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The Issue's Theme: Responsible Transitions

This month's lead article was inspired by an article I read that painted a very depressing and discouraging picture of the United States, the country which has been the world's largest democracy for well over a century, and which has been the leader in promoting democratic principles. The country that George Packer described in his article, 'How America Fractured into Four Parts', is now unable to take the lead in most of the important issues confronting all of the countries in the world, particularly global warming and its impact on climate change, because it is not able to effectively motivate the citizens in its own country to work together to solve its own issues. A growing gap between those who have too little and want more and those who have too much and want even more has created a mix of ideologies in the houses of congress that obstruct cooperation and the compromises necessary to pass legislation that would keep the bridges on the nation's roads from crumbling or allow enough electricity to be generated at prices that all people can afford.

If you ask why this should be part of a newsletter that, in the words of its editor, "touches on the principal themes of the (automotive) industry, highlighting what, how and why developments are occurring so that you can develop your own strategies for the future", you can reflect on the mail I sent to all readers on the 21st of October in which I provided an update on the status of Volvo Car's planned IPO. The business journals were filled with dire warnings of what could happen to Sweden's pride if the IPO did not happen: its headquarters and remaining production facilities would be moved to China; a new CEO would be handpicked from Geely; China would have another reason to punish Sweden in addition to Sweden banning Huawei from any public contracts for telecommunications infrastructure in the country.

Packer did not mention what the clash of ideologies is doing to make a shambles of the country's approach to developing a fair and realistic energy policy, and to promoting such a policy globally. What he does say is that as long as there are these four blocks which control their members through the same 'cancel culture' tactics applied today to the schoolyard, the university campus, the workplace and in all places where different opinions once upon a time were presented, discussed and common ground sought, there can be no progress. There will be just conflict. I have attempted to extend the analysis to the energy issue and to the automotive industry. No one working in the automotive industry can deny that teenagers standing on top of cars at motor shows demanding that all cars be banned has had a very negative effect on the industry. Instead of responding, the motor show organizers move chairs around (from Frankfurt to Munich) or simply submit to the cancel culture and cancel themselves (Geneva).

Responsible transitions from one technology to another or from one way of life to another are only possible if all parties involved in the transition cooperate with one another. Transitions made by post-WWII Germany and Japan from pre-WWII Germany and Japan were not easy. They did not happen overnight and by the wave of a magic wand. They happened because the path was clearly defined and resources allocated to ensure that the path was followed. Transitions that all countries will have to make from abundant, carbon-based energy to a condition in which all energy is climate-dependent is perhaps not only unwise but impossible, but this is what the teenage protesters and those who say there is only one solution and it is theirs are advocating. This is what will be presented at the end of October in Glasgow, and this is what every country will have to abide by or else risk being cancelled.

We are where we are now because not enough good people are standing up and saying: "STOP! Let's make sure we are doing the right thing not just anything."

The Coming Battle Over Car Electrification



HOW AMERICA FRACTURED INTO FOUR PARTS

People in the United States no longer agree on the nation's purpose, values, history, or meaning. Is reconciliation possible?
By George Packer

1. <https://www.theatlantic.com/magazine/archive/2021/07/george-packer-four-americas/619012/>

Energy shortages a sign we have been moving too fast in the wrong direction

It cannot have escaped anyone's attention that prices for energy have recently risen to heights not seen since previous periods of major world disorders. Price rises are the result of shortages in the supply of fossil fuels and nuclear power and the lack of capacity in non-fossil fuels to make up for the shortfall. Investments in the former have been choked off while the performance of solar, wind and hydroelectric power generation have met the forces of weather that have proven to be as fickle as, well, the weather. China was the first to crack under the strain, rushing back to coal at the first indication of economic strain. Will efforts to decarbonize come off the rails again, or will world leaders take it as a lesson that they have been lured by the enchanting music and voices of the climate lobby sirens and have become shipwrecked on the rocky coast of false promises?

A RECENT ESSAY by George Packer helped me to see more clearly what has been happening since the beginning of the New Millennium, not just in the United States which is the subject of his essay but in the world in general.¹ By “what is happening” I mean how could so many people have voted for someone who was so obviously ill-equipped to be President of the United States, and how could the party he represented allow him to represent them? Twice! Or, why have university students and their professors become so averse to free and open debate, why are people demonstrating against COVID-19 vaccinations, and why are any groups so certain that only their views represent the truth? Or, why is the focus on solving the problem of global warming concentrating on converting the car industry to battery electric vehicles and not on increasing the efficiency of utilizing electricity generated from carbon containing energy sources, carbon capture and sequestration. In short, why can't we agree or agree to disagree, and solve problems instead of simply arguing

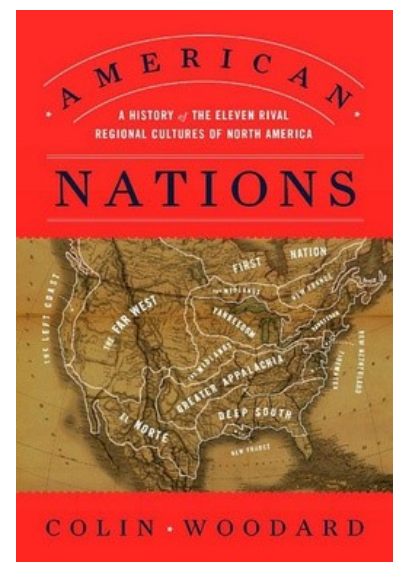
about them? We could start by proposing realistic time lines that consider the possibility of new technologies and the impact of any national energy resource planning on the living standards of all of the country's citizens.

In his essay, Packer says America is not divided into Blue and Red states, Democrats and Republicans, northerners and southerners, progressives and conservatives, pro- and anti-abortionists. It is not split into two tribes; it has fractured into four parts. Understanding the composition of these parts, how and why they have formed, what they stand for and what they stand against, has helped to provide a degree of clarity for me on what has become a murky and opaque world, not just in the United States but also in my adopted home in Sweden, in Europe and in many other countries, democracies and dictatorships alike. I would like to share Packer's insights and project them onto the canvas of the future of transport.

The coming battle in the title refers to what is waiting up ahead in the U.S., Europe and other democracies when governments start to put into law the promises that have been made to phase out the internal combustion engine. Not everyone is on board with the direction that has been pushed through by 'green new deal' coalitions in the U.S. and EU. There has been no debate on this decision to phase out ICE vehicles nor on the proposed timeframes, no questions put to the electorate on which they can vote. It has simply been decreed, stated by President Biden, by individual states, by the European Commission and countries within Europe that the sale of new ICE vehicles will be halted by a certain date (e.g., 2030, 2035, and 2040 have been mentioned).

These decrees will have to be put to the test, and there is no guarantee that the majority of the electorates will vote in favor. More importantly, there is no guarantee that even if a majority votes in favor, the minority will accept the result. The January 6th U.S. Capitol riot, the French *Mouvement des gilets jaunes* (Yellow Jacket Movement)² and the determined refusals to be vaccinated against COVID-19 are harbingers of things that may come, not footnotes in the world's history. In a party leader debate on the 10th of October among the eight political parties represented in the Swedish parliament, a question was asked to all of them and a show of hands requested. *Would you consider applying similar restrictions as with COVID-19 on freedom of movement to fight climate change?* One party leader raised his hand. He is the co-party leader of the Green party. His justification was simply that

2. It was a fuel price increase in 2018 that led to the *Mouvement des gilets jaunes* taking to the streets.



3. There were always many more than just two. There was the Native American narrative, the Plantation Owner narrative, the Freed Slave narrative, the Mayflower Passenger narrative, Jewish Immigrant narrative, the Italian, Japanese, Chinese, Polish, etc. Immigrant narratives. America has never been a monocultural state; it is made up of many nations. In Colin Woodard's *American Nations*, we read a history of the United States and, to a certain extent, Canada and Mexico, that answers the big questions about America, mainly: Why are things

the situation is serious and people have to be forced to do the “right thing”. The seven others disagreed.

Let’s begin with Parker’s description of the four parts, starting with how they evolved.

Once there were two American narratives

Before America fractured into four groups at the beginning of the 21st century, there were two principal national narratives.³ During the 20th century, beginning in the 1920s, the two main political parties told distinctly different stories. These stories could be summed up easily: Democrats spoke for those who wanted a fair shake in life, and Republicans spoke for those who wanted to get ahead in life. Republicans built their political platform on individual enterprise, and Democrats built theirs on social solidarity. But there were twists and turns in both parties’ stories.

The Democratic Party was formed in the 1828 by southerner Andrew Jackson and New Yorker Martin Van Buren and stood for state sovereignty over the federal government and for individual rights. The Republican Party, the party of Abraham Lincoln, was founded in 1854 in order to fight against the expansion of slavery into American territories being settled in the west. It wasn’t started to eliminate slavery; the Emancipation Proclamation was a result of the South’s secession from the Union. Southern Democrats opposed civil rights reforms following the American Civil War, and the party became the dominant party in southern states, while the ‘fair shake’ narrative developed in the industrial states of the north beginning in the ‘30s with the election of Franklin D. Roosevelt.

A snapshot of America can be seen in the Presidential election results in 1960, when John F. Kennedy defeated Richard M. Nixon. ‘Live Free or Die’ northern New England states, the West (except for Nevada and parts of the Midwest) were solidly Republican (red), while the deep south, the industrial east, and big labor states in the Midwest were in the Democratic camp (blue). Georgia and Virginia have swayed back and forth over the past seventy years.⁴ When President Lyndon B. Johnson signed the Civil Rights Act in 1964, the Deep South turned from blue to red, from firmly Democratic to solidly Republican, which can be seen the 2020 election results.

And then there were four

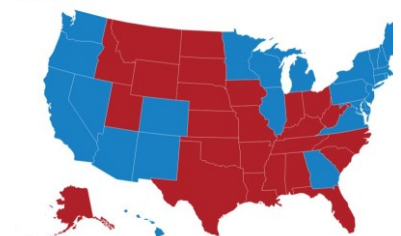
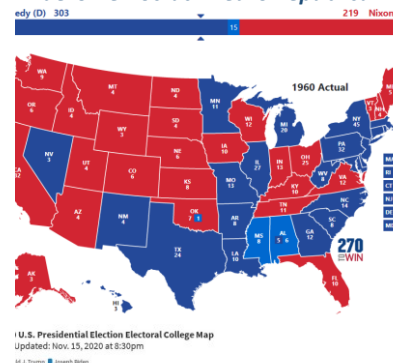
Events in the late 60s and early 70s started a process of polarization that undermined the foundation of bipartisanship which had

(3. continued)

the way they are? Woodward’s main message is that “*North America was settled by people with distinct religious, political, and ethnographic characteristics, creating regional cultures that have been at odds with one another ever since. Subsequent immigrants didn’t confront or assimilate into an ‘American’ or ‘Canadian’ culture, but rather into one of the eleven distinct regional ones that spread over the continent each staking out mutually exclusive territory.*” **This is one of the best American history books I have ever read.**

[American Nations: A History of the Eleven Rival Regional Cultures of North America](#) by Colin Woodward, Penguin Books (2011).

**1960 on Top and 2020 on Bottom
Blue is Democrat - Red is Republican**



4. Neither state has the same founding history as the Deep South states founded in 1670 by sons and grandsons of the older English colony of Barbados, a notorious slave state. See [American Nations](#).

pervaded all levels of government up to that point. Resistance to racial desegregation in both the south and north, the assassinations of President John Kennedy, his brother Robert, and Martin Luther King, the escalation of the War in Vietnam by LBJ and then its expansion into Cambodia by Richard Nixon, all combined to erode the public's faith in government, particularly among the generation born following the end of World War II. This is when the four rival narratives began to emerge. Each has taken its turn exercising influence. "They overlap, morph into one another, attract and repel one another. None can be understood apart from the others, because all four emerge from the same whole," says Packer.

Free America draws on libertarian ideas

Consumer capitalism and personal freedom are the ideals championed in the **Free America** narrative. The Gadsden Flag has been its symbol. It was in the 1970s that the Republican Party began to turn more conservative, which resulted in the election of Ronald Reagan in 1980. Barry Goldwater had preceded him as Free America's standard bearer, but his party and the American people weren't yet ready for him. They had not yet experienced the humiliation of America's capitulation in Vietnam, the resignation of a sitting President and the hostages taken by Iran's Revolutionary Guard. Reagan personified the traditionalist who would lead the fight against the moral chaos of modern secular civilization. He gave a voice and a face to anti-Communism, and the fall of the Berlin wall is his major legacy, even though it occurred during his successor's term. Their main adversaries were those who espoused liberalism, which the Free Americans viewed as the "ideology of Western suicide".⁵ Libertarians, like the Koch brothers, slipped easily into the Free America fold with their simple and uncompromising idea on the role of government: to secure individual rights, and little else. This was the founding idea of the Democratic Party that was now being appropriated by the Republicans. In the view of Free Americans, FDR's New Deal was the beginning of America's decline and fall.

Ronald Reagan in the U.S. and Margaret Thatcher, who led the Free Britain movement as Prime Minister of the UK from 1979 to 1990, sowed the seeds of disaffection with Free politics. Their policies of deregulation and increased globalization "eroded the way of life of many of its adherents," says Packer. "The disappearance



*The **Gadsden Flag** was designed in 1775 during the American Revolution by the general and politician Christopher Gadsden. It was used by the Continental Marines as an early motto flag. It is sometimes used in the United States as a symbol for constitutionalism and limited government.*

5. James Burnham - an American philosopher and political theorist. He chaired the philosophy department at New York University. Burnham became a prominent Trotskyist activist in the 1930s. He rejected Marxism and became an even more influential theorist of the right as a leader of the American conservative movement. His book *The Managerial Revolution*, published in 1941, speculated on the future of capitalism. He rejected containment of the Soviet Union and called for the rollback of communism worldwide.

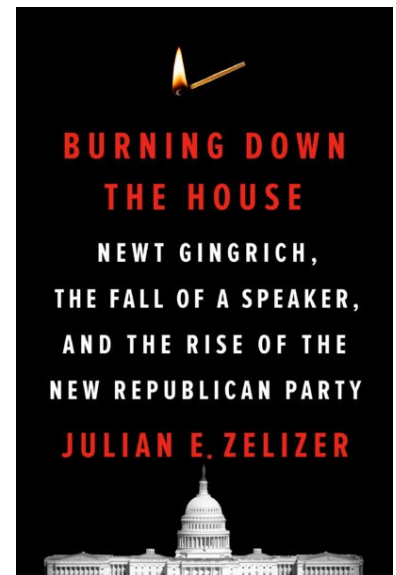
of secure employment and small businesses destroyed communities. The civic associations that Tocqueville identified as the antidote to individualism died with the jobs.” A flank of Free America developed that was started by Congressman Newt Gingrich as he strove to make the Republican Party the majority party during Bill Clinton’s presidency. He led the charge of impeachment of the President and became Speaker of the House in 1995 when the Republicans did gain control of the House for the first time since 1954. Much of today’s partisan politics can be directly drawn from what Gingrich did back in the ‘80s and 90s. At the height of his political career, Republicans embraced Gingrich’s ‘fierce, institution-destroying, partisanship’ tactics — a legacy that has evolved to encompass the Tea Party generation in 2010 and then Trump’s presidency.⁶

Free Americans are not necessarily climate change skeptics or global warming deniers. Most of them understand that what humans have done during the past two-and-a-half centuries has caused the planet’s temperature to rise. However, they firmly believe it was our right and our duty to use the resources that have put on and under the earth to bring our societies to a higher state of development than would have been possible if we had let the coal, oil, gas, iron, copper and every other natural resource stay underground, never invented electricity, steam engines, internal combustion engines, computers, and everything else that we have today.

Smart America started with the Baby Boomers

Meritocracy is the byword of **Smart Americans**. When I was growing up in the 50s and 60s, we were taught that our talents and efforts would determine our rewards.⁷ Packer mentions standardized tests, the civil-rights movement, and the opening of top universities to students of color, women, and children of the middle and working classes as combining to “offer a path upward that probably came as close to truly equal opportunity as America has ever seen”. We believed that government interventions were necessary to give everyone an equal chance to move up, that more public money should be spent on education and health care, that workers who lost their jobs because of globalization and automation should be retrained at government expense.

“The new knowledge economy created a new class of Americans: men and women with college degrees, skilled with symbols and numbers—salaried professionals in information technology,



6. <https://www.wbur.org/here-and-now/2020/07/07/newt-gingrich-republican-party>

7. Meritocracy - a system, organization, or society in which people are chosen and moved into positions of success, power, and influence on the basis of their demonstrated abilities and merit.

Merriam-Webster

computer engineering, scientific research, design, management consulting, the upper civil service, financial analysis, law, journalism, the arts, higher education. They go to college with one another, intermarry, gravitate to desirable neighborhoods in large metropolitan areas, and do all they can to pass on their advantages to their children. They are not 1 percenters—those are mainly executives and investors—but they dominate the top 10 percent of American incomes, with outsize economic and cultural influence.”

George Packer

Smart America first met Free America in the 1988 Presidential election which pitted the Governor of the Smart Commonwealth of Massachusetts, Michael Dukakis, against Free America’s standard bearer, George H.W. Bush. I was living in Massachusetts at the time and had voted for Dukakis for Governor. I attended fund raising parties for him where Smart Americans talked convincingly about how our generation would now elect a President who would move America in the direction we had deemed as correct. Everything seemed to be going well until our candidate went to Iowa and suggested that the hard-pressed corn and soybean farmers try growing endive, and then he went to Michigan and had himself photographed atop a tank with a helmet emblazoned with his name, *Mike Dukakis*. That was the end of that. Four years later, I attended a conference in Göteborg, my new home, where George H.W. Bush, now the former President, whined about how Bill Clinton didn’t play fair with his “It’s the economy, stupid!” slogan. The economy was doing fine. Well, it was on the upswing, in any case.

Many of those who supported Dukakis and then voted for Bill Clinton were not inherently Democrats. I had grown up in a working class family who voted Democrat, but many of my college and post-college friends, including those attending the Dukakis and Clinton fund raisers and rallies, had grown up Republican. Smart America’s narrative became a mix of Republican and Democratic values. Smart America embraced free trade, deregulation and balanced budgets. It was cosmopolitan and supported globalization. Money started to flow into Democratic Party coffers from Republican places like Wall Street and the West Coast. All this meant that the traditional working class base no longer recognized their party and the party started losing touch with them.

Bill Clinton and Barack Obama are Smart Americans. So are their wives. YALE, COLUMBIA, HARVARD, PRINCETON, WELLESLEY degrees for

children of the middle class who made it on their high school grades, SAT scores, and extracurricular activities. They and their supporters embraced capitalism and had libertarian views, but also believed that the poor needed a social net and a living wage. However, when they started businesses, they fought like hell to keep the unions out. Think Bezos and Musk.⁸ “Unions are the instruments of class solidarity, not individual advancement, and the individual is the unit of worth in Smart America as in Free America,” says Packer.

At some point being Smart gave the group the right to lecture on the wrongs of smoking tobacco, ‘unhealthy’ foods, like eggs and milk, hunting as a sport, too much patriotism, too great a dependence on a national identity, and the perils of climate change.

The end of the last millennium was the high-water mark of Smart America, when it was un-questioned. President Clinton’s speeches became euphoric—“We are fortunate to be alive at this moment in history,” he said in his final State of the Union message in January 2000. The new economy had replaced “outmoded ideologies” with dazzling technologies. The business cycle of booms and busts had practically been abolished, along with class conflict, he gushed. In April 2000, Clinton hosted a celebration called the *White House Conference on the New Economy*. “Earnest purpose mingled with self-congratulation; virtue and success high-fived—the distinctive atmosphere of Smart America. At one point Clinton informed the participants that Congress was about to pass a bill to establish permanent trade relations with China, which would make both countries more prosperous and China more free. ‘I believe the computer and the Internet give us a chance to move more people out of poverty more quickly than at any time in all of human history,’ he exulted. “You can almost date the election of Donald Trump to that moment,” says Packer.

I agree with Packer’s assessment, that the winners in Smart America have lost the capacity and the need for a national identity, which is why they can’t grasp its importance for others. We dismissed Sarah Palin as an aberration and Donald Trump as a buffoon. They appealed to a very large group whom Hillary Clinton called “The Deplorables” in a 2016 Presidential election campaign speech, referring to one-half of her opponents supporters as “racist, sexist, homophobic, xenophobic, Islamophobic.” The next day she apologized for saying that it was only one-half of his supporters. Then she proceeded to lose the election that all the rest of

8. Tesla was not invited to attend the White House Summit on Electric Vehicles held in August of this year. On the 29th of September, Elon Musk broke his silence on the obvious slight. “(They) didn’t mention Tesla once and praised GM and Ford for leading the EV revolution. Does that sound maybe a little biased? Not the friendliest administration, seems to be controlled by unions.”

Smart Americans believed she would win because she deserved it.

Barack Obama took over an economy in shambles in 2009, and his administration did what it could to save GM and CHRYSLER from total destruction, but there was always the feeling that they were holding their noses while they were doing it. Industries and factories were so passé. Hadn't we all agreed that the dirty stuff would be done in China? Don't we deserve to have a chauffeur too? But somehow, Smart Americans have been able to separate in their minds issues of climate change on one hand and the issues of their own self-interests on the other. It is the children and the children's children of the original Smart Americans who are leading the boisterous rallies to DO SOMETHING about climate change before it is too late (for us to enjoy life when we grow up). Their families can afford to make the transition to electric cars, afford higher costs of energy, and afford back-up systems to their solar panels in case the sun does not shine enough.

Real America believes it is the heart of democracy

Sarah 'Only-a-Heartbeat-Away' Palin, was the main reason Free American John McCain lost to Smart American Barack Obama in the 2008 Presidential election. I'm certain Senator McCain, on his deathbed, was still wondering how he could have let himself be hoodwinked into accepting her as his running mate. But the end for his Presidential aspirations and her political career was the dawn of a new era in America. Packer writes that in a campaign speech she gave in North Carolina she said: "We believe that the best of America is in these small towns that we get to visit, and in these wonderful little pockets of what I call the **Real America**, being here with all of you hardworking, very patriotic, very pro-America areas of this great nation. Those who are running our factories and teaching our kids and growing our food and fighting our wars for us." She was working-class to her boots. Plenty of politicians came from the working class; Palin never left it," wrote Packer.

Palin's words rang like the Liberty Bell in the ears of her working class audience in North Carolina, many of whom had lost their jobs in tobacco, textiles and furniture-making in the previous decade of increased globalization backed by both Free America and Smart America. It was the elites, both Smart and Free, who had traded away Real Americans' livelihoods and destroyed their lives. Both parties were to blame, so it didn't matter which party they voted for. As it turned out, to the surprise of Smart and Free

Americans, there was a very large number of people all across the country who felt exactly the same way.

Eight years of total control by Smart America led by a Black President, with more globalization and more focus on helping the disadvantaged non-Whites, galvanized the resolution of those whom Richard Nixon had called *The Silent Majority*⁹ to turn to someone they felt would represent their interests. They found him in Donald Trump. There were Republicans among the supporters who were not free-traders and Democrats who were not against the fair shake; they just wanted government to do something for them, not who they believed were the “undeserving classes” below and above them.

Progressives, with both Smart and Free stripes, put it down to racism. Real Americans were all racists, they said, and left the narrative at that. This absolved them of the responsibility to understand and appreciate the real grievances of the real people in their midst, all around them but invisible because they could not be distinguished by their skin color, their way of speaking or dressing. Studies have shown that there was a measure of racism, but the principal distinguishing factors among Trump voters was not having a college degree. Among Whites, 38% of voters who had a college degree voted for Trump, while 64% of those who did not have a college degree voted for him. The group WORKING AMERICA held in-depth conversations with more than 2,300 working-class voters in so-called battleground states in 2016 and 2017. It found that beliefs didn't map to party lines: Voters believed in both expanding the coal industry and protecting the environment; in both universal health-care and keeping out “free-loading” refugees; in both banning abortion and lowering health-care costs.¹⁰

The real truth is that Smart Democrats ensured that Trump would be elected by nominating Hillary Clinton. A Black had made it; it was now time for a woman, and Hillary deserved to be the candidate, they reasoned. Unfortunately, she represented everything that Real Americans—Democrats, Republicans and unaffiliated--and Free Americans absolutely hated. Joe Biden would have beaten Trump, but he stood aside at the request of Barack Obama and the other Smart Democrats.

“The issues Trump had campaigned on waxed and waned during his presidency. What remained was the dark energy he unleashed, binding him like a tribal leader to his people. Nothing was left of the optimistic pieties of Free America. Trump’s people still talked about

9. Richard Nixon used the term ‘great silent majority’ to refer to the vast majority of Americans who did not take part in the mass demonstrations against the Vietnam War nor participate in the counterculture and public discourse in the country. There is a very large number of eligible voters who don’t vote and do not actively participate in politics. 66.8% of registered voters over 18 years old voted in the 2020 Presidential election. It was 59.5% in 2000 and 55.1% when Nixon was elected to a second term in 1972.

10. <https://www.com-mondreams.org/views/2020/12/29/union-members-who-voted-trump-have-be-organized-not-ignored>

freedom, but they meant blood and soil. Their nationalism was like the ethno-nationalisms on the rise in Europe and around the world. Trump abused every American institution—the FBI, the CIA, the armed forces, the courts, the press, the Constitution itself—and his people cheered. Nothing excited them like owning the libs. Nothing convinced them like Trump’s 30,000 lies.”

George Packer

Real Americans include all those who have lost or stand to lose their livelihoods in the industries that will eventually have to disappear if global warming is halted. It is not just coal miners in West Virginia. It is a very large number of men and women all over the world who are involved in the industries that have been built up during the past two hundred years. It is extremely difficult for a youngster in a family in which both parents are working for the local gas-fired energy company that has announced it will shut down to feel a kinship with a teenager leading demonstrations and carrying placards demanding the end of coal, gas and oil.

Just America just doesn’t believe in any of the old narratives

Just Americans do not accept any founding narrative that is not critical of the founders at every step of the way, from first contact until today. Columbus started the plundering of the two continents: tear down his statues.¹¹ Washington and Jefferson owned slaves: rename all schools bearing their names. Wilson was a Southerner with segregationist sympathies: remove any trace of him from PRINCETON, where he was president, from the halls of New Jersey’s government buildings, where he was Governor, and from the White House, where he was a two-term President.

This world view puts them into direct conflict with the ‘City on the Hill’ Free Americans and the Patriotic Real Americans. It also sets them at odds with Smart Americans who pride themselves on fact-based thinking. Just Americans claim that the country was founded on unjust principles. They give the example of the U.S. Constitution counting a slave as only three-fifths a person. Actually, Yankees forced the Deep South slave states to accept a compromise whereby they would be able to count only three-fifths of their slave population when tabulating how many congressmen they would receive.¹² “People who weren’t allowed to vote,” went the Yankee reasoning, “were not really represented, and that fact ought to be reflected in the apportionment of congressional delegates.” In 1780, 53.9% of the population of South Carolina, the heart of the slave-based Deep South, were Black and slaves, and the average for the six southern states was 38.4%. The

11. The first *COLUMBUS DAY* celebration took place on October 12, 1792 when the *Columbian Order of New York*, better known as *Tammany Hall*, held an event to commemorate the 300th anniversary of the historic landing by Christopher Columbus in 1492. For the 400th anniversary, following a lynching in New Orleans where a mob had murdered eleven Italian immigrants, President Benjamin Harrison declared *COLUMBUS DAY* as a one-time national celebration in an effort after the lynching incident to placate Italian Americans and ease diplomatic tensions with Italy. During the anniversary in 1892, teachers, preachers, poets and politicians used rituals to teach ideals of patriotism. These rituals took themes such as citizenship boundaries, the importance of loyalty to the nation, and the celebration of social progress. In 1934, as a result of lobbying by the *KNIGHTS OF COLUMBUS* and New York City Italian leader and publisher of Italian-language newspaper *IL PROGRESSO*, Generoso Pope, Congress passed a statute stating: “The President is requested to issue each year a proclamation designating October 12th as *COLUMBUS DAY*; calling on United States Government officials to display the flag of the United States on all Government buildings on *COLUMBUS DAY*; and inviting the people of the United States to observe *COLUMBUS DAY*, in schools and churches, or other suitable places, with appropriate ceremonies that express the public sentiment befitting the anniversary of the discovery of America.

12. Reference sources in [American Nations](#) page 149.

average percentage of Blacks in the seven northern states was 4.1%, and one-half of that number were slaves.

"Just America." It's another rebellion from below. As Real America breaks down the ossified libertarianism of Free America, Just America assails the complacent meritocracy of Smart America. It does the hard, essential thing that the other three narratives avoid, that White Americans have avoided throughout history. It forces us to see the straight line that runs from slavery and segregation to the second-class life so many Black Americans live to-day—the betrayal of equality that has always been the country's great moral shame, the heart of its social problems.

George Packer

Packer explains that the beginnings of Just America can be found in the rise of 'critical theory' thinking. (See sidebar next page) "Young people coming of age in the disillusioned 2000s were handed powerful ideas about social justice to explain their world. The ideas came from different intellectual traditions: the Frankfurt School in 1920s Germany, French postmodernist thinkers of the 1960s and '70s, radical feminism, Black studies. They converged and recombined in American university classrooms, where two generations of students were taught to think as critical theorists." Critical theory, says Packer, upends the universal values of the Enlightenment: objectivity, rationality, science, equality, freedom of the individual. "Critical theorists claim that these liberal values are an ideology by which one dominant group subjugates another. All relations are power relations, everything is political, and claims of reason and truth are social constructs that maintain those in power. Unlike orthodox Marxism, critical theory is concerned with language."

It is Just Americans that are pushing the climate agenda the hardest, and this agenda has major support for battery electric vehicles, including tax incentives for buying them and money for building out the charging network. But there are two sides to Just America. On the one side are the politicians and NGO staffers who are promoting the interests of the other side, those who have been treated unjustly. Bernie Sanders owns three cars, a *Lincoln Town Car*, a *Subaru Forester*, and a *Chevy Aveo*. His wife drives a *Mercedes-Benz*. The congresswoman from the Bronx, Alexandria Ocasio-Cortez, who is one of the main supporters of America's Green New Deal, drives a *Tesla Model 3*. It's not likely that those

Critical Theory

Critical Theory has a narrow and a broad meaning in philosophy and in the history of the social sciences. "Critical Theory" in the narrow sense designates several generations of German philosophers and social theorists in the Western European Marxist tradition known as the Frankfurt School. According to these theorists, a "critical" theory may be distinguished from a "traditional" theory according to a specific practical purpose: a theory is critical to the extent that it seeks human "emancipation from slavery", acts as a "liberating ... influence", and works "to create a world which satisfies the needs and powers of" human beings (Horkheimer 1972b [1992, 246]). Because such theories aim to explain and transform all the circumstances that enslave human beings, many "critical theories" in the broader sense have been developed. They have emerged in connection with the many social movements that identify varied dimensions of the domination of human beings in modern societies. In both the broad and the narrow senses, however, a critical theory provides the descriptive and normative bases for social inquiry aimed at decreasing domination and increasing freedom in all their forms.

STANFORD ENCYCLOPEDIA OF PHILOSOPHY. (March 8, 2005)

being treated unjustly can afford such luxuries. The poor need affordable mobility even more than those who have high-paying jobs, and they need affordable energy today, not in 2050.

Action on climate change requires compromise

None of these groups trusts the other. Real and Just Americans are at opposite ends of the spectrum. Anything proposed by one is opposed by the other; there is no room for compromise. The problem is that there are Real Americans in both parties, a larger number on the Republican side and a smaller, but vocal number on the Democrat side. There are no Just Americans among the Republicans, but the Democrats have a large enough minority of Just Americans to make any type of compromise with Free Republicans extremely difficult.

Republicans have not been a unified party for five years, and if anything can show that the Democrats are also no longer a single party it is the extreme difficulty President Biden is having to pass the infrastructure bill that has bipartisan support (i.e., members of both the Free Republican and Smart Democrat factions have agreed to vote in favor of it). The Just American faction in his own party first want to pass a social welfare bill that is three times more expensive than the infrastructure bill. This social welfare bill is not certain of passage in the Senate because there are Real Democrats there, such as Joe Manchin of West Virginia, who will not vote for it, and there are enough Real Republicans on the other side of the aisle who will block it. Just Americans are saying: “No welfare bill, no infrastructure bill”. There are a lot of jobs on the line for All Americans that are counting on the infrastructure bill, and a lot of people who the welfare bill would help that would also be helped if they had a job that could pay the bills rather than a welfare check.

Just Americans say they are going to pay for all the welfare by taxing the rich. The Bronx congresswoman made this clear in an unusual way at a very public event to which only rich folks were invited.¹³ Real and Free media channels, who detest the Bronx congresswoman as much as the Smart and Just channels detest the person President Joe Biden refers to as ‘the former guy’, reminded the public that the congresswoman has an annual salary of \$174,000. That is over three times the average salary for all Americans and double the median for professionals. She can afford *couturier* clothes to advertise her cause and *Teslas*.

13. Rep. Alexandria Ocasio-Cortez claimed that it was her “responsibility” to attend the Met Gala, as she was roundly criticized for wearing a couture “Tax the Rich” dress to the elite event, where tickets cost at least \$30,000. Black Lives Matter protesters were angrily decrying the event from outside while the AOC was smiling at the upscale event, where companies spend around \$300,000 to book a table. “Police were creasing people’s heads outside while you and your friends were nibbling watermelon tarts with smoked yuzu soy on panipuri crackers,” tweeted Andray Domise, a member of Black Alliance for Peace.

Raising taxes—or even threatening to raise taxes—has proven to be an excellent way to lose elections in the U.S. and the UK. Elizabeth Warren and Jeremy Corbyn should have learned that lesson along the way to becoming politicians. The midterm elections in the U.S. are a year away, and chances are high that enough Smart (Rich) Americans will be put off by the prospect of paying higher taxes, and will join with Free Americans to shift the balance of power back to the Republicans. Just Americans believe enough Smart Americans will still vote Democrat to retain the majority in both houses. It is my opinion that if the Democrats continue doing what they have been doing since the previous election, they will lose control of both houses of Congress and then infrastructure, climate and social welfare will be off the table again. President Biden's approval rating has gone from 53% on the day he was inaugurated to 44.7% on the 14th of October. The Democratic Party has dipped from 48% to 35% during the same period.

Job One is to avert a complete meltdown

There is going to be a backlash in the U.S. and Europe against Smart and Just Greens, not just on cars but on everything. The signs are all there: record high prices for gasoline and especially diesel fuel; lack of availability of gas for home heating and electricity production, and very high prices for what gas there is; and, above all, the extremely high prices for electricity. (See sidebar)

These are the rallying cries for the Free and Real troops, as well as the less-wealthy Smart and all the 'others' who are now and will continue to be most affected by higher petrol/gasoline, gas and electricity prices. They will take to the streets to protest against what they see as the havoc, chaos and destruction environmentalist elites are creating. Just Greens, like the Swedish party leader I mentioned in the opening, will say that havoc, chaos and a certain amount of destruction are the price we all have to pay for making sure that humans will be able to continue living on Earth. The Swedish Green's party leader's \$192,000 annual salary should get him through the chaos a lot more comfortably than the majority of Swedes making \$47,000 per year. The same goes for Ms. Ocasio-Cortez if she can manage to get reelected in a year's time.

Here is the dilemma: Environmentalism is driven by those who offer distant rewards in return for immediate sacrifices, and the sacrifices impose uneven costs. Scientific experts and multilateral institutions (e.g., Greenpeace, Sierra Club, World Wildlife Fund) are working outside of the democratically elected government process to coordinate global action. Climate change has no borders,

A Bad Summer for Green Energy

In September 2020 in the UK, it cost £119 (\$139) to purchase enough gas to heat the average home for a year. Gas storage tanks in the UK and the rest of Europe were full. In September 2021, it costs £738 to heat the average UK home, and gas tanks are close to empty. Even in the U.S., prices have doubled, although from a much lower level than in Europe.

This is what happens when supply cannot meet demand. It wasn't quite as windy, so wind power was puny, and periods of drought cut down on hydroelectric power in some areas. It was a cold spring in Europe and a hot summer in Europe and Asia, which increased demand for liquid natural gas (LNG). Russia, Europe's prime supplier, has cut supply to force Europe's hand on approving the controversial Nord Stream 2 pipeline. Carbon permit prices increased the cost of coal. Once the nuclear plants are turned off, as they are in greater numbers, it is not possible to turn them back on.

A light went on in the minds of some, although due to the shortage and high cost of electricity, it did not burn so brightly. If you are convinced that the climate is changing due to global warming, and you are pushing policies that make everyone and everything dependent on energy generation from climate-dependent sources (i.e., wind, sun, rain), you are going to have to accept uneven supply. In the world in which we live today, demand cannot be matched to supply. If the heat or air conditioning are turned off in our modern cities, people die. If there is no fuel for ambulances and fire trucks, people die. So if you cannot match demand to supply, prices are going to fluctuate wildly and those with the highest incomes will have the highest chances to survive.

they argue, and there needs to be coordinated action. Yes, but China is still building coal-burning electricity plants. Oh, but China has now promised to stop all building of coal plants outside of China and restrict coal usage inside the country. President Xi Jinping promised that at the United Nations in September. There is a new world order. China had planned to attend the COP26 climate summit in Glasgow as the new world leader of phasing out carbon emissions. While this may sound strange to anyone who is aware that China's greenhouse gas emissions are far larger than any other country or group of countries, and nothing they have done or plan to do will change that, China expected that the world would simply accept its promise to reach its peak of carbon emissions by 2030 and to be completely carbon neutral by 2060. This would require that China would shutter 600 coal-fired power plants and stop building any new coal plants in China and in other countries. On the 12th of October, the Chinese premier, Li Keqiang, put an end to this little ruse. He delivered a statement following the meeting of Beijing's National Energy Commission stating that any plans to limit emissions had to "take into account the country's requirement for regular and reliable supply of power". This was triggered by the country's homes and businesses experiencing blackouts when disruptions occurred in delivery of coal to power plants. "Given the predominant place of coal in the country's energy and resource endowment, it is important to optimise the layout for the coal production capacity, build advanced coal-fired power plants as appropriate in line with development needs, and continue to phase out outdated coal plants in an orderly fashion. Domestic oil and gas exploration will be intensified," said Li.

As an article in the September 25th 2021 issue of *THE ECONOMIST* pointed out, it is the poorer people who are likely to suffer more than the rich during the green transition, not just because they have less disposable income but also because they are more likely to work in the places that the environmentalists are trying to close down, like coal mines, oil fields and car repair shops. The economic winners are the entrepreneurs winning contracts for erecting wind turbines, the bureaucrats who land jobs with fat salaries in multilateral institutions, the scientific experts who are funded by the same institutions, and China that manufactures and sells all the solar panels and wind turbines and burns coal to make the electricity that powers their industries.

One example of how an attempt to appease environmentalists ends up negatively affecting many is the British government's plans to re-

move from the market gas-fired boilers for home and business heating and replace them with hydrogen boilers and heat pumps. I lived in London in 1972-73 when coal-fired boilers were still in use along with electric heaters with the electricity produced with coal. The gas for the new boilers came from the North Sea that was discovered in 1965. Gas burned cleaner, and by the end of the 70s, and after bearing the costs and disruption of replacing coal with gas-fired boilers, everyone breathed better and there was less soot falling on buildings and clothes. I experienced exactly the same phenomenon in Scranton when homes, including our own, transitioned from coal to gas heat at the same time. Heat pumps are larger and less effective than gas-fired boilers. I built a house with a heat pump and can personally verify this fact. Hydrogen boilers are and will continue to be more expensive.¹⁴

How can any government today state that it will cut off the supply of petrol/gasoline and limit the use of natural gas within ten, fifteen or even twenty years when there are currently just under 1.5 billion cars and trucks in operation globally, with around 1.1 billion of that number passenger cars? Shouldn't all focus be on finding a way of fueling all those cars as soon as practicable so that they do not emit greenhouse gases?¹⁵ How can any government justify spending tax money collected from all of its citizens to subsidize the purchase of electric cars that are so expensive that they can only be bought by fewer than 30% of the populace in the richest countries, and a fraction of that in most of the world?

Governments have been too hasty in deriding the energy industry and forcing the companies into reducing their investments in conventional and alternative fossil fuel development and carbon capture. At the same time, governments have choked off their own investments higher efficiency hybrid technologies while focusing on biofuels, wind, and solar approaches and supporting exclusively battery electric vehicles. We can now see the result. In Europe, it is an even heavier dependence on Russia's oil and Germany's and Poland's coal. If we continue to be too rushed in trying to prevent the world from heating up by forcing into law policies that cause unequal harm and unequal benefits, and we don't do a good enough job of bringing along all those who are going to be losing out in the short-to-medium term, we run two very real risks.¹⁶ First, any progress that has already been made to reduce greenhouse gas emissions will be thrown into reverse when the protests start to shake the foundations of government. Without reliable energy at affordable prices, inflation will increase, living

14. Today, the distribution and storage of hydrogen for consumer use is a limiting technology that has yet to be addressed, much less implemented.

15. See *Dispatch Central, Synthetic fuel: Is it better than a BEV switch?*

16. In commenting on a draft of this paper, Fred Dryer said that the need for additional power alternatives to avoid brown-outs are already under emphasized and methods to store and recover wind- and solar-generated power remain dependent only on battery systems that have limited capacity and power transfer rates. Unfortunately, no one is attempting to educate the public in these matters. Fred Dryer is a UNIVERSITY OF SOUTH CAROLINA EDUCATION FOUNDATION Distinguished Researcher. In February 2021, he was elected to the NATIONAL ACADEMY OF ENGINEERING (NAE) for his "contributions to the understanding of combustion processes for propulsion and transportation applications and for fire safety."

standards will be lowered and environmentalism will be blamed for the mess. The bogeyman (a.k.a. the 'former guy') will return and undo everything that has been done. He did it once in 2016, he almost managed to hold on in 2020, and he can garner enough votes in 2024 to do it again.

Second, the world will waste precious time and resources on taking the wrong measures. There is too much being invested switching the entire transport system to electric vehicles and not enough being invested in finding ways to make all existing cars emissions-free. There is too much being invested in not putting more greenhouse gases into the atmosphere, and not enough being invested in removing what is already there.

It's time for responsible leadership by government

Divided and uncompromising government is producing unforced errors in many democracies, but especially in the United States and the UK. The problem in the U.S. can be seen in everything from how its Iraq/Syria/Afghanistan policy played out, to its inability to keep the country from running out of money, and to the difficulty of getting a large enough group of senators and congressmen behind legislation to fix its infrastructure, which is in dire need of repair. Europe in general and the UK in particular have similar problems. Neither country is developing policies that consider the secure pathways to achieving their goals, which requires policy considerations of the energy resources available within their borders. I have already mentioned the imminent challenge of keeping homes heated in the UK due to the forced error gas policy. The recent lines at petrol stations resulting from a breakdown in the supply chain indicates that the responsible authorities are either incompetent, asleep at the switch, or, more likely, so afraid of confronting the environmental lobby that they don't dare to set policies which are not those delivered to them: sun, wind and water; no compromise.

It falls on the U.S. to lead and to start doing it responsibly. At this point, it does not appear that the current congress and administration are doing any better than previous congresses and administrations. Simply out of necessity to keep the U.S. moving forward in the face of increased economic and military pressure from China, Free America and Smart America legislators are going to have to form a coalition, perhaps even a new party. A name for this new party might be Democratic Republicans.¹⁷ The objective of this coalition is to make vital decisions about climate change action that take the welfare of all citizens into account

17. The Democratic-Republican Party, also referred to as the Jeffersonian Republican Party and known at the time under various other names, was an American political party founded by Thomas Jefferson and James Madison in the early 1790s that championed republicanism, political equality, and expansionism. The party became increasingly dominant after the 1800 elections as the opposing Federalist Party collapsed. The Democratic-Republicans later splintered during the 1824 presidential election. The majority faction of the Democratic-Republicans eventually coalesced into the modern Democratic Party, while the minority faction ultimately formed the core of what became the Whig Party.

and filter out the hysterical hyperbole. It will advance the climate change agenda based on economically viable and sensible solutions, not seat-of-the-pants, ICE-only policies. There are plenty of initiatives exploring how to best solve problems, but they are being hidden out of fear by those working on them that their careers would be jeopardized if they do come to light.

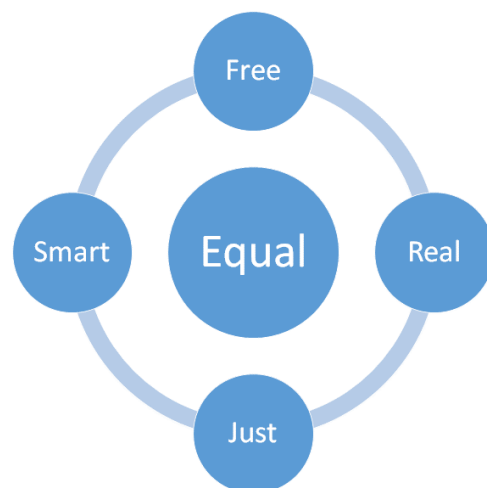
The Democrats could leave their Progressive/Socialist Just Americans and their 'Just Say No' Real Americans to fend for themselves, and the Republicans could leave their faction of Real Americans who support the 'former guy'. America would then begin to look like some of the parliamentary democracies in Europe, such as Germany, The Netherlands, and the Nordic countries, with left-wing and right-wing parties at the extremities and centrist parties in the middle who form coalitions when they cannot obtain a majority on their own. A Democratic Republican party could achieve a majority in both houses.

Different cliques within this new coalition/party will promote different agendas. Some will push for more jobs and growth, globalization and international trade pacts. Others will push for more investment in U.S. manufacturing, particularly in semi-conductors, less globalization, less immigration. Still others will lobby for unions and retaining jobs in even the most climate damaging industries at all costs. The four factions portrayed by Packer will remain, at least for awhile. Perhaps new factions will emerge. Packer suggests that a way forward is to try to make us "Equal Americans, all with the same rights and opportunities," and a road that connects our past and our future is the only basis for shared citizenship and self-government.

Born in 1960, perhaps Packer is too young to know that this was what we had once upon a one time in America, at least it is what we had when and where I was growing up. It's still there along with all the people who are part of it. We don't think of it because it's not making a fuss about itself. It was the one my parents and the parents of most of my friends belonged to. It was actually a combination of all four of Packer's groupings: very smart people who didn't have a chance to attend college or even finish high school because of the depression and the need to go to work to help the family; very patriotic people who were thankful to be accepted into the country and prepared to give their lives when called upon to do so; very industrious people who had day jobs to earn a steady living and after-work jobs to be able to afford a better second-hand car

or a new electric stove; and very generous people who gave their time and, when necessary, their money, to help people who needed help.

Packer says at the end of his essay: “I don’t much want to live in the republic of any of them, Free, Real, Smart or Just.” Neither do I. The majority of us aren’t and don’t want to. We are willing to share this conviction behind closed doors with people whom we trust, but in public, among strangers, we have allowed the loudmouths to take over, dominate the political debate, and to drive everyone into one of their four corners. When it comes to climate and transport, what should be clear to everyone is that we have got to get out of those corners and into the middle of the room to work together on resolving the issues, on equal ground and on equal terms.



18. **LG CORPORATION** was started in 1947 as a cosmetics company named LUCKYCHEMICAL CO. In 1958, GOLDSTAR CO. LTD was established (now LG ELECTRONICS). It produces radios, radio tubes and fans and in 1960 the first automatic telephone. In 1983, the name of LUCKY GROUP was changed to LUCKY GOLDSTAR GROUP, and in 1995 to LG. LG CHEM was selected by GM in 2009 as its exclusive supplier of batteries for GM's first electric cars. In 2019, GM and LG CHEM formed a joint venture for battery production in the U.S.. LG began lithium-ion battery research in 1992 and began producing batteries in 1996. LG Energy Solution was split off from LG Chem in 2020 to focus on rechargeable battery business. In addition to GM, it supplies batteries to VW, Tesla, Audi, Volvo, Renault, Stellantis, Ford and Daimler.



Chevy Bolt Battery Unit

GM recalls all Chevy Bolt BEVs for fire risk

BOLT OF LIGHTNING is the most likely reference for the name of GM's flagship battery electric vehicle among the many definitions for the word 'bolt' (e.g. door fastener, roll of cloth or wallpaper, part of a firearm, leaving a restaurant without paying). The *Bolt* is not one of the fastest BEVs off the starting line with its 0 to 60 mph in 7 seconds, so comparisons to sprinter Usain Bolt are far-fetched. TESLA's *Model 3 Performance* covers the distance in 3.2 seconds.

GM KOREA (formerly DAEWOO KOREA) was responsible for development of the *Bolt* in cooperation with LG CORPORATION's LG CHEM (now LG ENERGY SOLUTION).¹⁸ Work began in 2012 with the code name **G2KCZ** (**G2** for Gamma 2nd-generation platform, **K** for hatchback, **C** for Chevrolet, and **Z** for electric car). It is classified by the U.S. ENVIRONMENTAL PROTECTION ADMINISTRATION (EPA) as a 'small station wagon'. GM refers to it as a 'crossover'. It does not share elements with the GM Gamma platform used in the *Chevrolet Sonic* or *Spark*, which are ICE vehicles.

The *Chevy Bolt EV* was introduced as a concept car at the 2015 NORTH AMERICAN INTERNATIONAL AUTO SHOW jointly with LG CORPORATION. In January 2016, at the CONSUMER ELECTRONICS SHOW, the production car was unveiled by CEO Mary Barra. Sales of the 2017 model year *Bolt* started in California in December 2016 with a national roll-out in 2017. It was the second best-selling BEV in the U.S. in 2017, and was named the 2017 MOTOR TREND CAR OF THE YEAR, among other awards. In Europe it was rebadged as the *Opel/Vauxhall Ampera-e*. In 2021, GM introduced the model year 2022 Bolt EUV (Electric Utility Vehicle).

The *Bolt*'s lithium-ion cells were provided by LG ENERGY SOLUTION from production facilities in both Korea and the U.S. The *Bolt*'s battery uses nickel-rich lithium-ion chemistry, allowing the cells to run at higher temperatures than those in the *Chevy Volt*, GM's plug-in hybrid that was sold between 2011 and 2019. The *Bolt* battery pack weighs 960 lb. (440 kg). It is composed of 288 flat "landscape" format cells. Cells are bundled into groups of three connected in parallel, and 96 groups connected in series compose the

pack. The pack is rated at 160 kW peak power. GM's battery warranty is 8 years or 100,000 miles (160,000 km).

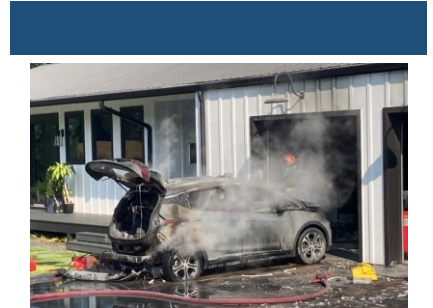
CAR AND DRIVER calls the recall a slow-motion catastrophe

The cars started spontaneously combusting in March, 2019. The first one was in Belmont, MA, a model year 2019. The car was parked in a garage and plugged in at 15.45. At 17.00, smoke was reported billowing out of the rear of the car. It took three hours to control the fire. As of the 21st of September 2021, there have been twelve reported fires with no deaths or injuries, but with considerable property damage when cars have burned in garages or in the vicinity of other cars. *Bolts* are being banned from parking lots, both covered and open (see sign in sidebar).

The first recall of *Chevy Bolt EVs* was in November 2020 and applied to 50,930 model year 2017-2018 cars with U.S.-made batteries and 2019 cars with Korea-made batteries. GM said at the time of the recall that the battery cells might be defective. NHTSA opened an investigation (PE 20-016) in October 2020, and is evaluating the recall remedies and the fires. There was no fix provided until May 2021, but this fix, a software update, did not correct the problem and car batteries continued to burn. In August, GM said it would start replacing all battery modules. GM said that cars should not be charged to more than 60% capacity, should not be charged unattended overnight or parked indoors. It also recommended that cars be recharged after each use rather than waiting until the battery has run down.

On August 20th, GM added all 63,680 *Bolt EV* and *EUV* models from 2020 model year through to the 2022 models, along with another 9,340 Bolts from 2019 model year that had not been previously recalled. The total recall is 142,000 vehicles. GM initially believed the affected cells were limited to those produced in LG's plant in Ochang, Korea. Those cells were used only in 2017–2019 *Bolt* models. However, after further investigations into the manufacturing processes, GM determined that manufacturing defects were occurring in battery cells produced at other LG manufacturing facilities beyond the plant in Ochang, including LG's U.S. plant in Holland, Michigan, which supplied cells for the 2020–2022 *Bolt* line.

Together with LG, GM identified two separate manufacturing defects. One is a torn anode tab. This is the piece of the negative electrode that allows the cell to be wired into a group of cells, called a module, and then into full battery pack. The other defect



is a folded separator, the thin sheet of material (typically a nonwoven polymer) that separates the anode and cathode. Neither of these faults on its own have been judged by GM and LG to cause a cell to start to combust, but if both faults exist in the same cell they can together create a point of failure.¹⁹ Neither GM nor LG tested for the problem, and, so far, it has happened in less than 0.01% of the 142,000 *Bolts* delivered to customers, but the faults could be present in any one of the cars. This is why GM has decided to replace all the battery modules.

GM accepts (only) 5% of the blame

In October, GM and LG announced they had reached an agreement on how they would share the estimated \$2 billion costs for the battery recall. LG would pay \$1.9 billion and GM would pay the rest. “LG is a valued and respected supplier to GM, and we are pleased to reach this agreement,” said Shilpan Amin, GM VP of Global Purchasing and Supply Chain. “Our engineering and manufacturing teams continue to collaborate to accelerate production of new battery modules and we expect to begin repairing customer vehicles this month.” LG ENERGY SOLUTION will book 60% of the costs and LG ELECTRONICS, which assembles the cells into battery modules and packs, will take the rest.

Both GM and LG have a strong interest in putting this problem behind them. GM has big plans for developing BEVs, and it is doing it with LG. Its new Ultium batteries, co-developed with LG, will be employed in the *GMC Hummer EV* (Fall 2021), *Cadillac LYRIQ* (Q1/Q2 2022), *GMC Hummer EV SUV* (Q1 2023), and *Chevrolet Silverado* pickup. LG cannot risk another recall with GM or any of its other customers. It had one with Hyundai on its *Kona* model as well as the *Ioniq* which cost it \$630 million in March of this year.

This is all relatively new technology and things are bound to go wrong, but that is precisely why tests are performed so that products don’t reach customers that have the potential of causing harm. Torn anode tabs and folded separators are defects. Why were these defects not found during more than five years before the first battery caught fire? A customer who follows the instructions of the manufacturer on how his electric car should be charged should not expect his car to catch fire in his garage and run the risk of his house burning down with the entire family in it. GM can hold future contracts over a supplier and force them to pay the bulk of a recall, as GM has done with LG, but ultimately, it is GM that has responsibility for full-car testing.

19. <https://www.caranddriver.com/news/a37552121/chevy-bolt-battery-recall-deep-dive-details/>

Customers are being given huge sums of money by their governments in the form of rebates on the purchase price or tax right-offs as incentives to buy these products. What liability do governments have for endorsing BEVs by providing these incentives? There is not enough accountability being taken by the OEMs because they are being pushed by both the government and investors to switch to battery electric vehicle technology at the speed of light. Unfortunately, it seems that the race is taking place in a dark room.

Synthetic fuel: Is it better than a BEV switch?

IMAGINE ALL CARS currently on the roads and all cars sold from this day forward having zero greenhouse gas emissions. Hard core, anti-ICE vehicle crusaders claim they can achieve such a goal. All we have to do is scrap all one billion-plus ICE vehicles currently operating and close down all facilities selling fossil fuels—now! What might be the result of such an action? Images of Immortan Joe and his War Boys from the *MAD MAX* films are conjured up, thousands of resistors moving through abandoned villages and cities in their badass vehicles like the *People Eater's Limousine* sucking out the petrol and diesel fuels before the remnants of the Main Force Patrol can get to them and blow them up.

While there is a possibility that a **green party** could stage a coup in, say, Oregon and close all of its borders to ICE cars and trucks, a global ban is not going to happen (see lead article). Less hard core BEV advocates might hope that the world's vehicle parc could be replaced without force sometime in the second half of the 21st century, but this is also only an impractical dream. Environmental activists surely know this. They cannot all be delusional. Nevertheless, they have taken the position that giving the slightest bit of ground to alternatives to solar and wind power for generating electricity and allowing anything other than battery electric vehicles for transportation are tantamount to surrendering to the enemy. This is unfortunate because the longer it takes to replace all vehicles on the roads that burn fossil fuels with propulsion devices that do not, and the longer it takes to remove all carbon-burning methods to produce electricity and make steel and concrete, the longer it is going to take to reach a point when global warming can be halted.

You have surely noticed how the stories about alternative fuels unfold, unless you are reading something in a fossil fuel-friendly newspaper or blog, or watching Free/Real news channels (see lead article for definitions of Free and Real). Whether it's plant-



The People Eater's Limousine

based biofuels or synthetic electrofuels, there is a description of how the alternative fuel can contribute to the reduction of emissions and then a long list of reasons for why the alternative is not acceptable because it is dependent on producing hydrogen and capturing carbon dioxide, and how this is expensive and it is better to invest money in solar and wind farms and just keep forcing people to adopt battery electric vehicles. Discussion ended. Western governments have been bullied into following this party line by solar, wind and BEV lobbies and shock troops, but there are still groups that are pursuing a more inclusive approach to addressing ways to reduce global warming.

When you can keep your head when everyone else is losing theirs
PORSCHE, SIEMENS ENERGY and a group of partners are working on producing a synthetic, climate-neutral fuel (called eFuel). Together they are developing the world's first integrated, commercial, industrial-scale plant that will deliver a fuel that can be used in any car and pumped using the existing fueling infrastructure. PORSCHE is particularly interested in finding a solution for fueling its cars because 70% of all PORSCHEs ever built since the first one was delivered in 1948 are still in use.

The PORSCHE-led team is building a factory in southern Chile. With both Siemens and Porsche located in Germany, couldn't they have chosen a location that was more in the neighborhood? Porsche says the location is one of most "reliably windy parts of the world" in order to use completely non-fossil energy. (And here I thought that those laurels went to Kungsbacka, south of Göteborg, where we lived for eighteen years.) To produce the fuel, electrolyzers split water into oxygen and hydrogen using wind power. CO₂ is then filtered from the air and combined with the hydrogen to produce synthetic methanol. This is converted into fuel that can be burned in a piston engine.

Porsche's head of R&D, Michael Steiner, says that the Porsche 911 is particularly suited to eFuels, but so are all of its historic vehicles. "Our eFuel specifications meet exactly the existing ones, so you could burn such fuel in a 993 without damaging the engine and without making any mechanical adjustments."

The fuel is estimated to cost around €2 per liter, which is about \$9 per gallon. That's expensive by U.S. standards, but the current price of regular gasoline here in Sweden is €1.77/liter or \$7.78/gallon. This is mostly tax, and the tax is mostly the result of the Green party pushing its position as the support party for the



A 1948 Porsche 356 "No. 1" Roadster, Porsche's first car on display at the Porsche Museum



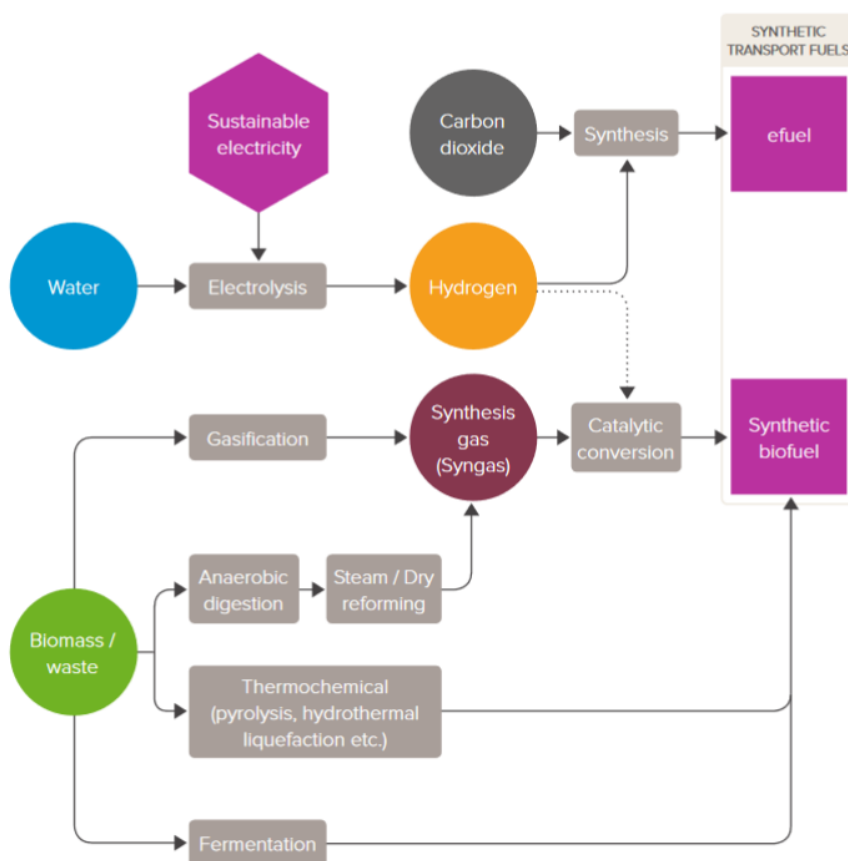
Punta Arenas in southern Chile is the site of the Haru Oni Project where a factory is being built to produce synthetic petrol/gasoline.

Social Democrats. Presumably, a zero emission fuel would have zero tax, just like there is no added tax on the electricity used to power electric cars.

Porsche is going to start making the fuel in 2022 and will be using it in its Mobil 1 Supercup race series with it. The plan is to produce 34,000 gallons of the fuel in 2022 and then to ramp up to 14.5 million gallons by 2024 and 145 gallons by 2026. Is synthetic fuel better than switching to all BEVs? If I owned a *1948 Porsche 356 "No. 1" Roadster*, I sure as heck would think so if it meant I could keep on driving it and not have to put it into my personal museum or turn it into a lawn sculpture.

For a more complete description of the different processes, here is a link to an excellent briefing on synthetic fuels.²⁰

20. <https://royalsociety.org/-/media/policy/projects/synthetic-fuels/synthetic-fuels-briefing.pdf>



China says it has too many BEV car companies

IN THE VIEW of the Chinese government, the country has too many companies producing electric vehicles, which includes battery electric vehicles and plug-in electric vehicles. It is difficult to obtain reliable information on the total number of vehicle manufac-

turers and, of those, the number producing electric vehicles. A report found in a Canadian news journal, the Financial Post, states that there are “some 846 registered automobile manufacturers in China, and more than 300 of them churn out new-energy cars”. A research site called *BEYONDMECH* has published a “Complete List of Chinese Electric Car Manufacturers”, which has 55 entries. So, let’s say the number is between 55 and 300. In 2020 alone, the country added new production capacity of around 5 million electric vehicle units, about four times the actual number of EVs sold in China that year. According to Xiao Yaqing, China’s Minister for Industry and Information Technology, almost half of that capacity wasn’t in use.²¹

“We have too many EV firms,” Xiao told reporters in September. “Mergers and acquisitions will be encouraged as the market needs to be further concentrated. The government is also looking at setting production limits for the EV sector.”

In 2019, that same ministry announced that “new energy vehicles would represent 25% of overall sales by 2025”. At the time, less than 5% of total cars sold in China were electric vehicles. In 2011, only 5,000 electric vehicles were sold in China, according to the *CHINA ASSOCIATION OF AUTOMOBILE MANUFACTURERS*. By 2019, that number had risen to over 1 million, which meant that more than one-half of all electric vehicles sold globally were sold in China. The EV market grew as a result of government subsidies and both explicit and implicit local government protections. Local authorities helped manufacturers set up factories that promised jobs and development—if they succeeded.

However, starting in 2019, government policy began to shift away from subsidies, which seems to have provided a good cover for corruption. Subsidies were to be phased out by 2020 (but were extended due to COVID-19 sales reductions), in favor of a California-like Zero Emissions Vehicles Program (ZEV). With this new system, car manufacturers, regardless of country of origin, could sell surplus EV credits to other firms to earn additional revenue. This is how TESLA has managed to turn losses into profits for the past several years. Combined with the ‘wholly foreign-owned enterprises’ ruling, which allows companies to manufacture in China without having to have a joint venture with a Chinese company, there is now real competition which did not exist earlier.

Jiangsu Province, where BYTON LTD. had set up its production facility with FOXCONN TECHNOLOGY GROUP, had high hopes to

21. <https://financial-post.com/commodities/energy/electric-vehicles/deserted-factories-show-how-china-electric-car-boom-went-too-far>

become an EV hub. It attracted \$32 billion in auto industry-related investment during the six years starting in 2014. The Province is now home to more than 30 car manufacturers. This attracted government attention and an investigation was ordered by the government. The probe found that some local authorities had been handing out tax breaks and land incentives that were beyond what the government had outlined as acceptable. FOXCONN has been withdrawing staff after one of BYTON's creditors began taking management control of the company, and the collaboration between BYTON and FOXCONN has been put on hold.

While Xiao Yaqing may be trying to get his Ministry and the Chinese government ahead of the deteriorating situation in the Chinese car business, it is apparent that the problem of over capacity began with an ill-considered government policy of getting big fast at any cost, and then having the forces of the market pulling on the reins. China has been touting the superiority of its centralized control system for guiding monetary and fiscal policy, as well as every other aspect of Chinese citizens' lives. In such a system, there is no room for self-correction if the policies established by bureaucrats or politicians are proving to be disastrous. The same bureaucrats and politicians must admit that they made a mistake and then a new policy is set. We are seeing this in many other areas in China today, not just with electric cars.

Veoneer leaves Magna at the altar

IN THE END it was too much money to leave on the table. MAGNA's bid for VEONEER at the end of July was \$31.25 per share. When QUALCOMM countered with \$37 per share, MAGNA did not change its bid. When VEONEER informed MAGNA that it would enter into discussions with QUALCOMM, MAGNA made no objections. VEONEER would have to pay MAGNA a breakup fee of \$110 million if their \$3.8 billion offer was rejected in favor of QUALCOMM's \$4.5 billion. On the 4th of October, VEONEER announced that it had chosen to move forward with QUALCOMM and the investment firm SSW PARTNERS. It will be SSW PARTNERS that will acquire all of VEONEER's shares and then sell VEONEER's **Arriver** sensor perception and drive policy software platform to QUALCOMM.²² This is all that QUALCOMM wanted from the deal.

QUALCOMM and VEONEER had signed an agreement in January 2021 to create *Arriver* that would be owned 100% by Veoneer. Qualcomm could have let the deal between VEONEER and MAGNA go

22.
http://www.michaellsena.com/wp-content/uploads/2021/09/The-Dispatcher_October-2021.pdf -
There Is a New Order Emerging for the Auto Industry

through and then acquired *Arriver* from MAGNA, but there was obviously too much uncertainty in such an arrangement. MAGNA could have decided to hold onto control of *Arriver* or sold it to another buyer.

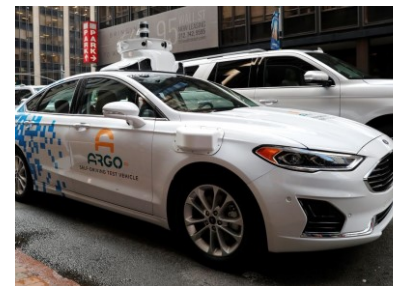
SSW PARTNERS has stated that it will find new buyers for the remainder of VEONEER since it has no interest or ability in running VEONEER as an active owner. MAGNA will likely be interested in picking up these pieces if the pricing is right. MAGNA investors were relieved when they heard the news that QUALCOMM had won the deal. MAGNA's share price was up almost 10% in the days following the announcement. Whether it's through VEONEER, via an acquisition of another ADAS player, or through internal development, MAGNA will acquire these pieces.

Ford, Argo and Walmart deliver the goods

FORD, ARGO AND WALMART are trying to do for food and other household items what AMAZON did for books: to bring the distance between the buyer and the seller down to zero at a minimal amount of additional cost to the customer. AMAZON is trying to do this for food delivery as well with ZOOX. Let's look at FORD/ARGO AI/WALMART's attempt, but start with a brief description of the problem WALMART is trying to address.

AMAZON's book business got started because book stores moved further and further from their customers, locating in large shopping malls. The Internet solved the ordering problem, but AMAZON still had to depend on package delivery firms to put the product into the hands of the customer. AMAZON has built huge distribution centers all over the world to get the products as close as possible to the greatest number of potential buyers to reduce both the time and cost of final delivery. Grocery stores like WALMART already have a wide distribution of their retail stores, much finer-grained than Amazon's distribution centers, and have depended on customers travelling to those stores, mostly by car, walking the aisles, picking up their goods and taking them home. However, even before the pandemic, more people were making orders online and either picking up the packages themselves or requesting home delivery.²³ There is still the cost of the delivery drivers which either has to be absorbed by the grocer or by the customer. That's where FORD and ARGO AI come into the picture.

WALMART calls the service "the last mile delivery service". FORD vehicles equipped with the ARGO AI *Self-Driving System*, like the one in the sidebar, will deliver WALMART orders from one store in each



23. Walmart experienced dramatic growth in online sales during the pandemic. Its e-commerce sales in the U.S. grew 79% in the last fiscal year, which ended January 31, 2021. But Walmart hasn't turned a profit with its e-commerce business, and this puts pressure on the company to come up with more cost-effective ways to deliver the goods to customers. This is where self-driving delivery comes in.

of the three proof-of-concept cities, Miami, FL, Austin, TX and Washington, DC to customers within a defined service area in each city. Why these cities? WALMART did a test with Ford in 2018 in Miami, so there must be more demand for home delivery there. However, ARGO AI has approval to test on public streets in Miami and DC, as well as Pittsburgh (its headquarters city) and Palo Alto. So it would be easier for the tests to get started in two of the three cities.

ARGO AI says the vehicles will have human monitors, both in the driver's seat in the vehicle and at a remote command center. Articles to be delivered will be placed in the vehicles by WALMART staff and the customers receiving the goods will take them from the vehicles when they arrive at their destination. Obviously, both of these restrictions limits what can be gained from the tests on cost savings resulting from the absence of a driver, how elderly or disabled customers would receive their goods, and how the service would function with apartment buildings where the entrance to the building is not directly associated with a drop-off point. Actually, one might wonder what WALMART is getting out of this test.

It appears that WALMART is testing ARGO AI along with other companies for their systems' capabilities and business acumen rather than their services. WALMART is conducting tests with a start-up called GATIK, which is based in Mountain View, California (home of ALPHABET/GOOGLE/WAYMO). It was founded in 2017 and is developing technology for driverless light- and medium-duty trucks for B2B short-haul logistics. Also on WALMART's list of testing partners are NURO, UDELV, WAYMO and CRUISE.

WALMART made an investment in GM majority-owned CRUISE IN April of this year and is conducting tests with it in Arizona. John Furner, president and CEO of WALMART U.S. said at the time of the investment: "CRUISE's business model, technology, zero emissions goal and 'unmatched' driverless testing attracted us to the startup. The funding will help WALMART develop a last-mile delivery ecosystem that's scalable, fast and low-cost. The investment is part of WALMART's overall effort to integrate self-driving cars into its business."

It looks like Walmart's test with ARGO AI and FORD can be viewed as hedging one's bets.



About Michael L. Sena

Michael Sena, through his writing, speaking and client work, attempts to bring clarity to an often opaque world of highly automated and connected vehicles. He has not just studied the technologies and analyzed the services. He has developed and implemented them. He has shaped visions and followed through to delivering them. What drives him—why he does what he does—is his desire to move the industry forward: to see accident statistics fall because of safety improvements related to advanced driver assistance systems; to see congestion on all roads reduced because of better traffic information and improved route selection; to see global emissions from transport eliminated because of designing the most fuel efficient vehicles.

This newsletter touches on the principal themes of the industry, highlighting what, how and why developments are occurring so that you can develop your own strategies for the future.



Michael L. Sena

Editor

SUNDBYVÄGEN 38

SE-64551 STRÄNGNÄS

SWEDEN

PHONE: +46 733 961 341

E-MAIL: ml.sena@mlscab.se

www.michaellsena.com