Episode 56UN June 7, 2024. Congestion Pricing in New York City had similar aims as UK London's ULEZ.

In Episode 56UN, 1)Germany, Munich and New York City, New York. New York Times. How Electric Car Batteries Might Aid the Grid (and Win Over Drivers). Automakers are exploring energy storage as a way to help utilities and save customers money, turning an expensive component into an industry asset. 2)Why is London's ULEZ (ultra-low emission zone in the center of the city of London) and why is New York City's now defunct Congestion Pricing System of interest to Residents Against Wood Smoke Emission Particulates? 3)New Jersey. NJ skies were orange last June. Will wildfire smoke return? 4)New Jersey, Jersey Shore. PM2.5 and Sierra Club. Are We Becoming What We Breathe? RAWSEP View: A member of the Sierra Club in New Jersey concedes that "The EPA has estimated health savings from this proposed rule (to lower PM2.5 "safe" annual limits from 9 to 12 micrograms per cubic meter annually, for industry emissions) would far exceed the costs to industry of installing additional pollution control measures." RAWSEP View: The Sierra Club member's opinion on controlling or stopping PM2.5 emissions from indoor residential wood burning is not mentioned in this article. But from the article "The Sierra Club has described PM 2.5 as the "most deadly and destructive air pollutant there is." 5)Oregon. New Oregon program puts air monitors into communities' hands. 6)Virginia. State air board adopts federal particulate matter standards. 7)United Kingdom, Hackney. Hackney residents told to stay indoors as smoke billows from flat (apartment) fire. RAWSEP View: Although the cause of the indoor residential fire is unknown, the photos at the scene affecting the health of near neighbors is reminiscent of the effect on near neighbors of PM2.5 emissions from indoor residential wood burners. 8)Europe, the Western Balkans. Europe's air quality status 2024. 9)Europe. Slovenia, Ljubljana. Air in Slovenia of poor quality. 10)Pakistan. Capital's air quality moderate. 11)PM2.5 and Diabetes in Women. 12)Woodsmoke PM2.5 and neuroinflammation dependent on sex. 1)Germany, Munich and New York City, New York. New York Times. How Electric Car Batteries Might Aid the Grid (and Win Over Drivers). Automakers are exploring energy storage as a way to help utilities and save customers money, turning an expensive component into an industry asset. RAWSEP View: Germany has found a way to reduce utility bills for electric car owners. Millions of cars could be thought of as a huge energy system that, for the first time, will be connected to another enormous energy system, The Mobility House buys power when solar and wind power is abundant and cheap, storing it in electric vehicles that are part of its system and plugged in around Europe. Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates, a 501c3 nonprofit organization. A man plugging a charging cable into his car in a parking lot. A Mobility House customer using the company's electric vehicle charging system in Munich. Reporting from Munich and New York. June 5, 2024. Electric cars are more expensive than gasoline models largely because batteries cost so much. But new technology could turn those pricey devices into an asset, giving owners benefits like reduced utility bills, lower lease payments or free parking. Ford Motor, General Motors, BMW and other automakers are exploring how electric-car batteries could be used to store excess renewable energy to help utilities deal with fluctuations in supply and demand for power. Millions of cars could be thought of as a huge energy system that, for the first time, will be connected to another enormous energy system, the electrical grid, said an associate professor of power electronic systems at Columbia University. one way that carmakers could profit while helping to stabilize the grid. The graphs and numbers on the screen provide a real-time picture of a European energy market where investors and utilities buy and sell electricity. The price changes from minute to minute as supply and demand surge or ebb. The Mobility House buys power when solar and wind power is abundant and cheap, storing it in electric vehicles that are part of its system and plugged in around Europe. When demand and prices climb, the company resells the electricity. It's a classic play: Buy low, sell high. People in the automobile and energy industries have been talking for years about using car batteries for grid storage. As the number of electric cars on the road increases, those ideas are becoming more tangible. A correction was made on June 5, 2024: An earlier version of this article incorrectly described how much money, according to a Renault executive, participants in a program that sends power from their car batteries to the grid could

save on their home energy bills. Customers could cut their energy bills by 50 percent, not 15 percent. 2)Why is London's ULEZ (ultra-low emission zone in the center of the city of London) and why is New York City's now defunct Congestion Pricing System of interest to Residents Against Wood Smoke Emission Particulates? These programs, one still ongoing, one stopped, are and were meant, at least collaterally, to control PM2.5 emissions from gas powered cars. The connection is PM2.5 emissions from both gasoline and wood burning, and the control or elimination of those PM2.5 emissions. PM2.5, particulate matter of 2.5 micrometers, is the perfect size to infiltrate the human lung, setting off a cascade of human health problems and early deaths. Another similarity is the backlash against people taking personal responsibility for the PM2.5 emissions they unnecessarily produce, through overuse and overreliance on gasoline powered cars rather than public transit in the inner cities or other areas with adequate mass transit. The backlash of individuals and businesses to compliance with programs aimed at controlling or eliminating PM2.5 may be similar or like the backlash against stopping or controlling unnecessary wood burning, in many instances. RAWSEP may learn from examining the arguments given for non-compliance to control of gasoline powered car PM2.5 emissions. The aims of RAWSEP are to control or stop PM2.5 emissions from indoor residential wood burning, and hopefully, eventually control or stop PM2.5 emissions from wood burning industrial power plants, wood burning beach fires, wood burning forest and public land campfires, outdoor wood burning, and restaurant wood burning, et cetera. in sum, all unnecessary wood burning, when there are clean alternatives to wood burning for home heating and cooking, should stop and be replaced by Heat Pumps that work to 40 degrees below zero powered by an electric grid that extends to all rural areas, powered by the truly clean sources of renewable energy, wind, solar and geothermal. What is the ULEZ (Ultra-Low Emission Zone) Program in London? Most vehicles, including cars and vans, need to meet the ULEZ emissions standards or their drivers must pay a daily charge to drive within the zone: £12.50 for most vehicle types, including cars, motorcycles and vans (up to and including 3.5 tons) RAWSEP View of key explanation of New York City congestion pricing, from the article below: congestion pricing, is, or was, where car drivers in Manhattan pay $15 (more for truck drivers) to enter the zone south of 60th Street. It was first proposed by the New York City Mayor John Lindsay's administration more than 50 years ago, and now street space is even scarcer, as the city has repurposed much of it for walkers and cyclists. Driving into or around dense Manhattan is the least efficient way of getting around. New York, New York City. The New York Times. How New York's Congestion Pricing System Could Have Been Saved. Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates, a 501c3 nonprofit organization. June 7, 2024. The abrupt announcement on Wednesday by Gov. Kathy Hochul to "indefinitely pause" the program may spell its permanent end, and not just for New York. The unfortunate decision may also harm other American cities' efforts to similarly control traffic. It didn't have to be this way. In 2019, New York's last normal pre-Covid year, just 24 percent of the nearly 3.9 million people who came to core Manhattan each day came via car or truck, according to the New York Metropolitan Transportation Council; almost everyone else took mass transit. Car drivers impose a burden on the city, in collision danger, congestion (buses stall behind cars), noise and pollution. Congestion pricing would charge drivers for the inconvenience they cause. There's a limit to how much experimentation a city can withstand when residents and commuters feel increasingly fearful and anxious on the public subways and streets that congestion pricing was supposed to improve. The 2019 congestion pricing law embedded two further impediments to success. First, congestion pricing was to be a cordon toll: a toll to enter the Manhattan zone. That approach was once sound; London created its zone program in 2003, when it was the only technology available. Yet over the decades, the moment passed; a cordon toll has become increasingly obsolete. The system can't differentiate between a van that moves around Manhattan all day making deliveries and a van that travels two blocks from the West Side Highway to a private garage. Any expert would propose a toll based on time spent traveling, or idling, within the congestion zone, and London is now exploring what comes next. In London, the point of congestion pricing was to cut driving, not raise large amounts of money; the program there raises only $460 million

annually. The strict New York City $1 billion requirement locked the state into a program that couldn't be flexible. It could have started off, for example, with a modest toll for cars, say $8, and only during peak hours, say, 7 a.m. to 1 p.m. Instead, the M.T.A. was forced to devise a 24-hour program, with a lower fee at night. (London's program operates only from 7 a.m. to 6 p.m.) The toll, unavoidable in the late-night hours when mass transit is infrequent and congestion nonexistent, began to look more like a tax than a fee. New York City's slow recovery from Covid-19 lockdowns left little room for error. As of 2022, the last year for which full data are available, the number of people coming to Manhattan each day was 28 percent below 2019 levels. Driving has recovered more quickly than transit ridership, with car journeys now close to or above 2019 levels, and transit journeys less than three-quarters of normal for that year. Congestion pricing thus risks encouraging some drivers to work from home more often or out of Manhattan altogether rather than trying mass transit, reducing Manhattan's chances for a full economic recovery. New York's deteriorated public safety and reduced public order since 2020 further harmed the prospects of congestion pricing. People are reluctant to return partly because they feel unsafe on the trains; New York has suffered 35 subway homicides since 2020, most of them random. Before 2020, it took nearly 17 years for the transit system to amass such a death toll. The public is terrified of moped and e-bike drivers crowding pedestrians off sidewalks and regular cyclists off bike lanes. In August 2022, the Mass Transit Authority (M.T.A.) showed that congestion pricing, by diverting some traffic around Manhattan, would result in more traffic in the Bronx, including as many as 704 more trucks a day on the Cross-Bronx Expressway, as well as more traffic on Staten Island and in northern New Jersey. New Jersey drivers already pay tunnel tolls, and New Jersey filed a federal lawsuit. Governor Hochul should have reduced congestion pricing's $1-billion-a-year revenue requirement, allowing the M.T.A. to levy a less costly, peak-hours-only toll suitable for the post-Covid world. Alternatively, Ms. Hochul could have said back in 2021, 2022 or 2023 that the state would delay the program until New York's economic recovery matched the rest of the nation's economic recovery. New York is not going to have a successful car-based recovery from the pandemic. Cars in numbers sufficient to move New Yorkers around do not fit in the city's physical space (bike lanes or no bike lanes). Someday, New York will have to charge drivers moving around in the city's densest areas — and not just in Manhattan. Ms. Hochul should explore a pilot program to charge drivers by the mile in congested areas, starting with trucks, taxis and other commercial vehicles. For nearly a year now, Manhattan has become used to strange metal arms bearing cameras that extend over busy streets, ready to read license plates and E-Z Passes for the congestion pricing system. (They cost more than $500 million, along with related preparation.) The M.T.A. shouldn't take those toll camera gantries down just yet. The state could use them to charge trucks to enter Manhattan at peak hours or convert them into speed cameras. 3)New Jersey. NJ skies were orange last June. Will wildfire smoke return? northjersey.com A year after the skies turned dark orange on June 6 and the noxious odor of burning wood wafted across the region for days, the threat of wildfire. 4)New Jersey, Jersey Shore. PM2.5 and Sierra Club. Are We Becoming What We Breathe? RAWSEP View: A member of the Sierra Club in New Jersey concedes that "The EPA has estimated health savings from this proposed rule (to lower PM2.5 "safe" annual limits from 9 to 12 micrograms per cubic meter annually, for industry emissions) would far exceed the costs to industry of installing additional pollution control measures." RAWSEP View: The Sierra Club member's opinion on controlling or stopping PM2.5 emissions from indoor residential wood burning is not mentioned in this article. But from the article "The Sierra Club has described PM 2.5 as the "most deadly and destructive air pollutant there is." A recent study from the University of Minnesota found that air pollution, including fine particulate matter, kills over 100,000 people every year. These pollutants can affect our eyesight by causing cataracts, glaucoma (the second-most-common cause of blindness), conjunctivitis, and age-related macular degeneration. The health hazards of PM 2.5 include deaths from heart or lung disease, other cardiovascular problems, aggravated asthma, and increased susceptibility to Covid-19 and its variants, to name but a few. What's worse, they have been detected throughout our bodies–the bloodstreams and brains of infants, children and adults–and even in mothers' breast milk and placentas. Without realizing it, we breathe in particulate matter

copiously every day; PM 2.5 are generally no thicker than the wall of a plastic trash bag. They also can be quite obvious when concentrated, such as from industrial emissions and even forest fires, especially those that have been raging world-wide the past few years." This author touches on the adverse health effects of PM2.5 by stating the health costs associated with heightened PM2.5, stating "If the rule is for 9 micrograms per cubic meter, the benefit in health savings, including reduced emergency room visits, premature deaths, and asthma, could be as high as $19 billion to $43 billion in 2032 alone." Sierra Club. Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates, a 501c3 nonprofit organization. The health hazards of PM 2.5 include deaths from heart or lung disease, other cardiovascular problems, aggravated asthma, and increased susceptibility. June 5, 2024. By the Education Chair, Jersey Shore Group. Many years ago, a spokesman for a large factory on the Raritan River defended his company's pollution, claiming "It's the price to pay for progress." Such attitudes are still pervasive today. Last year, this time-worn excuse was invoked when (industry protested) the Environmental Protection Agency (EPA) decreasing particulate matter (PM 2.5) "safe" limits from 9 micrograms per cubic meter annually, versus the old standard of 12, which industry favored. The respective 2032 costs to industry are pegged at $393 million. Corporations have bemoaned the relatively low increased costs (to them) and ignored the potential number of lives saved (ours). Improving standards "would harm America's ability to revitalize our supply chains and manufacturing, as well as to restore and revitalize our nation's infrastructure," a group of manufacturers, farmers, and petrochemical companies stated in a comment to the EPA in September 2023. 5)Oregon. New Oregon program puts air monitors into communities' hands. OPB. Oregon Public Broadcasting. The three-year pilot program, called Community Air Action Planning, can test the air for smoke particulates, whether from wood stoves or wildfires. Four communities will receive monitors to test the air for smoke particulates and traffic pollution as part of the program. Data collected from the monitors will be put into a report that will also include accounts from residents about pollution in their communities. As Oregon's summer skies become increasingly filled with wildfire smoke, some communities will have an opportunity to see just how unhealthy their air is. Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates, a 501c3 nonprofit organization. June 5, 2024. The Oregon Department of Environmental Quality is launching a program that will give four communities air monitors for pollutants and identify potential solutions. The three-year pilot program, called Community Air Action Planning, can test the air for smoke particulates, whether from wood stoves or wildfires, as well as traffic pollution. They'll measure meteorological data, like heat and wind direction, which could help regulators determine why pollution might gather in certain neighborhoods. The program will work closely alongside community members to identify their air quality concerns, install monitors throughout the area, collect data, and compile it into a report. The report also will summarize narratives collected from residents, in part to find if there are specific areas that people avoid because of air pollution. DEQ will select communities this summer based on a variety of socioeconomic, health and pollution indicators. A DEQ public engagement analyst says intended to empower communities and broaden DEQ's work. "DEQ will be supporting them in gaining agency and taking action for improving their air quality," The program might also include a dense, urban community that's particularly vulnerable to "black carbon," which is soot from traffic and other fossil fuel pollution (RAWSEP interjects here, also PM2.5 pollution affecting near neighbors of indoor residential wood burners should be a concern). Families stand outside at the Jackson County Expo and read the news as the air is thick with wildfire smoke. Families at the Jackson County Expo read the news on Sept. 9, 2020, the day after the Almeda Fire destroyed thousands of homes. The fire released smoke that was so thick, it topped the state's air monitors. The three-year pilot program is funded by a $1 million federal grant, but the DEQ public engagement analyst hopes to find additional funding to continue the program in future years. Program staff will help community members identify where to install the monitors and how to get them serviced if they're not working. These monitors will likely collect data over a span of six months to a year, depending on what type of pollution community members are most concerned about. After that, the air program will

help identify ways to mitigate pollution, like establishing clean-air shelters, distributing air filters, or finding ways to monitor other pollutants and toxins. The DEQ public engagement analyst said the program has some money to help fund these solutions, and if that's not enough, DEQ can help community members apply for grants or other funding sources. "We want to work with the community so when they get the date at the end, they'll be empowered to take action, whatever that might look like for them," he said. Three other agencies are partnering with DEQ on the program. Desert Research Institute, a Nevada-based nonprofit, will visualize the data collected from air monitors. The Portland-based nonprofit Neighbors For Clean Air will help DEQ staff build relationships with community members. Then, Portland State University will evaluate outcomes from the pilot program. 6)Virginia. State air board adopts federal particulate matter standards. VPM News. The U.S. Environmental Protection Agency recently finalized new National Ambient Air Quality Standards for PM 2.5. particles smaller than 2.5 microns. Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates, a 501c3 nonprofit organization. June 5, 2024. The Virginia Air Pollution Control Board voted to adopt federal standards for fine particulate matter found in wildfire smoke on Tuesday. The U.S. Environmental Protection Agency recently finalized new National Ambient Air Quality Standards for PM 2.5 — particles smaller than 2.5 microns. a Department of Environmental Quality policy analyst, told members of the air board that Virginia localities are already in compliance with the standards, meaning new emissions controls won't be needed when the rules take effect this summer. in 2023, smoke from Canadian wildfires blanketed Virginia and other East Coast states for days, prompting air-quality warnings. Wildfire smoke carries PM2.5 and contributed to another uptick in that year. Fine particulate is also released from tailpipes and smokestacks (RAWSEP would interject here that PM2.5 emissions also come from smokestacks of indoor residential wood burning appliances), so if parts of the commonwealth fall out of compliance in the future, the state can work to curtail emissions from those sources. Virginia passed the Environmental Justice Act in 2020. New or modified major sources of pollution are automatically considered controversial. 7)United Kingdom, Hackney. Hackney residents told to stay indoors as smoke billows from flat (apartment) fire. RAWSEP View: Although the cause of the indoor residential fire is unknown, the photos at the scene affecting the health of near neighbors is reminiscent of the effect on near neighbors of PM2.5 emissions from indoor residential wood burners. Largs & Millport Weekly News. Smoke billows from a building in Hackney. Clapton resident Amy smelt the smoke. Conservative candidate slams SNP for bid to ban wood burning stoves. Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates, a 501c3 nonprofit organization. The fire has been producing significant amounts of smoke and people in the area were advised to keep windows and doors closed. An investigation is under way, to understand the cause of the fire. 8)Europe, the Western Balkans. Europe's air quality status 2024. European Environment Agency. European Union. 96% of the EU's urban population is exposed to unsafe concentrations of fine particulate matter (PM2.5). The new EU air quality standards introduced. The Balkans are the easternmost of Europe's three great southern peninsulas. The Balkans are Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Kosovo, Montenegro, North Macedonia, Romania, Serbia, and Slovenia, with all or part of each of those countries located within the peninsula. Portions of Greece and Turkey are within the Balkan Peninsula. June 6, 2024. Despite ongoing overall improvements in air quality, current EU standards are still not met across Europe. 96% of the EU's urban population is exposed to unsafe concentrations of fine particulate matter PM2.5, Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates, a 501c3 nonprofit organization. Europe. The Balkans. Greening Cities in the Western Balkans: Good for Growth, Good for Budgets, Good for the Planet. World Bank Blogs. The World Bank's flagship report, Thriving, published in 2023, develops 5 measures of greenness including air pollution or PM2.5 emissions. Cities in the Western Balkans are no different - some of the larger cities in the region are indeed engines of growth. But many cities are small, they are sparsely populated, and they are shrinking. A changing climate is increasing vulnerability – with cities needing to contend with more unpredictable shocks, such as flash floods and

wildfires, together with worsening heatwaves and droughts. Our recent work on ‘greening cities’ as part of the Western Balkans Regular Economic Report demonstrates how greening cities could be an opportunity amidst the stresses. How green are cities in the Western Balkans? The World Bank’s flagship report, Thriving, published in 2023, develops 5 measures of greenness: air pollution (or PM2.5 emissions), CO2 emissions, methane (CH4) emissions, urban heat, and finally the extent of green cover. how well do cities in the Western Balkans do on different measures of greenness? First. In terms of PM2.5 emissions, cities in the Western Balkans are far more polluted compared to their European counterparts. Skopje's annual mean PM2.5 levels are 4.5 times WHO's safe threshold, Tetovo's exceed it by over 8 times, and Sarajevo's are triple the recommended safe levels. The main contributors are residential heating and cooking (using solid fuels), industrial activities, and transportation. In winter months, residential heating bucks the trend. Figure #1: Annual average PM2.5 concentration in cities Solution 2. Cut emissions in sectors such as transport, buildings, and waste. Build (or retrofit) public and residential buildings to be energy efficient and resilient to climate risks. Regulate better urban waste management systems to reduce emissions of methane and air pollutants (RAWSEP interjects that other air pollutants include PM2.5 from indoor residential wood burning). 9)Europe. Slovenia, Ljubljana. Air in Slovenia of poor quality, EEA report shows, STA. Slovenia is among the countries with the highest concentrations of harmful particles PM 2.5, shows a report on the quality of air in Europe. Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates, a 501c3 nonprofit organization. Ljubljana, 6 June - Slovenia is among the countries with the highest concentrations of harmful particles PM 2.5, shows a report on the quality of air in Europe for 2022 and 2023. Although air quality is improving, people in many European areas, especially in large cities, are still exposed to polluted air that is harmful to health. 10)Pakistan. Capital's air quality moderate - Associated Press of Pakistan. PM 2.5 is generated through the combustion of an engine, industrial emissions, burning garbage or inflammable. 11)PM2.5 and Diabetes in Women. Fine Particulate Matter Raises Type 2 Diabetes Risk in Women – Medscape. Exposure to fine particulate matter < 2.5 micrometers (PM2.5) is a known risk factor for type 2 diabetes, but its effect on women of reproductive age. 12)Woodsmoke PM2.5 and neuroinflammation dependent on sex. Neuroinflammation is dependent on sex and ovarian hormone presence following acute. Nature. Woodsmoke (WS) exposure is associated with significant health-related sequelae. Different populations can potentially exhibit varying.