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5 CHARGING FORWARD:

6 SECURING AMERICAN MANUFACTURING AND OUR EV FUTURE

7 TUESDAY, MARCH 8, 2022

8 House of Representatives,

9 Subcommittee on Energy,

10 Committee on Energy and Commerce,

11 Washington, D.C.

12

13

14 The subcommittee met, pursuant to call, at 10:15 a.m. in
15 the John D. Dingell Room, 2123 Rayburn House Office Building,
16 Hon. Bobby Rush [chairman of the subcommittee], presiding.

17 Present: Representatives Rush, Peters, Doyle, McNerney,
18 Tonko, Schrier, DeGette, Butterfield, Matsui, Castor, Welch,
19 Schrader, Küster, Barragan, McEachin, Blunt Rochester,
20 O'Halleran, Pallone (ex officio); Upton, Burgess, Latta,
21 McKinley, Griffith, Johnson, Bucshon, Walberg, Duncan,
22 Palmer, Lesko, Pence, and Rodgers (ex officio).

23 Also present: Representatives Dingell, Ruiz, Ms.

24 Schakowsky; Carter, and Joyce.

25

26 Staff Present: Waverly Gordon, Deputy Staff Director
27 and General Counsel; Jessica Grandberry, Staff Assistant;
28 Tiffany Guarascio, Staff Director; Perry Hamilton, Clerk;
29 Zach Kahan, Deputy Director Outreach and Member Service; Rick
30 Kessler, Senior Advisor and Staff Director, Energy and
31 Environment; Tyler O'Connor, Energy Counsel; Lino Pena-
32 Martinez, Policy Analyst; Kaitlyn Peel, Digital Director;
33 Kris Pittard, Policy Coordinator; Andrew Souvall, Director of
34 Communications, Outreach, and Member Services; Medha
35 Surampudy, Professional Staff Member; Caroline Wood, Staff
36 Assistant; Tuley Wright, Senior Energy and Environment Policy
37 Advisor; Michael Cameron, Minority Policy Analyst, CPC,
38 Energy, Environment; Jerry Couri, Minority Deputy Chief
39 Counsel for Environment; Nate Hodson, Minority Staff
40 Director; Peter Kielty, Minority General Counsel; Emily King,
41 Minority Member Services Director; Mary Martin, Minority
42 Chief Counsel, Energy & Environment; Brandon Mooney, Minority
43 Deputy Chief Counsel for Energy; Peter Spencer, Minority
44 Senior Professional Staff Member, Energy; and Michael
45 Taggart, Minority Policy Director.

46

47 *Mr. Rush. The subcommittee on Energy will now come to
48 order.

49 Today --

50 [Pause.]

51 *Mr. Rush. Well, staff is not ready, although the
52 members are. So we are going to slow down and let the staff
53 catch up with its members.

54 [Pause.]

55 *Mr. Rush. Staff is sufficiently ready, and preparing
56 to assist us.

57 So again, the Subcommittee on Energy will now come to
58 order.

59 Today the subcommittee is holding a hearing entitled,
60 "Charging Forward: Securing American Manufacturing and Our
61 EV Future.''

62 Due to the COVID-19 public health emergency, members can
63 participate in today's hearing either in person or remotely,
64 via online video conferencing.

65 In accordance with the updated guidance issued by the
66 Attending Physician, members, staff, and members of the press
67 present in the room are not required to wear a mask.

68 For members participating remotely, your microphone will
69 be set on mute for the purpose of eliminating inadvertent
70 background noise. Members participating remotely will need
71 to unmute your microphone each time you wish to speak.

72 Please note that, once you unmute your microphone, anything
73 that is said in Webex will be heard over the loudspeakers and
74 in the committee room, and is subject to being heard by the
75 livestream and the C-SPAN audience.

76 Since we have witnesses appearing before us virtually
77 this morning, I need to ask my colleagues in the hearing room
78 to make -- to mute themselves whenever they are not speaking
79 during the Q and A portion, so that we can clearly hear the
80 witnesses' responses.

81 Given that members are participating from numerous
82 locations around our nation for today's hearing, all
83 recognition of members, such as for questions, will be made
84 in order of the subcommittee seniority.

85 Documents for the record of this hearing can be sent to
86 Lino Pena-Martinez at the email address that we provided to
87 the staff. All documents will be entered into the record at
88 the conclusion of today's hearing.

89 And now, with that said, we shall proceed, and the chair
90 now recognizes himself for five minutes for the purposes of
91 an opening statement.

92 Again, good morning to each and every one of you, and
93 thank you for coming to today's hearing on the state of the
94 American electric vehicle industry.

95 I want to begin today's hearing with an observation.
96 The last few weeks have made painfully clear to all of us the

97 importance of our energy security. They have also made clear
98 that a vision of energy independence that subjects Americans
99 to volatile global [inaudible] is not independence at all.
100 Any true vision of energy security must be -- must free
101 Americans from the shackles of Russian fuel, and embrace the
102 electric vehicle transition.

103 Thankfully, the Biden-Harris Administration has done
104 just that very thing. The bipartisan infrastructure law
105 [inaudible] members of the subcommittee from both sides of
106 the aisle were laying the essential groundwork for the future
107 of transportation in our nation. [Inaudible] legislation
108 that I spoke of included \$7.5 billion for EV infrastructure
109 and, additionally, another \$7 billion for materials
110 processing and batteries manufacturing. This investment will
111 help our nation achieve the President's goal of ensuring that
112 EVs account for half of all vehicles sold in our nation by
113 the year 2030. This investment will transform the EV
114 industry in our nation, and all of our 50 states, including
115 my state of Illinois.

116 I fully expect that we will hear just that this morning
117 from our witnesses or experts -- or who are experts, and who
118 have tremendous expertise. We will hear that the investment
119 in electric vehicles is spurring growth, creating good,
120 well-paying jobs all across our nation, from [inaudible]
121 automobiles makers to new start-ups.

122 This investment in EVs are good for our environment,
123 good for our economy, and good for our national security.
124 They are, indeed, a win -win-win situation. [Inaudible] the
125 funding contained in the bipartisan infrastructure law is
126 only a down payment on the investments necessary to usher in
127 an EV economy that truly works for everyone.

128 The reconciliation bill that the House passed last year
129 contained an additional \$3 million for EV charging
130 infrastructure. Importantly, [inaudible] that we must build
131 chargers not only along the highways, but in the low and
132 disadvantaged communities that will desperately require them.

133 We have more work to do, my friends, and I hope that we
134 can come together to make EVs commonplace [inaudible]
135 vehicles.

136 With that said, I am looking forward to today's
137 discussion about the promise of an EV future in America.

138 [The prepared statement of Mr. Rush follows:]

139

140 *****COMMITTEE INSERT*****

141

142 *Mr. Rush. I now would like to recognize my dear
143 friend, my colleague from the great state [inaudible], the
144 ranking member of the subcommittee [inaudible] esteemed Mr.
145 [inaudible] for five minutes for [inaudible].

146 You are recognized.

147 *Mr. Upton. Well, thank you, Mr. Chairman. And I am
148 sorry you are not in person for us to congratulate you on
149 your legislative win yesterday in the Senate, for getting the
150 anti-lynching bill passed in the Senate, knowing that we had
151 only three Members of Congress vote against it in the House,
152 and that bill is now going to the President. So
153 congratulations on that long-sought goal to you.

154 And I want to thank our witnesses for appearing before
155 the subcommittee to provide their testimony, as well.

156 Mr. Chairman, I am deeply troubled by the focus of
157 today's hearing, and by the failure of this committee and the
158 Biden Administration to address the gravest threat to Europe
159 and the U.S. since World War II. Our hearts are breaking for
160 the people of Ukraine. Thousands are dying: women,
161 children, men, and boys. We see the video every night.
162 Ukrainians are under constant assault, forced to shelter
163 underground to protect themselves from Russian missiles
164 raining down on them.

165 The crisis didn't happen overnight. For years there
166 were many of us, certainly on the Republican side, that have

167 been sounding the alarm about Europe's growing reliance on
168 Russian oil and gas. I know, under my chairmanship of this
169 committee, we sought to maximize America's energy
170 independence, promoting a North American independent plan,
171 producing more energy here at home, and exporting the surplus
172 to our allies overseas.

173 Today America is the world's leading producer of oil and
174 gas, not Russia. And we are emerging as the world's leading
175 exporter of liquid LNG. Republicans and Democrats should
176 embrace this fact, and use American oil and gas to deter
177 Putin from continuing Russia's bloody assault on democracies.
178 Putin felt emboldened to attack because Russia has a
179 stranglehold on Europe's pipelines and energy supplies, and
180 he saw a real weakness in President Biden's anti-fossil-fuel
181 agenda.

182 You know, under President Biden's leadership, we have
183 watched the U.S. oil production decline by over a million-
184 and-a-half barrels a day, from the peak production of 13
185 million barrels back in 2020. Investments in drilling
186 pipelines and energy infrastructure projects have also been
187 slow, while regulatory red tape and permitting delays
188 continue to pile up. Under Biden, America's reliance on
189 foreign oil has grown. In fact, last year oil imports from
190 Russia reached an 11-year high, nearly \$20 billion.

191 It is time we stand up to this aggression, and help our

192 allies in Europe fight back by flooding the global market
193 with affordable and reliable American energy. We have got to
194 act now. Gas prices, over \$4 a gallon in my district and
195 across the State of Michigan, are the highest in 14 years.
196 Since America produces so much natural gas, the U.S.
197 benchmark natural gas prices remain low and relatively
198 stable. However, natural gas and electricity prices in
199 Europe are surpassing all-time highs, as much as 400 percent,
200 as fears grow that Russia will close the taps.

201 Here at home, people are struggling to make ends meet,
202 obviously. Sadly, many are forced to decide whether they
203 should put gas in the car or food on the table. In Europe
204 the situation is even worse, because there is a very real
205 risk that they could completely run out of energy.

206 So, Mr. Chairman, with the global energy crisis and the
207 war in Ukraine right in front of us, why are we holding a
208 hearing on electric vehicles?

209 I am always impressed by the innovative spirit of our
210 American automotive companies. However, given where we are
211 right now, with only the richest one percent driving electric
212 vehicles, this committee ought to be focused on more pressing
213 issues. Even Elon Musk, founder of the world's leading EV
214 maker, understands that EVs should not be our main focus
215 right now, and he said over the weekend that the U.S. needs
216 to increase oil and gas production immediately. He is right

217 on.

218 Republicans have proposed solutions to address the
219 energy crisis and take on Russia.

220 First, we have got to immediately surge U.S. oil and gas
221 production, and send this unmistakable signal that America,
222 not Iran, Venezuela, or Saudi Arabia, is going to step in to
223 replace Russian energy that was taken off the market. I
224 would welcome all of our audience to look at the Wall Street
225 Journal's editorial today. Why aren't we talking to U.S.
226 producers, instead of Venezuela and the Saudis?

227 Second, we need to isolate Russia by sanctioning Russian
228 energy supplies and cutting off their access to global
229 markets. I hear that the President may announce that a
230 little bit later this morning. That is a good first step.

231 But third, we have got to modernize our energy
232 infrastructure of pipelines, storage tanks, export terminals
233 so we can move products more efficiently and stabilize global
234 markets. Last week, Leader Rodgers and I sent a letter to
235 Secretary Granholm and Glick to urge them to immediately
236 approve long-delayed LNG export reauthorization and natural
237 gas permits. Yesterday I sent a letter to the President to
238 urge him to end the importation of Russian oil and increase
239 production and exports.

240 These are important steps. We need to take them right
241 away.

242 [The prepared statement of Mr. Upton follows:]

243

244 *****COMMITTEE INSERT*****

245

246 *Mr. Upton. And I yield back the balance of my time.

247 *Mr. Rush. The gentleman yields back. The chair now
248 recognizes the chairman of the full committee, Mr. Pallone,
249 for five minutes for his opening.

250 *The Chairman. Thank you, Chairman Rush. Today the
251 committee is examining the ongoing transition to electric
252 vehicles that is good for consumers, our economy, and our
253 environment.

254 Thanks to passage of the bipartisan infrastructure law
255 last November, we have the historic opportunity to charge
256 forward on EVs. This investment comes at a time when
257 Americans are facing sticker shock at the gas pump, Russian
258 President Putin's premeditated invasion of Ukraine is driving
259 up gas prices all over the world, and these prices remind us
260 yet again that we must kick our oil habit and free ourselves
261 from the price volatility of fossil fuels.

262 If we want to reduce Putin's power, as well as the power
263 of all the oil companies that are currently pocketing record
264 profits while American families suffer, then we need to
265 double down on alternatives, not on the same old failed
266 policies of the past. And that is why I am pleased to hear
267 that President Biden will soon move to ban Russian oil
268 imports. This action is necessary, considering that Shell
269 could not resist the temptation of profiteering off of a
270 cheap Russian oil purchase last week. This is the right

271 thing to do, and I commend the President for taking this
272 action.

273 The transition to EVs is one of the ways we can save
274 consumers money at the pump, and the bipartisan
275 infrastructure law makes EVs more convenient and accessible
276 for all Americans. The law invests \$7.5 billion in electric
277 vehicle charging infrastructure along our nation's highways
278 and communities, so that consumers are able to reliably power
279 their cars all over the country.

280 It also includes 6 billion for domestic manufacturing
281 and processing of EV components like batteries and charging
282 equipment. And this funding will strengthen American
283 manufacturing, and ensure more of these components are made
284 right here in America, rather than in China.

285 The bipartisan infrastructure law makes necessary and
286 urgent investments in our future, so that we can outcompete
287 any other nation. Thanks to President Biden's leadership,
288 manufacturing jobs are returning to America. Since the
289 President took office the economy has created 7.4 million new
290 jobs, 360,000 of which are in manufacturing. And our hard
291 work is paying off, but we must keep moving forward.

292 Fortunately, nearly every week there are announcements
293 of new EV and battery factories being built throughout the
294 nation. Companies like Ford, GM, and Tesla are making
295 investments across the country. These investments are

296 occurring in traditional automotive manufacturing states like
297 Michigan, but also in the emerging manufacturing hubs in the
298 southeast. Domestic EV sales nearly doubled in the last
299 year, and the oil industry has clearly seen the writing on
300 the wall. Consumers want EVs, and the industry is
301 delivering.

302 Now, unfortunately, my colleagues on the other side of
303 the aisle are using Putin's tragic and illegal war in Ukraine
304 to promote the same old oil and gas policies they have been
305 pushing for years. The lesson from Russia's invasion of
306 Ukraine is not that we need to drill more. America is
307 already the largest oil and natural gas producer in the
308 world, and yet that has not protected us from global oil
309 shocks. No matter how much we drill, our reliance on fossil
310 fuels makes us weaker, subject to the whims of dictators and
311 foreign adversaries, and vulnerable to global supply and
312 demand disruptions.

313 Now, our EV investments will not lower prices at the
314 pump for oil consumers today, but neither will Republican
315 efforts to force open more public lands to drilling,
316 especially when oil companies are already sitting on some
317 9,000 unused drilling permits. We need to work together and
318 find ways to take reasonable and responsible actions that
319 will lower fuel prices for consumers today.

320 But it is also critical in this moment to ensure we are

321 making smart investments to usher in the post-oil era as
322 quickly as possible. So I am proud to have voted for the
323 bipartisan infrastructure law, and I believe we must continue
324 to invest in EV infrastructure now. EV drivers need to know
325 that they will have reliable charging options, that they will
326 enjoy the experience of driving electric vehicles.

327 We must also make sure that the transition to the EV
328 future is equitable, and the industry could help do that by
329 employing people from all communities.

330 Our witnesses today are part of this historic shift
331 towards electrification. I look forward to hearing about the
332 work in the EV transition, and how the investments in the
333 bipartisan infrastructure law will further support this
334 growing domestic industry.

335 [The prepared statement of The Chairman follows:]

336

337 *****COMMITTEE INSERT*****

338

339 *The Chairman. And again, thank you for -- Mr.
340 Chairman, this is a very important hearing, and I yield back
341 the balance of my time.

342 *Mr. Rush. The gentleman yields back. The chair now
343 recognizes the ranking member on the full committee, Mrs.
344 McMorris Rodgers, for five minutes for her opening statement.

345 *Mrs. Rodgers. Thank you, Mr. Chairman. With no end in
346 sight, we have been watching the innocent bloodshed spilled
347 in Ukraine. Putin's evil attack on freedom-loving people is
348 becoming more brutal and brazen by the day.

349 I want to first address President Biden's expected
350 announcement to ban Russian energy imports. We should not be
351 buying a single barrel of oil from Russia. But I want to be
352 very clear: any import ban on Russian oil that fails to flip
353 the switch on American energy is incomplete. To lower energy
354 costs here at home, Democrats must stop blocking the American
355 Energy Independence from Russia Act.

356 This is a pivotal moment in our nation's history. For a
357 prosperous future, we must strengthen our security, not
358 weaken it. Republicans have been crystal clear, especially
359 since day one, when President Biden canceled the Keystone XL
360 Pipeline. President Biden needs to work to restore American
361 energy dominance, lower prices, and use our abundant energy
362 resources and technologies to help Ukraine and Europe fight
363 back. Our allies should not have to depend on energy from

364 regimes that attack freedom, nor should Americans.

365 We are facing the greatest military and economic crisis
366 in Europe since World War II. Putin is using his energy
367 resources as a weapon against the West. Europe's dependance
368 on Russian oil and gas is a cautionary tale on how this
369 crisis happened. Instead of focusing on how American energy
370 can be used to counter authoritarian countries, Democrats are
371 doubling down on their war to shut down American energy.
372 These are the same policies that weakened Europe, raised
373 energy prices to historic highs, and emboldened Putin to
374 exploit their dependance on Russian energy.

375 Meanwhile, the Biden Administration is going hat in hand
376 to other dictatorships and human rights abusers, begging them
377 for more oil. It is shocking.

378 Today we should be focused on American energy security,
379 and how we can aid our allies by producing more oil and
380 natural gas and exporting LNG. Instead, the topic today is
381 on forcing electric vehicles, which will increase our
382 dependance on another authoritarian regime, China.

383 In many ways, EVs promise to be a leading edge. But to
384 the extent they take hold in the market -- new innovations in
385 vehicle technologies, including autonomous vehicles.
386 However, the proposed command-and-control approach to EVs is
387 central to a radical agenda to dismantle America's tremendous
388 energy systems.

389 Energy is foundational for our prosperity and the
390 security of the world. We cannot avert our eyes from the
391 risk of handing our energy dominance to dictators. We
392 shouldn't be giving Putin what he wants. When European
393 countries dismantled their energy systems and curtailed
394 fracking, it played right into Putin's hands.

395 When I visited Ukraine in 2015, NATO officials warned us
396 and the members of this committee that Putin was funding the
397 anti-fracking campaigns of environmental NGOs. We are now
398 seeing the results of Putin's successful campaign to kill
399 European energy. This should be a wake up call for every
400 politician and policymaker.

401 And there are similar reports about Russian influence
402 among NGOs in America, and E&C Republicans will open an
403 investigation this week to expose any attempt by Russia to
404 use NGOs to weaken American energy.

405 It is a mistake to double down on dangerous policies
406 that will increase energy costs, weaken our security, and
407 make us even more beholden to authoritarian regimes. Today
408 it is Russia invading Ukraine and killing innocent people;
409 tomorrow, we could be facing a similar invasion of Taiwan by
410 China, who holds way more economic sway than the rest of the
411 world.

412 But it is not too late for us to reverse course. We
413 must come together and say no to Putin and Communist China,

414 and say yes to American energy. We can say yes to flipping
415 the switch on domestic production of oil and cleaner American
416 natural gas, rather than the continued bloodshed. We can say
417 yes to advanced nuclear by removing burdensome and costly
418 regulations, and we can say yes to innovation for abundant,
419 affordable, clean energy for us and the rest of the world.

420 It is not too late, but we must learn from Europe's
421 mistakes. This is an urgent time to wake up to the plain,
422 clear lessons of Putin's invasion in Ukraine. Let's embrace
423 a path to a cleaner future by building on the success of our
424 energy systems and energy supplies, not dismantling them.

425 [The prepared statement of Mrs. Rodgers follows:]

426

427 *****COMMITTEE INSERT*****

428

429 *Mrs. Rodgers. And with that, I yield back.

430 *Mr. Rush. The gentlelady yields back. The chair
431 [inaudible] --

432 *Mrs. Rodgers. Thank you.

433 *Mr. Rush. -- written opening statements shall be made
434 a part of the record.

435 With that said, I would like to welcome our witnesses
436 for today's hearing. They are Mr. Bob Holycross, who is the
437 vice president, sustainability, environment, and safety
438 engineering at the Ford Motor Company; Ms. Natalie King, who
439 is the CEO of Dunamis Clean Energy Partners; Ms. Cassandra
440 Powers, senior managing director at the National Association
441 of State Energy Officials; and last, but not least, Mr.
442 Thomas Pyle, who is the president of the Institute for Energy
443 Research.

444 Again, I want to thank all of our witnesses for joining
445 us here today. We certainly anticipate and look forward to
446 your testimony. Now, at this time, I want to recognize each
447 witness for five minutes to provide their opening statement.

448 But before we begin, I want to explain the lighting
449 system for witnesses that are testifying in person. In front
450 of our witnesses is a series of lights. The lights will
451 initially be green. The light will turn yellow when you have
452 one minute remaining. Please begin to wrap up your testimony
453 when you see the yellow light. The light will turn red when

454 your time fully expires.

455 And with that said, Mr. Holycross, you are now
456 recognized for five minutes for the purposes of an opening
457 statement.

458

459 STATEMENT OF BOB HOLYCROSS, VICE PRESIDENT, SUSTAINABILITY,
460 ENVIRONMENT AND SAFETY ENGINEERING, FORD MOTOR COMPANY;
461 NATALIE KING, CHIEF EXECUTIVE OFFICER, DUNAMIS CLEAN ENERGY
462 PARTNERS, LLC; CASSANDRA POWERS, SENIOR MANAGING DIRECTOR,
463 NATIONAL ASSOCIATION OF STATE ENERGY OFFICIALS; AND THOMAS
464 PYLE, PRESIDENT, INSTITUTE FOR ENERGY RESEARCH

465

466 STATEMENT OF BOB HOLYCROSS

467

468 *Mr. Holycross. Well, thank you, Chairman Rush, our
469 Michigan delegation partners, Ranking Member Upton and Energy
470 and Commerce Committee member Congresswoman Dingell,
471 Committee Chairman Pallone, and Ranking Member McMorris
472 Rodgers, and the members of the subcommittee. It is a
473 privilege to join you today as the subcommittee considers how
474 EVs can play a role in strengthening American innovation and
475 global competitiveness, while helping the world avoid the
476 worst impacts of climate change.

477 The United States is at an inflection point. We can see
478 the environmental need and customer demand for innovative,
479 high-performance electric vehicles, but if we are to be world
480 leaders in this space, we must pivot quickly.

481 To be clear, if U.S. policies are not efficient and
482 effective in this transition, we risk being outpaced by
483 global competitors like China and Europe. Ford is doing its

484 part to transition its workforce, manufacturing operations,
485 and supply chains to fulfill our mission to lead the EV
486 revolution. I welcome this chance to share our vision and
487 efforts with you.

488 We are built for America. Ford employs more U.S. auto
489 workers and assembles more vehicles in the U.S. than any
490 other automaker. We are committed to leading the electric
491 vehicle revolution, transforming our business, and going all
492 in on electrification because it is good for our customers,
493 it is good for business, and it is good for the planet.

494 Massive customer demand for our all-electric F-150
495 Lightning, Mustang Mach-E, and E Transit validates that this
496 is the right direction to move. Just as we did nearly 120
497 years ago, when Ford put the world on wheels, we don't plan
498 to just be a part of this historic transformation, we intend
499 to define it.

500 *Mr. Rush. I see.

501 *Mr. Holycross. Ford is investing \$50 billion in
502 electrification by 2026. We are electrifying our most iconic
503 vehicles, like the F-150 Lightning, the first all-electric
504 version of America's best-selling vehicle for 45 years. In
505 January, in response to soaring customer demand and
506 excitement, we announced plans to double production of that
507 truck at the Rouge Electric Vehicle Center in Dearborn,
508 Michigan.

509 We also recently announced that Ford is making the
510 largest single investment in our nearly 120-year history,
511 \$11.4 billion, to build 2 new massive environmentally and
512 technologically-advanced campuses in Tennessee and Kentucky.

513 We are creating 11,000 direct new jobs to produce the
514 next generation of electric trucks and batteries to power our
515 future EVs.

516 By 2026 Ford will have the global capacity to produce 2
517 million fully-electric vehicles annually. To support and
518 increase this capacity we need to strengthen our domestic
519 supply chains for core elements like batteries and
520 semiconductors.

521 In addition to investing in battery manufacturing in
522 Tennessee and Kentucky, we are also joining forces with
523 Nevada-based Redwood Materials to develop a closed-loop
524 supply chain network by recycling key battery materials from
525 end-of-life vehicles, and returning them back into U.S.
526 battery production.

527 Improving these domestic supply chains will strengthen
528 United States' global leadership in this space. It will
529 promote energy independence, and protect and create American
530 jobs. A recent study found producing electric vehicles using
531 U.S.-sourced EV components could support 13 to 14 jobs for
532 each direct job.

533 We are working hard to get more electric vehicles into

534 the hands of customers who want them, and to accelerate our
535 progress to be carbon neutral no later than 2050. But if the
536 United States wants to lead and make this transition on the
537 timeline that climate science and global competition require,
538 we need to build out infrastructure to support it. The
539 recently-passed bipartisan infrastructure law was a great
540 first step.

541 We know that, for customers to make the transition to
542 EVs, they need to have confidence in their ability to charge
543 their vehicles, whether they live in urban, rural, or
544 suburban areas. Access to electric vehicles can create
545 opportunity and economic mobility. Our sustainable financing
546 framework focuses on ways to strengthen disadvantaged and
547 under-served communities, so no one is left behind.

548 Ford is delivering the largest public charging network
549 in North America, with access to more than 70,000 charge
550 plugs, and offering exciting technology within our vehicles
551 that instills confidence and enriches the customer
552 experience.

553 Our approach to electrification is about creating a
554 transportation future that is safer, more sustainable, and
555 more inclusive. Ford didn't invent the automobile, but we
556 revolutionized the freedom of movement, and it helped
557 generations of Americans pursue their dreams. The electric
558 revolution is no different. This is our commitment to future

559 generations, and we are already matching our ambition with
560 action. Thank you.

561 [The prepared statement of Mr. Holycross follows:]

562

563 *****COMMITTEE INSERT*****

564

565 *Mr. Rush. Thank you very much. The chair now
566 recognizes Ms. King for five minutes for the purposes of an
567 opening statement.
568

569 STATEMENT OF NATALIE KING

570

571 *Ms. King. Good morning. Good morning, Chairman Bobby
572 Rush, Ranking Member Frank Upton, who hails from my home
573 state of Michigan, and members of the subcommittee. I am
574 Natalie King, the founder and CEO of Dunamis Clean Energy
575 Partners and its wholly-owned subsidiary, Dunamis Charge.

576 Thank you for the opportunity to speak before you today
577 regarding our experience and role in the transformative clean
578 energy economy that is currently being created through the
579 electrification of the automotive industry, as well as the
580 resulting nationwide EV infrastructure that is needed to
581 bring equitable, energy-efficient, carbon-reducing mobility
582 solutions to all Americans.

583 Dunamis was founded in 2012. We are a woman and
584 minority-owned company based in Detroit, Michigan, and we are
585 dedicated to changing how people access energy. Our company
586 provides energy management and energy efficiency products and
587 services for commercial and industrial customers throughout
588 the United States. And we have an intentional commitment
589 towards environmental and social justice.

590 Our new Clean Energy Initiative, Dunamis Charge, is
591 proudly the first African American, woman-owned electric
592 vehicle charging manufacturer in this country. We specialize
593 in providing intelligent, reliable, and user-friendly

594 electric vehicle charging equipment that will optimize and
595 stabilize energy flow to fill the needs of individual,
596 commercial, and utility customers that charge at home, in
597 their workplace, or public space.

598 Dunamis Charge is preparing to manufacture level-two
599 charging stations and charging connectors in our new
600 production facility in Detroit beginning this summer. We
601 will also begin production of our DC fast chargers by early
602 2023.

603 As a small business owner, the launch of the electric
604 vehicle charging manufacturing plant is a monumental, yet
605 immensely rewarding step of faith that has been undergirded
606 by the substantive support and investment of the Biden
607 Administration's bipartisan infrastructure law.

608 The bipartisan infrastructure law provides for \$7.5
609 billion to build up the first-ever nationwide public EV
610 charging network. This funding is -- also includes \$2.5
611 billion in community grants that will support creative
612 charger deployment in rural and disadvantaged, low-income
613 communities to ensure that all Americans have the ability to
614 access this carbon-reducing technology.

615 A key component of the Act will further spur economic
616 growth and development by ensuring that future electric
617 vehicle service equipment manufactured by companies like mine
618 will be procured through Federal dollars that are made in

619 America by American workers. These groundbreaking EV
620 infrastructure initiatives will have an immense impact on
621 small, U.S.-based businesses like Dunamis to grow its
622 manufacturing presence in the EV charging station market.

623 It will also allow us to play our part in strengthening
624 the American economy, and delivering on President Biden's
625 promise to diversify emerging industries and deploy clean
626 energy technologies and infrastructure. We are proud that
627 our chargers meet Buy America, Build America requirements for
628 steel, iron, manufactured products, and construction
629 materials.

630 In addition, our products will be made in America by
631 American workers. Dunamis is training our pre-apprenticeship
632 and apprenticeship and workforce development efforts. We
633 will focus on under-represented, economically disadvantaged
634 Detroit communities. We anticipate creating up to 150
635 good-paying, green-collar jobs by 2025. These jobs will
636 enable our workforce to develop technical expertise in this
637 new, burgeoning industry, while creating sustainable
638 livelihoods for themselves and their families.

639 As part of this commitment to bring best-in-class
640 electric vehicle manufacturing equipment to Detroit, we are
641 aiming to have the greatest impact where greenhouse gas
642 emissions and poverty overlap. We envision building a world
643 where going electric is easy, and power is available wherever

644 you go and whenever you need it, for everyone. We believe
645 the transition to electric mobility should benefit every
646 community and provide reliable options for all electric
647 vehicle owners and operators.

648 It is our commitment to have American workers make a
649 superior, American-made EV charging product, which will also
650 lessen our dependency on outside countries like China. We
651 will meet this commitment by incorporating engagement and job
652 creation for those communities that are the most
653 under-served, under-represented, and disproportionately
654 impacted by pollution in their communities.

655 Thank you so much for your time.

656 [The prepared statement of Ms. King follows:]

657

658 *****COMMITTEE INSERT*****

659

660 *Mr. Rush. Well, thank you.

661 And Ms. Powers, you are recognized for five minutes for
662 [inaudible].

663

664 STATEMENT OF CASSANDRA POWERS

665

666 *Ms. Powers. Good morning, Chairman Rush, Ranking
667 Member Upton, and members of the committee. I am Cassie
668 Powers, senior managing director at the National Association
669 of State Energy Officials, or NASEO. I am testifying on
670 behalf of NASEO and our 56 designated state and territory
671 energy office members.

672 First, I would like to thank you, Chairman Rush, as well
673 as Ranking Member Upton, for your leadership in reauthorizing
674 the U.S. State Energy Program, as well as the transportation
675 and energy security enhancements included in the
676 reauthorization.

677 NASEO has supported state energy offices across the
678 country for over a decade, as they design and implement
679 electric vehicle policy priorities of their governors and
680 administer EV infrastructure programs.

681 Initiatives from the state energy offices stress public-
682 private sector partnerships, and are accomplished using state
683 and private sector funds, as well as critical formula funding
684 the states received from Congress through the U.S. State
685 Energy Program. The bipartisan support for both SEP, as well
686 as the Infrastructure Investment and Jobs Act, is
687 transforming our nation's energy and transportation
688 infrastructure to enhance economic competitiveness and create

689 high-paying jobs.

690 In addition, the newly-established Joint Office of
691 Energy and Transportation is demonstrating a serious
692 commitment to working with the states and the private sector
693 as partners to achieve the EV infrastructure goals set forth
694 by Congress. In fact, NASEO signed a memorandum of
695 understanding just last month with the Joint Office, as well
696 as with the American Association of State Highway and
697 Transportation Officials, to ensure the strategic,
698 coordinated, efficient, and equitable investment in EV
699 charging infrastructure. And we are excited for the
700 partnership.

701 Today I would like to highlight the strong history of
702 bipartisan support at the state level for EV infrastructure
703 investment and, in particular, the multi-state collaborations
704 that are ensuring a coordinated and holistic approach to EV
705 infrastructure buildout.

706 Through the REV Midwest MOU, Illinois, Indiana,
707 Michigan, Minnesota, and Wisconsin are working together to
708 support fleet electrification and strategic electrification
709 along key commercial corridors, and they are working to
710 safeguard economic security, reduce emissions, improve public
711 health, and advance innovation.

712 There are lots of great examples. In Michigan the state
713 is partnering with utilities and the private sector to invest

714 in EV chargers, using a one-third model at strategic
715 locations, with a focus on activities that will enhance
716 economic development opportunities.

717 In Illinois, the Reimagining Electric Vehicle in
718 Illinois Act was signed into law, and that is designed to
719 bolster Illinois manufacturing and create new capacity for EV
720 and component parts in the state.

721 If we shift to the West, governors from Arizona,
722 Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and
723 Wyoming in 2017 signed the REV West Memorandum of
724 Understanding to support EV infrastructure buildout in rural
725 and remote areas, and, in particular, with a focus on
726 supporting transportation electrification in a way that can
727 support EV tourism in the states.

728 This collaboration, in partnership with utilities and
729 the private sector, in particular, has been particularly
730 important as the Western states face the significant
731 challenge of long stretches of highway with limited electric
732 service or amenities to support EV charging, and that often
733 requires for states and the private sector to find creative
734 solutions to complete EV charging corridors in the region.

735 Lots of great examples from this region, as well. In
736 Montana the states used Volkswagen settlement funds and
737 strategic public-private partnerships, such as with Town
738 Pump, to build up EV chargers across the state and promote EV

739 tourism. Colorado has built out 34 DC fast-charging stations
740 across the state, in partnership with ChargePoint, as well as
741 with sites at local governments, utilities, and private
742 companies. And there are lots of other great examples.

743 If we move to the Southeast you will see that Alabama,
744 Arkansas, Florida, Georgia, Kentucky, Mississippi, North
745 Carolina, South Carolina, and Tennessee, as well as Puerto
746 Rico and the Virgin Islands, are collaborating through the
747 Southeast Regional Electric Vehicle Information Exchange to
748 support EV infrastructure planning, policy, development, and
749 program implementation, with a focus on rural and
750 under-served areas.

751 Tennessee is developing an EV fast-charging network,
752 which is going to add roughly 50 DC fast-charging locations
753 throughout the state.

754 And in Florida the state is prioritizing DC fast-charger
755 investments along key corridors, and also along evacuation
756 routes and other under-served areas.

757 There is lots of other great examples. In New Jersey,
758 the It Pays to Plug In program provides grants to offset the
759 cost of purchasing and installing an EV charger.

760 New York has launched Charge New York, an initiative to
761 get more electric cars and trucks on the road.

762 And in Washington, the State Energy Office/State
763 Department of Transportation partnership is ensuring a

764 holistic approach to EV planning and, in particular, are
765 focusing on EV infrastructure buildout in under-served areas
766 and engaging disadvantaged groups.

767 The regional nature of many EV infrastructure
768 collaborations and the strong history of cross-agency
769 collaboration at the state level has prepared states for the
770 historic \$7.5 billion in infrastructure investment through
771 the Infrastructure Investment and Jobs Act.

772 As noted earlier, NASEO was thrilled to see the
773 collaboration between the U.S. Department of Transportation
774 and Department of Energy through the new Joint Office. We
775 also encourage EPA, USDA, the Department of the Interior, and
776 other Federal agencies to build on the work of the Joint
777 Office, and approach EV infrastructure in a holistic manner.

778 The states recognize the urgent need for EV
779 infrastructure development in urban, suburban, and rural
780 settings, and also the need to ensure that disadvantaged
781 communities across the country benefit from this historic
782 investment.

783 There is also a need to coordinate EV infrastructure
784 buildout with enhanced transmission, distribution, and
785 generation planning, and siting at strategic locations in the
786 states.

787 Thank you for the opportunity.

788

789 [The prepared statement of Ms. Powers follows:]

790

791 *****COMMITTEE INSERT*****

792

793 *Mr. Rush. The chair thanks our witness. And our next
794 witness is Mr. Pyle.

795 Mr. Pyle, you are now recognized for five minutes for
796 the purposes of an opening statement.

797

798 STATEMENT OF THOMAS PYLE

799

800 *Mr. Pyle. Thank you, Mr. Chairman, Ranking Member
801 Upton, and all the members for holding this hearing on the
802 important questions of American factoring and electric
803 vehicles.

804 I am a strong supporter of energy freedom. I support
805 the right of the American people to choose the types of
806 vehicles and fuels that work for them, including electric
807 vehicles. Consequently, I am opposed, as are most Americans,
808 to the idea that government should mandate energy
809 technologies or fuels.

810 In its recent rule on tailpipe emissions, EPA instituted
811 a de facto electric vehicle mandate. They estimate, to meet
812 that standard, about 17 percent of vehicles sold by model
813 year 2026 will have to be electric. They also concluded that
814 the rule [inaudible] average of \$1,000 of the cost of each
815 car. That is an average. Purchasers of crossovers, SUVs,
816 and trucks will almost certainly pay more, as they will need
817 to subsidize purchases of smaller, less popular cars.

818 With respect to charging for electric vehicles, it seems
819 unfair to ask taxpayers to pay for them when investors have
820 already provided EV makers with hundreds of billions in
821 capital.

822 But beyond questions about consumer choice and cost, it

823 is clear that EVs will increase our dependance on the
824 communist regime in China. China dominates the global
825 advanced battery supply chain. Even materials and components
826 manufactured domestically are often sourced from or transit
827 China. It is not just the mining and mineral production.
828 China also dominates critical mineral processing.

829 The United States could, of course, mine and process
830 many of those materials. But the current Administration is
831 unlikely to rush to approve new mines, certainly not anywhere
832 near the number needed to reduce our dependance on Communist
833 China. I don't believe that Americans are in favor of
834 trading our energy independent for dependance on the
835 genocidal regime identified as such by both the current and
836 previous Administrations.

837 I would like to close with three thoughts.

838 First, the high prices in Europe are a result of an
839 over-reliance on wind power, which under-performed this
840 summer and winter, along with decades of under-investment in
841 oil and natural gas. Consequently, Russian natural gas has
842 become more critical to European energy security. It is no
843 surprise that European governments -- and, until today, the
844 American Government -- has yet to impose strong sanctions
845 against Russian-sourced energy and Russian energy companies.
846 All of this, like the current push for EVs, was driven by
847 government policy, not market forces.

848 It turns out that the existential threat related to
849 energy is being overly dependent on another nation for a
850 commodity that is essential for electricity, heating, and
851 even food production.

852 Second, in the wake of the 2020 election, President
853 Biden made it clear that he intended to be an enthusiastic
854 advocate against domestic natural gas and oil production.
855 The cancelation of the Keystone Pipeline, the de facto lease
856 suspension, the weaponization of financial regulators,
857 proposed tax increases on natural gas, market-distorting tax
858 credits for unreliaables, the recent policy statements, and
859 many more are part of an effort to purposefully create an
860 environment in which it is difficult to invest in domestic
861 natural gas and oil.

862 Third, the reputation -- the repetition of rhetoric
863 about the utility of alternative sources of energy, the
864 possibility of net zero greenhouse gas emissions, and the
865 inevitability of the energy transition have led directly to
866 higher energy prices for Americans. Those involved in
867 finding and producing the fuels that currently power the
868 world are rightly concerned that our government might be
869 serious about creating an electricity system entirely
870 dependent on wind and solar power, or outlawing gas and
871 diesel-powered cars and trucks. How can anyone blame them,
872 when that is what they hear from their leadership, both in

873 Congress and in the White House?

874 Consequently, these businesses have under-invested in
875 natural gas and oil over the last several years. In 2014 the
876 world spent about 490 billion finding and producing oil and
877 natural gas. In 2021 that number was less than half of that.
878 Despite high prices, growing demand, and shrinking supplies,
879 energy companies are disinclined to rush to produce more oil.
880 Why? Because they are listening, and they are concluding
881 that such investments and such actions, which, in most cases
882 require years to pay off, are simply too risky in the current
883 political and social environment.

884 Therefore, it should come as no surprise to anyone that
885 the cost of gasoline, natural gas, and food are all soaring.
886 Support for electric vehicles isn't going to make this
887 problem go away. Thank you.

888 [The prepared statement of Mr. Pyle follows:]

889

890 *****COMMITTEE INSERT*****

891

892 *Mr. Rush. The gentleman yields back. And with that we
893 have concluded the openings. We will now move to member
894 questions, and each member will have five minutes to ask
895 questions of their -- of our witnesses, and I will begin by
896 recognizing myself for five minutes.

897 I would like to, first of all, thank all of our
898 witnesses for appearing before the subcommittee today to
899 offer testimony and to answer questions.

900 Mr. Holycross and Ms. King, I would like you to tell a
901 little bit about the investment -- electric vehicle charging
902 infrastructure that was included in the bipartisan law, and
903 how that has helped both of your companies to increase
904 [inaudible]. Can both of you briefly discuss how the
905 investments made by the bipartisan infrastructure law have
906 paved the way for your own companies' investment in EV
907 industry, and how that will enable you to create additional
908 high-paying America jobs?

909 *Mr. Holycross. Yes, thank you for the question. The
910 recently-passed infrastructure law is a great first step in
911 beginning to increase the number of available charge stations
912 in the overall EV charging infrastructure. But that hasn't
913 stopped us at Ford from moving quickly.

914 So our customers today have access to the largest public
915 charging network available. We have over -- access to over
916 70,000 charge stations. We are providing, also, unique

917 solutions for our customers for at-home charging, in terms of
918 mobile charging, as well.

919 But we do have to do more, whether it is for rural
920 communities and others that depend upon a wide array of
921 vehicles. We are electrifying not just retail vehicles, but
922 commercial vehicles for small businesses, electricians,
923 plumbers, and others. And we are going to continue to
924 partner with them to provide the unique charging solutions
925 that they require. But if we are going to further increase
926 the confidence that these consumers need to have to --
927 driving electric vehicles, we are going to need to do more,
928 in terms of public charging availability. So the
929 infrastructure law is a good first step. It recognizes some
930 of the unique needs for commercial customers, as well.

931 But the other key thing for us, with our investments
932 that we have made for increased capacity, is going to
933 continue to send a strong signal that the vehicles are
934 coming, and the infrastructure can be there to support it.
935 The chicken-and-egg debate is more or less settled now. We
936 are committed to have the vehicles in large volume, and now
937 we need the infrastructure --

938 *Mr. Rush. Thank you very much.

939 Ms. King, would you respond briefly, because I have an
940 additional question for you?

941 *Ms. King. Yes, sir. With respect to how the

942 infrastructure law has assisted us with respect to our
943 operations and -- we believe that implementation is
944 absolutely key.

945 So, as the automotive industry has moved forward in its
946 commitment to electric vehicles, I believe that there is a
947 comprehensive knowledge that we need to move towards carbon
948 neutrality. And so our goal is to really have a holistic
949 approach. Again, so if we can reach our goals of ensuring in
950 our mission to promote a carbon-neutral environment, while
951 also creating economic development within our communities, I
952 believe that this is something that all of America can get
953 behind.

954 And so we want to ensure, as Dunamis, that we use this
955 technology. Electric vehicles are coming. This technology
956 is here. I believe that it will promote carbon neutrality.
957 It is a first step in ensuring that we incorporate measures
958 that will not only create a more carbon-neutral environment,
959 but will also give us an opportunity to create economic
960 development, lessen the dependance that we currently have on
961 countries like China to be able to provide this
962 infrastructure.

963 *Mr. Rush. Thank you so very much. I have one
964 additional question, Ms. King, and you may know [inaudible]
965 my most important duties in the Energy Subcommittee is to
966 [inaudible] of right and wrong in the energy industry.

967 *Ms. King. Yes, sir.

968 *Mr. Rush. And one of the many ways I have tried to do
969 this is through my bipartisan blue collar and green collar
970 [inaudible], which will provide [inaudible].

971 Ms. King, can you talk about [inaudible] Dunamis is
972 implementing in the City of Detroit?

973 And what [inaudible] impacts you have seen [inaudible]
974 of Dunamis [inaudible] workforce?

975 *Ms. King. Absolutely, Chairman.

976 We have a very specific goal of ensuring that, as this
977 new economy, which will be a trillion-dollar economy as it
978 develops, includes and incorporates disadvantaged
979 communities, those communities that are the most
980 disproportionately impacted by carbon emissions, greenhouse
981 gas emissions in their communities. And usually, those
982 communities are communities of color. And so we want to
983 ensure that, as this industry grows, those communities are
984 not left behind.

985 If you have a community that may be a low-income
986 community that may not be able to participate in electric --
987 the purchase of an electric vehicle, why not give that
988 community an opportunity, the ability to create an electric
989 vehicle charging station, thereby having the ability to feed
990 their families, create a substantive, sustainable livelihood
991 for themselves and their community, thereby creating economic

992 growth within the communities at large?

993 That is why, Chairman, it is so important for us to
994 incorporate this holistic approach, as we see this industry
995 as a new opportunity for wealth creation that all Americans
996 should be able to participate in, while meeting the goal of
997 carbon neutrality to take care of our environment. It is
998 very important that we, as we meet the needs of job creation
999 within our sectors, our country, our state, that we also take
1000 care of our country, and make sure that greenhouse gas
1001 emissions are targeted through that.

1002 *Mr. Rush. Thank you, Ms. King.

1003 *Ms. King. Absolutely.

1004 *Mr. Rush. The chair now will recognize Mr. Upton, the
1005 subcommittee ranking member, for five minutes.

1006 *Mr. Upton. Thank you, Mr. Chairman.

1007 Mr. Pyle, I appreciate your testimony. It is clear, I
1008 think, to many of us that the world cannot rely on Russia and
1009 OPEC for oil.

1010 We are also concerned about batteries and solar panels
1011 controlled by China, which would improve our reliable energy
1012 situation, either (sic). Many of us, I think, on our --
1013 certainly on our side, believe that the U.S. is the world's
1014 leading producer of oil and gas, and we have enough capacity
1015 to produce oil to make up for taking Russia out, and driving
1016 them out of the market.

1017 In 2020 the U.S. reached peak oil production. That
1018 summer we produced some million-and-a-half barrels a day more
1019 than what we are producing now. What is it going to get --
1020 take to get us back to where we were before?

1021 *Mr. Pyle. Thank you for the question. It is going to
1022 take a lot.

1023 But I think the first thing that can be done -- and
1024 could have been done -- is that this Administration can work
1025 as fiercely as they are working now to secure oil sources
1026 from other countries like Iran and Venezuela as they do here
1027 (sic). Lift these impediments to production on Federal
1028 lands. Get rid of the de facto moratorium on leasing. The
1029 Keystone Pipeline, I know we keep hearing that, well, even if
1030 we built it today wouldn't come online, but if we had built
1031 it in 2008, it would be bringing 800,000 barrels a day of
1032 Canadian crude to our refineries in the Gulf.

1033 So -- and it seems to me that the Administration would
1034 prefer to lower the price of gas by securing oil sources from
1035 other countries, while still continuing to pressure the oil
1036 and gas industry here at home not to produce here at home.
1037 And I think that is an immediate shift that needs to take
1038 place.

1039 *Mr. Upton. So, as I mentioned in my testimony, or in
1040 my opening statement, what is holding back on U.S. LNG
1041 exports?

1042 I mean, this is an issue that many of us -- we actually
1043 traveled to Ukraine a few years ago. I took -- led a
1044 bipartisan trip. My boss Mrs. Rodgers, went along with us.
1045 Mr. Palmer went with us. We met with a number of our NATO
1046 allies. Less an issue today. Where are we on that?

1047 *Mr. Pyle. Well, fortunately, we are producing a lot,
1048 and we were encouraged to bring shipments of LNG to Europe
1049 during this crunch that we have had. But I know there are
1050 permits sitting over at DoE that need to be expedited. Let's
1051 get those done. Let's build pipelines, so we can get this
1052 stuff moving around.

1053 I also suggest that we lift the Jones Act so that we can
1054 move LNG domestically, as well, so we are not importing oil
1055 or LNG from Russia or other places, and bringing it into the
1056 Boston Harbor, for example. So that is the immediate thing
1057 that we need to do.

1058 But this overall demonization of this industry, along
1059 with the pressures from institutional investors, ESG and
1060 other things, has created a climate where I wouldn't -- it
1061 doesn't make sense for them to make these long-term
1062 investments, in some cases, if they think they are not going
1063 to get a return on those.

1064 *Mr. Upton. Thank you.

1065 Mr. Holycross, I think you referenced you were hoping
1066 that Ford would be some 40 to 50 percent in global sales of

1067 EVs by 2030, is that correct? Where Ford expects to be?

1068 *Mr. Holycross. That is correct, about 50 percent
1069 global sales by --

1070 *Mr. Upton. And if you break that down between U.S.
1071 sales and out-of-U.S., China, what would the U.S. sales
1072 number be that you would expect by 2030, just a few years
1073 down the road?

1074 *Mr. Holycross. Yes, the majority of those vehicles
1075 will, obviously, be in the U.S., given our share of the
1076 market. So as we start to approach 2030, and get to the 40
1077 percent of lead sales in the U.S., approaching 50 percent, a
1078 lot of that is in the U.S.

1079 But we have made similar commitments and plans for
1080 capacity in Europe and China, as well.

1081 *Mr. Upton. So I just -- you know, I look at your --
1082 and I am a Ford -- I drive a Ford. I look at -- you got the
1083 150, which is the most popular vehicle built in -- ever. You
1084 have got the Mach-E. What other passenger vehicles do you
1085 have that is going to fit the market that consumers, the
1086 individual consumers, are going to be looking at, what -- to
1087 achieve that 40 to 50 percent in the next 6 to 7 years?

1088 *Mr. Holycross. Yes, and that is exactly the heart of
1089 our strategy, is to go right after those iconic nameplates
1090 that you mentioned, like Mustang, like F-150, like our e-
1091 transit commercial franchise, which --

1092 [Audio malfunction.]

1093 *Mr. Holycross. -- the highest share of the commercial
1094 market, globally. For those customers, even in the U.S. --
1095 nearly 50 percent of that market.

1096 So these are the vehicles that customers depend on Ford
1097 today to provide all the function, performance, utility. And
1098 now we are going to show, through electrification, that they
1099 can have all of that and more. So [inaudible] the heart of
1100 the market of our -- of the vehicles that are most popular
1101 with those customers today, that is the first [inaudible] of
1102 how we are going to get to 40 to 50 percent by 2030 across
1103 our fleet vehicles. It is just the first step.

1104 *Mr. Upton. Okay, we will wait and see.

1105 My time has expired, so with that I yield back. Thank
1106 you, Mr. Chairman.

1107 *Mr. Rush. The gentleman yields back. The chair now
1108 recognizes Mr. [inaudible] questions.

1109 *The Chairman. Thank you, Chairman Rush. I wanted to
1110 ask Ms. King, initially.

1111 Your chargers are made in America and meet Buy America
1112 standards. And Buy America policies are important to support
1113 the growth of domestic EV and charger industries and reduce
1114 our reliance on international supply chains. But they are
1115 also important to ensure that our equipment meets certain
1116 security, hardware, and software standards.

1117 So can you please talk about the importance of Buy
1118 America policies, and how does domestic manufacturing play a
1119 role in addressing security concerns, if you will?

1120 *Ms. King. Thank you for the question, Member Pallone.

1121 The importance of having American-made products is -- as
1122 it relates to security, is that it decreases our dependency
1123 on outside countries like China, on outside countries like
1124 Russia, with respect to our dependency in oil, because we
1125 then have the ability to secure our technologies,
1126 particularly with our network software.

1127 And so we then, if we have the control over how we
1128 create, how we engineer, and how we design, and how we
1129 maintain our network software through our EV infrastructure
1130 presence, then we now have the ability to control cyber
1131 attacks, hacking from outside influences like a dominating
1132 China in the industry.

1133 So the infrastructure bill -- or, excuse me, the
1134 infrastructure law then undergirds companies like Dunamis,
1135 other electric vehicle charging manufacturers that are
1136 bringing the technology for the hardware and the software
1137 into the United States, so that we can really promulgate, we
1138 can meet again the implementation that is going to be needed
1139 for this widespread rollout of electric vehicles throughout
1140 the United States. I think that the infrastructure law is
1141 giving us the support, as manufacturers, that we need in

1142 order to ensure that we have sustainability and stability
1143 with respect to our network software, firmware, and hardware
1144 by creating it in America.

1145 *The Chairman. Thank you. Let me ask Mr. Holycross.

1146 It is good to have you today, even in the virtual forum.
1147 But last year we had the company Redwood Materials testify
1148 before the subcommittee for a supply chain hearing that
1149 focused on developing secure domestic sources. And we
1150 understand your company is now partnering with them.

1151 So my question is, could you please expand on Ford's
1152 partnership with Redwood Materials, and talk about the role
1153 and opportunity for battery recycling?

1154 And how does this help to secure our domestic supply
1155 chains?

1156 How can we best use the funding in the bipartisan
1157 infrastructure law to support domestic battery manufacturing
1158 and recycling, if you will?

1159 *Mr. Holycross. It is a really exciting opportunity for
1160 us, and we are extremely proud to be partnering with Redwood
1161 on this. It really gets at a couple of different aspects of
1162 battery materials in the overall supply chain.

1163 So, as we are manufacturing batteries and the scrap that
1164 can come through the natural manufacturing process, it is
1165 going to allow us to reuse that, right there in the same
1166 facility, to reduce the dependance on more virgin material

1167 [inaudible] material.

1168 The really exciting part, too, is at the end of the life
1169 of vehicle [inaudible]. You can get these materials by
1170 recycling batteries, as you indicated. Bring those batteries
1171 back from service, get the [inaudible] out of them, and put
1172 them back into the production process. So it really is a
1173 [inaudible] loop process.

1174 And to your point, that inevitably continues to reduce
1175 over time, as we get more and more vehicles into the field,
1176 our dependance on getting, you know, new or original
1177 materials. And when you couple that with all the research
1178 and advancements we have made in diversifying the types of
1179 battery chemistries, all these actions together will continue
1180 to diversify and reduce our dependance on one particular
1181 metal, one particular source, whether it is regionally or
1182 within a given industry.

1183 And getting them back from the vehicles is a big piece,
1184 so our partnership with Redwood is really exciting, and we
1185 have got a pilot program that is starting now, where we are
1186 actually pulling electric vehicles from the road today, and
1187 starting already to get those materials.

1188 *The Chairman. Let me just quickly, because I know we
1189 are out of time, but I just wanted to ask Ms. Powers quickly.

1190 How are states planning for an EV future that is also
1191 climate resilient and supports grid hardening, if you will?

1192 Thirty seconds.

1193 *Ms. Powers. Thank you for the question.

1194 The states are working hard to make sure that grid
1195 modernization and grid hardening activities are paired
1196 equally with electric vehicle infrastructure investment. We
1197 are seeing examples in the West and the Southeast, in
1198 particular, at states looking at how they can make sure that
1199 EV infrastructure is placed at places like evacuation routes,
1200 so that people can get out when they need, but then are also
1201 looking for opportunities to make sure that the electric
1202 system is bolstered.

1203 One of the challenges we see, particularly in rural and
1204 remote areas, is that there are often long stretches of
1205 highway without any electric service. And so there is a
1206 challenge where we need to be able to place an EV
1207 infrastructure at relatively short intervals to make sure
1208 that people can stop when they need to, and to recharge.

1209 But also, how do you get the power there? So states are
1210 looking at creative ideas, grid edge activities, pairing
1211 distributed generation and solar, but are really working hand
1212 in hand with their utilities, both the IOUs and the co-ops,
1213 to figure out what is it that they need to make sure that the
1214 electric system can adequately service EV drivers.

1215 *The Chairman. Thank you.

1216 Thank you, Mr. Chairman.

1217 *Mr. Rush. The gentleman yields back. The chairman now
1218 recognizes Mrs. Rodgers for five minutes.

1219 Mrs. McMorris Rodgers, you are recognized for five
1220 minutes.

1221 *Mrs. Rodgers. Thank you, Mr. Chairman. We cannot do
1222 anything without energy.

1223 Mr. Pyle, you touched on it in your testimony, but I
1224 wanted to expand about the role of affordable, reliable
1225 energy for economics. Supply security, of course, is a part
1226 of that.

1227 On Sunday the Financial Times of the UK reported that
1228 Europe faces building material shortages as energy prices
1229 soar. Natural gas prices are nine times higher than a year
1230 ago, and now fertilizer prices are also soaring.

1231 So much is connected to energy supplies here, and an
1232 anticipated long disruption will make matters even worse.
1233 Would you speak some more about energy security, its role in
1234 our nation's energy policy, and then what we need to learn?

1235 Do you think Europe has learned its lesson around
1236 rushing to green, while shutting down other energy supply
1237 before they had the capacity to ensure energy security?

1238 *Mr. Pyle. Sure. I mean, energy security is
1239 everything, right? Because energy is an input cost to every
1240 single thing: food; transportation; obviously, utility
1241 bills.

1242 People are struggling right now. The price of gas is as
1243 high as most people can remember, and that has a really
1244 difficult impact on their budgets. But more importantly, if
1245 you look at what has happened in Europe, this rush in Europe
1246 to green the grid, to convert to renewables, those energy --
1247 in Europe and Germany, for example -- this invasion is a huge
1248 wake-up call.

1249 It took, unfortunately, this for Europe to recognize
1250 that they were moving way too fast. They weren't investing
1251 in diversification of their supplies of resources. They
1252 became dependent, to the tune of 40 percent, on Russia for
1253 their natural gas, and that is why they are not going to lift
1254 -- they are not going to impose sanctions on that energy.
1255 They reiterated that again today. So that revenue is fueling
1256 this very same conflict that is happening in Europe right
1257 now.

1258 Now, fortunately, the EU has recognized that they have
1259 to make changes. They have already announced yesterday that
1260 they plan to move their pipelines around, and to build
1261 pipelines so that they are less dependent on Russia, that
1262 they will be investing in more LNG. Germany said that they
1263 are going to invest in LNG. They may pause the
1264 decommissioning of their nuclear plants. France has
1265 indicated that they intend to build more nuclear. But man,
1266 why would it take something like what is happening right now

1267 for them to come to that realization?

1268 And I am worried that we are not that far behind Europe,
1269 in terms of the stuff that we are doing here. You know, 80
1270 percent of the total energy consumed 40 years ago came from
1271 three sources. Today that number is still roughly 80
1272 percent. And the EIA predicts that that number will be
1273 roughly the same in another 40 years. We cannot have an
1274 energy future without secure supplies of oil and natural gas.
1275 That is just a reality.

1276 *Mrs. Rodgers. So now we hear from the Administration
1277 about building back supply chains, that we are going to make
1278 it in America. Would you speak to that?

1279 Would you speak to the -- so in order to make it in
1280 America, we are going to have to address permitting. We are
1281 going to have to address access to raw materials. Are we
1282 addressing the red tape, the permitting, the access to raw
1283 materials in order to make it in America?

1284 *Mr. Pyle. I alluded to this in my testimony, and I
1285 will reiterate it. We have created a Byzantine structure of
1286 regulations and rules and requirements that makes it nearly
1287 impossible to build anything in this country in a timely and
1288 efficient manner, especially when it comes to energy. And
1289 even after the situation in Ukraine, FERC is issuing policy
1290 statements that would make it practically impossible to build
1291 a new gas pipeline.

1292 This is -- this has to be stopped and reversed if we are
1293 going to do any of the buildout that we would like to see
1294 happen. If we really don't want our minerals, our EVs, to be
1295 dependent on China, then we have to permit mines, we have to
1296 be aggressive about bringing new supply chains and
1297 diversifying them outside of China. China controls 80
1298 percent of the minerals and the distribution supply of these
1299 resources.

1300 And it is not just me saying it, the Department of
1301 Defense issued a full report about this. And the
1302 International Energy Agency also said that, "The current
1303 production of many energy transition minerals is more
1304 geographically concentrated than that of oil and gas."

1305 So the dependency on minerals from China would be
1306 greater than that of any kind of dependency we have on oil
1307 and gas from others.

1308 *Mrs. Rodgers. Thank you. Thank you. I just urge this
1309 committee once again to recognize the wake-up call that we
1310 are experiencing right now, and make sure that we are focused
1311 on what reality is and the facts are. Thank you.

1312 I yield back.

1313 *Mr. Rush. The gentlelady yields back. The chair now
1314 recognizes Mr. Peters for five minutes.

1315 *Mr. Peters. Thank you, Mr. Chairman.

1316 I first want to say we should act quickly to prohibit

1317 the imports of crude oil, petroleum products, and other
1318 energy products from Russia. We have to continue working
1319 with our allies to counter Putin's aggression in Ukraine, and
1320 I encourage my colleagues to support this move. Recognizing
1321 that banning Russian oil imports could further increases
1322 prices at the pump, we can't continue to finance the Russian
1323 Government through energy purchases.

1324 And that calls on us to think about what energy and --
1325 energy independence and energy security means. It is very
1326 clear to me that the U.S. cannot drill its way out of this
1327 crisis. The U.S. became the largest oil producer in the
1328 world. And instead of price and geopolitical stability, we
1329 are experiencing similar volatility.

1330 And I want to say there is plenty of permitted but
1331 unused capacity, both in oil and gas. And that is a market
1332 issue. That is not a government issue. It is not that the
1333 government is in the way of that, it is just the market has
1334 not drawn those investments in a way that is producing like
1335 my colleagues across the aisle would like to see.

1336 I think that the point is here that we can't be too
1337 reliant on oil and gas or any one source of energy. We have
1338 to diversify for our security. Today we are talking about
1339 EVs, which is part of that diversification. That is very
1340 important. But we should keep in mind that we should be
1341 looking at hydrogen, biofuels, storage, renewables, solar,

1342 wind, hydro, geothermal, nuclear. I would agree to look at
1343 permitting, everything to diversify our energy sources so we
1344 are not put into this squeeze.

1345 Diversification is good for the United States. We
1346 shouldn't just look to oil and gas to solve our problems. I
1347 think we should have learned that lesson by now.

1348 Today we are focusing on electric vehicles. That will
1349 play a fundamental role in reducing our reliance on volatile
1350 oil markets, lower costs for Americans, and mitigate climate
1351 change. In San Diego and in Southern California we are
1352 leading the nation in deploying electric vehicles. And our
1353 region is home to innovative companies, including Beam, which
1354 produces the only charging system that is 100 percent
1355 renewable, movable, and grid independent. Its charging
1356 system is manufactured in California, provides a unique
1357 opportunity to expand EV charging because it can be deployed
1358 quickly, without additional electric work or construction.
1359 Those are the kinds of innovations we should all be
1360 supporting on this committee.

1361 The historic Bipartisan Infrastructure Investment and
1362 Jobs Act, which we passed last year, will help expand
1363 electric vehicle infrastructure across the nation. And I
1364 think that is all to the good.

1365 Ms. Powers, state and local governments have large
1366 fleets that have to be electrified. And for context, the

1367 City of San Diego has a fleet of over 4,500 vehicles and
1368 equipment. Most of the funding in the infrastructure bill
1369 is, for "publicly accessible charging," which is necessary
1370 to make electric vehicles available to more Americans. But
1371 electrifying public fleets will also have tremendous
1372 benefits, including reducing pollution in environmental
1373 justice communities, and saving taxpayers money on fuel
1374 costs.

1375 How do you think the Federal Government can help states
1376 and local governments electrify their fleets, and how can
1377 funds from the infrastructure bill help that?

1378 *Ms. Powers. Well, thank you for the question. It is
1379 an excellent point. You are correct, that much of the
1380 funding in the Infrastructure Investment and Jobs Act is
1381 directed at the infrastructure. But we are seeing tremendous
1382 progress from the states and the private sector in
1383 electrifying their fleets.

1384 Most states have a requirement to transition their
1385 government fleets to alternative fuels or electric vehicles
1386 at some point in the next 10 years. And we are seeing them
1387 work increasingly with the private sector. There are
1388 announcements, it seems like, every day with private-sector
1389 companies who are transitioning to zero-emission vehicles, be
1390 they battery electric or even hydrogen announcements
1391 recently.

1392 There are, I think, several opportunities. One is that
1393 states can increase the number of vehicles that are purchased
1394 within their fleets and, again, work directly with the
1395 private sector to try to increase procurement of zero-
1396 emission vehicles. And then NASEO is also supportive of
1397 other tax credits and incentives that can directly
1398 incentivize the purchase of alternative fuel and electric
1399 vehicles.

1400 In an analysis that NASEO did in partnership with Cadmus
1401 last year, saw that vehicle purchase incentives were the most
1402 effective direct incentive to increase electric vehicle
1403 adoption. That, paired with infrastructure investments, can
1404 help to radically accelerate the transition to zero-emission
1405 vehicles.

1406 *Mr. Peters. Okay, I guess there is some limit to the
1407 utility of tax deduction for public fleets. So I would maybe
1408 ask to think more about how we can get the Federal Government
1409 to work in partnership with the state and local governments.
1410 I would love -- if there is more direct investment, we would
1411 love to hear your ideas about that, maybe in the future.

1412 And Mr. Holycross, real briefly, considering the global
1413 competition for dominance of electric -- the electric vehicle
1414 market, how do you think the United States can make sure that
1415 U.S. companies striving to be EV leaders can continue to lead
1416 the world?

1417 *Mr. Holycross. Well we have to -- we -- yes, no, we --
1418 it is real important that we have the capacity to build and
1419 assemble, and do the research and development here in
1420 America. But we also have to have the signals from the
1421 industry, and the commitments that -- to build out the
1422 capacity, so that we can do it across the whole value chain.
1423 And that is why we are proud of the commitments that we have
1424 made.

1425 We are all in on this. This is not about rushing to
1426 green. These are the products that customers are demanding
1427 from us, and we need to provide that bridge for them to help
1428 with the access and affordability that we have talked about.

1429 *Mr. Peters. Mr. Chairman, I apologize for going over
1430 my time. I yield back.

1431 *Mr. Rush. The gentleman yields back. The chair now
1432 recognizes Dr. Burgess for five minutes

1433 *Mr. Burgess. And thank you, Chairman Rush. You know,
1434 I just reflect back in 2008, in this very room, we had a
1435 hearing on high energy prices, high gas prices. And although
1436 the reasons were different then than today, the effect of
1437 those high prices was a recession that followed less than a
1438 year after. And I do worry that, as we are in this room
1439 again talking about high energy prices, the follow-on from
1440 those high energy prices may be a very disruptive effect on
1441 the economy.

1442 And in so many ways this hearing almost seems -- has an
1443 aura of unreality about it. We are talking about things that
1444 are almost inconsequential, given the -- what we are facing
1445 worldwide today. And the Russian attack in Ukraine is being
1446 almost entirely funded on them selling gas and oil to the
1447 rest of us. And it wasn't that way just a couple of years
1448 ago, and so you have to ask yourself, what happened? Did we
1449 run out, and we now have to get it from Vladimir Putin? But
1450 the answer, of course, is we didn't run out. We just chose
1451 not to use our own energy any more.

1452 Mr. Pyle, I was struck by some of the things that you
1453 said in your testimony. It is almost like this is a --
1454 self-inflicted would be too strong a term, but it is like it
1455 is a voluntary descent into an energy crisis, when there is
1456 no real restriction on the resource that is causing it. But
1457 we have, instead, electively pursued a course that has now
1458 led us to a crisis in producing energy for our citizens. Is
1459 that a fair assumption?

1460 *Mr. Pyle. It is. I mean, we just need to recognize
1461 that the oil and gas industry has a role to play in the
1462 electricity -- sorry, in the energy future. We can't just
1463 ignore the laws of the properties. These resources are
1464 dense. The reason that they dominate our energy consumption
1465 is because of how practical and effective that they are.

1466 And to dismiss them, demonize the industry, blame them,

1467 turn around and, you know, wag the finger at them for
1468 hoarding prices, or doing, you know, things that they are not
1469 doing, sends -- yet again, as I mentioned, sends a strong
1470 signal that the leaders, the White House, Europe, for the
1471 last 10, 15 years or so, have worked -- made it really clear
1472 that they want to eliminate these sources of energy in the
1473 conversation.

1474 And so -- and you compound that pressure from investor
1475 pressure, institutional pressure, and you look at the long-
1476 time horizon to generate returns. And it is not really
1477 shocking to me that they are not following the price signals
1478 like they have in the past.

1479 And so I think we need to have a sort of a more
1480 realistic -- have a conversation about energy reality, in
1481 addition to the discussions about the environment and the
1482 climate.

1483 *Mr. Burgess. And not that those things aren't
1484 important because, of course, they are. But the very real
1485 crisis today that is going on half a world away, and what our
1486 constituents are feeling as they go to purchase the energy
1487 that they need to go about living their lives, and working in
1488 their jobs, and supporting their families -- now, in Texas we
1489 do have kind of a unique situation, because so much energy is
1490 concentrated in the Permian Basin. You do need a way to get
1491 it to other places, where it can be marketed and sold and

1492 used.

1493 And that is why the difficulty in permitting natural gas
1494 pipelines has been so troublesome. Permian Basin will get a
1495 lot of criticism for flaring and venting at the site of
1496 production, but it is also difficult to get that stranded
1497 resource to a place where it is either utilizable by a
1498 population center, or can be exported.

1499 So can you just speak very briefly to the permitting of
1500 the type of facility that could help with that?

1501 *Mr. Pyle. Well, I mean, first and foremost, pipelines
1502 are the safest way to transport these materials. That is
1503 clear, that is evident. It is also more affordable, once the
1504 pipelines are built. It is also easier to contain any
1505 damages or liquids or anything from leaks or from spills when
1506 you can contain those pipelines.

1507 So the idea that pipelines are somehow, you know,
1508 dangerous and, you know, unnecessary, you know, that started
1509 a long time ago, and we really need to get out of that idea,
1510 to get out of the idea that we shouldn't be permitting
1511 pipelines, because we have these resources, we are going to
1512 continue to need these resources.

1513 All the renewables, wind and solar, needs a -- needs to
1514 be backed up. And in most cases, it is backed up by natural
1515 gas. So even if we turn the entire grid into wind and solar,
1516 we are still going to need that natural gas to back it up.

1517 So we need to move it around no matter what.

1518 *Mr. Burgess. Thank you for your -- all of our
1519 witnesses, for your testimony today.

1520 And I yield back, Mr. Chairman.

1521 *Mr. Rush. The gentleman yields back. The chair now
1522 recognizes for five minutes Mr. Doyle for questioning the
1523 witnesses.

1524 *Mr. Doyle. Thank you, Chairman Rush and Ranking Member
1525 Upton, for holding this hearing.

1526 Americans are concerned over rising gas prices, and I
1527 share that concern. However, the solutions I often hear from
1528 my colleagues across the aisle are not serious proposals.
1529 You know, we continue to hear about how we were energy
1530 independent back in 2019 and 2020. We were, and I support
1531 ensuring that we get back to producing more energy than we
1532 consume.

1533 But that doesn't mean we aren't tied to the global
1534 market. In 2020, despite being the world's largest producer
1535 of petroleum, and a net exporter, we still imported about 8
1536 million barrels of petroleum a day. So being energy
1537 independent doesn't mean we are unaffected by the rest of the
1538 world.

1539 Additionally, the idea that we can just drill enough to
1540 not only meet our own rapidly growing needs, but to also make
1541 up for a loss of Russian oil and gas in the global market, is

1542 a fantasy. At our peak, we produced 18 million barrels of
1543 petroleum per day, while the Russians produced 11 million
1544 barrels. That would be a huge gap to make up, no matter
1545 what. And yet, with oil prices well over \$100 a barrel, we
1546 still see oil companies not producing on approved leases,
1547 while bragging about how much money they will return to their
1548 shareholders due to how -- high oil prices.

1549 And that is why this hearing is so important. Despite
1550 being the world's largest producer of petroleum, we are still
1551 subject to price fluctuations of a global market influenced
1552 by bad actors like Putin, the Iranians, and other countries
1553 in unstable regions. We should be investing in electric
1554 vehicles to free ourselves of this dependency. American
1555 consumers should not be affected by the actions of unfriendly
1556 nations.

1557 And yes, we will need to build a U.S. supply chain of
1558 materials and manufacturing. But we can do that, and we can
1559 do it together, as Representatives McKinley, Veasey, Dingell
1560 and I did, when we included \$6 billion for battery materials
1561 processing and manufacturing grants in the bipartisan
1562 infrastructure bill. And I am happy to work with any of my
1563 colleagues on solutions to build that supply chain.

1564 So I would urge my Republican colleagues to stop with
1565 the misleading talking points, and work with us to build a
1566 future where we dominate the global EV market, grow U.S.

1567 manufacturing, protect Americans from volatile markets, and
1568 still produce energy for use around the world.

1569 Mr. Holycross, let me ask you a question. Given Ford's
1570 investment in EV manufacturing, battery cell manufacturing,
1571 and partnering with Redwood for recycling, can you expand on
1572 the potential for a U.S. domestic supply chain?

1573 And how can we on this committee help companies like
1574 yours better create a domestic supply chain?

1575 *Mr. Holycross. Yes, the domestic supply chain is one
1576 of the key elements of all of this.

1577 And you know, in terms of our overall message around
1578 moving faster, this is what it -- really is about. We have
1579 started, in a number of ways, to bring more manufacturing and
1580 R&D back into the U.S., starting to more vertically
1581 integrate, whether it is with electric vehicles or others,
1582 with motors, trans-axles, other components, as well. And we
1583 are proud of the investments that we have made and are
1584 continuing to make, as I highlighted in the testimony.

1585 But we do need to do more, and we need to do it with
1586 urgency. And you know, and as members of the global
1587 community, we are very concerned about the Russian invasion
1588 of Ukraine, and the safety and security of the Ukrainian
1589 people. And as the employer of many Ukrainian nationals not
1590 just in the U.S., but elsewhere, we need to take care and use
1591 this opportunity, as well, to recognize that we do need to

1592 move fast. The price of inaction is worse.

1593 And so, while we are continuing to move to do more at
1594 home, the policies in the infrastructure bill that help
1595 continue to provide incentives for infrastructure
1596 development, the purchase incentives, the incentives for R&D,
1597 the incentives for upskilling American workers to couple the
1598 investments that we have made in that space -- over \$500
1599 million to help retrain the workforce -- we need to partner
1600 with governments to increase and move faster in these
1601 respects, so that we are not just competitive with other
1602 countries, like China and Europe, but also so that we can
1603 address the broader issues around climate change and the
1604 environment.

1605 These can all work complementary, and do it in a fashion
1606 with products and services that customers are demanding, not
1607 because they are being imposed on them. And that is how we
1608 are going to ultimately solve this and work together.

1609 *Mr. Doyle. Well, thank you very much, and I think we
1610 on the committee look forward to helping you do that.

1611 I see my time is expiring, and I yield back.

1612 *Mr. Rush. The gentleman's time has expired. The chair
1613 now recognizes Mr. Latta for five minutes.

1614 Mr. Latta, you are recognized.

1615 *Mr. Latta. Well, thank you, Mr. Chairman, and thanks
1616 to our witnesses for appearing before us today.

1617 I just want to echo what my colleagues on the Republican
1618 side have said today, that this hearing -- we should be
1619 talking about, not on the EV side, but with the unprovoked
1620 attack of Russia on Ukraine, and what is happening across the
1621 world with that attack.

1622 You know, when you look back, we have seen American oil
1623 prices really affecting the consumer out there, you know,
1624 gasoline being up over \$1, and it is going to be up a lot
1625 more by the time I get home this weekend. And you know, when
1626 the President is going around asking OPEC and the Russians to
1627 increase production, I find that a real travesty.

1628 It is also important, I believe, that we have missed an
1629 opportunity because, again, we need to be talking about
1630 making sure that Russia does not have the means out there to
1631 attack the Ukraine, and making sure that we ban their
1632 imports. And that is one of the things my legislation did --
1633 does that I introduced last week. It also makes sure that,
1634 you know, the President can't stop hydraulic fracturing or
1635 the oil and gas leases that we have to have out there to make
1636 sure we get things done.

1637 But they also -- the legislation does something we have
1638 talked about for a long time, and all-of-the-above energy
1639 policy in this country, and we want to make sure that we
1640 don't limit the access to all domestic sources, and that
1641 includes fossil fuels, renewables, and nuclear and biofuels.

1642 So I think it is important -- those are the things we should
1643 be talking about today.

1644 And if I could start my questioning with you, Mr. Pyle,
1645 because I think it is really important, because when I read
1646 your testimony -- you know, we have talked about a lot of
1647 these things in this committee, and one of the things is
1648 that, you know, as you broke things down as to what could --
1649 you know, we are going to have to be doing -- and I agree
1650 with you, that I don't think the Federal Government should
1651 dictate to the American consumer out there if they are going
1652 to drive a fossil fuel or an electric car. Let the choice be
1653 to the consumer to fit their needs of their family, their
1654 business, and how they want to get around this country.

1655 But you know, in some of the graphs that you have out
1656 there -- and again, this is something we have been talking
1657 about -- these graphs are important because, when you are
1658 talking about our supply chain, and how we are going to get
1659 that across the country -- but let me just start with one of
1660 the things you have in your testimony.

1661 The transmission system that -- we are going to have to
1662 have 35 to 100 percent larger than we have today by the year
1663 2050. So the question becomes -- is -- that you kind of talk
1664 about -- is on that supply chain, where are we going to get
1665 the materials, where are we going to get the -- you know, the
1666 rare earth minerals? Where are we going to get that skilled

1667 workforce? And also, as has been commented upon, you know,
1668 the permitting?

1669 But one other thing, before you do say that, because
1670 when you talk about the permitting -- because again, we have
1671 been talking about how we are going to get the minerals to be
1672 able to have -- in these batteries. And it is great that we
1673 are going to be able to recycle, but we are going to have to
1674 have the minerals to begin with. And when you look at that
1675 -- how China dominates right now, everything across the world
1676 when it comes to the supply chain, and then you also comment
1677 in your testimony that it is going to take a -- at least a
1678 decade, a decade, to permit a mine.

1679 So, you know, I would like you to just comment on that.
1680 I am sorry I threw a lot of things at you at one time.

1681 *Mr. Pyle. Thank you. Well, I mean, Elon Musk was
1682 referenced earlier about his tweet about needing oil and gas
1683 production, ironically. But he also said that we need to
1684 double our electricity generation if we are going to go all-
1685 electric for vehicles. And that is a huge increase in our
1686 generation capacity at the same time we have been --

1687 *Mr. Latta. Well, how are we going to double -- you
1688 know, again, how are we going to double that?

1689 That is important, because, again, if we are going to
1690 get these charging stations out there, and the lines to them,
1691 how are we going to double that?

1692 *Mr. Pyle. That is another great point. And if you
1693 look at how difficult it is to get transmission built in this
1694 country -- in Maine, in the last election, the voters
1695 rejected by 60/40 a transmission line going from Canada into
1696 Massachusetts. They didn't want it to go through their
1697 state. This is not a unique situation.

1698 The Clean Line, for example, that would have run through
1699 the Southeast, has also had difficulty getting permission to
1700 be built. So if we are serious about this, if we are very
1701 serious about this, then Congress has to streamline the
1702 regulations and the impediments to getting stuff built here.
1703 And I don't see any movement on that issue. I have seen the
1704 Administration reject a mine in Minnesota, for example, that
1705 would have provided some of these critical materials.

1706 So which is it? Which way are we going to have it?

1707 *Mr. Latta. Well, because --

1708 *Mr. Pyle. If we want to do this, we have got to change
1709 these laws.

1710 *Mr. Latta. -- my last 17 seconds because, again,
1711 thinking about on the supply chain, okay, if we are going to
1712 have -- you know, these transmission towers are steel. Where
1713 are we going to get the steel from? How are we going to
1714 generate the power to get the steel to be able to build those
1715 generation lines across the country?

1716 I am sorry, I have you, like, two seconds left.

1717 *Mr. Pyle. And it is all part of the same thing. We
1718 need to -- if we are serious about building out clean energy,
1719 then all the impediments to infrastructure projects that are
1720 in place aren't going away just like that. They have to be
1721 changed. The laws have to be changed in order for us to do
1722 that.

1723 *Mr. Latta. Well, thank you very much.

1724 And Mr. Chairman, I yield back the balance of my time.

1725 *Mr. Rush. The gentleman yields back. The chair now
1726 recognizes Mr. McNerney for five minutes.

1727 *Mr. McNerney. Well, I thank the chair for today's
1728 hearing, and the witnesses. The hearing should show how EVs
1729 can be a future part of our transportation system.

1730 The tragedy in Ukraine should not prevent us from
1731 discussing solutions that reduce our dependance on foreign
1732 oil, especially Russian oil, the oil that has given them the
1733 resources to finance international aggression. EVs are a
1734 part of the solution. And given the long fossil fuel vehicle
1735 relation to the Federal Government, we owe it to the American
1736 people to help build up an EV infrastructure so that
1737 Americans will have a real choice in the vehicles they
1738 purchase and use.

1739 As Mr. Peters noted, several Democratic members of this
1740 subcommittee wrote a letter to the American refiners asking
1741 them to stop importing Russian oil. And the response from

1742 them was very positive.

1743 And electric vehicles hold significant promise between
1744 reducing greenhouse gas pollution, reinvesting in American
1745 manufacturing, and reducing our dependence on volatile
1746 foreign oil supplies, including from Russia. We now have an
1747 opportunity to redesign the future.

1748 Mr. Holycross, in your testimony you mentioned a new
1749 partnership that would allow Ford to develop a closed loop
1750 supply chain network for recycled batteries. What materials
1751 will Ford be able to recover through this supply chain?

1752 And, by your estimate, how much raw material could be
1753 offset through these recycled streams?

1754 *Mr. Holycross. Yes, again, the partnership with
1755 Redwood and the opportunity to recycle these materials from
1756 batteries, whether it is in the existing production process
1757 or recapturing the vehicles at the end of their useful life,
1758 the opportunity there is significant.

1759 But you know, the urgency around also the original
1760 supply of where those materials come from, we share the same
1761 concerns that have been raised. And we will be able to get
1762 access to different types of materials and different types of
1763 chemistries with the continuing research that we do so we
1764 have more of a diversification of options. That will
1765 certainly help, not just in terms of where we are dependent
1766 upon them from, but also how we can ultimately harvest those

1767 materials in different ways, as well.

1768 So again, a lot of the constraints that were talked
1769 about to be able to do that domestically, we share those
1770 concerns and want to partner to continue to make that a
1771 reality. And we think the first steps by the Administration
1772 are a key piece of that.

1773 So the opportunity to recycle and reuse is a big part,
1774 but it is going to take some time for us to get to large
1775 volumes of vehicles in the population to be able to do that
1776 at scale. But once we do, it is a tremendous opportunity, in
1777 terms of the dependance that will ultimately, you know, be
1778 required for, you know, how we still harvest virgin
1779 materials.

1780 So we are looking forward to it, but we need the actions
1781 in the interim, as well, to --

1782 *Mr. McNerney. Well, it is not just about -- from what
1783 you are saying, it is not just about recycling materials, but
1784 it is also about developing new materials that can be used in
1785 batteries through innovation, and to reduce the need for
1786 those very specific rare Earth materials and so on, so --

1787 *Mr. Holycross. That is right. Thank you.

1788 *Mr. McNerney. Thank you.

1789 Ms. Powers, the Biden Administration has set an
1790 ambitious target for EVs: 50 percent for all new vehicle
1791 sales by the end of the decade. In your opinion, will a

1792 combination of government and private industry investment be
1793 enough to reach that target in eight years?

1794 *Ms. Powers. Thank you for the question. I think that
1795 the Federal policies build on a strong history of state
1796 policies. The ZEV mandate -- or, excuse me, the ZEV standard
1797 is now in place in, I believe, 10 to 12 states, with other
1798 states adopting vigorous electric vehicle and electric
1799 vehicle infrastructure deployment standards.

1800 In addition to that you are seeing announcements from
1801 private companies every day. I can't remember the number off
1802 the top of my head, but in the Super Bowl there were five or
1803 six different electric vehicle advertisements, which is a
1804 huge uptick from just a few years ago. And this is showing
1805 that it is not just the states and the Federal Government who
1806 are setting ambitious standards, but the private sector, who
1807 is proactively making decisions and, in some cases,
1808 responding to these measures to make sure that there are
1809 enough electric vehicles to meet the growing demand of the
1810 population.

1811 *Mr. McNerney. Well, I am glad you brought up these
1812 Super Bowl advertisements. Those are always entertaining and
1813 helpful.

1814 With -- where could future investments or technical
1815 assistance be better targeted to fill in the gaps that we may
1816 be seeing?

1817 *Ms. Powers. That is a great question. Right now the
1818 majority of the infrastructure dollars through the
1819 Infrastructure Investment and Jobs Act is targeted at Federal
1820 highway corridors, which is needed, building out the backbone
1821 for electric vehicle infrastructure investment.

1822 There is also a strong need for community charging
1823 investment at multi-unit dwellings and at workplaces. The
1824 vast majority of EV drivers charge at home or at work in
1825 order to make sure that people who are going to buy these
1826 cars -- not just now, but in 5 or 10 years from now, when new
1827 vehicles are on the used car market -- in order for people to
1828 be able to purchase those cars, they will need a place to
1829 charge. Targeting investment there would be helpful, as
1830 would continued technical assistance to help raise the level
1831 of understanding and awareness of these vehicles.

1832 Lots of fleets, once they learn about different electric
1833 vehicle options, they do -- they crunch their numbers and see
1834 that they will save money over the life of the vehicle, and
1835 it is an easy switch. But it is getting that initial
1836 interaction to learn about the benefits of electric vehicles
1837 that are needed.

1838 *Mr. McNerney. Well, thank you.

1839 I yield back.

1840 *Mr. Rush. The gentleman yields back. The chair now
1841 recognizes the gentleman from the great state of West

1842 Virginia, Mr. McKinley, for five minutes.

1843 *Mr. McKinley. Thank you, Mr. Chairman, and thank you
1844 for your leadership in this committee.

1845 Listen, I would like to reinforce what former chairman
1846 Fred Upton was -- how he said it in his opening remarks.
1847 Let's go back and -- war has broken out in Ukraine.
1848 Inflation is at a 40-year high. Gas prices \$5, \$6, \$7 a
1849 gallon, and fentanyl is pouring across the southern border in
1850 this country, killing nearly 300 people a day in America.

1851 So with all this going on, I find it incredible that the
1852 Democrats are trying to divert our attention from these
1853 crises, and having a hearing on electric vehicles today, and
1854 tomorrow Daylight Savings Time. Seriously? Are they tone
1855 deaf to what is going on in America and around the world?

1856 Mr. Chairman, this powerful and influential committee
1857 should be talking about issues that matter to Americans
1858 today. It is affecting our lives.

1859 Energy security is national security. We have had
1860 testimony time and time again about that. And the U.S.
1861 cannot let Russia continue to manipulate the energy supply,
1862 the energy market. By increasing our energy production, the
1863 U.S. could be providing access to a reliable and affordable
1864 supply of energy at home and to the allies abroad.

1865 So to Mr. Pyle, Europe's premature rush to green has
1866 raised serious concerns about the huge increases in costs to

1867 consumers, and concern for that. And so consequently, last
1868 fall Reuters reported that rising gas prices have led to the
1869 European utilities switching from gas back to coal and -- for
1870 power. And all indications point to that is going to
1871 continue, that trend is going to continue. And according to
1872 Reuters, in 2021 Russia imported 31 -- or exported 31 million
1873 tonnes of thermal coal to Europe.

1874 Now, keep in mind that the stock market today in Europe
1875 is at nearly \$450 a ton, 9 times -- think of it -- 9 times
1876 what it was in 2020. So the IEA has recommended that we --
1877 that switching fuel back to coal could wean Europe off
1878 Russia's energy.

1879 So my question to you is, so to do that, should
1880 Russia import coal produced in America --

1881 *Voice. This meeting is being recorded.

1882 *Mr. McKinley. -- or Australia or South Africa?

1883 *Mr. Pyle. Well, I think that leads to a larger point,
1884 and that is that we --

1885 *Mr. Rush. Will the gentleman suspend?

1886 *Mr. Pyle. When people are hurting, when we talk about
1887 the prices that you are mentioning, Europe is --

1888 *Mr. Rush. Will the gentleman suspend? There is
1889 something going on with the sound. Can you stop?

1890 [Pause.]

1891 *Mr. Pyle. Can you hear me? Okay.

1892 *Mr. McKinley. Can we restore some of the seconds we
1893 lost with that interruption?

1894 Tell him to turn his mike off when we are not speaking.

1895 *Mr. Pyle. Still working? Okay.

1896 *Mr. Rush. Stop speaking for me. How much time does
1897 the gentleman have remaining?

1898 The gentleman will proceed. We will give the gentleman
1899 another two -- another -- can the staff tell -- inform me of
1900 the amount of time that the gentleman has remaining?

1901 [Pause.]

1902 *Mr. McKinley. So, Mr. Pyle?

1903 *Mr. Pyle. Yes.

1904 *Mr. McKinley. Let me rephrase my question to you.

1905 *Mr. Pyle. Please do, Congressman.

1906 *Mr. McKinley. My question, primarily, was should we --

1907 *Mr. Rush. Will the gentleman suspend?

1908 *Mr. McKinley. Should Europe import --

1909 *Mr. Rush. The gentleman has 1 minute 20 seconds
1910 remaining.

1911 *Mr. McKinley. Should Europe import coal from America,
1912 or Australia, or South Africa, or other nations?

1913 And secondly, what steps should the United States take
1914 to supply that available coal?

1915 *Mr. Pyle. Well, Europe should secure diversified
1916 supplies of coal. I would like them to secure it from

1917 America, because we do process and mine here in the safest,
1918 most --

1919 *Voice. I can't hear what --

1920 *Mr. Pyle. -- most environmentally responsible manner
1921 possible.

1922 But the overall point is this. They -- Europe has put
1923 -- in the rush to green, Europe has put themselves in a
1924 precarious situation. And they need to diversify their
1925 supply, and that includes coal, absolutely.

1926 *Mr. McKinley. Thank you, and I yield back the time.

1927 *Mr. Upton. Well, wait, wait, wait. There is no audio
1928 coming from the stream, so we are going to suspend here for a
1929 moment. I am getting --

1930 *Voice. And we are going to let Mr. McKinley go again.

1931 *Mr. Upton. We are going to let you go again. You get
1932 to ask your question yet a third time. But you have got to
1933 hold until we get the audio for the hearing.

1934 So if you just suspend, we are going to get this thing
1935 fixed, and then we will come back to Mr. McKinley.

1936 Yes, you get that extra Daylight Savings Time hour.

1937 *Mr. Rush. We will stand in recess until we are able to
1938 receive audio, and that is suspended right now. We are not
1939 getting audio, so the chair will suspend and recess until
1940 such time as we can get the audio restored.

1941 Please stand by. Please stand by.

1942 [Recess.]

1943 *Mr. Rush. The audio has been restored. I will now --
1944 and Mr. McKinley had to leave, so we [inaudible] with the
1945 next Republican member for questioning, and that would be Mr.
1946 Griffith from Virginia.

1947 Mr. Griffith, you are recognized for five minutes.

1948 *Mr. Griffith. Thank you, Mr. Chairman. Today we are
1949 having a hearing that is titled, "Charging Forward: Securing
1950 American Manufacturing in our EV, Electric Vehicle, Future."
1951 Charging forward. Really?

1952 Right now, when Americans in the world hear the phrase
1953 "charging forward," we think of Russia charging across
1954 borders, and we think of Russia charging into Ukraine cities.
1955 I know this hearing was planned before the invasion of
1956 Ukraine, but we should be flexible and able to adapt to the
1957 issues of today.

1958 When it comes to electric vehicles, the majority is, in
1959 fact, tone deaf. In a peaceful world, this would be a fine
1960 hearing. But it is not a peaceful world. It is a world
1961 where permanent -- a permanent member of the U.N. Security
1962 Council has put his vast nuclear weapons stockpile on alert,
1963 and has invaded a sovereign nation. It is not 2050, it is
1964 2022. And while we can imagine a future, in order to get to
1965 that future we must focus on today. And today that world is
1966 facing burning cities, millions of refugees, and a Russia

1967 that wants to rebuild its 19th century empire, and they want
1968 to do it by the force of arms.

1969 We should focus on what we can do today. This is the
1970 Energy policy committee of the United States Congress. We
1971 should be talking about nuclear energy use and its expansion
1972 in order to combat Putin's threats with tactical nuclear
1973 weapons.

1974 We should be talking about expanding offshore energy,
1975 including oil and natural gas, to combat and weaken the
1976 efforts of Russia on the coast and the coastal islands of
1977 Ukraine.

1978 We should be talking about the permitting of new oil and
1979 gas wells on both private and public land, which the Biden
1980 Administration has essentially stopped. And by doing so, we
1981 will not permit Putin to take over the public and private
1982 lands of Ukraine.

1983 We should not permit Putin and Russia to have a monopoly
1984 on reliable energy in Europe and, by controlling the levers
1985 of the European economy, attempt to control European foreign
1986 policy.

1987 This is a time for action on the world scene, but we are
1988 not taking action on the world scene. We are talking about
1989 electric vehicles. Disappointing.

1990 And to my colleagues who say that electric cars don't
1991 need oil or gas, have my friends forgotten where our

1992 electricity comes from today? Today it is still coming from
1993 mostly fossil fuels: oil, natural gas, and coal. And until
1994 this morning, we have been sending millions of dollars to
1995 Russia to have enough to keep our economy going and to allow
1996 them to buy missiles to burn the cities in Ukraine.

1997 Now I would prefer to talk about those issues and lots
1998 of others to make sure that our nation is prepared and ready
1999 today to provide our people with their energy needs, and to
2000 help our allies in Europe. But the topic is electric
2001 vehicles, so let me turn to that one.

2002 I would like to enter into the record an Axios article
2003 entitled, "The Cold Hard Truth About Electric Vehicles in
2004 Winter'" from March 4, 2022. And I believe that the majority
2005 has seen that.

2006 *Mr. Rush. With no objections, so ordered.

2007 [The information follows:]

2008

2009 *****COMMITTEE INSERT*****

2010

2011 *Mr. Griffith. The -- thank you. The article states
2012 that the AAA found that freezing temperatures can cut
2013 electric vehicle range almost in half. Most electric
2014 vehicles on the market today do not have sufficient range on
2015 a single charge to get me from one end of my district to the
2016 other, even on a warm day.

2017 I recently took a trip to Pennington Gap last summer,
2018 209 miles from where I was to Pennington Gap. That is not
2019 the whole district -- about 300 miles long. And yet, this
2020 article says that, in cold weather, that range that wouldn't
2021 get me there then would be even less.

2022 So Mr. Pyle, does -- is there -- if I got stopped
2023 somewhere, if I ran out of power halfway there or three-
2024 fourths of the way there, is there a portable charging that
2025 exists, or would we be waiting on hundreds of tow trucks to
2026 clear -- to get to those electric vehicles? And do those
2027 portables exist?

2028 And also, can you get a spare battery to carry in the
2029 car so that, if I run out, I can just get out of the car and
2030 change the battery and put a new one in?

2031 *Mr. Pyle. I am afraid we are not quite there yet,
2032 although I have heard that there are some mobile charging
2033 stations that are operating, correct me if I am wrong, but on
2034 diesel in a lot of cases. So --

2035 *Mr. Griffith. All right. My time is up. I yield

2036 back.

2037 *Mr. Rush. The gentleman yields back. The chair now
2038 recognizes the gentleman from the state of New York, the
2039 chairman of the Energy -- the Environment Subcommittee, Mr.
2040 Tonko, for five minutes.

2041 *Mr. Tonko. Hey, thank you, Mr. Chair.

2042 Ms. Powers, thank you for explaining state energy
2043 offices' years of experience supporting EV infrastructure
2044 deployment and fostering interstate cooperation. While much
2045 of the bipartisan infrastructure law's funding [inaudible]
2046 will be distributed through state transportation offices, how
2047 are state energy offices working with their transportation
2048 counterparts to ensure this funding is administered
2049 effectively?

2050 *Ms. Powers. Thank you for the question and, Mr. Tonko,
2051 thank you for your support of the state energy program, as
2052 well as your leadership on the SEP and WEP Dear Colleague
2053 letter.

2054 There are a number of ways. One, the state energy
2055 offices, as you know, have long led infrastructure
2056 investment, as well as EV program development in many of the
2057 states, but have been working closely with their state
2058 departments of transportation for years to make sure that
2059 these investments are made, both in partnership with their
2060 DoTs.

2061 And so recently, as I mentioned, NASEO, as well as our
2062 counterpart, AASHTO for the state DoTs, signed a memorandum
2063 of understanding. Our members -- and that really signifies
2064 that our members will be working together more and more in
2065 the coming years.

2066 Energy offices have expertise in energy policy, program
2067 development, and have, again, long led EV infrastructure
2068 program implementation. The state DoTs, of course, lead
2069 infrastructure investments along the roadways, lead in EV
2070 signage, et cetera. We are seeing collaboration between
2071 state energy offices and state departments of transportation
2072 across the country.

2073 The State of Nevada, the state DoT, is working hand in
2074 hand with the governor's office of energy to support the
2075 development of the Nevada Electric Highway.

2076 In Colorado the state energy office is working with
2077 their department of transportation, as well as their
2078 environment agency, to make sure that the three pillars of
2079 electric vehicle -- transportation electrification, excuse
2080 me, is done in a holistic manner.

2081 In Florida, the state department of transportation has
2082 developed the Electric Vehicle Infrastructure Master Plan,
2083 while the state energy office is leading their alternative
2084 fuels planning, and also developed a state -- excuse me, a
2085 electrification evacuation roadmap.

2086 So there are examples across the country, and we look
2087 forward to continuing to leverage the expertise of the energy
2088 office to help with state DoTs as they invest in
2089 infrastructure through the Infrastructure Investment and Jobs
2090 Act.

2091 *Mr. Tonko. Thank you. And similarly, the Federal DoE
2092 and DoT have established a joint office to help implement the
2093 law. And so what has -- Ms. Powers, what has been your
2094 experience working with this new office?

2095 *Ms. Powers. Absolutely, it has been a bright spot in
2096 the Infrastructure Investment and Jobs Act implementation.
2097 The Department of Energy and Department of Transportation hit
2098 the ground running as soon as the legislation was passed, and
2099 worked to set up the Joint Office. Those two agencies,
2100 through the Joint Office, issued RFIs early on to get input
2101 on how programs should be built.

2102 And just last month, the Joint Office, on behalf of
2103 FHWA, issued the guidance for the National Electric Vehicle
2104 Infrastructure Program. The Joint Office has already set up
2105 a technical assistance arm, where the states are beginning to
2106 ask questions and work directly with the Federal Government
2107 to get questions answered on the guidance, as well as helping
2108 to figure out how the Infrastructure Act programs can build
2109 on the existing work of these states.

2110 *Mr. Tonko. Well, thank you. And I strongly believe

2111 that it is critical that state energy offices are involved in
2112 EV infrastructure buildout, especially since greater EVs will
2113 put new demands on our electric distribution system.

2114 And Ms. Powers, what are the unique capabilities of
2115 state energy offices that can help support the grid planning
2116 and other activities necessary to ensure a successful EV
2117 transition?

2118 *Ms. Powers. Absolutely. A state energy office leads
2119 their state's comprehensive energy planning, energy
2120 emergency, and resilience planning, as well as, in many
2121 cases, their EV plans. They work hand in hand with
2122 utilities, often interact with their public utilities,
2123 commissions, and other partners, and they have a thorough
2124 understanding of what the electric system needs are in their
2125 state, where the fuel is coming from, and also what is most
2126 appropriate for electric vehicle infrastructure investment.

2127 And so their expertise on the grid and electric system
2128 side, when paired when (sic) the needed expertise for
2129 electric vehicle infrastructure investment makes for a
2130 perfect combination with the energy offices.

2131 *Mr. Tonko. Thank you. And it is a top priority for me
2132 and for the Biden Administration that EV infrastructure is
2133 publicly available in under-served and disadvantaged
2134 communities. What experience do state energy offices have
2135 developing and implementing programs that ensure funding is

2136 distributed equitably, so that low-income and rural
2137 communities are not left behind in this transition?

2138 *Ms. Powers. That is a great question. And so energy
2139 offices often lead energy stakeholder engagement activities
2140 in their states. They are seen as the glue to help state
2141 agencies and other arms of government interact, and also with
2142 the private sector partners and municipalities and other
2143 stakeholders on the ground.

2144 More and more with electric vehicle programs in the
2145 states, we are seeing energy offices, as well as their other
2146 agencies, reach out to community-based organizations and
2147 other critical on-the-ground partners to make sure that they
2148 understand what the needs of the community are before the
2149 program is made. And so this is -- a critical difference is
2150 that, in the last few years, states have increasingly paid
2151 attention to how to design policies and programs from the
2152 ground up.

2153 We see an excellent example in Washington State, where
2154 the Washington department of commerce, the state energy
2155 office, they are working hand in hand with their department
2156 of transportation. They issued the electrification of
2157 transportation system grants in, I believe, late 2020, and
2158 that program was designed to support electrification in
2159 disadvantaged communities. The state worked hard to make
2160 sure that they were engaging with community-based

2161 organizations and other communities throughout the state, and
2162 they built a program that did small things but important
2163 things like waive the match requirements for low-income
2164 areas, and also making sure that they were prioritizing
2165 investment in disadvantaged areas.

2166 *Mr. Tonko. Thank you for the input.

2167 And with that, Mr. Chair, I yield back.

2168 *Mr. Rush. The gentleman yields back. The chair now
2169 recognizes the gentleman from Ohio, Mr. Johnson, for five
2170 minutes.

2171 Mr. Johnson, you are recognized.

2172 *Mr. Johnson. Thank you, Mr. Chairman. I associate
2173 myself with the comments made by some of my other colleagues.
2174 Eastern Europe is on fire, a tyrant is raging through the
2175 Ukraine, and it is absurd to me that we are spending our time
2176 today talking about electric vehicles, rather than how we use
2177 America's energy resources to hold him at bay and to address
2178 the skyrocketing inflation here at home for the American
2179 people. But here we are.

2180 What has been made very, very clear is that energy
2181 security is national security. We see it playing out. What
2182 we are seeing in the Ukraine is a direct result of Vladimir
2183 Putin using Europe's dependance on Russian oil and gas
2184 against them. In response, we hear some of our Democratic
2185 colleagues and the hopelessly naive at the White House call

2186 for a shift to an electrified, green, renewable economy to
2187 take on Putin as a solution to reducing our dependance on
2188 Russian oil. How absurd?

2189 Sounds great, but here is the problem: the United
2190 States is currently dangerously dependent on Communist China
2191 for batteries, magnets, and the sourcing and processing of
2192 critical minerals and rare Earths, all of which are essential
2193 for electric vehicles, charging stations, and other
2194 electrified energy infrastructure.

2195 So just to get this straight, the White House plan is to
2196 reduce our dependance on Russian oil and gas by increasing
2197 our dependance on Xi Jinping and the Communist Chinese Party,
2198 given -- give me a break. You call that an improvement? For
2199 crying out loud.

2200 Have we learned nothing from what is going on in Europe?
2201 Dependance on your adversaries for critical things like
2202 energy can have disastrous consequences.

2203 Mr. Chairman, I would like to enter into the record a
2204 September 2010 New York Times article entitled, "Amid
2205 Tension, China Blocks Vital Exports to Japan," if we could
2206 get that in the record, please.

2207 [Pause.]

2208 *Voice. So ordered.

2209

2210

2211 [The information follows:]

2212

2213 *****COMMITTEE INSERT*****

2214

2215 *Mr. Johnson. First to Mr. Holycross, in 2010, in a
2216 dispute over contested fishing waters, China announced it
2217 would completely halt exports of critical rare Earth elements
2218 to Japan. It is clear that China is able and willing to
2219 leverage their stranglehold on these resources to force their
2220 will on other countries. They have done it.

2221 So let's say, in a dispute with the United States, China
2222 cuts off the export of these rare Earth critical minerals,
2223 processing of rare Earths, or magnets to us. Will Ford be
2224 able to keep production of EVs going? Do you have a plan for
2225 a scenario such as that?

2226 *Mr. Holycross. Yes, the notion around the points
2227 raised on energy security being key for national security, we
2228 absolutely agree with, and the diversification of metals and
2229 where they come from is first and foremost for us in our
2230 strategy and how we are going to get to the targets that we
2231 have we have talked about, in terms of number of EVs. And it
2232 reinforces the importance of having those options and the
2233 supply chain in the U.S.

2234 And for our part, having the strong signal to the market
2235 and to the country around the capacity that we provisioned
2236 for the volumes we do is what will, hopefully, spur the
2237 policies that are needed so that those minerals and those
2238 materials can also come from the U.S. and other places that
2239 we are less dependent upon.

2240 The recent events around interruptions in the supply
2241 chain, including semiconductors and others, has reinforced
2242 the importance to all of us on diversifying our supply. And
2243 so we are prepared to continue to make those investments here
2244 in the U.S., and we need the policies to help --

2245 *Mr. Johnson. Okay. Well, thank you. Now to Mr. Pyle.

2246 In your testimony you mentioned the transition to a
2247 green, electrified economy. Is our grid ready for that? Can
2248 it handle that?

2249 Can you expand on why the electric grid will perhaps
2250 need to be doubled in size?

2251 How much will that cost, and who will have to pay for
2252 that?

2253 *Mr. Pyle. A lot of questions, and I probably don't
2254 have the specific answers to all of them. But I will say
2255 generally --

2256 *Mr. Johnson. Can you get back to us?

2257 *Mr. Pyle. I can, absolutely.

2258 *Mr. Johnson. Thank you.

2259 *Mr. Pyle. With specific numbers. I can say,
2260 generally, that, clearly, we are not ready, because you have
2261 seen disruptions already in areas of the country where we are
2262 moving down the road of transitioning our electricity system
2263 to renewables. You see it in California, you saw it in
2264 Texas.

2265 So I would say that we are a long way away from that
2266 very thing.

2267 *Mr. Johnson. And how much will it cost?

2268 *Mr. Pyle. I don't have the -- it is --

2269 *Mr. Johnson. Okay, if you could --

2270 *Mr. Pyle. It is in the multiple billions, but I don't
2271 have the specific numbers.

2272 *Mr. Johnson. Okay.

2273 *Mr. Pyle. But we will get them for you.

2274 *Mr. Johnson. All right.

2275 Thank you, Mr. Chairman, I yield back.

2276 *Mr. Rush. The gentleman yields back. The chair now
2277 recognizes the lady -- gentlelady from the great state of
2278 Washington, Ms. Schrier, for five minutes.

2279 *Ms. Schrier. Thank you, Mr. Chairman, and thank you to
2280 our witnesses.

2281 Let me first just say for the record that I am aligned
2282 with my Republican colleagues that, at this particular moment
2283 of high prices and global uncertainty and shortages, we do
2284 need to be increasing domestic oil supply. We are just
2285 really limited when it comes to substantive policy solutions
2286 that can offer meaningful solutions in the short term. And
2287 people are hurting now, and we need to bring down the price
2288 of gas now.

2289 This is one of the reasons I recently introduced the Gas

2290 Prices Relief Act with a number of my Democratic colleagues,
2291 including my fellow subcommittee member, Mr. O'Halleran. And
2292 this legislation would suspend the 18.4 cent Federal gas tax
2293 until January 1st, 2023.

2294 In addition to lowering prices and putting cash in
2295 Americans' pockets when they really need help, American
2296 businesses will also benefit by a reduction in shipping
2297 costs.

2298 Now, additionally, the U.S. can increase oil production
2299 in the short term to help displace Russian oil without
2300 further burdening the American public on gas prices. The
2301 U.S. is a short supply producer, and can ramp up domestic
2302 production fairly quickly.

2303 We can hold two ideas in our head at the same time, we
2304 are capable of that: increasing production to meet today's
2305 demand, while also planning and making the proper investments
2306 toward a clean energy future. Now, this is a future where we
2307 reduce our reliance on oil, and insulate ourselves from the
2308 whims of the global oil market. Heck, the oil companies,
2309 they themselves are investing in solar and wind and carbon
2310 capture, because they know that we are headed in that
2311 direction, and that we will be less reliant on fossil fuels.

2312 So these are pragmatic conversations, as most Americans
2313 don't drive electric cars.

2314 I also want to note that most trucks run on diesel. In

2315 fact, our entire economy right now is really heavily fossil
2316 fuel-dependent. Gas where I live costs 4.59 a gallon. It is
2317 even more expensive in other parts of the country.

2318 So that being said, I want to turn my attention to
2319 trucking and electric vehicles, which is the topic of today's
2320 conversation. Our medium and large trucks represent 7
2321 percent of the vehicles on the road, but produce 26 percent
2322 of the pollution. And 1 truck can have the same CO2
2323 reduction potential as 9 or 10 cars. Look at the number of
2324 hours that they are on the road.

2325 Within the Infrastructure Investment and Jobs Act is
2326 \$7.5 billion to build out the national network of EV
2327 chargers. Those were very useful to my family on a many-
2328 thousand-mile road trip in an electric vehicle.

2329 As Mr. Holycross pointed out, for customers to make this
2330 transition they need to know that they will be able to charge
2331 their vehicles along the way, wherever they live. And while
2332 this is very true for car owners, this is especially
2333 important for commercial truck drivers, who can't just drive
2334 to their local grocery store and charge up. When DoE
2335 administers these charging funds, they really need to be
2336 thinking about the heavy duty trucking side.

2337 I would just love to hear from our panelists about how
2338 best to roll this out successfully. And I would love to
2339 start with you, Mr. Holycross, and then Ms. Powers, if you

2340 could go in that order.

2341 *Mr. Holycross. Sure, it is -- you raise a very
2342 important point with respect to the commercial vehicle
2343 market.

2344 As you said, these customers are unique, in terms of
2345 their needs and what capabilities they are looking for in
2346 vehicles, and certainly the use cases and where they travel
2347 and how they travel. And that is what we are very proud of,
2348 in terms of where we are targeting our initial
2349 electrification efforts with respect to our F-150 pickup, and
2350 also our E Transit commercial van franchise.

2351 So by knowing these customers, because of having nearly
2352 half of the market, we are working with them for a one-stop-
2353 shop through our Ford -- dedicated Ford Pro commercial
2354 vehicle business to provide those solutions that they need.
2355 But we do need the enabling policies, as you mentioned, to be
2356 able to help with access and affordability, and to move
2357 faster, so that they can continue to do all the work and
2358 perform the tasks that they need that they are already seeing
2359 the vehicles are fully capable of delivering. Yes, the fully
2360 electrified ones, the same capability for the work that needs
2361 to be done as their internal combustion engine parts.

2362 So in terms of deployment and how we roll this out, we
2363 can be very targeted, based on what we know of the customers
2364 in this segment, the leadership we have, on what use cases

2365 and how we deploy the funds and resources available for this.
2366 And the more that customers continue to see these
2367 capabilities, they will understand that that is where this
2368 is, you know, beyond just a question of performance.

2369 *Ms. Schrier. I need to yield back, but, Ms. Powers, I
2370 would love to see a written response about how we deal with
2371 commercial trucking and charging stations.

2372 Thank you very much, I yield back.

2373 *Mr. Rush. The gentlelady yields back. The chair now
2374 recognizes the gentleman from Indiana, Mr. Bucshon, for five
2375 minutes.

2376 [Pause.]

2377 *Mr. Rush. Mr. Bucshon, you are recognized for five
2378 minutes.

2379 [Pause.]

2380 *Mr. Rush. Mr. Walberg, you are recognized for five
2381 minutes. Mr. Walberg is recognized for five minutes.

2382 *Mr. Walberg. Thank you, Mr. Chairman, and I wish you
2383 were here, and I wish all the rest of our colleagues were
2384 here in the room.

2385 I thank the witnesses for being here.

2386 Mr. Holycross, I wish that you had taken the opportunity
2387 to join us driving your electric F-150, parking it out front
2388 of the building here, and coming on in here as the electric
2389 vehicle guy from Ford Motor Company. I hope it was your

2390 idea, but it didn't come as a result of not having a charging
2391 station. Ms. King could help you with that. I do thank you
2392 for being here in this hearing, though it seems to be a bit
2393 tone deaf in the idea of what we are going on -- in the world
2394 today (sic).

2395 The brutal war that Russia is waging in Ukraine really
2396 should serve as a wake-up call to any Americans who have let
2397 their guard down, and failed to consider how energy security
2398 translates to national security. America's vast oil and gas
2399 resources as part of an all-of-the-above energy plan are a
2400 strategic weapon against dictators like Putin.

2401 We can produce a lot more energy here at home. And in
2402 doing that, I think we have proved that we can reduce
2403 greenhouse gas, as well. In fact, we have done it, more than
2404 the next 12 developed countries combined, in our reduction of
2405 greenhouse gases. That has come as a result of using clean
2406 natural gas, and we shouldn't forget that.

2407 And while I state that, even though it has been stated
2408 here a couple of times today that there is something that we
2409 could call carbon free, there is no such thing as carbon free
2410 in any of our energy today. That is a myth when we look at
2411 lifetime costs of producing even electric energy.

2412 We need to modernize our pipelines, our infrastructure,
2413 our processes for the fight that lies ahead with people like
2414 Putin. This war isn't going to be over any time soon. We

2415 also have to be realistic, and lessen our dependance on
2416 China, which controls 90 percent of the world's critical
2417 minerals.

2418 Mr. Pyle, I recently traveled to the European Union with
2419 the Conservative Climate Caucus. I found that, in their rush
2420 to reduce emissions, traditional energy baseload sources like
2421 nuclear and natural gas have been discarded without
2422 adequately replacing them. In your testimony you highlight
2423 similar findings. This under-investment in natural gas in
2424 the EU has led to an unsustainable dependance on Russian oil
2425 and gas, and has exacerbated the current energy crisis.

2426 I see natural gas as a key enabler of our energy
2427 independence, as well as our short-term and long-term
2428 emission reductions. It is a cleaner burning fuel and,
2429 combined with innovative technologies, it can allow us to
2430 reduce emissions in an affordable way without abandoning the
2431 existing infrastructure and raising consumer prices.

2432 Mr. Pyle, what steps should the United States take to
2433 ensure that we do not repeat the natural gas mistakes of the
2434 EU?

2435 *Mr. Pyle. First, do no harm. I think the policies, or
2436 the non-policies, the reversal of, the elimination of, some
2437 of the restrictions on our ability to both produce and move
2438 and export these resources is the wrong approach.

2439 I think that the idea that FERC could abandon its

2440 mission and create policy statements that would make it
2441 virtually impossible to build new pipelines is the wrong
2442 approach.

2443 I think that we need to recognize the tremendous value
2444 of this energy resource, not only for the affordable and
2445 reliable electricity that it generates, but for the multiple
2446 uses of natural gas: fertilizer, plastics, all of the
2447 multiple uses that are in this room everywhere that we depend
2448 on.

2449 Those are important first steps.

2450 *Mr. Walberg. I am glad you brought up those aspects,
2451 as well, because we will soon find out, with the growing
2452 season coming to the United States, to Michigan, we don't
2453 have the fertilizer. Right now it is not simply that the
2454 farmers know that the fertilizer costs are going up
2455 exponentially; they can't get it. They can't even order it,
2456 because the producers don't know how to get it to them, or
2457 when they can get it to them.

2458 Mr. Pyle, what regulatory changes do you recommend to
2459 ensure that the U.S. is able to remain energy independent?

2460 *Mr. Pyle. We need to continue the lease -- we have to
2461 restore the leasing process on Federal lands. It is an
2462 important strategic asset that we have that we are not
2463 utilizing.

2464 We need to reverse the policies that have led to this

2465 sort of freeze, if you will, or this concern about the
2466 regulatory and financial pressures that have been put on the
2467 industry. We have nominees for positions in the Federal and
2468 banking and finance that are openly, actively hostile to
2469 investing in oil and gas. We can't have that, especially
2470 now.

2471 *Mr. Walberg. Yes.

2472 *Mr. Pyle. Those are just a few things we should start
2473 with.

2474 *Mr. Walberg. I thank you, and I yield back.

2475 *Mr. Rush. The gentleman yields back. The chair now
2476 recognizes the gentlelady from Colorado, who is the chairman
2477 of the O&I Subcommittee, Ms. DeGette, for five minutes.

2478 *Ms. DeGette. Thank you so much, Mr. Chairman, and
2479 thank you for holding this hearing.

2480 A few weeks ago I had a meeting with the auto dealers
2481 from my district, from Colorado, and they are very, very
2482 excited about the prospect of electric vehicles. And they
2483 are very, and they are bullish on it. They all themselves
2484 drive electric vehicles, and they are really looking forward
2485 to it.

2486 But in places like Colorado, of course, one of the
2487 impediments that we face is it is a big state with a lot of
2488 geographic diversity. And we want to make sure that people
2489 who buy these vehicles can charge them up, which is why this

2490 is such an important hearing.

2491 I have a couple of questions, but before I do that, I
2492 have been listening to my colleagues on the other side of the
2493 aisle talking about their extreme interest in drilling oil
2494 and gas, given the current crisis in Ukraine. And I will say
2495 that we all -- I totally support independence from Russian
2496 oil, and I think the world should get independent from
2497 Russian oil. But I don't think that it -- that should be an
2498 excuse for us to give up our long-term energy plans, which
2499 includes moving towards electric vehicles.

2500 And I am always shocked at how Congress seems to lurch
2501 from crisis to crisis without a long-term energy plan. And I
2502 have been trying for several years now to work with my
2503 colleagues on the other side of the aisle on a long-term
2504 energy plan.

2505 In the short run we are going to have to figure out how
2506 we can get more oil and gas for our constituents at
2507 reasonable prices. That would mean, obviously, increasing
2508 domestic production where we can, and seeing what we can do.

2509 I would suggest that the other thing we could do is look
2510 and see, as we do any time we have a crisis like this, at
2511 whether the oil and gas companies are engaging in price
2512 gouging. I don't see why we would not look at that, as well
2513 as everything, because, according to media reports, American
2514 oil producers have not said they are going to increase

2515 domestic production, but rather they are saying that they are
2516 going to take their profits from high prices and give them
2517 back to their shareholders.

2518 Occidental Petroleum said its intent is to "follow our
2519 cash flow priorities and capital framework that we will share
2520 with you today. We have no need and no intent to invest in
2521 production growth this year."

2522 Meanwhile, Pioneer Natural Resources said, "We are not
2523 going to change, I said, at \$100 oil, \$150 oil, we are not
2524 going to change our growth rate. We think it is important to
2525 return cash back to the shareholders," et cetera.

2526 And so, as part of any kind of domestic production plan,
2527 I am going to suggest that we also look and see if these
2528 producers are price gouging or, in fact, if they can enter in
2529 to this strong commitment that we have all made to try to
2530 increase domestic oil and gas in the short run, while we
2531 implement our long-term energy plan.

2532 Now to that end, Ms. Powers, I loved your testimony
2533 today for one reason: you focus on Colorado. People in my
2534 district are interested in electric vehicles, as I said. But
2535 charging is not so easy in many neighborhoods. And of
2536 course, that is one of the challenges. So my question is,
2537 what recommendation do you have for states that want to
2538 ensure that low-income and under-served areas are not left
2539 out of the transition?

2540 *Ms. Powers. Thank you for the question. One of the
2541 things that we have been seeing from states, again, in recent
2542 years, is increased stakeholder engagement at the very
2543 beginning of the process, who talk to the communities to see
2544 if they want charging, where they would like charging, what
2545 type they would like.

2546 It might be that, if there are lots of multi-unit
2547 dwellings within a community or a neighborhood, the community
2548 may want for there to be DC fast-charging stations, so that
2549 they can drive their car, plug in, and then go home to their
2550 apartment building. Other places, the communities are
2551 farther apart, and so it might make sense to increase
2552 charging at home.

2553 There has been a lot of work in recent years to also
2554 focus on transportation electrification along those key
2555 corridors, so that communities that are spaced further apart
2556 can make sure that they can drive the 30, 40, or 50 miles to
2557 the nearby town where the grandmother is, et cetera. There
2558 are a lot of those trips.

2559 And so I would say that number one is to start with
2560 stakeholder engagement, to make sure that you are talking to
2561 community-based organizations and to others, so that you know
2562 where the stations could go.

2563 *Ms. DeGette. And also so that they would be affordable
2564 for people to be able to pay.

2565 *Ms. Powers. Absolutely, and that is one thing that we
2566 are seeing in more states, is that there may be assistance
2567 provided based on income level for EV charging stations. We
2568 are seeing a number of states that are offering tiered rebate
2569 structures for the vehicles themselves. And so, if you are a
2570 low or moderate-income household, you qualify for a higher
2571 amount of a vehicle rebate. And there are similar programs
2572 in place for some EV charging station incentives, as well.

2573 *Ms. DeGette. Great, thanks.

2574 Thank you, Mr. Chairman. I yield back.

2575 *Mr. Rush. The gentlelady yields back. The chair now
2576 recognizes the gentleman from South Carolina, Mr. Duncan, for
2577 five minutes.

2578 *Mr. Duncan. Mr. Chairman, thank you, and I look
2579 forward to having you back in the committee room.

2580 There is a lot of fallacies in the conversation that the
2581 gentlelady from Colorado just made, and I would love to have
2582 a debate about oil and gas production, about exploration
2583 cost, what it takes to open up a well, get a well back
2584 online, and all the costs factored in from a barrel of crude
2585 oil all the way to a finished product that meets the demands
2586 of our consumers. But this hearing is about EV.

2587 And you know, how tone deaf can we be? How tone deaf
2588 can this Administration be to travel to Texas to -- at the
2589 same time announce a ban on Russian oil and gas, and appeal

2590 to the Saudi Arabia oil producers for increased production,
2591 while continuing to do great harm to the U.S. energy sector
2592 in Texas?

2593 We are blessed with energy resources here in America,
2594 but we seem to be cursed with liberal politicians who don't
2595 understand a simple fact, and that fact is this: energy
2596 security is national security. And unfortunately, the Biden
2597 Administration fails to recognize that, and we are playing it
2598 out right now. We are going to ban Russian oil, but not
2599 allow American energy production to ramp up, and we are
2600 canceling offshore leases, onshore leases. We have the
2601 methane rule that hurts oil and gas production.

2602 On the most tragic stage, we are witnessing energy being
2603 used as a political weapon. Russia is a gas station
2604 masquerading as a country, and we continue to play into
2605 Putin's hand as the Biden Administration undercuts U.S.
2606 energy production. If what is going on in Europe does not
2607 send a wake-up call to the Biden Administration and the
2608 Democrats, I don't know what will.

2609 President Biden finally announced a ban on U.S. import
2610 of Russian oil, and I have to ask, how is New England going
2611 to meet their energy needs, because they don't want a
2612 pipeline from the Marcellus shale up there to bring natural
2613 gas that we produce here up to New England, so they will
2614 import natural gas to New England. Russian LNG ships --

2615 Russian LNG burns a lot dirtier, as far as air quality, than
2616 U.S. natural gas. We have seen Russian LNG ships in the
2617 Boston Harbor. We are not going to see that anymore. We
2618 don't have a pipeline coming from Marcellus to bring natural
2619 gas to New England. How are they going to heat their homes?

2620 A question for the EV panelist, rhetorically, is how are
2621 they going to provide the electricity needed for your
2622 electric vehicles in New England if you don't have natural
2623 gas to go on the natural gas-powered power plants? Because
2624 you are not going bring it from Russia now, and you are
2625 definitely not going to bring it from Marcellus, because they
2626 don't want fracked gas. They are in a pickle. New England
2627 is going to have a rude wake-up call.

2628 Everyday Russian energy sales generate hundreds of
2629 million dollars for Vladimir Putin for his war effort, but he
2630 is one of the wealthiest, if not the wealthiest man on the
2631 planet. A lot of that comes from oil and gas generated in
2632 Russia. We buy it from him, so we are lining his pockets and
2633 paying for his imperialistic move in Ukraine.

2634 As Russia's war on Ukraine continues, U.S. natural gas
2635 prices will increase, particularly in the Northeast, as I
2636 mentioned. Biden's FERC appointees recently voted to use
2637 climate change in their assessment of future natural gas
2638 pipelines, making it even more difficult to build the
2639 pipelines that might be necessary in New England, or the

2640 pipelines necessary in South Carolina to provide the natural
2641 gas there.

2642 The gentlelady from Colorado talked about long-term
2643 energy plan for the nation -- and I am with her, let's plan
2644 on it -- but every time we talk about it, they go to this
2645 green initiative, the Green New Deal, versus looking at
2646 increasing oil and gas production in this country, advanced
2647 nuclear technology, expediting the permitting process for
2648 nuclear power plants to be built in this country to provide
2649 the electricity that is needed for EV.

2650 Let's talk about some other costs with regard to
2651 electric vehicles. It costs about 70 to \$150,000 per
2652 charging station for convenience stores. We are going to run
2653 those across the country, maybe the price will come down
2654 because of the number we are going to put in, but if
2655 convenience stores are going to put that in and provide that
2656 for their customers that have electric vehicles, that is a
2657 huge cost for them.

2658 Each charging station -- each charging station -- uses
2659 more power than it takes to power the whole convenience store
2660 for one charging station. Who is going to pay for that? The
2661 convenience stores have to buy that power on retail prices,
2662 so they are paying retail. What you and I pay for at home,
2663 they are having to pay that retail price. They are not
2664 getting it at a wholesale cost. Oil and gas works for them

2665 because they buy refined products at a wholesale price, and
2666 sell it at retail price. They can't pay retail for
2667 electricity and sell it at retail prices. That means higher
2668 costs for the consumers when they are charging out of the
2669 convenience stores with the cars that you are wanting to
2670 sell. This is a huge trickle-down.

2671 Today we ought to be talking about how we can make
2672 America independent from these foreign sources of energy. In
2673 1978 Jimmy Carter created the Department of Energy to lessen
2674 or end our dependance on foreign energy, so we could be
2675 energy independent. We are more dependent today than we were
2676 in 1978 on foreign sources of energy. And it is exacerbated
2677 by the war in Ukraine. If we want to talk about energy
2678 policy, let's talk about the failures of the Department of
2679 Energy to do its mission.

2680 With that, Mr. Chairman, I yield back.

2681 [Pause.]

2682 *Mr. Rush. The chair now recognizes my friend from
2683 North Carolina, Mr. Butterfield, for five minutes.

2684 *Mr. Butterfield. Thank you, Mr. Chairman. I thought I
2685 had lost you for a moment, but it is good to see you, and it
2686 is good to see all of my colleagues this afternoon. And
2687 thank you, Mr. Chairman, for convening this very important
2688 hearing on a very important topic, I might say.

2689 Thank you to the witnesses for your testimony, as well.

2690 I will start with the vice president of Ford Motor Company.

2691 And Mr. Holycross, it is good to see you today, sir.

2692 Mr. Holycross, in the State of the Union address last week,
2693 President Biden has said some very nice things about Ford
2694 Motor Company's decision and General Motors decision to
2695 invest in EVs and support domestic manufacturing in Kentucky,
2696 Tennessee, and Michigan. These investments will undoubtedly
2697 create many manufacturing jobs and bring economic vitality to
2698 regions where the plants will be built.

2699 Similarly, in my state of North Carolina, Toyota has
2700 committed to building its automotive battery manufacturing
2701 plant that would be capable of producing lithium batteries
2702 for 200,000 vehicles, with the intention to expand capacity
2703 to support 1.2 million vehicles per year. This is nearly
2704 \$1.3 billion in investment that will create 1,750 new jobs in
2705 the state.

2706 And so my question is, what further steps can Congress
2707 take to ensure that all regions are part of this industry-
2708 wide transition?

2709 And how can states like my state, North Carolina, take
2710 on more leading roles in aiding such efforts?

2711 *Mr. Holycross. Well, thank you very much, Congressman.
2712 It is a pleasure to be here with all of you today.

2713 You know, even before the investments that we have
2714 recently announced in Tennessee and Kentucky, as you noted,

2715 Ford produces currently -- and has produced -- more vehicles
2716 in this country than any other auto OEM. We employ more auto
2717 workers than any other auto company. Eighty percent of what
2718 we build here is sold here, and we don't intend to cede that
2719 leadership to anyone.

2720 But if we are going to continue that leadership, even
2721 beyond the investments that we have made most recently, the
2722 over \$11 billion investment in Tennessee and Kentucky, the
2723 investments in Michigan to expand our Dearborn Rouge complex
2724 and the Electrification Vehicle Center there, we are going to
2725 have to continue to accelerate the pace of the work that has
2726 been done in the infrastructure legislation and some of the
2727 other provisions that are being proposed.

2728 We want to continue to do that work in this country,
2729 including the research and development, to be able to support
2730 the training and skills that are needed for this transition
2731 so that we do not leave anybody behind, and we have access
2732 and the --

2733 *Mr. Butterfield. Thank you. Let me move over briefly
2734 to Mr. King.

2735 Thank you so much for your testimony today, as well.
2736 Ms. King, the Infrastructure Investment and Jobs Act provides
2737 \$7.5 billion in EV charging infrastructure development, which
2738 is a momentous investment toward achieving American energy
2739 independence and revitalizing American manufacturing.

2740 However, putting marginalized communities first is also an
2741 important pillar of the President's clean energy agenda, and
2742 a priority that I absolutely share.

2743 That is why I believe it is equally important to ensure
2744 equity -- that is, equity in the distribution of these funds,
2745 and the creation of an effective consumer education campaign
2746 to communities that I care about, low-income communities and
2747 disadvantaged communities. And so, Ms. King, are there
2748 consumer education campaigns that you have found to be
2749 effective to make these communities more aware of the
2750 benefits of EV ownership, the availability of EV charging,
2751 and the opportunity for job creation?

2752 *Ms. King. Thank you for the question. That is exactly
2753 what Dunamis is undertaking with our local, state, and
2754 private partnerships with automotives, as well as with the
2755 utility companies in the state.

2756 It is absolutely imperative that we do not leave this
2757 portion of the community behind as we are implementing the
2758 infrastructure law.

2759 We believe that apprenticeship programs through
2760 community partnerships, the \$2.5 million in grant
2761 opportunities, where we can have demonstration projects,
2762 pilot programs in order to educate these communities about
2763 the benefits of electric vehicles, the benefits that they can
2764 partake in as it relates to not only driving in an EV, but

2765 also with respect to building them, and building the EV
2766 infrastructure that it is going to take in order to implement
2767 this EV growth throughout the country as a whole.

2768 And so creation of apprenticeship programs with non-
2769 profit organizations like Focus Hope, partnerships with the
2770 City of Detroit that we are undertaking right now in Detroit
2771 Economic Service Corporation that is going to assist us in
2772 identifying community residents to transfer over those that
2773 are under-employed or unemployed and that have technical
2774 skills that can be trained in this industry, we are now
2775 developing those programs out --

2776 *Mr. Butterfield. Okay.

2777 *Ms. King. -- to ensure that we can target these
2778 communities.

2779 *Mr. Butterfield. I thank both of you for very
2780 thoughtful responses.

2781 I yield back, Mr. Chairman, yes.

2782 *Mr. Rush. The gentleman yields back. The chair now
2783 recognizes the gentlelady from the great state of Arizona,
2784 [inaudible] five minutes.

2785 *Mrs. Lesko. Thank you very much, Mr. Chairman.

2786 As the chairman said, I am from Arizona. Arizona is a
2787 leader in electric vehicle manufacturing. We have Lucid
2788 Motors, which is manufacturing electric vehicle cars in Casa
2789 Grande, Arizona, south of Phoenix. We have Nikola Motors,

2790 which is producing electric vehicle semi trucks in Coolidge,
2791 Arizona, which is southeast of Phoenix. We have
2792 ElectraMeccanica, which is manufacturing three-wheel electric
2793 vehicles in Mesa, Arizona. We have KORE Power, which is a
2794 manufacturer of lithium-ion batteries in Buckeye, Arizona,
2795 and so on and so forth. So we are quite a leader in Arizona.

2796 It is estimated that converting standard vehicles to
2797 electric vehicles would require a 30 percent increase in
2798 power generation on our electric grid.

2799 In addition, electric vehicles need four times as much
2800 copper than standard vehicles and, according to the
2801 International Energy Agency, at least 30 times as much
2802 lithium, nickel, and other key minerals will be needed for
2803 electric vehicles by 2040.

2804 And in fact, just today, from CNBC, it says nickel surge
2805 just raised the input costs for an electric vehicle by
2806 \$1,000, Morgan Stanley estimates.

2807 So as we have heard today from my other colleagues,
2808 instead of the Biden Administration increasing U.S. oil and
2809 gas production, and increasing U.S. mining of these critical
2810 minerals that are needed not only for the vehicles
2811 themselves, but for the storage, the batteries, instead he
2812 stopped the Keystone pipeline, he has stopped permitting of
2813 -- or oil and U.S. oil and gas production here in the United
2814 States. And it is just unconscionable to me that he is now

2815 calling on dictatorships, Iran, Venezuela to increase their
2816 oil and gas production.

2817 Just last week I visited a proposed mine in Arizona,
2818 Resolution Copper Mine. It is in Representative O'Halleran's
2819 district. And they have invested \$2.3 billion in Arizona for
2820 this mine. During the Trump Administration they gave the
2821 green light to go ahead with this copper mine, which will
2822 produce, at full blast, 25 percent of U.S. copper production
2823 in the United States. And the Biden Administration has put
2824 it on hold.

2825 So, Mr. Pyle, how in the world are we supposed to put
2826 all these electric vehicles on the grid, while at the same
2827 time the Biden Administration is cutting down oil and gas
2828 production here in the United States, and instead calling on
2829 dictators, and then also calling on China and other dictators
2830 for all the minerals that are needed? How in the world is
2831 that going to work? I don't think it is going to.

2832 *Mr. Pyle. It is a very simple answer: it is not. If
2833 you say you are for increasing electric vehicles, you have
2834 got to back that up with policies that enable us to get off
2835 of our crippling -- what would be crippling dependence on
2836 China.

2837 And Russia is a threat. There is no doubt about that in
2838 my mind, in anyone's mind. But China is a bigger threat, and
2839 that has to be addressed if we are going to march down this

2840 road.

2841 *Mrs. Lesko. Yes. Mr. Pyle, isn't most of the lithium
2842 processed in China?

2843 *Mr. Pyle. Yes. As I mentioned in my testimony, the
2844 DoE -- DoD, I should say -- issued a report entitled,
2845 "Securing Defense of Critical Supply Chains," and it lists
2846 lithium as 94 percent dependent on China. It is DoD, it is
2847 not my numbers.

2848 *Mrs. Lesko. So I hear some of my Democratic colleagues
2849 saying they want to increase oil production. I heard the
2850 other night at the State of the Union that President Biden
2851 wants to buy American. So let's do it. Let's introduce
2852 legislation together. Let's encourage our President to do
2853 that, instead of empty rhetoric. Let's do it. Let's do the
2854 mining in the United States of America. Let's do oil and gas
2855 production in the United States of America. We can do it,
2856 and we should do it.

2857 And with that, I yield back.

2858 *Mr. Rush. The gentlelady yields back. The chair now
2859 recognizes the gentlelady from California, Ms. Matsui, for
2860 five minutes.

2861 *Ms. Matsui. Thank you very much, Mr. Chairman, and I
2862 want to thank the witnesses for being here today.

2863 Now, as we know, transportation is the most polluting
2864 sector of our economy, and the devastating Russian war in

2865 Ukraine is a critical reminder of why we must end our
2866 dependance on fossil fuels and transition away from internal
2867 combustion engines. For this reason I have always been a
2868 long-time champion of strong Federal tailpipe emission and
2869 fuel economy standards, which are critical to reducing
2870 transportation emissions and expediting EV adoption.

2871 The next step in this fight is to ensuring the adoption
2872 of electric vehicles in communities nationwide. A crucial
2873 challenge and a critical challenge to the development of a
2874 domestic EV supply chain is a global semiconductor shortage.
2875 Last December the Department of Commerce reported that the
2876 United States will not meet the Biden Administration's 2030
2877 electric vehicle adoption goals without urgent investment in
2878 domestic semiconductor manufacturing.

2879 The CHIPS Act, which is bipartisan legislation to
2880 establish a roadmap to reassert American leadership in the
2881 semiconductor industry, will give the Commerce Department
2882 powerful tools to boost domestic semiconductor manufacturing.

2883 Mr. Holycross, yes or no, is the current semiconductor
2884 shortage hindering your company's ability to meet demand and
2885 our nation's goals for electric vehicle adoption?

2886 *Mr. Holycross. Well, thanks for the question.
2887 Certainly, the supply disruptions have presented challenges
2888 for us, and has required, you know, very detailed, you know,
2889 day-to-day management of how we continue to assemble

2890 vehicles, and produce them, and provide them in the
2891 quantities desired.

2892 Our announcements around our electrification build-out
2893 of our capacity and meeting the demand that customers have
2894 shown for these exciting products I described earlier is a
2895 big priority for us. And so it reinforces the critical
2896 discussion we are having today around the complement of
2897 policies that have to come together so that we can ensure we
2898 don't have these disruptions going forward, and that we can
2899 have the security in the domestic supply chain to make sure
2900 we can meet the future demand for the capacity that we have
2901 invested in and are planning for.

2902 We are making the long play, we are making the
2903 commitment. We intend to lead, and that signal for the
2904 market is, hopefully, what is going to drive the additional
2905 policies that are required to bring this home, and to ensure
2906 we don't have the challenges that we have had right now.

2907 *Ms. Matsui. Well, thank you very much.

2908 Lifetime ownership costs of EVs are lower than those of
2909 internal combustion vehicles, as the average EV driver will
2910 spend 60 percent less on fuel than a traditional internal
2911 combustion engine driver. Last December I co-led a letter to
2912 auto manufacturers with my colleague, Peter Welch,
2913 highlighting the importance of EV affordability for low and
2914 medium-income communities.

2915 Mr. Holycross, yes or no, is your company working on the
2916 development and production of more affordable electric
2917 models?

2918 And can you tell us more about these plans, if you are
2919 doing so?

2920 *Mr. Holycross. Thank you. That is exactly the heart
2921 of our strategy, and what makes us unique in the industry, in
2922 terms of what we are doing right now, not 5 years from now,
2923 not 10 years from now. These vehicles that we are
2924 electrifying are the most iconic nameplates, right in the
2925 heart of the market, both on the retail and the commercial
2926 level.

2927 The F-150 Lightning, and the excitement that has been
2928 generated for that, we are seeing incremental -- this is not
2929 substitutional -- incremental growth. With a starting price
2930 under \$40,000, this vehicle is going to appeal to a wide
2931 array of customers. And the work that we need to do to get
2932 them into more areas across the country, so that they are
2933 affordable and we can realize the true benefits that they
2934 provide in terms of environmental benefits, is first and
2935 foremost for us.

2936 And so the provisions in the infrastructure package and
2937 others that are on the table for incentives will definitely
2938 serve these customers well, make them -- help make them
2939 affordable.

2940 *Ms. Matsui. Thank you very much.

2941 Advancements in battery technology have led to a new era
2942 of EVs with longer range and higher performance, yet those
2943 who live in multi-unit dwellings, as well as lower wealth and
2944 disadvantaged communities are still largely excluded from EV
2945 adoption.

2946 Ms. Powers, how can states best utilize funding from the
2947 bipartisan infrastructure law to ensure that under-served
2948 communities can have appropriate access to EV charging
2949 infrastructure?

2950 *Ms. Powers. Thank you for the question. Under the
2951 Infrastructure Investment and Jobs Act, there is \$2.5 billion
2952 for a charging and fueling infrastructure program, and 50
2953 percent of that is set aside for community charging and
2954 fueling. And so that is -- funding will be awarded on a
2955 competitive basis to states, municipalities, and others. And
2956 it is with those funds that you can really make a difference
2957 on multi-unit dwelling infrastructure investment, as well as
2958 at low and moderate-income communities.

2959 There is -- also will be work through the National EV
2960 Formula program to place DC fast chargers primarily along
2961 highways. But there will be an option, once the corridors
2962 are built out, for states to invest those dollars in the
2963 communities themselves.

2964 *Ms. Matsui. Okay. Well, thank you.

2965 Mr. Chairman, I lost my clock, so I don't know how much
2966 time I have left.

2967 *Mr. Rush. So did I, and I don't have a clock, so I am
2968 going to rely on members being honorable and respectful of
2969 the time.

2970 So the gentlelady yields back. Mr. Pence, you are
2971 recognized for five minutes.

2972 *Mr. Pence. Thank you, Chairman Rush and Ranking Member
2973 Upton, for holding this hearing, and thank you to the
2974 witnesses for appearing here today.

2975 Let me acknowledge my support for the people of Ukraine.
2976 I call on this Administration to admit its role in
2977 mishandling this crisis, and now the problem with the energy
2978 crisis. But today let's discuss the facts about the next
2979 administration's failure, EVs.

2980 Efforts to enforce the electrification of our
2981 transportation industry is another part of the majority's
2982 complex equation for a green economy that is just not rooted
2983 in reality. After spending my career in the liquid fuel
2984 distribution industry, I know how to ensure fuel supply meets
2985 consumer demand. This issue is seemingly overlooked by my
2986 colleagues.

2987 Whether adapting to new peaks or meeting increased
2988 generation needs, our current distribution infrastructure
2989 cannot deliver the amount of power necessary to sustain a

2990 rapid expansion of EV networks. The ambitious estimates of
2991 EV sales being discussed today will require locations to
2992 install charging stations that are powerful enough to provide
2993 a convenient and fast refueling option for traveling
2994 consumers.

2995 Major highways across the country will experience
2996 sustained peak demands throughout the day that could far
2997 exceed the capabilities of current infrastructure, and I am
2998 talking about the delivery of the electricity to the
2999 location. This problem becomes compounded by the efforts of
3000 the majority and the Biden Administration to inhibit and
3001 price out reliable, dispatchable, and current baseload power
3002 supplies like the coal plants and the natural gas pipelines
3003 in Indiana.

3004 I support the advancement of American innovation, but
3005 the solutions to meet ambitious climate targets haven't
3006 proven to be fully scalable or cost effective yet. Both PJM
3007 and MISO, who oversees reliability for 100 million Americans,
3008 have acknowledged that the goal of a carbon-free power sector
3009 by 2035 is not realistic. We need to know what is really
3010 possible before we start sending money out the door. That is
3011 why I am working on legislation that requires agencies in the
3012 Joint Office of Energy and Transition to certify that the
3013 capacity of electricity distribution can meet demand before
3014 allocating finite taxpayer resources.

3015 Mr. Pyle, the EV infrastructure program includes \$14
3016 million for the State of Indiana. Let's talk about the facts
3017 of charging stations. What is the cost of a charging
3018 station?

3019 *Mr. Pyle. I don't have that number off the top of my
3020 head, sorry.

3021 *Mr. Pence. How fast are they?

3022 *Mr. Pyle. They are not fast at all.

3023 *Mr. Pence. Okay.

3024 *Mr. Pyle. Not yet, anyway.

3025 *Mr. Pence. Ms. Powers, what is the cost of a charging
3026 station?

3027 *Ms. Powers. It varies, depending on the level of power
3028 that is required. I believe one of the representatives
3029 earlier said that, for a DC fast charger, it can range from
3030 50,000 to \$150,000.

3031 *Mr. Pence. For a charger. But it probably depends on
3032 how much electricity comes to that location, correct?

3033 *Ms. Powers. That is correct. And also the level of
3034 readiness for the electric system support structure around
3035 it.

3036 *Mr. Pence. So I have estimates where I used to work.
3037 In Europe it -- sometimes it costs a million and a quarter to
3038 deliver that power there.

3039 And in your testimony earlier you talked about we have

3040 to -- it has got to be shorter distances on the interstates,
3041 as people travel longer distances. Maybe in cities it is not
3042 as important. But, you know, at \$14 million, that means they
3043 can put about 14 charging stations into the State of Indiana,
3044 with 6 million people. So if we are starting to do the
3045 numbers here, okay, 600,000 divided by 4, so we have 150,000
3046 -- in a few years -- electric cars with 14 charging stations,
3047 if we use the money that we are getting from the Federal
3048 Government.

3049 Ms. King, how much do your charging stations cost?

3050 *Ms. King. Thank you for the question. Our charging
3051 stations are priced competitively in the marketplace for --

3052 *Mr. Pence. And I mean right now. If I wanted to buy a
3053 charging station from you, how much would it cost?

3054 *Ms. King. Well, you couldn't buy one right now. We
3055 are going into production this summer --

3056 *Mr. Pence. Okay, thank you. How fast will your
3057 charging stations be?

3058 *Ms. King. Our charging stations for level 2, they
3059 usually charge a vehicle within four to six hours. For the
3060 DC fast charger models that will be produced in 2023, they
3061 can charge your car up to 20 minutes. Twenty to forty
3062 minutes is --

3063 *Mr. Pence. Right. Thanks, Ms. King. The fastest they
3064 have in Europe is 24 minutes for a full charge.

3065 And I thank you all for being here.

3066 Mr. Chairman, I yield back.

3067 *Mr. Rush. The gentleman yields back. The chair now
3068 recognizes the Ms. Castor of Florida.

3069 Ms. Castor, you are recognized for five minutes.

3070 *Ms. Castor. Thank you, Mr. Chairman. I believe the
3071 future is electric, and it is going to be tied to lower-cost
3072 clean energy. And that will -- that is what, ultimately, is
3073 going to help lower costs for families and businesses alike.

3074 And Mr. Holycross, it is very heartening to see the
3075 private sector here in America -- American automakers, auto
3076 workers -- working together, making massive investments in
3077 the clean energy future.

3078 I mean, the investments of Ford and GM alone across the
3079 country recently are just incredible. And together we are
3080 going to outcompete China. I know we will.

3081 Ms. Powers, when we are talking about getting the EV
3082 charging infrastructure out, I am very concerned that there
3083 will be roadblocks at the state and local levels, that there
3084 will be additional charges, barriers, utilities will try to
3085 control the market, while Ms. King has pointed out it is very
3086 important to have as widespread uptake accessibility,
3087 affordability of these charging stations as possible.

3088 In the bipartisan infrastructure law we did provide some
3089 direction requiring states to update utility rates to ensure

3090 that the charging infrastructure is accessible and
3091 affordable. What else does Congress need to be doing in the
3092 coming months and years to make sure that it is not -- there
3093 aren't barriers to deployment?

3094 *Ms. Powers. Thank you for the question. As you
3095 mentioned, there are some barriers at the state and local
3096 level to efficient infrastructure rollout, but the states are
3097 working hand in hand with municipalities and utilities,
3098 streamlining soft permitting costs for charging stations,
3099 working with utilities to explore alternate rate cases,
3100 and/or paired with battery storage or on-site generation.
3101 These are all things that are being resolved at the local
3102 level.

3103 The Federal Government can assist by helping to support
3104 those dialogues, looking -- investing in research and
3105 deployment programs that could help to test new and creative
3106 solutions, particularly on the utility side. Utilities are a
3107 critical partner in the EV infrastructure rollout. Their
3108 rates will determine how expensive it is to charge your
3109 vehicle, and states are working hand in hand with them to
3110 resolve those --

3111 *Ms. Castor. I think it is going to be something for us
3112 to keep a close eye on, moving down the road.

3113 Mr. Holycross, the House passed very significant tax
3114 credits that would make the next electric vehicle that

3115 families are dying to buy -- they want an electric car or
3116 truck, they want to bypass the gas station right now. Those
3117 tax credits will make it cheaper for families to afford the
3118 EV. They will also -- an EV will also reduce the demand for
3119 oil, promote energy -- American energy security, clean up the
3120 air, help Americans avoid price spikes over time.

3121 Where do you rank these tax credits for consumers and
3122 affordability on your to-do list here for Congress?

3123 *Mr. Holycross. Thank you for the question. It is
3124 absolutely one of the highest priorities.

3125 But obviously, with the announcements that we have made,
3126 and the vehicles that we are looking to get into these
3127 customers' hands, and the wide range of customers they can
3128 satisfy -- action and opportunity -- make these more
3129 affordable faster, so that we can have these vehicles, just
3130 like the legacy of our company, for the many, versus the few.

3131 So with the kind of scale that we can get to, with the
3132 capacity we have invested in, that is going to, obviously,
3133 help the affordability. Same thing on the infrastructure, by
3134 the way: the faster the chargers come, the more the costs
3135 are going to come down. Then we can use the opportunity for
3136 the incentives in the policies to help bridge and keep us on
3137 this path, and give us confidence in the market to continue
3138 these investments.

3139 *Ms. Castor. Thank you very much. And while we were

3140 sitting here in this committee meeting today, President Biden
3141 did announce that he is targeting the artery of Putin's
3142 Russian economy by banning oil -- banning imports of Russian
3143 gas and oil. That is a very important step. The Congress
3144 should follow up through legislation.

3145 The European Union also -- marching ahead with us also
3146 on a track to reduce Russian oil and gas imports, ultimately
3147 cease them so they are not dependent on it. What the EU is
3148 doing, as well, is they are revising their energy strategy to
3149 do more energy efficiency, cut gas consumption, shift to
3150 electrification. And we must do that, too, for our own
3151 national security interests and economic interests.

3152 And I know there has been a -- some discussion about --
3153 boy, the -- we ought to just drill, baby, drill, and that
3154 will be the answer to everything. American oil and gas
3155 production is at fairly high levels, but there are 9,000
3156 approved U.S. drilling permits currently sitting dormant. So
3157 it is not really a government problem, it is a private -- it
3158 is a -- it is the oil and gas sector problem.

3159 And I am going to offer a unanimous consent request to
3160 put in the record what the leading public-traded independent
3161 oil and gas producers in the U.S. are saying. They are
3162 saying -- here, the -- Continental saying they are going to
3163 keep production firmly in check. The Devon Energy, "No, we
3164 are not going to drill, we are going to take the value over

3165 the pursuit of volume,' ' because they are making enormous
3166 profits off the backs of American consumers. Pioneer said,
3167 as 100 --

3168 *Mr. Rush. The gentlelady's time --

3169 *Ms. Castor. -- they said, "We are going to -- we are
3170 not going to change our growth rate. It is important to
3171 return cash back to the shareholders.'" So I offer that --
3172 the Argus Media Report for unanimous consent.

3173 *Mr. Rush. The gentlelady's time has expired. The
3174 gentlelady yields. The chair now recognizes the gentleman
3175 from --

3176 *Ms. Castor. And Mr. Chairman, did you accept my UC
3177 request?

3178 *Mr. Rush. Hearing no objections, so moved.

3179 [The information follows:]

3180

3181 *****COMMITTEE INSERT*****

3182

3183 *Ms. Castor. Thank you.

3184 *Mr. Rush. Right. Mr. Welch of Vermont, you are
3185 recognized for five minutes.

3186 *Mr. Welch. Thank you very much. Thanks very much, Mr.
3187 Chairman. By the way, I really appreciate you pushing ahead,
3188 no matter what, even in these incredibly perilous times.

3189 Mr. Chairman, I would like to request permission to
3190 submit a statement for the record by the Zero Emission
3191 Transportation Association.

3192 *Mr. Rush. Hearing no objection, so ordered.

3193 [The information follows:]

3194

3195 *****COMMITTEE INSERT*****

3196

3197 *Mr. Welch. And I thank you so much for this hearing.
3198 We want to reduce dependance on fossil fuel energy. And that
3199 means we have got to attack and find practical ways to do
3200 that.

3201 The autos are about 30 percent, nationally, of our
3202 carbon emissions. In Vermont it is even higher, 40 percent.
3203 Electric vehicles, obviously, can really make a difference,
3204 but those have to be affordable and reliable, and that means
3205 we have to have charging stations. And that is -- in
3206 Vermont, Mr. Chairman, there is a lot of multi-family
3207 buildings. I know that is true in Chicago, rental housing or
3208 folks in rural areas, where the charger installation issues
3209 can be more difficult and expensive.

3210 And what I want to ask about -- would be really helpful
3211 to folks, like, in Burlington, or other urban areas in
3212 Vermont -- and I am going to be introducing very soon the
3213 Equitable Access to Supply Equipment Act, which establishes a
3214 competitive grant program for states that seek flexible funds
3215 to install publicly accessible EV chargers.

3216 I would like to ask Ms. King, from your perspective as a
3217 leader in manufacturing and servicing of EV chargers, can you
3218 speak to how the money in the infrastructure bill allocated
3219 for community charging and further funding through my EASE
3220 Act for EVs can help accelerate charging deployment in areas
3221 that have less access to private charging?

3222 *Ms. King. Thank you for that question. I believe that
3223 the monies that are allocated in the infrastructure law is
3224 able to deploy electric vehicle charging stations in
3225 communities that are under-served and under-represented by a
3226 few things.

3227 First, partnerships, as my other witness has stated,
3228 with local and state governments; utility companies, to
3229 ensure that those communities that use mobility, and the way
3230 that they use mobility, is addressed. So home charging
3231 stations will be very, very, very integral in the way that
3232 communities use their charging stations, or use their
3233 electric vehicles.

3234 Also, public transportation, and having electrification
3235 through public transportation is very important, because
3236 those communities utilize mobility through the use of public
3237 transportation often.

3238 Multi-family housing also is very key with respect to
3239 how these communities, usually communities of color or low-
3240 income communities or rural communities, will be able to
3241 access this technology.

3242 *Mr. Welch. Thank you.

3243 *Ms. King. Ride share programs is another way that you
3244 can also access, through ride share programs in those
3245 communities.

3246 *Mr. Welch. Thank you very much.

3247 Ms. Powers, can you please elaborate on how flexible
3248 funds through the infrastructure bill and my bill can help
3249 states accelerate existing programs and partnerships that
3250 meet some of these unique challenges that Ms. King is talking
3251 about that are associated with [inaudible] their states and
3252 regions? Thank you.

3253 *Ms. Powers. Thank you for the question. The
3254 Infrastructure Act, the charging funds will flow through the
3255 state departments of transportation. But as mentioned, there
3256 are active partnerships between the state DoTs, as well as
3257 their energy offices and environmental counterparts to build
3258 on existing programs.

3259 The Infrastructure Act funding will go a long ways
3260 towards building out EV infrastructure in rural areas of the
3261 country. There is a strong emphasis on highway corridors and
3262 interstates that will help to connect rural and remote areas.
3263 There is some flexible funding, as well, again, through the
3264 charging and fueling infrastructure program --

3265 *Mr. Welch. Thank you --

3266 *Ms. Powers. -- and additional funds would go a long
3267 ways --

3268 *Mr. Welch. Yes. I am just sorry -- I really
3269 appreciate that. I may interrupt you there, because I do
3270 want to get one question in.

3271 Mr. Holycross, we are excited about what Ford is doing.

3272 Thank you. It is really terrific. Can you explain how Ford
3273 is planning to invest in EVs that are affordable, affordable
3274 for every American?

3275 *Mr. Holycross. By going right into the heart of the
3276 market, and where our leadership is today. So the F-150
3277 pickup, the best selling vehicle in the country for the last
3278 45 years, electrifying that first, with a starting price
3279 under \$40,000. That is the heart of this. Nameplates like
3280 Mustang that resonate with customers. That is where this is
3281 going to be.

3282 But in order to get to the kind of scale beyond what we
3283 have already committed to and planned for, to make these
3284 affordable and accessible, we are going to need the
3285 continuation of these complementary policies that have come
3286 along.

3287 So we are excited to be here today and, you know,
3288 providing these for the many versus the few, and seeing the
3289 benefits that will be realized.

3290 *Mr. Welch. Well, thank you very much. Thank you, I
3291 want to thank all the witnesses.

3292 I yield back, Mr. Chairman.

3293 *Mr. Rush. The gentleman yields back. The chair now
3294 recognizes Mr. Schrader of Oregon for five minutes.

3295 *Mr. Schrader. Thank you very much, Mr. Chairman, and
3296 welcome, all the witnesses, to the hearing.

3297 A couple of comments first. One, a pushback on a lot of
3298 the complete misinformation put out by my good friends and
3299 colleagues across the aisle here. I mean, the idea that the
3300 energy crisis that we are facing, the turmoil tragedy in the
3301 Ukraine can be answered just by turning a spigot and drilling
3302 a few more wells is completely erroneous.

3303 America has increased its oil rig count dramatically in
3304 the course of the last few years. I mean, just in the last
3305 year or so we are up 40 percent in the rigs that are out
3306 there right now. Natural gas production is at an all-time
3307 high right now in the United States of America. We are the
3308 biggest producer of oil and gas in the world. But I think we
3309 are fooling ourselves if there -- if we think we are going to
3310 be able to dominate the world market. There are a lot of
3311 other players: OPEC, you know, Russia, Venezuela, other
3312 countries out there.

3313 Is it smart for us to double down on polluting the
3314 planet, when there are alternate resources, other avenues for
3315 our transportation sector that we should be looking at?

3316 You know, the transportation sector is, what, 30 percent
3317 of the emissions in our world right now? Let's start going
3318 after that.

3319 I don't agree that America cannot walk and chew bubble
3320 gum at the same time. Yes, let's make sure that we build our
3321 LNG capacity to handle, you know, all the production that we

3322 have. Right now Secretary Granholm says we are at capacity.
3323 There is plants being built, as we speak. I have colleagues
3324 who are going to talk about that in a little bit. But let's
3325 also build for the future.

3326 I mean, that is what it is all about. How do we
3327 decrease the dependance that Mr. Pyle keeps talking about
3328 Europe's on, you know, with their fossil fuels? It is to
3329 start to build out an electrical network. And that is what
3330 this hearing is about. This is about making it real. This
3331 is about making it real.

3332 Mr. Holycross, a question for you. When did the
3333 President of the United States call you and said you had to
3334 produce only electric vehicles? When did he tell you that it
3335 was the policy the Federal Government that it was only going
3336 to require Ford and GM and everyone else just to produce
3337 electric vehicles? When did he call you?

3338 *Mr. Holycross. The electric vehicles we are providing
3339 are not being imposed on our customers. They are demanding
3340 these.

3341 *Mr. Schrader. Oh, well --

3342 *Mr. Holycross. It is not an imposition.

3343 *Mr. Schrader. -- that is very different from what we
3344 heard here today.

3345 *Mr. Holycross. It is -- this is a --

3346 *Mr. Schrader. I am sorry to interrupt. It was a

3347 rhetorical question. You answered it very well. Thank you
3348 very much.

3349 You know, this is the consumer that is driving this.
3350 You know? Ford, GM great American companies, iconic, but
3351 they are listening to the consumer. It is not Joe Biden. It
3352 is not Trump. It is not Obama. They are listening to the
3353 consumer. That is what America is all about. And the future
3354 of this country, the future of the world is electrification,
3355 you know? Let's be honest, folks, we have got to get after
3356 this in a serious way.

3357 And I think it is the partnership that we are seeing
3358 with the Federal Government stepping up, hopefully working
3359 with our friends, Ford Motor Company, to make this actually
3360 happen in a timely manner, that is what it is all about. It
3361 is about doing that while we deal with our media crises at
3362 this very point in time.

3363 So I am sorry to cut you off, Mr. Holycross. You can go
3364 ahead and expand a little bit on your comments there. And I
3365 also want to make sure that it is affordable for Americans.
3366 I think Mr. Welch alluded to that, but I want to make sure
3367 you have a strategy to make sure the electric vehicles are
3368 available to everyday Americans.

3369 *Mr. Holycross. Well, that is absolutely our legacy at
3370 Ford, in terms of what we have been able to provide in terms
3371 of affordability and transportation for the masses.

3372 And, you know, look, the importance of understanding the
3373 performance of these vehicles, as well, being able -- having
3374 the capability to do everything that these customers today
3375 demand, and no compromises, not in question.

3376 In addition, these are digitally connected vehicles.
3377 They have the software capability to provide a whole new
3378 array of services to these customers, especially commercial
3379 vehicle customers [inaudible] these vehicles to get their
3380 work done. These are small business owners, electricians,
3381 plumbers. These vehicles [inaudible] right in the heart of
3382 satisfying those, and affordability is a big issue, cost of
3383 ownership.

3384 But if we are going to truly accelerate the pace,
3385 realizing the benefits [inaudible] can make, both for our
3386 economic security, our national security, you need to have
3387 the complementary measures, in addition to the emissions
3388 standards and other things that have been put in place, that
3389 we fully support, and have consistently. So this is a real
3390 inflection point, as indicated in our testimony, and we are
3391 looking forward to continuing to partner with the government
3392 to make this happen at an even faster pace.

3393 *Mr. Schrader. Very good, yes, I think it is an
3394 inflection point.

3395 Ms. King, real quick, how do we make sure that
3396 minorities, people of color can actually afford these cars?

3397 *Ms. King. I think that one thing the industry needs is
3398 incentivizing. I think that rebates, incentives in order to
3399 ensure that they are able to afford the vehicle and the EV
3400 infrastructure that is needed to charge the vehicles is what
3401 new adopters are going to need.

3402 *Mr. Schrader. Thank you.

3403 Thank you, Mr. Chairman. I yield back.

3404 *Mr. Rush. The gentleman yields back. The chair now
3405 recognizes the gentlelady from New Hampshire, Ms. Kuster, for
3406 five minutes.

3407 *Ms. Kuster. Thank you so much, Mr. Chairman, and thank
3408 you for hosting this important hearing on electrification of
3409 our transportation system.

3410 I think one of the major drivers going forward from this
3411 inflection point will be the cost of gasoline, and that
3412 families need to have a reliable vehicle that they can afford
3413 not just to purchase, but to keep on the road. And so I want
3414 to commend our witnesses here for their leadership in meeting
3415 the consumer demand, and thank you to Mr. Schrader for
3416 correcting the record, that this is driven by consumer
3417 demand.

3418 So this hearing is especially timely as we begin to
3419 consider legislation to halt the importation of crude oil
3420 from Russia in the wake of its unprovoked and unwarranted
3421 illegal invasion of Ukraine. This is a policy that I

3422 support, and I look forward to working with my colleagues on
3423 both sides of the aisle.

3424 While we consider short-term remediation efforts, we
3425 must start thinking about what a clean energy transportation
3426 economy will look like, and how we can advance policies to
3427 achieve this goal. We must ramp up our Federal investments
3428 for an electrical -- electric vehicle future. And to
3429 facilitate the wide-scale adoption of electric vehicles, we
3430 need to expand access to public charging stations. It is a
3431 matter of providing peace of mind to drivers taking long
3432 trips, and to those without access to residential charging.

3433 The Infrastructure Investments and Jobs Act provides a
3434 critical \$7.5 billion investment toward developing a
3435 nationwide public charging network. We need to ensure that
3436 this charging network meets the needs of Americans across the
3437 country, including those in rural communities like my
3438 district in New Hampshire.

3439 Ms. Powers, can you elaborate on some of the challenges
3440 to expanding public charging in rural communities?

3441 And how can state and Federal agencies partner to
3442 overcome these obstacles?

3443 *Ms. Powers. Thank you for your question.

3444 The electric service needs in rural communities are
3445 unique and can be challenging, particularly since, in many
3446 cases, charging stations will be placed along highways and

3447 roadways. It will depend on the area of the country, but
3448 making sure that there is adequate electric service and
3449 reliable service for those chargers will be critically
3450 important.

3451 The Federal Government is already doing quite a bit
3452 through the Infrastructure Investment and Jobs Act with that
3453 five billion national EV formula program, again, which will
3454 be invested along interstates and highways a lot in the rural
3455 areas, and continuing to engage with states, as well as
3456 utilities across the country, to try to better understand the
3457 unique challenges and specific areas of the country. A rural
3458 community in Vermont is different than a rural area in
3459 Montana, and so being able to have customized solutions for
3460 different states will be important.

3461 *Ms. Kuster. Thank you so much. It is clear we need to
3462 continue to address the unique challenges, as you say, facing
3463 rural communities all across the country.

3464 Now, shifting focus to public charging more broadly, one
3465 of the primary challenges facing this industry is demand
3466 charges. Demand charges are charges levied by electric
3467 utilities as a means to recoup the costs they incur to meet
3468 peak energy demands. However, many electric vehicle charging
3469 service providers are paying high demand charges that do not
3470 accurately reflect their demand on the electric system.

3471 This is for Ms. Powers and Ms. King: Can both of you

3472 speak to the impact of high demand charges on charging
3473 service operators, and how these impacts affect consumers
3474 more broadly?

3475 *Ms. Powers. I could start. Demand charges can be a
3476 significant obstacle to electric vehicle infrastructure
3477 investment. Demand charges will often drive up costs
3478 significantly, sometimes to the tune of thousands of dollars
3479 per charge, even at a station. And so it is critical for
3480 states, utilities, and others to work together to identify
3481 what rate structures might be appropriate to enable utilities
3482 to recover the costs that they need to ensure adequate and
3483 reliable electric service attestation, while also making sure
3484 that the station use becomes affordable for the consumers.

3485 In many cases, demand charge structures were put in
3486 place for industrial uses or other uses, and were not
3487 designed for EV charging stations. So it will be important
3488 for utilities and others to take a look at how they might be
3489 able to rework those demand charge structures to more
3490 accurately captured the true cost.

3491 *Ms. Kuster. Thank you.

3492 *Ms. King. And while I agree with Ms. Powers, I also
3493 feel that the networking and software structure for electric
3494 vehicle charging stations that are implemented will also help
3495 in curbing those costs for the user. And so our software
3496 network is designed to make sure that we are tracking and

3497 have interactivity and connectivity with the user to ensure
3498 that they are utilizing their chargers at peak times to
3499 ensure that, if there are cheaper rates, less expensive
3500 rates, then our chargers will be able to educate the driver
3501 to say, "You need to charge during this time period."

3502 And so that also offsets the high cost of charging
3503 during a peak rate, where you can charge lower, particularly
3504 when you are charging at home.

3505 *Ms. Kuster. Great, that is very helpful, thank you.

3506 And with that, my time is up, I yield back, Mr.
3507 Chairman.

3508 *Mr. Rush. The gentlelady yields back. The chair now
3509 recognizes the gentlelady from California, Ms. Barragan, for
3510 five minutes.

3511 Ms. Barragan, you are recognized for five minutes.

3512 *Ms. Barragan. Thank you. Thank you, Chairman Rush,
3513 for holding this important hearing on transforming our auto
3514 industry to electric vehicles, and the investments the Biden
3515 Administration and Democrats in Congress are making and need
3516 to build on.

3517 We have seen in the last two weeks how important it is
3518 to aggressively transition our transportation system away
3519 from fossil fuels. This transition is about environmental
3520 justice. It is about climate, and it is about our national
3521 security. Every electric vehicle we can make and sell in

3522 America is one less vehicle at the mercy of increasing oil
3523 prices and relying on oil from Russia.

3524 I also want to take an opportunity to echo the comments
3525 from my colleague, Mr. Schrader. About 95 percent of the
3526 comments I completely agreed with, and appreciate his voicing
3527 a lot of the responses to what we are hearing on the other
3528 side.

3529 I also want to thank my colleagues and our witnesses
3530 today for being here, and for talking about

3531 [Audio malfunction.]

3532 *Ms. Barragan. -- the importance of the communities --

3533 [Audio malfunction.]

3534 *Ms. Barragan. I represent California's 44th district
3535 in the --

3536 [Audio malfunction.]

3537 *Ms. Barragan. -- aware we often have to reach out to
3538 folks to educate them about electric vehicles, but we also
3539 have to make sure it is affordable.

3540 I recently introduced a bill called the EVs for All Act
3541 to provide grants for electric vehicle car sharing programs
3542 at public housing authorities. It is modeled after a
3543 successful program at Rancho San Pedro in my district for
3544 residents who can't afford a car, but still want to take part
3545 in the electric vehicle future. As Federal resources for EV
3546 charging go out, I hope state and local governments

3547 prioritize innovative approaches to EV access in low-income
3548 communities and communities of color.

3549 Ms. King, my first question is for you. In your
3550 testimony you talked about how workforce development will be
3551 needed to meet the demand the infrastructure law will create
3552 for the EV charging equipment your company manufactures. How
3553 can Congress support efforts to connect economically
3554 disadvantaged communities with these workforce development
3555 opportunities, and where there are proposed workforce
3556 investments in the House-passed Build Back Better Act that
3557 would help?

3558 *Ms. King. Thank you for the question. I believe that
3559 one of the key factors that can be available is workforce
3560 development training programs, apprenticeship programs, pre-
3561 apprenticeship programs that can be provided for communities
3562 of color, low-income communities, rural communities so that
3563 they can learn trades, skills that will transfer over to this
3564 EV infrastructure industry. We are hiring from within the
3565 community to ensure that we have the ability to train. We
3566 have received funding from local initiatives, local and state
3567 initiatives, in order to start those apprenticeships and
3568 training programs.

3569 The second thing that I think that should be available
3570 are other more holistic aspects like child care, like -- for
3571 that workforce. In order for people to get into the

3572 workforce, one of the key barriers is child care for low-
3573 income communities. And so things that help the community to
3574 become engaged in workforce development, in addition to the
3575 training for the technical skills that would be related to
3576 the jobs that we are going to be providing through the
3577 manufacturing industry are very vital, and could be utilized
3578 through that Build Back Better Act.

3579 *Ms. Barragan. Thank you.

3580 Ms. Powers, airports will be an important part of the
3581 transition to electric vehicles. Rental car companies are
3582 making significant electric vehicle purchases. For example,
3583 Hertz recently committed to purchasing 100,000 vehicles. But
3584 these commitments need to be paired with investments in
3585 charging infrastructure to support them.

3586 Is the National Association of State Energy Officials
3587 providing any guidance to state and local governments on
3588 using infrastructure funds for installing electric vehicle
3589 charging at airports?

3590 *Ms. Powers. Thank you for the question.

3591 We have received questions from our members about the
3592 viability of funds at airports, and also what other ways
3593 states can use Infrastructure Act and other dollars to
3594 support electrification. It is my understanding that,
3595 through the Infrastructure Act community charging grants, one
3596 of the areas that is eligible would be airports, as long as

3597 -- publicly accessible location. And so that is one option.

3598 But states are also looking to see what other
3599 opportunities there are to electrify different areas of
3600 airports, not just putting in charging stations, but some of
3601 the airport ground support equipment. The Volkswagen
3602 settlement, for example, was used by some states to help
3603 electrify some of that airport ground support equipment and
3604 other aspects of airports.

3605 *Ms. Barragan. Thank you.

3606 Mr. Holycross, in the last 10 seconds, what role do you
3607 see for mobile charging as part of the EV charging
3608 infrastructure in areas where stationary charging units can't
3609 go easily?

3610 *Mr. Holycross. Mobile charging has the opportunity to
3611 be part of one of the many solutions, and that capability we
3612 are working to have our vehicles provide, as well, whether it
3613 is mobile charging, bidirectional charging to power work
3614 sites and homes. We absolutely see that as part of the array
3615 of solutions here.

3616 *Ms. Barragan. Thank you.

3617 And with that, I yield back.

3618 *Mr. Rush. The gentlelady yields back. And now the
3619 chairman recognizes the gentleman from Virginia, Mr.
3620 McEachin, for five minutes.

3621 Mr. McEachin is not here. Ms. Blunt Rochester is

3622 recognized for five minutes.

3623 The chair now recognizes Mr. O'Halleran from Arizona for
3624 five minutes.

3625 *Mr. O'Halleran. Thank you, Chairman Rush, for holding
3626 today's important meeting. It comes at a time when we need
3627 to be thinking seriously about how to ensure our economy is
3628 not thrown into disarray every time a tyrant lies to the
3629 world.

3630 It is also a time for us to start to understand that we
3631 are in a situation because we haven't rushed forward and
3632 diversified enough in our energy portfolio. We haven't taken
3633 advantage of the sun and the wind and the other aspects that
3634 a diversified portfolio would be -- would allow us to have.

3635 And in talking about diversified portfolios, I want to
3636 point out a couple of things here. It is interesting to me
3637 that, you know, there is already 9,000 permits that are
3638 already approved, and half of them for oil and gas, and half
3639 of them, oil and gas pipelines, are going unused.

3640 Additionally, offshore, the fossil fuel industry has
3641 over 26 million acres of public land under lease, of which 53
3642 percent is being used to produce oil and gas. The rest is
3643 not. Offshore -- onshore, that was. Offshore there are
3644 2,078 active leases that can -- companies could -- covering
3645 11 million acres -- could use, and nearly 75 percent of those
3646 are not producing oil or gas. I would just ask the companies

3647 why they are not doing that, if they are so concerned about
3648 making sure we keep the price of oil down for the American
3649 public.

3650 On liquefied natural gas, I would like to bring up the
3651 following. There are three new LNG projects ongoing right
3652 now -- two in Louisiana, one in Corpus Christi, Texas -- that
3653 would increase export capacity by about a third by
3654 mid-decade. Plants already under construction should lift
3655 peak U.S. capacity to 13.9 billion cubic feet per day by the
3656 end of this year, estimates from the U.S. Energy Information
3657 Administration. That is a figure surpassing Qatar and
3658 Australia, who are now the two largest LNG exporters in the
3659 world.

3660 New LNG liquefaction trains in Louisiana, both of them,
3661 are due to be in service prior to the end of the year. They
3662 were permitted in October of last year. That will bring our
3663 LNG terminals, combined, 261 billion cubic feet per year. I
3664 was trying to wonder why we hadn't heard too much about LNG,
3665 or pipelines, when it comes to that, because 50 percent of
3666 our pipelines in America are unused today. So it makes me
3667 just wonder -- we should have a more thorough discussion.

3668 And I agree with that earlier discussion that we need a
3669 national plan now, rather than later. It is important.

3670 I would like to point out that Arizona's 1st
3671 congressional district is a great example of what needs to be

3672 replicated across this country. Lucid Motors, an electronic
3673 vehicle startup, established the first factory in North
3674 America, built from the ground up for electric vehicles. The
3675 factory employs 1,200 in Casa Grande, Arizona, and plans to
3676 employ 6,000 by 2030, and has an economic impact of \$81
3677 billion on the broader community.

3678 The transition to green energy is a huge opportunity for
3679 economic revitalization, good-paying American jobs, and also
3680 to build a future where America is independent and secure.
3681 We don't have to depend on the tyrants of the world. We
3682 don't have to depend on other countries.

3683 The energy market is a global market. The pricing
3684 mechanism is a global pricing mechanism. To diversify your
3685 portfolio away from the costly elements is a good idea, not a
3686 bad idea. And that is why we are seeing so much of what Mr.
3687 Schrader had commented on about why the demand is going up
3688 across our nation, and why the car companies across the
3689 nation and the world are moving in that direction, away from
3690 carbon and towards the sun and the wind and the other
3691 elements that will bring about tremendous amount of jobs
3692 within our country. And we are going to be able to do that
3693 because we have started to invest in it.

3694 And we talked a lot today about the grid. The grid is
3695 something that is meaningful. And before I get lost here I
3696 want to commend Ford's commitment on clean energy and impact.

3697 Could you, Mr. Holycross, identify, for example, using
3698 aluminum on certain components to make vehicles lighter,
3699 increases battery range, could you comment on how that will
3700 help us?

3701 *Mr. Holycross. Absolutely, I mean, reducing the weight
3702 of vehicles, whether they are electric vehicles or internal
3703 combustion engine vehicles, helps the efficiency of the
3704 products and use less energy.

3705 Look, we have gone to fully aluminum intensive bodies on
3706 our full pickup line, our F-150s, our super duty F-Series
3707 full-size SUVs taking more than 700 pounds of weight,
3708 increasing the efficiency, reducing the operating costs for
3709 customers. And so, as we look at electric vehicles and the
3710 opportunities there -- greater use of aluminum, other
3711 lightweight materials -- it is absolutely integral to our
3712 strategy.

3713 But again, as we talk about the need to secure a supply
3714 chain not only for the raw materials that are needed for
3715 batteries, but for the broader components of the vehicles, it
3716 is also an imperative [inaudible] to make sure we secure that
3717 supply.

3718 *Mr. O'Halleran. And I have to yield. And before I do
3719 I just want to point out that --

3720 *Mr. Rush. The gentleman's time --

3721 *Mr. O'Halleran. -- we would love to ship more to

3722 Europe. They don't have the capacity to take it.

3723 *Mr. Rush. The gentleman's time --

3724 *Mr. O'Halleran. And I yield.

3725 *Mr. Rush. The gentleman's time has expired. The chair
3726 now [inaudible] gentlelady from -- the gentleman from
3727 [inaudible] gentlelady from Delaware, Ms. Blunt Rochester,
3728 for five minutes.

3729 *Ms. Blunt Rochester. Thank you, Mr. Chairman, for
3730 recognizing, and Ranking Member Upton, holding this hearing,
3731 and thank you to all of the witnesses for your testimony
3732 [inaudible].

3733 The transportation sector accounts for almost one-third
3734 of our nation's greenhouse gas emissions. By transitioning
3735 to electric vehicles, the auto industry can play an important
3736 role in overcoming the impacts of climate change. Not only
3737 can EVs help lower greenhouse gas emissions and improve our
3738 air quality across the country, but this transition is an
3739 opportunity to transform our domestic manufacturing and
3740 supply chain network in the transportation industry.

3741 Mr. Holycross, today I have heard a lot of my colleagues
3742 mention that EV manufacturing is heavily dependent on foreign
3743 manufacturing, especially in China and foreign-sourced
3744 resources and materials -- minerals. Yet in the past two
3745 years alone, American demand for electric vehicles has nearly
3746 quadrupled. We have an opportunity to expand our domestic

3747 manufacturing in EVs to remain competitive in the market, and
3748 increase good-paying jobs here at home.

3749 The House-passed America Competes Act includes a
3750 bipartisan supply chain subtitle that I have led with
3751 Representatives Malinowski and Kinzinger, Dingell, Kelly,
3752 Wild, and Bourdeaux to create an office within the Department
3753 of Commerce to oversee and strengthen our supply chains.

3754 And I want to just ask you a few questions, and I might
3755 have to do something for the record, but can you share with
3756 us why expanding American manufacturing of EVs is so critical
3757 to our competitiveness in the EV market and as a nation?

3758 *Mr. Holycross. Absolutely. It is one of the biggest,
3759 you know, aspects of our strategy at Ford, to be able to
3760 continue to do all that research and development here in this
3761 country, to incentivize the technical know-how, and
3762 transition our workforce to be able to support it, as well,
3763 so that we can compete with Europe and China, who have been
3764 moving, you know, as fast, if not faster, in this space.

3765 So as much as it is around securing domestic supply of
3766 materials and manufacturing capacity, which we have already
3767 and will continue to invest in, it is about our
3768 competitiveness as a country and as an industry,
3769 domestically, to be able to develop the skills and invest for
3770 the future of our workforce.

3771 *Ms. Blunt Rochester. Great. And you highlighted in

3772 your written testimony that Ford is building two
3773 environmentally and technologically advanced campuses. How
3774 are Ford's existing domestic manufacturing facilities already
3775 equipped to support the transition to electrical vehicles?

3776 And what are the -- what is necessary to retool and re-
3777 equip existing facilities?

3778 *Mr. Holycross. Yes, you know, as you mentioned, it is
3779 -- as much as this has been about incremental investment in
3780 new capacity for the plants that we have announced in
3781 Tennessee and Kentucky, when we talk about the technology
3782 that is going into these facilities, while they are producing
3783 zero-emission vehicles, these facilities are working to have
3784 the manufacturing operations be carbon neutral, as well. So
3785 the power that goes in, the electricity to run these
3786 facilities, can come from renewable resources. So we are
3787 demonstrating that the capability of these new energy sources
3788 isn't just on the vehicles, it is on the manufacturing side.

3789 And look, we moved fast more than twice now in Dearborn,
3790 in our Rouge complex, to add capacity, incremental capacity
3791 for the F-150 Lightning, building out an all-new,
3792 environmentally sound electrification vehicle center that is
3793 fully carbon neutral, running on renewable electricity with
3794 more efficient equipment. So this is as much about the
3795 vehicles as it is the manufacturing and the realization of
3796 what we can do, technologically and environmentally.

3797 But if we are going to continue to progress that, we
3798 need to continue to invest in training the workforce. And
3799 our over \$500 million investment so far in reskilling and
3800 moving these folks into the new jobs that are critical for
3801 this transition is absolutely critical. We can't leave folks
3802 behind. We have to be able to move them to be able to
3803 compete.

3804 *Ms. Blunt Rochester. You are singing my song. As the
3805 co-chair of the bipartisan Future of Work Caucus, and
3806 founder.

3807 I have some more questions that I will send to you.

3808 [The information follows:]

3809

3810 *****COMMITTEE INSERT*****

3811

3812 *Ms. Blunt Rochester. But Ms. Powers, you know, across
3813 the globe people are taking steps to modernize and electrify
3814 our transportation sector. And, you know, I know earlier
3815 this year I introduced H.R. 1495, the Open Back Better Act,
3816 which you mentioned in your testimony, and I want to thank
3817 NASEO for their support of this legislation.

3818 How -- what can we learn? What approach can we take
3819 from Open Back Better that we can put in the EV space,
3820 particularly with [inaudible] private partnerships?

3821 *Ms. Powers. Absolutely, thank you for the question.
3822 Public-private sector partnerships are, of course, critical
3823 to make electric vehicle infrastructure rollout and
3824 transportation electrification a success.

3825 States and government are, of course, trying to
3826 incentivize early market to help fill the gaps, but it is
3827 important to be able to work with private companies, OEMs,
3828 utilities, et cetera. You know, one of the things that we
3829 also like to stress, and that we hear from the states, is the
3830 importance to link resilience to any kind of transportation
3831 electrification planning. One of the reasons so many states
3832 are interested in investing in electric vehicles is to
3833 diversify the fuel supply in their state, so that the
3834 vehicles aren't wholly reliant on one source of energy.

3835 *Ms. Blunt Rochester. Thank you so much.

3836 Thank you for your patience, Mr. Chairman, and I yield

3837 back.

3838 *Mr. Rush. -- yields back. And now that concludes our
3839 members of the subcommittee. And now there are some members
3840 who have asked to waive on to this subcommittee [inaudible]
3841 chair will now recognize [inaudible] who has waived on from
3842 Georgia.

3843 Mr. Carter, you are waived -- you are recognized for
3844 five minutes.

3845 *Mr. Carter. Well, thank you, Mr. Chairman. I
3846 appreciate the opportunity to waive on this committee, and I
3847 thank all of the witnesses here today.

3848 I have only been here for about the last 45 minutes, and
3849 I have to tell you that I am appalled at some of the things
3850 that I have heard from the other side of the aisle about our
3851 lack of -- the ability to have energy independence. I am
3852 reminded that, just a little over a year ago, we had indeed
3853 achieved energy independence in this country. We had -- in
3854 fact, we had, I think arguably, achieved energy dominance.
3855 We actually passed legislation in the last session where we
3856 could export oil. That had never been done -- it had been
3857 years, decades before we had done that -- since we had done
3858 that.

3859 So, you know, to make the argument that there is no way
3860 we are ever going to be energy independent, I think, is a
3861 fallacy. And I have to say that I take offense to that,

3862 because, you know, if we have learned anything about what has
3863 happened over in Ukraine -- and I certainly hope we have, and
3864 certainly all of us are united behind the Ukrainians, and
3865 want to do everything we can to help them.

3866 But at the same time -- and I will add that I applaud
3867 the President's move today to stop buying oil from Russia
3868 here in the United States. That is a good move, something we
3869 have been calling for ever since this started, even before
3870 this started. So that is -- I am glad that he has finally
3871 understood the importance of us doing that, and being
3872 self-sufficient with oil.

3873 I have to tell you, though -- I want to ask you, Mr.
3874 Holycross. You were asked a question by one of my colleagues
3875 on the other side of the aisle earlier if the President
3876 called you and asked you -- or told you to build electric
3877 vehicles, and you, I believe, responded, no, he did not. And
3878 I believe you. Is that true?

3879 *Mr. Holycross. Yes, the electric vehicles that we are
3880 producing today -- have announced are in even higher demand
3881 than we anticipated early on from the market.

3882 *Mr. Carter. So you would say it is consumer-driven,
3883 and I believe that is what you answered. Let me ask you. Do
3884 you think the subsidies that have been offered by the Federal
3885 Government have had anything to do with that, as well?

3886 *Mr. Holycross. Well, they certainly can help, when we

3887 talk about affordability and accelerating the pace that we
3888 get these vehicles into consumer hands. So yes, we are
3889 supportive --

3890 *Mr. Carter. But let me ask you, Mr. Holycross -- and I
3891 mean this sincerely, I am not trying to be cute or anything
3892 here -- but how many gas stations did the Federal Government
3893 build when Ford first put out the Model T?

3894 *Mr. Holycross. Well, you know, the infrastructure
3895 around gas stations and -- you know, the -- over 120 years
3896 ago, as we introduced vehicles to the masses, the key thing
3897 for us has been that you get out of this chicken-and-egg
3898 [inaudible] about what needs to come first. And that is what
3899 we did 120 years ago --

3900 *Mr. Carter. I understand, I understand. But we had to
3901 have gas stations back then, and --

3902 *Mr. Holycross. Yes.

3903 *Mr. Carter. And I am taking your answer as being none,
3904 the Federal Government did not subsidize any gas stations
3905 when the Model T first came out.

3906 Why is it that today, if it is being consumer-driven, as
3907 you say, and that your company and the other companies
3908 building these EVs -- and don't get me wrong, I am all for
3909 electric vehicles, I think it is great. But I have to make
3910 the point that this is a result, largely a result, of the
3911 subsidies that are being offered by the Federal Government.

3912 Why should the Federal Government be funding EV charging
3913 stations?

3914 *Mr. Holycross. Well, again, I think it is to
3915 accelerate the pace that we get these vehicles into customer
3916 hands for the variety of benefits we have been talking about
3917 today, both in terms of our competitiveness as a country, the
3918 competitiveness of our local industry for manufacturers like
3919 us that employ more workers, hourly workers to build vehicles
3920 and sell more vehicles in this country. This is all about
3921 sustaining that leadership, and meeting the demand --

3922 *Mr. Carter. But --

3923 *Mr. Holycross. -- these vehicles driving from
3924 customers.

3925 *Mr. Carter. Understood. But if it is consumer-driven,
3926 as you have indicated, then why isn't Ford willing to put
3927 down the necessary investment for its own products like EV --
3928 the electric vehicles?

3929 *Mr. Holycross. Well, we are making huge investments,
3930 both in the vehicles and in partnerships to help increase
3931 infrastructure and all the other services that have to come
3932 along in the broader ecosystem to make these vehicles really
3933 provide the benefits [inaudible]. So we are providing those
3934 investments --

3935 *Mr. Carter. Thank you, Mr. Holycross. I appreciate
3936 your responses, and I understand where you are coming from.

3937 But at the same time, I have to make the point that this
3938 Administration, from the get-go, from day one, declared war
3939 on fossil fuels. Exactly. That is what happened.

3940 Now, look, I am all for renewable energy, I am all for
3941 electric vehicles. But at the same time, this war on fossil
3942 fuels has to stop. We have to adopt a all-of-the-above type
3943 energy strategy. Fossil fuels has a place in the future
3944 here. We are never going to be able to achieve what we are
3945 trying to achieve without making sure that fossil fuels are
3946 utilized.

3947 *Mr. Rush. The gentleman --

3948 *Mr. Carter. We are -- already, we have decreased
3949 emissions --

3950 *Mr. Rush. The gentleman's time has expired.

3951 *Mr. Carter. -- in this country, more than -- in the
3952 last decade, than the next 12 countries combined, while
3953 still --

3954 *Mr. Rush. The gentleman's time has expired.

3955 *Mr. Carter. -- growing our economy. We can do it.

3956 *Mr. Rush. The gentleman's time has --

3957 *Mr. Carter. Thank you, Mr. Chairman, and I yield back.

3958 *Mr. Rush. -- expired. The chair now recognizes Dr.
3959 Ruiz from California.

3960 Dr. Ruiz, you are recognized for five minutes.

3961 *Mr. Ruiz. Thank you, Mr. Chairman, for holding this

3962 important hearing. I am especially excited for this hearing
3963 today because of what it means for my district and the Salton
3964 Sea.

3965 As you know, electric cars around the globe use lithium
3966 ion batteries, and mainly get their supply from countries
3967 like Australia, Chile, and China. However, right under our
3968 noses there is a potentially massive supply of lithium, right
3969 here in the United States. And that is underneath the Salton
3970 Sea. In fact, the world's fifth largest lithium deposit is
3971 under the Salton Sea. This lithium deposit presents an
3972 incredible opportunity to transform our region and our entire
3973 nation into a global leader in clean energy production. The
3974 area is appropriately nicknamed Lithium Valley because of its
3975 incredible potential to power our clean energy future, and to
3976 manufacture the batteries that we need.

3977 With the lithium underneath the Salton Sea we can help
3978 end our nation's dependence on foreign oil with clean energy
3979 technology. That means we won't be dependent on countries
3980 like Russia, who clearly doesn't share our values. The
3981 lithium deposit under the Salton Sea also means good-paying
3982 clean energy jobs that will stimulate our local economy and
3983 move our nation forward towards our clean energy future.

3984 So I am dedicated to ensuring that the benefit of this
3985 lithium extraction goes back to the communities and working
3986 families, where it is needed and, frankly, where it belongs.

3987 Mr. Holycross, in your testimony you stated the need to
3988 strengthen our domestic supply chains for batteries. Do you
3989 include lithium in that assessment?

3990 *Mr. Holycross. Absolutely.

3991 *Mr. Ruiz. Thank you. And also, you note in your
3992 testimony that there is soaring demand and excitement for
3993 electrical vehicles. Assuming these vehicles use lithium
3994 batteries for power, does the U.S. currently extract,
3995 process, and recycle enough lithium to support a robust,
3996 domestically-sourced battery manufacturing industry?

3997 *Mr. Holycross. No, we are going to need to continue to
3998 accelerate the pace of having more supply, domestically. And
3999 that is why we are hopeful that, with the signals we have
4000 sent, with the capacity we have planned for the vehicles,
4001 that that will reinforce the importance of the policies to
4002 increase the supply of materials you indicate.

4003 *Mr. Ruiz. Thank you. And it is also critically
4004 important to ensure that communities' environmental health is
4005 protected. And the lithium that could be extracted from the
4006 Salton Sea is a byproduct from the brine, the fluid, the
4007 brine that geothermal companies use to generate geothermal
4008 energy. So there is no breaking new ground in this.

4009 But how can policy expand the domestic supply chain for
4010 batteries and their materials in ways that protect public
4011 health and the environment?

4012 *Mr. Holycross. Well, it is what you said, and it is
4013 also utilizing the best practices that companies like Ford
4014 have had in place for some time, in terms of how to
4015 responsibly do this, how to make sure we partner with our
4016 supply chains to ensure that this is done in the most
4017 environmentally and socially responsible way, by investing in
4018 the new technologies to extract these materials and to create
4019 the kinds of jobs that you spoke about, so that it is
4020 equitable, and it is also providing access to the broader
4021 economy to participate in this.

4022 So we are excited about the opportunities you have
4023 highlighted, and it is all about exactly how we do this in
4024 the most responsible way.

4025 *Mr. Ruiz. Well, I would like to continue to discuss
4026 this further with you, and potentially visit the Salton Sea
4027 with your company and other companies. This is going to
4028 require a very large public and private partnership in order
4029 for us to do that.

4030 The important part here is to make sure that the
4031 communities are involved, that there is community-benefit
4032 projects and investment, and that labor and working families
4033 are at the table, so that we can maximize the value for
4034 everybody in the area. It is an economically depressed area,
4035 but we have cheap electricity, and we have a labor pool that
4036 is willing to work, and they have proven themselves as being

4037 very hard-working families. And so this is a great
4038 opportunity.

4039 Look, the President, in his address to the nation, said
4040 that we need to stop our dependency and buying batteries from
4041 China, and produce them here. Having the fifth largest
4042 lithium deposit underneath the -- in the world -- underneath
4043 the Salton Sea can make us the second largest lithium
4044 exporting country, even using the lithium for our own battery
4045 production needs.

4046 So this is a great opportunity, Chairman, and I think we
4047 should pursue it, and have more hearings on it. And with
4048 that I yield back my time.

4049 *Mr. Rush. The gentleman yields back. The chair now
4050 recognizes the gentleman from Pennsylvania, Mr. [inaudible]
4051 for five [inaudible].

4052 *Mr. Joyce. First I want to thank Chairman Rush for
4053 allowing me to waive on to this subcommittee hearing, and
4054 thank you to our witnesses for appearing today.

4055 As we have all heard from many of my colleagues, America
4056 is in the midst of an energy crisis created by the Biden
4057 Administration. Just a year ago, our nation was energy
4058 dominant. And for the first time since 1952, the country was
4059 a net energy exporter. Under President Biden, unfortunately,
4060 those circumstances have reversed. Energy prices are
4061 skyrocketing, and his Administration has given violent

4062 dictators like Putin the tools to continue to damage our
4063 economy right here.

4064 What America needs, we need more affordable and more
4065 reliable baseload power. We need to invest in innovative
4066 technologies that take advantage of the energy reserves that
4067 are beneath the feet of my constituents, so that we can keep
4068 our natural gas and coal power plants online. We need to
4069 find ways to incentivize industries to improve the grid, and
4070 develop greater efficiencies, instead of punishing them with
4071 taxes and penalties.

4072 As we move farther into this decade, America's energy
4073 needs are only going to continue to grow. Electric cars and
4074 their sales are up 17 percent from 2016 to 2020. And that
4075 growth comes with a strain on our electric grid. If my
4076 colleagues across the aisle are serious about a move to
4077 electric vehicles, then we need to talk about improving the
4078 electric grid.

4079 We need to talk about how to incentivize companies to
4080 modernize their infrastructure and build more transmission.

4081 We need to talk about enabling domestic mining of
4082 essential mineral commodities that are used in battery and
4083 electric vehicle technology. For example, it shouldn't take
4084 a decade to obtain mining permits for the Thacker Pass
4085 lithium project in Nevada.

4086 Lastly, we need to end the war on pipelines, so that

4087 places like the natural gas fields in my home state of
4088 Pennsylvania can once again flourish.

4089 Let me make this point. I am dedicated to re-energizing
4090 our nation, and lead a reinvigorated American economy into
4091 the future using the resources that are present right here.

4092 My first question is for you, Mr. Pyle. We recognize
4093 that widespread adoption of electric vehicles would
4094 substantially increase demand for electricity. Do you agree
4095 that a diversified generating portfolio and strong
4096 transmission and distribution infrastructure are critical to
4097 producing and moving that electricity to charge these
4098 electric vehicles?

4099 *Mr. Pyle. Absolutely, 100 percent.

4100 *Mr. Joyce. Mr. Pyle, are we doing enough, both in the
4101 short term first, and the long term, regarding policies that
4102 are needed to build that generation, to build that
4103 transmission, and enhance that distribution to power these
4104 electric vehicles? So short term and long term.

4105 *Mr. Pyle. In the short term, no. In fact, I think we
4106 are going the wrong way. We are decommissioning baseload
4107 generation, nuclear, coal, et cetera.

4108 I hope that, in the long term, we recognize that we
4109 cannot abandon those sources while we are adding intermittent
4110 renewables.

4111 *Mr. Joyce. So as we decommission and shut down coal

4112 power plants and nuclear plants, are we moving backwards? Is
4113 that what you are telling us here today?

4114 *Mr. Pyle. Absolutely. Look what is happening in
4115 California. Their electricity system is not reliable there,
4116 period.

4117 *Mr. Joyce. How can we ensure that the grid can
4118 adequately accommodate the increased demand that we are
4119 placing on it today?

4120 *Mr. Pyle. I think we need to recognize that, unless we
4121 are able to streamline rules and regulations that prevent us
4122 from building practically anything meaningful in this
4123 country, those who wish to bolster our transmission system
4124 are not dealing in reality. We have got to streamline these
4125 laws.

4126 *Mr. Joyce. And is dealing in reality, as you so
4127 adequately put it, is dealing in reality utilizing those
4128 sources that are under our feet, the natural gas, the coal
4129 that are under the feet of my constituents in Pennsylvania?

4130 *Mr. Pyle. Utilizing and getting them -- moving them
4131 around through pipelines, absolutely.

4132 *Mr. Joyce. That point, I think, is necessary to
4133 conclude my conversation with you here today, to utilize the
4134 pipelines in moving those sources around. Thank you for your
4135 comments.

4136 Thank you, Mr. Chairman, and I yield the balance of my

4137 time.

4138 *Mr. Rush. The gentleman yields back. It is now the
4139 [inaudible] or to recognize the lady from the great state of
4140 Michigan, Mrs. Dingell, for five minutes.

4141 *Mrs. Dingell. Thank you, Mr. Chairman, and thank you,
4142 Ranking Member Upton, for holding today's important hearing
4143 on charging forward, securing American manufacturing in our
4144 EV future, which is critical to not only make this
4145 transformational shift to a clean transportation system, but
4146 to lead the world.

4147 The future of the auto industry is electric. We know
4148 this, and I am really proud that my home state of Michigan,
4149 which put the world on wheels, is leading the way on this
4150 already, as well. I am very honored that Ford, headquartered
4151 in my district, is here today to highlight its commitment as
4152 an industry leader.

4153 Ford recently announced a new global battery center in
4154 southeast Michigan [inaudible] which is going to be built in
4155 my current district, the all-electric F-150 Lightning, which
4156 shows that electric vehicles are real. They have
4157 performance, and owners want them.

4158 As matter of fact, when you lose electricity, it can
4159 power your house for several days. I love this. I am on
4160 that waiting list with everybody else.

4161 In August of last year I was proud to work with the

4162 Administration and major OEMs and labor, as the President
4163 announced his ambitious new target to make half of all the
4164 new vehicles sold in 2030 zero-emission vehicles. And with
4165 this landmark announcement, with more and more EVs expected
4166 to hit the road over the coming years, it is critical that we
4167 get these policies right so this transition is swift, and
4168 supports a strong American-built workforce.

4169 At the end of last year, through the President's
4170 leadership, Congress was also able to come together and pass
4171 a strong bipartisan infrastructure legislation, which will
4172 help us accelerate this buildout of a nationwide network of
4173 EV charging stations, as well as support the manufacturing of
4174 domestic EVs and batteries.

4175 Going all electric poses great opportunities and a great
4176 challenge for this industry, American workers, and our
4177 competitiveness around the world. And as we see rising
4178 energy costs as a result of the Russia-Ukraine conflict, it
4179 is clear we need to act faster to transition to
4180 electrification to mitigate the harms of future energy
4181 crises.

4182 Let me start with Mr. Holycross, who is a constituent
4183 and someone I have worked a lot with. Last week Ford
4184 announced that it would reorganize its businesses into two
4185 divisions: one for its electric vehicle business and one for
4186 its internal combustion engine business.

4187 Can you share with this committee more details on Ford's
4188 decision to make this move?

4189 And will this move help Ford meet its 2030 electric
4190 vehicle production goals?

4191 *Mr. Holycross. Well, thank you, Congresswoman Dingell,
4192 and thank you for your advocacy and all your support.

4193 The answer is absolutely, it will not only help us meet
4194 our goals that we have outlined for 2030, but it is going to
4195 help us move faster now. And that was really the critical
4196 point in taking this action now, and organizing the company
4197 the way that you talked about between our electric vehicle
4198 business we are calling Ford Model E and the internal
4199 combustion engine business, which is still a big element of
4200 our portfolio, the Ford Blue business.

4201 We have to be able to move quickly to get these vehicles
4202 in the hands of customers, work through the supply base.
4203 These are very different products right now. The materials,
4204 the infrastructure is different, and we need to have folks
4205 that are dedicated to working on this to be able to go at the
4206 pace we need to meet customer demand and to increase our
4207 competitiveness as a country.

4208 So it is all about how we go faster, how we have
4209 dedicated resources and recognition of the differences that
4210 these products require, the services, the way the vehicles
4211 are distributed. This is all an important element that we

4212 need to get ahead of, in terms of what it is going to take to
4213 get to those 2030 targets, while at the same time continuing
4214 to improve the efficiency of our internal combustion engine
4215 products that will continue to serve customers, especially in
4216 the commercial vehicle space, for the foreseeable future.

4217 So it is twofold to help us support our long-term and
4218 our near-term goals.

4219 *Mrs. Dingell. Thank you. Mr. Holycross, I need to ask
4220 you another question, and I am probably going to put some
4221 questions for the record. But in your testimony you make
4222 clear we need to strengthen our domestic supply chains for
4223 core elements like batteries and semiconductors.

4224 And I also -- a number of my colleagues have brought up
4225 the issue of minerals for the batteries. How are OEMs
4226 addressing the looming supply chain challenges on critical
4227 minerals, and what more can Congress do to help?

4228 *Mr. Holycross. Yes, it is definitely a huge priority
4229 for us.

4230 And one of the things that we are doing is continuing to
4231 make sure we have the technology to diversify all the
4232 different types of minerals that can be used in batteries.
4233 So we are not entirely dependent upon, you know, the minerals
4234 that are predominantly used today.

4235 Yes, lithium is a big part of it. We have talked about
4236 the opportunities for increased access for lithium, both

4237 domestically as well as the sources that we have today.

4238 Nickel and cobalt and some of the other minerals that we
4239 know come from conflicted areas, and have challenges in terms
4240 of how they are harvested, we are continuing to advance and
4241 invest in technology. You mentioned Ford Ion Park, our
4242 Battery Center of Excellence, which is partnering with people
4243 in the industry to have more arrays of chemistry for
4244 batteries into the future.

4245 But look, if we are going to be able to meet the
4246 demands, and not be dependent upon some of these sources we
4247 have talked about today, it is going to be about increasing
4248 the access to those minerals domestically, and doing it in
4249 the most responsible way we know how, both environmentally
4250 and socially.

4251 So all the policies that we have talked about today that
4252 are working their way through are so critical for us to be
4253 able to do that. But it is up to us to continue to invest in
4254 the technology to make sure we can offer a variety of
4255 solutions for batteries and the other technologies required
4256 for electric vehicles.

4257 *Mrs. Dingell. Thank you, Mr. Chairman. I am sorry, we
4258 are out of time. I yield back.

4259 *Mr. Rush. The gentlelady yields back. And by yielding
4260 back, that concludes the witness questioning.

4261 I would like to thank our witnesses, each and every one

4262 of you, individually, for your participation in today's
4263 hearing.

4264 And I also want to remind members that, pursuant to
4265 committee rules, they have 10 business days to submit
4266 additional questions for the record to be answered by the
4267 witnesses who have appeared before us today. I ask each
4268 witness to respond promptly to any such questions that you
4269 may receive.

4270 Before we adjourn, I want to request unanimous consent
4271 to enter into the record a total of 24 documents that have
4272 been reviewed by staff on the Democratic side and the
4273 Republican side, so there is bipartisan agreement, and I
4274 request unanimous consent to enter into the record these 24
4275 documents that have been agreed upon.

4276 With that, and without any objections, they are ordered.

4277 [The information follows:]

4278

4279 *****COMMITTEE INSERT*****

4280

4281 *Mr. Rush. And at this time, the subcommittee now
4282 stands in -- to be -- stands adjourned. The subcommittee is
4283 adjourned at this time. Thank you.
4284 [Whereupon, at 2:19 p.m., the subcommittee was
4285 adjourned.]