



ELECTRIC UTILITY FILING BI-ANNUAL UPDATE

An update on U.S. investor-owned utility activity on transportation electrification
for the second half of 2020

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EXECUTIVE SUMMARY

Since 2012, utility commissions across the country have approved more than \$2.6 billion in transportation electrification investments [1]. \$1.2 billion, almost half of the all-time total, was approved in 2020 alone. This represents a three-fold increase over the amount approved in 2019 and the largest year on record for approved investments by investor-owned electric utilities in transportation electrification.

More than 95 percent of the investment approved in 2020 occurred in the second half of the year. This surge came in the third quarter of 2020 with the approval of \$701 million across six utilities in New York in July and the approval of Southern California Edison's \$436 million Charge Ready 2 program in August. By comparison, only \$60 million in utility investment was approved between January and June 2020. In total, approvals in 2020 could support up to 101,000 Level 2 and 1,875 DC fast charging (DCFC) stations.

The New York approvals in 2020 represent a new stage for electric utility investment in transportation electrification with larger programs being rolled out across multiple utilities operating in a single state. Before 2020, California was the only state with more than \$100 million in approved utility investment. New York became the second state to cross this threshold in 2020. The sizeable approvals in 2020 occurred despite the many challenges presented by the COVID-19 pandemic.

Market leaders like California also began to take strides in 2020 to implement a more consistent stream of investment from utilities beyond what is intermittently approved through the traditional regulatory process. Specifically, California enacted Assembly Bill 841 in September 2020, which requires utilities to provide ongoing support for the electrical infrastructure costs on the utility side of the meter (make-ready) associated with charging station installation. This could provide a model for states with high levels of utility engagement in transportation going forward as some of the larger pending programs move through the regulatory process [2].

In addition to the approvals in New York and California, activity was seen in Oregon, North Carolina, Virginia, and South Carolina in 2020. Approvals worth \$7.5 million in Oregon came through programs filed by Portland General Electric in support of their Transportation Electrification Plan approved in 2019. Besides Oregon, southern states dominated the remainder of approvals outside California and New York. After filing a \$76 million proposal in March 2019, Duke Energy was approved in November to invest \$25 million in a range of EV programs in North Carolina. The utility was also approved for an \$8 million proposal in South Carolina, the first two approvals in either state. Dominion Energy, which has committed to widespread school bus electrification in Virginia, was approved to invest \$20 million in programs supporting public fast charging, transit buses, and ride-hail electrification.

Xcel Energy claimed the majority of new proposals in 2020 through a \$100 million transportation electrification plan in Colorado and a \$157 million COVID-19 relief program in Minnesota. The utility has since received approval for a slightly expanded \$110 million version of the plan in Colorado in a decision issued in January 2021. This program is included as pending investment in Figure 1 below.

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FIGURE 1: ELECTRIC UTILITY FILINGS BY STATUS IN THE UNITED STATES (JANUARY-DECEMBER 2020)

Approved	Pending/Filed	Denied/Withdrawn
11 States	9 States	5 States
22 Filings	12 Filings	7 Filings
15 Utilities	10 Utilities	3 Utilities
\$1,238,076,761 Investment	\$264,599,691 Investment	\$68,493,750 Investment
1,875 DC Fast Charging Stations	815 DC Fast Charging Stations	72 DC Fast Charging Stations
101,026 Level 2 Charging Stations	49,724 Level 2 Charging Stations	3,100 Level 2 Charging Stations

This chart highlights approved, pending, and denied filings between January and December 2020. There was a significant amount of approved investment with the potential to support roughly 103,000 new charging stations.

A clear trend emerging from utilities and commissions across the country is the prioritization of equity elements in program design. Utility investment in underserved communities more than doubled in 2020 as a result of the program approvals in California and New York. Utilities are now approved to invest more than \$766 million in underserved communities throughout the United States, up from \$345 million reported at the end of 2019 [3, 4]. California claims the lion's share with 72 percent of the total. All of the direct investment in underserved communities in 2020 came in the second half 2020.

Medium- and heavy-duty electrification continues to be another focus area for electric utilities, especially within the school bus electrification space where utilities are exploring bi-directional power flow (V2G) technologies paired with these vehicles. Utilities including Dominion Energy, Duke Energy, and Consolidated Edison were all approved for programs including vehicle-grid integration efforts and smart charging programs for electric transit and school buses in 2020. California led on the development of new EV charging rates for medium- and heavy-duty vehicles with both Pacific Gas and Electric and San Diego Gas and Electric receiving approval for new commercial vehicle charging rates in the second half of 2020 [5].

Overall, utilities had an approval rate of 78 percent in 2020 with 46 percent of approved programs having been modified in a notable way from their original proposal. This is slightly up from the 72 percent approval rate in 2019.

This report elaborates on the trends in transportation electrification programs from investor-owned utilities (IOU) described above. Using data from the Atlas EV Hub (www.atlasevhub.com), the report summarizes utility EV investment activity in 2020 and places that investment in a broader context.¹

¹ All data from this report is from the Electric Utility Filings dashboard on the Atlas EV Hub (www.atlasevhub.com) unless otherwise noted.

TRANSPORTATION ELECTRIFICATION STATE OF PLAY

Annual U.S. passenger EV sales were down three percent through December 2020 compared to 2019 levels. This percentage dropped considerably throughout the year as the EV market made a strong recovery from the challenges wrought by the COVID-19 pandemic. For comparison, EV sales were down almost 29 percent through June compared to the first six months of 2019. Year-over-year U.S. EV sales have increased since September. In November 2020, EV sales were 86 percent higher than in 2019. Strong sales in the second half of 2020 led EV market growth to outperform the conventional market with total auto sales down by 15 percent in 2020 [6]. Private sector investment commitments to transportation electrification in the United States roughly doubled compared to 2019.

Tesla continues to dominate the U.S. EV market in 2020, claiming 65 percent of the sales through December. The Tesla Model Y, which was introduced in the second quarter of 2020, alone made up 22 percent of the total. The Tesla Model 3 continues to be the most popular vehicle on the market with almost 97,000 vehicles sold at 32 percent of the total market. The automaker's sales through December are up 11 percent year-over-year. Outside of the Tesla sphere, the Chevrolet Bolt had six percent of the national sales over this time period. This makes the Bolt the third-most popular EV on the market in 2020 ahead of both the Tesla Model X and Model S. The Bolt outsold the Nissan Leaf and Toyota Prius Prime, the number six and seven most popular EVs on the market, by 1.8 and 2.4 times respectively. New vehicle additions are also having an impact with the Ford Mustang Mach-E, which reported its first sales in October 2020, reaching 517 units sold through December. There were 60 EVs sold on the market in 2020, up from the 45 models sold in the 2019.

The deployment of charging infrastructure grew considerably in 2020 despite a dip in EV sales. Through December 2020, charging service providers have deployed more than 108,000 charging ports throughout the United States. This includes the addition of more than 41,000 ports in 2020 alone.² This is roughly double the number of ports that were reported installed during 2019. Almost 20,000 of the nation's charging ports are DCFC stations, 7,000 of which were reported installed in 2020. California accounts for roughly a third of the nation's charging infrastructure and Tesla provides 47 percent of the DCFC ports nationwide. This is down slightly from the company's 55 percent share of the DCFC network through 2019, indicating increasing coverage for non-Tesla providers.

Considerable progress in state policy adoption in leading EV markets occurred in 2020. In June 2020, California passed the first of its kind Advanced Clean Trucks Rule outlining pathways to 100 percent bus and truck fleet electrification by 2045 [7]. Shortly afterwards in July, California was joined by 14 other states and Washington DC in signing the Multi-State Medium- and Heavy-Duty Zero Emission Vehicle MOU calling for 100 percent ZEV bus and truck sales by 2050 [8]. In addition to this, California Governor Gavin Newsom signed an executive order calling for the phasing out of all new gasoline passenger vehicle purchases in the state by 2035 [9]. New Jersey and Massachusetts followed suit with similar goals announced in the fourth quarter of 2020. The latter was also one of three Transportation and Climate Initiative (TCI) member states and Washington, DC that formally adopted the program, which is designed to use market mechanisms to generate revenue for clean transportation projects by limiting carbon emissions [10].

² A spike in ChargePoint deployment was reported on a single day in June 2020, indicating some uncertainty around the date when certain charging stations were deployed.

The pandemic created stress on state budgets. Public sector investment in transportation electrification worth \$443 million was recorded in 2020, representing a roughly 45 percent decrease compared to 2019. Despite this, the public sector passed the \$2 billion funding mark for transportation electrification when \$133 million in awards were made for electric transit buses through the Federal Low- or No Emission (Low-No) Bus Program in June 2020. Public funding for transportation electrification could expand in 2021 with more than 70 percent of the funding allocated to states through the Volkswagen Settlement unspent and a Biden administration promising federal support for EVs and EV charging.

2020 UTILITY FILINGS

California and New York claimed 92 percent of the \$1.24 billion in approved utility investment in the first half of 2020 with a combined \$1.14 billion. These two approvals led to a three-fold increase in utility investment in transportation electrification over 2019. Only five percent of the year's approved investment occurred in the first half of 2020, which could be due to the challenges and delays to the regulatory process brought on by the COVID-19 pandemic. Utility investment in transportation electrification continues to spread across the country with four states recording their first approvals. However, the concentration of approved investment in California and New York grew from just 58 percent in 2019 to 92 percent in 2020. Significant new filings from Xcel Energy in Colorado and Minnesota could shift the balance of investment in 2021 with the utility already having received approval for the \$110 million program in Colorado in January. The amount of pending investment left after the approvals in 2020 is roughly half that of the amount that was pending at the end of 2019. This section provides high level statistics on utility filings from 2012 through December 2020 as well as detailed summaries of filing activity recorded between in 2020 for each region as defined by the U.S. Energy Information Administration (EIA).

SUMMARY STATISTICS OF UTILITY FILINGS (2012 – 2020)

Between October 2012 and December 2020, electric utilities have been approved to invest more than \$2.6 billion in transportation electrification across the United States. Pending filings as of December 31, 2020 could add an additional \$621 million to the total. Approved investment could support more than 149,600 Level 2 charging stations and 4,400 DCFC stations in 28 states throughout the country. Figure 2 shows all the filings tracked on the EV Hub organized by filing status.

FIGURE 2: ELECTRIC UTILITY FILINGS BY STATUS BETWEEN 2012 AND DECEMBER 2020

Approved	Pending/Filed	Denied/Withdrawn
28 States	22 States	19 States
98 Filings	34 Filings	34 Filings
46 Utilities	27 Utilities	23 Utilities
\$2,648,659,660 Investment	\$621,257,737 Investment	\$467,326,876 Investment
4,408 DC Fast Charging Stations	1,535 DC Fast Charging Stations	476 DC Fast Charging Stations
149,615 Level 2 Charging Stations	105,951 Level 2 Charging Stations	85,103 Level 2 Charging Stations

This chart summarizes approved, pending, and denied filings through December 2020.

Significant approvals issued in the second half of 2020 significantly reduced the amount of pending utility investment in transportation electrification projects. This figure is down by more than half of the \$1.4 billion that was pending approval at the end of 2019. Denied or withdrawn investment increased by only \$68 million, or 17 percent from the end of 2019 while approvals almost doubled.

FILING ACTIVITY DURING SECOND HALF OF 2020

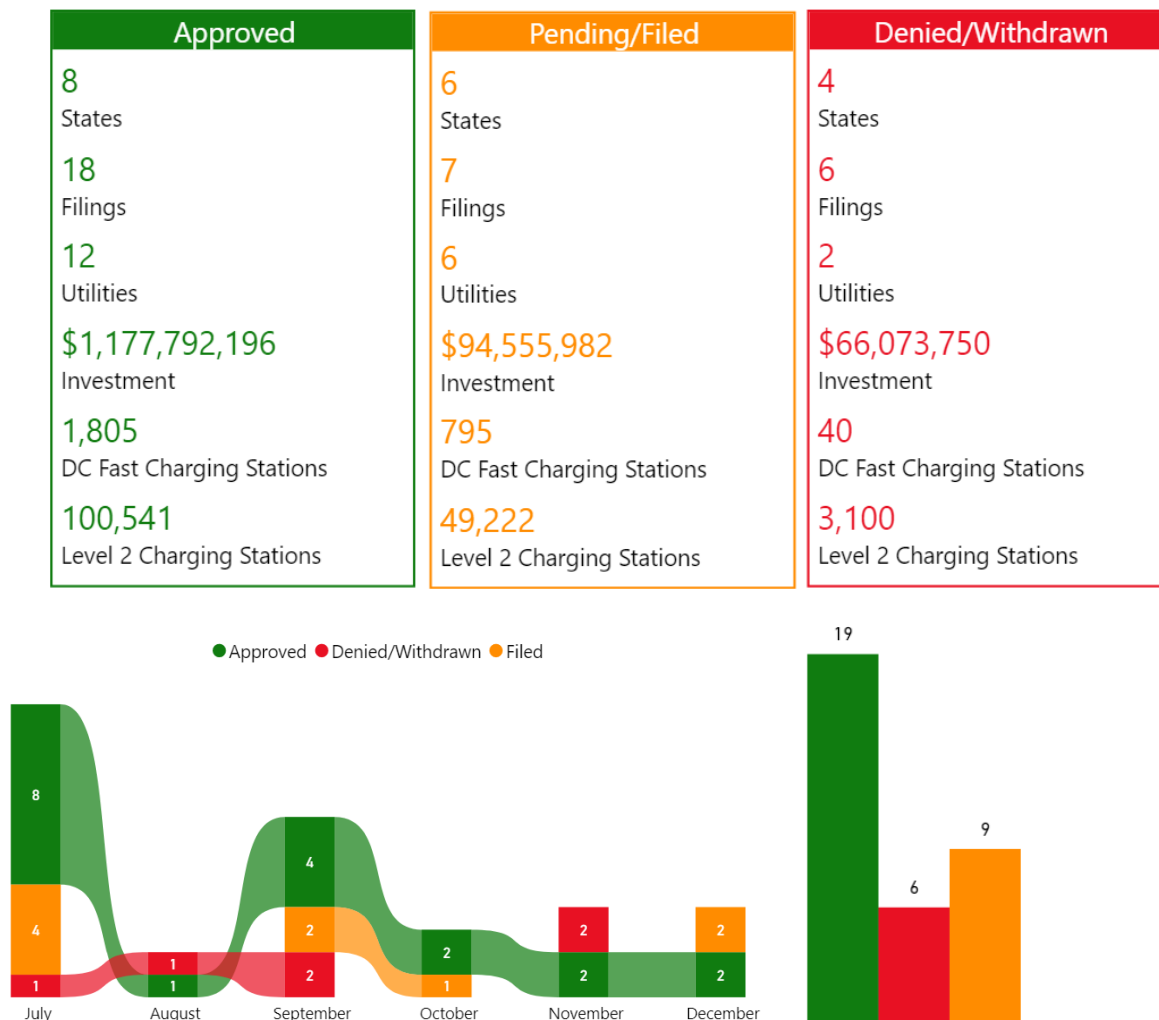
Approved utility investment in the second half of 2020 increased by a factor of 20 compared to the \$60 million approved in the first half of the year. The onset of the COVID-19 pandemic in March and shifting priorities for utilities during this time could be one of the driving factors explaining the limited activity in the first half of the year. The approval of the \$701 million make-ready program in New York and Southern California Edison's Charge Ready 2 program in July and August accounted for a large majority of the approvals recorded in the final six months of 2020.

Outside of these leading EV markets, significant approvals were seen in Oregon, North Carolina, and South Carolina. Duke Energy is leading investment in transportation electrification in the Lower Atlantic region and the two programs in North and South Carolina represent the first approved utility investment in transportation electrification in either state. The \$25 million approval in North Carolina represents only a third of what the utility initially proposed, although the Commission has directed Duke to convene other stakeholders and modify proposals for elements of the program that were denied in the November decision. Duke's September approval in South Carolina was more modest, representing investment for \$8 million in the Palmetto State. Both programs include support for school bus electrification and V2G pilot programs with these vehicles. Across the country, Portland General Electric was approved to invest \$7.5 million in both residential and non-residential charging pilot programs. In total, the approvals issued in the

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third and fourth quarters of 2020 could support 100,500 Level 2 and 1,800 DCFC stations. Figure 3 summarizes the filing activity seen through the second half of the year.

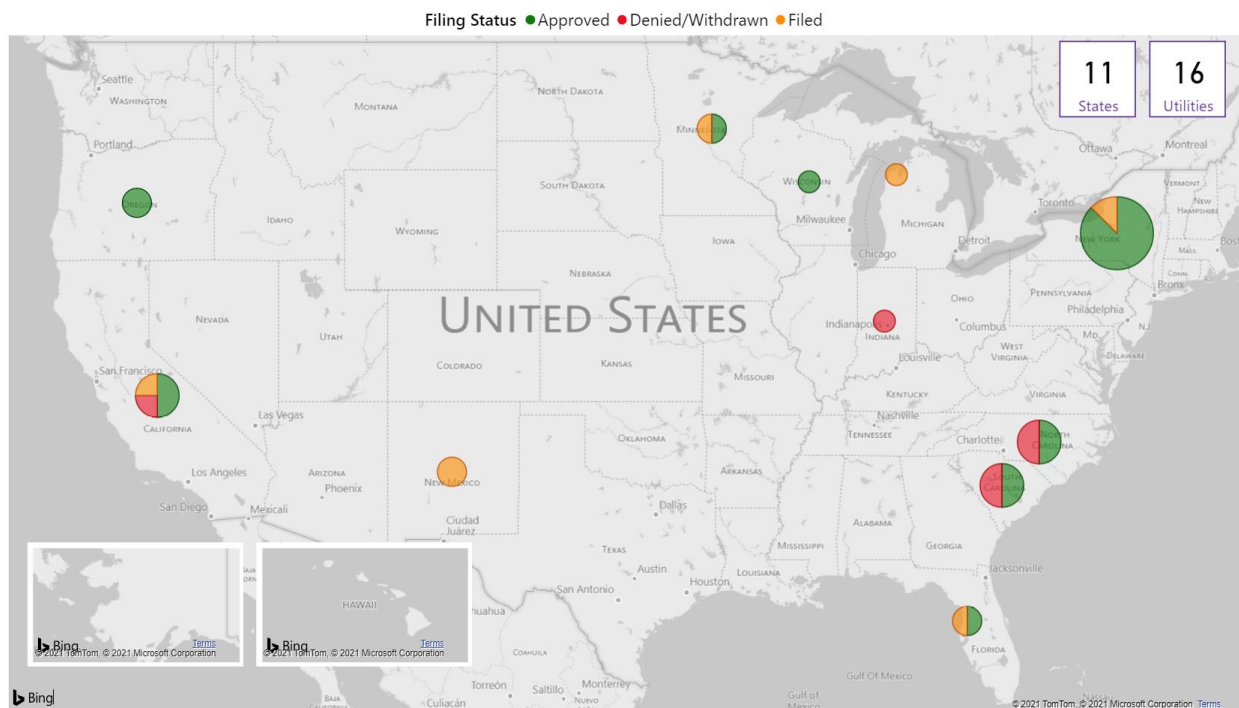
FIGURE 3: ELECTRIC UTILITY FILINGS BY STATUS BETWEEN JULY AND DECEMBER 2020



This chart highlights approved, pending, and denied filings between June and December 2020. At least one program was approved in every month.

Overall, filings by 12 electric utilities in eight states were approved during the second half of 2020. Six utilities in six states either filed new programs or received some sort of modification to previously proposed programs. During this time, commissions throughout the country denied elements associated with six filings in four states.

FIGURE 4: FILING ACTIVITY BETWEEN JULY AND DECEMBER 2020

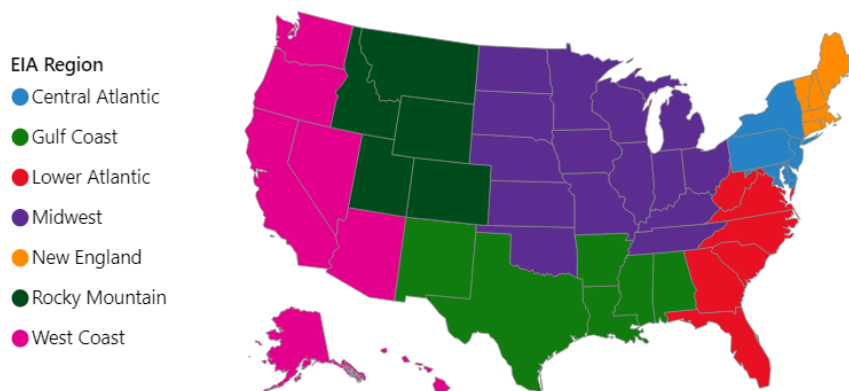


This map shows the status of different filing actions through December 2020 by state. Filing activity, based on number of programs, was spread out throughout the country.

UTILITY TRANSPORTATION ELECTRIFICATION PROGRAMS BY EIA REGION

This section provides an overview of filing activity in each region as defined by the U.S. EIA. Figure 5 displays states divided by their respective EIA regions.

FIGURE 5: U.S. STATES BY EIA REGION

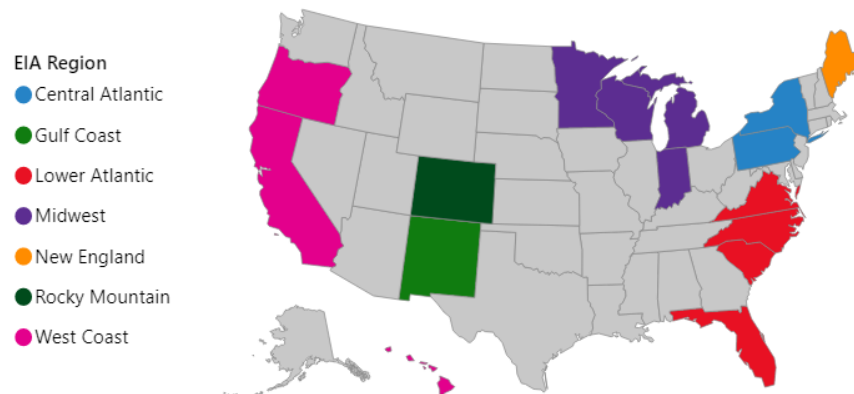


This figure shows states categorized by U.S. EIA region.

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Approved programs for the year were spread across the country with an increase in activity in the Lower Atlantic region compared to 2019. However, more than 92 percent of the \$1.2 billion approved in 2020 is designated for utilities in the West Coast and Central Atlantic regions. The Midwest and Rocky Mountain regions led in terms of newly proposed investment in 2020. No activity was recorded in the Gulf Coast and only one small program in Maine was recorded for the New England region. Figure 6 shows the states where utility programs were approved, filed, rejected, or withdrawn during 2020.

FIGURE 6: 2020 UTILITY FILING ACTIONS BY EIA REGION



This map displays 2020 filing actions by EIA region across the country for the entire year. The Gulf Coast was the only region with no recorded activity in 2020.

WEST COAST

Almost all filing activity on the West Coast from 2020 occurred in the second half of 2020. Most of the new investment came from Southern California Edison (SCE)'s Charge Ready 2 program which was approved in August. In addition to this, Portland General Electric (PGE) was approved to invest \$7.5 million in EV charging programs in Oregon.

Outside of SCE and PGE, little new additional investment was approved in the region in 2020. San Diego Gas and Electric was approved to offer modified medium- and heavy-duty EV rates in October. The only approval in the West Coast in the first half of 2020 was for Hawaiian Electric for a small DCFC program. The only new program proposed was for a pilot program exploring utility pole EV charging stations by PGE. The program does not include any additional investment.

TABLE 1: WEST COAST FILINGS BY STATUS IN 2020

Utility	State	Filing Identifier	Date	Status	Potential Investment
Southern California Edison	CA	A1806015	8/27/2020	Approved	\$436,000,000
Portland General Electric	OR	ADV 20-18	10/23/2020	Approved	\$6,500,000

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Utility	State	Filing Identifier	Date	Status	Potential Investment
Portland General Electric	OR	ADV 20-19	12/15/2020	Approved	\$1,000,000
Hawaiian Electric	HI	2018-0422	1/10/2020	Approved	\$265,000
San Diego Gas & Electric	CA	19-06-007	10/30/2020	Approved	No costs allocated ³
Portland General Electric	OR	ADV 1081	1/14/2020	Filed	No costs allocated

This table shows all filing activity in the West Coast region in 2020.

SCE's Charge Ready 2 will support more than 40,000 Level 2 charging stations in Southern California and includes investment in fleet advisory services for customers to transition fleet vehicles to EVs. The overall program includes a 50 percent investment requirement in underserved communities for the largest make-ready component of the program. The Commission's final order led to a reduction in the initially proposed budget from \$760 million to \$436 million. Some of the education and outreach components of the initial filing were rejected based on the justification that the utility was not well suited to carry out the promotion of EV awareness and should collaborate with other stakeholders instead. Further south, the approval of San Diego Gas and Electric's new Electric Vehicle High Power "EV-HP" rate in October replaces demand charges with a subscription charge and includes time-of-use (TOU) rates for medium- and heavy-duty EVs to reduce charging costs and encourage off-peak charging.

Oregon continues to demonstrate transportation electrification leadership also with PGE making good on commitments outlined in their 2019 Transportation Electrification Plan. The utility was approved to invest \$6.5 million in a residential EV charging rebate program which will support 5,000 charging stations in their service territory and includes payments to customers participating in a new managed charging program. In addition to this, the utility will invest \$1 million in EV charging rebates for charging at multi-unit dwelling, workplace, fleet depot, and public locations.

The West Coast continues to lead investment in transportation electrification and approved investment in 2020 more than doubles that recorded in 2019. However, almost all of this only came from one program compared to the 11 approved programs that proposed new investment in 2019. The region accounts for 59 percent of all approved utility investment in the sector since the first filing activity in 2012. This share is down from the almost 80 percent of total utility investment claimed by the region at the end of 2019. This is due primarily to the \$701 million approval in New York, discussed further in the Central Atlantic section of this report.

Utilities on the West Coast continue to lead direct investment in underserved communities with more than 75 percent of this investment. The West Coast also leads in terms of medium- and heavy-duty electrification with more than 80 percent of the total approved investment with a focus on this element of transportation electrification.

CENTRAL ATLANTIC

The Central Atlantic region had the highest approved investment in 2020 following the \$701 million approval for a statewide EV make-ready program spread across six of the state's seven investor-owned

³ Programs listed as "No costs allocated" are programs such as EV rates where the utility has not allocated costs to that program.

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utilities. This is the largest sum approved in a single decision in any state and makes New York the number two state and the Central Atlantic Region the number two region for utility investment in transportation electrification. This approval followed earlier decisions in the first half of 2020 with \$39 million approved in a program filed by Con Edison in New York. An EV rate filing by Duquesne Light Company in Pennsylvania in April was the only other activity in the region in 2020.

The total \$740 million approved in 2020 in New York will support more than 50,000 Level 2 and 1,500 DCFC stations in the state. It also includes support for transit bus electrification and \$85 million in competitive grants for projects focused on enhancing environmental justice in the state. More than \$200 million from the full \$701 million make-ready program will be invested directly in underserved communities, making up a majority of the investment from 2020 programs going toward underserved communities outside of California. Con Edison was also approved to offer new EV rates for commercial electric trucks and residential customers through the Smart Charge NY Program approved in January. Table 2 shows the breakdown of these filing changes.

TABLE 2: CENTRAL ATLANTIC FILINGS BY STATUS IN 2020

Utility	State	Filing Identifier	Date	Status	Potential Investment
Consolidated Edison Company	NY	18-E-1038	7/16/2020	Approved	\$307,400,000
National Grid ⁴	NY	18-E-1038	7/16/2020	Approved	\$159,600,000
New York State Electric and Gas	NY	18-E-1038	7/16/2020	Approved	\$95,100,000
Rochester Gas and Electric	NY	18-E-1038	7/16/2020	Approved	\$56,200,000
Central Hudson Gas and Electric	NY	18-E-1038	7/16/2020	Approved	\$42,700,000
Orange and Rockland Utilities	NY	18-E-1038	7/16/2020	Approved	\$40,400,000
Consolidated Edison Company	NY	19-E-0065	01/16/2020	Approved	\$39,000,000
Duquesne Light Company	PA	P-2020-3019522	4/20/2020	Filed	No costs allocated

This table shows all filing activity in the Central Atlantic region in 2020.

New York increased the amount of approved utility investment by a factor of 10 across the state with the approval of the make-ready program in July. This approval also significantly reduced California's share of

⁴ National Grid also issued a separate filing under docket number 20-E-0380 that included program elements approved in docket number 18-E-1038. The former program, which was filed on July 31, 2020, is under review by the commission to determine how the elements proposed there meet the spending limits and guidance issued in the final order for docket 18-E-1038.

total approved utility investment across the country. In addition, New York's passenger EV sales overtook Florida to become the second largest EV market in the country.

LOWER ATLANTIC

The Lower Atlantic has the third-most active region for utility filings in 2020. Throughout the year, more than \$53 million was approved for programs focusing on transportation electrification across three states. North Carolina accounts for the largest share of approvals with the Commission's decision to approve \$24 million of Duke Energy's flagship EV program in the state in November. Duke was also approved to invest \$8.8 million in South Carolina in September. In the first half of the year, \$20 million for EV programs proposed by Dominion Energy was approved in Virginia. In addition to these new investments, Florida Power and Light was approved in December to offer new EV fast charging rates to complement new infrastructure being deployed in the Florida. Table 3 shows a breakdown of these activities.

TABLE 3: LOWER ATLANTIC FILINGS BY STATUS IN 2020

Utility	State	Filing Identifier	Date	Status	Potential Investment
Duke Energy	NC	E2, Sub-1197	11/24/2020	Approved	\$24,100,000
Dominion Energy Virginia	VA	PUR-2019-00154	3/26/2020	Approved	\$20,800,000
Duke Energy	SC	2018-321-E	9/1/2020	Approved	\$8,800,000
Florida Power and Light	FL	20200170-EI	12/19/2020	Approved	No costs allocated

This table shows all filing activity in the Lower Atlantic region for 2020.

The \$24 million approved in North Carolina represents only a third of Duke's original proposal of more than \$76 million. The Commission directed Duke to convene stakeholders and redesign several program elements that were denied at this time for consideration in a future proposal. Among the elements of the program that were approved are a reduced school bus program, public Level 2 and DC fast charging stations, and charging for MUDs with a focus on low-income housing. Duke will own and operate all charging infrastructure associated with these pilots. In South Carolina, Duke withdrew initial proposals to support school and transit bus electrification and will also seek to file these at a later date after they are redesigned. The final decision approved \$8.8 million with increased investment in DCFC deployment. Total program approvals were only \$2 million below what was initially proposed.

Dominion's approval earlier in Virginia also included elements supporting transit bus electrification in the state. Outside of the regulatory process, the utility has committed to deploying 50 electric school buses in the state through "early 2021" and is working with public agencies and stakeholders in Virginia to electrify all school buses by 2045 [11]. Overall, this represents a significant acceleration of utility engagement in transportation electrification in the Southeast with 2020 bringing the first approvals for North Carolina, South Carolina, and Virginia.

MIDWEST

No new investment was approved in the Midwest in 2020. However, the region leads the year in terms of newly proposed investment with four new programs worth a combined \$187 million. Xcel filed two

programs in Minnesota worth a combined \$161 million. The larger of the two is a pandemic relief plan worth \$157 million. DTE Energy Consumers Energy is also seeking approval to invest \$13.4 million and \$12.2 million in Michigan, respectively.

The Xcel program was filed as a direct response to COVID-19 and is described as an effort to provide investment to support the state's economic recovery. In addition to highlighting investment amounts, the utility estimated significant job creation numbers associated with the program. The program is different from many other utility filings in that it proposes to use \$150 million of the budget to provide rebates directly to customers for both passenger EVs and electric transit buses. These rebates are tied to participation in a managed charging program. It also includes a small investment in a public charging program and proposals to expand the existing fleet EV service program at no additional cost to the ratepayers as well as plans to accelerate the electrification of Xcel's own fleet.

DTE is proposing to invest \$13.4 million in programs focused on medium- and heavy-duty fleet electrification in the state. Fleet electrification is also the focus of the \$12 million program filed by Consumer Energy, which is a pilot program that will draw on the learnings of the Company's existing PowerMIDrive program. The new pilot seeks to understand how fleet vehicle charging will impact the grid and proposes to invest in V2G capabilities with participating customers. The only other filed program was an MUD program proposed by Xcel in Minnesota worth roughly \$4 million. Table 4 provides additional information on Midwest filing activity in 2020.

TABLE 4: MIDWEST FILINGS BY STATUS IN 2020

Utility	State	Filing Identifier	Date	Status	Potential Investment
Xcel Energy	MN	M-20-492	6/17/2020	Filed	\$156,500,000
DTE Energy	MI	U-20935	12/03/2020	Filed	\$13,400,000
Consumers Energy	MI	U-20697	2/27/2020	Filed	\$12,200,000
Duke Energy	IN	45253	7/22/2020	Denied	\$10,300,000
Xcel Energy	MN	M-20-711	9/10/2020	Filed	\$4,400,000
Xcel Energy	MN	M-19-186	9/28/2020	Approved	No costs allocated
Xcel Energy	WI	4220-TE-104	7/18/2020	Approved	No costs allocated

This table shows all filing activity in the Midwest region in 2020. Minnesota and Michigan continue to lead the region in terms of utility support for transportation electrification.

Notably, in Indiana, the Commission denied Duke Energy's \$10.3 million proposal, citing reasons related to protecting the private market and seeing an insufficient demonstration of program benefits. If approved, this proposal would have brought the only new investment to the region in 2020. It represents the only outright denial of a program for the year.

Due to Xcel's leadership, the Midwest remains the region with the third-highest approved utility investment through the end of 2020. With \$87 million in total approvals since 2014, the region is still far

behind the total \$842 approved in the Central Atlantic. The Lower Atlantic and New England regions follow close behind the Central Atlantic region with \$86 million and \$76 million in all-time approved utility investment, respectively.

NEW ENGLAND

New England is the region with the fifth-highest utility investment. The region was passed by the Lower Atlantic in the second half of 2020 with significant approvals in Virginia, South Carolina, and North Carolina. The only recorded filing activity in New England in 2020 was a partial approval of a program proposed by Central Maine Power (CMP) in February.

The Maine Commission's decision brought the denial of any funding for DCFC make-ready and incentives, which made up most of the \$3.5 million initially proposed by CMP. However, the Commission approved \$240,000 for Level 2 make-ready investment and new rates for DCFC stations to lower the operating costs for station hosts. The Commission indicated a desire to further evaluate the impact of approved elements before approving other program elements. Approvals also included investment from Efficiency Maine, an independent public agency administering energy efficiency programs. Table 5 provides more information on the program.

TABLE 5: NEW ENGLAND FILINGS BY STATUS IN 2020

Utility	State	Filing Identifier	Date	Status	Potential Investment
Central Maine Power	ME	2019-00217	2/25/2020	Rejected	\$2,420,000
Central Maine Power	ME	2019-00217	2/25/2020	Approved	\$240,000

This table summarizes the rejected and approved elements of Central Maine Power's proposal and represents the only recorded filing activity in New England in 2020.

ROCKY MOUNTAIN

There were two transportation electrification plans filed in Colorado in 2020, the larger of which is a \$102 million package from Xcel Energy which was approved by commission vote in December 2020, following a formal written approval issued in January 2021, authorizing an increased budget of \$110 million. Black Hills Energy also filed a transportation electrification plan in 2020 worth \$1.3 million. Both of these plans were filed as a part of requirements established in Colorado Senate Bill 19-077 which was enacted in May 2019 and required the state's utilities to file plans within one year from the bill's passing. In addition to this, Public Service Company of New Mexico filed an \$8.4 million transportation electrification plan in December. At least 20 percent of this plan is targeted to support underserved communities.

Xcel's plan is the largest single program approval outside of California and New York, providing support for the impact of legislative action on leveraging utility investment. It includes funding for transit bus electrification and a \$22 million carve-out for underserved communities, also the largest amount of funding carved out for underserved communities recorded outside California and New York. Black Hills is also dedicating a percentage of funds to underserved communities with a 15 percent carve-out. Table 6 summarizes this activity.

TABLE 6: ROCKY MOUNTAIN FILINGS BY STATUS IN THE FIRST HALF OF 2020

Utility	State	Filing Identifier	Date	Status	Potential Investment
Xcel Energy	CO	20A-0204E	5/15/2020	Filed ⁵	\$102,170,000*
Public Service Company of New Mexico	NM	20-00237-UT	12/21/2020	Filed	\$8,438,000
Black Hills Energy	CO	20A-0195E	5/08/2020	Filed	\$1,343,709

*This table summarizes filing activity in the Rocky Mountain region in the first half of 2020. *Xcel's initial proposal was lower than the \$110 million approved in the January 2021 decision.*

GULF COAST

There was no new filing activity recording during 2020 in the Gulf Coast region and the region continues to have the least recorded utility activity with only one program filed by CenterPoint Energy in Texas in 2019. The program was a request to develop new EV rates in their service territory. Table 7 summarizes this filing.

TABLE 7: ALL-TIME GULF COAST FILINGS BY STATUS

Utility	State	Filing Identifier	Date	Status	Potential Investment
CenterPoint Energy	TX	49421	4/05/2019	Filed	No costs allocated

This table shows all filing activity in the Gulf Coast region through 2020. The EV Rate filed by CenterPoint Energy is the only activity in the region.

KEY TAKEAWAYS FROM FILINGS IN 2020

Filing activity was up overall in 2020 compared to 2019. However, the three-times increase was concentrated almost entirely in two large programs in California and New York. Despite this concentration of big-budget programs in the nation's number one and two EV markets in terms of cumulative sales, several states saw their first major utility approvals in 2020. Among these are Virginia, North Carolina, South Carolina, and Maine. While the approval in Maine was small, \$54 million was approved across the

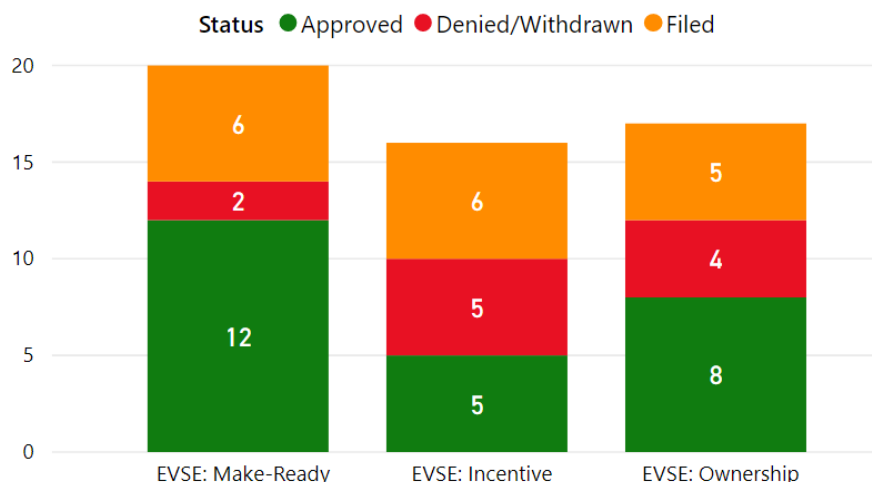
⁵ The \$110 million in approved investment for Xcel Energy's Transportation Electrification Plan in Colorado under docket number 20A-0204E is not included in the 2020 yearly totals due to the fact that the final order was issued in January 2021.

other three states, indicating an acceleration of interest in EVs in the Southeast with both vehicle manufacturers and utilities investing in medium- and heavy-duty electrification in the region [12].

It is also clear from the year's largest approvals that the make-ready model for utility engagement continues to be popular with commissions in the nation's strongest EV markets. Approved make-ready investment in New York and California alone in 2020 could support more than 75,900 Level 2 and 1,700 DCFC stations. This level of deployment would increase the national count of Level 2 and DCFC ports as of December 2020 by 86 percent and nine percent, respectively. Furthermore, this only includes deployment that could be supported by approved utility filings. It does not include utility investment that is likely to result from the approval in October of California's AB 841, which directs utilities to cover the cost of make-ready infrastructure for charging stations and does not require the utility to seek regulatory approval to do so [13].

Overall, 12 of the 22 individual programs approved in 2020 included a make-ready business model. Eight of these approvals featured utility ownership of proposed charging stations. Utility rebates for customer charging infrastructure only appeared in five of the approved programs. This was also the business model with the most denials recorded in 2020. Make-ready programs received the fewest denials out of the three primary program structures for EV charging. Figure 7 shows filing types by status for 2020.

FIGURE 7: FILING ELEMENT TYPE BY STATUS IN 2020



This chart shows the number of approvals, pending filings, and denials by filing element type in 2020. Make-ready programs received the most approvals in 2020.

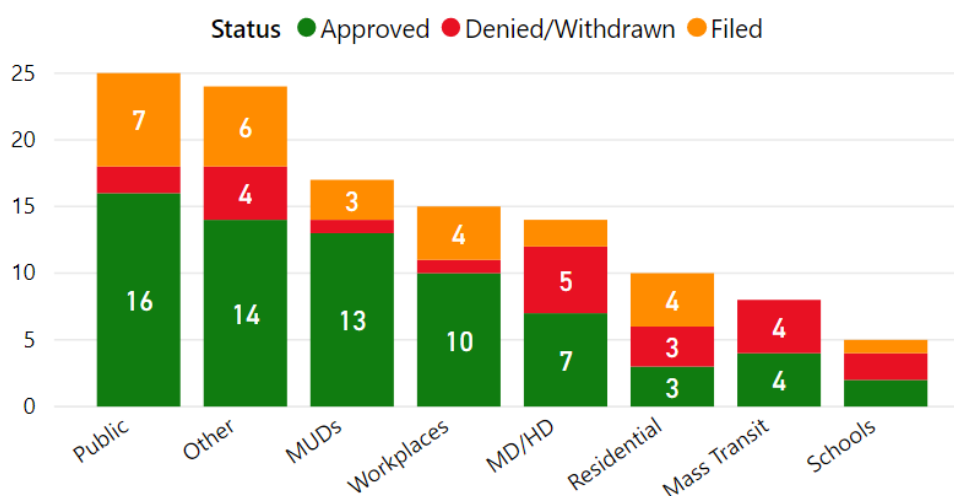
Within these program approvals, dedicated investment for underserved communities continues to increase. Approvals in California and New York led to a doubling of this investment in 2020 compared to the \$345 million approved at the end of 2019. Through the end of 2020, utilities have now allocated more than \$766 million of investment in EVs and EV charging directly to serving underserved communities. A further \$22 million in investment for underserved communities was included in the January 2021 approval of Xcel Energy's transportation electrification plan, but is not included in the 2020 total.

Another way that utilities and commissions are using transportation electrification to promote equity is through electrification of the medium- and heavy-duty sector. Emissions from these vehicles are disproportionately high in low-income communities and communities of color, making electrification an

important opportunity to mitigate the effects of pollution in these communities [14]. Utility programs including elements focused on medium- and heavy-duty electrification continue to proliferate throughout the country. New York's July 2020 approval includes \$100 million in investment for a make-ready infrastructure pilot and a competitive prize program to support medium- and heavy-duty electrification with a focus on environmental justice communities. In addition to this, Con Edison in New York was approved for a new EV truck rate and San Diego Gas and Electric finalized new commercial vehicle charging rates. In addition to this, Xcel Energy's filed proposal in Minnesota represents one of the largest commitments to the medium- and heavy-duty sector proposed by a non-California utility to date. The program could bring more than \$100 million in direct rebates for these vehicles if approved.

Outside of these categories, programs with a focus on providing charging infrastructure to the general public continue to see the highest number of approvals. Figure 8 shows the number of filings, by status, for various use targets.

FIGURE 8: FILING USE TARGETS BY STATUS IN 2020



This chart shows the use targets for different filings separated by use target in 2020. Public charging continues to see the most approvals of any use target, as was the case in 2019 as well.

The road ahead for utilities in 2021 looks promising, although there is a smaller pool of proposed funding upon which Commissions across the country can act compared to early 2020. Through January 2021, \$770 million in pending investment is waiting final decision. Even if this were all approved in 2021, it would represent a 40 percent decline in the approvals seen in 2020. However, new programs could be filed and approved within the course of the year to bring this total up. Some of this new investment could come from program elements that were temporarily denied on the condition that the utility modify program design, as was the case in the November decision for Duke Energy's North Carolina pilot.

It is also possible that more states will turn to the approach taken in California with AB 841, where utilities are granted authority to invest in make-ready programs without formal regulatory approval. This legislation mandates that 35 percent of all related investment be dedicated to underserved communities, a trend that has been increasingly seen in utility enabling legislation in other leading EV markets like Colorado and New York. Progress in 2020 around medium- and heavy-duty electrification with 15 states adopting the ZEV bus and truck MOU will increase demand on the grid if a significant portion of those

vehicles are electrified in the coming years. At least 70 percent of the total funds allocated to states through the Volkswagen Settlement remains as well, which could increase the number of these vehicles on the road and the energy needed to fuel them. Electric utilities will remain important stakeholders in transportation electrification strategy throughout the country and can work with federal, regional, and state partners to oversee increased support for EVs and EV charging throughout the United States.

REFERENCES

- [1] Atlas EV Hub, "Utility Filings Dashboard," 2019. [Online]. Available: <https://www.atlasevhub.com/materials/electric-utility-filings/>. [Accessed June 2019].
- [2] M. Borgeson and M. Baumhefner, "Newsom Signs Law to Clean Air Inside and Out of School," Natural Resources Defense Council, 1 October 2020. [Online]. Available: <https://www.nrdc.org/experts/max-baumhefner/california-adopts-bill-clean-air-inside-and-out-school>. [Accessed 9 October 2020].
- [3] Atlas EV Hub, "25 Percent of Approved Utility Investment Going to Underserved Communities," December 2019. [Online]. Available: https://www.atlasevhub.com/data_story/25-percent-of-approved-utility-investment-going-to-underserved-communities/. [Accessed January 2021].
- [4] Atlas EV Hub, "Utilities Investing \$766 Million in Underserved Communities," December 2020. [Online]. Available: https://www.atlasevhub.com/data_story/utilities-investing-766-million-in-underserved-communities/. [Accessed January 2021].
- [5] M. Muller, "CA Approves Reformed Commercial EV Rates in San Diego," Natural Resource Defense Council, December 2020. [Online]. Available: <https://www.nrdc.org/experts/miles-muller/ca-approves-reformed-commercial-ev-rates-san-diego>. [Accessed January 2021].
- [6] M. Wayland, "Coronavirus crippled U.S. auto sales in 2020 but it could have been far worse," January 2021. [Online]. Available: <https://www.cnn.com/2020/12/23/covid-19-crippled-us-auto-sales-in-2020-but-it-could-have-been-worse.html>. [Accessed January 2021].
- [7] California Air Resources Board, "Advanced Clean Trucks," June 2020. [Online]. Available: <https://ww2.arb.ca.gov/our-work/programs/advanced-clean-trucks>. [Accessed September 2020].
- [8] California Air Resources Board, "Multi-State Medium- and Heavy-Duty Zero Emission Vehicle MOU," July 2020. [Online]. Available: <https://ww2.arb.ca.gov/sites/default/files/2020-07/Multistate-Truck-ZEV-Governors-MOU-20200714.pdf>. [Accessed January 2021].
- [9] Office of Governor Gavin Newsom, "Governor Newsom Announces California Will Phase Out Gasoline-Powered Cars & Drastically Reduce Demand for Fossil Fuel in California's Fight Against Climate Change,"

ELECTRIC UTILITY FILING BI-ANNUAL UPDATE

- September 2020. [Online]. Available: <https://www.gov.ca.gov/2020/09/23/governor-newsom-announces-california-will-phase-out-gasoline-powered-cars-drastically-reduce-demand-for-fossil-fuel-in-californias-fight-against-climate-change/>. [Accessed January 2021].
- [10] Transportation and Climate Initiative, "Transportation and Climate Initiative Program MOU," December 2020. [Online]. Available: <https://www.transportationandclimate.org/sites/default/files/TCI%20MOU%2012.2020.pdf>. [Accessed January 2021].
- [11] Dominion Energy, "Electric School Buses," June 2020. [Online]. Available: <https://www.dominionenergy.com/our-stories/electric-school-buses>.
- [12] Atlas Public Policy, Southern Alliance for Clean Energy, "Transportation Electrification in the Southeast," October 2020. [Online]. Available: <https://atlaspolicy.com/wp-content/uploads/2020/10/Transportation-Electrification-in-the-Southeast.pdf>. [Accessed January 2021].
- [13] M. Baumhefner, "Newsom Signs Law to Clean Air Inside and Out of School," October 2020. [Online]. Available: <https://www.nrdc.org/experts/max-baumhefner/california-adopts-bill-clean-air-inside-and-out-school>. [Accessed January 2021].
- [14] Natural Resources Defence Council, "California Makes History with Clean Trucks Rule," 25 June 2020. [Online]. Available: <https://www.nrdc.org/experts/patricio-portillo/california-makes-history-clean-trucks-rule#:~:text=In%20a%20groundbreaking%20win%2C%20the,the%20Advanced%20Clean%20Trucks%20rule.&text=Beginning%20in%202024%2C%20manufacturers%20must,40%2D75%20percent%20by%20>.



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