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6 THE FISCAL YEAR 2022 DOE BUDGET

7 WEDNESDAY, MAY 19, 2021

8 House of Representatives,

9 Subcommittee on Energy,

10 Committee on Energy and Commerce,

11 Washington, D.C.

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15 The subcommittee met, pursuant to call, at 10:32 a.m.
16 via Webex, Hon. Bobby Rush [chairman of the subcommittee],
17 presiding.

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

25 Also Present: Representatives Dingell, Fletcher,

26 Trahan; and Joyce.

27 Staff Present: Jeff Carroll, Staff Director; Waverly
28 Gordon, General Counsel; Tiffany Guarascio, Deputy Staff
29 Director; Perry Hamilton, Deputy Chief Clerk; Mackenzie Kuhl,
30 Press Assistant; Kaitlyn Peel, Digital Director; Tim
31 Robinson, Chief Counsel; Chloe Rodriguez, Deputy Chief Clerk;
32 Kylea Rogers, Staff Assistant; Sarah Burke, Minority Deputy
33 Staff Director; Michael Cameron, Minority Policy Analyst;
34 Jerry Couri, Minority Deputy Chief Counsel for Environment;
35 William Clutterbuck, Minority Staff Assistant; Theresa Gambo,
36 Minority Financial and Office Administrator; Nate Hodson,
37 Minority Staff Director; Sean Kelly, Minority Press
38 Secretary; Peter Kielty, Minority General Counsel; Emily
39 King, Minority Member Services Director; BJ Koohmaraie,
40 Minority Chief Counsel, O&I Chief Counsel; Mary Martin,
41 Minority Chief Counsel, Energy & Environment; Brandon Mooney,
42 Minority Deputy Chief Counsel for Energy; Clare Paoletta,
43 Minority Policy Analyst; Peter Spencer, Minority Senior
44 Professional Staff Member, Energy; Michael Taggart, Minority
45 Policy Director; Everett Winnick, Minority Director of
46 Information Technology

47

48 *Mr. Rush. The Subcommittee on Energy will now come to
49 order.

50 Today the subcommittee is hearing -- is holding a
51 hearing entitled, "The Fiscal Year 2022 DOE Budget."

52 Due to the COVID-19 public health emergency, today's
53 hearing is being held remotely. All members and all
54 witnesses will be participating via video conferencing.

55 As part of our hearing, microphones will be set on mute
56 for purposes of eliminating inadvertent background noise.
57 And members and witnesses, you will need to unmute your
58 microphone each time you wish to speak.

59 Documents for the record can be sent to Lino Pena-
60 Martinez at the email address that we have provided to staff.
61 All documents will be entered into the record at the
62 conclusion of today's hearing.

63 The chair now recognizes himself for five minutes for
64 the purposes of an opening statement.

65 Today the Subcommittee on Energy will hold a hearing on
66 the President's Fiscal Year 2022 discretionary budget
67 request, and the Department of Energy's critical mission to
68 transform and secure the nation's energy system.

69 It is my distinct honor and high privilege to recognize
70 and welcome Ms. Jennifer Granholm, the 16th Secretary of the
71 U.S. Department of Energy, to our subcommittee for the first
72 time.

73 Madam Secretary, we sincerely thank you for joining us
74 for today's discussion.

75 This hearing comes at a critical time, as much as the
76 East Coast continues to struggle with fuel shortages
77 following the cyber attack on the Colonial Pipeline, and
78 after extreme weather events left millions of our nation's
79 citizens in Texas without power just a few months ago. Madam
80 Secretary, again, I want to thank you and the entire DoE team
81 for your steadfast leadership amid these crises.

82 These events and their grim consequences demonstrate the
83 importance of our energy system, and how DoE's sector-
84 specific expertise is indispensable to the resolution of
85 these questions. That is why I, along with Ranking Member
86 Upton and other esteemed colleagues of this subcommittee,
87 have introduced bipartisan legislation to further strengthen
88 DoE's ability to respond to physical and other cybersecurity
89 threats. And I am also working on legislation to prevent
90 future incidents.

91 We must take a hard look at Federal strategies to
92 prevent attacks, enforce best practices and compliance, and
93 also to discourage bad actors.

94 Moreover, it is critical that we -- as we consider the
95 budget, that we prioritize the U.S. energy security and
96 resilience. That is why I am pleased by this year's funding
97 request, which includes \$46.1 billion for DoE, a 10.2 percent

98 increase from DoE's fiscal year 2021 enacted budget. This
99 sizeable investment will advance crucial energy -- clean
100 energy priorities, good-paying jobs, and the U.S. efforts to
101 deploy technologies to tackle the climate crisis.

102 I look forward to our continued partnership, and the
103 subcommittee stands ready to work with you and the Biden
104 Administration.

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

106

107 *****COMMITTEE INSERT*****

108

109 *Mr. Rush. And with that, I yield the balance of my
110 time to the esteemed vice chair of the subcommittee, Mr.
111 McNerney.

112 *Mr. McNerney. Well, thank you, Chairman, for yielding.

113 And Secretary Granholm, welcome. I want to thank -- I
114 want to start by thanking you and the Department of Energy
115 for leading the whole-of-government approach in restoring
116 operations of the Colonial Pipeline following the recent
117 cyber attack. This attack is another wake-up call about the
118 growing cyber threats that our nation faces, and it comes on
119 the heels of a major cyber attack that SolarWinds identified.

120 The need to address growing cyber threats is something
121 that I have been talking about for years, both on this
122 committee and in my role as co-chair of the Grid Innovation
123 Caucus. I hope that we can all work together to make sure
124 that we are doing everything possible to address future cyber
125 threats our nation faces, and our nation infrastructure, in
126 particular.

127 Secretary, your budget shows an ambitious agenda to
128 build up our nation's energy and science infrastructure to
129 meet the challenges we face, from cyber threats to workforce
130 development, to foreign competition, and climate change. Our
131 job is to provide guidance and support.

132 Secretary Granholm, I look forward to your testimony
133 today about how the DoE plans to address these challenges,

134 and what resources are needed, and I yield back.

135 [The prepared statement of Mr. McNerney follows:]

136

137 *****COMMITTEE INSERT*****

138

139 *Mr. Rush. The gentleman yields. The chair now
140 recognizes Mr. Upton, the ranking member of the Subcommittee
141 on Energy, for five minutes for the purposes of an opening
142 statement.

143 [Pause.]

144 *Mr. Rush. Mr. Upton, you are -- unmute, Mr. Upton.

145 *Mr. Upton. How is that? Does that work?

146 *Mr. Rush. That is great.

147 *Mr. Upton. I got to do this for -- I had to change --
148 they updated the app last night, and didn't pass it along to
149 us.

150 Let me begin again by saying thank you, and also welcome
151 to Secretary Granholm to our committee. It is always a
152 pleasure to see a fellow Michigander once again at the helm
153 of the Department of Energy. And certainly, I know we all
154 look forward to -- I look forward to continuing a close
155 working relationship with her, our former governor.

156 You know, as you know, this subcommittee is responsible
157 for overseeing virtually every aspect of the energy sector
158 for -- and all of our members take this job very seriously.
159 We focus on energy supply, including exploration,
160 development, and generation of fuels and electricity, energy
161 distribution, including the grid and the pipelines, energy
162 imports and exports, and energy use, including energy
163 efficiency and conservation standards.

164 We are also responsible for overseeing the management of
165 DoE. Over the last two administrations we have been
166 examining steps to modernize the Department of Energy to
167 reflect the national economic and energy security challenges
168 that will confront the nation over the coming decades. This
169 committee has led the charge, from lifting the ban on crude
170 oil exports, to the FAST Act amendments to help DoE address
171 emerging hazards, as well as cyber threats.

172 I am particularly focused on consumers, and the impacts
173 that the Federal energy policy is going to have on
174 competitiveness, jobs, and energy prices. I also believe
175 that it is important to recognize that over the last decade
176 the U.S. has become the world's leading producer of oil and
177 gas, creating millions of good-paying jobs, and billions of
178 dollars in tax revenues to states and local governments.

179 The U.S. has also reversed a decades-long trend of
180 rising imports and dependence on the Middle East. So we are
181 now self-sufficient when it comes to natural gas, which has
182 helped the U.S. reduce its greenhouse gas emissions more than
183 any other country. We also have become the world's leading
184 LNG exporter, pushing back on Russia, helping our trading
185 partners reduce their emissions at the same time. We are
186 more energy secure today than at any point in our nation's
187 history. However, we have got a lot of challenges ahead.

188 First I want to focus on critical minerals. As the

189 COVID pandemic has shown, we have become too dependent on the
190 unstable global supply chains and imports from China.
191 Amazingly, China controls 80 to 90 percent of the critical
192 minerals used in solar panels, batteries, and other advanced
193 technologies.

194 It is also imperative that we get a handle on the supply
195 chain, or we are going to end up in the same position that we
196 were in before America's shale energy revolution. I
197 introduced the Securing America's Critical Minerals Supply
198 Act to increase the domestic supply of critical minerals and
199 alternatives, and I look forward to working with you on that
200 legislation.

201 Second, we need to talk about permitting reform. As we
202 all know, it has become virtually impossible to build large-
203 scale infrastructure projects in this country, especially
204 pipeline and transmissions that cross the state lines.
205 Putting -- pouring Federal dollars onto the problem is not
206 going to solve it. We need real reforms, strong lead
207 agencies, timelines, real certainty to encourage project
208 developers to take the risk. DoE has a very important role
209 to play here, and we are going to rely on your leadership,
210 especially, when it comes to providing the energy analysts to
211 inform our decision-making.

212 Finally, I have always been focused on cyber. And given
213 what happened last week with the Colonial Pipeline ransom

214 attack, I believe that Congress and the Department have an
215 opportunity to work collaboratively to improve cyber
216 response, and harden our nation's critical energy
217 infrastructure. Chairman Rush and I introduced our
218 bipartisan bill, The Pipeline and LNG Facility Cybersecurity
219 Preparedness Act to provide DoE with strong authorities.
220 Chairman Pallone and Ranking Member McMorris Rodgers are
221 original cosponsors of that bill, and we look forward to
222 working with you on that legislation.

223 You know, this last week's Colonial's cyber attack
224 revealed that a secure, reliable, and affordable supply of
225 energy is absolutely critical to our economy, our way of
226 life, and, for the first time since the 1970s, we saw
227 widespread supply distributions with long lines at the pump
228 as fueling stations ran out. So we need to know what
229 happened last week with Colonial, and certainly appreciate
230 your willingness to provide us answers, including in a
231 classified briefing at some point in the near future, so that
232 we can begin to address the many shortcomings to prevent such
233 happening again.

234 We all support new technologies that allow us to use
235 energy more efficiently. We look forward to your testimony,
236 and I yield back.

237

238

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

240

241 *****COMMITTEE INSERT*****

242

243 [Pause.]

244 *The Chairman. I couldn't hear Chairman Rush. Did he
245 -- it sounds like he -- reading his lips, it seems like he is
246 asking me to speak. So should I just proceed?

247 *Mr. Upton. Bobby, you are still on mute.

248 [Pause.]

249 *Mr. Rush. Can you hear me now?

250 *The Chairman. Yes, we can.

251 *Mr. Rush. The chair now recognizes Mr. Pallone, the
252 chairman of the full committee, for five minutes for the
253 purposes of an opening statement.

254 *The Chairman. Thank you, Chairman Rush, and let me
255 welcome again the Secretary.

256 It is so great to see you here before our committee,
257 Madam Secretary. We have so many issues that we can work on
258 within the Department. You know, I am just thinking of clean
259 energy deployment, cybersecurity, overseeing our nation's
260 nuclear weapons stockpile, cleaning up the legacy sites where
261 those weapons were produced, so many things.

262 But I wanted to begin by addressing, as many of my
263 colleagues have, the recent Colonial Pipeline cyber attack
264 that shut down a critical piece of our nation's energy
265 infrastructure, and led to both gasoline and jet fuel
266 shortages along the East Coast.

267 And the committee has a longstanding history of

268 bipartisan work -- I am sure you are aware of that -- on the
269 energy cybersecurity issue, including through the pipeline
270 cybersecurity legislation that was already mentioned, that
271 was reintroduced last week by Ranking Member Upton and
272 Chairman Rush.

273 So last Congress this subcommittee held a hearing on
274 pipeline safety and security, and I spoke about my concern
275 that the Transportation Security Administration's pipeline
276 security program lacks the resources and expertise to protect
277 our country from attacks like the one we saw with the
278 Colonial Pipeline. And this incident shows we have to do
279 more to protect our nation's energy infrastructure.

280 Fortunately, the electric sector has a rigorous
281 framework for mandatory reliability standards developed by
282 the North American Energy Reliability Corporation, and
283 enforced by the Federal Energy Regulatory Commission. But no
284 similar rigorous program exists for pipelines, just a set of
285 voluntary guidelines overseen by TSA. And this is a big gap,
286 and I believe it is time to consider mandatory, enforceable
287 reliability standards for our nation's pipeline network.

288 So we have to ensure our nation's energy infrastructure
289 is not just secure, but reliable and resilient, and that
290 requires robust investments. And also, as you know,
291 President Biden's American Jobs Plan does just that. It
292 prioritizes funding for the clean energy infrastructure we

293 need to tackle the climate crisis, and creates good-paying
294 jobs right here in the U.S.

295 Along with Chairmen Rush and Tonko, I introduced the
296 CLEAN Future Act earlier this Congress. We have had several
297 hearings on this in the -- both the Energy and the
298 Environment and Climate Change Subcommittees. And the CLEAN
299 Future Act would achieve net-zero greenhouse gas pollution,
300 combat the climate crisis, put Americans back to work, and
301 rebuild our economy.

302 And the CLEAN Future Act and the American Jobs Plan
303 share similar goals and policies. Both plans make
304 substantial investments in transportation electrification,
305 including the deployment of electric vehicles, charging
306 stations, and zero-emission school buses. They both invest
307 billions of dollars in clean energy deployment, upgrading the
308 nation's grid, and making homes and buildings more energy
309 efficient.

310 And the rest of the world, particularly China, is
311 already making major investments in clean technology and jobs
312 that could and should be created right here at home. We
313 can't watch from the sidelines as other nations surpass us.
314 We must invest in our workers and the growth of our clean
315 energy economy.

316 After four years of the Trump Administration flouting
317 the law by refusing to update and revise efficiency standards

318 for appliances -- this is another issue that we were very
319 concerned about -- I know you have a lot of work to do. I
320 questioned your predecessor, Secretaries Perry and
321 Brouillette several times about the Department pushing out
322 anti-efficiency rulemaking, such as the rollback of the LED
323 light bulb standards, and ignoring scores of appliance
324 efficiency upgrades mandated by law. That is a program that
325 saves a lot of money, and helps reduce consumer consumptions,
326 and we have to get this back on track, and we want to help
327 you with these appliance standards, as well.

328 I also wanted to mention the nuclear security mission.
329 I have always believed in the principle of civilian, not
330 military, control over our nation's nuclear weapons. The
331 National Nuclear Security Administration is a critical part
332 of DoE's mission. It is too important to be left to its own
333 devices. And that is, obviously, a major issue.

334 So the last thing I wanted to say is that the committee
335 has conducted years of oversight on the Department's
336 environmental management program, which cleans up the legacy
337 waste sites where nuclear weapons were developed, and
338 taxpayers spent billions of dollars every year on this
339 program. The Department's -- but the Department's
340 environmental liabilities continue to grow. And I think that
341 a more cohesive and consistent management of this program is
342 critical to speeding up cleanup at these sites.

343 So, again, we have a long history of bipartisan
344 cooperation on both the NNSA governance, environmental
345 management, and I look forward to working with the Department
346 and my colleagues on this committee on critical issues.

347 It is really good to see you. I listened to your -- so
348 what you said yesterday at the Progressive Caucus. It was
349 very impressive. And, of course, we know, you know, the
350 Michiganders on this committee have been speaking highly of
351 you on both sides of the aisle for a long time. So it is
352 nice to see you in this new position. Thank you.

353 And I yield back, Mr. Chairman.

354 [The prepared statement of The Chairman follows:]

355

356 *****COMMITTEE INSERT*****

357

358 *Mr. Rush. The chairman of the full committee yields
359 back. The chair now recognizes the ranking member of the
360 full committee, Mrs. McMorris Rodgers, for five minutes for
361 the purposes of an opening statement.

362 *Mrs. Rodgers. Thank you, Mr. Chairman.

363 Welcome, Secretary Granholm. It is great to see you
364 today. And it is good to have you come before our committee.
365 You bring a wealth of governance experience to the job of
366 Secretary, and I am hopeful that that will -- it will serve
367 the Department and the American people well in the coming
368 years.

369 Today we are supposed to be evaluating the proposed
370 budget priorities for fiscal year 2022, and this is necessary
371 for committee oversight. But we are at a disadvantage,
372 because the Administration has yet to release a detailed
373 budget for the Department of Energy. What we have --
374 instead, what we have instead, are general assertions about
375 climate policy priorities and spending outlined over two
376 pages of text. That is it.

377 Much of this reflects the Administration's rush to green
378 agenda, which our hearings this year have shown risk economic
379 harm, and deprive people of reliable, affordable energy. The
380 harm will only increase with a massive push for electric
381 vehicles and limits on fossil fuel. This creates major
382 supply chain risk, and increases dependence on foreign

383 sources that abuse human and individual rights for energy
384 system components.

385 Needless to say, we are anxious to see additional
386 details. We should focus the aggressive priorities to
387 dismantle our domestic fossil energy economy, and radically
388 transform our electric and transportation sectors. We should
389 ask if the rush will do this -- will determine -- undermine
390 DoE's core work on national security, both energy and
391 economic security.

392 While DoE's work spans the energy sector at its core, it
393 is a nuclear security agency representing some 70 percent of
394 the budget, when counting its Cold War cleanup
395 responsibilities. The Department and its predecessor
396 agencies designed and produced every nuclear warhead in the
397 U.S. arsenal. And now it maintains the nation's nuclear
398 deterrent. DoE provides the technology to power the nuclear
399 navy, and serves central roles in nuclear non-proliferation,
400 international nuclear security.

401 DoE was organized and now serves as the nation's energy
402 security agency. It manages the Strategic Petroleum Reserve,
403 has established energy emergency programs, and works to
404 assure the reliable supply of energy and power.

405 The gas supply crisis along the East Coast from the
406 shutdown of the Colonial Pipeline is a harsh reminder of how
407 important reliable supplies of fuels are for Americans. As

408 you have noticed, Madam Secretary, it is a reminder of how
409 critical pipelines are for clean, efficient, secure delivery
410 of the energy people on our economy need to thrive. This
411 event should underscore the energy security role at the
412 Department.

413 DoE also helps assure American energy and energy
414 technologies serve our strategic geopolitical interests, the
415 neglect of which would imperil our security and the future.

416 Of course, to accomplish its work, DoE relies upon its
417 world-class science, engineering, and technological expertise
418 across a complex of national labs, production sites, and
419 facilities. There is nothing like it, really, when you
420 consider DoE's science and engineering. Its capabilities are
421 enhanced by a synergy among the labs across the complex.
422 This synergy serves all of the Department's missions. It
423 produces tremendous benefits for our security, for advancing
424 science and innovation, and will ensure American innovation
425 across the energy landscape.

426 We should not undermine what is possible with new
427 priorities that could break this synergy and undermine energy
428 and economic security. A well-managed DoE enterprise
429 produces amazing results. Consider, for example, the
430 agency's science and super-computing used for science and
431 weapons programs, and how this was put to service at Oak
432 Ridge to screen compounds for COVID-19 vaccine development.

433 The National Security and Environmental Management
434 Materials Programs at Pacific Northwest National Lab near my
435 district are advancing cybersecurity protections in the
436 science to help advanced batteries.

437 The Hanford Site, the backbone of our nation's Cold War
438 nuclear work, is now providing new promise to support
439 development of advanced nuclear technology.

440 Last year Congress enacted the Energy Act of 2020, the
441 most significant bipartisan energy law in more than a decade,
442 to build on the agency's work to clean energy technologies
443 and the deployment of those technologies. We should
444 understand how DoE plans to implement that law and fit it in
445 with its other missions in a way that maximizes benefits
446 across the complex, from nuclear security to cybersecurity.
447 This is no easy task, and it will be undermined if the
448 leadership is distracted by pursuing policies that turn away
449 from DoE's core mission.

450 I look forward to talking more about that this morning.
451 And with that, Mr. Chairman, I yield back.

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

453

454 *****COMMITTEE INSERT*****

455

456 *Mr. Rush. The ranking member yields back, and I would
457 like to now welcome our esteemed witness for today's hearing,
458 the Honorable Jennifer M. Granholm, Secretary of the U.S.
459 Department of Energy.

460 Madam Secretary, I, for one, am excited about your
461 presence at this hearing, and we want to thank you for
462 joining us today. We do look forward to hearing your
463 testimony, and, Madam Secretary, you are now recognized for
464 five minutes for the purposes of an opening statement.

465

466 STATEMENT OF HON. JENNIFER M. GRANHOLM, SECRETARY, U.S.
467 DEPARTMENT OF ENERGY

468

469 *Secretary Granholm. Thank you so much, Chairman Rush,
470 and to Ranking Member Upton, and Chairman Pallone, and
471 Congressman McNerney, and Ranking Member McMorris Rodgers,
472 and to members of the subcommittee. It is really an honor to
473 be here, as the nation's 16th Secretary of Energy to discuss
474 the President's 2022 discretionary budget for the Department.

475 So my vision for the Department is really to drive
476 forward the research and development and deployment of
477 cutting-edge science and technology in order to advance
478 America's energy security, economic security, and,
479 critically, national security. And I am very proud to say
480 that we have accomplished a lot since January 20th.

481 I just want to start, though, if I could, with just a
482 minute on what unfolded last week. As you all are aware,
483 this ransomware attack happened on May 7th, and it led to the
484 shutdown of the Colonial Pipeline Company's largest pipe fuel
485 line on the East Coast. And the White House asked my team at
486 the Department of Energy to coordinate an interagency whole-
487 of-government effort to ensure that the company had the
488 resources necessary to resume operations as quickly and
489 safely as possible, while moving fuel supplies to impacted
490 areas by other means.

491 So the incident was really a stark reminder of the
492 imperative to harden the nation's critical infrastructure, as
493 you have been discussing, against these serious and growing
494 threats like ransomware. And in the face of an evolving
495 array of 21st century risks, we have, I think, to rethink our
496 approach to security, and to reassess the authorities that we
497 can bring to bear during these kind of emergencies.

498 As the sector risk management agency for cybersecurity
499 in the energy sector, DoE is eager to work with this
500 committee in an effort to ensure that we can be maximally
501 effective in protecting the energy sector, and in meeting the
502 needs of the American people.

503 Now, beyond that crisis management, we have been really
504 busy advancing our core science and nuclear security
505 missions, while also driving innovation and decarbonization,
506 in particular, technologies forward. Since the President's
507 inauguration, we have announced nearly \$1.5 billion in grants
508 and awards and funding opportunities for clean energy R&D
509 projects that will help us to achieve a net-zero carbon
510 future. And much of that reflects what Congress, in a
511 bipartisan fashion, identified as high priority through that
512 Energy Act of 2020.

513 So the American Jobs Plan would significantly expand the
514 research, development, and deployment efforts that were
515 identified in the Energy Act of 2020, which is very exciting.

516 And it will ensure that American researchers are the ones who
517 are making breakthroughs that drive clean energy and our
518 future. It will ensure, the American Jobs Plan, that
519 American entrepreneurs take those breakthroughs to scale. It
520 will ensure that American workers build them right here.

521 And what is more, that American Jobs Plan calls for
522 directing 40 percent of the benefits of these investments to
523 communities that have been left behind and unheard for too
524 long to people of color and indigenous people who then -- who
525 have disproportionately borne the burdens of fossil fuel
526 pollution, and are now on the front lines of climate change.
527 It will help lower-income households that see far too much of
528 their paychecks eaten up by energy bills, and for energy
529 workers who have powered this country for generations, and
530 now stand on the edge of this transition to clean energy.

531 This committee, I know, has advanced critical
532 legislation that is focused on creating jobs that provide a
533 living wage on an equitable basis. And we share that
534 commitment. We believe, wholeheartedly, that clean energy
535 will be an engine for such job creation, and we are holding
536 ourselves accountable to our promises.

537 Shalanda Baker, who is my senior advisor, has been
538 helping us figure out how we can lift these communities up,
539 and is overseeing the development of a Justice40 online
540 mapping tool that the public can use to see where the

541 Department's spending relates to environmental justice
542 communities.

543 President Biden's proposed 2020 (sic) discretionary
544 funding request is going to allow the Department of Energy to
545 take additional steps toward the equitable, clean energy
546 future we believe is within reach. It will invest \$46.2
547 billion in the Department of Energy's key priorities,
548 including deploying clean, cheap, and abundant power, and a
549 reliable and resilient and secure grid. It means increasing
550 clean energy research over four years to put America at the
551 forefront of clean energy innovation, worldwide. And it
552 means advancing carbon reduction and mitigation through
553 technologies like carbon capture, and storage, and hydrogen,
554 and breaking down the barriers to increased diversity in STEM
555 fields and, of course, strengthening the Department's nuclear
556 security mission, and continuing to advance our environmental
557 management program.

558 So I am humbled by the opportunity to lead the
559 Department of Energy, as we pursue this really ambitious
560 agenda. And I have seen up close what our amazing workforce
561 can do. I have no doubt that we can reach our goals, and I
562 look forward to our continued partnership as we work to
563 achieve them. Thank you so much.

564

565

566 [The prepared statement of Secretary Granholm follows:]

567

568 *****COMMITTEE INSERT*****

569

570 *Mr. Rush. I want to again thank our Secretary of the
571 Department of Energy, and now we have concluded the opening
572 statements for this morning, and we will now move to member
573 questions.

574 Each member will have five minutes to ask questions of
575 our witness. And I will start by recognizing myself for five
576 minutes.

577 Madam Secretary, again I would like to thank you and
578 other members of the Administration for your leadership
579 during the recent cybersecurity attack on the Colonial
580 Pipeline. This ransomware attack, and the under-reporting of
581 security breaches generally, is cause for great concern.

582 It is my understanding that Colonial worked hand in
583 glove with the Department of Energy and other entities to
584 tackle this crisis. However, I remain deeply concerned about
585 the use of ransom payments, especially when paired with
586 untraceable criminal currency payments, which can make
587 enforcement difficult, if not impossible, and also
588 incentivize crimes by their actions. A recent Chicago Sun-
589 Times editorial further underscores these concerns.

590 My bill, H.R. 3119, The Energy Emergency Leadership Act,
591 will assign cybersecurity, energy security, and emergency
592 response functions to a new DoE assistant secretary. Madam
593 Secretary, how would Congress's creation of this assistant
594 secretary position strengthen DoE's ability to respond to

595 these sector-specific issues that are of great concern?

596 *Secretary Granholm. Thank you so much for the
597 question. You and I share the sentiment that CESER, and the
598 responsibilities of that office inside of the Department and
599 across -- and for the energy sector, in general, are
600 essential.

601 I have made it a mission of mine to strengthen the
602 office as much as possible with fantastic new leadership at
603 CESER, and a new focus. And as we have seen with both the
604 Texas winter weather event and the Colonial Pipeline
605 incident, CESER can make a difference, a very big difference.
606 And they have relationships with the private sector, and with
607 their sister agencies across the Federal Government. We want
608 to make sure that it is as fine-tuned as possible toward that
609 goal, and I look forward to working with you to accomplish
610 that.

611 *Mr. Rush. Madam Secretary, in light of this recent
612 energy reliability crisis, it is important to consider what
613 more can be done to reinforce DoE's response to future
614 threats. As I have mentioned, I am currently working on
615 legislation to ensure that cyber attacks do not threaten our
616 energy infrastructure, moving forward. Are oversight
617 agencies like DoE in need of additional authorities to ensure
618 the reliability and security of our energy systems?

619 *Secretary Granholm. Thank you, Mr. Chairman. DoE's

620 role as the sector risk management agency is really to
621 continue and expand our efforts to make the best solutions
622 available to industry, and to -- with the best information
623 about possible weaknesses. And it is not a fully regulatory
624 role. And of course, any decision about the regulatory
625 authorities for any of these agencies is up to Congress.

626 But regardless of who has the ball, who has the
627 authority over pipeline security, for example, DoE remains
628 committed to supporting security measures like we have been
629 doing through efforts like deployment of sensors throughout
630 the oil and natural gas sector, or threat information-sharing
631 with industry, or supply chain testing, particularly because
632 there is so much overlap on the industrial control systems
633 used within the electricity and the pipeline sectors. CESER
634 has been working on secure manufacturing and innovation,
635 working with our Office of Fossil Energy to ensure that
636 cybersecurity is built into the new technologies to support
637 the next generation of oil and natural gas infrastructure and
638 systems.

639 *Mr. Rush. Well, thank you, Madam Secretary.

640 The chair yields back his time. The chair now
641 recognizes the chairman of the full committee, Mr. Pallone,
642 for five minutes for the purposes of asking questions.

643 *The Chairman. Thank you, Mr. Chairman. Let me ask the
644 Secretary, in just a few short months, multiple events have

645 threatened the physical and cybersecurity of our energy
646 system, and required a significant emergency response. In
647 February we saw deadly and widespread power outages in Texas,
648 and the Colonial Pipeline led to almost a complete closure of
649 one of our largest pipelines.

650 And so I just wanted to commend you, Madam Secretary,
651 first, for working hard with other agencies to lead this
652 effort to help bring the pipeline back online quickly and
653 safety -- and safely. And I know you have been working on
654 that furiously.

655 But these events underscore both the physical and cyber
656 vulnerabilities of the energy system, risks that continue to
657 evolve due to climate change, technological advances, and the
658 increased interconnectedness of our energy infrastructure.
659 There is, clearly, more that we need to do.

660 So my first question is, how can the committee and
661 Congress best help Department of Energy ensure the
662 reliability of the energy system, in light of these ongoing
663 and continuing challenges, if you will?

664 *Secretary Granholm. Yes, this is such a great question
665 for, you know, your role, and what is happening inside of the
666 Federal Government. So -- and what is happening with the
667 private sector, as well. So there is no doubt that the
668 energy sector, like other, you know, critical sectors in our
669 society, needs to continue to do better at defending itself

670 against cyber threats. We all need to, right? So many of
671 you have been saying that for years.

672 And as you know, in this country, our energy sector is
673 operated by private, not-for-profit, and state and local
674 entities. There is over 3,000 companies on the electricity
675 side, and thousands of others in the oil and natural gas
676 sector. So to try to protect this really complex
677 environment, the U.S. Government is leveraging a bunch of
678 different tools at our disposal.

679 First, you may be aware that, inside the Federal
680 Government, the President issued an executive order. And
681 this is just to set the stage for what Congress's role might
682 be in this, as well. But the President's executive order for
683 the Federal Government creates, for example, a pilot Energy
684 Star label program that will help the government identify
685 software that was developed securely. That is a question
686 that maybe could be transported to outside of Federal
687 Government, or certainly that players outside of Federal
688 Government can look to what the Federal Government defines as
689 secure suppliers for that software.

690 The President's executive order requires information
691 technology providers that serve the Federal system to share
692 any breach of information with the government, so that our
693 intelligence community can identify where these breaches are
694 coming from, so they can take action on it.

695 The President's executive order directs federal agencies
696 to lead by example by adopting these strong, modern
697 cybersecurity standards that are consistent with the
698 guidelines developed by NIST, making sure we have trusted
699 architecture inside of our -- of what -- of who we hire to do
700 our IT and software work for the Federal Government.

701 The President's executive order establishes a joint
702 governmental private sector board to review cyber incidents
703 that occur, and to make recommendations to the private sector
704 and the public sector for improvement. And while a lot of
705 those efforts are focused on the government, as I mentioned,
706 they really do provide, I think, a good signal to industry on
707 what we, at the Federal level, will purchase and use, and,
708 therefore, may also be guidance for how we might think more
709 broadly.

710 So you have got existing regulation, as you identified
711 in your initial remarks, you know, after directing the North
712 American Electric -- NERC -- to develop the standards FERC
713 issues, mandatory cybersecurity standards for electricity
714 owners and operators. And as you noted, TSA has voluntary
715 guidelines. And one wonders whether it is time that we match
716 what we are doing on the electric side with what we are doing
717 on the pipeline side.

718 So I -- CESER is the -- DoE is the risk management
719 agency, as I mentioned, and I think we need to work on, with

720 the private sector -- this threat information-sharing issue
721 is huge, the development of research and development, the
722 development of trusted products that we can use, and that the
723 private sector can use, all very important.

724 I am sorry I went on too long, because I know your time
725 and my time is up --

726 *The Chairman. That is all right --

727 *Secretary Granholm. -- but there is more to say, and
728 it is a really important topic, and I appreciate you raising
729 it.

730 *The Chairman. Thank you very much. I yield back, Mr.
731 Chairman.

732 *Mr. Rush. The chair yields back. The chair has made
733 tremendous -- outside of regular order. I failed to
734 introduce my friend and the eminent subcommittee ranking
735 member for five minutes. I ask his forgiveness and his
736 indulgence for the chair stepping outside of the regular
737 order.

738 And it is my honor now to recognize, finally, the
739 ranking member of the subcommittee, an esteemed gentleman
740 from southwest Michigan, none other than Chairman Fred Upton.

741 *Mr. Upton. Well, no harm done, Mr. Chairman. I was
742 just thinking that you were mindfully thinking that you
743 wished that I was still the chairman of the full committee,
744 so I will accept that apology.

745 Secretary Granholm, again, welcome. Welcome to our
746 committee. Some are saying that the -- Colonial's cyber
747 attack was a wake-up call, but all of us here know better.
748 We have been sounding the alarm on this for the last couple
749 of years, which is why I first introduced The Pipeline and
750 LNG Facility Cybersecurity Preparedness Act three years ago.
751 This committee has spent a considerable amount of time
752 investigating cyber attacks across the energy supply chain,
753 both in public, as well as private, classified meetings.

754 We need to know the facts and circumstances. I know you
755 and I have chatted about this, and I just welcome your
756 participation to provide us all the information that you can
757 in that classified setting, either here on the Hill, or just
758 down the street at your office.

759 *Secretary Granholm. I certainly will.

760 *Mr. Upton. Yesterday -- actually, let me ask a quick
761 question as a follow-up to Chairman Rush. He talked a little
762 bit about CESER. When do you actually anticipate the
763 nomination for the head of CESER might be made public, or
764 moving forward?

765 *Secretary Granholm. Well, we have an acting head that
766 we have just brought on. His name is Puesh Kumar, and he is
767 -- comes from both DoE in the cyber area, and then also at a
768 utility company in Southern California, as -- heading up
769 their cybersecurity efforts. So he has got great experience.

770 I hope we can make sure that he comes before you, so you
771 can meet him and be as impressed with him as I am. I don't
772 know the exact timing, but I can tell you that, having
773 brought him on as acting, it was a very good move to make
774 sure that we amplify and benefit from the expertise, both of
775 his public and private sector cyber work.

776 *Mr. Upton. Well, great. I look forward to that.

777 Yesterday -- and we have got these facts, state-by-state
778 facts, that show that nearly 75 percent of the gas stations
779 here in D.C. are out of gas. Almost half the gas stations in
780 North Carolina, South Carolina, and Georgia were also out of
781 gas. Gas prices, obviously, supply and demand, went up. It
782 has been over a week since the ransomware attack began.
783 Americans are still suffering. There has been some price
784 gouging, I know.

785 But what should we DoE -- do we really need to have
786 minimum standards that we should legislatively move, working
787 with -- obviously, on a bipartisan basis? Do we need minimum
788 standards for critical energy infrastructure? Is that
789 something that we are woefully inadequate on?

790 *Secretary Granholm. I think we are inadequate on it.
791 And I think that this is an example, potentially, of that.

792 I mean, if we had had standards in place, would this
793 particular ransomware attack have been able to happen? You
794 know, I am not 100 percent sure. But I do know that, having

795 good cyber hygiene on the private side, as well as on the
796 public side, is a critical basic defense. And for entities
797 that provide service to the public like that, especially
798 critical services like energy, I think it is an important
799 consideration for this committee, for sure.

800 *Mr. Upton. So one of the biggest roadblocks to a new
801 infrastructure bill is the federal permitting process. I am
802 one that believes that we desperately need to modernize our
803 infrastructure. Are you aware that the CLEAN Future Act, the
804 centerpiece of that climate agenda, would essentially shut
805 down oil and gas production and new pipelines?

806 And what are your thoughts as it relates to that?

807 *Secretary Granholm. Well, I am all about an efficient
808 government, and making sure that we streamline where we can,
809 and we do so in a way that protects what the regulation was
810 intended to protect, which is often, obviously, our
811 environment and safety.

812 So, you know, transmission, especially, is an issue that
813 we have all raised. We have seen so much lag time, and so
814 many hoops that have to be jumped through to get critical
815 infrastructure in the ground and, again, often adopted at a
816 time when it made perfect sense. But like anything, we need
817 to update government processes to make -- but make sure that
818 we still protect what we intended to protect in the first
819 place.

820 You know, I think on the transmission side, the
821 Department is using the tools that Congress provided to help
822 advance transmission development. If I can just talk about
823 transmission for a second, we recently announced the
824 availability of up to \$8.2 billion in financing from the Loan
825 Programs Office, and the Western Area Power Administration's
826 Transmission Infrastructure Program. And we are using
827 analytical tools at the national labs to identify
828 transmission needs and opportunities like the
829 Interconnections Seam Study from NREL.

830 And it is not something we can do on our own. States
831 have -- obviously, have the primary role in permitting and
832 siting in -- particularly in transmission. I am really
833 looking forward to working with states and communities
834 collaboratively, but I do know that there is a huge -- you
835 know, for example, there is over 680 gigawatts of clean power
836 that is queued up in the transmission system alone, waiting
837 for entry into the system. A lot of that has to do with the
838 lack of capacity, and some of it has to do with lack of
839 financing, and some of it has to do with the permitting
840 issues.

841 So I very much want to work on this, on the whole suite
842 of issues that seem to be slowing down the movement of
843 permission of key pieces of energy infrastructure to be in
844 the ground, or on poles, or however the safest way is for

845 that -- the transmission of that energy to come to us.

846 *Mr. Upton. I yield back.

847 *Mr. Rush. The gentleman yields back. The chair now
848 recognizes the ranking member of the full committee, Mrs.
849 McMorris Rodgers, for five minutes for the purposes of an
850 opening -- for the purposes of questioning the witnesses.

851 *Mrs. Rodgers. Thank you, Mr. Chairman --

852 *Mr. Rush. Mrs. McMorris Rodgers, you are recognized
853 for five minutes.

854 *Mrs. Rodgers. Thank you, Mr. Chairman.

855 And again, Madam Secretary. As we know, families
856 throughout the southeast, up into D.C. and Maryland,
857 experienced a rude shock last week, as the Colonial Pipeline
858 shutdown caused gasoline shortages, and it still continues.
859 This is a problem straight out of the 1970s.

860 But cybersecurity, rather than price controls and -- or
861 oil embargoes directly led to the shortages. This event
862 follows life-and-death energy shortages in Texas this past
863 winter, resulted when available generation could not meet
864 sudden demand during a winter freeze. And of course, there
865 is chronic electric reliability and affordable issues in
866 California, as that state pushes for more renewable, weather-
867 dependent energy, despite its cost and harm to the poor.

868 California predicts more blackouts this summer. These
869 issues continue to undermine safety and increase energy

870 poverty. They hurt people who cannot afford to purchase home
871 generators or to fuel their cars. So I have three questions
872 here I would like you to address, Secretary Granholm, and it
873 really relates to energy reliability, harming people.

874 Do you agree that DoE has a role to assess these
875 situations, and help address them?

876 Are you taking into account the pace of the
877 Administration's greenhouse gas goals that may increase more
878 blackouts or energy shortages?

879 And finally, it would be helpful for policymakers if you
880 direct the Energy Information Administration to model the
881 impact of these policies, including ratepayer impacts. And I
882 wanted to ask if you would be willing to direct the Energy
883 Information Agency to model the impact of these policies.

884 *Secretary Granholm. So with respect to DoE's role,
885 yes. The price -- your question about the pace, excuse me,
886 of the greenhouse gas emission goals, the pace is urgent,
887 because the situation is urgent. We are seeing that so many
888 of these crises are because of, not in spite of, but because
889 of extreme weather and climate events. And so we need to do
890 both, provide reliable and affordable power and do so in a
891 clean way.

892 And those -- that is exactly what the Biden
893 Administration is focused on. That is exactly why we want to
894 get to 100 percent clean electricity by 2035, and net-zero

895 carbon emissions by 2050, and use the -- all of the great
896 research and development that you were describing at our
897 national labs, the great brains, the technology that is
898 coming out of these labs to enable us to get there.

899 So, for example, we want to make sure that we manage CO2
900 emissions on natural gas. We want to make sure that we
901 manage methane flaring, that we reduce or eliminate methane
902 flaring and CO2, having it -- having natural gas be carbon-
903 free through technologies that are being developed inside the
904 national labs, and that we want now to deploy. And it is all
905 about deployment.

906 *Mrs. Rodgers. Okay.

907 *Secretary Granholm. This is why the investment that
908 the American Jobs Plan makes in these kind of technologies
909 will --

910 *Mrs. Rodgers. Okay, thank you.

911 *Secretary Granholm. -- down that cost.

912 *Mrs. Rodgers. Thank you, thank you. So I am sorry to
913 interrupt, I am going to run out of time here, though, and I
914 really would like to work with you to get the modeling of all
915 of that, so that we understand the impact it is going to have
916 on reliability, as well as cost, affordability, and the
917 impact on ratepayers.

918 My second question was around China. And one of the
919 challenges that we have, as a nation, is regaining our

920 competitive edge to beat China. And at the same time, we
921 just see where the CCP has long exploited openness to advance
922 its military and its economic goals. So the -- China's
923 Thousand Talents Plan has been -- actively recruited U.S.
924 taxpayer-funded researchers to propel its science and
925 technology. And I note in your testimony the promised
926 increased grants and spending on energy research.

927 I wanted to ask if you would commit to maintaining DoE's
928 2019 prohibitions on funding researchers associated with the
929 Thousand Talents Program. And will you maintain or enhance
930 the restrictions on DoE contractors and employees
931 collaborating with the CCP?

932 *Secretary Granholm. You know, so I completely
933 acknowledge the threat that China has been providing to the
934 U.S., both in making sure that we -- that our research is
935 safe and protected and, obviously, what is happening on the
936 economic front, in terms of the challenge that China has
937 presented in securing supply chains and manufacturing for
938 critical minerals.

939 Not just that, but critical supplies for a clean energy
940 system. You know, there is a huge market for these clean
941 energy products that this is why we want to get in the game
942 on, and make sure that we have that research and development
943 capacity.

944 It is also true that it is sometimes in our best

945 interest to work with China, for example, on non-
946 proliferation issues, and sharing of scientific knowledge
947 that is not proprietary.

948 So, you know, if we can work with China to make sure the
949 work advances our interests and complies with U.S. laws and
950 DoE regulations, that is one thing. If China or its -- and
951 its efforts are stealing information from our labs, that is
952 another thing.

953 So I look forward to working with the committee on this
954 important goal to get, you know, America to be on top, both
955 economically, but also to make sure that we are secure from
956 Chinese, you know, efforts, Chinese Communist Party efforts
957 to infiltrate.

958 Having taught at UC Berkeley and worked with the
959 Lawrence Berkeley National Lab, we have seen fantastic -- we
960 have fantastic researchers, fantastic scientists who are from
961 -- of Chinese origin. But I want to make sure that we are
962 careful and sensitive to the fact that we are talking about
963 the Chinese Communist Party and not the Chinese people.

964 And I appreciate the question, and I look forward to
965 working with you on it.

966 *Mrs. Rodgers. Thank you.

967 *Mr. Rush. The gentlelady yields back. The chair now
968 recognizes the gentleman from California, Mr. Peters, for
969 five minutes.

970 *Mr. Peters. Thank you, Mr. Chairman, and thank you,
971 Secretary Granholm, for being here.

972 Your comments about transmission were music to my ears.
973 One of our biggest challenges is figuring out how to deliver
974 vast amounts of zero-emission electricity from rural areas,
975 where renewables are most generated, areas of high demand,
976 and we have to expand and upgrade our long-distance, high-
977 voltage transmission system.

978 In the wake of the seam study that you mentioned, I
979 introduce the POWER ON Act to provide FERC with backup
980 regulatory authority to permit the build-out of these cost-
981 effective and reliable transmission systems when state level
982 opposition or apathy interferes, and there is a Federal
983 interest in doing this. I shared your -- that bill with your
984 staff, and many of its provisions are included in the CLEAN
985 Futures (sic) Act, and I hope that the budget for DoE can
986 provide support for that very important work, because the
987 Federal Government is going to have to take a hand in this.

988 Today I did -- and I will get to the budget question,
989 but I would like to focus on a climate solution that could
990 act as a complement to the American Jobs Plan, including the
991 plan's clean energy standard. And that is -- that solution
992 is carbon pricing. I am not naive to the politics of carbon
993 pricing. Some of my colleagues say it is too costly, it will
994 destroy the economy. Others, once champions of the policy,

995 have labeled it as nice to have, but not essential.

996 But even a modest carbon price is essential. It would
997 reduce the cost of decarbonization, generate billions in new
998 revenue, and drive fuel switching to zero-carbon
999 alternatives, and send a price signal to every economic actor
1000 to reduce carbon emissions and give certainty to the private
1001 sector to build low-carbon investments.

1002 It can be structured to be progressive, but without it
1003 it is hard to imagine how the U.S. will drive the rapid
1004 deployment of new, lower costs, and lower carbon technologies
1005 across all sectors. So a couple of points, briefly.

1006 First, a carbon price could complement the American Jobs
1007 Plan by reducing the cost of implementation. Researchers at
1008 MIT found that a climate package that includes a modest
1009 carbon price cuts costs in half, compared to a package that
1010 lacks a carbon price.

1011 In California, where -- which has some of the most
1012 ambitious climate targets in the world, we have determined
1013 that combining carbon pricing with other carbon -- with other
1014 climate policies cost four times less than a pathway without
1015 a price on carbon.

1016 And the U.S. climate approach has international
1017 implications. The EU's carbon price is near \$60 a ton. The
1018 UK is launching a new carbon pricing program. Canada plans
1019 to increase its carbon price to \$170 a ton by 2030. China is

1020 continuing to develop a domestic carbon market. And as the
1021 world moves towards ambition carbon pricing, the U.S. risks
1022 losing international credibility, and being subjected to
1023 punitive border policies that could affect our industrial
1024 competitiveness.

1025 California has an advanced carbon pricing program, 11
1026 northeast states participate in a regional carbon market, and
1027 in Washington State Governor Inslee and the legislature
1028 recently passed an economy-wide price on carbon. And there
1029 is significant evidence that it works.

1030 In 2019, more than 3,500 economists, including 28 Nobel
1031 laureates, supported it. In 2020 the CFTC's Climate-Related
1032 Market Risk Subcommittee concluded it is the single most
1033 important step to manage climate risk and drive the
1034 appropriate allocation of capital. In 2021, the National
1035 Academy of Sciences Engineering and Medicine recommended it.
1036 And not only scientists and academics. The Business
1037 Roundtable supports a carbon price.

1038 And finally, I have to say that, in 2009, the Michigan
1039 State Climate Action Plan said Michigan should advocate a
1040 carbon price. It is efficient, equitable, economy-wide, and
1041 based on a Federal-state partnership.

1042 I am not trying to play gotcha here, but I do want to
1043 know, really, from a budget perspective, what modeling do you
1044 have to show that the clean energy standard will be

1045 sufficient to meet our targets on time, with or without a
1046 carbon price?

1047 And can you provide that modeling, the support for that
1048 modeling, in the budget, just so we know, we really know,
1049 that this is going to work?

1050 *Secretary Granholm. Yes, okay, first, thank you so
1051 much for the question. I appreciate the passion and the
1052 sincere goal that we all have to reach these goals, and
1053 figuring out the best path to get there.

1054 So, you know, as you have noted, carbon pricing is one
1055 of many tools for addressing CO2 emissions. We have seen
1056 lots of countries and states try it, as you have identified.
1057 But the American Jobs Plan is really, first and foremost,
1058 this long-term strategy to modernize the economy, to build
1059 this economy for the future with the infrastructure that we
1060 need, and to do it in a way -- by, you know, by trying to
1061 incentivize the technology --

1062 *Mr. Peters. Right, right.

1063 *Secretary Granholm. -- that is necessary to build that
1064 zero-carbon future. And the Administration, it is their
1065 overall approach. It is the best --

1066 *Mr. Peters. Madam Secretary, I went on too long. But
1067 specifically about the modeling, what resources can the
1068 Department dedicate to show us that this will work?

1069 *Secretary Granholm. Yes, I mean, we -- happy to have

1070 those conversations with you. We just did a model, for
1071 example, for the City of Los Angeles that allowed them to get
1072 to a 100 percent clean energy future. There are a number of
1073 different pathways.

1074 As you know, the Administration also did an evaluation
1075 for their goal to get to reduce CO2 emissions by 50 percent
1076 by 2030, using a number of different pathways. I am happy to
1077 have our team get with your office to show you exactly what
1078 we are looking at, because we are very optimistic, and
1079 believe it can be done. But it is an aggressive -- it is
1080 aggressive, and it is hard. There is no doubt about it.

1081 *Mr. Peters. I appreciate that. Thank you. I have
1082 used my time, and I yield back.

1083 *Mr. Rush. The chair now recognizes Dr. Burgess from
1084 the great state of Texas.

1085 *Mr. Burgess. Thank you, Chairman Rush. Thanks,
1086 Ranking Member Upton.

1087 Madam Secretary, let me just join with the others who
1088 have welcomed you to our subcommittee today. I have a
1089 question about the news last night that the President decided
1090 he was able to waive sanctions against the company that is
1091 currently constructing the Nord Stream 2 gas pipeline between
1092 Russia and Germany, so a direct economic threat to countries
1093 in Eastern Europe, and certainly has the potential to be
1094 destabilizing the geopolitical balance between Russia and the

1095 United States.

1096 Section 14 -- I am sorry, 1242 of the William Mac
1097 Thornberry National Defense Authorization Act that was passed
1098 last December tightened the existing sanction regimen. In
1099 fact, Secretary Blinken was questioned by my senator, Senator
1100 Cruz, in a Senate Committee on Foreign Affairs hearing. And
1101 Secretary Blinken was determined -- whatever he could do to
1102 complete the completion of the last 100 yards of the Nord
1103 Stream 2 pipeline.

1104 So do you have any information for us today about why
1105 Vice President Biden has pivoted nearly 180 degrees away from
1106 his previous position?

1107 *Secretary Granholm. I have not been specifically
1108 briefed on that. We -- I understand the State Department
1109 soon is going to be releasing a report regarding the
1110 mandatory sanctions that Congress has imposed in assisting on
1111 the building of Nord Stream 2. So I -- and I understand that
1112 the State Department is going to notify Congress soon. So I
1113 will leave it at that.

1114 *Mr. Burgess. Well, in the language passed by Congress,
1115 in section 1242 of the NDAA last year, there was the ability
1116 for waiver in the national interest, that the President could
1117 waive the sanctions if he determines that the waiver is in
1118 the national interest of the United States. I would just --
1119 you know, I would love to see the argument how this waiver

1120 would benefit -- seemingly, to me, it benefits only Vladimir
1121 Putin. And we have already disadvantaged the citizens of the
1122 United States by not completing the last 100 yards of the
1123 Keystone pipeline. So I don't quite follow how that waiver
1124 of the national interest occurs.

1125 But, of course, under the plain language of section 1242
1126 of the National Defense Authorization Act, the other part of
1127 that section is that the President does need to submit the --
1128 to the appropriate congressional committees a report on the
1129 waiver, and the reasons for the waiver. And I just hope that
1130 you, as the Secretary of Energy, will commit to providing
1131 this committee with those appropriate reports in a timely
1132 fashion. May we ask you that?

1133 *Secretary Granholm. Of course.

1134 *Mr. Burgess. Let me just, also -- Chairman Upton, or
1135 Ranking Member Upton, brought up an important point about the
1136 NEPA waivers, and the importance of -- we have got a lot of
1137 infrastructure to catch up with. We have seen the danger
1138 from having infrastructure go down -- the pipeline on the
1139 East Coast -- and the -- of course, in Texas, during our one
1140 week of winter we saw a lot of needs develop. And, of
1141 course, Texas is also a fast-growth state, so there is a lot
1142 of demands being made on our energy infrastructure, our
1143 energy grid.

1144 So I just underscore Chairman Upton's request that the

1145 environmental streamlining, the waivers, the NEPA waivers,
1146 all of that is going to be an important part, to be sure, of
1147 a clean energy plan, but also just keeping up with what we
1148 have already got. And I would just like to add my name to
1149 the list that includes Ranking Member Upton on, I think,
1150 interest in how we secure our future, in the -- in light of
1151 the environmental -- some of the environmental restrictions
1152 we have to meet.

1153 *Secretary Granholm. Noted.

1154 *Mr. Burgess. And let me just ask you on nuclear
1155 security -- I mean, it is an area where this committee has
1156 been focused, historically -- just several questions that I
1157 can submit for the record, but I am interested in your
1158 commitment to working with this committee so the Department
1159 of Energy can effectively manage the important commission on
1160 the nation's nuclear security.

1161 *Secretary Granholm. I am sorry, did you -- was that a
1162 question? I am sorry.

1163 *Mr. Burgess. Well, the current law is imposing
1164 challenges on your ability to effectively manage, and
1165 budgeting, and other decisions about our weapons program in
1166 recent years. This committee has worked to address those
1167 deficiencies in a responsible, effective way. And I am just
1168 trying to gauge your interest in working with the Committee
1169 on --

1170 *Secretary Granholm. Oh, of course.

1171 *Mr. Burgess. -- those important issues of national
1172 security.

1173 *Secretary Granholm. Of course, of course. It is a
1174 huge mission of the Department. I am sorry I missed that.
1175 That part was the question. Of course, I look forward to
1176 working with you.

1177 *Mr. Burgess. Thank you, Chairman Rush, I will yield
1178 back.

1179 *Mr. Rush. The gentleman yields back. The chair now
1180 recognizes the gentleman from Pennsylvania, Mr. Doyle, for
1181 five minutes.

1182 *Mr. Doyle. Well, thank you very much, Chairman Rush
1183 and Ranking Member Upton, and welcome, Madam Secretary.

1184 You know, as you know, we have the opportunity to make
1185 America the leader in developing and building clean
1186 technologies and products of the future. And I know you
1187 share a lot of the goals that I do. And I look forward to
1188 working with you.

1189 I also look forward to you visiting Pittsburgh, because
1190 I want to show you all the innovative work being done to
1191 connect researchers and manufacturers to build the clean
1192 energy systems of the future, right here in the United
1193 States.

1194 Madam Secretary, Pittsburgh is home to U.S. Steel.

1195 Obviously, the steelmaking industry is -- of the future --
1196 are looking to decarbonize sectors like steelmaking, and
1197 decarbonize heavy-duty transportation like shipping and
1198 freight rail. And one of the ways I believe we can do this
1199 is hydrogen. It is a clean, sustainable fuel that will be
1200 especially helpful in decarbonizing these sectors I have just
1201 mentioned.

1202 We also have in Pittsburgh the National Energy
1203 Technology Lab. Do you agree that we should be developing
1204 hydrogen hubs and demonstration projects?

1205 And I would like to say at this point we would be an
1206 excellent candidate for a hydrogen hub, given the research
1207 facilities we have, and the industry we have in steelmaking.
1208 What are your thoughts on hydrogen?

1209 *Secretary Granholm. A thousand percent, yes. I mean,
1210 hydrogen is viewed by many as sort of the Holy Grail of how
1211 we are really going to be able to get to clean, reliable,
1212 dispatchable power, whether it is blue hydrogen, which, of
1213 course, is derived from natural gas; green hydrogen, which
1214 takes renewable energy and creates hydrogen -- tank hydrogen,
1215 which comes from nuclear.

1216 The hydrogen hub idea is a terrific idea. I think my --
1217 one of my predecessors, Ernie Moniz, Dr. Ernie Moniz, has
1218 identified, I think, 18 hydrogen hubs that could exist where
1219 -- across the country, where it makes natural, comparative

1220 advantage sense. And, as you are well aware, the American
1221 Jobs Plan has inside of it 15 hydrogen demonstration
1222 projects.

1223 And I think -- I mean, I say this all the time, because
1224 I have been hearing it all the time from my counterparts in
1225 other countries -- that everybody wants to get to this
1226 hydrogen future, and to reduce the costs so that everyday
1227 taxpayers, everyday citizens, don't see their energy bills
1228 increase. These demonstration --

1229 *Mr. Doyle. Madam Secretary, we have everything you
1230 need, right in Pittsburgh. We are sitting on a bunch of
1231 Marcellus shale gas. We have the research facilities, and we
1232 have the industries there that -- all are looking to work
1233 together to see this be a reality.

1234 Let me -- I want to ask you some more questions within
1235 my time. You know, to be a leader in clean energy, and
1236 electric vehicles, and battery manufacturing, we have to
1237 ensure we have robust domestic supply chains. What are your
1238 plans for ensuring that we are onshoring supply chains?

1239 And what is the Administration's view on making
1240 investments in the midstream supply chain, such as a grant
1241 program that works with industry to help build or retool
1242 facilities for battery components and materials?

1243 *Secretary Granholm. Yes, this is a great question.
1244 Let me just use batteries as an example. I think we should

1245 be having the full supply chain for battery, soup to nuts,
1246 and that means, yes, the anode, the cathode, the separator
1247 material, the electrolyte, and the critical materials that go
1248 into it.

1249 Whether it is lithium, or whether it is graphite, the
1250 bottom line is we should be rethinking the means to our
1251 energy security in America. And that means responsibly
1252 extracting those minerals. That means responsibly processing
1253 those minerals. And we have no processing capability in the
1254 United States. China has the vast majority of processing of
1255 these minerals. Why would we extract them here, and then
1256 send them to China to process?

1257 We need to develop the entire supply chain of a bunch of
1258 products, but this product in particular, since you raised
1259 it. The batteries need to be assembled and put into cars,
1260 but also the full, early part of the supply chain needs to be
1261 developed here, as well. The President is all over that. It
1262 is part of what is in the American Jobs Plan.

1263 *Mr. Doyle. That is great to hear, and I agree with you
1264 100 percent.

1265 Let me get my last question in, too. As you know,
1266 nuclear power accounts for over half of our carbon-free power
1267 generation, but the existing nuclear fleet is in trouble.
1268 What is the Administration's view on the need to keep these
1269 plants operating, and what types of policies do you support

1270 to ensure that we don't lose more plants?

1271 *Secretary Granholm. Yes. First of all, the
1272 Administration is supportive, certainly, of keeping the
1273 existing fleet open. As you are well aware, nuclear provides
1274 over 50 percent of the clean energy now in the nation's
1275 portfolio. And just for everybody listening, it is safe. We
1276 -- our regimen of regulating nuclear power is very robust in
1277 the United States.

1278 So the bottom line is we need nuclear, and we need
1279 advanced nuclear, as well. So the Administration is
1280 supportive. The question is, what is inside of the budget or
1281 the American Jobs Plan to be able to do that. The
1282 Department, obviously, is supporting efforts to get to -- not
1283 the Department, but the Administration -- of including
1284 nuclear, as getting to 100 percent clean energy standard by
1285 2035. That will have to create the demand --

1286 *Mr. Doyle. Well, Madam Secretary, I see my time has
1287 expired, but I am looking forward to hosting you in
1288 Pittsburgh sooner than later. I will follow up with your
1289 office, and see if we can make that happen.

1290 Thank you, Mr. Chairman. I yield back.

1291 *Mr. Rush. The gentleman yields back. The chair now
1292 recognizes the gentleman from Ohio, Mr. Latta, for five
1293 minutes.

1294 *Mr. Latta. Well, thank you very much, Mr. Chairman.

1295 And Madam Secretary, thanks for testifying before us
1296 today. Madam Secretary, one of my top priorities is making
1297 sure that our electric grid and energy infrastructure are
1298 secure from cyber attacks. Last week's attack on the
1299 Colonial Pipeline is a reminder that more needs to be done to
1300 shore up our vulnerabilities in our energy infrastructure.

1301 Given that disruption of the electric grid would be a
1302 threat to our national security, economic vitality, and the
1303 essential services in society, this should be a bipartisan
1304 issue. I did join with my good friend and co-chair of the
1305 Grid Innovation Caucus, Mr. McNerney, to reintroduce two
1306 bills to help better secure the grid: H.R. 2928, which is
1307 the Cyber Sense Act; and H.R. 2931, Enhancing Grid Security
1308 Through Public-Private Partnerships Act.

1309 I also appreciate the full committee chairman and our
1310 Republican leaders' support of these two bills. And I hope
1311 we can again move them through the committee and the House in
1312 a timely manner.

1313 Now, Madam Secretary, in the tradition of our former
1314 chairman, Mr. Dingell, and his yes-or-no-answer questions, I
1315 would like to submit a few to you.

1316 Secretary, will the Biden Administration support
1317 bipartisan legislation that identifies, promotes, and tests
1318 cyber secure products for use in our power system?

1319 *Secretary Granholm. I know that DoE will. I can't

1320 speak for the Administration on that, but I don't know why
1321 they wouldn't.

1322 *Mr. Latta. Well, I will take that as a yes. Thank
1323 you.

1324 *Secretary Granholm. Excuse me. I am just saying it is
1325 part of what the President put forward in his executive order
1326 for the Federal Government. So I think it is important.

1327 *Mr. Latta. Thank you. Will the Administrations
1328 support bipartisan legislation that improves the sharing of
1329 best practices, data collection, training, and technical
1330 assistance between the government and electric utilities?

1331 *Secretary Granholm. Makes perfect sense. Yes, I am
1332 sure they would.

1333 *Mr. Latta. Thank you. Since the two bills I described
1334 earlier, Mr. McNerney's bill and mine, accomplish these
1335 goals, will you commit to supporting them, and helping us get
1336 them to the President's desk in a -- and to his signature?

1337 *Secretary Granholm. You are so tricky. I haven't read
1338 the bills, but the concepts I would agree --

1339 *Mr. Latta. We will get them to you. We will get them
1340 to you.

1341 Switching gears, another consequence of last week's
1342 attack and shutdown on the Colonial Pipeline was a consumer
1343 fallout when the cost of gasoline increased, and large parts
1344 of the southeast experienced shortages.

1345 Madam Secretary, isn't it true that pipelines are the
1346 safest and most efficient way to transport energy products?

1347 *Secretary Granholm. Sometimes they are. I mean, it
1348 depends on what the energy product is.

1349 In the case of Colonial, the pipeline was the only way
1350 to be able to transport that exists currently with the
1351 existing infrastructure. They were -- there was a redundant
1352 pipeline called the Plantation Pipeline. But in that case,
1353 really, Colonial Pipeline was sort of -- had the monopoly on
1354 moving the oil and the gasoline. And unfortunately, in the
1355 southeast, the port system was not -- the deepwater water
1356 ports, like they are in the Gulf and perhaps in the
1357 northeast, doesn't -- don't exist as readily in the
1358 southeast. So that is why the pipeline is kind of a monopoly
1359 in that regard.

1360 *Mr. Latta. Well, let me go on. Because of the
1361 incredible destruction that we have had because of these
1362 pipeline shutdowns, shouldn't the decisions be made based on
1363 science, facts, and safety, and not on politics?

1364 *Secretary Granholm. I am always in favor of supporting
1365 science. You must be -- are you a lawyer, too?

1366 *Mr. Latta. So -- well, let me continue. I represent
1367 northwest/west central Ohio. So I -- my district runs
1368 underneath -- right along the Michigan southern border, a
1369 large part of it. And I mention that because we already have

1370 seen the politics supersede safety with the shutdown of the
1371 Keystone pipeline. And as certain politicians have their
1372 way, we are going to see politics win again in the case of
1373 Enbridge's Line 5, which has been certified by FEMSA as
1374 operating safely and securely.

1375 And I mention this because, again, this is going to
1376 affect tens of thousands of jobs, not only in northwest Ohio,
1377 in our refineries, but also in Michigan itself. And will you
1378 commit to keeping Line 5 open to make sure that the citizens
1379 in Ohio and Michigan -- and help them, and save these tens of
1380 thousands of jobs that could be on the line if Line 5 goes
1381 down?

1382 *Secretary Granholm. Yes, as you probably are aware,
1383 DoE does not have a direct role regarding that project. It
1384 is a matter that is in active litigation.

1385 *Mr. Latta. But it is very, very important that DoE --
1386 because, again, when you look at the amount of energy that
1387 that pipeline brings into our region, it is going to be an
1388 incredible effect on us. And so I really will be asking you
1389 to get actively involved in this.

1390 And Mr. Chairman, my time has expired, and I yield back.
1391 Thank you.

1392 *Mr. Rush. The gentleman yields back. The chair now
1393 recognizes the vice chair of the subcommittee, Mr. McNerney,
1394 for five minutes.

1395 *Mr. McNerney. Well, I thank the chairman.

1396 Secretary Granholm, thank you again for appearing today.
1397 You have a tremendous opportunity to make a real difference
1398 in our nation's future, and we are with you all the way.

1399 During the pipeline shutdown, many Americans were
1400 waiting in long lines for gasoline, referring to this event
1401 as a wake-up call to cybersecurity vulnerabilities in our
1402 system. But what bothers me is that, each time an incident
1403 like this occurs, it is called a wake-up call. So I am
1404 wondering how many wake-up calls is it going to take for us
1405 to get this right.

1406 So my question is, what investments need to be made, now
1407 and going forward, to ensure that our increasingly
1408 interconnected energy system is reliable and resilient with
1409 these growing variety of threats?

1410 *Secretary Granholm. Yes, I think, first of all, we
1411 need to invest in our transmission grid, for sure, because we
1412 have seen the incidents of hacking, like SolarWinds, on it.
1413 And the American Jobs Plan is a huge opportunity to do that,
1414 because, as we invest in transmission capacity expansion, as
1415 we incentivize the resiliency to be added to the grid,
1416 resilience also includes cyber. And so we absolutely have to
1417 do this, and we have to do it now, and incentivize those to
1418 be able to -- incentivize people to be able to do it.

1419 I would say we also need an investment in cyber on the

1420 oil and gas pipelines, as well, because that is a key part of
1421 our infrastructure. The question is, where does that -- who
1422 pays for that investment?

1423 Currently, there are, obviously, private-sector
1424 entities. Are there incentives that could be considered by
1425 this committee, by this Congress, to have the private
1426 companies up their game with respect to installing software
1427 that protects them?

1428 Those are all great questions for this committee, right
1429 in your wheelhouse. But I completely agree: How many wake-
1430 up calls are necessary?

1431 And by the way, as we know, the criminals who are out
1432 there are continually improving, if you will, are continually
1433 upping their game. And that means that, once software is
1434 installed, that doesn't mean it is over. We have to
1435 continuously improve our game, as well, to protect our
1436 citizens. So it is going to require investment.

1437 *Mr. McNerney. Well, thank you. I should know better
1438 than asking an open-ended question like that.

1439 Last year my home state of California witnessed the
1440 largest wildfires in the state's history. This year wildfire
1441 season looks like it is going to be worse, starting earlier.
1442 How will bolstering infrastructure investments in the grid
1443 help to address these challenges?

1444 *Secretary Granholm. Yes, again, we have got -- the

1445 American Jobs Plan has a significant investment tax credit
1446 that would allow for upgrades to the grid. So in California,
1447 in some places, maybe some of that could be used, for
1448 example, to bury the wires, harden the wires in that way,
1449 maybe.

1450 There is an investment in the American Jobs Plan related
1451 to microgrids, as well, which are, of course, a critical tool
1452 for modernizing the grid, and provides resiliency and
1453 redundancy, as well, in the face of wildfires, or hurricanes,
1454 or extreme cold, and certainly to maximize the benefits of
1455 clean energy.

1456 So the Department, our Department, is doing a lot of
1457 work on this. But we also know that it is embedded in the
1458 American Jobs Plan, too, which, again, I hope has bipartisan
1459 support, for investing in that critical infrastructure.

1460 *Mr. McNerney. Well, thank you. In your testimony you
1461 state that the DoE's goal of spurring innovation in clean
1462 energy technologies will put the nation on a path to
1463 quadruple clean energy research in four years. What is
1464 needed to ensure that the scientific breakthroughs and
1465 deployable technologies can be fully utilized?

1466 *Secretary Granholm. Well, what we need to do is to
1467 take those great ideas and research that are happening in
1468 these 17 labs, and deploy them. And so the main way we are
1469 going to make sure that we benefit from what is happening in

1470 the labs is to invest in the deployment of these
1471 technologies. We have discussed here hydrogen, for example.
1472 There is great work being done in the labs on hydrogen. It
1473 is a solution to be able to decarbonize our power sector, but
1474 we need to make sure we get it deployed. And that is what
1475 the demonstration projects in the American Jobs Plan are all
1476 about.

1477 Similarly, with carbon capture use and sequestration,
1478 technology that has developed in the labs, we have got some
1479 deployment, but we need to deploy it in a much bigger scale
1480 if we are to reach the goals that we want to achieve.

1481 So it combines -- you know, you have to do the research,
1482 the basic research as well as the applied research, and then
1483 you have to apply that research to deployment and
1484 demonstration out in the field. And I think that is --
1485 really, the American Jobs Plan does both, because it does a
1486 huge amount of investment in research and development. We
1487 know we are way behind in terms of having let go our
1488 investment in research and development. It is particularly
1489 behind other countries, in terms of upping our game. The
1490 American Jobs Plan reverses that, and it invests, as well, in
1491 deployment of these key technologies.

1492 *Mr. McNerney. Thank you.

1493 Mr. Chairman, I yield back.

1494 *Mr. Rush. The gentleman yields back. The chair now

1495 recognizes the distinguished gentleman from the great state
1496 of West Virginia, Mr. McKinley, for five minutes.

1497 *Mr. McKinley. Thank you, Mr. Chairman, and welcome,
1498 Madam Secretary.

1499 Look, to reduce global CO2, the Administration has been
1500 calling for zero-carbon emissions from American power plants
1501 by 2035. And in testimony to Congress, John Kerry stated
1502 that CO2 levels greater than 350 parts per million are
1503 dangerous. So my question, can you guarantee me that the
1504 Biden plan will lower global emissions to less than 350 parts
1505 per million?

1506 *Secretary Granholm. Well, what I can guarantee you is
1507 that us getting back into the Paris Agreement --

1508 *Mr. McKinley. It really is just a yes or no, please,
1509 Madam Secretary. Can you guarantee me that we will get 350?

1510 *Secretary Granholm. I am not in the business of
1511 guaranteeing.

1512 *Mr. McKinley. Okay, thank you. So let me run through
1513 just a series of observations, then.

1514 The Institute for Energy Research and others have
1515 testified that the residential utility rates are expected to
1516 increase, skyrocket to 2,000 to \$4,000 if we rely totally on
1517 100 percent renewables. And if we shut down all the coal and
1518 natural gas power plants by 2035, entire communities will be
1519 hollowed out. Millions of jobs are going to be lost in a

1520 transition. Tax revenues for schools, hospitals, and first
1521 responders are going to be slashed. Children and families
1522 are going to suffer. Experts have testified before this very
1523 committee that extreme weather events will still occur,
1524 unless China and India decrease their emissions.

1525 And speaking of John Kerry, just last week before
1526 Foreign Affairs he warned us that trusting China to lower
1527 their emissions would be, "stupid and malpractice."

1528 So let me get this straight. Utility bills are going to
1529 go up. Our neighbors are going to lose their jobs. Our
1530 schools will lose funding. We will still have extreme
1531 weather events. The CO2 in the atmosphere will still be
1532 dangerously high. And Kerry says we can't trust China, the
1533 worst polluter, to lower its emissions. So it appears to me
1534 that this Administration is willing to make sacrificial lambs
1535 out of coal miners, pipeliners, gas workers, just to fit his
1536 political and liberal ideology.

1537 So, Madam Secretary, if you think America would be
1538 providing global leadership that you were starting to hint
1539 toward, that is naive. The rest of the world is not
1540 following, and you know that. In fact, China just announced
1541 a few weeks ago that they are building 250 gigawatts more
1542 coal-fired power plants. That is the equivalent of all the
1543 coal-fired power plants we have in America. And they are
1544 also announcing that they are building 20 new coal-fired

1545 power plants in Africa. So what are you doing?

1546 If this is the Administration's definition of
1547 environmental justice, you are ignoring reality.

1548 But let me pivot then, Madam Secretary. According to
1549 the Mackenzie Report, people will be moving around the cities
1550 -- moving into cities around the globe at a rate of a million
1551 people per week, from now until 2050. These people are going
1552 to need places to live and work. If the Paris Accord
1553 discourages or prohibits the production of concrete, plastic,
1554 steel, and aluminum because of their CO2 emissions, and they
1555 discourage us from harvesting trees because that is such an
1556 obvious sink for environmental contributions, what do we have
1557 left? Straw, mud, clay?

1558 I mean, according to Professor Goldthorpe at MIT, in
1559 responding to this study, he said the most logical material
1560 available to meet this -- these demands are products derived
1561 from fossil fuels. These products were being pursued under
1562 the Trump Administration's "coal-to-products" program. But
1563 last month the DoE -- the National Coal Council meeting,
1564 Jennifer Wilcox of DoE said you would not be pursuing coal
1565 products.

1566 So, Madam Secretary, I am going to say, if Mackenzie and
1567 MIT are correct, how will we meet this global need for
1568 construction material, if we don't use fossil fuels? Can you
1569 elaborate?

1570 *Secretary Granholm. I can. So that was a lot, and let
1571 me take pieces of it.

1572 Number one, we are interested in using coal ash and coal
1573 waste to extract critical minerals. We think there is an
1574 opportunity there. And in fact, the National Energy
1575 Technology Laboratory is working on just that. The head of
1576 the National Energy Technology Laboratory, as you probably
1577 know, is Brian Anderson. Brian Anderson has been put in
1578 charge of Coal and Power Plant Communities Work Group because
1579 this Administration is so focused on making sure that West
1580 Virginia, Appalachia, coal regions get the benefit of this
1581 movement of the globe toward clean energy technologies.

1582 There is a \$23 trillion market for products that reduce
1583 CO2 emissions. West Virginia can be at the front and center
1584 of that. West Virginia can be a place where coal miners are
1585 actually installing the carbon capture --

1586 *Mr. McKinley. Madam Secretary, if I could, I know our
1587 time has run out --

1588 *Mr. Rush. The gentleman's --

1589 *Mr. McKinley. Don't just tell me --

1590 *Mr. Rush. The gentleman expired.

1591 *Mr. McKinley. Thank you.

1592 *Mr. Rush. The gentleman's time has expired. The chair
1593 now recognizes the chairman of the environmental
1594 subcommittee, Mr. Tonko, for five minutes.

1595 *Mr. Tonko. Thank you, Mr. Chair.

1596 And thank you, Secretary Granholm. Congratulations on
1597 your appointment and confirmation. And I wish you much
1598 success. I look forward to working together on the budget
1599 and enactment of the American Jobs Plan.

1600 By the way, the AJP, as we all know, calls for historic
1601 investments through several programs to modernize and
1602 decarbonize our nation's buildings. The Weatherization
1603 Assistance Program is one of the only DoE programs focused on
1604 assisting low-income Americans. How can the weatherization
1605 program contribute to the build back better agenda?

1606 *Secretary Granholm. So glad that you raised that,
1607 because the Weatherization Assistance Program is a vital tool
1608 in addressing the economic, and the health, and the social
1609 justice disparities and energy burdens faced by low-income
1610 households.

1611 It is also, as you know, a huge job creator. It
1612 supports energy efficiency jobs by clearly providing the
1613 funding that flows to states and agencies to hire energy
1614 efficiency workers, to perform weatherization on homes of
1615 low-income households.

1616 And then, once that -- once the technology and the
1617 equipment is installed on people's homes, those improvements
1618 alone save a family, on an average, 300 every year, just for
1619 the building itself, and an additional 300 on appliance

1620 efficiency. So we are very excited about building back
1621 better, and making sure that families, especially families --
1622 low-income families, get the benefit of that better build
1623 back.

1624 *Mr. Tonko. Thank you. And providing significant
1625 funding, I agree, increases the amount of temporary jobs.
1626 But we need to turn those jobs into careers. How is DoE
1627 planning to help develop the workforce to retrofit these
1628 homes?

1629 And do you believe sustained, multiple-year investments
1630 in weatherization can ensure we are retaining newly-trained
1631 people in the efficiency workforce out there?

1632 *Secretary Granholm. Oh, yes. Programs like the
1633 Weatherization Assistance Program, along with efforts to
1634 retrofit homes and improve building codes and minimum
1635 efficiency standards for appliances, that is all going to
1636 have meaningful impacts on wallets. But it is also going to
1637 provide long-term job opportunities for people who are most
1638 in need.

1639 And the Building Clean Energy Projects and Workforce
1640 Initiative is a broader effort in our budget for fiscal year
1641 2022 to ramp up deployment, but also block grants to states,
1642 as well as increased efforts to train people to have, not
1643 just a one-off job, but a career in efficiency.

1644 So we are excited about the combination of the win-win-

1645 win, creating jobs and careers, making sure we reduce
1646 people's energy burdens, and making sure we clean up our CO2
1647 emissions.

1648 *Mr. Tonko. Well, you know, Congress reauthorized the
1649 Weatherization Assistance Program last December, and the
1650 update included several provisions to modernize the program,
1651 creating new competitive grant programs. And, hopefully,
1652 that funding is intended to be more flexible, encourage
1653 innovative services such as community, solar, and other
1654 neighborhood-wide approaches.

1655 Madam Secretary, if you don't know offhand, can you
1656 please follow up with an update on the implementation status
1657 of the new competitive weatherization grant program?

1658 *Secretary Granholm. Yes, I will follow up with -- our
1659 team will follow up with your office --

1660 *Mr. Tonko. Thank you.

1661 *Secretary Granholm. -- after the hearing.

1662 *Mr. Tonko. Thank you. And I know you, as a former
1663 governor, understand the role states can play in the energy
1664 transition. When I was at NYSERDA in New York State, we
1665 relied on DoE's state energy programs for flexible funding.
1666 SEP has supported many successful state-level clean energy
1667 and efficiency programs, including those in Republican-led
1668 states.

1669 What do you see as the role for the state energy program

1670 in the effort to support increased ambitions in state energy
1671 agendas?

1672 *Secretary Granholm. Yes, I think -- I mean, clearly,
1673 because I am a governor, I really strongly believe in giving
1674 authority to the states to design their programs in a way
1675 that best suits their needs. No -- we are not one size fits
1676 all, in many ways. So I am a big believer in the ability to
1677 offer flexible grants to states. Sometimes flexible grants
1678 with goals attached, that they would be able to access those
1679 grants if they achieved certain milestones, is important.

1680 I know the states were very grateful for the energy
1681 efficiency grants that came out of the Recovery Act, and I
1682 hope we can be able to continue to do that kind of effort, as
1683 well as even more on the block grant side, through the
1684 American Jobs Plan.

1685 *Mr. Tonko. Thank you. Well, while states are
1686 critical, innovative work is also happening at the local
1687 level. The City of Cohoes, New York, in my district, is
1688 developing a floating solar array on its municipal reservoir.
1689 According to a 2018 NREL report, there are some 492
1690 reservoirs in New York State deemed suitable for floating
1691 solar, and Cohoes is on the cutting edge of this big
1692 deployment opportunity. And I hope this project is able to
1693 access the funding necessary to become a model for the rest
1694 of the country. And I would hope that DoE -- you know, I

1695 have kind of exhausted my time here, but I would love to hear
1696 back from the agency about how you can --

1697 *Mr. Rush. The gentleman's time has expired.

1698 *Mr. Tonko. -- innovative concepts --

1699 *Mr. Rush. The gentleman's time has expired. The chair
1700 now recognizes --

1701 *Mr. Tonko. Thank you, Mr. Chair.

1702 *Mr. Rush. -- the gentleman from the great state of
1703 Illinois, Mr. Kinzinger, for five minutes.

1704 *Mr. Kinzinger. Well, thank you, Mr. Chairman.

1705 And Madam Secretary, thanks for being with us. I really
1706 appreciate it.

1707 You recently commented that the Administration now
1708 believes that federal support for the existing nuclear fleet
1709 is key to our climate goals. And I agree that we need to
1710 support these plants, and the thousands of good-paying jobs.
1711 I have four nuclear generating stations in the 16th district
1712 of Illinois. And unfortunately, due to non-market government
1713 forces giving preferential treatment to certain renewables,
1714 two of these plants, Byron and Dresden, are now slated for
1715 closure.

1716 If they shutter, the lost revenue would be devastating
1717 to my communities, and make it extremely difficult to pay for
1718 high-quality schools, hospitals, emergency personnel, and
1719 other critical services. All this, not to mention the

1720 prospects of blackouts, unreliable electricity costs,
1721 increased carbon emissions, and job losses.

1722 Preserving the existing nuclear fleet will take a
1723 concerted national approach. But we are doing what -- I am
1724 doing what I can on my part. In December I introduced the
1725 bipartisan Preserving Existing Nuclear Energy Generation Act,
1726 which would help save nuclear plants that are on the chopping
1727 block, including Byron and Dresden, by providing financial
1728 credits through an emissions avoidance program. It would
1729 also soften the blow to impacted communities by providing
1730 resources to help shore up municipal budget shortfalls,
1731 preserve critical services, and promote economic development.

1732 And last month I reintroduced the Nuclear Licensing and
1733 Efficiency Act, which builds upon recent congressional
1734 efforts to modernize nuclear fees and licensing procedures.

1735 Recent studies make it clear that the existing fleet is
1736 essential to achieving the Administration's climate goals in
1737 the most efficient and cost-effective manner. So I would
1738 like to ask you and follow up on what Mr. Doyle began to
1739 touch on. In your own words, can you share the
1740 Administration's view on the need to keep these plants
1741 operating?

1742 What is the Administration actively doing to make sure
1743 we don't lose any of these additional plants?

1744 *Secretary Granholm. Yes, I mean, the Administration

1745 does believe that we should do what we can to keep these
1746 plants open, because, as I was noting, they take us so far
1747 along in our goal to get 100 percent clean electricity by
1748 2035, and they should be included within the clean energy
1749 standard that is being proposed by the American Jobs Plan.

1750 You know, the American Jobs Plan is also supporting
1751 advanced nuclear. I mean, it might -- you know, we are in
1752 negotiations on it, and there may be an opportunity to
1753 include some of what you have proposed in that. I am not
1754 speaking for the Administration on that, but I do know that
1755 there is a commitment and a desire to see these plants remain
1756 open.

1757 I personally, actually, called Governor Pritzker about
1758 this very issue, because we are concerned about the closure
1759 of the plants that are slated in Illinois. And I know he is
1760 working on it, as well. And we certainly support the efforts
1761 at the state level.

1762 New Jersey did the same thing to be able to assist to
1763 keep these plants open.

1764 So whether it is through state or federal resources --
1765 and I appreciate your leadership in trying to do everything
1766 you can to help be creative about how we might be able to
1767 ensure they stay active.

1768 *Mr. Kinzinger. Great, and I look forward to working
1769 with you on that, if I can be helpful.

1770 And recent bipartisan and bicameral proposals, including
1771 one of my own, have been introduced to provide financial
1772 credits to struggling stations. There is also a little
1773 increase in chatter about a nuclear production tax credit.
1774 Given that there has been multiple news reports about which
1775 policies the White House and DoE might support, I would like
1776 to ask if you have any clarification.

1777 What is the Administration's top policy preference, or,
1778 if you don't have one yet, then can you talk about specific
1779 policy solutions that maybe the Administration might prefer?

1780 *Secretary Granholm. Are you talking about solutions
1781 with respect to nuclear?

1782 *Mr. Kinzinger. Yes.

1783 *Secretary Granholm. Yes, I mean, I think the number-
1784 one solution that the Administration has -- believes is very
1785 important for nuclear's future is to ensure that the demand
1786 for nuclear stays high. And that would be the efforts
1787 related to having a clean energy standard as part of the
1788 American Jobs Plan. So I think that is critical, and it
1789 certainly is a priority.

1790 The Administration, with respect to nuclear, is also
1791 interested in supporting the next generation nuclear
1792 research, advanced modular, and small reactors, and we
1793 continue to do work on research in that. But, clearly, in
1794 order to get to these goals, we have to keep these plants

1795 open.

1796 *Mr. Kinzinger. Thank you. And last Congress I
1797 introduced the European Energy Security and Diversification
1798 Act -- I am also on the Foreign Affairs Committee -- which
1799 was enacted through the omnibus. It is broadly designed to
1800 help both the U.S. and Europe attain energy security and
1801 energy diversity. While the State Department is the lead
1802 agency, in terms of implementation, DoE is required to play a
1803 consultative role in supporting the U.S. efforts to work with
1804 Europeans to increase their security.

1805 Do you have a status update on your portion of that, or,
1806 if not, would you be able to get that to us?

1807 *Secretary Granholm. Yes, I mean, we strongly support
1808 the European Energy Security and Diversification Act and the
1809 principles of greater market integration, and critical energy
1810 infrastructure protection, and development of the sort of
1811 multifaceted energy mix for our European partners.
1812 Particularly, countering Russian malign influence and its
1813 weaponization of energy resources is essential in helping to
1814 create a safer and more stable European energy landscape.

1815 And to that end, the Department of Energy is working
1816 closely with our European partners to increase the amount of
1817 renewable energy resources, and enhance the energy efficiency
1818 throughout Europe, both of which, of course, will help to
1819 reduce Europe's dependency on Russian supplies, and to help

1820 us to achieve the shared goal of getting to net-zero carbon
1821 emissions by 2050.

1822 *Mr. Kinzinger. All right, thank you.

1823 I yield back, Mr. Chairman.

1824 *Mr. Rush. The gentleman yields back. The chair now
1825 recognizes Mr. Veasey, from Texas.

1826 I don't see him. So the chair will move on and
1827 recognize Ms. Schrier, the gentlelady from Washington State,
1828 Ms. Schrier, for five minutes.

1829 *Ms. Schrier. Thank you, Mr. Chairman.

1830 And Secretary Granholm, welcome. Washington generated
1831 more hydropower than any other state, and accounted for 24
1832 percent of the nation's annual utility scale hydro
1833 electricity generation in 2019. And the hydropower delivers
1834 approximately 40 percent of total U.S. renewable energy
1835 electricity generation. And hydropower-pumped storage
1836 provides 93 percent of total energy storage, like batteries
1837 in this country.

1838 The U.S. hydropower industry has tremendous beneficial
1839 impacts on our nation's grid, the economy, and greenhouse gas
1840 emissions, and is key to addressing the climate crisis.

1841 Now, hydro does not come without an environmental toll,
1842 however. And so one way to increase hydropower production
1843 without building new dams and further decimating salmon
1844 populations is to add electricity generation to dams that are

1845 already in place, and to expand the use of pumped hydro. And
1846 I was wondering if you could talk about Department of Energy
1847 investments in adding these technologies to already-existing
1848 dams.

1849 *Secretary Granholm. I love this question. I thank you
1850 so much for it. Hydro power is not just a big portion of our
1851 existing zero-carbon energy supply, but a great source of
1852 zero-carbon power that can, in many cases, be used 24/7 to
1853 balance the variable clean energy sources like solar and
1854 wind.

1855 So our Department, as you know, has a very active
1856 hydropower program, and we see a lot of opportunity to do
1857 things like upgrade technology at dams, or add power
1858 generation to existing dams. And in fact, there is a robust
1859 and a diverse coalition of stakeholders that has got a sound
1860 plan for how to approach that opportunity. You will see
1861 support for the Water Power Technologies Office in our
1862 budget. And I would love to work with you on how to pursue
1863 those opportunities further.

1864 *Ms. Schrier. Oh, that is great. I would love that,
1865 thank you, and so would all the hydropower in my district.

1866 I want to pivot to Hanford, which is a less happy topic.
1867 Eastern Washington is home to one of the nation's biggest and
1868 most challenging environmental waste cleanups at the Hanford
1869 Nuclear Reservation. And it rests right along the Columbia

1870 River, which runs through my district. And this site was
1871 critical to our national security during World War II and the
1872 Cold War. And the Hanford site has been going -- undergoing
1873 environmental cleanup and remediation for over 30 years.

1874 Just last month the Department of Energy disclosed yet
1875 another leaking underground tank at Hanford, adding to the
1876 more than a million gallons of hazardous waste Washington
1877 State's department of ecology estimates is already in the
1878 soil across the Hanford site. And under current timelines,
1879 the cleanup and remediation is not expected to be completed
1880 until the 2070s.

1881 So Secretary Granholm, delays in funding a holistic
1882 cleanup put the Columbia River and the entire region at risk.
1883 And these risks are compounded by climate change and drought.
1884 And the President's fiscal year 2022 budget request is for
1885 DoE to sustain the investment in the cleanup of these sites
1886 like Hanford. But sustainment could mean untenable delays.
1887 And I just -- can you talk about how the Department of Energy
1888 can comply with the milestones of the tri-party agreement, if
1889 funding is only sustained? Because we really need to have
1890 accelerated remediation of the Hanford site.

1891 *Secretary Granholm. First, thank you for raising this.
1892 I have not yet been to Hanford. I haven't been out of the
1893 D.C. area yet, but I look forward to going and, hopefully,
1894 maybe you and I can meet there, as well.

1895 You know, this Administration is clearly -- I mean, you
1896 are in this position, fighting for Hanford, and I am new to
1897 this position, and both of us will probably not be around
1898 when this site is cleaned up, given the depth and the breadth
1899 of what needs to happen, unfortunately. We are totally
1900 committed to cleaning up Hanford and the other legacy nuclear
1901 sites, as well, and to make sure that we do seek the
1902 resources that are necessary to continue to make tangible and
1903 lasting progress. We want to see continuous movement.

1904 So, I mean, I am excited about what we can achieve over
1905 the next four years at the Hanford site, which includes, as
1906 you are probably aware -- I am sure you are aware -- a
1907 transformational shift in how we tackle our biggest
1908 challenge, which is the millions of gallons of waste that are
1909 stored in the underground tanks that you referenced.

1910 We expect to begin tank waste treatment at Hanford by
1911 2023, after years of effort. As you know, we built a whole
1912 new facility to be able to do that, and we are -- that is
1913 going to represent a whole new era of cleanup at the site.
1914 And, you know, this environmental management program is
1915 continuously looking for new and innovative approaches for
1916 safely and effectively performing the cleanup mission.

1917 I really do, I look forward to working with you and
1918 Congress as we carry out this important cleanup, which is so
1919 critical for the people of Washington, and particularly those

1920 who are in the vicinity.

1921 *Ms. Schrier. Thank you. I welcome your visit. We
1922 will go to the National Labs, as well. And thank you for
1923 your service.

1924 *Secretary Granholm. Great --

1925 *Ms. Schrier. I yield back, thanks.

1926 *Mr. Rush. The gentlelady yields back. The chair now
1927 recognizes the gentleman from the state of Virginia, the
1928 great state of Virginia, Mr. Griffith, for five minutes.

1929 *Mr. Griffith. Thank you very much, Mr. Chairman, I
1930 appreciate that.

1931 Madam Secretary, one priority that I have long held is
1932 the importance of research parity between the Office of
1933 Energy Efficiency and Renewable Energy and the Office of
1934 Fossil Energy.

1935 Now, we know, as a certainty, that China and India and
1936 many of the sub-Saharan African nations will continue to burn
1937 fossil fuels. They have them readily available, and it is a
1938 fuel source they can use. And when you have hundreds of
1939 millions of citizens who are not served with electricity, who
1940 don't have 24-hour electricity in their homes, they are going
1941 to use whatever means they can.

1942 And just yesterday the House voted on a State Department
1943 reauthorization that included language requiring the
1944 Department to ensure there are sufficient personnel dedicated

1945 to international energy matters, including -- and I quote
1946 from page 27 -- "support and coordinate international efforts
1947 to alleviate energy poverty.'"

1948 So recognizing that the rest of the world is going to
1949 continue to burn fossil fuels, and coal in particular,
1950 wouldn't you agree that investing in fossil research and
1951 development, here in the U.S., plays an important role in not
1952 only utilizing our vast supply of natural resources, but also
1953 our talent for technological innovation that can be exported
1954 to other countries, and thereby reduce the worldwide carbon
1955 footprint?

1956 *Secretary Granholm. Yes, I mean, I agree that we need
1957 to continue to invest in the technologies that will help to
1958 reduce carbon pollution. And that is what our Fossil Energy
1959 Office is doing. You will see in the budget an increase in
1960 that Fossil Energy Office because they are doing the amazing
1961 work of the next generation of both CCUS and hydrogen related
1962 to fossil, especially natural gas. So we are very interested
1963 in this, because you are completely correct, that other
1964 countries are looking for ways to meet their commitments to
1965 decarbonize with technology that we can be assisting them on.
1966 And that is true with methane, as well.

1967 So on all of those fronts, this is why the Department of
1968 Energy is the solutions Department, because our labs are
1969 working on these things, and we appreciate the support for

1970 the research into these technologies.

1971 *Mr. Griffith. And I would agree. I would like to see
1972 parity between the two, because I think we can do even more
1973 with carbon if we put our minds to it. But I appreciate your
1974 support. And there have been -- and there has been support
1975 in the Department of Energy in both Democrat and Republican
1976 administrations for doing this. So I appreciate your
1977 continued support for that.

1978 Now, in order to convert to renewable energy, experts
1979 agree we will need a new infrastructure of high-voltage power
1980 lines to move the electricity from areas where it is produced
1981 to areas where it is needed. So if it is -- the sun is
1982 shining in one area, but not shining in another for a week or
1983 so, that area may need to have power wheeled into it.

1984 But the Administration goals of 50 percent renewable by
1985 2030 and 100 percent by 2050, coupled with the fact that it
1986 will take in excess of 30 years to build out the high-voltage
1987 power lines, to build that infrastructure, once you get
1988 through all the regulations, and then you get through the
1989 environmental lawsuits, the eminent domain lawsuits, et
1990 cetera, isn't it a little unrealistic to say that we are
1991 actually going to meet those goals, when we can't even have
1992 the infrastructure ready to make that goal a possibility?

1993 *Secretary Granholm. Okay, just to clarify a little
1994 bit, it is 100 percent renewable by 2035, and net-zero carbon

1995 by 2050. And yes, we do need a significant build-out on
1996 transmission, and that is why we are focused on making those
1997 investments through the American Jobs Plan.

1998 I wouldn't assume that the existing long lead time is
1999 going to stay, because it can't. We have to accelerate. And
2000 one of the ways that we can accelerate is -- in fact, the
2001 Department of Energy and the Department of Transportation
2002 have been having conversations about how you can collocate
2003 along --

2004 *Mr. Griffith. And I am a supporter -- let me say that
2005 I am a supporter of collocation, in many cases. But what are
2006 we going to reduce? Are we going to reduce the environmental
2007 protections, or are we going to reduce the protections for
2008 citizens whose land will have to be taken under eminent
2009 domain?

2010 *Secretary Granholm. But that is what I am saying. If
2011 you collocate under Federal rights-of-way you won't have to
2012 use the eminent domain.

2013 And there are -- right now, there are over 20 lines that
2014 have already been permitted that are high-speed, DC lines in
2015 the country that just need a little kick to get over.
2016 Unfortunately, the way to develop these lines is not on spec.
2017 In other words, the entity who is developing --

2018 *Mr. Griffith. All right, I only have --

2019 *Secretary Granholm. -- has to have an off-take in

2020 order to be able to pay for it.

2021 *Mr. Griffith. I only have 10 seconds left. Let me
2022 just say this.

2023 *Secretary Granholm. Okay.

2024 *Mr. Griffith. If you are replacing jobs in Central
2025 Appalachia, as McKinley was talking to you about, replacing
2026 the \$75,000-a-year jobs, don't come in and offer us a few
2027 \$25,000 to \$35,000-a-year jobs. We need a comprehensive plan
2028 to help Central Appalachia.

2029 I yield back.

2030 *Secretary Granholm. I agree, I agree.

2031 *Mr. Rush. The gentleman yields back. The chair now
2032 recognizes the gentlelady of the Oversight Subcommittee, Ms.
2033 DeGette, for five minutes.

2034 *Ms. DeGette. Thank you so much, Mr. Chairman, and as
2035 well as what you were -- and welcome, Madam Secretary, great
2036 to see you.

2037 And what you were just saying to Mr. Griffith is
2038 correct. We need the transmission. We also need to have the
2039 technology. And that is something that we are working on to
2040 get to these very ambitious goals, which we have to get to.

2041 What I want to focus my questions on is that decades-
2042 long problems that we have with the DoE's Office of
2043 Environmental Management. As of fiscal year 2020,
2044 DoE's environmental liabilities were \$512 billion, and they

2045 are continuing to grow at a rate that is outpacing the
2046 program's spending, year after year.

2047 And unfortunately, the Environmental Management Office's
2048 project and contract management have been on the high-risk
2049 list at the GAO since 1990, so throughout all of these
2050 decades, and both parties' administrations. Do you -- are
2051 you aware of the Environmental Management Office's
2052 challenges, as the GAO has identified?

2053 *Secretary Granholm. Yes, I am. Our Department of
2054 Environmental Management is well aware of the GAO list, the
2055 high-risk list, and we --

2056 *Ms. DeGette. Okay.

2057 *Secretary Granholm. Oh, go ahead.

2058 *Ms. DeGette. So are you -- do you know, are -- the GAO
2059 recommended that the office develop a comprehensive project
2060 management plan, sufficient staffing skills, and a method for
2061 monitoring progress. Are you aware of that?

2062 *Secretary Granholm. Yes.

2063 *Ms. DeGette. Okay. And are you working on -- I mean,
2064 this is an intractable problem that we have had for many
2065 decades, so I can't imagine you have actually adopted and
2066 implemented a plan in the time that you have been there. But
2067 is the Department working on a timeframe to do that?

2068 *Secretary Granholm. Well, we are working on continuous
2069 improvement. For example, you know, the continuous

2070 improvement in contract and project management in reducing
2071 DoE's environmental liabilities is an ongoing effort. I am
2072 really proud that the environmental management program has
2073 really demonstrated an ability to safely deliver progress on
2074 time and on budget, despite the fact that these are massive
2075 and huge --

2076 *Ms. DeGette. Right.

2077 *Secretary Granholm. -- and ongoing liabilities. Just
2078 one quick --

2079 *Ms. DeGette. I -- yes, go ahead. Go ahead.

2080 *Secretary Granholm. I just want to say just one quick
2081 example is that last year we completed the removal of an
2082 entire uranium enrichment complex at the Oak Ridge site,
2083 which was on the list. The GAO cited that success as an
2084 example of the strong commitment of environmental management
2085 leadership to improve contract and project management. So
2086 we --

2087 *Ms. DeGette. Right, right --

2088 *Secretary Granholm. We are on it.

2089 *Ms. DeGette. But here is what I want to say, though.
2090 Even so, we have a half-a-trillion dollars of environmental
2091 liabilities.

2092 *Secretary Granholm. Right.

2093 *Ms. DeGette. So I would just say, if -- we can't fix
2094 this overnight, but it would be helpful, rather than just

2095 saying we are working on it, to try to develop a reasonable
2096 timeline. That would also help the appropriators figure out,
2097 you know, what resources are needed, and so on.

2098 And one other question I have very quickly -- I am
2099 trying to move through this -- is I want to talk to you about
2100 DoE's labs and the nuclear security enterprise, because
2101 concerns have been raised for years about the nuclear
2102 security enterprise. In fact, the Oversight and
2103 Investigations Subcommittee of this committee has had sort of
2104 an ongoing series of investigations about that.

2105 And so I don't know if you know about the Augustine-Mies
2106 panel that made recommendations about reintegrating NNSA into
2107 the DoE. Are you aware of that?

2108 *Secretary Granholm. I am not.

2109 *Ms. DeGette. Okay. If you can -- what they said is
2110 that it should be reintegrated, that the authorities that are
2111 confused right now should be clarified, and that ultimate
2112 accountability and responsibility for the nuclear mission
2113 should be under the Secretary of Energy.

2114 And I am going to guarantee you, in the grand John
2115 Dingell tradition, every member of this committee believes
2116 that to be true, because these labs have always been under
2117 the DoE. And I am sure you believe that, too, since you are
2118 the Secretary of Energy. So I would just say I would love
2119 working with you and your staff to clarify this, to get it

2120 implemented in this Administration.

2121 *Secretary Granholm. Can I just quickly respond that --

2122 *Ms. DeGette. Yes.

2123 *Secretary Granholm. -- obviously, America's national
2124 security is best served when we separate the development and
2125 the maintenance and verification of the nuclear weapons
2126 stockpile from the military use. And so the civilians and
2127 the scientists at NNSA's labs are best able to execute the
2128 science behind the warheads, while leaving the military in
2129 charge of the control and delivery and integration of the --
2130 into the National Defense Strategy. It has worked for the
2131 past 75 years. I agree it should continue.

2132 *Ms. DeGette. Your words just went straight to John
2133 Dingell's ears in heaven. So thank you very much, Madam
2134 Secretary. And I think we need to work to implement these
2135 regulations together.

2136 And I yield back.

2137 *Mr. Rush. The gentlelady yields back. The chair now
2138 recognizes the gentleman from Ohio, Mr. Johnson, for five
2139 minutes.

2140 Mr. Johnson, you are recognized for five minutes.

2141 *Mr. Johnson. Well, thank you, Mr. Chairman.

2142 And Secretary Granholm, nice to meet you, and thank you
2143 for joining us today.

2144 You know, I am very concerned that radical

2145 environmentalists are increasingly calling the shots for the
2146 Democratic Party, from the White House all the way down to
2147 the local level. We are seeing an all-out push to regulate
2148 and legislate America's cheap and abundant coal, oil, and
2149 natural gas resources out of existence. From the
2150 cancellation of the Keystone XL pipeline to some liberal
2151 communities declaring their intention to actually turn off
2152 the gas lines in their neighborhoods, it is clear that
2153 Democrats in office nationwide are following the Biden
2154 Administration's lead.

2155 Here is maybe how you can help, Madam Secretary. As a
2156 former governor, maybe you could have a talk with the current
2157 occupant of the Michigan governor's mansion, and convince her
2158 to stop trying to shut down the Enbridge Line 5 pipeline,
2159 which, if successful, would kill thousands of jobs in my home
2160 state of Ohio. Or maybe you could remind her that what you
2161 said just last week at the White House is actually true,
2162 that, in terms of moving fuel, you said -- and I quote --
2163 "pipe is the best way to go."

2164 And I agree, because pipeline safely moved vast
2165 quantities of oil and gas products safely across the country,
2166 including from eastern and southeastern Ohio, a region
2167 blessed with an abundance of oil and natural gas reserves,
2168 providing thousands of good-paying jobs to the people that I
2169 represent.

2170 So, Madam Secretary, research shows that the
2171 Administration's cancellation of the Keystone XL pipeline
2172 will actually increase our nation's carbon footprint, an
2173 increase equivalent to the emissions of half-a-million more
2174 cars. Doesn't this make it obvious that the Administration
2175 canceled the pipeline because of politics, not for climate
2176 benefit?

2177 *Secretary Granholm. No, the Department of -- well, let
2178 me just say this with respect to the Keystone, and the
2179 Department of Energy, which is my role here, that we are a
2180 cooperating agency --

2181 *Mr. Johnson. I am asking you a specific question,
2182 Madam Secretary. Did the Administration cancel the pipeline
2183 because of politics? Because it was clearly not for climate
2184 benefits, because it is going to increase climate -- it is
2185 going to increase carbon emissions.

2186 *Secretary Granholm. No, it canceled them, and the
2187 President made this commitment, because he believed that
2188 there are other ways to go, especially in promoting clean
2189 energy, and cheap energy --

2190 *Mr. Johnson. But you said that pipe is the cleanest
2191 way, the safest way to move fuel.

2192 Here is another question, then. You will certainly be
2193 advising the President on many of these matters. Do you
2194 think the Biden Administration will apply this same approach

2195 to other pipelines, moving forward?

2196 *Secretary Granholm. I can't predict what the
2197 Administration is going to do. But can I just clarify that
2198 what I said regarding the Colonial Pipeline was because
2199 Colonial is the only way to be able to get gasoline from one
2200 place to another along that seaboard, because there aren't
2201 deepwater ports to be able to allow tankers in.

2202 *Mr. Johnson. Well, we can haul it on tankers over the
2203 roadway. But I like your statement. I am on your side. I
2204 agree with you that pipe is the best way to move fuel. So I
2205 hope you will stand on that, and that that is the way you
2206 will advise the Biden Administration.

2207 Madam Secretary, are you aware that the CLEAN Future Act
2208 that my Democratic colleagues are touting would essentially
2209 ban hydraulic fracturing and new pipelines, because it
2210 essentially will shut down the market for petrochemical
2211 products?

2212 Do you support that banning of hydraulic fracturing and
2213 new pipelines?

2214 *Secretary Granholm. I am here representing the
2215 Administration, and the Administration has not supported a
2216 ban on fracking, other than on public lands, which --

2217 *Mr. Johnson. No, I didn't ask you if you are
2218 supporting the Administration. I asked you do you support
2219 the CLEAN Future Act that would essentially shut down

2220 hydraulic fracturing.

2221 *Secretary Granholm. I support the goals of the CLEAN
2222 Future Act, and I don't know the specific provision that you
2223 are talking about.

2224 *Mr. Johnson. All right. Well, I would encourage you
2225 to take a look at that, because it is diametrically opposed
2226 to what you say is the best way to move fuel.

2227 Madam Secretary, months into this Administration we are
2228 starting to see their energy agenda taking shape. It
2229 involves bringing millions of electric vehicles onto an
2230 inadequate energy grid, relying on, as your colleague, John
2231 Kerry, put it, green technology. And, most alarmingly,
2232 leaving in the ground America's natural resources of oil and
2233 gas, all to rich, strict -- all to restrict carbon-free goals
2234 (sic).

2235 When we add all this up, do you believe it is even
2236 possible, without compromising national security, and grid
2237 reliability, and America's standard of living, to accomplish
2238 these goals that John Kerry is talking about?

2239 *Secretary Granholm. Yes, I do.

2240 *Mr. Johnson. Okay, that is interesting. You seem to
2241 have a different view on --

2242 *Mr. Rush. The gentleman --

2243 *Mr. Johnson. But that is okay.

2244 *Mr. Rush. The gentleman's time --

2245 *Mr. Johnson. I yield back.

2246 *Mr. Rush. The gentleman yields back. The chair now
2247 recognizes the gentlelady from California, Ms. Matsui, for
2248 five minutes.

2249 *Ms. Matsui. Thank you very much, Mr. Chairman.

2250 And welcome, Madam Secretary, it is good to see you
2251 again. I want to talk a little bit about some natural
2252 solutions.

2253 The National Academy of Sciences reported that
2254 terrestrial ecosystems currently absorb the equivalent of
2255 about 20 percent of greenhouse gas emissions. Our natural
2256 climate solutions provide up to 37 percent of carbon emission
2257 reductions by 2030, with the appropriate management.

2258 Now, I have a reason for saying this. It is because I
2259 have a TREES Act, which is my bill to reduce energy bills
2260 through tree planting, which passed in the House's
2261 infrastructure bill last Congress. It can be used to help
2262 energy-burdened communities, while also increasing tree
2263 canopy and green spaces and combating heat.

2264 Madam Secretary, how do you see natural infrastructure
2265 solutions such as a TREE Act play a part in decarbonization?

2266 And will the fiscal year 2022 DoE budget request funding
2267 for such efforts?

2268 *Secretary Granholm. Well, certainly, we believe very
2269 strongly that natural solutions are a key part of making sure

2270 we get to our overall goals. We are -- I don't know if your
2271 -- where the status of your bill is, but we want to be a
2272 partner --

2273 *Ms. Matsui. Great.

2274 *Secretary Granholm. -- in making sure that we are able
2275 to do that.

2276 *Ms. Matsui. Wonderful, that is wonderful. And I want
2277 to follow up on something that Representative Schrier brought
2278 up about nuclear power plants, and the decommissioned ones.
2279 Due to the impasse with the Yucca Mountain repository, spent
2280 nuclear fuel at decommissioned nuclear plants continues to
2281 burden communities nationwide, including my home district of
2282 Sacramento, which has a decommissioned plant, the Rancho
2283 Seco, for the last 20 years.

2284 Earlier this year I reintroduced the Store Nuclear Fuel
2285 Act, which would establish the legislative framework to
2286 develop a consolidated interim storage, or CIS, program at
2287 DoE. And just last year I helped secure \$20 million to start
2288 some of these efforts during the fiscal year 2021.

2289 Given previous administrative and congressional support
2290 for a CIS program, could you tell me more about the
2291 Department's plans for fiscal year 2021 funds, and for a CIS
2292 program during fiscal year 2022?

2293 *Secretary Granholm. Yes, I mean, we are very
2294 interested in finding a solution to Yucca Mountain, because,

2295 obviously, after years of inaction, it is just not a workable
2296 solution. So we are actively developing a strategic approach
2297 to moving forward with a consent-based cited federal interim
2298 facility, like the blueprint calls for.

2299 And so possible steps that the Department might take
2300 include requests for information, engaging with stakeholders
2301 and tribal governments, establishing a funding mechanism for
2302 interested communities and organizations and tribal
2303 governments to perhaps explore the concept of this consent-
2304 based siting of a federal interim storage facility. And the
2305 Department hopes to announce our next steps with this process
2306 in the coming months, so I look forward to working with you
2307 and Congress on this very important issue.

2308 *Ms. Matsui. Well, thank you. I do look forward to
2309 working with you on that. You know, we are approaching
2310 wildfire season. Well, we are in the middle of it, already.
2311 It starts early in California. But last year's devastating
2312 wildfire season and this year's deadly Texas -- are
2313 testaments to the catastrophic impacts of intensified natural
2314 disasters due to the climate crisis.

2315 Due to this, I introduced a POWER ON Act with colleagues
2316 from California and Texas, including Representative Michael
2317 Burgess, who is also on this subcommittee. This bill would
2318 create a new program at DoE to help states fund grid
2319 resiliency upgrades for extreme weather events. What kind of

2320 investments does DoE and the AJP plan to make on extreme
2321 weather grid resiliency initiatives?

2322 And how can the POWER ON Act complement these efforts?

2323 *Secretary Granholm. Yes, there is a great complement
2324 there, and I think a lot of the ideas from the POWER ON Act
2325 can be easily incorporated into the American Jobs Plan on the
2326 transmission side.

2327 DoE, obviously, is committed to working cooperatively,
2328 as we must, with states and communities so the benefits of
2329 transmission development, including the reliability, and the
2330 climate benefits, and the economic benefits, are shared
2331 broadly. And states, obviously, have the primary role in
2332 permitting, and in siting transmission lines. And DoE can
2333 help to identify national transmission needs, and coordinate
2334 states and Federal agencies to ensure that transmission
2335 development is getting the attention that it needs.

2336 And I recognize that siting and permitting transmission
2337 can be really difficult. The POWER ON Act is one proposed
2338 way to address areas where the existing approaches have not
2339 been successful. So we are committed to doing this, the hard
2340 work that is necessary to build our transmission grid, and to
2341 work with stakeholders using both existing authorities and
2342 funding, as -- and asking for additional funding, and working
2343 with you on additional funding --

2344 *Ms. Matsui. Okay --

2345 *Secretary Granholm. -- if needed.

2346 The grid deployment authority that the President has
2347 proposed in the American Jobs Plan could serve as a central
2348 place to coordinate all of those efforts.

2349 *Ms. Matsui. Wonderful. Thank you so much. I look
2350 forward to working with you on that also.

2351 I yield back, Mr. Chairman.

2352 [Pause.]

2353 *Voice. You are on mute.

2354 *Mr. Rush. The chair now recognizes Mr. Bucshon for
2355 five minutes.

2356 *Mr. Bucshon. Thank you, Mr. Chairman.

2357 Secretary Granholm, thank you for taking the time to
2358 testify. It is very much appreciated.

2359 I have to admit, though, that after finally becoming
2360 energy independent, and thus strengthening our geopolitical
2361 position in the world, having environmental ideologues at DoE
2362 is pretty concerning. And I think that is going to be a big
2363 problem. It is going to set us back decades in our economy,
2364 and just damage our geopolitical position in the world. So
2365 it is unfortunate.

2366 As I have stated before, I am a strong supporter of an
2367 all-of-the-above energy approach, because it ensures
2368 reliability and affordability to the consumer, especially for
2369 the people that I represent in Indiana. To that end, I am

2370 also strongly supportive of advancing technology and
2371 innovation as a means to continue to lower emissions, both
2372 here in the United States, as well as globally. And it has
2373 been pointed out that we need to develop technology that
2374 India and China and other places can utilize. That is where
2375 our leadership should be.

2376 Madam Secretary, I do represent a district in Indiana
2377 which is responsible for providing the bulk of the energy for
2378 the state and surrounding area, and most of that is from
2379 coal. As more plants are set to retire because of
2380 regulations and, honestly, low gas prices, there is going to
2381 be an increase in hardworking folks who are being laid off
2382 and struggling to find comparable benefits. We have had a
2383 substantial problem with job losses, not as bad as
2384 Appalachia, but substantial. And I really think it is
2385 delusional to think that we can replace these with green
2386 energy jobs. We just can't. It is going to hollow out huge
2387 portions of our country.

2388 You mentioned this, I think, in your testimony, but do
2389 you believe that carbon capture and sequestration is part of
2390 the solution to get us to a zero-carbon emissions position?

2391 *Secretary Granholm. I do.

2392 *Mr. Bucshon. And do you think that fossil fuel
2393 resources, then, are necessary to ensure energy reliability
2394 as we incorporate more renewable sources of energy into the

2395 mix?

2396 *Secretary Granholm. We know that the fossil fuel
2397 resources that we have are not going away, other than what
2398 the market is doing, particularly with respect to coal.

2399 The Intergovernmental Panel on Climate Change has said
2400 that we can't get to the goal of net-zero carbon emissions
2401 without the technology to reduce CO2 emissions, like carbon
2402 capture use and sequestration.

2403 So I agree with you. I don't know that we are that far
2404 apart on this. I know you started out by --

2405 *Mr. Bucshon. Well, I think --

2406 *Secretary Granholm. -- saying otherwise, but I
2407 think --

2408 *Mr. Bucshon. I think you need to --

2409 *Secretary Granholm. I think we are not --

2410 *Mr. Bucshon. I am sorry.

2411 *Secretary Granholm. -- in a different place. I am
2412 just saying that I -- I am trying to offer an olive branch,
2413 and say that --

2414 *Mr. Bucshon. I understand.

2415 *Secretary Granholm. -- I think we are in agreement on
2416 this technology.

2417 *Mr. Bucshon. I think you should send that message to
2418 some of the people up on the Hill who may or may not agree
2419 with you on that, and also the environmental activist groups

2420 around the country that think that we are going to eliminate
2421 fossil fuel overnight, and still have a reliable, affordable
2422 energy grid.

2423 Switching gears a little bit, electric vehicles have
2424 advanced as much as they have, and will continue to advance,
2425 because of technology and innovation, and I support that.
2426 However, currently only two percent of cars on the road are
2427 EVs. So using that same technology and innovation, what
2428 other fuel alternative options -- and you mentioned a little
2429 bit of this -- would also -- should be utilized to lower
2430 carbon emissions in our transportation sector?

2431 *Secretary Granholm. Yes, I mean, here is one big one,
2432 is I think that biofuels are really going to be important for
2433 the aviation sector, and for those areas that do refining now
2434 in the biofuels arena. There is a huge opportunity, because
2435 I know that airlines are looking for alternatives in that
2436 regard.

2437 I also know that because, as the President was at the
2438 Ford plant yesterday, and Ford has made commitments regarding
2439 electric vehicles, as has GM, and a number of others, that we
2440 are going to -- even though the number right now is small, we
2441 are going to see -- and all the projections show -- an
2442 increase in electrification of the transportation system.

2443 So I think that there is several vectors which can
2444 create jobs in America in moving to this clean energy future

2445 on the transportation side.

2446 *Mr. Bucshon. Okay, fair enough. I mean, I think
2447 people -- I know you realize that electricity, plugging in a
2448 car, the electricity still has to come from somewhere. And
2449 so, yes, that will decrease emissions in the transportation
2450 sector. But we still have to address where the electricity
2451 comes from, and how much we need.

2452 So do you have any data on the increased electricity
2453 demands that will occur when EVs are a larger percentage of
2454 the cars on the road?

2455 *Secretary Granholm. Yes, there will be --

2456 *Mr. Bucshon. And where does that -- and where is that
2457 extra energy going to come from?

2458 *Secretary Granholm. Yes, there definitely will be
2459 increased demand, and that means that we have to add
2460 additional energy sources to the grid. And that is why a lot
2461 of the new energy that is coming on, like solar and wind,
2462 which are cheaper than others, is an opportunity for us to
2463 continue to provide affordable electricity.

2464 And then, the research that is being done on energy
2465 storage, coupled with that, is so utterly important. The
2466 Department of Energy, as I mentioned, is considered -- or we
2467 consider us the solutions place. And the cost of batteries,
2468 for example, have dropped significantly in vehicles, and we
2469 are going to do a whole effort that pushes to reduce the cost

2470 of energy storage for utilities, as well.

2471 So technology solutions that are out there that we can
2472 deploy will create additional energy that we can put onto
2473 what we hope is an expanded energy grid, and have us achieve
2474 these goals of being able to produce and use clean energy in
2475 the United States.

2476 *Mr. Bucshon. Okay, well, it will also have to replace
2477 fossil fuel energy generation, in addition. So it is a big
2478 challenge.

2479 Thanks for your testimony, I yield back.

2480 *Mr. Rush. The gentleman yields back. The chair now
2481 recognizes the gentlelady from Florida, Ms. Castor, for five
2482 minutes.

2483 *Ms. Castor. Well, thank you, Mr. Chairman, and
2484 welcome, Madam Secretary. I love the focus in this hearing
2485 on jobs and clean energy, especially related to transmission.
2486 It has been good to hear so much bipartisan agreement that we
2487 have got to make our electric grid more resilient, but we
2488 have got to connect up the clean energy sources.

2489 But I want to focus on buildings, and energy efficiency
2490 in particular, because you had a very forward-thinking
2491 announcement this week. And I wanted to talk about that
2492 there, because there are significant savings opportunities
2493 for American families and business owners, when it comes to
2494 making our buildings more efficient, and connecting up with

2495 clean energy. It will really help us move entire markets to
2496 reduce carbon pollution and advance renewable energy.

2497 So your announcement this week, you announced a national
2498 initiative to make buildings cleaner and more resilient. One
2499 of the initiatives announced was development of a national
2500 roadmap for grid-interactive, efficient buildings. Can you
2501 tell us about that?

2502 How will smart building technologies help us both save
2503 money on our energy bills, and then increase reliability of
2504 the electric grid?

2505 *Secretary Granholm. We are so bullish on this, on
2506 using smart buildings, because, first of all, we can build
2507 the products that get us to smart buildings in the United
2508 States. We can do the whole supply chain, and then benefit
2509 from the technology.

2510 So, you know, we announced an initiative to create a
2511 road map for smart buildings, and there are some
2512 demonstration projects across the country. But we want to
2513 give more visibility to what a smart building is, and to make
2514 sure that people understand that it will help to save them
2515 costs, energy costs, down the road and, of course, help with
2516 greenhouse gas pollution.

2517 You are aware, I know, that the American Jobs Plan has
2518 this robust commitment to the Federal Government, leading by
2519 example, not just deploying these technologies that we have

2520 got today, but by -- really, we want to make sure that we
2521 pull, use the demand pull of the very significant market that
2522 the Federal Government uses, 100 percent zero-carbon power
2523 24/7, 100 percent zero-carbon buildings and fleets. And in
2524 doing so, you know, piloting and demonstrating the approaches
2525 that it will take to truly decarbonize our economy.

2526 So what we were announcing today at our buildings -- or
2527 today -- this week at our buildings summit was really all
2528 about that, demonstrating what technologies work, making sure
2529 people understand the value, for example, of heat pumps,
2530 which electrify -- are -- a lot of the gas use in our homes,
2531 having grid-connected smart buildings, so that they are
2532 efficient, and giving people a sort of visibility into what
2533 that means, linking buildings with, like, grid reliability
2534 and on-site storage systems to make them more resilient,
2535 including the electric vehicles that park there, all as tools
2536 to shift perhaps the timing of energy consumption.

2537 So we are super excited about this vision, and excited
2538 about making it happen, and excited to work with you all on
2539 it.

2540 *Ms. Castor. Yes, and thank you so much at the outset
2541 for also focusing on making sure that we provide these
2542 resources and technologies to the communities that have been
2543 left behind and unheard, the people on the front lines. I
2544 mean, that will really -- this whole Justice40 focus will go

2545 such a long way to lifting up Americans who deserve a little
2546 extra hand up, I think.

2547 You know, energy codes also play a very important role
2548 in creating high-quality jobs in building construction and
2549 throughout the supply chain. And DoE engages in a number of
2550 activities relating to building energy code development. And
2551 I appreciate DoE's expressed concerns recently over the
2552 changes by the International Code Council for the
2553 International Energy Conservation Code. Those changes, so
2554 members also know, will really constrain public participation
2555 and decelerate our needed progress in codes that will help
2556 reduce carbon pollution and support renewable energy.

2557 So how is DoE going to engage here, and make sure that
2558 we have every tool in our toolbox to do what we need to do
2559 when it comes to putting money in consumers' pockets related
2560 to cleaner buildings and more efficient buildings?

2561 *Secretary Granholm. Yes, thanks for your leadership on
2562 this, and for the ICC letter.

2563 We at DoE continue to believe that building energy codes
2564 are key to affordable and quality and safe housing that limit
2565 CO2.

2566 We also expressed our concerns about the changes to the
2567 process, and the ability for stakeholders to participate.
2568 And while we are disappointed that the ICC chose not to
2569 address those concerns, we are going to continue to work with

2570 states and homebuilders groups and others to make sure that
2571 that vision is realized.

2572 And, you know, building codes, obviously, are
2573 implemented at the state level. And I am certainly going to
2574 commit to doing all I can to do what DoE has always done,
2575 which is to support the state and local governments to adopt
2576 the building energy code for their community, and to go
2577 further, even, if they so choose.

2578 *Ms. Castor. Thanks so much. I yield back.

2579 *Mr. Rush. The gentlelady yields back. The chair now
2580 recognizes the gentleman from Michigan, Mr. Walberg, for 20
2581 -- for 5 minutes.

2582 [Laughter.]

2583 *Mr. Walberg. Thank you, Mr. Chairman. Twenty minutes.
2584 You and I are good friends, but probably not that good.

2585 *Mr. Rush. Oh, no, not that good a friend.

2586 *Mr. Walberg. Thank you, Madam Secretary, for being
2587 here. And I would be remiss not to greet you with Go Green,
2588 Go Blue.

2589 *Secretary Granholm. All right.

2590 *Mr. Walberg. Yes, I have to do that.

2591 As my colleagues have stated, the Department of Energy
2592 is the sector-specific agency for cybersecurity for the
2593 energy sector. This requires the Department of Energy to
2594 coordinate with Homeland Security and other relevant Federal

2595 agencies, as they ought to. I just came back from a press
2596 conference supporting Israel, but I mentioned the fact that
2597 they have a cyber czar that touches every area of Israeli
2598 life, their functions, their government, their military,
2599 their energy. And so I think it is important for us to learn
2600 from that, as we have, but also do things that are necessary
2601 for the United States.

2602 So let me ask, because the -- Chairman Rush I have a
2603 bill together, a bipartisan bill --

2604 *Secretary Granholm. Right.

2605 *Mr. Walberg. -- the Energy Emergency Leadership Act,
2606 which would codify the functions of DoE's Office of
2607 Cybersecurity, Energy Security, and Emergency Response. Do
2608 you support, Madame Secretary, elevating the leadership of
2609 DoE's emergency response and cybersecurity functions to the
2610 Senate-confirmed assistant secretary level?

2611 *Secretary Granholm. We are looking at that, and we
2612 are, as I mentioned earlier, reorganizing to elevate CESER
2613 and its importance. So we want to work with you on it,
2614 because we do agree that it is critically important for us to
2615 have a very robust leadership and execution in the Department
2616 of Energy at CESER. And, as I say, we just brought on a new
2617 head. And I am excited to be able to introduce him to you
2618 shortly.

2619 *Mr. Walberg. Well, we look forward to that. And I

2620 know that the chairman and I would be extremely pleased if
2621 you would move the direction to make sure it has the gravitas
2622 that, in this day and age, we really need. I thank you for
2623 that consideration.

2624 Representative Latta and Representative Johnson touched
2625 on it some, but I think I need to address it a little
2626 further. As you know, Governor Whitmer has ordered the
2627 shutdown of Line 5. And you know, as well as I do, that that
2628 is almost 70 years of an accident-free contract that we have,
2629 also with an energy provider from our dear friend to the
2630 north, Canada. And it is important that we don't have to
2631 look at something that will bring consequences that we don't
2632 want to see, like the shutdown on the eastern seaboard that
2633 we have talked about already.

2634 The Colonial Pipeline, as I understand it, serves 45
2635 percent of the region's fuel needs, while Line 5 serves more
2636 than 50 percent of Michigan's propane needs, alone. That is
2637 significant. This isn't just about higher fuel costs and
2638 thousands of job losses in refineries, but it is about the
2639 safety and security of our nation. We can't risk another
2640 Colonial-type shutdown.

2641 And so, at a press conference on May 11th, I was
2642 delighted to hear you express the quote that has been
2643 rehearsed already, that pipe is the best way to go, in terms
2644 of transporting fuel. And so, given these statements,

2645 Secretary Granholm, do you support the continued operations
2646 of Line 5?

2647 *Secretary Granholm. Thanks for asking. I -- just to
2648 clarify, my comment about Colonial Pipeline was in that
2649 particular context, because of the location of it, and the
2650 product being moved through it.

2651 With respect to Line 5, it is a matter that is in active
2652 litigation, and DoE itself doesn't have a direct role
2653 regarding the project.

2654 *Mr. Walberg. Well, I appreciate that. And that is
2655 true, it is in litigation. But Madam Secretary, you said on
2656 March 24th, speaking to Fox Detroit, that President Biden --
2657 and I quote -- "President Biden will be the ultimate arbiter
2658 of Line 5.'" Now, we have tried to get the word from the
2659 Administration on that matter. My colleagues and I have even
2660 written to the President months ago, and have yet to receive
2661 a response.

2662 So which is it? As our nation's top energy official, I
2663 am asking you, if Governor Whitmer is successful in her
2664 lawsuit, and I hope she isn't, will the Biden Administration
2665 intervene to keep the pipeline operational?

2666 *Secretary Granholm. Yes, again, because it is in
2667 active litigation, I am not going to comment on it further.

2668 *Mr. Walberg. Well, let me try it one more way. Will
2669 you commit this Administration to working with Governor

2670 Whitmer and Canadian officials to resolve the matter?

2671 *Secretary Granholm. Well, again, because of the
2672 posture of it at the moment in active litigation, I can't
2673 comment on it further.

2674 *Mr. Walberg. Well, I appreciate that, and the impact
2675 of closing Line 5 --

2676 *Secretary Granholm. I appreciate your persistence.

2677 *Mr. Walberg. Thank you. We both do that.

2678 *Secretary Granholm. Yes.

2679 *Mr. Walberg. But thanks for being here. And with
2680 that, I yield back.

2681 *Mr. Rush. The gentleman yields back. Mr. Butterfield
2682 has now returned.

2683 So Mr. Butterfield of the great state of North Carolina,
2684 you are recognized for five minutes.

2685 *Mr. Butterfield. Thank you very much, Mr. Chairman.
2686 And please forgive me for stepping away from the camera for a
2687 few moments, but I am back, and just thank you so much for
2688 recognizing me so quickly.

2689 Mr. Chairman, you are sponsoring this hearing today.
2690 You are convening this hearing, and it is very important. I
2691 have heard most of it, and what I have heard today is
2692 certainly information that we all need. Secretary Granholm
2693 is leading our country. She is leading the Department in the
2694 right direction.

2695 And so, Madam Secretary, thank you so very much for your
2696 service to our country.

2697 *Secretary Granholm. Thank you.

2698 *Mr. Butterfield. The people of North Carolina, my home
2699 state, and, in particular, in my congressional district, in
2700 the eastern part of the state, we were hit pretty hard by the
2701 Colonial Pipeline shutdown. I think my state probably led
2702 all of the states in the number of shutdowns that we had. It
2703 was very devastating. And so I have been following the
2704 situation very closely. And so I want to work with the
2705 Secretary, I want to work with her staff as the investigation
2706 continues, to make sure that something like this never, ever
2707 happens again. And so I look forward to receiving updates
2708 from the Department and others on what we can learn from this
2709 event.

2710 Congress has an important role to play in safeguarding
2711 our nation's critical infrastructure from cyber attacks. And
2712 so I commend our President. I commend him for his executive
2713 order to improve the nation's cybersecurity. However, it is
2714 going to take us, it is going to take congressional action to
2715 fully fortify our nation's critical infrastructure. I look
2716 forward to working with my colleagues on both sides of the
2717 aisle to get this thing done in the next few weeks.

2718 Equitable access to clean energy is very important.
2719 There is significant solar production in my congressional

2720 district, and I am eager to see widespread solar adoption.
2721 Both LIFT America Act and the CLEAN Future Act, both of those
2722 include provisions for solar access to low-income communities
2723 and underserved communities.

2724 My question to you, Madam Secretary, can you please
2725 speak to your Department's ongoing efforts to -- related to
2726 solar access, and how solar fits into the American Jobs Plan?

2727 *Secretary Granholm. Yes, solar is a big part of it,
2728 right, because of the cost of solar having dropped so
2729 significantly, and making solar available to citizens.

2730 So that comes in a variety of ways, right? We have
2731 individual solar, and we have got utility-scale solar. We
2732 have a great plan, and I am really proud of how we are going
2733 to keep that price of solar coming down, down, down. And we
2734 recently announced, just as an example, an ambitious target
2735 to cut the cost of solar in half again in the next 10 years.
2736 So it has already dropped significantly, and we are going to
2737 drop it by, actually, 60 percent in the next 10 years. And
2738 to help us get there, we are committing funding and
2739 assistance to help.

2740 So it is -- the plan itself is very comprehensive, every
2741 bit of the process, from the raw materials to the point a
2742 solar panel is delivering electrons to your house, and it
2743 includes the -- continuing the front-end research and
2744 development on materials science to develop lower cost and

2745 higher-performing solar technology. I know we have supported
2746 all sorts of university research in this area, and it
2747 includes things that people don't often think about, like the
2748 soft costs of permitting and siting. These are a big part of
2749 why, as cheap as solar has gotten, it is still more expensive
2750 to install here than in other countries.

2751 So it is one example where partnering with state and
2752 local governments to use this online permitting that is
2753 streamlined, so that people can get standard rooftop solar
2754 permitted instantly, rather than waiting for months. So,
2755 long story short, a lot going on in this area. I am happy to
2756 have your team --

2757 *Mr. Butterfield. I am so glad, I am so glad that you
2758 mentioned university research. And I will conclude by
2759 speaking to that.

2760 The discretionary budget includes funding for
2761 strengthening partnerships with HBCUs and MSIs to target
2762 disadvantaged communities for new clean energy investments
2763 and jobs. Can you, in the few seconds we have left,
2764 elaborate on what this funding would support, and the
2765 importance of supporting diversity in the energy workforce?

2766 *Secretary Granholm. Yes. Very quickly, this -- the
2767 American Jobs Plan puts \$10 billion into making sure that we
2768 have strong connections for research and development in
2769 HBCUs. We are going to partner with, once we get this

2770 funding, an HBCU to create an 18th national lab at an HBCU,
2771 which we are very excited about.

2772 And the importance of this is because, when you do
2773 research, you have to have diverse people at the table,
2774 because your product is going to be used by diverse
2775 Americans. And if you don't design it in a way that has the
2776 right inputs, you are not going to have the right outputs.
2777 So that is why you see, for example, facial recognition
2778 software consistently misidentifying African-American men,
2779 because of the inputs not being fully cognizant of the
2780 diversity of our population. We need to have diverse
2781 research.

2782 *Mr. Butterfield. Thank you --

2783 *Secretary Granholm. We need to increase the --

2784 *Mr. Butterfield. You are welcome back to North
2785 Carolina any time. I know you were there in 2012, and you
2786 are welcome back at any time. Thank you.

2787 *Secretary Granholm. Thank you.

2788 *Mr. Butterfield. I yield back.

2789 *Mr. Rush. The gentleman yields back. The chair now
2790 recognizes the gentleman from the other Carolina, the
2791 gentleman from South Carolina, Mr. Duncan, for five minutes.

2792 *Mr. Duncan. Thank you, Mr. Chairman. The better of
2793 the Carolinas, I can tell you that.

2794 I want to thank my colleague from California who

2795 mentioned nuclear waste. I would like to submit for the
2796 record a letter to the Secretary. The subject is, "Request
2797 to Establish a DoE Office Dedicated to Nuclear Waste
2798 Management''. I would like to submit that for the record,
2799 Mr. Chairman.

2800 [Pause.]

2801 *Mr. Duncan. Okay, all right, so we will move on.

2802 *Mr. Rush. Hearing no objection, so ordered.

2803 [The information follows:]

2804

2805 *****COMMITTEE INSERT*****

2806

2807 *Mr. Duncan. Thank you.

2808 Madam Secretary, would you agree with the statement
2809 that, with the exception to transmission lines which go into
2810 neighboring countries, that renewable energy is not
2811 exportable?

2812 *Secretary Granholm. Well, I mean, it -- I wouldn't
2813 necessarily agree with that, no.

2814 *Mr. Duncan. Okay, tell me how you are going to export
2815 renewable energy --

2816 *Secretary Granholm. Well, I mean --

2817 *Mr. Duncan. -- other than transmission lines.

2818 *Secretary Granholm. Right, I mean, it depends on what
2819 you --

2820 *Mr. Duncan. It is --

2821 *Secretary Granholm. -- whether you consider energy
2822 storage an assist to renewable energy. And largely, of
2823 course, it is involved here, created here, deployed here.
2824 So, yes, that is an important aspect of it.

2825 But I would say the technology that gets us to clean
2826 energy, a lot of that technology is exportable.

2827 *Mr. Duncan. The technology is exportable. I am
2828 talking about the energy, as it is produced.

2829 *Secretary Granholm. Yes, it is largely done inside of
2830 a country, yes.

2831 *Mr. Duncan. Yes. I mean, we can't load up a bunch of

2832 Eveready batteries right now on a ship, and send them out.
2833 But what we can do is load up natural gas and send it to
2834 neighboring countries and countries around the world to
2835 improve the quality of lives for so many people. We have an
2836 abundance of natural gas in this country, an abundance of
2837 fossil fuels, in general. In fact, in 2017 we became a net
2838 exporter of energy.

2839 And so we are not seeing that now, but I just want to
2840 make sure that we understand that we are not exporting
2841 renewable energy, but we can export the fossil fuels that are
2842 produced here.

2843 I want to shift gears. I was pleased to hear you
2844 express earlier your support for nuclear power, and its
2845 essential role in meeting the emission reduction goals, as
2846 well as meeting the 24/7/365 baseload power supply that our
2847 nation needs to drive our economy that you don't always get
2848 with intermittent energy sources, by the way, because we
2849 don't have, as you mentioned, the storage capacity. We may
2850 get there, I get that. But right now we don't. And we have
2851 to meet our needs in the 24/7/365 baseload power arena.

2852 I was also encouraged by you mentioning support for
2853 advanced nuclear technology and research. To that point I do
2854 have concerns that other countries are surpassing the United
2855 States in nuclear technology. Globally, two-thirds of all
2856 nuclear reactors under construction use Chinese and Russian

2857 designs. To maintain our competitiveness in the global
2858 nuclear arena, we must continue to pursue advanced reactor
2859 development. I have introduced a bill to reduce the
2860 expensive and burdensome permitting processes for new and
2861 advanced reactors by seeking to eliminate duplicative
2862 environmental reviews.

2863 To this end I was pleased the Energy Security Act of
2864 2020 included an alternative fuels report, requiring the
2865 Secretary of Energy to submit a report to Congress
2866 identifying the viability for uranium 233 to be used as a
2867 fuel for advanced reactor development. Certain types of
2868 thorium reactors require U-233 as a necessary seed material.

2869 So Secretary, are you aware of this report?

2870 *Secretary Granholm. I am aware -- I have not read it,
2871 but I am aware that a report needs to happen.

2872 *Mr. Duncan. Okay, do you commit to making sure it
2873 fully covers the topics required, including consultation with
2874 stakeholders, and providing it to Congress in a timely
2875 manner?

2876 *Secretary Granholm. Of course.

2877 *Mr. Duncan. Okay, thank you.

2878 I think U-233 is a topic we ought to discuss, Mr.
2879 Chairman, at some point in time, as a viable product that we
2880 are downblending and losing as a strategic asset in this
2881 country.

2882 But let me shift gears, Secretary. Energy and Commerce
2883 members try to work closely with DoE and its leadership on
2884 important issues. I hope we can work on things like nuclear
2885 waste, for example.

2886 But I have got to ask you a question on behalf of my
2887 constituents to address a concern, and that is your ownership
2888 stake in Proterra. Proterra is in Greenville, South
2889 Carolina, one of their facilities, I visited it. The Biden
2890 Administration actually visited it recently, with the
2891 President coming to Greenville.

2892 What have you done to unwind your investments in
2893 Proterra?

2894 And do you think that is a conflict of interest?

2895 *Secretary Granholm. Yes, I very much understand and
2896 agree with the importance of avoiding conflicts. I support
2897 that 1,000 percent. I am in the process of fulfilling my
2898 obligation to divest. The selling of stocks and options is
2899 what is required for every appointee. And, like every
2900 appointee, I have signed a comprehensive ethics agreement,
2901 which was drafted and vetted by the Office of Government
2902 Ethics. And that agreement ensures that I divest of all
2903 individual stocks and options within 180 days, and I expect
2904 to have that done well in advance of that deadline.

2905 *Mr. Duncan. Yes, I appreciate that. I just wanted to
2906 hear that on the record. I know my colleague, Mr. Norman

2907 from South Carolina on the Oversight Committee, is
2908 investigating that. And --

2909 *Mr. Rush. The gentleman's time has expired.

2910 *Mr. Duncan. And I yield back.

2911 *Mr. Rush. The chair now recognizes Mr. Welch of the
2912 great state of Vermont for five minutes.

2913 *Mr. Welch. Thank you, Mr. Chairman.

2914 Secretary Granholm, this is going to be easy.

2915 First of all, I want to say that I am very excited about
2916 the entire team, and the approach that President Biden is
2917 taking on climate change, where there is an emphasis on how
2918 much we can accomplish if we face the problem, rather than
2919 deny the problem, and how many jobs we are going to create.
2920 So congratulations to him, and to you and your entire team on
2921 that.

2922 Second, as a politician, you will understand that I am
2923 going to engage for a couple of minutes in some shameless
2924 self-promotion of energy efficiency bills that, on a
2925 bipartisan basis, we have been working on, and just flag them
2926 for you, because we would love your help.

2927 For instance, we are going to be reintroducing,
2928 Representative Clarke and I, a Federal energy efficiency
2929 standard to require cumulative electricity savings of 27
2930 percent, and natural gas savings of 20 percent. And let me
2931 just ask you very briefly, because I have got a couple of

2932 other bills to promote, how important is it to pair Federal
2933 energy efficiency standard with a Federal climate policy?

2934 *Secretary Granholm. Key, a key tool in the toolbox to
2935 save money, create jobs, reduce our CO2 emissions, win, win,
2936 win.

2937 *Mr. Welch. Thank you. And energy saving performance
2938 contracts is something we got started in the Obama
2939 Administration, I worked a lot with Representative Kinzinger
2940 on this. And the Obama Administration exceeded their \$4
2941 billion target. And my hope is that -- and Senator Coons and
2942 I wrote to President Biden asking whether his Administration
2943 would commit to a similar performance contracting challenge.
2944 And I just wanted to bring that to your attention, and hope
2945 that is something you could support.

2946 *Secretary Granholm. Oh, totally. Obviously,
2947 performance contracting is a very powerful tool for energy
2948 efficiency, certainly a tool for deploying other clean energy
2949 tools, like rooftop solar, or other distributed generation.
2950 And we are very supportive. And the Federal Government is
2951 using that all the time.

2952 *Mr. Welch. All right, and then a third one.
2953 Representative McKinley from West Virginia, whose coal mine
2954 -- one of his coal mines I got to visit a few years ago. He
2955 and I have been working on Hope for Homes. And I know that
2956 in the American Jobs Plan the Administration has 213 billion

2957 for energy efficiency retrofits. And the McKinley-Welch bill
2958 would provide rebates for -- to help retrofit millions of
2959 homes across the country, and would provide extra rebates for
2960 moderate-income homes and retrofits in underserved areas.

2961 And as you know, and you have been talking about, all
2962 those retrofits are local contractors, local tradespeople,
2963 local jobs. How -- just comment, if you would, on the
2964 significant Federal investment that is needed to upgrade our
2965 nation's housing stock, and how these incentives would play a
2966 role in that.

2967 *Secretary Granholm. Yes, I am having a little bit of
2968 trouble hearing you, but I think -- I mean, just to be clear,
2969 the American Jobs Plan also supports using the rebate and
2970 other incentives like you have described, including, as I
2971 mentioned before, block grants for state and local
2972 governments to make a major investment in homes and
2973 buildings. And this energy efficiency sector is the biggest
2974 bang for your buck, in terms of job creation. So it is
2975 absolutely imperative for all of the reasons that you have
2976 described.

2977 *Mr. Welch. And our last bill I am doing with
2978 Representative Sarbanes is the Federal Clean Building Jobs
2979 Act. And that will be introducing the Main Street Efficiency
2980 Act. This would allow our downtown businesses to get the
2981 benefit of some of these retrofit programs. So I just bring

2982 that to your attention.

2983 And then finally, you know, you got an invitation from
2984 G.K. Butterfield and from Mike Doyle. You know, they are
2985 good people, but come to Vermont first, okay?

2986 Thank you very much, I yield back.

2987 *Secretary Granholm. All right, thank you.

2988 *Mr. Rush. The gentleman yields back. The chair now
2989 recognizes the gentleman from the State of Alabama, Mr.
2990 Palmer, for five minutes.

2991 *Mr. Palmer. Thank you for being with us, Madam
2992 Secretary.

2993 If we were to implement these policies, it will be a
2994 massive increase in the cost of energy. If we were to follow
2995 your Democratic colleagues' wishes to eliminate all the
2996 fossil fuel use, we would need a massive battery backup
2997 system, and a battery system that would only have 12 hours of
2998 backup. According to MIT, it would cost over \$2.5 trillion.
2999 That is in addition to the trillions of dollars that we would
3000 have to spend to convert from our fossil fuel natural gas to
3001 renewables. This will be a tremendous burden on consumers,
3002 particularly low-income families.

3003 A study by two University of Chicago economists, one of
3004 whom was the chief economist for President Barack Obama,
3005 found that, after 7 years, these renewable requirements would
3006 raise retail and electricity prices by 11 percent. That is

3007 over \$30 billion. And that after 12 years it would be 17
3008 percent. We have already seen the impact of the bad Biden
3009 policy starting to be reflected in gas prices, but the
3010 increases that we have seen lately would look tame compared
3011 to what they would be with a carbon tax. That would add
3012 another -- at least another \$.50 per gallon.

3013 Like I said, it would dramatically increase energy
3014 poverty in America that disproportionately impacts the
3015 elderly and low-income households. It will drive jobs,
3016 especially manufacturing jobs, overseas. Does this concern
3017 you?

3018 *Secretary Granholm. I don't know -- the studies that
3019 you have described are contradicted by other studies that
3020 show that a move to clean energy is, in fact, less expensive,
3021 because you don't pay anything for sun and you don't pay
3022 anything for wind. And our efforts to reduce the cost of
3023 batteries and energy storage through technology, it is sort
3024 of like Moore's Law. But on the energy side, as you continue
3025 to scale up the technology, you continue to reduce the cost,
3026 and --

3027 *Mr. Palmer. Madam Secretary, I hate to cut you off,
3028 but that is a gross misrepresentation of the cost of
3029 renewables, because the only way you can say that is because
3030 of massive government infusions of cash, like you did
3031 Solyndra.

3032 But I want to ask you about something else, and we are
3033 going to spend trillions of dollars on our power grid. Are
3034 you familiar with coronal mass ejections? Does that ring a
3035 bell with you, otherwise known as solar flares?

3036 Are you aware that the largest recorded geomagnetic
3037 storm occurred in 1859? It is called the Carrington Event.
3038 It, literally, caused disruptions that could be seen all over
3039 the South. Telegraph lines, literally, caught on fire.

3040 There was another one in 1921 called the Railroad Storm,
3041 that, if it had occurred today, it would have taken 4 to 10
3042 years to recover from that. It would have left 130 million
3043 people without power in the United States, and it would have
3044 caused 1 to \$2 trillion in damage.

3045 There was a storm in 1989 that caused the collapse of
3046 the power grid in Quebec, that left 6 million without power,
3047 and it was one-tenth the magnitude of the 1921 storm.

3048 And what really concerns me is, if we -- they project
3049 that a Carrington-level event, the one that occurred in 1859,
3050 there is a 4 to 12 percent chance, per decade. How
3051 successful do you think the effort would have been to get
3052 people to take the COVID-19 vaccination if they thought there
3053 was a 4 to 12 percent chance of them dying, or being severely
3054 impacted by it?

3055 There is a report from Lloyd's of London that came out
3056 in 2013 that says a Carrington-level extreme geomagnetic

3057 storm is almost inevitable in the future. And using their
3058 models and simulations puts the U.S. population at risk of 20
3059 to 40 million people, with the outage lasting up to 1 to 2
3060 years. That would be massively disruptive. What are all
3061 doing to prepare for that?

3062 *Secretary Granholm. I look forward to getting more
3063 information from your office about these events.

3064 *Mr. Palmer. Are you telling me you don't know much
3065 about it?

3066 *Secretary Granholm. I am telling you that I would like
3067 to read more about it.

3068 *Mr. Palmer. Well, you should go back and look at what
3069 the Trump Administration was doing on it. The Obama
3070 Administration was engaged in it. I mean, I -- it really
3071 concerns me that you don't have an answer for that.

3072 Mr. Chairman, I will yield back.

3073 *Mr. Rush. The gentleman yields back. The chair now
3074 sees that Mr. Veasey has returned, and he is next in line.

3075 Mr. Veasey, you are recognized for five minutes.

3076 *Mr. Veasey. Mr. Chairman, thank you very much.

3077 And Secretary Granholm, thank you for coming before the
3078 committee today to talk about how we are going to invest in
3079 our energy future. You have been very busy on the job,
3080 obviously, and you all are doing a great job of making sure
3081 that we maintain our energy security, while also trying to

3082 meet these climate targets. I want to thank you and the
3083 Biden Administration for the bold vision in the American Jobs
3084 Plan.

3085 I am very glad that the focus on the importance of
3086 deploying clean energy at lower cost has been paired with
3087 efforts to decarbonize the industrial sector using tools like
3088 carbon capture, where appropriate. I am especially pleased
3089 to see that the American Jobs Plan calls out the need for
3090 infrastructure to transport captured carbon from where it is
3091 emitted, so that it can be permanently sequestered.

3092 This spring I introduced the Storing CO2 -- excuse me,
3093 Storing CO2 and Lowering Emissions, or SCALE, Act. And I was
3094 very happy to see that the American Jobs Plan endorsed the
3095 bill by name, and recognized the need for large-scale carbon
3096 sequestration efforts. I look forward to continuing our work
3097 together to get the SCALE Act across the finish line.

3098 And as you know, the industrial sector produces roughly
3099 a quarter of the country's emissions, and will be one of the
3100 most challenging to decarbonize, especially heavy industries
3101 like cement and steel. A number of analyses from leading
3102 energy and climate institutions, including a new report this
3103 week from the IEA, make it clear that carbon capture will be
3104 a critical solution for addressing these industrial emissions
3105 sources.

3106 Federal assistance will also be needed to demonstrate

3107 and commercialize carbon capture technologies for industrial
3108 applications, likely with multiple facilities in each target
3109 industry. And the American Jobs Plan specifically includes
3110 funding for these types of projects, which could support
3111 10,000 good-paying jobs per year, according to Decarb
3112 America. I understand the President's fiscal year 2022
3113 budget will include funding that could be available for
3114 industrial CCUS demonstration and commercialization projects.

3115 Secretary Granholm, in your testimony you mentioned the
3116 importance of investing in the reduction of emissions in the
3117 power and industrial sectors. Can you talk more on how
3118 reducing emissions in the industrial sector can help us meet
3119 our climate goals, but also grow the base of good-paying
3120 manufacturing jobs here, in America?

3121 Because for the people in my district -- I represent a
3122 very blue-collar district. And just like where you are from
3123 in Detroit, Michigan, we have a General Motors facility in
3124 our district, too. People in our -- in my district love
3125 good-paying, hardworking jobs. Can you just touch on that,
3126 how we can meet these climate goals, but also expand the
3127 good-paying manufacturing jobs here, in America?

3128 *Secretary Granholm. This is such -- this question is
3129 music to my ears. I mean, this is, I think, why the
3130 President asked me to be the head of the Department of
3131 Energy, because, as you have seen on the commercials, et

3132 cetera, when he hears the word "climate," he hears jobs, he
3133 thinks of jobs.

3134 And I mentioned earlier that there was a study out in
3135 January that said that there is going to be a \$23 trillion --
3136 with a T, trillion -- market for the products that will
3137 reduce greenhouse gas emissions. That includes products like
3138 carbon capture use and sequestration, like hydrogen, like
3139 solar and wind, like geothermal, like nuclear. All of those
3140 products, there is going to be a massive global demand.

3141 And the whole thing is why would we be importing, you
3142 know, wind turbines from Denmark, when we could be building
3143 them here, and stamping them "Made in America," and using
3144 them here, and then exporting them?

3145 Why would we be allowing China to corner the market on
3146 the critical minerals that make up the batteries for the
3147 electric vehicle, when we could be extracting them here with
3148 -- responsibly, sustainably, and processing them here
3149 sustainably, and putting them into batteries here, and
3150 putting them in the vehicles here?

3151 That whole supply chain, that is ours for the taking if
3152 we make the right moves, policy-wise on the demand side, and
3153 investment-wise on the supply side. This whole area creates
3154 all kinds of jobs for all kinds of people in all pockets of
3155 the country, good-paying jobs, union jobs.

3156 You want to make sure that we have a transmission grid

3157 that works? Talk to the folks who are building that, the
3158 IBEW. Talk to the people who want to be able to be putting
3159 steel in the ground to make sure that we are able to put
3160 solar panels up in Arizona, and deliver that power to a load
3161 center in another place, or to put, you know, wind turbines
3162 up in Wyoming, and make sure it is delivered.

3163 All of these, everything, soup to nuts, has to be built
3164 somewhere. We should be building it, and putting people to
3165 work, making these products in the United States. So I am
3166 sorry to be -- I am totally with you on this, and this is why
3167 this opportunity is ours for the taking. And that includes
3168 opportunity for managing carbon, as well, in communities that
3169 have been left behind.

3170 *Mr. Veasey. Thank you very much.

3171 Mr. Chairman, thank you. I am out of time.

3172 *Mr. Rush. The gentleman yields back. The chair now
3173 recognizes the gentlelady from Arizona, Mrs. Lesko, for five
3174 minutes.

3175 *Mrs. Lesko. Thank you, Mr. Chairman. And thank you,
3176 Secretary, for coming in front of our committee today.

3177 As we have today's hearing, three of the world's top
3178 solar manufacturers are headquartered in China. Even if
3179 solar panels are assembled in the United States, we only
3180 produce 10 percent of the global supply of the underlying
3181 polysilicon material. China produces half. China has 77

3182 percent of global lithium ion battery production capacity.
3183 And most of our critical mineral supply chain is reliant on
3184 China. We are 100 percent reliant on imports for 17 critical
3185 minerals, and depend on imports for over 50 percent of 29
3186 widely-used minerals. China is a significant source for half
3187 of these 29 minerals.

3188 As we increase renewable energy and electric vehicle
3189 adoption in the United States, we become even more reliant on
3190 China and the whims of the Chinese Government. We are
3191 putting our nation's energy independence at risk, and
3192 delivering economic benefits and jobs to China, which is
3193 currently the world's leading consumer of coal, continues to
3194 build coal-fired plants at a rate that outpaces the rest of
3195 the world combined, and accounts for 28 percent of all global
3196 CO2 emissions.

3197 You know, it wouldn't surprise me if China is behind the
3198 push to decrease and eliminate the use of America's natural
3199 gas, and mining, and increased use of solar panels and EV
3200 batteries that are made in China.

3201 My first question, Secretary, is last month I sent a
3202 letter to you dated April 22nd. I was joined by many of my
3203 colleagues on the Energy and Commerce Committee, urging you
3204 to prioritize important critical mineral programs that were
3205 enacted as part of the Energy Act of 2020. What actions are
3206 you taking in your role as Secretary of Energy to secure our

3207 nation's critical mineral supply chain?

3208 *Secretary Granholm. Great. As you could tell from my
3209 previous comments, I am completely with you on this. We
3210 should be having our own energy security, including critical
3211 minerals and the supply chain, here. So let me just talk a
3212 little bit about what we are doing inside the Department to
3213 do that.

3214 So research and development in our Offices of Science
3215 and Fossil Energy and Energy Efficiency and Renewable Energy,
3216 we are coordinating those investments across DoE. It
3217 includes DoE's significant, longstanding investment in
3218 critical materials, and the Advanced Manufacturing Office's
3219 support of the Critical Minerals -- Critical Materials
3220 Institute, an energy innovation hub led by Ames Laboratory
3221 that leverages decades of DoE investments.

3222 The Department of Energy has a strategy for critical
3223 materials and minerals aligned, three pillars. One is to
3224 diversify the supply, and that means to do responsible mining
3225 here at home. The second is to develop substitutes for
3226 critical minerals, so that we don't have to rely on minerals
3227 from nations that don't have our best interests at heart.
3228 And the third pillar is to improve reuse and recycling of
3229 critical minerals.

3230 So when it comes --

3231 *Mrs. Lesko. Thank you. Thank you, Madam Secretary. I

3232 wish I had more than five minutes. I really want to hear all
3233 your stuff.

3234 But if that is the case, can you explain to me why the
3235 Biden Administration -- that they reversed a decision for
3236 Resolution Copper Mine in Arizona?

3237 I mean, they -- we were going forward with this copper
3238 mine in Arizona, and then the Biden Administration, right out
3239 of the gate, reversed the mining. I mean, if we are really
3240 -- if the Biden Administration really wants to replace China
3241 as the source of our critical minerals, I don't understand
3242 why you are opposing some mining here.

3243 But let me go on another question. The fact that China
3244 supplies 80 percent of the world's polysilicon is well known.
3245 It is also known that, in Xinxiang, in which much of the
3246 world's global polysilicon production occurs, China uses the
3247 Uyghur population as slave labor. With the proposed clean
3248 energy standard, how will the Administration make sure we
3249 aren't importing the product of slave labor?

3250 *Secretary Granholm. Right. This is another great
3251 example. I can say this, as former governor of Michigan, we
3252 have a company called Hemlock Semiconductor that was the --
3253 North America's largest supplier of polycrystalline silicon
3254 used in the solar -- in solar panels. And that -- much of
3255 that work went to China. So we have seen it firsthand.

3256 And so the question is, for us, what can we do to make

3257 sure that we have a Made in America supply chain. And that
3258 will mean supporting these industries here. It may mean that
3259 we have to think through creatively. How is our -- what tax
3260 credits do we have to make us competitive here?

3261 But for years, as you know, we have been bowing to the
3262 altar of low cost in an unfettered, free-trade environment.
3263 And so we have to say, what is going to be good for America
3264 to have a manufacturing backbone for our clean -- for clean
3265 energy. And that example that you gave is number one.

3266 So we want to have a Made in America strategy. That is
3267 what President Biden has asked all of the cabinet do -- to
3268 do. That is why we are leading by example in using Made in
3269 America products on Federal buildings, and solar panels here.
3270 We want to create the market here for products that are made
3271 in America, so that supply chain is built back out here.

3272 *Mrs. Lesko. Well, thank you. And if that is truly the
3273 goal, I --

3274 *Mr. Rush. The gentlelady's time is expired.

3275 *Mrs. Lesko. -- and increased mining. Thank you.

3276 *Mr. Rush. The chair now --

3277 *Mrs. Lesko. I yield back.

3278 *Mr. Rush. -- recognizes the gentlelady from New
3279 Hampshire, Ms. Kuster, for five minutes.

3280 *Ms. Kuster. Thank you so much, Mr. Chairman, for
3281 organizing this important hearing. And I want to thank

3282 Secretary Granholm for your incredible patience and stamina
3283 with our committee today.

3284 President Biden's American Jobs Plan outlines an
3285 ambitious and much-needed approach to upgrading American
3286 infrastructure for the 21st century, and I am excited that
3287 his plan includes robust investments in solar, wind,
3288 electricity storage, and energy efficiency. The President's
3289 plan puts us firmly on the path to decarbonizing the electric
3290 grid, and I want to commend you and President Biden for
3291 recognizing, in particular, the potential for offshore wind,
3292 which presents many exciting opportunities, especially in New
3293 England.

3294 An area of infrastructure that desperately needs
3295 attention is America's dams, and the low-carbon hydropower
3296 they provide. Hydropower is one of the nation's largest
3297 sources of low-carbon energy. And in the coming weeks I will
3298 introduce legislation based on the recent pathbreaking
3299 Stanford University-led Uncommon Dialogue Agreement between
3300 the U.S. hydropower industry and the environmental community.

3301 My legislation will provide over \$60 billion for what we
3302 call the three Rs, to rehabilitate existing U.S. dams for
3303 safety, retrofit them for power, and, in some cases, remove
3304 them for river conservation.

3305 Madam Secretary, the Department of Energy has identified
3306 hundreds of non-powered U.S. dams that could be retrofitted

3307 with turbines to produce hydropower. According to a DoE
3308 study, more than 10,000 megawatts of electricity could be
3309 developed at existing non-powered U.S. dams. Do you believe
3310 the Federal Government should lead efforts to retrofit dams
3311 for hydropower production?

3312 *Secretary Granholm. Yes, ma'am. And, as you have
3313 said, I think it is a dam good idea.

3314 *Ms. Kuster. Thank you. And while we look to retrofit
3315 dams where appropriate, we should be honest that countless of
3316 the 90,000 dams in this country have outlived their useful
3317 lives. And we have members on this committee, and including
3318 yourself from Michigan, that have experienced these accidents
3319 and failings. Do you believe the Federal Government should
3320 help improve the health of our nation's rivers by providing
3321 funding to remove dams where communities and owners decide
3322 that is the best path forward?

3323 *Secretary Granholm. Yes.

3324 *Ms. Kuster. And as you outlined in your testimony, the
3325 Department of Energy employs some of the brightest scientists
3326 in the country. Should DoE prioritize research to enhance
3327 hydropower production, dam safety, and dam removal
3328 strategies?

3329 *Secretary Granholm. Yes, yes. And we are working
3330 inside to do that.

3331 *Ms. Kuster. Excellent. So finally, one last question.

3332 Hydropower is a reliable energy source available to power the
3333 grid when the wind stops blowing, or the sun goes down. How
3334 important is this source of "firm power" as we move toward a
3335 grid that relies on variable sources of energy and, in
3336 particular, the storage from hydropower?

3337 *Secretary Granholm. Yes, clearly, the combination of
3338 the dispatchable, reliable power and the storage is
3339 irresistible. As we all know, we -- this is the mother lode
3340 of what we are looking for and -- as we move to a zero-carbon
3341 future. And so dams have to be a piece of this. I know that
3342 they are capital intensive. And so figuring out a mechanism
3343 to make sure we can do the work necessary to be able to fully
3344 use hydropower is critical. Other countries have done it.
3345 We can do it, too.

3346 *Ms. Kuster. Terrific. Well, I look forward to working
3347 with you and your team, and I want to urge all of my
3348 colleagues to please join me when I introduce this
3349 legislation.

3350 And with that, Mr. Chairman, for the record, I am
3351 yielding back with a minute to go, the most efficient
3352 testimony yet. Good luck. Maybe our Secretary can get a
3353 brief breather here.

3354 *Mr. Rush. Right.

3355 *Ms. Kuster. Take care, thank you, I yield back.

3356 *Mr. Rush. The gentlelady yields back.

3357 The chair wanted to announce that a vote is pending. It
3358 is the intention of the chair, with the concurrence of the
3359 ranking member, that we will proceed with those members who
3360 remain on screen for questions during the votes.

3361 The chair now recognizes the gentleman from Indiana, Mr.
3362 Pence, for five minutes.

3363 *Mr. Pence. Thank you, Chairman Rush and Ranking Member
3364 Upton, for holding this hearing.

3365 And thank you, Secretary Granholm, for appearing before
3366 us today to discuss your Department's fiscal year 2022 budget
3367 request.

3368 Like many of my colleagues on this committee, I support
3369 an all-of-the-above strategy for energy production, which I
3370 have said many, many times. But not an everything-but
3371 approach, which seems to be where the Biden Administration is
3372 headed.

3373 Your Department plays a critical role in fostering
3374 innovation to lower carbon emissions and establish a diverse
3375 slate of competitive energy sources. However, the --

3376 [Audio malfunction.]

3377 *Secretary Granholm. Uh-oh, it looks like he -- his
3378 connection dropped.

3379 *Mr. Rush. Mr. Pence?

3380 Seeing how he has dropped with 4 minutes and 12 seconds
3381 to go, the chair will continue, and now recognizes Ms.

3382 Barragan for 5 minutes.

3383 Ms. Barragan, you are recognized for five minutes.

3384 *Ms. Barragan. Well, thank you, Chair Rush, for holding
3385 this hearing on the Department of Energy fiscal year 2022
3386 budget, and Madam Secretary Granholm, for joining us today.

3387 Secretary Granholm, the American Jobs Plan calls for
3388 major investments in critical infrastructure. Can you talk
3389 about how investments in clean energy microgrids could be
3390 part of this investment plan, and the resiliency benefits for
3391 communities?

3392 *Secretary Granholm. Yes. Thank you so much for this
3393 question. Microgrids, as you are aware, are a critical tool
3394 for modernizing the power grid, both to be more resilient in
3395 the face of disasters, as well as making sure that we
3396 maximize the benefits of clean energy.

3397 The microgrid itself allows smaller sections of the grid
3398 to be managed for resilience, which allows --

3399 *Mr. Rush. -- right?

3400 *Secretary Granholm. -- for example, blackouts to be
3401 minimized. I think of this in California, where there have
3402 been sections of the grid pulled down because of high winds.
3403 But a microgrid might not have that same issue. It allows
3404 for localized energy security strategies. And then, you
3405 know, in terms of distributed energy resources, everything
3406 from onsite solar to battery storage, they can all be used to

3407 power a local microgrid to maximize the benefits of those
3408 resources.

3409 So the Department is doing a lot of work on this, and we
3410 see it as a really promising component of the investment grid
3411 resilience that is included in the American Jobs Plan.

3412 *Ms. Barragan. Well, thank you. I have a bill with
3413 Representative Clarke called the Energy Resilient Communities
3414 Act, which invests in clean energy microgrids for critical
3415 infrastructure in environmental justice communities, and is
3416 included in the CLEAN Future Act. I hope, as we work on
3417 legislation to enact the American Jobs Plan, we can get this
3418 idea included.

3419 *Secretary Granholm. That is great.

3420 *Ms. Barragan. My next question, Madam Secretary, is
3421 the Advanced Technology Vehicles Manufacturing Program at the
3422 Department is an important tool for supporting the domestic
3423 manufacture of zero-emissions vehicles. Clean shipping
3424 groups have called for a similar loan program for
3425 manufacturing zero-emissions shipping vessels in order to
3426 accelerate the domestic development of zero-emission ships.
3427 Do you have any reaction to this idea?

3428 *Secretary Granholm. That is so interesting. I had not
3429 heard from -- heard about that, but I think it is really
3430 interesting, because it is a hard-to-decarbonize sector,
3431 shipping is.

3432 And so I know that the Advanced Technology Vehicle Loan
3433 Program is potentially available to help with something like
3434 that. And certainly, the research that is being done in the
3435 ATVM office would be very interested in moving in that
3436 direction. So I have got to dive more, and learn more about
3437 what the shipping community is actually asking for.

3438 *Ms. Barragan. Well, thank you so much for that. As
3439 somebody who represents the Port of Los Angeles, one of the
3440 busiest ports, by volume container, it is important that we
3441 include ports in our vision to go zero emissions and clean.

3442 My next question, Madam Secretary, the Department
3443 recently announced \$17.3 million for college internships and
3444 research projects to connect STEM students with DoE's
3445 National Laboratories, including a focus on HBCUs and
3446 minority-serving institutions. Investing in diversity for
3447 STEM research and education is critical, including for
3448 Hispanic-serving institutions and Latino STEM majors.

3449 Can you talk about how your Department will work to
3450 ensure this award and further awards are inclusive of
3451 Hispanic-serving institutions and Latinos?

3452 *Secretary Granholm. Yes, for sure. This is really
3453 part of our whole workforce development strategy inside of
3454 the Department of Energy, is that we need a diverse pipeline
3455 of scientists and researchers to be able to ensure that the
3456 research we are doing reflects all of America.

3457 I was starting to mention this earlier, that the Office
3458 of Science is going to expand these efforts to support
3459 research and training of students from MSIs and historically
3460 -- and HBCUs, and Hispanic-serving institutions of higher
3461 education, and tribal colleges and universities.

3462 So all of this is part of the effort to expand the
3463 pipeline of those STEM workers. The money that we announced
3464 for internships is a step in that direction. The efforts
3465 that are going on at every lab to expand outreach, especially
3466 to institutions that serve communities of color, is just
3467 really an incredibly important part of how we are going to
3468 get to the goal of producing products that really reflect and
3469 are best suited for all of America.

3470 *Ms. Barragan. Thank you, Madam Secretary.

3471 And with that, Mr. Chairman, I yield back.

3472 *Mr. Rush. The gentlelady yields back. The chair now
3473 recognizes the gentleman from North Dakota, Mr. Armstrong,
3474 for five minutes.

3475 *Mr. Armstrong. Thank you, Mr. Chairman, and thank you,
3476 Secretary Granholm.

3477 And I appreciate we make wind farms in -- or wind
3478 turbines in Grand Forks, North Dakota, so if we can make more
3479 of them, we are all in.

3480 And I appreciate your comments on responsible mining and
3481 processing in the U.S. I do think, when it comes to supply

3482 and demand, the private sector will figure that out. But if
3483 you can give any members on this committee, particularly on
3484 the other side, a nudge on the FAST Act permitting, that
3485 would probably be helpful. Because one thing we have heard
3486 over the course of the last two years, whether it is on this
3487 committee or the Select Committee on the Climate Crisis, we
3488 are -- permitting takes longer, it is burdensome, access to
3489 capital, all of these things are a real issue.

3490 And I also think, as we talk about mining rare earth
3491 metals, and doing those things -- Congresswoman Lesko talked
3492 about this, as well -- we are going to have to do something
3493 about sue-and-settle litigation. We are seeing it coming out
3494 of the Keystone XL right now. The nationwide Permit 12,
3495 which the appellate court kicked back, is now being used by
3496 environmental access -- activists to attack other
3497 infrastructure projects all across the country.

3498 But I also want to say thank you for giving virtual
3499 remarks at the Williston Basin Petroleum Conference last
3500 week, and talking about -- that traditional fossil fuels
3501 remain important to the U.S., and talking -- and carbon
3502 capture and storage is a huge job opportunity, and agreeing
3503 to, you know, work with our governor on how we can do those
3504 things.

3505 And that is -- so you said to Representative Bucshon
3506 that you support carbon capture and research and development,

3507 correct?

3508 *Secretary Granholm. Correct.

3509 *Mr. Armstrong. And you support biofuels, ethanol,
3510 biodiesel, as we continue to move down this?

3511 *Secretary Granholm. Yes.

3512 *Mr. Armstrong. And you told Representative Kinzinger
3513 that you support nuclear energy?

3514 *Secretary Granholm. Yes.

3515 *Mr. Armstrong. And now these are a little different,
3516 these are mine. Do you support repairing pipelines and other
3517 carbon-based fuel infrastructure?

3518 *Secretary Granholm. Absolutely.

3519 *Mr. Armstrong. Do you support road improvements and
3520 infrastructure for non-electric vehicles?

3521 *Secretary Granholm. Yes, of course.

3522 *Mr. Armstrong. And then, I guess this might be a -- so
3523 did you have an opportunity to read the report issued by the
3524 Environmental Justice Advisory Council last week?

3525 *Secretary Granholm. I did not read the report from
3526 last week.

3527 *Mr. Armstrong. Well, it came out, and it was -- I
3528 mean, it is made up of CEQ, OMB, and climate adviser Gina
3529 McCarthy, and they suggested, essentially, every one of those
3530 projects should be not funded, as they extend the life of
3531 carbon fuels.

3532 I think it would be safe to say, given your comments,
3533 you would disagree with that report, right?

3534 *Secretary Granholm. Well, I have to look at the
3535 report. I do know that the Administration supports what we
3536 have just described. They support nuclear. They support
3537 carbon capture use and sequestration. They support hydrogen.
3538 They support repairing pipelines. So I would have to take a
3539 look at it, because I would be surprised if --

3540 *Mr. Armstrong. Well, we keep --

3541 *Secretary Granholm. I need to look at it --

3542 *Mr. Armstrong. The Administration -- and this is where
3543 my concern comes. And I am great for differing opinions. I,
3544 as a lifelong holder of minority opinions, I appreciate when
3545 other people have opinions.

3546 But, I mean, this is the Administration too, right?
3547 This is CEQ, this is OMB. Gina McCarthy is appointed by the
3548 President, and they specifically argue against extending any
3549 infrastructure that would extend -- specifically targeting
3550 carbon capture, which is the most concerning to me, that
3551 would extend the life of fossil fuels.

3552 So I am not saying you have or haven't read the report,
3553 but let's just say you disagree with that position. Right?

3554 *Secretary Granholm. Well, I just need to look at it,
3555 because I need to understand the context, because it is
3556 different than what I have heard, so --

3557 *Mr. Armstrong. Oh, well, you -- all right. So let's
3558 just --

3559 *Secretary Granholm. I am not saying that you are
3560 wrong. I just need to -- I need to look at it.

3561 *Mr. Armstrong. Well, I will just ask the question
3562 without the report. You would disagree with the position of
3563 not investing in carbon capture.

3564 *Secretary Granholm. I would disagree with that, and so
3565 would the President. The President has put forward an
3566 American Jobs Plan that has carbon capture use and
3567 sequestration as 10 of the demonstration projects that is --

3568 *Mr. Armstrong. Good, we are hoping to get one in North
3569 Dakota.

3570 *Secretary Granholm. Yes, I know.

3571 *Mr. Armstrong. And we are, potentially, the first
3572 carbon-neutral coal mine in the country. So -- hopefully.
3573 We are excited about it.

3574 So I want to just go to cyber for a second. And we are
3575 talking about -- and I am not an expert on this, but there is
3576 nothing unique about Colonial, right? I mean, this is the
3577 latest cyber attack. But we have seen cyber -- attempted
3578 cyber attacks on dams. We know that our electric utilities
3579 and those areas are constantly under threat of that. Nuclear
3580 plants, basically any of our infrastructure, as we continue
3581 to move forward, right?

3582 *Secretary Granholm. Correct.

3583 *Mr. Armstrong. And, I mean, as we continue to move
3584 down these paths, and dealing with this -- and I just -- and
3585 I do appreciate everything, but I just -- I would be remiss
3586 if I didn't point out that there is nothing unique about
3587 this.

3588 And what is going on, and everything we saw in Houston,
3589 and then from all the panic buying -- we saw it over here --
3590 I don't think it is helpful for people like me, who are
3591 generally skeptical, when comments are made that, if you have
3592 an electric car, it would not be affecting you. Because the
3593 attack on the cybersecurity, it was pipelines that time, but
3594 the very next time it would be -- it could be a utility
3595 company. And I don't think the comment would be, well, if
3596 you drive a gas car, it wouldn't be affecting you.

3597 And with that, I yield back.

3598 *Mr. Rush. The gentleman yields back. The chair now
3599 recognizes Mr. Pence, who has returned -- no, let me -- I am
3600 sorry. Out of order. The chair now recognizes Ms. Blunt
3601 Rochester, and then we will recognize Mr. Pence for his
3602 return.

3603 Ms. Blunt Rochester, you are recognized for five
3604 minutes.

3605 *Ms. Blunt Rochester. Thank you so much, Mr. Chairman,
3606 and thank you for calling this important hearing. And thank

3607 you also, Secretary Granholm, for testifying today on the
3608 President's discretionary budget. It is good to see you.

3609 The recent Colonial Pipeline cyber attack, and the
3610 extreme weather event earlier this year in Texas and parts of
3611 the Midwest, exposed the need for a more resilient energy
3612 infrastructure. As we continue to move toward greater
3613 reliance on electricity, we need to do more to fix the
3614 vulnerabilities in our energy systems, and better guard
3615 against future disasters.

3616 Secretary Granholm, last month I briefly shared with you
3617 a little bit about my bill, H.R. 1485, the Open Back Better
3618 Act, which is included in both the CLEAN Future Act and the
3619 LIFT America Act. This legislation invests in retrofits to
3620 public buildings such as hospitals, libraries, and community
3621 centers, making them more energy efficient and more resilient
3622 against future threats. It creates good-paying jobs, and
3623 prioritizes upgrades to low-wealth communities and
3624 communities of color, which are so often disproportionately
3625 burdened by the impacts of public emergencies and natural
3626 disasters.

3627 And in an ongoing pandemic, with the additional risk
3628 from climate-related disasters and cyber threats, we need a
3629 more resilient energy infrastructure to better prepare our
3630 country for the inevitable future disasters, and the Open
3631 Back Better Act does just that. And I am looking forward to

3632 further discussing this bill with you, and working with you
3633 and your team. Under the Open Back Better Act, Federal
3634 funding would flow through existing programs at the
3635 Department, including the Office of Indian Energy and the
3636 state energy program, which would require that 40 percent of
3637 grant funds be provided to environmental justice communities.

3638 In your testimony you highlighted the Department's
3639 commitment to environmental justice. Can you elaborate more
3640 on how the Department is working to meet the energy
3641 infrastructure and resiliency needs of our EJ and indigenous
3642 communities?

3643 *Secretary Granholm. Yes, thank you for that, and for
3644 your leadership on this.

3645 You know, as Secretary, and in line with this
3646 Administration, we are committed to prioritizing equity, and
3647 addressing historic injustices across, in our case, DoE
3648 programs. There are too many communities, as you have
3649 alluded to, in our country, especially low-income communities
3650 and communities of color, both urban and rural, who have
3651 experienced disproportionate downsides of issues like
3652 pollution stemming from our energy system. And at the same
3653 time, they have missed out on the benefits.

3654 So the Department, in partnership with Congress, I hope,
3655 we aim to center research and policy and technical assistance
3656 to advance the President's commitment to ensure that 40

3657 percent of the benefits of the clean energy transition flow
3658 to disadvantaged communities, to implement that Justice40
3659 initiative across the entire DoE complex, and to coordinate
3660 with other Federal agencies, as well, to advance a whole-of-
3661 government approach to equity and to justice.

3662 And I just want to mention that we are equally focused
3663 on energy communities, as well, that have produced fuels like
3664 coal and power from coal, and too often don't see a future
3665 for themselves in the energy transition. Both types of
3666 communities have been negatively affected by -- whether it is
3667 market trends or geographic trends, and we are really proud
3668 to be leading the interagency efforts, working with the
3669 President and a lot of other Federal agencies, to channel
3670 resources to job creation and other economic assistance to
3671 those communities on -- both types of communities. So I look
3672 forward to working with you to realize this important
3673 priority.

3674 *Ms. Blunt Rochester. Great. Can you give, like, a
3675 couple of -- some specifics on what efforts you are
3676 undertaking to retrofit public buildings?

3677 *Secretary Granholm. Well, our Buildings Technology
3678 Office is all about the retrofits, both large and small. And
3679 we are certainly doing it as a lead-by-example matter inside
3680 of the Federal Government, because the President has insisted
3681 that we do that and, as we do that, to make sure that we get

3682 a multiplier effect of buying American for -- buying the
3683 products that are made in America, you know, retrofitting
3684 these buildings that are in America by putting people to work
3685 and, of course, the benefit from CO2 emission reductions. So
3686 it is all of the above.

3687 And I would say, too, that when the American Jobs Plan
3688 is passed, and you see an increased amount in both
3689 weatherization and building retrofits, that amount of money
3690 is going to benefit communities all across the country,
3691 whether they are VA hospitals or individual homes.

3692 *Ms. Blunt Rochester. Great. Thank you so much, and I
3693 am looking forward to working with you on this legislation.

3694 And I yield back seven seconds, Mr. Chairman.

3695 *Mr. Rush. The gentlelady yields back. The chair now
3696 recognizes Mr. Pence for an additional five minutes.

3697 You had about eight seconds before, I think, when you
3698 lost your connection. So you are recognized for five
3699 minutes, Mr. Pence.

3700 *Mr. Pence. Well, thank you, Mr. Chairman. And sorry,
3701 everybody. It is -- here is another example of why I can't
3702 wait until we are back in the committee rooms, and holding
3703 these hearings in person. And I am just going to continue
3704 on, Madam Chair where I left off.

3705 I am also concerned that my colleagues in Congress are
3706 pushing the American people into untested energy technologies

3707 that are not yet ready to sustain our current demand. These
3708 endeavors, like electrifying our transportation sector, will
3709 not work for the rural Hoosiers that I represent in Indiana's
3710 6th district.

3711 Vehicles used in trucking and agricultural industries
3712 will require a higher energy density than what is possible
3713 with the current EV battery technologies. Therefore, I urge
3714 your Department to direct more resources to the expansion of
3715 alternative liquid fuels like renewable diesel, biodiesel,
3716 renewable natural gas, or hydrogen that can support our
3717 trucking industry, and lift our farmers that are critical to
3718 my Hoosier economy.

3719 In fact, one-third of the corn in Indiana is used to
3720 produce ethanol, an environmentally very friendly fuel.

3721 Another option to consider is hydrogen fuel cell
3722 technologies. Across the world, and notably in the EU and
3723 Asia, countries are heavily investing in hydrogen to meet the
3724 next generation energy needs. Recently, I introduced a
3725 bipartisan Clean Energy Hydrogen Innovation Act with my
3726 colleague, and fellow Hoosier congressman, Andre Carson, to
3727 expand opportunities under the Department of Energy's loan
3728 guarantee program for hydrogen and fuel cell applications.

3729 I am proud that Cummins Engine Company, headquartered in
3730 my home town of Columbus, is leading the nation in research
3731 and development into hydrogen fuel in the transportation

3732 industry, particularly heavy-duty.

3733 Madam Secretary, can you commit to working with me on my
3734 legislation to utilize the loan guarantee program for
3735 expanded hydrogen applications?

3736 *Secretary Granholm. I am very interested in using the
3737 loan guarantee program for hydrogen, whether it is for fuel
3738 cells, or hydrogen for energy delivery. So, yes, I would
3739 love to, I would love to learn more.

3740 *Mr. Pence. Great, and it is an exciting future.

3741 Another question, Madam Secretary. I have a particular
3742 interest in hydrogen because of its versatile applications in
3743 connection to existing assets in natural gas. And, of
3744 course, as you well know, energy needs to be transported from
3745 point A to B, which I spent an entire career doing.

3746 Whether blending with natural gas, transporting hydrogen
3747 to fueling centers, or creating hydrogen -- the steam methane
3748 reformation -- there needs to be a role for expanded pipeline
3749 networks. Should natural gas and pipeline stakeholders have
3750 a seat at the table regarding the Department's role in clean
3751 energy innovation?

3752 *Secretary Granholm. Yes.

3753 *Mr. Pence. Okay, that is a damn good answer, Madam
3754 Secretary, like you mentioned before.

3755 So with that Mr. Chair, again, sorry for the confusion,
3756 and I yield back.

3757 *Mr. Rush. The gentleman yields back, and the chair now
3758 recognizes the gentleman from Arizona, Mr. O'Halleran, for
3759 five minutes.

3760 *Mr. O'Halleran. Thank you, Chairman Rush and Ranking
3761 Member Upton, for today's hearing. I appreciate it.

3762 Madam Secretary, it is a pleasure to have you here
3763 today. Welcome. And I want to thank the President for this
3764 great nomination of yours. And finally, you are sitting
3765 where you need to be sitting for the best of America.

3766 There is no question that our country must transition
3767 away from fossil fuels and reduce carbon pollution. It is --
3768 however, we must remember the communities, the people in
3769 those communities that have been working to meet our energy
3770 needs for decades. Our clean energy future must include
3771 everyone.

3772 You can clearly see the energy transition taking place
3773 in my district, in rural Arizona. In November 2019 the
3774 Navajo Generation Station closed. Not only did the station
3775 close, but it affected the revenues of three different
3776 counties in the state. It affected every city and town in
3777 that area, and state revenues, school districts, fire
3778 districts, local communities. It is not -- it is losing
3779 people and losing communities at the same time. This country
3780 cannot afford to lose those communities. The closing of the
3781 plant also included Kayenta Coal Mine, cost northern Arizona

3782 over 700 of its best-paying jobs, by far. In my district
3783 alone, the 3 remaining coal-fired power plants will be
3784 retired, starting in 2025.

3785 I have introduced a bill, the New Promise Act, which
3786 would focus attention on the needs of these communities, and
3787 invest in economic development, job training, and
3788 infrastructure for those individuals that are in need of a
3789 job, a well-paying job. I am pleased to see the
3790 Administration is also focused on the needs of these impacted
3791 communities, and I look forward to working with you.

3792 Secretary, the White House's inter-agency working group
3793 on this topic issued a report last month. It cited the Four
3794 Corners area as a priority, and called out the need to work
3795 with tribal leaders. How are you working with local leaders
3796 in these impacted areas to make sure their needs are heard,
3797 especially in tribal areas, of which my district includes the
3798 highest population in the United States?

3799 Please answer the question.

3800 *Secretary Granholm. Yes, for sure. Thank you for
3801 asking this.

3802 You know, the report that you refer to is being -- the
3803 intergovernmental working group is being stood up now. We
3804 are hiring people to be able to ensure that the funding that
3805 was identified, and particularly, if the American Jobs Plan
3806 is passed, the research and deployment projects that are

3807 embedded in that will --

3808 [Audio malfunction.]

3809 *Secretary Granholm. -- and to the environmental
3810 justice communities. And in your case, there is a -- it is
3811 both, right? Communities that are in transition from coal
3812 and power plants and environmental justice.

3813 So we are -- the tribal communities have a seat at the
3814 table. Our Indian Affairs Office has -- is headed by a
3815 wonderful woman named Wahleah Johns, who is guiding our
3816 conversations with the tribal communities in this.

3817 The whole point of this report is really to get
3818 communities that have powered us, and who have seen
3819 opportunities move away and jobs move away, to see in
3820 themselves and to actually have in themselves job providers
3821 that will provide future jobs, not just jobs, but careers,
3822 good-paying careers. And that is what we want to focus --
3823 that is what the first screen was about in identifying which
3824 communities are the hardest hit. And you have identified
3825 yours. You saw that yours was identified inside the report.

3826 So we want to work together on this. I am sure we will
3827 be having further conversations on it, because the
3828 opportunities for directing investment and jobs into those
3829 areas are really ripe, especially if we pass this American
3830 Jobs Act.

3831 *Mr. O'Halleran. Thank you, Madam Secretary.

3832 First of all, I would be remiss if I didn't talk a
3833 little bit about Colonial, cybersecurity. It is not just
3834 about the energy sector, it is about every major sector and
3835 priority of our country. And I am hoping you bring back the
3836 message to the President this is a national emergency. I
3837 have been sitting here for years. And before that others
3838 have sat here, and never have we gotten around to really
3839 addressing the cybersecurity issue, even within our Defense
3840 Department.

3841 Secretary, the Interagency Working Group has also
3842 pointed out some of these communities transitioning away from
3843 coal are well-suited for investment in renewable energy,
3844 especially solar. They must have the ability to have
3845 industry back into those areas, many types of different
3846 industry, in order to survive. How can we ensure that these
3847 communities are the ones benefitting from investments?

3848 *Secretary Granholm. Yes, I mean, this is why the EJ,
3849 Environmental Justice 40, is really targeted toward these
3850 communities, as well.

3851 We have to make sure we also have transmission leading
3852 from the communities so that, if we can build out solar,
3853 especially utility-scale solar, we want to be able to take
3854 that solar and make sure it is sent to places where the
3855 demand is really high for renewables. So it is both, it is
3856 transmission, it is solar.

3857 It is also capping orphaned oil and gas wells in these,
3858 capping orphan mines --

3859 *Mr. O'Halleran. Ms. Secretary, I have to yield. It is
3860 time.

3861 *Secretary Granholm. Sorry.

3862 *Mr. O'Halleran. Thank you. No problem. Thanks a lot.
3863 And I yield, Mr. Rush.

3864 *Mr. Rush. All right, the gentleman yields back. The
3865 chair -- there are a number of waive-ons right now, and we --
3866 I see on screen Mrs. Trahan from Massachusetts.

3867 Mrs. Trahan, you are recognized for five minutes.

3868 *Mrs. Trahan. Well, thank you, Chairman Rush and
3869 Ranking Member Upton, for having us here today, and letting
3870 us waive on.

3871 And certainly, thank you, Secretary Granholm, for your
3872 leadership as our country looks to make a once-in-a-
3873 generation investment into clean energy infrastructure.
3874 Building a more resilient grid, incentivizing electric
3875 vehicles, expanding offshore wind, these are critical and
3876 immediate steps toward achieving net-zero emissions by 2050.
3877 And I associate myself with the remarks of the chair and our
3878 colleagues in highlighting those investments.

3879 I just want to take a few moments to ask about the
3880 increased funding for innovative technologies, including
3881 fusion energy research. The National Academies of Science,

3882 Engineering, and Medicine have stated that fusion offers the
3883 prospect of virtually unlimited carbon-free energy.

3884 Last Congress, Representative Lamb and I sponsored an
3885 amendment on fusion research. And this amendment will
3886 support public-private partnerships to make fusion energy a
3887 reality by building full-scale demonstration facilities, and
3888 creating new jobs here at home. One such private-sector
3889 entity, Commonwealth Fusion Systems, is an MIT spinoff --
3890 recently announced that Devens, Massachusetts, a community in
3891 the district that I am honored to represent, will soon be the
3892 home of its demonstration fusion plant. And it would be
3893 fitting for our clean energy revolution to be born just a few
3894 miles away from the birthplace of the American Revolution and
3895 our Industrial Revolution.

3896 So, Secretary Granholm, I am wondering if you can take a
3897 moment to speak to the importance of supporting fusion energy
3898 R&D projects.

3899 *Secretary Granholm. Yes, I am fully supportive. In
3900 fact, I think -- I mean, I know I visited MIT and their
3901 fusion research initiative. And if that is spinning out now,
3902 that is great. That means that they have gotten additional
3903 support, financially, to be able to do that.

3904 You know, fusion, kind of like hydrogen, I have been
3905 saying, is like the Holy Grail. It is a little closer in,
3906 perhaps, in terms of being able to deploy. But fusion and,

3907 you know, the ITER project that is happening in France, and
3908 our investment in that all signals that we believe that --
3909 the potential for fusion, and creating an energy without
3910 waste, nuclear energy without waste, is really, you know --
3911 that is, really, so fantastic.

3912 So the bottom line is the Department has been investing
3913 in fusion research, will continue to invest in fusion
3914 research, and we see the huge opportunity in fusion research
3915 in being able to solve so many of these problems that we are
3916 trying to figure through now. But it is -- I know that it is
3917 going to take a little bit of time to get there.

3918 *Mrs. Trahan. Well, thank you for all of that. You
3919 know, similarly, I was also excited to see the additional
3920 funding for the existing Advanced Research Projects Agency
3921 Energy Program. There is several innovative companies in
3922 Massachusetts that have used and are using ARPA-E to study
3923 advances in material science that will lead to breakthroughs
3924 in energy efficiency and storage.

3925 For example, Triton Systems in Chelmsford,
3926 Massachusetts, used ARPA-E funds to demonstrate a high-
3927 efficiency window pane system that will encourage
3928 retrofitting of single-pane windows. So I think, since 2009,
3929 Massachusetts has received \$241 million in early-stage R&D
3930 funding for 90 projects.

3931 And so I am hoping you can just speak to your vision for

3932 the proposed \$1 billion of Advanced Research Projects Agency
3933 for Climate. How could those funds drive innovation in those
3934 -- in our country?

3935 *Secretary Granholm. Yes, I mean, like ARPA-E, ARPA-C
3936 is going to be investing in the kinds of solutions that are
3937 breakthrough solutions that are happening across the country.
3938 And so, whether it is in next generation hydrogen, or next
3939 generation climate resilience, the bottom line is we need all
3940 of this research happening, and this -- ARPA-E and ARPA-C and
3941 -- are just ways to incentivize the private sector, give
3942 these great entrepreneurs the chance to take their idea to
3943 scale, and to test it out.

3944 So as you have identified, it has launched so many, and
3945 we want it to continue, the notion of ARPA-E, and the
3946 incentive that some funding provides to start -- to these
3947 startups who have great ideas. We want to continue that. We
3948 want to be the idea -- the place where solutions happen, or
3949 where solutions are -- where the seeds of solutions are
3950 planted, through ARPA-E and ARPA-C.

3951 *Mrs. Trahan. Well, thank you, Madam Secretary.
3952 Certainly, we look forward to working with you. And please
3953 consider this an open invitation to visit our labs and our
3954 demonstration facilities any time.

3955 Thank you, Mr. Chair, I yield back.

3956 *Mr. Rush. The gentlelady yields back. The chair now

3957 sees that Mr. Schrader, former ranking member of the
3958 subcommittee, has returned.

3959 And therefore, Mr. Schrader, you are now recognized for
3960 five minutes.

3961 *Mr. Schrader. Well, thank you very much, Mr. Chairman.
3962 We have had to adapt and improvise here, with our inability
3963 to get onto Webex with our usual devices.

3964 Madam Secretary, thank you for being here. I appreciate
3965 it very, very much. I also appreciate your recognition of
3966 hydropower as a safe, clean, renewable, carbon-free form of
3967 energy that our country relies on, and particularly the
3968 Pacific Northwest. I associate myself with the comments of
3969 Representative Schrier and Representative Rodgers on the
3970 advantages of clean hydro, and just would like to get clear
3971 the Administration's position on the public sector that
3972 provides a lot of opportunity, particularly in my region,
3973 through the Bonneville Power Administration, and
3974 Administration support of Bonneville Power and other regional
3975 public providers --

3976 *Secretary Granholm. You were cutting out just a little
3977 bit, but if you are asking about our plans and support for
3978 the power marketing agencies that are so reliant upon and so
3979 key in hydropower, 1,000 percent. You know, both Bonneville
3980 and WAAPA, all of them are critical in delivering clean,
3981 carbon-free power, and have been to customers in these areas

3982 across the country. We are very supportive, will continue to
3983 be supportive.

3984 We have got some new leadership, and we are excited
3985 about that, and continuing to serve the customers in a way
3986 that is affordable and reliable.

3987 *Mr. Schrader. Great. Thank you. Thank you very much.
3988 I appreciate the response.

3989 I also see a 27 percent increase in nuclear technology,
3990 advanced nuclear technology opportunities in the budget, and
3991 I am looking forward to seeing that realized. We have some
3992 innovators in my home state of Oregon, new-scale, in
3993 particular, with a lot of SMR opportunities out there.

3994 And I would be curious what role you see them playing in
3995 the renewable energy space, going forward, and also, frankly,
3996 how you -- how this Administration plans to deal with the
3997 regulatory framework for our existing nuclear fleet, much
3998 less our SMRs. It seems to be pretty burdensome, when I talk
3999 to providers. And is there a way to streamline that? Our
4000 committee has been trying to do that for years, and I would
4001 like to partner with the Administration on that.

4002 *Secretary Granholm. Yes. First, as I was saying a
4003 couple of hours ago, I think, the importance of maintaining
4004 our nuclear fleet is really critical if we are going to
4005 achieve our goals of net-zero carbon emissions.

4006 DoE is doing a huge amount of research in advanced

4007 reactors. Our advanced reactor program supports the
4008 development of a bunch of innovative U.S.-based designs for
4009 those SMRs, small modular reactors, and this new technology
4010 has really got the potential to provide the safe and clean
4011 and cost-competitive energy generation options for both
4012 domestic and international markets, as well.

4013 We are seeing some promising results with the work of
4014 new scale, for example, which is the first small modular
4015 reactor developer to obtain, actually, the NRC, the Nuclear
4016 Regulatory Commission, approval of its final safety
4017 evaluation report. So it puts the new scale design on track
4018 to receive full NRC certification by mid to late 2021. And
4019 all of that we are supportive of.

4020 *Mr. Schrader. Excellent, excellent. Thank you, thank
4021 you very much. A lot of exciting developments across the
4022 renewable energy spectrum as we try and deal with climate
4023 change. Very real -- I know there is a sea change of opinion
4024 on the Energy and Commerce Committee, where I think most
4025 everybody is aware of climate change. We may disagree on the
4026 origins and what have you.

4027 And there is ways to adapt. I am very concerned with
4028 the -- you know, the one-size-fits-all, or the my-way-or-the-
4029 highway approach. I happen to be an all-of-the-above energy
4030 legislator. I realize a lot of different states have
4031 different backgrounds. And, as we transition to a cleaner

4032 energy economy, I think, from what I have heard from labor,
4033 in particular, that we should get ahead of that transition.

4034 In a lot of coal sites, for instance, that may be
4035 ratcheting back, they provide a great site for small modular
4036 nuclear reactors and others, and we -- what -- is there any
4037 plans by this Administration to help the various coal, oil,
4038 and gas industries transition some of the existing workforce
4039 that we have into some of the engineering opportunities in
4040 the nuclear or small modular nuclear reactor area? Because I
4041 think we need to get ahead of that.

4042 *Secretary Granholm. Yes, I mean, we are interested in
4043 helping these communities transition into good-paying jobs.
4044 Obviously, nuclear is really good-paying jobs, and it is one
4045 of the reasons why we are excited, for example, about the
4046 Vogtle plants in Georgia coming online, hopefully in the not-
4047 too-distant future, and the jobs that will come with that.

4048 We are looking at all kinds of clean energy technologies
4049 that will be good paying. We don't want to just have people
4050 earning minimum wage in clean energy. We want them earning
4051 the kinds of wages or better that they earned when they were
4052 mining coal. That means we want to encourage unionization in
4053 these communities of clean energy providers.

4054 So we are really focused on this through the
4055 Intergovernmental Work Group on Coal and Power Plant
4056 Communities. And to the extent that you are aware of how we

4057 might be able to convince any private-sector player to move
4058 to those communities, we will be helpful in making them
4059 successful. We are looking at this now in the communities
4060 that have been identified in the Intergovernmental Work
4061 Group, and we want to continue to encourage job providers to
4062 move to those places in a way that allows them to be
4063 successful, because these are good people and good workers.

4064 *Mr. Schrader. Well, thank you very much, Madam
4065 Secretary.

4066 Mr. Chairman, thank you for your indulgence, and I yield
4067 back.

4068 *Mr. Rush. The gentleman yields back. The chair now
4069 returns to the waive-ons. And with that said, the chair now
4070 recognizes the gentlelady from the great State of Michigan,
4071 Mrs. Dingell, for five minutes.

4072 *Mrs. Dingell. Thank you, Mr. Chairman. It is great to
4073 see you, my dear friend. And I am going to be talking fast,
4074 so I am glad you understand me talking fast, because I have a
4075 lot of questions.

4076 Let's start with electric vehicles, specifically how we
4077 strengthen domestic manufacturing and supply chains in the
4078 United States. Yesterday was a great day. President Biden
4079 toured Ford's electric vehicle center, where the new all-
4080 electric F150 will be built, and built by the finest
4081 workforce in the world, the UAW. This is a great example of

4082 American ingenuity, but we stand at a pivotal moment for
4083 American manufacturing, and where electric vehicles will be
4084 built.

4085 As you know, I am leading legislation to expand the ATVM
4086 program to medium and heavy-duty vehicles, and to modernize
4087 ATVM to help develop supply chain manufacturing in the United
4088 States with American workers.

4089 I am also working to update the Domestic Manufacturing
4090 Conversion Grants Program to include plug-in electric
4091 vehicles and components.

4092 Secretary Granholm, what is your vision for how these
4093 programs, if expanded, modernized, and funded, can help
4094 create good, clean energy jobs for American workers?

4095 And what do you need from Congress to make that happen?

4096 *Secretary Granholm. Yes, you are hitting the nail on
4097 the head. You and I have talked about this. We share this
4098 vision. Tackling climate change doesn't mean just curbing
4099 transportation emissions. Of course it does mean that, but
4100 it also means building a whole dynamic -- building the, you
4101 know, zero-carbon emission -- the vehicles that have zero-
4102 carbon emissions. So -- and the future of transportation.

4103 So it means not just retooling our vehicle factories,
4104 but making sure we have got robust supply chains, from
4105 components, to batteries, to critical materials. It means
4106 that U.S. Government has got to lead by example in purchasing

4107 those things, and helping to create a market. It means that
4108 states and localities have got to do the same thing. It
4109 means that we have got to help co-invest with some of these
4110 businesses to make it irresistible to locate in the United
4111 States. It means the tax credits that make manufacturing in
4112 the United States competitive. It means more than just cars
4113 and SUVs and pickups. It means medium and heavy-duty trucks,
4114 as you have noted, and long-haul trucks, and ships for long-
4115 distance shipping. It means --

4116 *Mrs. Dingell. So --

4117 *Secretary Granholm. -- the ATVM program can do a lot
4118 of that.

4119 So I will --

4120 *Mrs. Dingell. So --

4121 *Secretary Granholm. -- because I know you --

4122 *Mrs. Dingell. -- what I want you to do is to let us
4123 know specific policies that we should be doing in these next
4124 few weeks that are beyond what we are doing.

4125 For over a month now -- it has been a couple of months
4126 -- we have had a working group, as you know, with the top
4127 environmental groups and labor groups connected to the
4128 automotive industry, to iron out a framework of policies that
4129 will help us transition to all-electric vehicles, while
4130 ensuring high-quality domestic manufacturing jobs in any
4131 infrastructure package.

4132 Yesterday members of this group -- CAP, Environmental
4133 Defense Fund, BlueGreen Alliance, Sierra Club, Union of
4134 Concerned Scientists, and the League of Conservation Voters
4135 sent a letter to the President, outlining a number of these
4136 important policy priorities that I would now like to request,
4137 Mr. Chairman, unanimous consent to submit for the record.

4138 *Mr. Rush. Without objection, so ordered.

4139 [The information follows:]

4140

4141 *****COMMITTEE INSERT*****

4142

4143 *Mrs. Dingell. Thank you, Mr. Chairman.

4144 Madam Secretary, earlier this year I re-introduced
4145 legislation to create a clean energy and sustainability
4146 accelerator, and I was pleased to also see in it the -- see
4147 it in the President's American Jobs Plan. The bill would
4148 capitalize a \$100 billion nonprofit dedicated to deploying
4149 clean energy solutions in every state, and addressing
4150 environmental injustice with 40 percent of investments going
4151 to marginalized communities.

4152 Based on the experience of similar financing authorities
4153 across the United States -- one we saw in Michigan -- we know
4154 that the initial \$100 billion investment will attract and
4155 spur an additional 900 billion in private-sector investment
4156 over 10 years.

4157 Secretary Granholm, do you agree with that model, one
4158 that leverages the power of the Federal Government to attract
4159 private-sector capital will help -- will it help expedite
4160 this transition to a clean economy?

4161 *Secretary Granholm. A thousand percent, this sort of
4162 clean energy accelerator, a clean energy bank, if you will,
4163 it is a hugely promising strategy, both for deploying clean
4164 energy, and especially in the communities that most need
4165 those benefits. I know they were looking hard at that, and
4166 they -- this bill, your bill, inspired what was in the
4167 American Jobs Plan. I look forward to working with you to

4168 take advantage of your leadership on this, and to advance
4169 this idea in the American Jobs Plan.

4170 *Mrs. Dingell. Thank you. So one last question, very
4171 quickly. You know the Edenville and Sanford dams in Michigan
4172 failed, a lot of problems. Mr. Moolenaar re-introduced the
4173 National Dam and Hydropower Safety Improvement Act of 2020.

4174 I could go into it longer, but Secretary Granholm, while
4175 I recognize that FERC has main jurisdiction there, I was
4176 hoping you could tell me how DoE plans to support ongoing
4177 recovery efforts, as well as efforts to bolster safety
4178 procedures to prevent this kind of event from happening
4179 again.

4180 *Secretary Granholm. Yes, I mean, we, obviously, work
4181 with FERC on this, and we are very interested in making sure,
4182 as in all areas where we are seeing these kind of emergencies
4183 and breakdowns, how we can accelerate not just response, but
4184 prevention. And so I look forward to working with you on
4185 that, as well.

4186 *Mrs. Dingell. Thank you very much. I have a ton more,
4187 probably give some for the record, but thank you for all you
4188 are doing. It is so great to see you here.

4189 Mr. Chairman, I yield back.

4190 *Mr. Rush. The gentlelady yields back. The chair now
4191 recognizes the gentleman from Ohio, Mr. Joyce, for five
4192 minutes.

4193 *Mr. Joyce of Pennsylvania. Thank you, Chairman Rush,
4194 for allowing me to participate today. Just for clarification
4195 for the record, I am John Joyce from Pennsylvania.

4196 Madam Secretary, thank you for joining us here today.
4197 My first question is, do you agree that it is a strategic
4198 necessity for the United States to be energy secure?

4199 *Secretary Granholm. Yes.

4200 *Mr. Joyce of Pennsylvania. One of America's biggest
4201 energy assets is coal. And in fact, the United States has
4202 the largest coal reserves of any country, with 23 percent of
4203 total global reserves. According to BP's Statistical Review
4204 of Energy, Pennsylvanians and Americans from across the coal
4205 country understand that, firsthand, if we are to stay energy
4206 secure, that we cannot afford to walk away from the resource
4207 of coal.

4208 Do you think, Madam Secretary, that there is a future
4209 for coal energy in the United States?

4210 *Secretary Granholm. Well, I know it is not about my
4211 opinion. I know where the market is heading. And I know it
4212 has been devastating for many in coal country. And I know we
4213 want to continue to work on the technologies that help to
4214 make the CO2 emissions from coal be captured and sequestered,
4215 and to maybe use byproducts, or look at coal for other
4216 critical minerals that might be inside of them.

4217 We also want to work with the communities to make sure

4218 that we are -- for coal plants, for example, that may have
4219 shut down, is there a fuel-switching opportunity that we can
4220 do there, and then attach CCUS to it?

4221 So this is -- these are really -- you know, I feel this
4222 deeply, because in Michigan, when I was governor and we were
4223 producing the internal combustion engine -- we still do, but
4224 then we saw imports threaten us because of fuel economy
4225 standards. And then we had to migrate to car 2.0, the
4226 electric vehicle, and a lot of people, when we went through -
4227 - when the auto industry went through bankruptcies and
4228 everything, were left, through no fault of their own, without
4229 jobs. I completely get this.

4230 And this is why the technologies associated with
4231 reducing carbon emissions can help communities who are
4232 looking to hold onto jobs, and to have jobs, energy jobs of
4233 the future, to be able to thrive.

4234 *Mr. Joyce of Pennsylvania. I, too, am very much
4235 interested in investing in carbon capture technology, as well
4236 as helping the coal communities with energy transition. Are
4237 you willing to invest in retrofitting coal power plants with
4238 carbon capture technology, so that these communities don't
4239 need to undergo a transition, and can continue their great
4240 job of powering our country?

4241 *Secretary Granholm. Yes, I mean, it is -- this is a
4242 hard one, because you have to get the agreement of the

4243 private sector on this, as well.

4244 I mean, carbon capture technology works best on, for
4245 example -- or works well on natural gas. And I know the cost
4246 of it puts many coal plants at a disadvantage. And so it is
4247 -- this is a -- it is a hard one, I know. And if it made
4248 sense, from an economic perspective, certainly. It is just a
4249 question, right now, because of the way the market is headed,
4250 it makes it difficult.

4251 I want to do whatever we can to help these communities
4252 on -- get on their feet. I want to do whatever we can to
4253 provide them jobs that -- where they don't have to completely
4254 reskill, with jobs that are consonant with the skills that
4255 they have. Coal communities, miners, can we look at
4256 responsibly mining for critical minerals? Can we look at
4257 responsibly mining for geothermal, using the skills that
4258 people already have? Can we look at attaching technologies,
4259 doing coal -- fuel-switching on coal plants, so that you can
4260 attach CCUS in a more economical way? All of these things
4261 are things that we are looking at, and I look forward to
4262 working with you on.

4263 *Mr. Joyce of Pennsylvania. I am deeply encouraged by
4264 technologies being developed such as those that combine
4265 burning a mixture of coal and crop residue biomass, with
4266 carbon capture and storage to provide cost-effective, net-
4267 carbon-negative electricity source that can be scaled to a

4268 commercial level.

4269 Coal produces the constant baseload power, which is
4270 truly the backbone of the American electric grid, and keeps
4271 our country moving. It will be shameful to throw away this
4272 energy opportunity because of some people's preconceived
4273 ideas about coal.

4274 My time here is limited, but I know that we have talked
4275 briefly about what is important in this regard. Earlier you
4276 testified in an exchange with Mrs. Lesko that you would
4277 support a ban on imports of solar panels and batteries from
4278 China that have been manufactured by slave labor. Can we
4279 confirm in that exchange that you would indeed support a ban
4280 of those panels that were manufactured by slave labor?

4281 *Secretary Granholm. I don't know that I used the word
4282 "ban," or that that was the specific question, but I am
4283 concerned about the import of panels manufactured in China
4284 using slave labor, and I want to create a supply chain and
4285 jobs here, instead of relying upon that.

4286 *Mr. Joyce of Pennsylvania. Thank you. I think we are
4287 all concerned about these awful labor practices in the
4288 Chinese Communist regime.

4289 Thank you, Madam Chair (sic), and thank you, Mr. Chair
4290 Rush, for allowing me to waive on to this important hearing.

4291 *Mr. Rush. The gentleman yields back. The chair now
4292 recognizes the gentlelady from Texas, Mrs. Fletcher, for five

4293 minutes.

4294 *Mrs. Fletcher. Thank you so much, Chairman Rush, for
4295 allowing me to participate in today's hearing.

4296 And Secretary Granholm, it is nice to see you again.
4297 Thank you for taking the time to testify about the important
4298 programs at DoE that our country relies on.

4299 We have covered a lot of ground today. I think I may be
4300 the last member to ask questions. So I really thank you for
4301 your insights, and your consistent commitment to
4302 collaboration with the committee and the Congress on the
4303 objectives that we all share, from energy security to
4304 cybersecurity, and so many issues that we have touched on
4305 today.

4306 As the hearing has demonstrated, there is great focus at
4307 this moment on energy innovation and new technologies to
4308 achieve our climate goals, our economic goals, and our
4309 national security goals. And I have heard many of my
4310 colleagues extend invitations to you to visit their
4311 districts, and I certainly would welcome the opportunity to
4312 welcome you to my district in Houston, and show you the work
4313 that my constituents are doing in the energy capital of the
4314 world.

4315 Houston has long been the center of energy innovation
4316 and new energy technologies, and we have touched on several
4317 innovative technologies today. Just as one example, Mr.

4318 Doyle mentioned hydrogen. Houston is already home to 48
4319 plants that extract hydrogen from natural gas, and produces
4320 more than one-third of the U.S. supply of hydrogen. Many of
4321 these programs are supported through essential R&D research
4322 at DoE. The Department has long been a collaborative
4323 partner, working hand in hand with private industry to invest
4324 so many of the technologies that show such promise today.

4325 So, as we wrap up the hearing now, I just want to take
4326 the time that I have left to circle back on a particularly
4327 important area of innovation that you discussed briefly with
4328 Mr. Veasey, and just now -- carbon capture technology. It is
4329 another place where people in Houston have really been
4330 driving innovation.

4331 And while you have spoken to the issue of DoE assisting
4332 coal and natural gas applications with support from existing
4333 DoE programs, I haven't heard much discussion nationally from
4334 the Department when it comes to the downstream industry, as
4335 it might apply to petroleum refineries. So my question for
4336 you is, with the incredible expertise that DoE and the
4337 National Labs have when it comes to CCUS, would you support
4338 expansion of existing programs for CCUS applications to
4339 refineries, if Congress were to authorize new programs aimed
4340 at reducing emissions in the downstream sector?

4341 *Secretary Granholm. Absolutely.

4342 *Mrs. Fletcher. Terrific. Do you have any thoughts on

4343 what might be important for us to include to make that
4344 something that the Department could expand?

4345 *Secretary Granholm. You know, I think part of -- a lot
4346 of this -- and again, this is -- so much of this is
4347 contemplated in the American Jobs Plan, with these
4348 demonstration projects. So there are 10 of them that are
4349 related to CCUS, and there are 15 of them that are related to
4350 hydrogen. And some of them might be combined, right, there
4351 might be a hydrogen hub that includes CCUS, which -- you
4352 know, it sounds like Houston and areas of Texas certainly are
4353 ripe to consider that.

4354 I think the funding out and the proof of concept of
4355 these demonstration projects -- and many of them are already
4356 well underway, as you have mentioned -- allows for us to
4357 bring down the price, and allows for then this technology to
4358 be taken to greater scale. Ultimately, we want to be the
4359 country that really has proven the case to reduce the cost
4360 for these technologies. And so, funding these demonstration
4361 projects is such a pivotal step in getting there.

4362 We know the technology exists. We know that we have to
4363 reduce the costs. I would add green hydrogen in there, as
4364 well, which uses electrolysis. And we want to reduce the
4365 cost of electrolysis, in addition to the steam-methane
4366 reforming that is attached on the hydrogen side. The
4367 technology associated with CCUS, it is all expensive

4368 technology. The more we use, the lower the price gets, the
4369 more we are able to put more technology onto places and
4370 reduce our CO2 footprint.

4371 So I am excited to work with you on it. And I am so
4372 grateful to you for raising this issue, and for your
4373 leadership on it.

4374 *Mrs. Fletcher. Well, thank you so much, Secretary
4375 Granholm. I appreciate your answer and your partnership.
4376 This is a matter of great importance to Houstonians, to
4377 Texans, and, really, all Americans. You know, EIA data shows
4378 that our state's Gulf Coast refining capacity represents more
4379 than one-third of our nation's refining capacity. Dr. Moniz,
4380 among others, has identified our region as a great place to
4381 do these demonstration projects, and really to advance these
4382 technologies. And I know it is something that the people who
4383 live and work in my district and throughout our region really
4384 are committed to doing, and making sure that we stay the
4385 energy capital of the world.

4386 So I very much look forward to working with you on
4387 advancing these programs as we move forward to achieve our
4388 shared goals for our country and our planet.

4389 And with that, Chairman Rush, I know that I have gone
4390 beyond my time, so I may have additional questions to submit
4391 for the record.

4392 But I really want to thank you, Secretary Granholm, for

4393 your time today. It has been incredibly useful and
4394 important.

4395 And Chairman Rush, thank you so much for letting me
4396 participate, and I yield back.

4397 *Mr. Rush. The gentlelady yields back. And with that,
4398 the -- that concludes the witness questions.

4399 And Madam Secretary, I applaud you for your endurance,
4400 and also for your information, and for your extraordinary way
4401 that you answered these very, very tough questions that
4402 members of this subcommittee had. And I want to thank you
4403 again for participating in today's hearing.

4404 I must remind members that, pursuant to committee rules,
4405 they have 10 business days to submit additional questions for
4406 the record to be answered by the Secretary, who has appeared
4407 before us.

4408 And I ask Madam Secretary to respond promptly to any
4409 such questions that you may receive.

4410 Before we adjourn, I just request unanimous consent to
4411 enter, en bloc, documents that have been referred to the
4412 committee. We have got, according to my count, nine
4413 documents that will be -- that I ask unanimous consent that
4414 they be entered into the record.

4415 Without objection, this request is so ordered.

4416

4417

4418 [The information follows:]

4419

4420 *****COMMITTEE INSERT*****

4421

4422 *Mr. Rush. And at this time the subcommittee stands
4423 adjourned.

4424 [Whereupon, at 2:35 p.m., the subcommittee was
4425 adjourned.]