future Climate assessed the impact in the UK of increased heating by restaurants to accommodate COVID-19 protocols while keeping their businesses afloat. One alternative they found was essentially a “BYOB” model, but for blankets instead of alcohol (Shreeve, G., 2021). They also cite other research, which showed that electrically heated seating would cost and emit much less energy and CO2 compared to outdoor electric infrared heating (Shreeve, G., 2021). Doing a simple google search for “outdoor restaurant seat warmer” shows a significant gap in simple, cheap solutions and permanent solutions. For example, an outdoor heated seat from Galanter & Jones was \$1,700. That’s clearly not scalable for restaurants and city subsidies. On the other end of the spectrum, there are many options for portable seat warmers, many falling under \$100. While a cheap solution, restaurant owners might be concerned about the potential for stealing due to the portability. There is clear evidence that the electric seat warming technology is widely available and I imagine that addressing the potential security concern is not a large hurdle to overcome. The city could invest some money into local start-ups for example to overcome this hurdle which would both benefit restaurants, the environment, and also invest back into our own economy.

Conclusion

There is no question that restaurants are in need of economic support from the city government to address acute gaps left by the COVID-19 pandemic. That being said, we don’t have to compromise the environment and our air quality to support our restaurants as there are alternatives. To address these short-term needs without compromising the environment, the city should consider leaving out natural gas-fired outdoor heating from this proposed rule and prioritize electric-powered heating, which generates less CO2 emissions.

Long-term, funding should also be invested into scalable technologies, such as electrically heated seating which are likely cheaper and emit even less CO2 emissions. The technology already exists, but it seems there is a lack of simple cost-effective solutions which incorporate security, for example an easy way to secure the heating pad to the seat to avoid it from being stolen.

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