



ABC's Weekly Federal Legislative Update May 24, 2021

Introduction

The House is out of session this week. President Biden is still trying to court Republicans to support his infrastructure package. This weekend, in response to Senate Republicans offering a far narrower infrastructure package, President Biden reduced original \$2.25 trillion cost to \$1.7 trillion. It remains unclear whether an agreement on a bipartisan package is possible. The following is news from Washington, D.C.

Administration

Infrastructure

The following article contains an update on President Biden's infrastructure package as well as its focus on electrifying the transportation sector.

On May 19, Adam Aton of [Climatewire](#) submitted, "President Biden said yesterday he still wants a bipartisan infrastructure deal. Then he climbed behind the wheel of a potential deal breaker for Republicans: an electric vehicle.

"Biden sped through Ford Motor Co.'s test site before rolling down his window and delivering his verdict on the new F-150 Lightning, the electric version of the country's most popular vehicle: "This sucker's quick."

"Then he floored it.

"The flourish offered a rare peek into political negotiations that have mostly remained behind closed doors.

"Republicans this week are preparing a revised, more detailed infrastructure proposal after blanching at Biden's \$2.2 trillion package. GOP lawmakers initially countered with a \$570 billion proposal stripped of climate investments. And during last week's bipartisan talks in the Oval Office, Democrats said, GOP leaders objected specifically to Biden's push for EVs.

"Now, the White House seems to be leaning into that fight.

“Biden spent the day touring Ford's Dearborn, Mich., plant where union workers assemble the F-150 Lightning. Afterward, he said the future of U.S. workers — if not the climate — depends on aggressively ramping up EV production and ownership.

"We're at a great inflection point in American history," Biden said. "How we handle the next four to 10 years is going to determine where we're going to be 30, 40, 50 years from now. It's one of those moments in American history."

“Biden focused most of his remarks on the economic potential of EVs before briefly mentioning climate at the end.

"If we act to save the planet, we can create millions of good-paying jobs, generate significant economic growth and opportunity to raise the standard of living for people not only here, but around the world," he said. "In the competition for the 21st century, the future will be built right here in America."

“While Biden spent the day talking about EVs, his top officials huddled with Republicans on Capitol Hill for infrastructure talks. The delegation included counselor to the president Steve Ricchetti, Commerce Secretary Gina Raimondo, Transportation Secretary Pete Buttigieg and White House Office of Legislative Affairs Director Louisa Terrell.

“The split screen hinted at Biden's priorities.

"Certainly the president's trip to Michigan will of course be on the minds of our officials from our end," White House press secretary Jen Psaki said aboard Air Force One en route to Biden's speech.

“In the past, White House officials have said Biden has only two deal breakers on infrastructure: "doing nothing" and raising taxes on people who earn less than \$400,000.

“Now EVs seem to be rising in importance. Psaki yesterday called Biden's proposal to electrify transportation "one of the key components" of his infrastructure plan. At \$174 billion, it's also one of the largest.

“And the White House is increasingly drawing attention to it. Biden last month paid a virtual visit to another EV manufacturer, Proterra, shortly after Vice President Kamala Harris toured an electric school bus factory. Ali Zaidi, Biden's deputy national climate adviser, joined the president yesterday on his Michigan trip.

“Those visits demonstrated how much climate politics have changed since the Obama administration, when Republicans portrayed climate policy as anti-business. Now, it's Democrats who are touting the support of corporate America for their climate plans.

"Mr. President, as you work toward a future that's more sustainable and made in America, Ford is right there with you," Bill Ford, the company's executive chairman, said yesterday in his introduction to Biden's speech. He even talked up Biden's infrastructure plan's specific components.

"We appreciate your commitment to rebuilding the nation's roads and bridges, establishing a network of electric vehicle chargers, and investing in the kind of clean energy manufacturing that we're pioneering right here at Ford."

"Biden isn't ready to tell Republicans to hit the road, though, even if the two sides remain far apart on EVs.

"We believe we can find a bipartisan deal on infrastructure. And we look forward to hearing more details of their proposal," Biden said, adding that he expects to see it by today.

"But we've made one thing clear: We'll compromise, but doing nothing is not an option. Doing nothing is not an option. The world is not waiting, I say for a second time."

"But even as Biden seeks a middle ground with Republicans, some congressional Democrats are pushing the White House to expand its infrastructure spending. That could complicate any effort to shrink the package.

"This framework invests half the annual resources originally proposed by President Biden on climate action alone," according to a letter first obtained by ABC News.

"The signatories include nearly 60 prominent progressives, more moderate members and some high-profile legislators, including Democratic Reps. Paul Tonko and Carolyn Maloney of New York, Jim McGovern of Massachusetts, Marcy Kaptur of Ohio, Raúl Grijalva of Arizona, Karen Bass of California, and Chellie Pingree of Maine.

"While bipartisan support is welcome," they wrote, "the pursuit of Republican votes cannot come at the expense of limiting the scope of popular investments."

[EPA Regulation on Landfill Methane Emissions](#)

Last week, EPA released a long awaited final rule regulating methane emissions from landfills. The proposed rule was released during the Obama Administration and delayed during the Trump Administration. The rule will impact over 1,500 landfills.

Greenwire reporter E.A. Crunden submitted on May 18, "EPA is moving forward with a plan to curb methane emissions from landfills as the Biden administration sharpens its focus on combating climate change.

“The agency issued a final rule laying out emissions thresholds for municipal solid waste landfills yesterday. Under the rule, landfill operators have 30 months to install appropriate systems in order to meet EPA's standards.

“The rule will impact 1,590 landfills in 42 states along with Puerto Rico and the U.S. Virgin Islands, as well as the Salt River Pima-Maricopa Indian Community in Arizona. Other states have already submitted their own plans and received EPA approval, including Arizona, California, Delaware, New Mexico, Oregon, South Dakota, Virginia and West Virginia. Both New York and Florida have submitted plans that are awaiting approval.

“The rule comes after several years of contentious back-and-forth, as stakeholders have warred over the key climate effort.

“In 2016, the Obama administration updated federal rules for landfills to target the greenhouse gas methane and other pollutants. Landfills are the third-biggest source of human-related methane emissions in the United States, according to EPA. States were prompted to develop their own plans under the rule if they wished to avoid being subject to the federal standards.

“The Obama EPA projected the rule would reduce methane by 290,000 metric tons on a yearly basis — a significant step in its climate goals. At the time, the agency touted its efforts to reduce methane emissions as "an essential part of an overall strategy to address climate change."

“But industry members challenged both the emissions rule and a separate Obama-era New Source Performance Standards rule, which also applies to landfills. The Trump administration subsequently delayed federal implementation, spurring multiple states and the Environmental Defense Fund to sue.

“Last month, the U.S. Court of Appeals for the District of Columbia Circuit tossed the Trump-era rule, delaying the implementation after the Biden administration asked the court to vacate it so EPA could review its position. The new rule issued yesterday could mark a conclusion to the saga, unless opponents take further legal action.

“In response to a request for comment, an EPA spokesperson said the new rule will improve air quality and reduce potential health impacts. The agency will "continually examine technological developments in monitoring and measuring" landfill gas and methane emissions, the spokesperson said.

“Advocates said the decision marks a major climate victory and praised the Biden administration.

"EPA's plan will significantly reduce methane pollution from one of the largest industrial sources in America, and will reduce hazardous air pollution that puts people's health at

risk nationwide and especially hurts frontline communities that are already disproportionately burdened by pollution," EDF senior attorney Rachel Fullmer said in a statement.

"Industry members indicated they had anticipated the turn of events. David Biderman, executive director and CEO of the Solid Waste Association of North America, said the trade organization was "not at all surprised" by the announcement.

"The industry will comply with applicable emissions rules and continue its reduction of greenhouse gas emissions that began decades ago," Biderman said.

"Brandon Wright, spokesperson for the National Waste and Recycling Association, similarly said the trade group was "pleased" a rule had been issued. "We're happy there's some regulatory certainty now," said Wright."

Congress

Other

The Natural Gas as well as the Renewable Natural Gas industry are looking to hydrogen as a way to help decarbonize both the power and transportation sector. The following two articles discuss various sources and uses of hydrogen.

Hydrogen

Q&A

Benjamin Storrow of [Climatewire](#) wrote on May 21, "President Biden wants to expand it. Oil and gas companies think they can sell it. And many climate experts believe it may be the key to greening heavy industry.

Hydrogen.

"Earlier this week, the International Energy Agency reported that the world will need to install three hydrogen-fueled factories and 2 gigawatts of hydrogen electrolyzers every month after 2030 to have a shot at net-zero emissions by 2050.

"Hydrogen, in other words, has huge potential for decarbonizing the economy. It can also be used as a transportation fuel and potentially as backup for renewables on the electric grid.

"The world has seen this type of hydrogen hype before. And yet much of the technology is still not commercially competitive. Most energy modelers think green hydrogen — the kind that's made with renewable power — will begin playing a larger role after 2030.

“So is the promise of hydrogen different this time? Will it lead to revolutionary changes in the energy sector? And can it be the climate solution people are hoping for?”

“To answer those questions, E&E News spoke with Dave Edwards, U.S. director for hydrogen energy at Air Liquide. The French industrial giant sells gas to industrial customers like chemical plants and oil refineries.

“The company last year installed a 20-megawatt electrolyzer in Bécancour, Quebec. That made it the world's largest green hydrogen facility at the time. Edwards spoke to E&E News about the Bécancour project, the future of green hydrogen and the challenges facing the technology.

When we talk about green hydrogen, it almost has this magical air about it. Like, if we work really hard, we might have it in 2050. Air Liquide has already built a green hydrogen facility in Quebec. Can you describe the facility for us? How does it produce hydrogen? How much does it make? Who's buying it? And how do you get it to them?

“Hydrogen comes from a number of different potential sources, but the two primary methods of producing hydrogen is to take water, apply electricity to split the water into hydrogen and oxygen. And that's a process called electrolysis. The facility at Bécancour that we just brought online in November or December is an electrolysis system that's driven by hydropower in Quebec. Of course, they have a lot of hydropower there. It then produces about 8 tons per day of green hydrogen from that hydropower. And 8 tons per day represents about 20 MW of electricity going into those electrolyzers.

“The other way to produce hydrogen is to take a hydrocarbon — in most cases, it's something like methane or natural gas — to combine it with steam and then use a catalytic process to split the hydrocarbon into hydrogen and then carbon dioxide in most cases. And of course, that's a mechanism that has some emissions, but can also become renewable or it can become green hydrogen by replacing the natural gas or the feedstock with something like dairy gas or landfill gas or what we call renewable natural gas, for example.

“So even though there's two entirely different processes to manufacture hydrogen, both of them have a renewable pathway, and both of them can be done at scale. And at Bécancour, we have both of these processes. We actually have two of the chemical processes called steam methane reformers that are able to produce hydrogen on-site, as well.

“And the third source of hydrogen that's out there that doesn't get very much attention is sometimes a waste stream from other chemical processes. At Bécancour, for example, there's a chlor-alkali plant that has a waste stream that's very rich in hydrogen. And we take that waste stream, purify the hydrogen and then use that as a product. And so that's another way that we're capturing a waste stream and making it a low-carbon hydrogen source for our customers.

“And so Bécancour is really interesting, because it's got all of these different production methods. You can have natural gas-based hydrogen. You can have renewable natural gas-based hydrogen. You can have a waste stream-based hydrogen, and then you can have hydrogen from electrolysis from the grid — and the grid there, of course, being very renewable.

“The other question is once you have the hydrogen, how do you get it to your customers? Hydrogen is normally a gas that's stored at pressure, but it's a very light gas. And so it's difficult to move large quantities of it. One thing that we do is we can liquefy it. If you take it from very cold temperatures, cryogenic temperatures, you can liquefy it, and then it gets much, much more dense, and then you can move it similar to how you would move liquid petroleum fuels. You put it in a tanker truck, a well-insulated tanker truck, of course, and then you ship it by road; usually on the order of 500 to 1,000 miles is about what makes the most amount of sense. So that facility Bécancour can essentially deliver liquid hydrogen pretty much to the eastern parts of Canada, the eastern parts of the United States, economically.

Air Liquide's primary business is selling gas to industrial customers. Do you see green hydrogen as a transportation play, or is this a way to try to scale up the technology?

“If you look at most of the hydrogen production that we're doing around the world, it is still for these industrial customers because of so many decades of investment in production facilities and the need that those industries continue to have for hydrogen. Most of our molecules are going there, but most of our investments are in these new opportunities related to energy transition.

“And when we think about transportation fuels, it means things like the light-duty vehicles that are coming in California, things like heavy-duty trucks and buses. And then the single biggest market, one that people aren't very aware of, is in warehousing, where it's used for forklifts.

“There are something like 40,000 or 50,000 forklifts in operation in the Americas that are using hydrogen as the transportation fuel. And they do it economically. They do it clean. We're able to run inside, and they have a fantastic environmental footprint. And that is actually the biggest consumer of hydrogen for this in this transportation fuel sector today.

“It is the first market. We absolutely expect that everybody who is using hydrogen today is going to start needing to shift toward renewables in their portfolio, even if it's refineries or even if it's specialty chemicals. There are going to be pressures for them to reduce their carbon footprint. And one way they can do that is they can change from a fossil-based feedstock of hydrogen to a renewable feedstock for hydrogen, for example.

“And we expect that will happen over time, from a market opportunity perspective. Transportation fuels are leading the way. But we certainly expect those other industries to follow, especially as the cost of renewable hydrogen comes down.

“One thing to keep in mind is that, of course, economics is going to drive the energy transition. And the most valuable place today for a hydrogen molecule is actually in the fuel tank of a vehicle.

So let's talk about some of the challenges, and you started with the big one: cost. I'm assuming this project is happening in Quebec because you've got a supply of low-cost, zero-carbon electricity. How do you start scaling this to other regions of the world that don't have as much hydropower?

“You're exactly right. That available low-cost electricity is the key element for enabling low-cost renewable hydrogen from electrolysis. And so the thing to think about is that as the grid becomes greener everywhere, whether you're adding wind or whether you're adding solar or whether you're adding hydro or anything else that's renewable, it tends to be very cyclical, either on a daily cycle or on a monthly cycle or sometimes on a seasonal cycle.

“And as a result, there ends up being a need for addressing excess capacity. In order to use renewables as your baseline, you need to have overcapacity for the days where the wind isn't as strong, for example.

“But on the days where it is very strong, you might have excess capacity, and hydrogen is an excellent user of that excess capacity. You can turn it into a transportation fuel or into hydrogen that can simply be stored for longer periods of time and then take that hydrogen, take it off the grid altogether and put it into fuel tanks. Or you can put it back into a turbine, back into a fuel cell and put it back onto the grid, sometimes as backup power and sometimes as peaker power, for example.

“And that's one of the real intriguing opportunities for the future of hydrogen: How will it interconnect between a greening electric grid with more and more renewables being driven onto those grids, and then the need for storage and excess capacity management and demand management on the grid, for example? Hydrogen becomes just one of the tools that the grid managers can use to manage demand and supply on their grid.

I'm glad that you brought storage up. How are we going to store all of this hydrogen?

“We need to be thinking on a very, very large scale. It makes sense when you start doing things in the gigawatt-hours, in the tens of gigawatt-hours and hundreds of gigawatt-hours of storage.

“But your question is absolutely key. How do you then store it? And there's a couple of ways that you can store hydrogen. One is exactly the way we're doing it today. You can

liquefy it and store it in liquid tanks. And because you can liquefy it, you can take a huge amount of energy and store it in relatively small volumes, for example.

“But one of the most economic ways to store huge amounts of hydrogen is actually in caverns. And we actually have a cavern that's in a salt dome just east of Houston, Texas, for example, where we can store many gigawatt-hours of hydrogen energy in a cavern. We're using it on our pipelines. So we're not using it for grid storage. We're using it for backup molecules for the pipeline. But exactly the same system could be used for backup grid power, for example. And there's a lot of locations in the world, a lot of locations in the U.S., that have the potential for underground cavern storage in salt domes and in depleted natural gas wells.

A couple of weeks ago, Columbia University put out a [paper](#) about using the existing natural gas or the pipeline infrastructure to transport clean molecules. Can we really be putting the hydrogen in that existing infrastructure, or do we need to revamp it?

“Safety is a big issue, but so is the overall viability of just simply being able to do it in existing pipelines, for example.

“It's more than just a yes-no answer, because there's really two ways that people are thinking about the existing pipelines. One is just mix hydrogen in with the natural gas itself. So people are talking about 10% to 15% hydrogen, maybe 20%. The upper limit is, I think, still being determined. And the reason you would do that is simply to decarbonize natural gas. Everything that's using natural gas today, whether that's a burner or a turbine or commercial heating or residential heating, at those relatively low hydrogen concentrations, the burners aren't affected. Safety isn't affected. And what you've essentially done is provided a mechanism to decarbonize some of those pathways by those few percentages, for example.

“But the bigger question is, then, what about displacing the natural gas entirely, putting 100% hydrogen into those pipelines? Well, they do have some concerns about things like pressures and compatibility with hydrogen. And you've got to do a pretty careful evaluation of the existing pipeline to determine whether that's viable or not.

“In most cases, you may find that the distribution networks, what actually runs into individual houses or industries on a local basis, may not be particularly compatible, but some of those larger interstate pipelines might be viable. You might be able to either relocate, or they might already be made from materials that are compatible. So different parts of the natural gas infrastructure might be more compatible to a conversion to hydrogen, or they might be only suitable for a displacement of some part of the natural gas, depending on an evaluation of that specific infrastructure.

We've gone through the green hydrogen hype cycle before. Why is this time different?

“The first generation of hydrogen, if you go back maybe 10 or 15 years ago, back to the one of the Bush administrations, for example, or the Schwarzenegger administration [in California] who were pushing the first hydrogen economy, as it was called at the time. The challenge then was that a lot of the technologies that would use the hydrogen were still in the technology development phase.

“You couldn't go into a Toyota auto dealer and buy a Mirai. You couldn't go to a bus vendor and buy a hydrogen fuel-cell bus. They were still in the technology demonstration and development phase. Fuel cells have been around for a while. Those final products are not.

“That's very different now. If you think about the 10,000 cars that are on the road in California. If you were driving one of those, it is by all possible definitions a mainstream vehicle off of a production line, just like a Toyota Camry would be in the lane next to you. It is not a science experiment, and it's not a demonstrator. It's coming right out of the dealer just like any other vehicle and coming off of an assembly line with the same level of care and detail, for example. And so the fact that the vehicles are available, the applications are ready, and now they've been proven and the costs are coming in line, it means that now people can actually adopt it. So 15 years ago, if you wanted to adopt it, you would have difficulty doing it. There weren't a lot of options available.

“The other markets that we see really succeeding, the warehousing markets, for example, that really didn't start to take off until after that first hydrogen economy. It was also in the demonstration phase. And so now we have two, three, four different markets that have products available. And that's on the demand side.

“But there's also a lot of incentives from policymakers to encourage this energy transition, things like California's [Low Carbon Fuel Standard] policy, which includes hydrogen, but also a lot of other fuels. It is making people really rethink the transportation fuel sector as a whole.

“So it's a combination of which you can actually adopt at scale. The technology is now proven, the economics are coming into play, and the regulatory environment under which we're operating are all better aligned than they ever have been. And so all of those reasons are why you're hearing so much about hydrogen. If you're anything like me, your inbox is filling every day with all this hydrogen news. And the why behind it is because all of these pieces are starting to fit into place.

“There were some big gaps in the past. There are no gaps now. We can go from where we are today to where we need to be in the future, I would like to say, without a technology breakthrough. There will be continued efficiency improvements and a lot of cost reduction. There isn't a silver bullet that's missing. We don't need to solve problem X in order to get to the point to where we need to be in 20, 30 years.”

This interview was edited for clarity and brevity.

This story also appears in Energywire.

Coalition Launches to Build First U.S. Green Hydrogen Hub

Miranda Willson of [Energywire](#) wrote on May 20, "A new partnership of energy companies and utilities is aiming to make Los Angeles the first green hydrogen "hub" in the nation by replacing approximately a third of the city's natural gas with the carbon-free fuel by 2030.

"The Los Angeles Department of Water and Power, the nonprofit Green Hydrogen Coalition and several companies announced the coalition this week to reach the 2030 target and bring down the cost of producing green, or carbon-free, hydrogen to \$1.50 per kilogram by 2030. That would lower costs approximately 40% to 65% below current levels, according to some estimates.

"Called HyDeal LA, founding members of the initiative include the solar and energy storage company 174 Power Global Corp. and the California-based utility company Southern California Gas Co., which has multiple green hydrogen pilot projects underway. The Green Hydrogen Coalition, which spearheaded the effort, is supported by renewable energy companies, utilities and gas companies.

"The initiative comes as LADWP and elected officials in Los Angeles are targeting 100% clean electricity by 2035 for the city. Earlier this year, LADWP and the National Renewable Energy Laboratory released a report outlining the planning and procurement strategies needed to meet that goal.

"Produced through a process known as water electrolysis powered by renewable electricity, green hydrogen is a carbon-free gas that can store energy for several days or more. As LA derives more of its power from intermittent resources such as solar and wind farms, the city will need "thousands of megawatts" of stored electricity to maintain reliable power, said Martin Adams, general manager and chief engineer at LADWP, the largest public utility in the U.S.

"We're looking to green hydrogen to be that solution for Los Angeles," Adams said.

"With widespread use of green hydrogen currently inhibited by its high costs, the Biden administration has set a goal of making it less expensive than hydrogen produced from natural gas by 2030. Last year, BloombergNEF estimated that it cost between \$2.50 and \$4.50 worldwide to produce 1 kilogram of green hydrogen. At a price of \$1.50 per kilogram, however, the gas would be competitive with some hydrogen produced from natural gas based on current prices.

"LADWP and Tokyo-based Mitsubishi Hitachi Power Systems — which is also part of HyDeal LA — will use green hydrogen developed at a power plant in Utah to support the utility's procurement goals, according to the announcement. In addition, green

hydrogen will be produced in the LA area using excess renewable power in the state, Adams said.

“California sometimes produces more clean electricity than is needed during the middle of the day when solar resources are strong, according to the California Independent System Operator. At the same time, the state experienced outages last summer when the demand for power exceeded the available supply, said Paul Browning, president and CEO of Mitsubishi Hitachi.

"That drives this idea that we need to be able to store renewable power for long periods of time," Browning said.

“Beyond helping LA achieve 100% carbon-free electricity, the initiative could serve as a model for other cities and states pursuing similar decarbonization goals, HyDeal LA members said. Eventually, if enough of the gas is procured through HyDeal LA, it could be used to power airplanes at LA airports, said Maryam Brown, president of SoCalGas.

"What makes today's event unique and brings us together is the fuel flexibility that hydrogen can bring to decarbonize both the electric and the industrial sectors," Brown said.

“But the gas should only serve as a complement, rather than a replacement, for "proven solutions" to address climate change, said Rachel Fakhry, a policy analyst in the climate and clean energy program at the Natural Resources Defense Council, who is serving as an adviser to HyDeal LA. Nonetheless, the initiative will create a needed platform to discuss the role of green hydrogen in a clean energy economy and ways to lower its costs, she said.

"HyDeal LA is critical in starting to grease the wheels and help get us toward larger-scale deployment," Fakhry said.”

[Bills Gates Led Fund Invests in Startup to Boost EV Charging](#)

On May 21, [Climatewire](#) published, “A startup that wants to help prepare city grids for a boom in electric vehicles raised \$15 million from investors including Breakthrough Energy Ventures, a climate-tech fund led by Bill Gates, and Coatue Management LLC.

“California-based WeaveGrid is developing software that will help utilities better manage the surge in demand for electricity that's anticipated to come as EVs take off. It was founded by former Tesla Inc. employee John Taggart and Apoorv Bhargava, who used to work for electric utility Opower Inc. The two hope to bridge the gap between the two industries by analyzing data about what happens when EVs interact with the grid.

“EVs currently make up less than 1% of all cars on U.S. roads, though sales are growing fast. Some automakers such as General Motors Co. have pledged to stop selling internal

combustion engine cars as soon as 2035. Charging a single car in a garage requires multiple households' worth of electricity supply, meaning grids have to get ready to supply much more power.

"You're adding a large amount of kilowatts at the edge of the network that was never designed to take such loads," said Bhargava, chief executive officer of WeaveGrid.

"Boston Consulting Group estimated in a 2019 report that utilities will need to spend between \$1,700 and \$5,800 to accommodate each new EV through 2030. WeaveGrid promises to slash that spending by as much as 80%.

"Modern EVs generate a huge amount of data which is automatically shared with the automaker. Electric utilities are also increasingly digitizing, helping to boost information about usage patterns. WeaveGrid brings together all that data with the goal of anticipating future problems as the number of EVs grows rapidly. Bhargava declined to go into more detail about the software.

"Utilities and automakers are both legacy industries trying to catch up to 21st century software," said Bhargava. The funds raised will mainly be used to hire more staff, he said.

"Bhargava wouldn't reveal which automakers provide WeaveGrid access to their data, though he confirmed that the startup is working with Exelon Corp., the largest U.S. utility. In a pilot project in Baltimore, WeaveGrid's solutions helped EV users save \$150 a year in electric bills through better charging management while also helping the grid better manage demand from the vehicles, he said.

(Michael R. Bloomberg, founder of Bloomberg LP, is one among many investors backing Breakthrough Energy Ventures.) — *Akshat Rathi, Bloomberg*