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6	OVERSIGHT OF DOE DURING THE
7	COVID-19 PANDEMIC
8	TUESDAY, JULY 14, 2020
9	House of Representatives
10	Subcommittee on Energy
11	Committee on Energy and Commerce
12	Washington, D.C.
13	
14	
15	
16	The subcommittee met, pursuant to call, at 12:00 p.m., in Room
17	2123 Rayburn House Office Building, Hon. Bobby L. Rush [chairman
18	of the subcommittee] presiding.
19	Members present: Representatives Rush, Peters, Doyle, Sarbanes,
20	McNerney, Tonko, Loebsack, Welch, Schrader, Kennedy, Veasey,
21	Kuster, Kelly, Barragan, McEachin, O'Halleran, Blunt Rochester,
22	Pallone (ex officio), Upton, Latta, Rodgers, Olson, McKinley,
23	Griffith, Johnson, Bucshon, Flores, Hudson, Walberg, and Walden
24	(ex officio).

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25

Also present: Representatives Shimkus and Burgess.

26 Staff present: Billy Benjamin, Systems Administrator; Jeff 27 Carroll, Staff Director; Adam Fischer, Policy Analyst; Catherine 28 Giljohann, FERC Detailee; Waverly Gordon, Deputy Chief Counsel; 29 Tiffany Guarascio, Deputy Staff Director; Rick Kessler, Senior 30 Advisor and Staff Directory, Energy and Environment; Brendan 31 Larkin, Policy Coordinator; Jourdan Lewis, Policy Analyst; Elysa 32 Montfort, Press Secretary; Joe Orlando, Staff Assistant; Kaitlyn Peel, Digital Director; Mike Bloomquist, Minority Staff Director; 33 34 Theresa Gambo, Minority Human Resources/Office Administrator; 35 Peter Kielty, Minority General Counsel; Ryan Long, Minority 36 Deputy Staff Director; Mary Martin, Minority Chief Counsel, 37 Energy & Environment & Climate Change; Brandon Mooney, Minority 38 Deputy Chief Counsel, Energy; Brannon Rains, Minority Policy Analyst; and Peter Spencer, Minority Senior Professional Staff 39 40 Member, Environment & Climate Change.

41 The subcommittee will now come to order. Today the Mr. Rush. 42 subcommittee is holding a hearing entitled, "Oversight of DOE 43 During the COVID-19 Pandemic." Due to the COVID-19 public health 44 emergency, members will be participating in today's hearing, 45 finally, either in person or remotely via videoconferencing. 46 And just as a reminder, we have had some technical difficulties 47 in making sure that our remote video was operating up to standard. As part of this hearing, the microphones of members participating 48 49 remotely will be set on mute for the purpose of eliminating 50 inadvertent background noise. Members participating remotely will need to unmute their microphones each time you wish to speak. 51 For members and witnesses participating in person, I encourage 52 53 you to wear your masks whenever you are not speaking.

54 Dr. Monahan, the House physician, stressed in the updated 55 attending physician COVID-19 guidelines that the use of face 56 coverings is meant to protect other people in case the wearer 57 is unknowingly infected but does not have symptoms. By wearing our masks when we are not speaking, each of us is playing a vital 58 59 role in protecting all members and all staff who are in attendance, 60 as well as the leaders of the Administration's COVID-19 response 61 of who will be testifying before the committee today, the Secretary of Energy, Secretary Brouillette. 62

Finally, documents for the record can be sent to Adam Fischerat the email address that we provided to staff. All documents

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will be entered into the record at the conclusion of the hearing.
The Chair now recognizes himself for five minutes for the
purposes of an opening statement.

Good afternoon. The recent decline in our nation's economic activity has resulted in a multitude of hardships within our communities and economic sectors. Today the Subcommittee on Energy convenes for a hearing to further examine the impacts of novel coronavirus on a vital segment of our economy.

73 From the outset, the pandemic has presented the energy sector 74 with numerous challenges, ranging from staggering unemployment 75 rates, supply chain disruptions, declining demand, and depleted 76 investment. At present, 1.3 million members of the energy sector 77 workforce remain unemployed. A significant percentage of these 78 jobs were once occupied by people of color and hardworking members 79 of the clean energy industry which previously enjoyed steady 80 growth.

Taking this into account, the subcommittee held a remote hearing in June to discuss the sector's recent setbacks. Throughout this hearing, we received expert testimony from witnesses who spoke to the pandemic's effect on clean energy jobs as well as the industry's function as an economic recovery engine.

86 In response to this hearing, I was proud to join my colleagues

87 in including provisions to support workforce development,

88 diversity, and clean energy infrastructure investment within the

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89 recent infrastructure bill. This committee, through its broad 90 and envious jurisdiction, has oversight of federal agency 91 resources that are key to the confrontation of the public health 92 crisis and the economic challenges that are linked to the 93 coronavirus. The Department of Energy and its vast enterprise 94 is chief among these resources. That is why I am so pleased to 95 welcome the Secretary of Energy, Mr. Dan -- Secretary Dan 96 Brouillette, who will testify before the subcommittee today. 97 Secretary Brouillette is not a stranger to this subcommittee in 98 that he served previously as a staff director to Chairman Tauzin 99 a few years back.

100To date, the Department of Energy has leveraged its national101laboratory system, which includes Chicago's own Argonne National

102 Lab, to harness its supercomputing capabilities to fight

103 COVID-19. Additionally, it has worked to support the public and

104 private sectors in keeping our very own lights on. However, the

105 full deployment of DOE's resources is of great and vital

106 importance to our nation's economic recovery.

Existing program offices like the Office of Economic Impact and Diversity and the Office of Energy Efficiency and Renewable Energy have the ability to drive employment opportunities, enhance sector diversity and secure energy savings, especially at a time when they are so critically needed most. Therefore, I look forward to today's hearing as a first step in ensuring a productive

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113 partnership to preserve reliability and opportunity within the 114 energy sector.

115 With that, I yield to my friend and colleague, the gentleman 116 from Michigan, the ranking member Fred Upton, for five minutes 117 for an opening statement.

118 Mr. Upton. Well thank you, Mr. Chairman, and welcome back to 119 vou. And welcome back, Mr. Secretary. You know it is good to have you before the committee today, and certainly good to see 120 121 you are thriving after your promotion to Cabinet Secretary. We 122 have all said from the beginning we are fortunate to have somebody 123 like you at the helm at the Department of Energy. And when you 124 testified before us as the Deputy Secretary that was 2-1/2 years ago back in 2018. 125

At that hearing, which I chaired, the committee was looking at DOE modernization, what steps Congress should take to ensure that the Department could address the national, the economic, and energy security challenges that are going to be confronting the nation over the coming decades. Given the committee's jurisdiction, we heard from the three main mission components

of the Department -- the under secretaries of Energy, of Nuclear Security, and of Science. And you led off the panel in your role

- as DOE's number two and the COO of the Department.
- 135 So that hearing informed several ongoing legislative
- 136 initiatives. For example, we have worked to strengthen the

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137 Department's ability to address emerging hazards and cyber 138 threats to critical infrastructure, to modernize the Strategic 139 Petroleum Reserve, to improve energy diplomacy, to improve and 140 advance nuclear and other energy policy, and to improve programs 141 like minority workforce development important to all of us. 142 So fast forward to today, and many of these policy issues remain 143 critical. The COVID-19 pandemic and the severe economic and 144 energy sector impacts have highlighted why a well-functioning 145 DOE is so important.

Mr. Rush. Mr. Upton. Mr. Upton, will you please suspend? You are breaking up and we want to try to correct that problem. We are sitting on the edge of our seats trying to hear what you have to say.

150 Mr. Upton. I will wait for the green light.

151 [Audio malfunction in the hearing room.]

152 Mr. Rush. The gentleman will proceed.

153 In your own testimony, Mr. Secretary, you Mr. Upton. Okay. 154 highlighted how DOE brought the capabilities of its scientific 155 and technological advances resources to the COVID fight. And 156 data on compound screening with the super computer at Oak Ridge, the use of the Argonne Lab's Advanced Photon Source user facility 157 to characterize the virus, and the work of leading tech companies 158 159 illustrate the benefits of collaboration across the DOE complex 160 with the private sector. And we heard testimony just to

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161 this point two years ago, and now we see how it can work in a 162 Other missions of the Department have been put to the crisis. 163 The crisis in the energy sector, with economic shutdown test. 164 and the Russia-Saudi price war, challenged your ability and our 165 strategic energy responsibilities in American energy leaderships 166 in new ways. I doubt anyone imagined some 40 years ago that our 167 Strategic Petroleum Reserve might be useful to just take on supply rather than disperse it in a crisis. 168

You know, we might have to consider new strategic approaches to protect our energy security. Clearly, the pandemic exposed the security and strategic risks from ceding leadership on oil and gas and reminded us of the important role American energy resources and technology serves our national and strategic interests.

Several Republican members on this panel are working on legislative reforms to help modernize energy infrastructure and increase American energy leadership and that involves policies to strengthen our energy security, to promote and deploy cleaner energy, and modernizing regulatory requirements to ensure that DOE and the private sector innovation advances can be put into action.

182 The recent crisis revealed to more Americans the strategic 183 threats of China, Russia, and other adversaries to our long-term 184 economic and energy security. And this underscores the work that

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we must do to make sure that DOE has all the tools and the authorities necessary to safeguard and respond to threats to our critical electric infrastructure, and the delivery and supply of energy. The President's recent bulk power system executive order underscores those risks, and DOE, I know, is at the center of responding to them.

191 The increasingly complex interconnections of our modern energy 192 systems, from pipelines to power plants, present growing risks to that grid. Getting ahead of this requires secretarial 193 194 leadership and a coordinated attention across the Energy 195 Department's programs, and operations and we ought to discuss 196 what more is needed to advance your mission on that front today. 197 Finally, growing nuclear weapons threats and the tens of billions 198 of dollars needed to maintain the nuclear deterrent underscore 199 the urgency for creating efficient, effective, and durable 200 governance and management of DOE's nuclear security missions. 201 So there are many topics here, Mr. Secretary. Your experience 202 from the past, your experience now will help to identify, to 203 address the challenges in how we all can work together on behalf 204 of the country. Thank you and I yield back. Mr. Rush. The 205 gentleman vields back. The Chair now recognizes Mr. Pallone, 206 the Chairman of the full committee, for five minutes for the 207 purposes of an opening statement.

208 The Chairman. Thank you, Chairman Rush. Secretary

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209 Brouillette, welcome back to the committee. We are obviously 210 glad that we have you before the committee in your role as 211 Secretary. I just want to begin by thanking the Department of 212 Energy, particularly its national laboratories, for the research 213 they are conducting on COVID-19. Our committee has held numerous 214 hearings and conducted a lot of oversight over the federal 215 government's woefully inadequate response to the pandemic, and a response that has done very little to help alleviate the 216 skyrocketing cases we are now seeing all around the nation. 217 218 And while I continue to be critical of the Administration's response, the research being conducted at the national labs is 219 220 important to analyze the structure of the virus and the model 221 as it is spread, and I look forward to hearing more specifics 222 on that effort, Mr. Secretary.

223 The pandemic has also seriously damaged our economy, leaving 224 millions of Americans unemployed. The severe economic downturn 225 is impacting the energy sector, with the energy efficiency and 226 renewable energy industries particularly hard hit. The 227 subcommittee held a hearing last month with former Energy 228 Secretary Moniz who briefed us on the impact the pandemic has 229 had on the energy sector, and we have to do more to aid the struggling renewable industry. 230

Now earlier this month, the House passed H.R. 2, the Moving
Forward Act, which would help us rebuild our economy and combat

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233 climate change. The bill invests more than \$126 billion in clean 234 energy, energy efficiency, and deep decarbonization. There is 235 no better way to stimulate the economy and create millions of 236 good paying jobs, in my opinion, than to modernize our badly aging And the President has expressed interest in an 237 infrastructure. 238 infrastructure package, but he is going to need to exert some 239 pressure on the Senate Majority Leader McConnell, who so far has 240 _ _ refuses to act on an infrastructure bill.

And speaking of the Senate, I also want to discuss our nation's 241 242 nuclear security mission, because the Senate continues to try 243 to undermine that mission and the National Defense Authorization Once again, this year, the Senate Armed Services Chairman 244 Act. 245 attempted to strip the DOE of much of its authority over the 246 National Nuclear Security Administration, and this was a really 247 wrong-headed effort that threatens the important longstanding 248 principle of civilian, not military, control over the nuclear 249 weapons stockpile. It also stands to upend other non-nuclear 250 weapons aspects of the deal we budget.

Fortunately, an amendment by Senators Cantwell and Manchin scaled back the initial Senate language, but I do firmly believe that the Defense Department should not have its hand in the Energy Department's budgeting process, and instead we should be strengthening the Secretary of Energy's role in managing the nuclear security mission, because NNSA seems to be going from

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257 quasi-independent to completely roque with each passing year. 258 Now turning back to or turning to the bulk power system, I do 259 have some concerns, Mr. Secretary, about the way DOE is 260 implementing an executive order limiting the use of bulk power 261 system equipment produced by foreign adversaries. I support this 262 effort as part of our ongoing efforts to protect our grid, but 263 I think there is quite a bit of confusion surrounding DOE's 264 implementation of the order. With the prohibitions on acquiring 265 and installing this equipment already in place, there is a 266 pressing need for guidance for energy projects, many of which 267 depend on complex supply chains. And I look forward to an update 268 on the Department's progress on finalizing this policy. 269 I also wanted to touch, finally, on an issue that I pressed with 270 your predecessor, Secretary Perry, and also Under Secretary 271 Menezes. DOE has fallen far behind on its legal deadlines for 272 updating appliance efficiency standards. And this is almost hard 273 to believe, but DOE has missed 26 statutory deadlines for updating 274 efficiency standards.

And I appreciate the Department has recently and finally started the process of catching up on these deadlines by initiating rulemaking, but I also know that you have been putting quite a bit of resources into purely discretionary rulemaking, some of which seem designed to undercut rather than promote energy savings. For example, a discretionary interpretive rule in the

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281 works would make future improved efficiency standards for home 282 furnaces almost impossible.

283 So we need to see more action from DOE now to update and finalize 284 critical efficiency standards that save consumers money and 285 reduce greenhouse gas emissions. I thank you again, Secretary 286 Brouillette. Thank you for joining us today. I know it is always 287 difficult, you know, with the COVID and with the doing things We go back and forth in terms of our ability to do 288 virtually. everything virtually, but I do thank you for coming and being 289 290 here today because this is a very important hearing.

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

292 Mr. Rush. The Chairman of the full committee yields back. The 293 Chair now recognizes Mr. Walden, the ranking member of the full 294 committee, for five minutes for the purposes of an opening 295 statement.

Mr. Walden. Well good morning or afternoon, depending on which coast you are on, Mr. Chairman, and I thank you for holding this hearing.

I want to welcome Secretary Brouillette. It is great to have you back before the committee. Once again you have provided really strong leadership over the last seven months that you have been in office, and we appreciate that. And certainly, you have been fighting the COVID-19 virus and the pandemic as it has worked its way across every sector of our country, across the world,

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and certainly in the energy industry.

306 The unprecedented drop in oil prices has devastated the American 307 gas and oil industry and cost upwards of 100,000 jobs, and the 308 Department of Energy has been right in the action helping our 309 country respond to this terrible situation. And so going 310 forward, the work is on top of the other important 311 responsibilities that the Department has, certainly, and these range from executing on the nation's nuclear deterrent mission 312 313 to protecting our critical energy infrastructure, supporting a 314 robust R&D program, keeping the nation's lab facilities and capabilities up to date, and cleaning up defense sites such as 315 that at Hanford in Washington, across the river from my district. 316 317 Most people do not appreciate all of the responsibilities that 318 you have at the Department of Energy. It is a national security 319 agency and an energy security agency, having designed and produced 320 every nuclear warhead in the U.S. arsenal, powering our nuclear 321 navy, and serving critical roles in nonproliferation,

322 international nuclear security, and other energy security 323 missions.

324 DOE is a world-class science, engineering, and technology agency.
 325 It is an environmental engineering and cleanup agency. All of

326 this is interconnected across a complex of national labs,

327 production sites, and facilities, involving a contractor

328 workforce approaching 100,000 people. Managing this enterprise

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is never easy, it is a complicated job and we know that.

But the upshot is the tremendous benefits for the nation, for security, for science and innovation, and for keeping America in the lead across the energy landscape. The key ingredient for success here is the innovative science and engineering capabilities fostered through a cohesive DOE enterprise and the multidisciplinary teamwork that emerges from that.

This synergy among the weapons labs, the science labs, and the energy and environment labs are critical for success. Think about the supercomputing and big data capabilities of the agency. The computational science in advancing computing architecture created by DOE's science and weapons programs is essential for modeling nuclear weapons stockpile.

But the cross-mission benefits of this are clear. Look at the use of Oak Ridge's Summit computer to screen compounds for COVID-19's vaccine development. National security and materials science programs at the Pacific Northwest National Lab, which I have toured, have translated into technologies for scanning at airports, for cybersecurity protections, and even advanced battery production.

And this works both ways. The advances in nuclear fuels and technology at the Idaho National Lab attracts the expertise and informs the knowledge base for Navy nuclear. You can extend this to other important missions. DOE's work on advanced nuclear,

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353 coupled with our work to ensure efficient NRC licensing, provides 354 the foundation for expanding the peaceful use of atomic energy. 355 This is the cornerstone of the nation's nuclear policy, a hallmark 356 of civilian control of the nuclear enterprise, and an important 357 tool not only for national security but also a key solution to 358 exporting cleaner energy around the world. Our duty on this 359 committee and in this Congress is to make sure the Secretary has the tools and authority he or she needs to execute the Department's 360 361 missions. Our goal is to maximize the benefits of the DOE 362 enterprise for America.

So I look forward to exploring what more we can do to be of 363 assistance today, Mr. Chairman and Mr. Secretary. And I want 364 365 to share the concerns expressed by the Chairman of the full 366 committee with regards to the NDAA and what it does, purports 367 to do to the civilian side of the nuclear weapons program and 368 to diminish the important role of the Secretary of Energy, and 369 Chairman Pallone and I are working together shoulder to shoulder on fixing this problem in the legislation the House is going to 370 371 take up.

372 So with that, Mr. Chairman, I will yield back the balance of 373 my time and look forward to the discussion.

Mr. Rush. The ranking member yields back. The Chair would like to remind members that pursuant to committee rules, all members' written opening statement shall be made a part of the committee's

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377 records.

385

And now it is my pleasure and honor to welcome once again before this committee our witness for today's hearing. As been noted, Secretary Brouillette is a former staff director on this committee, and we certainly want to welcome him back as the Secretary of Energy to testify before this committee. Mr. Secretary, once again we welcome you. I enjoyed our conversation yesterday, and we look forward to your testimony.

386 I don't think I have to, but it says that now I should explain 387 the lighting system.

But before we begin, Mr. Secretary, I would like to explain,

In front of you is a series of lights. The light will initially be green at the start of your opening statement. The light will turn yellow when you have one minute remaining, and please begin to wrap up your testimony at that point. The light will turn red when your time expires. Secretary Brouillette, again welcome back to the committee, subcommittee rather, and you are now recognized for five minutes for an opening statement.

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395 STATEMENT OF SECRETARY DAN BROUILLETTE, U.S. DEPARTMENT OF ENERGY

396

397 Secretary Brouillette. Thank you, Mr. Chairman. Thank you for 398 the honor of being here again, and thank you for that gentle 399 reminder. I must say it is much better to be on that side of the dais than on this side, but thank you for that gentle reminder. 400 401 And also, my compliments on that mask. I think you are rivaling 402 our dearly departed friend Ron Dellums as the best dressed man 403 in Congress. You do it quite well. But thank you, Chairman 404 Thank you, Ranking Member Upton as well, as well as Full Rush. 405 Committee Chairman Pallone and Ranking Member Mr. Walden. Ιt 406 is an honor to appear before you today to discuss the United States 407 Department of Energy's response to COVID-19. And I failed to 408 mention, Mr. Rush, I would also like to thank you for your warm 409 welcome at our Artificial Intelligence event last fall in Chicago. 410 The hospitality could not have been better. Thank you for that, 411 sir. I appreciate that.

412 When the COVID-19 pandemic hit the United States, President Trump 413 very early on directed the whole-of-government approach to 414 defeating this virus. And I am proud to report to you that DOE's 415 national labs and their world-class facilities have been on the 416 front lines of this important mission. Seven of our labs are 417 partners in the COVID-19 High Performance Computing Consortium 418 which the President announced in March. This public-private

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419 partnership, which is spearheaded by the White House, DOE, and 420 IBM, including government, industry, and academic leaders, is 421 unleashing the power of America's supercomputing resources to 422 combat COVID-19 all around the globe. We are very excited about 423 the growing international participation in this consortium to 424 battle the pandemic worldwide.

We at DOE have established a National Virtual Biotechnology Laboratory which is using the full range of our facilities in the effort against COVID-19. We have set up a portal which will enable America's innovators to easily access essential resources and connect and partner with experts at all of our national laboratories.

And as the Chairman mentioned, the scientists have used Argonne Laboratory's Advanced Photon Source to characterize more than a dozen proteins which are potential targets for medicines and countermeasures from COVID-19, including one that allows it to hide from the immune system, and working with our Oak Ridge National Laboratory in Tennessee another protein that enables it to reproduce.

438 Researchers at Oak Ridge have screened more than 8,000 drug 439 compounds for 77 that have potential use in this fight. Oak Ridge 440 is also helping mass produce healthcare supplies such as masks 441 and face shields, and they are doing it in record time. They 442 are also producing and developing low-cost N95 respirators that

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can be cleaned and later reused. Scientists at the Berkeley Lab
are using the facilities there to identify neutralizing
antibodies that could be used as preventive treatments or
post-exposure therapies.

This COVID-19 pandemic has also led to challenges that go well 447 448 beyond the virus itself. In March, we faced an oversupply of 449 oil due to some decisions made by key nations following the 450 collapse of OPEC-Plus negotiations, while also facing a nearly catastrophic decline in demand due obviously to the pandemic. 451 452 The President facilitated an agreement between Saudi Arabia and 453 Russia, the co-chairs of OPEC-Plus, on terms that were favorable 454 to the United States. As the largest energy producer and consumer 455 in the world, we were able to engage other nations from a position 456 of strength and authority, and the agreement brought stability 457 to energy markets around the world and it helped protect America's 458 energy producers.

459 Following through on President Trump's direction, we opened the Strategic Petroleum Reserve to store excess oil from U.S. 460 461 producers. Crude oil deliveries from roughly 21, of 462 approximately 21 million barrels to the SPR have now been 463 completed. DOE is also working closely with states and 464 stakeholders to ensure that renewable energy and energy 465 efficiency sectors make it to the other side of this pandemic. 466 In addition, our EERE Office is working with the National

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467 Association of State Energy Officials to develop post-COVID 468 economic development proposals using existing resources. 469 We also worked with our nation's governors and public and private 470 sector partners to ensure that our critical energy infrastructure 471 was fully operational. DOE assisted the industry with access 472 to personal protective equipment and testing kits. We ensured 473 the inclusion of the energy sector workers in the Department of 474 Homeland Security's Guidance on the Essential Critical Infrastructure Workforce which promoted the ability of such 475 476 workers to continue working during the closure orders and with 477 social distancing. And similarly, the Department engaged in 478 planning processes to sequester control center personnel onsite 479 to ensure continuity of operations.

480 As we return to full operations, we are renewing our energy 481 endeavors and refocusing on important new priorities. The bulk 482 power system, the backbone of the nation's electric grid, is 483 coming under increasing threat from foreign adversaries. On May 484 1st, President Trump signed an executive order to increase its 485 security. My team and I will continue to work with other federal 486 departments and industry partners to eliminate vulnerabilities 487 and develop policies to ensure security and resiliency.

That is my hope today, to make our nation safer and stronger, more prosperous, and more filled with promise than ever before. So thank you again, Mr. Chairman, for the opportunity. I look

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- 491 forward to answering your questions.
- 492 [The statement of Secretary Brouillette follows:]
- 493
- 494 ********COMMITTEE INSERT********

495 Mr. Rush. The Chair thanks the witness, and now we will proceed 496 And the Chair will recognize members on each, the to questions. 497 Democrat members for five minutes and recognize Republican 498 members for five minutes. And now the Chair recognizes himself 499 for five minutes for the purposes of questioning the witness. Secretary Brouillette, for the past five years, the U.S. Energy 500 501 and Employment Report, also known as USEER, has served as an 502 essential resource for energy sector workforce insight. In view 503 of current unemployment numbers and the woeful representation 504 of minorities within the energy sector, these insights are now 505 Last December, the Congress appropriated needed more than ever. \$1.7 million for the sixth annual USEER and reiterated their 506 507 points of its using data collection methods consistent with 508 previous installments to ensure accuracy. This means data collections should be, should begin this September. 509

510 Secretary Brouillette, what progress, if any, has the Department 511 made toward producing the next USEER report and will it be on 512 time?

513 Secretary Brouillette. The answer to that last question, sir, 514 it will be on time. I have had many conversations with former 515 Secretary Ernie Moniz about this as recently as this weekend as 516 a matter of fact. It is our commitment to you that we are going 517 to continue to provide this type of information, this type of 518 data to the U.S. Congress.

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I have proposed that we add some data collection to this 519 520 particular process. We are in fact slightly behind with the data 521 collection. There is no secret to that. I will own that 522 responsibility. We have fallen slightly behind primarily because of the COVID. We are working remotely. But nonetheless 523 524 we plan to contract with a data collection service very quickly. 525 We will do that data collection all throughout August, September, and October of this year. We will then prepare the final report 526 527 toward the end of this year and submit it to you.

528 Mr. Rush. I want to thank you. How will DOE deploy its resources to include those within the Office of Economic Impact and 529 Diversity to address job losses and diversity and inclusion? 530 531 Secretary Brouillette. Well sir, it is a broad-based effort 532 that we have at the Department of Energy. It focuses on not only 533 the Department itself; it goes well beyond that and into the 534 industry. But I will focus my comments on the Department itself 535 and let you know what we have done since our last conversation which was I think approximately 18 months ago when I was before 536 537 the committee.

You tasked me at that point to take a look at this, and I have done that and I want to report just really quickly. We have now revitalized what we refer to as our Minorities in Energy program at the Department. When I came back from that hearing, I immediately tasked James Campos, who I think you have met with

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543 many times, to do exactly that and the result of that effort is 544 what we refer to as the new Equity in Energy initiative. And 545 it is designed to advise me as the Secretary, but also expand 546 the inclusion and participation in individuals in underserved 547 communities in all programs at DOE and the energy sector more 548 broadly.

And I will tell you from my perspective as the Secretary I will give you some quick results. The new hire diversity at the Department of Energy in fiscal year 2017, there were 17 percent minorities that were hired as new hires. I am happy to report to you that in fiscal year 2020, this year, that number has now jumped to 31 percent, so the program is working.

James is doing a great job leading that effort. I am proud of the fact that we are the only Department or one of the only Departments that has a program that is completely dedicated to this. And as you know, sir, James is a Senate-confirmed person, so it is a very high-ranking position within our Department and I think he is doing a great job. We are going to continue the good work in this program.

562 Mr. Rush. Mr. Secretary, I have just a few seconds left. Would 563 you also address the FEMP program, I mentioned that on the phone 564 to you yesterday, and what is the status on the FEMP program? 565 Secretary Brouillette. The FEMP program is moving forward, sir. 566 I think there is a couple things, energy efficiency in federal

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567 buildings is key to energy savings. I know that Chairman Pallone 568 and others have mentioned some other energy efficiency programs 569 that deal with appliances. But one of the greatest savings 570 that we can find is in the federal complex itself. And I just 571 recently had an opportunity to visit the roof of the Department 572 of Energy, and I noticed that there are some solar panels up there 573 that are badly outdated and we need to update them. So I am going to work with Ms. Kaptur on the Appropriations Committee and 574 575 potentially find some additional resources that we can upgrade 576 the efficiencies within our own Department but also work with other agencies to do exactly the same thing. That is where some 577 of our greatest savings will come from. 578

579 Mr. Rush. Thank you. My time is concluded. I yield back 580 whatever I have remaining. I now recognize the ranking member, 581 Mr. Upton, for five minutes for the purposes of questioning the 582 witness.

583 Mr. Upton. Well thanks again, Mr. Chairman. And Mr. Secretary, 584 I want to ask a couple of questions, but I would like to begin 585 on focusing on grid security. Back in May, the President issued 586 an executive order to secure the U.S. bulk power system, and having 587 many of us a number of classified briefings it is crystal clear 588 that the threats to the bulk power system by foreign adversaries 589 constitutes what could be a real national emergency.

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590 The grid is absolutely fundamental for our critical

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591 infrastructure, our national security, and our economy. If a 592 foreign adversary were able to take control or degrade electrical 593 equipment such as a transformer, we could be in very serious 594 trouble. So what is the status of DOE's rulemaking to implement 595 the executive order, and are there statutory authorities that 596 Congress should consider that could provide DOE on a more 597 promising basis?

Secretary Brouillette. Yeah. 598 There we go. Now it is on. I appreciate the opportunity 599 Thank you, sir, for that question. 600 to respond. With regard to additional authorities that are needed, I am not quite sure that is necessary at this point. 601 602 We have moved forward with implementation of the executive order. 603 I know that there is some confusion or perceived confusion in 604 We want to alleviate the industry of any anxiety the industry. 605 it might have about this as we move forward with a proposed rule 606 later this year.

Just to elucidate a little bit about what it does, you know, as you mentioned, sir, the bulk power system is the backbone of the electric grid. It underpins everything in America with regard to our electric system. But what we are doing is we are seeking to operationalize the executive order through four pillars to implement it, and I will just run through them real quickly.

614 One, we want to prohibit foreign adversaries from supplying

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615 particular bulk power system electrical equipment. We want to 616 establish a list of pre-qualified vendors that the utility 617 industry can use to purchase from. We want to develop advisory 618 recommendations for the identification, the isolation, the monitoring, and the replacement of any currently at-risk 619 620 equipment that is on the system. That does not mean, however, 621 that we are going to rip and replace the entire electric grid We are focused on the bulk power system, 622 in the United States. 623 not at this moment or any other moment in the near term the 624 distribution system. And then importantly, what the President has directed me to do is to create a task force. 625 Ι 626 will convene with others, the Secretary of Defense in particular, 627 so that we can begin the process of perhaps recommending to you, 628 the Congress, certain procurement policies that are going to be 629 directly related to this national security mission.

630 Mr. Upton. Thanks. Should we be doing anything about gas

631 pipelines as it relates to their safety?

632 Secretary Brouillette. I am sorry, Mr. Upton, I didn't hear633 that question.

634 Mr. Upton. Is there anything that we should do with our gas 635 pipelines?

636 Secretary Brouillette. You know, Mr. Upton, you have a long 637 history in the telecommunications world, and if I were to point 638 to one thing that we can do an even more aggressive job with regard

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to pipelines, it would be in the area of cybersecurity. The major
pipelines are doing just fine. We work with them very closely.
They are very much a part and parcel to what we do at DOE. The
CEOs are very, very engaging and collaborative.

643 If I have a concern about pipelines in America today, it is perhaps 644 with regard to some of the smaller members of the industry. They 645 simply in some cases just do not have the resources that are needed 646 to protect the infrastructure in the manner in which we would I would look forward to working 647 like to see it be protected. 648 with you, members of the committee, others in the industry, to help design programs and policies that might address what I think 649 650 is a growing national security concern.

651 Mr. Upton. Finally, let me just ask you about a bill that I 652 introduced a few weeks ago, H.R. 7435. It is the Methane 653 Emissions Reduction Act. It authorizes DOE to reduce methane 654 emission from flaring and venting natural gas during production 655 activities. As you know, states are the private regulators of 656 oil and gas production activities, so it is not a DOE regulatory 657 program. The goal is to get DOE to work with the states, and certainly Michigan, to provide critical infrastructure and 658 659 accelerate the most promising R&D related to new technology to reduce methane emissions. 660

661 While the oil and natural gas produced in the U.S. is already 662 moving among the cleanest in the world, would you agree that there

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is more that we can do to reduce methane emission even further?Secretary Brouillette. I didn't hear the last part.

665 Mr. Upton. Would you agree that it would be advisable to reduce 666 methane emission more than what we do today and to be able to 667 work with the states?

668 Secretary Brouillette. Yes. Yes. I do agree. Methane is a 669 very intense carbon or a very intense greenhouse gas, and I think it is important that we reduce the emissions. 670 While I recognize 671 as you pointed out this may be an issue perhaps better addressed 672 in the EPA world, I would also report to the members of the committee that we are working with the industry, and we have looked 673 at various technologies that might help with methane emissions. 674 675 I was just recently in Pennsylvania. I saw some product there 676 that is actually made from coal. After the refining process in 677 coal, you are left with a very fine powder which can be added 678 to a natural gas pipeline, which actually works to seal the 679 pipeline in a manner that contains the methane. So perhaps it will help the industry over the long term to reduce these types 680 681 of emissions.

682 Mr. Rush. The gentleman yields back. The Chair now recognizes 683 the Chairman of the full committee, Mr. Pallone, for five minutes 684 for the purposes of questioning the witness.

The Chairman. Thank you, Mr. Chairman. Mr. Secretary, I wantedto try to get in this five minutes some questions about the

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687 Secretary's or your role or authority over NNSA, and then I wanted 688 to ask a little bit about the appliance efficiency rules. So 689 I will try to get through it.

690 Mr. Secretary, there has been efforts over the years as you know 691 to strip away the Secretary of Energy's authority over NNSA, and 692 most recently to strengthen the Nuclear Weapons Council's 693 authority in determining NNSA's budget within the Secretary's 694 own Department. Just tell me why you think this is a wrong 695 approach.

696 Secretary Brouillette. Well sir, let me see where I can start 697 I think it is important to recognize as I think with that. 698 Chairman Rush mentioned and Chairman Walden alluded -- Ranking 699 Member Walden alluded to, not many people understand the 700 Department of Energy and its actual mission. They don't know 701 the breadth of the portfolio or the breadth of the mission. 702 Every year the Secretary of Energy along with the Secretary of 703 Defense must certify the stockpile and, in essence and plain 704 language, ensure to the President that it will do what he or she 705 would like it to do if they needed to use it. That certification 706 process is signed at the Cabinet level, and it is important that 707 the Secretary of Energy see the entire process for the development 708 of the budget, the operations within NNSA, all of the activities 709 that occur within the national weapons labs in order to remain 710 comfortable that that certification is in fact solid, for lack

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711 of a better term. It is very important that I see that.

The Chairman. And then I think this is extremely helpful. I am concerned about the impact that these, you know, that what the NNSA, you know, what the Nuclear Weapons Council is trying to do is going to have a negative impact on DOE and its budget. But from a broader perspective, some argue the NNSA mission is more aligned with the Department of Defense.

Why should NNSA be housed in the Department of Energy? Why would 718 you disagree that it should be more defense-oriented? 719 720 Secretary Brouillette. Well you know, the security of the 721 national security enterprise, writ large, it has always been 722 firmly to ground and always been firmly grounded. If you look 723 back at the history of the Department, all the way back to the 724 Atomic Energy Commission, our predecessor, it is grounded in the science, the technology, the engineering, and the manufacturing 725 726 expertise of the DOE national laboratory system. And NNSA draws 727 heavily upon the various elements of all of the DOE laboratories 728 and the sites, and it creates a synergy that can't be replicated 729 anywhere else in the U.S. Government. It certainly can't be 730 replicated within the DOE complex.

The Chairman. All right. And then I wanted to, just in the last two minutes about the appliance efficiency rules. We have already had a little discussion. How many efficiency rules do you expect to finalize between now and the end of the year, and

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735 how many response to statutory deadlines and how many are

736 discretionary?

746

737 I know that this problem was inherited by you. I am not 738 suggesting that you created it, but I would like to know how many 739 efficiency rules you do expect to finalize between now and the 740 end of the year, and how that -- which ones are statutory and 741 which ones are discretionary, if you could.

742 To be honest and to be just point blank, Secretary Brouillette. 743 sir, I will do as many as I possibly can. I know this has been 744 an issue for you. I know that you have raised it with our under 745 I appreciate the concern you have. secretary, Mark Menezes.

I reviewed Mark's answer before the committee. I agree with it. 747 I think he is correct about some of those things. But I just 748 want to let you know that I will do as many as I can before the 749 end of this year.

750 And I will just tell you really quickly, thus far in 2020, we 751 have published 18 notices that are related to conservation 752 standards, and nine notices that are relating to test procedures, 753 and that is about three times more than what we did in 2018. 754 So we are beginning to make some real progress here and you have my firm commitment that we will move as aggressively as we possibly 755 756 can.

757 Well I appreciate that. And again, the number The Chairman. 758 of missed legal deadlines for new standards has grown from three

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to 26 since President Trump took office. I don't blame you because you haven't been there that long, but I do blame the Trump Administration in general. And I would like to see you focus more on meeting legal deadlines and less on discretionary rules that undercut energy savings, but thank you for that response. Thank you for being with us today.

765 I yield back, Mr. Chairman.

766 Mr. Rush. The gentleman yields back. The Chair now recognizes 767 the ranking member for five minutes for the purposes of 768 questioning the witness.

769 Well thank you, Mr. Secretary, for your leadership Mr. Walden. 770 of the agency and your commitment to meeting these deadlines. 771 As you know as I mentioned, Chairman Pallone and I have jointly 772 teamed up on an amendment that integrates personnel of DOE and 773 NNSA so legal budgetary and other mission support functions 774 operate more effectively across the DOE enterprise, and the 775 Administrator can focus more effectively on mission execution 776 consistent with DOE authorities.

777 So my question is, why does it make sense from your perspective 778 for the Secretary of Defense and the Secretary of Energy to 779 co-chair the Nuclear Weapons Council, the NWC? Why does that 780 make sense?

781 Secretary Brouillette. Well Mr. Walden, thank you for that.782 I think the first reason it makes sense is because it recognizes

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783 the prioritization and the importance the nation places on our 784 nuclear deterrent. It elevates the visibility and frankly the 785 accountability of our nuclear deterrent, and it better ensures 786 the fidelity of the budget process in both of our agencies. 787 I think it is important to recognize that, you know, for instance, 788 the Secretary of Energy not only has the responsibility for the 789 warhead program, I also have the responsibility ultimately for 790 the cleanup of the manufacturing processes that are used in the 791 development of the warheads under our Environmental Management 792 Both of these are funded with Defense dollars, 050 program. 793 dollars.

And if you think about it as a pie, what I think some of the Senate language would do is to, if you think about it as a pie, if you make, if you take one piece and make it bigger, the other pieces are typically going to get smaller.

So in the case of the Environmental Management program, if you have a sub-Cabinet council within the Department of Defense focused exclusively on the weapons portion of the budget, what might happen is that the weapons program gets much, much larger at the expense of the Environmental Management program.

Only the Secretary of Energy is in the position to balance the needs all across the programs. Now with that said, I think it is important to, you know, to suggest that look, I am a very strong supporter of the weapons program. That deterrent is critical

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to our national security. It has to be robust. There are many things that we have to do to improve its performance. But at the same time, it is also important, it is imperative that we honor our moral obligations to clean up the facilities once we are done with the manufacturing.

Mr. Walden. Well I appreciate that. And you know, representing a district that is right across the river from Hanford where there are I think 140-some enormous big buried tanks of nuclear sludge left over from the -- -

816 [Audio malfunction in the hearing room.]

817 Mr. Walden. -- -collapsed at times and release radiation.

818 That clean-up effort is essential to the public health --

819 Mr. Rush. Will the ranking member please yield?

820 Members who are on the -- who are participating remotely, will

you please mute your phone until you, I ask you to unmute. Will

822 members please mute your phone, those who are remotely

823 participating in this hearing. We are getting feedback. The

gentleman will proceed.

Mr. Walden. Thank you very much, Mr. Chairman. I appreciate that. Anyway, I am very concerned about making sure we stay on pace to get the Hanford mess cleaned up that dates clear back to World War II.

829 On another matter, can you describe how you work with the Defense 830 Department to plan and budget for the nation's defense nuclear

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831 programs?

832 Secretary Brouillette. I am sorry, Mr. Walden. I didn't hear 833 that.

834 Mr. Walden. Yeah. If you can talk about how you work with the 835 Department of Defense on the budgeting --

836 Secretary Brouillette. Sure.

Mr. Walden. -- for the nation's nuclear defense programs, that would be good. And does the language in the NDAA, does that make you subordinate, a Cabinet Secretary, to an under secretary at DOD?

Well I think some of the original drafts 841 Secretary Brouillette. of the amendment perhaps would have done that. 842 The way it 843 typically works is that the DOD sets the requirements, the 844 military requirements that it wants, and it does it through the 845 Nuclear Posture Review in the case of the warhead program. What 846 we do at DOE is match our manufacturing capabilities to their 847 military requirements. This is coordinated through the Nuclear Weapons Council, which is chaired by an under secretary of Defense 848 849 and then the Under Secretary of Energy who runs the NNSA is also 850 a member, as well as the Chairman of STRATCOM and other important 851 members of the military complex. Together they review those 852 requirements and then we establish a budget based upon their 853 requirements.

My understanding of some of the early Senate language is that

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855 I would be required to submit the DOE budget to the Weapons 856 So in that sense, the Secretary would be subordinated Council. 857 to a sub-council within DOE, and I think the language would have 858 further required that I accept their recommendations, and further send those to OMB and then ultimately to Congress for 859 consideration. As I mentioned earlier, if that were the process 860 861 that the Congress were to adopt, it would present some unique problems to the clean-up facilities all across the world. 862 863 You asked earlier though about the importance of, you know, the 864 elevation and maybe moving this to the Secretary's level, and perhaps providing both the Secretary of Defense and the Secretary 865 866 of Energy some additional line of sight. I think it is also 867 important to remember that, you know, as direct reports to the 868 President and as members of the National Security Council, perhaps 869 the both of us are in the best position to balance the needs of 870 our respective Departments.

871 Mr. Walden. All right. Thank you, Mr. Secretary, and I have 872 run out of time. Thanks for your leadership and for answering 873 our questions. We appreciate it.

874 Secretary Brouillette. Thank you, sir.

875 Mr. Rush. The gentleman yields back. The Chair now recognizes

the gentleman from California, Mr. Peters, for five minutes.

I see Mr. Peters is not available. Now the Chair recognizes the

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gentleman from Pennsylvania, Mr. Doyle, for five minutes.

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879 Mr. Doyle. Thank you, Chairman Rush and Ranking Member Upton, 880 for holding this hearing. And thank you, Mr. Secretary, for 881 joining us today. We are anxious to get you down to the NETL 882 in Pittsburgh, and I can promise you some Primanti Brothers 883 sandwiches and Iron City beer after the meeting, so hope we can 884 set that up soon. This pandemic has upended everyone's life, 885 and it is causing tremendous damage to every part of our economy, the energy sector included. We need a national strategy not only 886 887 to combat climate change, but to help our economic recovery once 888 it is safe to do so. And I believe there are many pathways that we can take towards rebuilding our economy and creating a 889 sustainable future, and I hope we can count on the Department 890 891 of Energy's extensive capabilities to be a partner in these 892 efforts.

893 Mr. Secretary, not only has this pandemic resulted in over a 894 million energy sector jobs being lost, but it has also brought 895 much lower wholesale energy prices. Even before this drop, many nuclear power plants were struggling to stay open. 896 Tell me, what 897 policies can we enact to ensure that we don't shut down more 898 well-run nuclear power plants, and how can we ensure as advanced 899 nuclear technology becomes commercialized that we are building 900 these plants and communities that have been hurt by the closing 901 of industry or fossil fuel plants?

902 Secretary Brouillette. So thank you, Mr. Doyle, for that

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903 question. I appreciate your concern. I have a similar concern 904 as well. I think that in the case of nuclear we have too many 905 facilities that are closing at a much too earlier, a much too 906 aggressive rate.

907 We have begun a process, I just a visited a facility down in 908 Florida, to help permit life extension permits for these 909 facilities. The one that I visited in Florida is now authorized to operate for up to 80 years -- very, very safely, I might add. 910 It is very important that we look at these facilities and grant 911 912 those types of permits, and we will be working closely with our 913 colleagues at the NRC and others to ensure that that moves forward. 914 That is one step.

915 The second step is to follow up on the outline or the strategy 916 that we put forth in our Nuclear Fuels Working Group. You know, 917 in that working group we are developing various proposals; there 918 are about 10. It is, one, to address what we can see as a concern 919 in America related to the front end of the fuel cycle.

We want to develop our mining capabilities in uranium. We want to establish a uranium reserve. We importantly want to develop conversion and enrichment services here in America so that the civilian fleet can buy from American fuel supply. We think that adds to our national security.

925 It is also important that we address some of the needs for advanced 926 reactors and that is also part of this working group's report,

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927 is that we are going to develop accident-tolerant fuels. We are 928 going to develop what is known as high assay LEU, low enriched 929 It is important for us to develop this fuel because uranium. 930 it is what will allow the smaller reactors to come online, and 931 hopefully we can catalyze enough investment and enough market 932 interest in these that we can have them replace some of these 933 older, aging, and in some cases, too large facilities.

934 Nuclear has a unique characteristic or a unique challenge, I 935 should say, at certain times. They produce an enormous amount 936 of electricity, and it is all not always needed. As these 937 communities begin to develop, it is not always needed. We don't need one gigawatt of power perhaps as we move to a more distributed 938 939 electrical grid all throughout the country. We need perhaps 940 smaller forms of generation.

941 Mr. Doyle. Well thank you. You know, as we add more

942 intermittent power to the grid, flexibility seems to be vital

943 in to making sure the grid is reliable, and energy storage

obviously is key to that. Can you provide us with a quick update

945 on the ongoing activities being undertaken by the Department's

946 Grand Energy Storage Challenge? What specific actions are going

947 on right now?

948 Secretary Brouillette. Sure. Well what we have announced is 949 a Grand Challenge. What we are looking for is a next generation 950 of grid-scale storage or the next generation of battery storage.

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951 But importantly, we need to find battery technologies that would 952 allow us to bring to market grid-scale storage. It is critical 953 that we do this very, very quickly so that we can continue to 954 see the implementation and development of renewable technologies. 955 If we are going to lose our baseload power at the rate in which 956 we are losing it, at some point I am afraid that we might have 957 a gap. And as you know and as members of the committee know so 958 very well, today at least with the technologies that we have, 959 renewable power depends almost entirely upon the provision of 960 baseload electricity all throughout the country. So if we are 961 going to lose that baseload at the rate in which we are losing 962 it, and we are not going to be able to build enormous nuclear 963 plants as we just discussed, then it is important that we develop 964 the battery technologies.

965 We did announce the launch pad out at PNNL. It is going to be 966 a brand-new facility, a brand-new laboratory that we will use

967 to help develop some of these newer battery technologies.

968 Mr. Doyle. Thank you, Mr. Chairman. And Mr. Secretary, thank

969 you. Look forward to seeing you in Pittsburgh. And Mr.

970 Chairman, I will yield back.

971 Secretary Brouillette. Thank you, sir.

972 Mr. Rush. The gentleman yields back. The Chair now recognizes

973 the gentleman from Ohio, Mr. Latta, for five minutes.

974 Mr. Latta. Well thank you, Mr. Chairman, and thank you very

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975 much for holding today's hearing. And thanks very much to the 976 Secretary for appearing before us today. We really appreciate 977 it.

978 Even before the outbreak of COVID-19, the United States was faced 979 with a range of challenges that threatens stability and security 980 over energy interests, including the threat of cyber attacks to 981 our grid security, nuclear supply chain vulnerabilities, and 982 threats to the competitiveness of our domestic nuclear industry. Unfortunately, COVID-19 has only made these problems worse. 983 984 On the issues of the nuclear supply chain and the need to maintain 985 a durable domestic nuclear industry, we need to pursue policies 986 that will be good for our economy and consistent with our security 987 policies to counter Russia and China. These policies include 988 building robust sources for domestic uranium and conversion. 989 I am pleased to see DOE's efforts to support the establishment 990 of a uranium reserve, and I appreciate the assistance your staff 991 has provided my office as we draft legislation to authorize this 992 reserve.

We must also support efforts to improve our nation's grid security and resiliency against cyber threats. Two bipartisan bills that I have led on, H.R. 359 and H.R. 360, along with my good friend, the gentleman from California, Mr. McNerney, have helped DOE in this effort, and I hope the Chairman will work with us in a bipartisan way to see these bills soon come to the floor for a

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999 vote.

1000 Mr. Secretary, on the nuclear issues I have raised, how vital 1001 is it that the United States build up its own domestic nuclear 1002 supply chain, and how will a strategic uranium reserve help us 1003 do this?

1004 Secretary Brouillette. There it goes. The button wasn't coming 1005 on there for a minute. As I mentioned earlier, I think it is absolutely critical that we develop and more further develop the 1006 1007 front end of the fuel cycle here in America. You know, we have 1008 lost our leadership edge in America with regard to the provision And today, I don't have the exact number, but 1009 of nuclear power. the vast majority of the fuel that is purchased by the civilian 1010 1011 nuclear fleet here in the United States is purchased primarily 1012 from Russia and they supply the fuel chain.

1013 So if we were to lose that, I think we endanger Americans all 1014 across the country, and it is very important for us to address. 1015 That is what we are attempting to do. We think we should create 1016 a reserve, a uranium reserve that includes not just pulling the 1017 uranium out of the mine, but all of the processes that go along 1018 with it -- so the conversion process, the enrichment process.

1019 We think we need to bring these businesses back to America to 1020 ensure the security of our fleet and to ensure the security of

1021 the provision of electric power here in the United States.

1022 So that is the commitment of our Administration. That is what

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1023 we are looking for, support for in this Nuclear Fuels Working 1024 Group.

1025 Mr. Latta. Well thanks very much, because I appreciate what 1026 DOE is doing. And would you support legislation then that would 1027 ensure the durability of a program like this by specifically 1028 authorizing it?

1029 Secretary Brouillette. Sure. Yes.

1030 Mr. Latta. Okay, great. And I really appreciate that. On the 1031 grid security issues, in your testimony you reference the 1032 Administration's concerns about securing the bulk power system, as evidenced by the President's executive order in May. 1033 How important is it to secure the bulk power system against cyber 1034 1035 threats, and do you believe legislation like H.R. 360, which 1036 establishes a voluntary cyber sense program to test the cybersecurity of products and technologies intended for use in 1037 1038 the bulk power system, would be helpful in this effort? 1039 Secretary Brouillette. I would certainly work with you to develop legislation and look for the authorities that might be 1040 1041 I feel that we have most of what we need at this moment helpful. 1042 in time, but I would be very much agreeable to working with you 1043 on a potential bill that might further address some of the issues. With regard to the bulk power thing and what we are seeing all 1044 1045 throughout the industry, and what we have noticed in some of the 1046 power marketing administrations that we run at DOE like BPA and

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1047 what is known as WAPA, the Western Area Power Administration, 1048 we have noticed that much of the manufacturing for the equipment 1049 that goes into our system is being made in China. And China as 1050 we know has changed its doctrinal approach to the United States, and they have become more and more of an adversarial nation. 1051 1052 And what we are beginning to be concerned about is perhaps the 1053 provision of some technologies within the equipment that we are 1054 purchasing that allows communications back to Beijing or may allow 1055 some manipulation of the electric grid because of the equipment 1056 that is being placed into things like transformers.

1057 So we have identified this. We are working very closely with one of our national laboratories. We are evaluating a certain 1058 1059 piece of equipment right now that is in the public domain. And

we look forward to providing some reports not only to the

intelligence community within the interagency, but also to the 1061

1062 United States Congress as well as to our findings there.

1063 Well thank you very much, Mr. Secretary. Mr. Mr. Latta.

1064 Chairman, my time has expired, and I yield back.

1065 The gentleman yields back. Mr. Rush. The Chair now recognizes

1066 Mr. Sarbanes of Maryland for five minutes. Mr. Sarbanes, are

1067 you there?

1060

The Chair now recognizes Mr. McNerney for five minutes. 1068

1069 I understand Mr. Sarbanes is having some problems unmuting his 1070 microphone. Mr. Sarbanes, we will return to you as soon as you

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1071 are ready. Mr. McNerney, are you there?

Mr. McNerney. Yes. I am unmuted now. Can you hear me?
Mr. Rush. All right. Mr. McNerney, you are recognized for five
minutes.

1075 Mr. McNerney. Well I thank the Chairman and the ranking member 1076 for the hearing. It is a very timely topic, and I thank the 1077 Secretary for showing up and helping us understand what is going 1078 on out there in the Department of Energy. You know, the Lawrence 1079 Livermore Lab and Sandia Laboratory, national laboratories, are 1080 just outside of my district. Mr. Secretary, could you go over 1081 a little bit of what these two laboratories are doing with regard to the pandemic? 1082

1083 Secretary Brouillette. Sure. There we go.

So yes, sir, and I will get you a very detailed report on some of the activities that are occurring in those labs. But in a very high-level way, I will tell you that both labs have been engaged. What we have done is we have utilized the bioscience capabilities in particular of those two labs to help identify the proteins that are unique to this particular coronavirus.

And as we have done that, we have been able to advise some of the doctors about the reactions to certain drugs. We have been able to predict in certain cases the spread of the virus. Both labs have very capable artificial intelligence experts there and they have helped us design predictive modeling in certain cases

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1095 that can, in certain cases, go all the way down to the county 1096 level. And they have been very, very aggressive in doing that 1097 and we appreciate their support.

1098 Mr. McNerney. Well, good. I look forward to the detailed 1099 reports that you have there, Mr. Secretary.

1100 As you noted in your testimony, our nation's electric grid, the 1101 bulk power grid, is coming under increasing pressure. This has been discussed by a couple of other of our members here this 1102 1103 morning. I am concerned that the executive office is not doing 1104 enough to counter the threat beyond the issuing the executive 1105 Can you provide us as a committee an update on Russia's order. 1106 cybersecurity capability as they relate to the grid, and why 1107 hasn't the President been more aggressive on addressing their

1108 capabilities?

Secretary Brouillette. I didn't hear the first part of that question. I apologize.

1111 Mr. McNerney. Well, basically, the nation is coming under, our 1112 bulk grid is coming under increasing threat particularly from 1113 Russia, and what I would like to know is what is Russia's 1114 capability and what has the administration done to counter that 1115 other than just issuing an executive order? 1116 Secretary Brouillette. Capabilities with regard to what?

1117 Mr. McNerney. The cyber attack capabilities on our nation's 1118 --

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1119 Secretary Brouillette. Oh, cyber attack. I am sorry. I didn't 1120 quite catch that when you first asked the question. Russia 1121 is a very sophisticated cyber actor in the marketplace. What 1122 we have done at the Department of Energy is to utilize our 1123 supercomputing capabilities in places like Oak Ridge, at PNNL 1124 out in Washington State, and we have begun very aggressively 1125 applying things like artificial intelligence to cyber technologies. And what it has allowed us to do is to blunt many 1126 1127 of the attacks that we see coming from places like Russia. And 1128 I would daresay that they are perhaps the most sophisticated cyber actor in the marketplace today, perhaps followed very closely 1129 by China, and then by Iran. 1130

But that is our contribution to this national effort that is being led by a number of different players including the U.S. Department of Defense Cyber Command.

1134 Mr. McNerney. Well, honestly, I haven't seen any evidence of 1135 aggressive administration action to counter that threat, so I think it would be in the nation's interest to acknowledge that 1136 1137 threat publicly so that Americans are aware of it and also to 1138 help identify what we can do to prevent that and to counter that. 1139 Going on, as you may be aware, I am the lead sponsor of the Nuclear Waste Amendments Policy Act of 2019 along with Mr. Shimkus. 1140 The 1141 bipartisan bill passed out of committee unanimously, which shows 1142 that there is a significant supporting in the House and in this

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1143 committee to move forward with nuclear waste handling.

So what I am wondering is considering the decades-long standstill over the debate on the Yucca Mountain, how does the administration envision developing a science-based solution that can earn the approval of the states involved?

Secretary Brouillette. Yes, sir. With regard to your first question, I would be happy, sir, to come up and brief you in a classified setting on some of the activities around Russian cyber activity. I would be happy to do that at your convenience, so I will reach out to your office and schedule something, if you don't mind.

1154 Mr. McNerney. Okay. I appreciate that.

1155 Secretary Brouillette. With regard to, you know, spent fuel 1156 storage, you know, as you know the Congress has been deadlocked on funding for that particular program for many, many years. 1157 1158 Our authority to do anything is restricted somewhat by the Nuclear 1159 Waste Policy Act. We are using the scientific capabilities 1160 within the Department of Energy, our nuclear expertise, to 1161 potentially explore other options. We are somewhat limited. 1162 We can look at interim storage ideas, but only within a very small 1163 window and a very small window of authority in the current law. 1164 So I am happy to share those with you. I will come back and 1165 brief you at your convenience on that as well.

1166 Mr. McNerney. Okay. I will be glad to work with you on that,

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- 1167 Mr. Secretary. It is an important issue that we need to solve, 1168 so thank you. I yield back.
- 1169 Secretary Brouillette. Sure.

1170 Mr. Rush. The gentleman yields back. The chair now recognizes 1171 the gentlelady from Washington State, Ms. McMorris Rodgers, for 1172 5 minutes.

1173 Mrs. McMorris Rodgers. Thank you, Chairman.

1174 Thank you, Secretary Brouillette, for being here today, being 1175 with us today.

1176 Good morning, everyone.

1177 I appreciate the work of the Department of Energy and what you are doing to secure America's future and ensure the safety of 1178 our grid from foreign adversaries whether it is Russia or China 1179 1180 I share some of my other colleagues' concerns about or others. provisions in the Senate NDAA that threatened to undermine the 1181 1182 Secretary of Energy's management and oversight of our nuclear 1183 weapons program. As has been pointed out, this misguided effort would erode the Secretary's budgetary oversight of the National 1184 1185 Security Administration, the Nuclear Security Administration, 1186 with the unprecedented insertion of the Nuclear Weapons Council into DOE's budget preparation and oversight process. 1187 The American atomic energy programs have been under civilian 1188

1189 control since the end of World War II and the establishment of

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1190 the Atomic Energy Commission, DOE's predecessor, I believe,

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1191 maintaining clear civilian and Cabinet-level oversight of our 1192 nuclear weapons program is essential for our nation. Moves that 1193 insert the Defense Department into DOE's planning could also have 1194 a harmful impact on other important priorities like the ongoing cleanup of our country's nuclear production complexes. 1195

1196 Just outside my district near the Tri-Cities in Washington State 1197 is the Hanford site, which others have mentioned, and it produced plutonium for the Manhattan Project during World War II. 1198 The 1199 inventions in nuclear technology at Hanford helped end the war 1200 and begin our nation's global leadership in nuclear energy. However, these early developments in nuclear technology came at

a cost, and after 40 years of production Hanford now has to undergo 1202 1203 a massive, ongoing cleanup of radioactive material.

1204 Secretary Brouillette, thank you for your leadership in ensuring 1205 authority and control over nuclear weapon programs remain fully 1206 within DOE under your Cabinet-level control. Could you explain 1207 how the provisions in the Senate NDAA would have negative

consequences for cleaning up former nuclear production such as 1208 1209 at Hanford or other important priorities?

1210 Secretary Brouillette. Yes, ma'am. I will do exactly that,

I need to go and look and see what is the current status

1212 of the NDAA in the Senate and see what language. I know that

1213 there were a few amendments offered just prior to the bill's

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1214 consideration on the floor. I will go and do that.

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I think.

1201

1211

1215 But, importantly, as I understand the first drafts of the NDAA 1216 as we saw it in the public domain, it would have subordinated 1217 the Secretary of Energy and perhaps even the Secretary of Defense 1218 at some level to the Nuclear Weapons Council. And what it did was it would have required me to submit the U.S. Department of 1219 1220 Energy budget to that council for their consideration and they 1221 would provide the recommendations to the Department, of which 1222 I would be required under the original drafts to submit that to 1223 the OMB and potentially to the Congress as well.

1224 In that case, what we would have is sub-Cabinet-level officials 1225 determining not only the weapons program budget, but perhaps 1226 disastrously altering other programs within not only the 1227 Department of Energy but the Department of Defense as well. As 1228 I explained in one of the earlier questions, if we think about the budget as a pie, if you make one piece bigger, because of 1229 1230 the budget caps that are in place in the federal law, by 1231 definition, the other pieces of the pie have to get smaller. And because the Environmental Management program is also funded 1232 1233 by Defense dollars, making the weapons program bigger without 1234 some adjustment to the cap would, by definition, make the 1235 environmental management or the cleanup portion of that particular budget smaller. And I think that as the Secretary 1236 1237 of Energy, I am perhaps in the better position to make that judgment about what balance should be struck between these two 1238

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1239 important programs.

1240 I fully support --

1241 Mrs. McMorris Rodgers. Okay.

Secretary Brouillette. -- the weapons program, but I also understand the moral obligation we have to clean up sites like Hanford.

1245 Mrs. McMorris Rodgers. Thank you. I look forward to working 1246 with you on that.

1247 Also, just wanted -- another critical issue is the national 1248 security around safeguarding our grid, and I am especially concerned about potential vulnerabilities in critical components 1249 1250 manufactured by foreign adversaries such as China and Russia. 1251 I applaud the administration's swiftness to action to protect 1252 the grid from these foreign threats by prohibiting such critical bulk power components from being installed in our grid through 1253 1254 the executive order signed by President Trump back in May. Ι 1255 believe the federal government needs to involve the energy sector, including domestic vendors and manufacturers, to ensure this 1256 1257 order is implemented effectively.

1258 Mr. Secretary, would you commit to working closely with the 1259 stakeholders at DOE to develop the further rulemaking to do so? 1260 Secretary Brouillette. Yes, absolutely. Absolutely. You

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1261 have my commitment for that.

1262 Mrs. McMorris Rodgers. Thank you. I yield back.

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Mr. Rush. The gentlelady's time is up. She yields back. The chair now -- I understand that Mr. Sarbanes is ready for his 5 minutes. He is recognized for 5 minutes for questioning the witness.

Mr. Sarbanes. Thank you, Mr. Chairman. Can you hear me?Mr. Rush. We hear you quite well.

1269 Mr. Sarbanes. Okay, thanks very much. There is an echo, I 1270 think. There we go. Mr. Chairman, I appreciate the hearing. 1271 Obviously, this pandemic has had a profound effect on the 1272 The energy sector has certainly felt that as well. economy. 1273 And as we look to stimulate the economy moving forward and recover, 1274 we can build on an economy that is more equitable, more resilient, 1275 and promotes a cleaner and healthier future for our communities. 1276 I know we feel strongly about that.

1277 I wanted to focus my questions for the Secretary today on
1278 renewable energy, specifically solar energy. The Office of
1279 Energy Efficiency and Renewable Energy, EERE, has been a smart

return on investment for taxpayers. A net benefit, I think, of about \$230 billion. And particularly for low income families, these kinds of programs in EERE help reduce barriers, allow low income communities to reduce energy consumption which also saves money.

1285 In fact, ACEEE has found that for families living in large cities, 1286 the average low-income household's energy burden was more than

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1287 three times as high as that of non-low income households -- seven 1288 percent compared with about two percent for their wealthier 1289 counterparts. And, certainly, during this time of economic 1290 instability, reducing that energy burden and cost savings is one 1291 way we can help those communities move forward.

1292 Solar energy in particular has been an economic driver, employing 1293 over 240,000 Americans, generating \$17 billion in investment in 1294 our nation's economy. Unfortunately, with COVID-19 we have 1295 deployed 37 percent less solar capacity than was forecasted and 1296 developers have had difficulty securing financing under these 1297 And again, it disproportionately impacts small conditions. businesses, newer companies, and ultimately impacts households. 1298 1299 Secretary Brouillette, in your testimony you mentioned the 1300 administration's support for solar in the portfolio, but I have to say that the administration's budget doesn't reflect that 1301 1302 There was a proposed cut of over 70 percent in the EERE support. 1303 and the Solar Energy Technologies Office, which we tried to 1304 reverse, I am pleased to say, in the House appropriations bill 1305 that has been released.

But in the face of such economic uncertainty, I would hope that we could count on DOE to promote solar energy which has all of these benefits that are related to workforce, cost to consumers, and so forth. I feel this particularly because in Baltimore we have worked in the past with the Department of Energy to bring

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1311 this potential to low income homeowners through a program called 1312 Baltimore Shine, and it would allow all communities to take 1313 advantage of low-cost solar energy. Mr. Secretary, will you 1314 commit to ensuring that communities, especially low income and vulnerable communities, are able to take advantage of the low-cost 1315 1316 energy and skilled job opportunities offered by solar technology 1317 as we are trying to recover from the COVID-19 pandemic? 1318 Secretary Brouillette. Mr. Sarbanes, yes, I can. And as a 1319 resident of Maryland that hits particularly close to home for 1320 So thank you for your service. Thank you for the question me. and I look forward to working with you on this. 1321 We do support solar technologies and I will just tell you really quickly 1322 1323 what we are looking at. We are looking at some of the next 1324 generation of solar technologies. Much of what is on the market today, photovoltaic-type technologies, I don't want to call them 1325 1326 They are not completely antiquated, but they have antiquated. 1327 been around for a very long time and they are somewhat mature. 1328 So when we look at investing research dollars at the Department 1329 of Energy, we have made a decision that perhaps rather than 1330 continuing investments in mature technologies like 1331 photovoltaics, we want to move to the next generation. And we will work very closely with our National Renewable Energy 1332 Laboratory out in Golden, Colorado, to develop things like 1333 1334 perovskites, which is a fascinating technology, and it increases

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1335 the efficiency of the solar panel itself.

So I would love to have you out there. We have technologies where literally you paint a window and the window itself becomes a small electric generation machine or it is able to develop enough electricity to power some small appliances. It is a fascinating technology. It is that type of technology I would like to see come to market much more quickly.

With regard to energy efficiency, it is also important that we 1342 1343 balance not only the energy savings that are developed by these 1344 types of newer technologies, but also the cost of the appliance or the cost of the generation itself. In our view, we agree with 1345 the energy efficiency goals that the Congress has set. 1346 We have 1347 no disagreement there. But it doesn't do us much good to save 1348 two dollars on the electric bill if it is going to cost us many thousands of dollars to buy the new appliance or buy the new 1349 1350 generation facility. In our view, we have not done low income 1351 families much justice in that case.

So we want to balance the equation very appropriately and I would look forward to working with you on that.

1354 Mr. Sarbanes. Thank you, Chairman. I yield back.

1355 Mr. Rush. The gentleman yields back. The chair now recognizes

1356 the gentleman from Texas, Mr. Olson, for 5 minutes.

1357 Mr. Olson. Thank you, Mr. Chairman. And a big ole Texas welcome1358 to a friend, Energy Secretary Dan Brouillette. Dan, I am so sorry

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we missed each other last week at the SPR there in Texas. I suspect you are even more sorry because you didn't get to relive the Gulf Coast heat of summer. No Thibodeaux or Boudreaux, no sucking crawfish heads like you did with Mr. Tauzin, so let's make that date again sometime in the future.

1364 I have one question for you, Dan. It is not about COVID-19. 1365 It is about a local issue. I want to ask about the disposal of 1366 Americium-241. It is a byproduct of weapons-grade plutonium 1367 protection. It is used for smoke detectors and downhole oil well 1368 logging. It is very radioactive and cancer-causing. America stopped producing this product in 2005 despite the fact that we 1369 still had domestic demand and so for 15 years we have been 1370 1371 importing this product.

In 2015, my hometown of Sugar Land had a little bout with this product, a small spill that released some Caesium-137 and Americium-241 half a mile from my son's high school in Sugar Land, Texas. But since this radioactive isotope came from a foreign source, we can't store this, Dan, in the WIPP, the Waste Isolation Pilot Plant, so there it sits, a national security risk and an environmental risk if it spills.

So I have three questions for you about this issue. Number one, can you assess the risk of letting it sit all across the country; number two, can the WIPP handle all this isotope we have in America; and do you support my bill giving your Department more

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authority over getting this stuff out and store it in the WIPP? Secretary Brouillette. Mr. Olson, it is great to see you again and I am sorry I missed you last week. It was great to be back in my adopted home of Texas and it was pretty hot down there, but it was fantastic to be home. I hope that we can get together again very soon down in Texas or elsewhere.

1389 But with regard to your question on Americium, yes, I have not reviewed your bill in detail, but if it is to provide the authority 1390 1391 for us to receive this Americium and store it in the WIPP, it 1392 would be something that I think we would probably support. Ι would like to take a close look at it. 1393 I am familiar with the situation that you face down in Sugar Land and you have identified 1394 1395 the problem for us, is that we don't know the source of that 1396 particular product and we are prohibited by law as a result from 1397 accepting it into the WIPP facility in New Mexico.

1398 But perhaps through legislative changes or perhaps some other 1399 process, we can move forward to accept that material and put it 1400 into the WIPP facility. It is very important that we remove this 1401 from the communities. And your community is not unique in that 1402 I mean there are many communities across Texas as well sense. as other parts of the United States where the sources -- it is 1403 1404 known as a source -- are still sitting, in some cases in strip 1405 malls, without much security. So it is very, very important that 1406 we remove this product and store it safely.

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1407 Mr. Olson. Can WIPP handle these products, Dan? Does it have 1408 the capability to handle all these products or is that just --1409 I have heard it is overfilling. I think that is a red herring. 1410 Can you confirm that? You got the room to store this waste? I would have to double check on the room. 1411 Secretary Brouillette. 1412 I am assuming we do. But we certainly have the technical 1413 capability of storing Americium, yes.

1414 Mr. Olson. And one final question. And, Dan, this is about 1415 the Federal Reserve's Main Street lending program. This program 1416 is essential for mid-size people involved in oil and gas 1417 operations. They have to have this money coming through because 1418 they are getting hammered by COVID and this pricing war going 1419 on between Saudi Arabia and Russia.

1420So can you talk about how important this project is, this program1421is for the suppliers of energy, the midstream guys in particular,

1422 and how this should be open to them as well?

1423 Secretary Brouillette. Sure. I have worked closely with

Secretary Mnuchin to ensure that all of the programs that under

1425 all of your leadership you passed and made available to American

1426 businesses including the energy business. I have had many

1427 conversations with the midstream producers, the independent

1428 producers out in the Permian Basin of Texas. Some of them have

1429 availed themselves to these programs, and I think it is important

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1430 that we continue that good work.

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1431 We are in a unique situation here with this pandemic, you know,

1432 Texas has long experienced boom and bust cycles in the oil

business; you know how to handle that very, very well. But we have never experienced a situation in which we had a market event like what happened in Saudi Arabia and Russia or under the auspices

1436 of OPEC combined with a lack of demand that was, you know,

1437 generated by this pandemic, you know, with economies around the 1438 world appropriately closing or slowing down. We have never seen 1439 that before in U.S. history. We have never seen it in the oil 1440 business so it presents a unique challenge.

But I am fully supportive of what the Congress did to make these programs available to not only all American businesses, but in particularly the energy businesses as well.

1444 Mr. Olson. Thank you, soldier. I am a sailor. Join me in 1445 saying, go Navy, go Army. Be there for us.

1446 Secretary Brouillette. Go Army.

1447 Mr. Olson. I yield back.

1448 Mr. Rush. The gentleman yields back. The chair now recognizes

1449 the gentleman from New York, Mr. Tonko, for 5 minutes.

1450 Mr. Tonko. Thank you, Mr. Chair. Can you hear me?

1451 Mr. Rush. Quite well.

1452 Mr. Tonko. Well, great. Thank you.

1453 Secretary Brouillette, welcome back to the Energy and Commerce

1454 Committee. Mr. Secretary, the administration's budget request

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once again has zeroed out funding for the Weatherization Assistance Program, a critical program that we know is there to support the health and safety and energy efficiency of low-income Americans as they maintain their homes.

Due to the COVID-19 pandemic, we know more people are unemployed and staying at home. We also know that state budgets have realized great shortfalls. Given these conditions, do you see some additional value in federal weatherization dollars that could be used once the economy is reopened and retrofits can resume safely?

1465 Secretary Brouillette. Sure, I do. And thank you for your 1466 conversation yesterday. I appreciated the opportunity to trade 1467 some notes on some of these important programs and I appreciate 1468 the concern that you have about the President's budget with regard 1469 to the weatherization program in particular.

1470 I think it is important for us to remind ourselves from time 1471 to time though that, you know, what we do at the DOE is we look 1472 all across the enterprise. And we just talked about energy 1473 efficiency and that is a very important component of the 1474 weatherization program. We have what is called cross-cutting 1475 programs where we take money not only from EERE, but we use it, we take money from the science labs and other places where we 1476 1477 can develop technologies that are ultimately put into the 1478 marketplace that will increase efficiency. So while you may see

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1479 a reduction in the actual weatherization program, I want to assure 1480 you that the work on energy efficiency is broad-based. It is 1481 not just one bucket or one line item in a budget that reflects 1482 the commitment to energy efficiency.

So with regard to COVID and efficiency, we have taken some initial steps and extended some of the grant programs until we can do some more analysis, but, you know, to make it just more available to people who are utilizing the program. I think what we have done is appropriate and, you know, I would be more than happy to come up and spend more time with you and go through the exact steps that we have taken so far.

1490 Mr. Tonko. Okay, thank you. We are certainly going to be quite 1491 active on behalf of our households that require the weatherization 1492 program.

1493I also want to focus on the role DOE can play in reducing costs1494to encourage deployment of existing energy technologies. And,

1495 for example, DOE has identified inconsistent permitting

1496 requirements and processes as a significant cost to residential

1497 energy installations. The patchwork of permitting requirements

across thousands of local jurisdictions causes unnecessary delays

1499 and certainly adds administrative costs.

1500 This not only increases energy prices for our consumers but also 1501 stifles homeowner and business investments in these technologies 1502 such as rooftop solar. Other countries like Germany and

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Australia, as we all know, have sought ways to streamline permitting. The average cost of a residential solar installation in Australia is less than one-half the cost in the United States. So, Mr. Secretary, DOE and NRO have worked on reducing these permitting costs. Do you believe DOE or another federal entity can continue to play a role in helping to streamline the permitting process for residential energy systems?

1510 Secretary Brouillette. Absolutely. I don't think there is any 1511 doubt about that. I think, you know, the challenges I hear, you 1512 know, have to do with not only solar but also offshore wind. For instance, we have seen some challenges with permitting some 1513 of the facilities both on the East and West Coasts. 1514 And I think 1515 it is -- you know, look. It is very important that we have 1516 community involvement in the permitting process and I am not suggesting for a second that we deny individuals or communities 1517 an opportunity to be a part of a permitting process. But we should 1518 1519 look very closely to see if there are certain redundancies or 1520 certain things in the process that are not conducive or not 1521 constructive or not allowing the process to move forward in 1522 forthright and transparent way. And I would be open to that type 1523 of conversation with you or your staff or anyone on the committee. 1524 Mr. Tonko. Thank you.

1525 Finally, I believe the Advanced Manufacturing Office is an1526 incredible resource for our United States manufacturers to become

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1527 more competitive and sustainable. The industrial sector is 1528 responsible for roughly one-fifth of greenhouse gas emission and 1529 consumes roughly one-third of the primary energy here in the 1530 United States. In recent years, Congress has taken a bigger 1531 interest in these challenges. The Clean Industrial Technology 1532 Act has bipartisan support and this committee's climate 1533 legislation discussion draft has suggested creating a new DOE-assisted secretary of industry. I know other groups have 1534 1535 called for reorganization of DOE to better reflect the challenges 1536 our nation faces.

Do you have any thoughts, whether through reorganization of the Department or otherwise, on the need to give greater emphasis and resources for DOE's manufacturing programs?

1540 Secretary Brouillette. That is an interesting idea. I would 1541 love to take a look at your bill and talk to you more about the 1542 organizational construct of DOE.

1543You know, the importance of advanced manufacturing cannot be1544understated, however, especially as we start to look at more of

1545 these energy-efficient or the renewable technologies that are

1546 coming online. I did have an opportunity to talk to

1547 Representative Kennedy, for instance, about some of the

1548 manufacturing processes and some other things that he would like

1549 to bring to his congressional district.

1550 We are going to focus on the funding opportunities that we have

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1551 at the Department of Energy. We just released approximately \$44 1552 million, give or take, over the course of the last few weeks and 1553 it is focused almost exclusively on advanced manufacturing 1554 techniques and capabilities. It is a very important role for 1555 the DOE to play. Our Oak Ridge National Laboratory in particular 1556 has been a world leader in developing 3D printing as well as other 1557 technologies that allow advanced manufacturing to occur more 1558 efficiently.

But with regard to your bill, I will take a look at it, sir. And if I might reserve the right to perhaps respond to you in writing, I would more than happy to do that.

1562 Mr. Tonko. Sure. We would love to host you for a tour of what 1563 is happening in our district. So thank you, Mr. Secretary.

1564 And, Mr. Chair, I yield back.

Mr. Rush. The gentleman yields back. The chair now recognizesMr. McKinley of West Virginia for 5 minutes.

1567 Mr. McKinley. Thank you, my friend, and for having this hearing.

1568 And welcome back, Mr. Secretary. A series of questions, if I

1569 could. Many of them are just yes and no. Under President Obama,

1570 chairman of the Joint Chiefs of Staff, General Dempsey, once said

- 1571 that "improving our energy security improves our national
- 1572 security." Do you agree with him?

1573 Secretary Brouillette. Yes.

1574 Mr. McKinley. If gas-fired power plants provide nearly 40

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- 1575 percent of America's energy, do all gas-fired power plants get
- 1576 their natural gas from pipelines?
- 1577 Secretary Brouillette. Yes, in America, pretty much.

1578 Mr. McKinley. Thank you. In America.

1579 Mr. Cohen. Yeah.

1580 Mr. McKinley. So now, and if 90 percent of our natural gas is

1581 transported by pipelines, is it fair to say, therefore, that

1582 pipelines are an essential part of our national security?

1583 Secretary Brouillette. Yes.

Mr. McKinley. Thank you. But the environmental left doesn't seem to agree with you and they just, they posted this headline the other day about delay wins the day. They want a delay, and what they are referring to are the delays that occurred over the -- or the losses occurred was the Dakota Access Pipeline, which was operational as you know for 3 years.

1590 Secretary Brouillette. Sure.

1591 Mr. McKinley. The Atlantic Coast Pipeline that went through

1592 17 permits, federal government, and 16 state permits. It even

1593 went to the Supreme Court and got approval with it. And now they

- are even challenging the Mountain Valley Pipeline that is
- 1595 transporting gas from West Virginia to other states.
- 1596 My question was, could the loss of these pipelines that we just

1597 mentioned, could they pose a challenge to our national security?

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1598 Secretary Brouillette. In my view, yes.

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1599 Mr. McKinley. Okay.

1600 Secretary Brouillette. And I think --

Mr. McKinley. And it appears that some of our governors like Cuomo and Inslee may be abusing their 401 permit, their authority. Because of Cuomo, states in the Northeast -- Maine, New Hampshire, Massachusetts -- have to get their electricity from Canada and their natural gas from Russia. So whose economy is Cuomo helping? It is certainly not -- is it Putin's? It is certainly not ours.

1608 So if I could, Mr. Secretary, as you know the administration is about to finalize a new NEPA reform, significant rewrite of 1609 NEPA, and it is my understanding that nothing in the reforms get 1610 1611 rid of any existing rules but, rather, you all have developed 1612 as something that might streamline the permitting process and primarily so that the environmental left can't weaponize the 1613 1614 Now let me switch gears just for a permitting process. 1615 The government has called on manufacturers to produce minute. more PPE, hundreds of millions, hundreds of millions more of 1616 1617 respirators, plastic face shields, gowns, gloves, all are going 1618 to be necessary. They are all produced from this. This is This is resins from natural gas. 1619 natural gas. Won't we need pipelines to produce more PPE? 1620

1621 Secretary Brouillette. Yes, sir. Ultimately, we will.

1622 And to address your national security concerns at least with

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1623 regard to the Atlantic Coast Pipeline, you know, it begs the 1624 We have an enormous naval facility down at Norfolk question. 1625 and we have an enormous Army facility in North Carolina, the home 1626 of the 82nd Airborne. It is very important that these facilities 1627 have ready access, reliable access to electricity because they 1628 depend upon the private grid for the purposes of their power 1629 generation.

1630 Mr. McKinley. Thank you. I have a couple more questions if1631 I can just ask quickly.

1632 Secretary Brouillette. Sure.

1633 Mr. McKinley. Wall Street as you know works on certainty. They 1634 And the litigation and delays created by the depend on it. 1635 environmental left have created the opposite, especially as it 1636 relates to what happened to coal. Are we about to see the same 1637 thing on Wall Street developing concerns about pipelines and 1638 Do you think there could be a threat? natural gas? 1639 Secretary Brouillette. And perhaps we are. The regulatory

1640 uncertainty will lead to certain investors to back away from these 1641 types of projects.

Mr. McKinley. So my last -- if 70 percent of our energy comes from fossil fuels and if Wall Street stops financing gas-fired power plants and has an aversion to funding pipelines because they don't know whether they are going to be built or not because of regulations, is this a positive or a negative sign for our

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1647 national security?

1648 Secretary Brouillette. In my view, it is a negative sign.

Mr. McKinley. Thank you. So in the 6 seconds left, can you explain a little bit about maybe what DOE is doing to address the streamlining process and prevent the abuse?

Secretary Brouillette. Well, through the interagency process we are contributing to the NEPA efforts, which I understand are going to be released very, very shortly. And to your point, they are not to reduce in any way, shape, or form the environmental concerns that the American people have raised. What we are simply doing is eliminating redundancies.

1658 I will tell you really quickly in the case of DOE, I made a decision 1659 very early that if another agency had conducted a NEPA, you know, 1660 analysis with regard to perhaps, say, an LNG export facility, 1661 which we have some regulatory responsibility for, that the DOE 1662 would rely upon the other NEPA analysis. FERC is quite capable, 1663 for instance, in conducting NEPA analyses. So if they have already done the work once, there is no need for DOE to do a second 1664 1665 Eliminating that step will save, you know, an NEPA analysis. 1666 enormous amount of money for the applicants who are looking to build these export facilities for LNG. 1667 It is just one small 1668 example, but it is a step in the right direction.

1669 Mr. McKinley. Thank you.

1670 Mr. Chairman, I yield back.

NEAL R. GROSS COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W. WASHINGTON, D.C. 20005-3701 1671 Mr. Rush. The gentleman yields back. The chair now recognizes1672 Mr. Loebsack for 5 minutes.

1673 Mr. Loebsack. Thank you, Chairman Rush and Ranking Member Upton,1674 for holding this hearing today.

1675 And thank you, Secretary Brouillette, for testifying today as 1676 well. As you know, the RFS is a key economic driver in my home 1677 state of Iowa and actually throughout farm country, and the 1678 biofuels industry has been hit hard by the COVID-19 pandemic. 1679 Of course, the pandemic only exacerbated the pain that this 1680 industry had already been experiencing in no small measure due to the explosion of small refinery exemptions granted by this 1681 1682 administration which have wiped out over four billion gallons 1683 of biofuel from the marketplace since 2016. In January, as you know, the 10th Circuit Court of Appeals found that in order for 1684 a small refinery to be eligible for an exemption, the law requires 1685 1686 that that refinery have an exemption in place to extend, meaning 1687 that they must have received an exemption each year in order to 1688 be eligible for a future exemption.

Unfortunately, rather than adhere to the ruling of the court, many small refineries have submitted retroactive waiver petitions dating as far back as 2011, in an attempt to fill in the gaps in years where they did not receive a waiver. According to EPA's own data, by the ruling of the 10th Circuit there should be no more than seven refineries eligible for future exemptions, and

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1695 yet EPA recently confirmed that it has received 52 so-called gap 1696 years' small refinery petitions which, if granted, would equate 1697 to a loss of an additional two billion dollars of biofuel demand. 1698 So, Mr. Secretary, I have a series of questions here. I am going 1699 to try to get through all of them and if I cut you off, I apologize, 1700 but I want to get through as many if not all of these I possibly 1701 can. The first question is, have those gap year petitions been 1702 scored by DOE and sent back to EPA, and, if not, when will that 1703 happen?

1704 Secretary Brouillette. Thank you, Mr. Loebsack. I appreciate 1705 the opportunity. And thanks for your conversation as well earlier this week by telephone. You know, I will get back to 1706 1707 you on the 50-plus applications that, you know, may have come 1708 I am not quite sure where we are in the process. from EPA. 1709 I will just state that, you know, there are differing legal opinions about this 10th Circuit case. I think some are reading 1710 1711 it as an opportunity to file these gap applications, if you will. I will also just, you know, state for the record that if EPA 1712 1713 sends us the application we are required still to evaluate it, 1714 so I am assuming that we are doing that today and I will get you 1715 a precise answer as to where we stand in that particular process. I want to ask you for your opinion. Do you believe 1716 Mr. Loebsack. 1717 that the law does allow EPA to grant these gap year petitions? 1718 Secretary Brouillette. I am sorry. Say again, sir.

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1719 Mr. Loebsack. Do you believe that the law allows EPA to grant 1720 these gap year petitions?

1721 Secretary Brouillette. Well, that is a good question. I am 1722 not quite certain about that. I would have to review the case 1723 very closely and I am not an attorney so I would hate to give 1724 you a legal opinion.

1725 Mr. Loebsack. Yeah, because my next question has to do with 1726 that, actually. Will DOE ensure its review of these petitions 1727 conforms with the Court's decision?

1728 Secretary Brouillette. If I understood you correctly, would 1729 you just say the last part of that again?

1730 Mr. Loebsack. Yeah. Well, I will do the whole question. Will

1731 DOE ensure its review of these petitions conforms with the Court's 1732 decision?

1733 Secretary Brouillette. Oh, sure. We will do everything

according to the law and our understanding of the law. There is no question about that. I will get with -- Bill Cooper is our general counsel at the Department of Energy, and we will ensure, you know, whatever analysis we are required to conduct under the law and whatever we send to EPA is going to be fully compliant with not only the 10th Circuit decision but also the federal statute.

1741 Mr. Loebsack. And you may or may not be able to answer this 1742 next question, but has EPA sent you any exemption petitions from

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1743 refiners who had previously submitted a petition for the exact 1744 same year but were denied a waiver the first time around? 1745 Secretary Brouillette. I don't know the answer to that question, 1746 but I will find out and get right back to you.

1747 Mr. Loebsack. And do you know if DOE has changed its methodology 1748 or approach for scoring small refinery exemption petitions? 1749 Secretary Brouillette. No, we have not. We conduct this 1750 analysis the same way we always have and that we provide our 1751 findings to EPA for their ultimate decision on the application. 1752 Mr. Loebsack. Well, if it has not changed the methodology, then doesn't it stand to reason that DOE would have no choice but to 1753 score these do-over gap year petitions exactly the same way as 1754 the Department did the first time? 1755

Secretary Brouillette. Yes, sir. We have not changed ourmethodology. I mean we have done this in the same manner in which

1758 we have done since the creation of the program back in 2005.

1759 Mr. Loebsack. Okay. And other than the 52 gap year waiver

1760 petitions, EPA reports 27 waiver petitions pending for the 2019

1761 RFS compliance year. Has DOE completed review of those petitions

and made recommendations to EPA?

1763 Secretary Brouillette. Hm. I will get you an answer on that,

1764 sir. I would have to check the status of those applications.

1765 Mr. Loebsack. Okay. Yeah. Well, I look forward to the answers

and I did appreciate our conversation we had prior to this hearing.

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1767 I appreciate what you are doing at the DOE and I know you have a lot of great history with the committee and I appreciate that. 1768 1769 But we have to make sure that we are doing the right thing for 1770 these biofuels folks and we have to make sure that EPA and DOE 1771 are complying with this 10th Circuit Court decision making, sure 1772 that everyone is abiding by the law, and I know you agree with 1773 that as well. So thank you very much, Mr. Secretary. And I yield back. 1774

1775 Mr. Rush. The gentleman yields back. The chair now recognizes

1776 the gentleman from Virginia, Mr. Griffith, for 5 minutes.

1777 Mr. Griffith. Mr. Chairman, how are you this afternoon?

1778 Mr. Rush. Good, thanks.

1779 Mr. Griffith. All right.

Oh, Mr. Secretary, one of my priorities as we have discussed 1780 in the past is research parity between the renewable research 1781 1782 and our fossil fuel research. And as we look at the many issues 1783 that we are discussing today, including resiliency and the reliability of our grid as well as the global environmental 1784 well-being, it is critical that we continue to invest in the 1785 1786 research and development for fossil fuels as well as renewables. 1787 As you and I have discussed previously, of course, you know, 1788 sub-Saharan Africa, Asia, developing nations are using their coal 1789 supply and they are going to use their coal supply. And one of 1790 the things I would hope that we would do is figure out how to

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use that the most effectively so that we can then move forward, not just in the United States, but globally, to reduce emissions coming from coal-fired power plants and other fossil fuel burning plants.

Do you agree that we should strive for parity and continue to invest in fossil research and development here in the United States?

Secretary Brouillette. There we go. Can you hear me, sir?
To answer your question --

1800 Mr. Griffith. I can.

1801 Secretary Brouillette. -- yes, I do. I think we need to continue our research and development in areas like CCUS for the 1802 1803 purposes of making coal not only more efficient but cleaner, 1804 because, as you point out, developing nations will continue to use this very important resource that they have around the world. 1805 1806 Our own EIA, the Energy Information Administration, projects 1807 that the use of fossil fuels will continue at very high levels 1808 well into the 2040s, perhaps even out as far as 2050. And if 1809 that is the case, then I think we have an obligation to develop 1810 the technologies that are necessary to use those fuels very So things like CCUS R&D work at the Department of 1811 cleanly. 1812 Energy, work related to carbon capture utilization, 1813 sequestration, are very, very important, and I think we should

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1814 continue that work.

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1815 And if it is, you know, if it is the direction of Congress to 1816 increase that type of work, which I would hope it would be, we 1817 would certainly welcome that opportunity.

1818 Mr. Griffith. Well, and I appreciate that. And, of course, 1819 I am excited about some of the things that are happening here 1820 in my district which is a coal-producing and natural gas-producing 1821 area.

We have MOVA Technologies out of the New River Valley that is 1822 1823 doing some flatbed technology where they run the gases through 1824 various substrates. And this is a very crude analogy, but they run it through the substrates and it pulls out individual 1825 1826 pollutants so that you don't have an issue with, you know, a series 1827 of things that have to be done afterwards. They can actually 1828 I also think that the chemical looping be sold commercially. still has great promise, and then, you know, anything that we 1829 1830 can do to find additional uses for coal products as we move 1831 forward.

Is there anything in particular that you have looked at that you find to be an interesting and exciting new technology? Secretary Brouillette. Yes. Actually, I was just up in the western part of Pennsylvania visiting a coal facility there and I saw technologies that to me were absolutely fascinating. Going back to your first question though on the use of coal, I want to point out that I think it is also important because

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1839 we have enormous reserves here and obviously your district is 1840 a big part of that in the United States. The export opportunities 1841 for coal are enormous around the world and that means jobs here 1842 in the United States. So I would hate for us to close off that 1843 opportunity for the use of this product because it creates so 1844 many jobs not only in Virginia, but also West Virginia, and out 1845 in Wyoming as well. You know, many, many states produce coal. 1846 So my point is that let's continue the clean technologies that 1847 we need to make this product cleaner as we export it around the 1848 world.

1849 But with regard to the new uses for coal, we are now extracting some critical minerals. We are beginning to figure out how to 1850 1851 extract rare earth elements which are absolutely vital for the 1852 development of battery technologies. So as we look at the future 1853 and perhaps see more and more use of renewable energies and we 1854 try and reach that holy grail of grid-scale battery storage, it 1855 is going to be perhaps our knowledge and perhaps the research that we do today on coal that might allow us to break some of 1856 1857 the supply chain restrictions and vulnerabilities that we are 1858 currently experiencing today.

1859 China as you perhaps know, I think, from our conversations you 1860 well know this, is that, you know, China, today, owns about 80 1861 percent of the rare earth element market, so we are incredibly 1862 dependent upon, as I pointed out earlier, an adversarial nation

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1863 to the United States. If we can develop these products from coal, 1864 we have strengthened not only our energy security but our national 1865 security as well.

1866 Mr. Griffith. And I appreciate that. And they are doing work 1867 -- Virginia Tech is working on that as well. So there is a lot 1868 of new technology out there and I appreciate your leadership on 1869 those issues.

1870 And, Mr. Chairman, I see my time is up and I yield back.

1871 Mr. Rush. The gentleman yields back. The chair now recognizes

1872 the gentleman from Vermont, Mr. Welch, for 5 minutes.

1873 Mr. Welch. Thank you very much, Mr. Chairman.

1874 And thank you, Mr. Secretary. It is terrific to see you. Sorry1875 we are not all there with you.

1876 I wanted to ask you questions in two areas. One is the energy 1877 and water efficiency audits, and then second, staffing levels in the Department of Energy that are essential for us to pursue 1878 1879 energy efficiency. First of all, on the energy audits, my understanding is your report shows that only 43 percent of the 1880 1881 federal agencies have actually completed their audits and only 1882 six out of twenty-eight have done it fully. And as we all 1883 know, there is immense opportunity for savings through energy efficiency, and there is \$7.8 billion of efficiency measures that 1884 1885 have been identified which would result, as it is part of your 1886 report, \$800 million in financial savings. What are the

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1887 obstacles? What is the problem with getting these energy and 1888 water audits done? Can you speak to that?

1889 Secretary Brouillette. I am sure there are many reasons why 1890 they are not being done, sir, but what I will do is I will go 1891 back and I will ask for my own independent audit and get an update 1892 for you so that I can figure out exactly why this is not getting 1893 done in the manner of which I know you want it done and I know 1894 the committee wants it done. We have the tremendous opportunity 1895 here as you point out. I mean I am looking at some of the data 1896 here in front of me, especially with regard to the federal 1897 We are looking at roughly the savings to the facilities. government, according to the data that I have here they are in 1898 1899 the billions of dollars. It is enormous.

1900 Mr. Welch. Right.

So I think we ought to proceed at a very 1901 Secretary Brouillette. aggressive rate. I will commit to you here publicly that I will 1902 1903 get back to you very, very shortly with an update on those audits. Well, I appreciate that. 1904 Mr. Welch. All right. And I think 1905 there is a lot of bipartisan support on our committee for these 1906 audits and the savings we can get. And let me just state, 1907 candidly, my sense about the failure of this to have happened before is that it reflects a slow walk approach towards getting 1908 1909 So I really will appreciate you getting back to us, this done. 1910 but I think all of us would really appreciate getting the audits

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- 1911 done. So when you get back with your report, the question is 1912 not so much why they aren't getting done, but when will they be 1913 done. Does that sound fair?
- 1914Secretary Brouillette. It sounds very fair. And I will commit1915to you here that we will get you an answer within the next, I
- 1916 will just say, would 10 days be appropriate for you?
- 1917 Mr. Welch. It would be great. Thank you, Mr. Secretary.
- 1918 Secretary Brouillette. Okay.

Mr. Welch. Also there is this question of staffing. You know, as an example, again on energy efficiency, Mr. McKinley and I, for years, have been working on the HOPE for HOMES Act which would allow homeowners to do installations for energy efficiency, get some help from the government, and it has a real benefit of putting local contractors to work.

This won't work, even if we are successful as we think we will 1925 1926 be in getting the money, unless there is staffing in the 1927 appropriate departments of the Department of Energy for energy 1928 efficiency. And our sense is that or actually our information 1929 is that we have been very slow to fill the positions that are 1930 available. Can you speak to that and what steps will be taken 1931 to fully staff up, and that is in anticipation that we are actually 1932 going to be moving forward on energy efficiency.

1933 Secretary Brouillette. Sure. Yeah, I am happy to address that.1934 That issue was raised in another hearing. It came to my

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1935 attention very recently. And, you know, I am not happy with the 1936 answers I received, but there were some initial delays with things 1937 as simple as badging of employees. It would take an enormous 1938 amount of time just to get people through the employment process 1939 and provide them with a badge to do the work that we were attempting 1940 to hire them to do. And as a result, you know, people have 1941 these very specialized skills, very technical skills. In many cases they were taking jobs, other jobs that were available to 1942 1943 them at the moment. We simply lost out on the competition. Ιt 1944 is disheartening and disappointing and we have taken steps to 1945 address very simple measures like that. I can also get you an update on the staffing that we have done since that hearing and 1946 1947 since that last conversation with Assistant Secretary Dan Simmons 1948 who was here before the committee.

1949 Mr. Welch. Okay. Thank you very much.

1950 I yield back, Mr. Chairman.

1951 Mr. Rush. The gentleman yields back. The chair now recognizes

1952 the gentleman from Ohio, Mr. Johnson, for 5 minutes.

1953 Mr. Johnson. Thank you, Mr. Chairman.

1954 And, Mr. Secretary, it is good to see you this afternoon. Thanks

1955 for taking time out of your schedule to brief us on your

1956 Department's important activities around this COVID-19 pandemic.

1957 You know, you and your team at DOE have done some tremendously

1958 helpful work, work that has benefited all Americans. I commend

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1959 you for your work filling the Strategic Petroleum Reserve to the 1960 brim, securing the electrical grid, and as you noted in your 1961 testimony, we are utilizing some of DOE's most advanced, 1962 world-class laboratories and supercomputers in the fight against 1963 COVID-19.

1964 COVID-19, there is no question, and its associated economic 1965 challenges has put America on its heels, and our adversaries are looking to exploit this crisis, so it is critically important 1966 that we as members of this subcommittee don't lose focus on 1967 1968 maintaining our global energy leadership. My time is limited so I want to get right into my questions. 1969 As you know very well, Mr. Secretary, my district in eastern and southeastern Ohio 1970 1971 is blessed with an abundant supply of oil and gas in the Marcellus 1972 This is an economic lifeline to my and Utica Shales. constituents, and not only that but this cheap and abundant 1973 1974 resource, if it is able to be efficiently transported and brought 1975 to market, for example, in the form of liquefied natural gas, it enables America to project power and push back on adversaries 1976 1977 like Russia and Iran. As lawmakers, we need to focus on cutting 1978 unnecessary Washington red tape and burdensome regulations. This is why I recently introduced the Unlocking our Domestic LNG 1979 Potential Act to do just that. 1980

1981 So two questions in one here. Can you explain, Mr. Secretary, 1982 in your dealings and negotiations on the global stage, why it

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1983 is so important for us to maintain a strong domestic energy sector 1984 here at home and what benefits do Americans see from exporting 1985 some of our excess energy resources such as LNG in the global 1986 marketplace?

1987 Secretary Brouillette. Yes, sir. I am happy to. I will just 1988 give you the latest example of the importance of having a very 1989 strong and diverse energy sector here in the United States. We mentioned earlier the conversations that were occurring and, 1990 1991 frankly, the dispute that occurred between Saudi Arabia and Russia 1992 just recently in the OPEC-Plus conversation. The President 1993 directed me as soon as we saw that there was a dispute --1994 importantly, when we saw the reaction of one of the parties to 1995 that dispute and the reaction was very plain, they both increased 1996 their production and lowered the price which we feel was intended 1997 perhaps toward Russia, but the impact was felt here in the United 1998 States -- the President immediately engaged and said reach out 1999 to your counterparts, work this out, figure out what is going It became pretty clear in that conversation that it was not 2000 on. 2001 going to get resolved at the ministerial level, my level with 2002 my counterpart. It got elevated to a head of state level. 2003 When the President engaged, he did so with a position of strength 2004 that was not available to Presidents, you know, when I was growing 2005 up as a young kid in Louisiana. When we were an importing nation

2006 not an exporting nation, we didn't have the authority, we didn't

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2007 have the positioning in the world marketplace that would have 2008 allowed a President then to do what this President did, and that 2009 was to bring these parties together and resolve this dispute 2010 immediately, which brought stability to the world energy markets 2011 and the world oil markets.

2012 It is that availability to provide leadership in a foreign policy 2013 context that, you know, makes us understand why is it important 2014 that we have this energy industry.

2015 Mr. Johnson. Yeah. And I agree with you a hundred percent. 2016 And another corollary to that is commercial nuclear energy and 2017 our commercial nuclear entrepreneurs. We have got to win that battle with the Chinese and the Russians as well. 2018 Under 2019 your leadership, DOE has launched a variety of new initiatives 2020 including the Advanced Reactor Demonstration Program to 2021 accelerate the commercialization of new designs that are cheaper 2022 and smaller with additional safety benefits. And I was proud 2023 to reintroduce the Strengthening America Nuclear Competitiveness 2024 Act to help streamline the export of U.S. civilian nuclear

2025 technologies.

2026 So how does your work to formulate more bilateral nuclear 2027 cooperation agreements, recent International Development Finance 2028 Corporation action to repeal its limitation on nuclear deals, 2029 and legislative Part 810 reforms that I have proposed, how does 2030 that fit all together to position American nuclear entrepreneurs

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2031 to seize this immense global economic opportunity and why is it 2032 important for us?

2033 Well, in a nutshell, sir, it is Secretary Brouillette. Sure. 2034 very important for us to export U.S. nuclear technology around the world because it comes with it as you point out certain 2035 2036 restrictions. Things like 123 restrictions, Section 123, it is 2037 part of the U.S. Code that restricts the use of nuclear fuels 2038 for the purposes of developing warheads, so a very important 2039 nonproliferation aspect to the export of U.S. nuclear 2040 technologies. China and Russia doesn't recognize that. They So to the extent that 2041 don't have those types of restrictions. countries want to buy those technologies we also accept the risk 2042 2043 that they may develop a warhead, so it is very, very important 2044 to our national security that we export U.S. nuclear technology.

2045 You mentioned the other things that we are doing in our national laboratories. 2046 We are moving forward with things like 2047 the Advanced Test Reactor which allow us to develop not only the, you know, the reactor technologies, but also the materials that 2048 2049 are needed to build these reactors and the nuclear components. 2050 If we can do that with the Advanced Test Reactor, if we can 2051 develop, potentially under the auspices of the laws that were 2052 passed recently, a versatile test reactor, if Congress chooses 2053 to fund that we can test materials that make the U.S. technologies 2054 even cheaper and more competitive on the world market.

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And as we do that, again, we create economic opportunity here. We create national security because those technologies will come with the nonproliferation safeguards that the U.S. law requires.

2058 Mr. Johnson. Thank you very much.

2059 Mr. Chairman, thanks for indulging. I yield back.

2060 Mr. Rush. The gentleman yields back. The chair now recognizes
2061 Mr. Kennedy for 5 minutes.

2062 Mr. Kennedy. Thank you, Mr. Chairman.

2063 Mr. Secretary, good to see you and thank you for being here.

2064 I am glad to have this opportunity to speak directly with you 2065 about an issue that I believe this country must make a priority. 2066 It is not going to be a surprise to anybody in this committee 2067 -- offshore wind development. As members of the committee well 2068 know this has been a priority of mine since I first arrived in I have had the opportunity to discuss this issue with 2069 Congress. 2070 a few of your predecessors, Mr. Secretary, and I look forward 2071 to this conversation as well. The research, development and, critically, the deployment of offshore wind in the United 2072 2073 States holds immense promise. From the clear climate benefits 2074 of utilizing an abundant, renewable natural resource, the 2075 economic impact on ratepayers to the benefits are undeniable. 2076 In New England, and in Massachusetts in particular, we pay 2077 amongst the highest retail electric rates in the lower 48 states. 2078 Taking advantage of a renewable natural resource that we have

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2079 right off the coast makes perfect sense.

2080 In March of 2020 -- oh, excuse me. But beyond the climate and 2081 economic benefits, the promise of offshore wind is the growth 2082 and incubation of an entire new industry. It includes direct 2083 and indirect jobs, many of which will require high-skilled, 2084 American, union labor and to realize its immense potential. 2085 In March of 2020, the American Wind Energy Association released its U.S. Offshore Wind Power Economic Impact Assessment. 2086 Amonq the findings we estimated that, quote, developing 30,000 2087 2088 megawatts of offshore wind along the East Coast could support up to 83,000 jobs and deliver 25 billion in economic output by 2089 2090 And that is just the potential on the East Coast. 2030. 2091 As you know, the federal government is currently evaluating 2092 proposals off the coast of Massachusetts. So my first question, 2093 Mr. Secretary, is how is DOE coordinating with other federal 2094 agencies, including the Bureau of Ocean Energy Management, to 2095 address the jurisdictional issues surrounding offshore wind? 2096 Secretary Brouillette. Thank you, sir, and I appreciated the 2097 opportunity as well to catch up with you by telephone over the 2098 weekend. I enjoyed our conversation and I look forward to working 2099 with you.

2100 You know, we work closely with EPA, the Department of Interior 2101 in certain cases if it is dealing with offshore wind, to ensure 2102 that the permitting processes are streamlined. We mentioned

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earlier our need for efforts and other things that we are working
on. We are going to continue that effort because we do recognize
that, you know, the provision of wind energy, the provision of
solar energy, the provision of nuclear energy, the provision of,
you know, other forms of energy, hydro, are key to our energy
diversity here in the United States.

And as we talked about earlier, with regard to national security it is that diversity that allows us the strength that we need in America to continue growing the economy at the pace in which we are going to grow it. I am very supportive of your efforts there locally. I am happy to help you in any way that I might be able to.

2115 Mr. Kennedy. I appreciate that, sir.

2116 So building off that, I want to get a sense of what DOE is doing 2117 to ensure that offshore wind not only connects to the grid, but 2118 then get that grid to power of load center given the permitting 2119 issues that you have discussed.

2120 Secretary Brouillette. Sure. We need to continue to develop 2121 infrastructure here in the United States, transmission

2122 infrastructure, distribution infrastructures so that we can get

the power where it needs to be.

You know, we have unique challenges here in the United States with the provision of renewable energy. If you think about it, it becomes very logical. There is lots of sunshine in places

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2127 like Arizona and New Mexico and the southwest part of the country. 2128 Getting that electrical power to perhaps Chicago or high-density 2129 areas in the United States can be a bit of a challenge. 2130 And, you know, while we are very sensitive to the ability of 2131 local communities and states to be a part of the regulatory process 2132 or the permitting process, I should say, it is also important 2133 that we find a path forward to develop the infrastructure that we need to move the power from where it is generated to where 2134 2135 it needs to be. And it is an ongoing effort not only at the 2136 Department of Energy, but the EPA, Department of Interior, other 2137 bodies, state and local institutions as well. And it has been 2138 a very robust conversation and I look forward to being an even 2139 larger part of it.

2140 Mr. Kennedy. And, Mr. Secretary, just because my time is running 2141 a bit short here, I wanted to flag that you and I had discussed 2142 previously about taking advantage of the potential of offshore 2143 wind development in the Northeast and the economic impact that

this would have along these coasts and in particularly

2145 southeastern Massachusetts.

About a Center of Excellence on Offshore Wind, I had sent a letter to the Assistant Secretary of Energy Efficiency and Renewable Energy a few weeks ago and would love to get a response and keep in contact with your agency to figure out what we can do to make that come about.

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2151 Secretary Brouillette. Sure. I will certainly follow up with 2152 Dan Simmons and get you some additional information. But I 2153 would also like to get together with you, and I would also, if 2154 I might, sir, take this opportunity to invite you to our National 2155 Renewable Energy Laboratory in Golden, Colorado. I think you 2156 would be pleased with that particular Center of Excellence. That 2157 is one of its focal points.

2158 Mr. Kennedy. I look forward to it, sir. Thanks very much, Mr.2159 Secretary.

2160 Mr. Rush. The gentleman yields back. The chair now recognizes
2161 Mr. Bucshon from Indiana for 5 minutes.

2162 Mr. Bucshon. Thank you, Mr. Chairman.

2163 And thank you, Secretary. I would like to focus on grid 2164 reliability and resilience. Some of this has already been 2165 discussed, but, you know, the COVID-19 impact has made it even more front and center. And as you know, a key principle to a 2166 2167 resilient grid is the need for diverse fuel and generation supply 2168 for the electrical sector. And I am a supporter of the 2169 all-of-the-above energy approach and I believe each fuel mix plays 2170 a key role in our grid especially during a public health emergency. 2171 However, it is important that we don't forget the critical role 2172 baseload energy such as coal and natural gas play to our grid 2173 reliability. And it is more important than ever that our grid 2174 has a reliable backbone to make sure the lights always stay on

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2175 and our frontline workers have the electricity they need. 2176 I want to applaud the DOE at remaining committed to clean coal 2177 in our energy mix, as you have discussed earlier during the 2178 hearing, and by you recently announcing the Coal FIRST Initiative which will work to make coal plants flexible, innovative, 2179 2180 resilient, small, and transformative with the goal of one day 2181 having these plants be emission-free. In Southwest Indiana that I represent, we have all the coal in the state of Indiana. 2182 Our 2183 state at one point had about 85 percent of its power from coal. 2184 It is now quite a bit less, but still substantial based on our 2185 expansion of renewable energy sources.

But a couple of things, questions I have. Can you explain maybe what, if any, lessons you learned and continuing to learn during the COVID-19 pandemic that can help ensure our grid remains reliable and resilient?

2190 Secretary Brouillette. Sure, I am happy to do that. I mean, 2191 you know, it is the most, I think, striking example, obvious 2192 example is the importance of electricity to everything we do. 2193 I mean if we take a step back and just imagine for a moment the 2194 horror that would result from a loss of power in, say, New York 2195 City or one of our major cities where the pandemic was particularly 2196 acute at least in the early stages, the loss of power there would 2197 just be devastating.

2198 Our ability to replace the power is somewhat limited. I mean

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2199 some of these folks have backup generators and what not, but those 2200 So just the importance of the are very short in nature. 2201 electricity grid is just, you know, first and foremost. And it 2202 forced us to recognize, you know, as I mentioned to Mr. Kennedy 2203 and others, the need for additional infrastructure here in the 2204 United States, the additional emphasis that we placed on 2205 cybersecurity throughout this pandemic because if you were an 2206 adversary you would look at this as potentially an opportunity 2207 to do some damage to the grid and to the American economy, so 2208 our vigilance has been raised as a result of this pandemic. Sir, to your question about clean coal and the announcements 2209 that we made with Coal FIRST, I think that is a fascinating program 2210 2211 at the Department of Energy. It is designed to bring the next 2212 generation of coal generation to market. The facilities that 2213 we are looking at are smaller. They are much more efficient. 2214 And, importantly, when they are combined with things like biomass 2215 and the technologies that are available to us in the Coal FIRST, 2216 actually have the ability to have a net negative carbon emissions 2217 So it is a fascinating technology that we want footprint. 2218 to continue to work on and develop and potentially see moving to the private sector at some point in the future. 2219 So thank you 2220 for your interest in the program and I look forward to keeping 2221 you updated on it.

2222 Mr. Bucshon. Well, thank you. And again, thanks to the what

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2223 the Department of Energy is doing in the research realm. And 2224 I want to reiterate what other members have said and I think you 2225 have said during this hearing is that it is important that we 2226 don't limit ourselves to research and development in only one 2227 area of energy generation.

2228 And I think, you know, there is a push right now to forget about 2229 coal, forget about natural gas and other fossil fuels, whereas, with innovative research and development this can be a substantial 2230 2231 contributor as far as our lifetimes and probably into the future 2232 and also be a major contributor to making sure that we have a more reliable and resilient grid that will help protect us as 2233 2234 you mentioned on the national security front, but more importantly 2235 improve the lives of the citizens that we represent.

2236 So thanks for your work and continue the good work you are doing 2237 more broadly across the energy space and I hope the Congress 2238 continues to support that.

2239 With that, Mr. Chairman, I yield back.

2240 Mr. Rush. The gentleman yields back. The chair now recognizes

the gentlelady from New Hampshire, Ms. Kuster, for 5 minutes.

2242 Ms. Kuster. Great. Thank you. Thank you very much, Mr. Chair.

2243 Sorry, I am having a little difficulty with my computer. Just

trying to get to my remarks. Oh, well.

I wanted to ask a question today about the responding to COVID-19

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and the economic recovery from COVID-19. And thank you, Mr.

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2247 Secretary, for being with us. It is important for Americans to 2248 see that their government is doing everything in their power to 2249 help keep them safe, and I know from our discussion yesterday 2250 that you, the Department of Energy, has been helpful in combating 2251 COVID-19 directly. And I think my constituents would be pleased 2252 to hear how the Department of Energy is leveraging the full range 2253 of its facilities in the fight against this terrible disease that 2254 has been so disruptive in our country.

2255 So how are researchers at the Department of Energy using the 2256 massive computing power at their disposal to help us understand 2257 COVID-19 and explore potential treatments and how might this 2258 research help us get this pandemic under control?

2259 Secretary Brouillette. Sure. I am happy to address that. The 2260 national laboratories have been front and center on some of the 2261 early findings with regard to COVID. So, for instance, at Argonne 2262 National Laboratory they use very high powered light beams and 2263 light sources and x-ray technologies, and what they are able to do is identify certain protein strains that would further lead 2264 2265 to potential drug compounds that would have positive impacts on 2266 this particular virus, this COVID-19.

They were able to do that because of the supercomputing capacities at Argonne and Oak Ridge and some other national laboratories in very, very short amounts of time. So, you know, the very, you know, practical or, you know, for myself, a layman's way of

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2271 understanding it, rather than taking a year or two to go through 2272 perhaps billions of pages of academic research to find the most 2273 relevant articles, they could do that in a day or perhaps two 2274 days by using the speed of the computers to sift through it. 2275 The same thing with drug compounds, they were able to look through 2276 several thousand, perhaps even more, drug compounds to find the 2277 first 70 or 77 or so that they could identify as having a potential So it is using that ability that 2278 positive impact on this virus. 2279 allowed the CDC, allowed the researchers and the doctors at HHS 2280 and other interagency partners to make those key first decisions and potentially limit the impact of this pandemic. 2281

2282 So I want to direct my comments to the disruption Ms. Kuster. 2283 that has been caused by COVID-19. You and I discussed yesterday 2284 the opportunity to build back better than before and I would love 2285 to hear your thoughts on the dramatic advancements that have been 2286 made in increasing solar and wind energy production and how we 2287 can envision a rule for renewable energy that will place our economic recovery from the COVID-19 pandemic and keep us moving 2288 2289 forward so that we can not only rebuild our economy, but come

2290 back stronger with jobs here in America.

2291 Secretary Brouillette. Thank you for the conversation

2292 yesterday. I really enjoyed that.

2293 You know, with regard to the future of some of these renewable 2294 technologies, I do think we have an opportunity in America not

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2295 only as a result of the pandemic, but I think just as a result 2296 of the changing consumer desires to develop some advanced 2297 technologies. For instance, you know, the solar world in which 2298 we had discussed yesterday and I may have mentioned in the earlier 2299 part of this hearing, you know, we at the DOE, we look at 2300 photovoltaics as somewhat antiquated. It is a very mature 2301 technology. If you want a solar panel you can usually get one 2302 in America. You can usually get it installed on your house very, 2303 very quickly. I know that there has been some slowdown as a result 2304 of the pandemic, but nonetheless the technology is available to most U.S. consumers or world consumers. 2305

2306 What we are looking at is the next generation of solar technology, 2307 the use of perovskites, the use of other materials that perhaps 2308 are organic here in the United States or around the world, or they may be manmade technologies or manmade materials that we 2309 use to make the next generation of solar panels. If we can unlock 2310 2311 that, if we can move forward with that type of technology and, 2312 more importantly, get it to the marketplace through either our 2313 Office of Technology Transitions or other methodologies to get 2314 it to the marketplace, then we have an enormous economic

2315 opportunity ahead of us.

And, you know, with regard to our support here at the DOE, we support all forms of energy. We will continue to do so because as I mentioned earlier, we feel very strongly that adds not only

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2319 to our economic and energy security, but our national security 2320 as well.

Ms. Kuster. Thank you very much. My time is up. I did have a question on negative emission technology and direct air capture, but I will submit that for the record. Thank you. And I yield back.

2325 Mr. Rush. The gentlelady yields back. The chair now recognizes 2326 the gentleman from Texas, Mr. Flores, for 5 minutes.

2327 Mr. Flores, please unmute your microphone.

2328 Mr. Flores. Thank you, Mr. Chairman and Secretary Brouillette. 2329 It is great to have you testifying again to us today. I just 2330 wanted to let you know it is a hundred degrees here in my part 2331 of Texas and my solar system is producing 100 percent of my energy 2332 needs. So I am doing my part for the grid and also for the 2333 emissions of the country.

2334 Mr. Secretary, as you know we have talked quite a bit today about 2335 maintaining national security and maintaining U.S. energy dominance and that those are key inputs for continued economic 2336 2337 opportunity for hardworking Americans. And as you pointed out 2338 in one of your earlier responses, we need to aggressively support 2339 innovation and private sector partnerships, particularly when 2340 it comes to the use and development of advanced nuclear reactors to regain our global leadership role when it comes to nuclear 2341 2342 energy.

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2343 You also mentioned the critical need to make sure that high assay, 2344 low enriched uranium or HALEU, as we all call it, is available 2345 in sufficient quantities. You did say earlier that the 2346 Department of Energy is working on trying to make this fuel source 2347 available. Can you give us a little bit more detail, a little 2348 bit more substance about what the Energy Department is doing so 2349 that we can regain that leadership role in the nuclear space? 2350 And then also if you think there is additional legislative support 2351 that is needed, let us have -- share that information as well. 2352 Thank you.

2353 Secretary Brouillette. Thank you, Mr. Flores. Keep that a/c 2354 on. It gets really hot. It gets really hot down there. It was 2355 great to be in Texas last week. I am sorry I missed you.

2356 With regard to the HALEU project that you are talking about,

what we have instituted is a pilot project. We are going to do the supports with Ohio where we had an existing facility so we didn't need to construct new facilities to do this. Our intent is to spend about \$115 million that was appropriated by the U.S. Congress to take some centrifuges that we had down in Oak Ridge, move them to Ohio, and create this high assay LEU which is enriched

to a range somewhere around 19 percent.

We hope that this will catalyze -- and that project is underway.

2365 The casings have moved to Ohio. We have some additional

2366 construction to do inside of the facility, but we hope to have

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2367 this completed by sometime midpoint next year, perhaps at the 2368 end of next year, and begin producing in limited quantities this 2369 particular fuel source. We are also at the same time using our 2370 Idaho National Laboratory to move forward with some research and 2371 development and potentially some more aggressive work, actually 2372 deployment of a small modular reactor which doesn't use this type 2373 of fuel, but is nonetheless a newer technology that we would like 2374 to see come to market soon.

2375 With regard to the HALEU fuel that I mentioned earlier, what 2376 we will use that for is an advanced or a micro reactor and INL 2377 is at the tip of the spear force in the development of that technology as well, so we are going to work closely with them. 2378 2379 We are going to work closely with the U.S. Department of Defense 2380 who has indicated an interest in the small nuclear reactors for perhaps some deployment to remote locations where radar stations 2381 2382 are, you know, located around the world and, quite candidly, they 2383 don't have access to energy sources as we do in the lower 48 2384 perhaps. I am thinking about Alaska, places like the Aleutian 2385 Islands.

2386 So we are moving very aggressively to move this technology out 2387 to the marketplace.

2388 Mr. Flores. Okay, very good. And as you know, my HALEU bill 2389 has passed the House not only in the last Congress but also in 2390 this Congress and it helps give you the statutory authority you

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need for the development and transportation of this fuel and by setting public-private partnerships. We are hoping the Senate will act soon. What other legislative support do you need to help us regain our dominance in this area?

2395 Secretary Brouillette. Well, that bill is very important, so 2396 thank you for your leadership there and thank you for your support 2397 of both the technology as well as the program within DOE. I look 2398 forward to supporting that all throughout the process.

With regard to other legislative authorities, at this point in time I don't have anything for you in terms of a specific need, but I am happy to discuss this with you further and look through our legal authorities and see if there might be anything that might present a roadblock to us in the future for the development of this type of fuel or the advanced nuclear technologies that we just discussed.

2406 Mr. Flores. Okay. And thank you for your testimony and thank 2407 you for your answers to my questions. And let me know when INL 2408 is opened up for congressional visitors again because that is 2409 on my wish list of places to visit. Thank you.

2410 Secretary Brouillette. Love to have you. We would love to have 2411 you.

2412Mr. Rush. The gentleman yields back. The chair now recognizes2413the gentlelady from Illinois, Ms. Kelly, for 5 minutes.

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2414 Ms. Kelly. Thank you so much, Mr. Chair. Thank you for

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2415 convening us.

And thank you, Mr. Secretary, for spending part of your day with us. I wanted to ask you about the Department of Energy

2418 envisioning creating jobs through modernization and all kind of

jobs whether you have a high school diploma or you have your

2420 masters. What are you thinking about that?

2421 Secretary Brouillette. What am I thinking about in terms of 2422 the economic development or the --

2423 Ms. Kelly. What will be opportunities?

2424 Secretary Brouillette. I am sorry. I didn't quite get that.2425 I apologize.

Ms. Kelly. No, that is okay. How is DOE envisioning creating jobs through the grid modernization, whether it is you just have a high school diploma or you have a master's degree, what type of jobs will be available?

2430 Secretary Brouillette. Sure. Yeah, I am sorry. I couldn't 2431 quite catch the first part of your question.

You know, at the DOE what we are very interested in doing is creating opportunities not only for scientists, you know, the vast bulk of the population and the workforce at DOE including our contractor base, are, you know, PhD-level scientists. They are nuclear engineers, nuclear physicists, other types of scientists throughout our laboratory system. What we need

to do though is perhaps be more aggressive in developing the

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2439 pipeline for that sort of talent. And what we are now focused 2440 on is development of programs, internships, fellowships, that 2441 would be used by even high school seniors, or high school juniors 2442 in some cases, to come and spend a summer with us, come and spend 2443 a few weeks with us and let us show you what it is that we do. 2444 And through that process perhaps generate some interest in STEM 2445 education curriculums that perhaps would lead to these students 2446 coming back to us as perhaps post-docs 10 years later.

2447 So we are very aggressively pursuing that. We are also looking 2448 for opportunities to partner with private industry as well because 2449 we don't pretend to have a monopoly on the development of talent 2450 here in America at the Department of Energy, although I think 2451 we do a pretty good job of it. We do want to partner with our 2452 colleagues in private industry and work with them to develop STEM curricula in certain cases and, importantly, just develop the 2453 2454 opportunity for students to come in at a very early age and see 2455 what it is we do.

2456 Ms. Kelly. That is wonderful. And I hope when you are thinking 2457 of that, that you think about a diverse pipeline also.

Then I wanted to move to empty buildings and working with our cities and towns to think about reconfiguration of existing buildings so they are healthier, they incorporate more touchless techs, create better air ventilation and spacing. So what do you recommend to cities and towns to, I guess, just to have

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2463 healthier buildings, more green buildings?

Secretary Brouillette. As we discussed earlier, I mean focusing on efficiency, focusing on the programs that we have, you know, we have the federal energy program, FEMP as it is known, for federal buildings, but focusing on energy efficiency and what we might do to improve the efficiency of some of these buildings is clearly important.

But I might add that, you know, this is going to be a much larger 2470 2471 issue for us perhaps in the next few months or perhaps years as 2472 we, you know, address the changes in society as a result of this I have talked to several colleagues in private 2473 pandemic. 2474 industry who have already indicated to me that perhaps telework 2475 may be the future for many of the employees at their respective 2476 If that is the case, we are going to have some companies. 2477 additional space available in these buildings all around, 2478 including in the small communities that you mentioned earlier. 2479 Ms. Kelly. If you, I don't know if you know the answer, but if you were to give, I know there is not one grade of A through 2480 2481 F, but how do you feel like our towns and cities are doing as 2482 far as greener, cleaner, more technically sound buildings? Do 2483 you feel like we have lots and lots of work to do or we are halfway 2484 there?

2485 Secretary Brouillette. I don't know with regard to specific 2486 buildings or towns. I couldn't provide that kind of grade. I

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2487 will provide a pretty high grade though for the development of 2488 the technologies that are leading us to more efficient use of 2489 energy all across the country.

2490 What private industry is doing, I think is absolutely remarkable. As we mentioned earlier in this hearing, what our scientists 2491 2492 are doing at our national laboratories, the development of new 2493 solar technologies, the development of new technologies that 2494 allow us to capture carbon in certain instances, not only from 2495 fuels like coal but perhaps even natural gas and others, I give 2496 them very, very high marks for the work that is being done there. 2497 Ms. Kelly. Well, thank you. Thank you for your work and thank

2498 you for joining us and I yield back.

2499 Secretary Brouillette. Thank you.

2500 Mr. Rush. The gentlelady yields back. The chair now recognizes

the gentlelady from California, Ms. Barragan, for 5 minutes.

I am sorry.

2503 Ms. Barragan. Mr. Chairman, am I up?

2504 Mr. Rush. I am sorry, no. The chair recognizes Mr. Hudson for 2505 five minutes. Mr. Hudson?

2506 Mr. Hudson. Thank you, Mr. Chairman.

Thank you, Mr. Secretary, for being here with us today. I also just wanted to thank you and President Trump for your incredible leadership on behalf of our energy sector during this most trying

2510 time for our country.

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2511 As you know, I represent the amazing men and women of Fort Bragg 2512 in North Carolina. These include the nation's immediate response 2513 force, the 82nd Airborne, our Army Special Forces, and other 2514 critical military components. As we face threats around the globe, it is of paramount importance our bases at home and our 2515 2516 foreign and remote operating bases have the sustainable energy 2517 supply they need to keep us safe. You and President Trump have 2518 made this a priority and for that I am very grateful.

As this committee and your Department develop new energy technologies to adequately supply our armed forces, I believe the future of our defense energy supply and our focus should reside with small modular and advanced nuclear reactors. In fact, back in 2018, I added an amendment to the National Defense Authorization Act that requires the Department of Energy and the

2525 Department of Defense to develop guidelines for a pilot program 2526 for the development of micro reactors at critical DOE and DOD 2527 sites.

I am very interested in this report's recommendations for our forward operating bases and for increasing energy resilience at bases like Fort Bragg. But, unfortunately, the report is still at OMB, so I would appreciate anything you can do to assist me in getting this report finalized so we can move it forward. Just to get to my questions, build a little bit on what Mr. Flores

was asking you about, there was a recent report from the Nuclear

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Fuel Working Group which outlined how America could reestablish itself as a global leader in nuclear technologies. This report supported next generation nuclear reactors. Can you comment on this report and some of your work on small modular and advanced nuclear reactors?

2540 Secretary Brouillette. Sure. I am happy to do that, sir, and 2541 thank you as well for the conversation that we had recently on 2542 the telephone. I appreciated learning more about your 2543 congressional district, and I might also -- I am a little bit 2544 envious of your representation of Fort Bragg. As a former Army tank commander and drill sergeant, I spent a little time down 2545 2546 in North Carolina and I miss my days there. So thank you for 2547 your service and thank you for your representation of that 2548 important Army installation.

With regard to your question about the Nuclear Fuels Working 2549 2550 Group, what we had discussed earlier, I think, is very important 2551 for the future of nuclear energy not only here in the United States but around the world. As I mentioned in one of the earlier 2552 2553 questions, we have lost our leadership in America on nuclear 2554 power. We are losing it very quickly to places like China and In the case of China, they are using technologies that 2555 Russia. 2556 I think can be fairly characterized as American technology. 2557 Westinghouse is perhaps the world's leader in the development 2558 of advanced nuclear technologies. They created a reactor. Ιt

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2559 is called the AP1000. It is a fantastic product. China 2560 developed a reactor that looks awfully similar and we are seeing 2561 them deploy that around the world. And, importantly, as I 2562 mentioned earlier, they deployed around the world without the safeguards, without the nonproliferation safeguards that we as 2563 2564 Americans feel is very, very important. To the extent that we 2565 don't focus on that we only increase our defense needs around 2566 the world. You know, if we allow rogue nations to develop 2567 this technology and from that develop warhead programs, we only 2568 increase our need for a strong defense here in the United States. 2569 So it is very, very important that we connect these things together in a way that allows us to move forward and perhaps regain 2570 2571 our leadership in this nuclear area. The Working Group is the 2572 first step of that. We have many steps to go. But we do feel 2573 it is a very credible strategy that lays out a road map for America to retain, or regain our leadership in this case in the nuclear 2574 2575 space.

Well, I agree with you and I think that work is 2576 Mr. Hudson. 2577 very important and I appreciate your leadership. But as you know, 2578 in order to effectively run an advanced reactor, you must have This committee has done work on advanced 2579 the necessary fuel. fuels, Mr. Flores and Mr. McNerney, and as Mr. Flores mentioned 2580 right before me, on high assay, low enriched uranium fuels. 2581 Can 2582 you talk about what DOE is doing to help with accident-tolerant

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2583 fuels which are critical for existing and for these advanced 2584 reactors?

2585 Secretary Brouillette. Sure, absolutely. The

accident-tolerant fuels are absolutely necessary, in my view, not only for the development of the advanced reactors and the smaller reactors that we talked about earlier, it is important as well for changing the public perception about nuclear power in the first instance.

2591 We are still dealing with the overhang in America of things like 2592 Three-Mile Island. We obviously are dealing with the overhang of international events like Chernobyl and Fukushima. 2593 We all 2594 know about those horrible accidents. If we can develop a fuel 2595 that allows us to develop a technology that in certain cases you 2596 can turn the cooling off to the reactor and nothing happens, it simply shuts down, it is completely accident-tolerant, that is 2597 2598 important to changing that public perception and perhaps will 2599 increase public acceptance of this important energy source. As I mentioned earlier as well, it is important that we have 2600 2601 all forms of energy, but nuclear in particular because it provides 2602 such an important baseload component to our electric grid here 2603 And until we have the battery technologies in the United States. 2604 that we are all working on, then there is no physical possible 2605 way for us to move to a one hundred percent renewable world, if 2606 that is what some are pursuing. We can't do it today without

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2607 baseload electricity, and nuclear energy is just such an important 2608 component of that.

2609 Mr. Hudson. Great. Well, thank you, sir. I appreciate it and 2610 look forward to continuing these discussions.

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

2612 Mr. Rush. The gentleman yields back. The chair now recognizes 2613 the gentlelady from California, Ms. Barragan, for 5 minutes.

2614 Ms. Barragan. Thank you, Mr. Chairman.

And thank you, Mr. Secretary, for joining us. 2615 My first question 2616 is, over 620,000 clean energy workers have lost their jobs since the start of the pandemic including over 100,000 in California. 2617 You were vocal in your testimony about supporting the fossil 2618 2619 fuel industry. Can you tell me what you are doing to help the 2620 clean energy industry rebound? And if you could try to do 2621 that in 60 seconds, I have a number of questions I am trying to 2622 get to, Mr. Secretary.

2623 Secretary Brouillette. Yes, ma'am. I am happy to do that.

2624 Yes, I have been very vocal in my support for the energy industry,

2625 but all forms of energy. The pandemic has hit all sectors of

2626 the U.S. economy. I don't know if it has been an equal

distribution, but the pain has been felt all across the United States. And I am supportive of, you know, the programs that you and your leadership in Congress, others in Congress, have done in the last 2 perhaps 3 months in passing programs like the CARES

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Act, other steps that you have taken to stabilize the U.S. economy as we deal with this pandemic.

2633 I want to ensure that --

Ms. Barragan. Thank you, Mr. Secretary. If I could just interrupt you, I am trying to get to the questions. Is there anything specifically you can tell me about what you are going to do to help the clean energy industry rebound, anything specifically you might be able to mention?

2639 Secretary Brouillette. Well, I think, you know, under the energy 2640 efficiency program at the Department of Energy we are going to continue to invest through our funding opportunity processes. 2641 2642 We have released, I think, in the last 2 or 3 months we have 2643 announced that we have about \$220 million in funding opportunities 2644 that are coming exclusively out of the clean energy space in our energy efficiency programs. We are going to continue to make 2645 2646 those available to the private sector and make those available 2647 so that they can move forward with some of the newer technologies that they want to bring to market and hopefully that will add 2648 2649 some economic assistance to their businesses as well.

2650 Ms. Barragan. Okay, thank you, sir.

It was reported in April that your agency is holding back \$43 billion in loan guarantees earmarked by Congress for clean energy projects. Why withhold support for the clean energy projects? Secretary Brouillette. Well it is -- I would disagree slightly

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2655 with the characterization. It is a loan program that is available 2656 within the Department of Energy, but it is not available 2657 exclusively to clean energy so we are not withholding that money 2658 from the clean energy industry. What I have done is undertake 2659 a review of the loan program, because coming from the banking 2660 industry I was a little concerned about some of the requirements 2661 that were being put in place that might prevent loans from being 2662 made.

That review is still in process and I hope to complete it very, very shortly and at some point in the future we will move forward with this lending program.

Ms. Barragan. Well, I hope you will work as quickly for the clean energy projects and sector as you have been for the fossil fuel industry, sir. I happen to represent a district that is almost 90 percent Latino/African American. They are surrounded by three freeways, the port, and urban oil drilling.

2671 Mr. Secretary, what is environmental injustice or environmental

2672 justice mean to you?

2673 Secretary Brouillette. It means the availability of energy to

all sectors of our nation and all communities in our nation.

2675 My commitment to environmental justice is very broad. We talked

a lot today about energy efficiency and making energy cheaper.

2677 I think that is very important for us to do. That is part of

2678 this program.

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And it is my commitment to you, it is my commitment to this Congress to pursue those types of technologies that allow the distribution of energy very, very efficiently in America and, importantly, very cheaply in America.

Ms. Barragan. Well, sir, much like your predecessor, when asked this question you were talking about consumer pricing. But let me just tell you, environmental injustice is when there is a disproportionate impact to our communities of color, our black and brown communities that are suffering a much higher rate of air pollution.

And so when you talk about rolling back air standards, when you 2689 2690 talk about making it easier for the fossil fuel industry, you 2691 are talking about harming the health of our communities of color. 2692 And then COVID hits, and guess what? They are dying at higher 2693 rates because they have higher asthma and they are more exposed 2694 to this air pollution. And so it is very challenging. If you 2695 haven't noticed, there are protesters all across this country 2696 right now demanding justice and that includes environmental 2697 justice. And so I would ask you to take a very serious look at 2698 efforts that you can take to help fix this huge problem that we 2699 have.

2700 Do you believe in environmental racism?

2701 Secretary Brouillette. Well, I understand your concern and I 2702 think we happen to agree on the need for cleaner technologies

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- 2703 going into the marketplace. But I would add that, you know, what 2704 is important is that we not only have the development of the 2705 technologies so that we can --
- 2706 Ms. Barragan. Mr. Secretary, the question was whether you 2707 believe in environmental racism.
- 2708 Secretary Brouillette. I am not sure what you mean by that.2709 Ms. Barragan. Do you, yes or no?
- 2710 Secretary Brouillette. I don't know what you mean by that.
- 2711 Ms. Barragan. Well, it is a term to describe environmental
- 2712 injustices that occur across our country to certain communities
- 2713 including black and brown communities that are disproportionately
- impacted.
- 2715 Secretary Brouillette. I believe that there are communities
- 2716 that are perhaps disproportionately impacted, I just don't
- 2717 understand what you mean by the term "environmental racism."
- 2718 Ms. Barragan. Okay. Well, I can certainly follow up with you
- and we should have this conversation because it goes hand in hand
- about what is happening across this country and why our
- 2721 communities of color are disproportionately impacted.
- 2722 And, sir, I know my time has expired but I will welcome that
- 2723 conversation.
- 2724 Mr. Rush. The lady yields back.
- 2725 Ms. Barragan. And with that I yield back.
- 2726 Mr. Rush. The chair now recognizes the gentleman from Michigan,

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2727 Mr. Walberg, for 5 minutes.

2728 Mr. Walberg. Thank you, Mr. Chairman.

2729 And thank you, Mr. Secretary, for being here, and I think it

is very apparent that you have reached out. Like the

administration does, you have reached out to talk to us, members

of this committee and subcommittee and on both sides of the aisle,

and I appreciate that openness to hear our concerns, our ideas, and get to know us a little better as well.

2735 Secretary Brouillette. This committee, you have trained it very 2736 well.

2737 Mr. Walberg. Well, I appreciate the fact that you will be coming 2738 to Michigan later this week also. And on the glide path in the 2739 airport, most likely, you will look down and you will see my 2740 district and you will see why it is the energy district of the 2741 state with the nuclear, with the coal, one of the most up-to-date, 2742 modern coal plants that is still allowed to function as well as

2743 natural gas and manufacturing of wind energy as well in my

district.

2745 So we are delighted to have you there. Plus, unlike some of 2746 my Texas colleagues, you are not going to find hundred-degree 2747 weather. In fact, when I left the airport today it was 70 degrees, 2748 very low humidity, blue skies, and pure Michigan, and we look 2749 forward to sharing that with you. 4 years ago, FERC held 2750 a technical conference to discuss a needed modernization of rules

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2751 relative to PURPA, a law that is a 1978 law that had very strong, 2752 positive results in moving us toward renewable energy and doing 2753 it in such a way that right now it has worked so well that all 2754 energy providers have moved into that realm. But it is also in 2755 its present format causing unnecessary billions of dollars to 2756 be paid by consumers because of the outdated law.

2757 And so as you know, I have been heavily involved for years now in trying to reform that and I am pleased that FERC had undertaken 2758 2759 4 years ago an attempt to modernize it and is currently preparing 2760 to adopt critical components of reform included in legislation that I have championed over the past several Congresses. 2761 Due 2762 to COVID-19, utilities in my home state in Michigan have reported 2763 an increase in residential usage due to more people staying at 2764 home.

2765 Mr. Secretary, in your opinion, what impacts would reforms to 2766 PURPA such as waiving the mandatory purchase obligations for 2767 qualified facilities have on lowering utility costs for consumers 2768 at a time when domestic demand for electricity increased in this 2769 new stay-at-home economy?

2770 Secretary Brouillette. That is a great question and probably 2771 requires a more thoughtful answer than I am going to be able to 2772 provide you in 30 seconds. But look, I think generally, sir, 2773 you know, PURPA needs to be reformed. It was written many, many 2774 years ago, I think 1978 or so to be exact. You give or take a

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2775 few years from there, but I think it is 1978, and much has changed, 2776 you know, since then.

2777 We talked about technology today quite a bit, but the markets 2778 themselves have changed. Back in that point in time, you know, 2779 utilities were vertically integrated. Today they are not. We 2780 have very competitive markets. And I think it is, you know, 2781 appropriate for Congress, for FERC, for others to go back and take a look at this law and see if it still meets the needs of 2782 2783 the American people.

I might suggest that there are some changes that are long overdue with regard to PURPA, so I would support a review of the law. Mr. Walberg. We appreciate that and I am glad to see what is being done with FERC. I do believe that, ultimately, we need to do it legislatively so it is permanent but it has some flexibility in it, unlike the 1978 law.

2790 Secretary Brouillette. Sure.

2791 Mr. Walberg. The Office of Cybersecurity, Energy Security, and

2792 Emergency Response, CESER, leads the Department of Energy's

2793 emergency preparedness and coordinated response to disruptions

to the energy sector including physical and cyber attacks, natural

2795 disasters, and manmade events.

2796 Two questions. The first is, can you please describe the role

of the CESER Office over the last few months as it relates to

2798 COVID-19 outbreak?

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And, secondly, Mr. Rush and I, Chairman Rush and I have introduced the Energy Emergency Leadership Act which would help ensure the durability of DOE leadership in energy emergencies. As the House considers future measures in response to COVID-19 outbreak, would DOE be better positioned to carry out these functions in the long term if the Assistant Secretary of CESER were made permanent in the DOE Organization Act and had clear authority through

2806 congressional authorization?

2807 Secretary Brouillette. The answer to your last question, I think2808 I would answer that question yes.

And I want to say thank you to both you and Chairman Rush for 2809 your support of that particular office. 2810 It has been absolutely 2811 essential. And as we saw in this particular pandemic, it has 2812 become increasingly important not only for purposes of its role with regard to cybersecurity, but its role with regard to the 2813 2814 catastrophic response efforts. It was the CESER Office that 2815 provided the masks and provided the testing kits and delivered those to the utilities. 2816

It was the CESER Office that worked closely with the CEOs of the utilities all across the country to ensure that the control room personnel in particular were quarantined and had done the proper social distancing so that we didn't lose them at some point in this pandemic. Very critical role within the Department and I think a very critical role within the industry itself. And

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- 2823 I think if you mentioned this to other utility CEOs you will find 2824 a similar response.
- 2825 Mr. Walberg. Thank you. I appreciate it.
- 2826 And, Mr. Chairman, I yield back.
- 2827 Mr. Rush. The gentleman yields back. The chair now recognizes
 2828 Mr. Peters from California for 5 minutes.
- 2829 Mr. Peters. Thank you very much, Mr. Chairman.

2830 And thank you to the Secretary for being with us today. During 2831 this administration, sir, there has been a shift in what to do 2832 with nuclear waste. Can you tell us what you think is the 2833 appropriate path forward on spent nuclear fuel storage? Right 2834 next to my district is the San Onofre facility which is now closed, 2835 for better or worse, and leaving it on the coast near a military 2836 base and near that population just doesn't make any sense. Secretary Brouillette. Sure. Yes, sir. I am happy to address 2837

2838that. We feel very strongly in the administration that we have2839to address the issue of spent nuclear fuel that is currently being

stored at all of these utilities all across the country. You

2841 mentioned San Onofre. That is a familiar site for me and a

2842 familiar topic of conversation for me inside of the DOE.

It is important that we address this, but it is also very clear that Congress has chosen not to fund any activity related to what was designated as the final repository, Nevada, many years ago, and as a result of that we are prohibited from moving forward

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with that particular repository and we won't move forward with that repository until Congress decides that it will, you know, it may want to do that.

2850 In the interim, however, we will focus on some measures that 2851 we might take to provide interim relief from the private storage 2852 or the storage that currently exists today. We have just begun 2853 that process. It will be open. It will be inclusive. I want to work not only with the policymakers here in Congress, but also 2854 2855 with the governors and the local officials as well so that together 2856 we might find an appropriate solution. But for the moment, we 2857 are frozen by the Congress and the lack of funding for anything 2858 related to the final repository.

2859 Mr. Peters. Would you recommend to Congress and request as part 2860 of your budget request that we do fund the next steps in processing 2861 for finalizing the permitting of Yucca Mountain?

2862 Secretary Brouillette. Okay. Now it is on.

I think what we have proposed is a request for funding that might

lead us to develop some of these interim options. With

regard to licensing, I will have to go back and look at the budget

2866 request and see what the specifics were and I would be happy to

2867 respond to you in writing with that answer.

2868 Mr. Peters. You take a legitimate shot at Congress. I was in 2869 the last Congress. We had actually passed a bill that would have 2870 moved Yucca ahead and that has been not the case in this Congress,

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2871 but at the same time we have heard mixed signals from the 2872 administration itself. And so if you want to get back on board 2873 with Yucca, I would appreciate doing that directly.

2874 A question about transmission of renewable energy. One of the 2875 things I have heard and I want to see too what your opinion is 2876 on this, is that one of the obstacles in getting renewable energy 2877 from wind farms in places like Texas and from solar farms in places like Arizona is that interstate transmission is difficult to 2878 2879 build. Is that your sense and what is it that Congress can do, 2880 if that is your sense, to make transmission of those resources 2881 easier to places like Chicago and Detroit where people might need 2882 that renewable energy?

2883 Secretary Brouillette. It is my sense. You know, we have talked 2884 about grid modernization for some years and we have begun some 2885 important work to doing that. The example that you point out, 2886 I think, is absolutely on point. You know, we are developing 2887 generation sources all across the country, but we lack the ability 2888 to move the power from point A to point B. And, you know, much 2889 of our electricity grid is, it is many years old and it is time 2890 that we upgrade these facilities. We have to make them smart. 2891 We have to get them permitted.

2892 Importantly, I think, for the transmission of electricity we 2893 need to look at these large infrastructure projects that would 2894 allow us to do exactly that. It is akin to what we discussed

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in the other area. You know, America is now the world's largest producer of energy in terms of oil and gas, and our challenge today is not the production. Our challenge in many cases is actually getting the product to the marketplace, and the same thing exists with electricity.

2900 Mr. Peters. Does the administration support particular reforms 2901 for permitting interstate transmission lines that would serve 2902 those northern cities, say, with renewable sources from out of 2903 state? And if so, what particular reforms would you support? 2904 Secretary Brouillette. You know, I would really like to get 2905 back to you with a more thoughtful answer because I think there are some things that we can work together on to make this a little 2906 2907 easier, you know, for the development of this type of

2908 infrastructure. So rather than perhaps giving you an imprecise

- 2909 or a less than thoughtful answer, I would appreciate the
- 2910 opportunity to perhaps respond to you in writing.
- 2911 Mr. Peters. I look forward to that, Mr. Secretary. And,
- 2912 Mr. Chairman, my time has expired.
- 2913 Thank you very much, Mr. Secretary, for coming.
- 2914 And I yield back.
- 2915 Mr. Rush. The gentleman yields back. The chair now recognizes
- 2916 Mr. O'Halleran for 5 minutes.
- 2917 Mr. O'Halleran, please mute your phone. Unmute, rather.
- 2918 Mr. O'Halleran is experiencing some technical difficulties.

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2919 Let us move on.

2920 Ms. Blunt Rochester, you are recognized for 5 minutes.

2921 Ms. Blunt Rochester. Thank you, Mr. Chairman.

2922 And thank you so much, Secretary Brouillette, for joining us 2923 today.

One of the many things that COVID-19 pandemic has taught us is the importance of preparation, and as we start to rebuild our economy from this ongoing public health pandemic, we must be intentional about how we rebuild. That means rebuilding an economy powered by clean energy so that we can have safer and healthier communities and it also means working together to be better prepared for future public health emergencies.

2931 Last month, I introduced the Open Back Better Act. This 2932 legislation will ensure that our nation's critical infrastructure 2933 like hospitals and schools is more resilient, more energy 2934 efficient, safer, and more reliable to guard against future 2935 threats, and while creating good jobs and prioritizing the communities hit hardest by this pandemic. 2936 During a national 2937 emergency like a pandemic with the additional risks from wildlife, 2938 hurricanes, and other climate related disasters, we need more 2939 resilient infrastructure. These upgrades are especially 2940 important in communities that have been overburdened by the impact 2941 of pollution, public health emergencies, and natural disasters. This is why my legislation prioritizes funding for 2942

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2943 environmental justice communities who have been

disproportionately impacted by the COVID-19 pandemic and which we talked about earlier with Ms. Barragan's testimony. As we emerge from this health and economic crisis, we must do better and we must ensure that we are better prepared for the inevitable future emergencies.

2949 Mr. Secretary, can you discuss why resiliency upgrades to 2950 mission-critical facilities such as our hospitals is so important

2951 during the pandemic?

2952 Secretary Brouillette. Yes, ma'am. I can. You know, as we 2953 have seen with this pandemic and, candidly, as we have seen in 2954 other parts of American history, our reliance upon the electric 2955 grid has just increased exponentially over the course of the last 2956 Almost everything that we do depends in some way, few decades. shape, or form on the provision of energy, and electricity in 2957 2958 particular.

2959 So as we looked at the pandemic, we obviously were concerned about the hospitals and the provision of health care throughout 2960 2961 America, but as now we have gotten beyond at least some of the 2962 initial moments of the pandemic and we start to look at how the economy is going to change, we are looking at things like 2963 2964 And I don't have to remind anybody in this hearing, teleworking. 2965 because we are doing it today, you can't telework without wifi. 2966 You don't have wifi without electricity.

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2967 So the importance of the grid to our daily life has only been 2968 heightened by this pandemic and we all see it. So it is important 2969 that we think about things like resiliency and reliability in 2970 perhaps a different way than we have in years past. We have 2971 created at the Department of Energy a resiliency or a resiliency 2972 model which is going to allow us when fully developed, and we 2973 are very close to bringing this out, we can see the entire grid 2974 in real time and address challenges that we may face in almost 2975 every part of the country. So be it a cyber threat or be it a 2976 load threat, we work closely with the utilities and we can see these things in real time and address them in real time. 2977

And in certain cases, as we further develop the model, we may be able to predict where we will have load challenges or particular threats that we need to address so that we can ensure the safe, reliable provision of electricity.

2982 Ms. Blunt Rochester. Mr. Secretary, thank you for that answer. 2983 And you have kind of preempted one of my questions and we have 2984 many more that we will send to you in writing.

But as you were talking, I am very focused on the future of work, and as you said, whether it is distance learning, telework, or telemedicine, telehealth, we have seen an increase in need. And I am curious. During the pandemic I have been talking to companies about what has changed in the way that they operate. Can you talk about what has changed in the way your Department

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2991 approach is working with other federal and state partners to 2992 ensure the continued reliability of the U.S. electric system? 2993 Secretary Brouillette. Sure. I don't know that we have, I mean 2994 the workforce has changed quite dramatically, so I mean we are 2995 in a maximum telework environment now. And I don't have an exact 2996 number for you, but I would be happy to provide you an update. 2997 But if I had to guess today, I would probably suggest that perhaps 60 percent of the workforce at DOE is now teleworking. 2998 There 2999 are certain job functions at the Department, the delivery of a 3000 nuclear warhead to the United States Navy or the U.S. Air Force, 3001 you simply can't do that over the telephone. You have to 3002 physically deliver it. So we are taking the precaution --3003 Ms. Blunt Rochester. Are you working differently with other 3004 agencies though? Has anything changed or have you noticed anything? 3005

3006 Secretary Brouillette. Not so much in that sense. I mean, you 3007 know, we are still very, very interactive. You know, our 3008 teleworking capabilities, we have learned that our networks, our 3009 IT networks are very robust. We have adapted to the new workplace 3010 much like the rest of America has.

3011 Ms. Blunt Rochester. Well, I have run out of time, but I will 3012 follow up with you to ask how does the upcoming hurricane season 3013 impact the electrical system's reliability in this public health 3014 crisis. And thank you so much for your testimony.

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3015 And thank you, Mr. Chairman, I yield back.

3016 Mr. Rush. The gentlelady yields back.

3017 Mr. O'Halleran, you are recognized for 5 minutes.

3018 Are you there, Mr. O'Halleran? Your audio is not working.

3019 Please unmute.

3020 Mr. O'Halleran, while you are working on your audio, the chair 3021 will recognize -- Mr. O'Halleran, are you there?

3022 The chair now recognizes two individuals who have waived onto

3023 the committee for the purposes of questioning the witness. The

3024 chair now recognizes the gentleman from Illinois, Mr. Shimkus,

3025 for 5 minutes.

3026 Mr. Shimkus. Well, thank you, Mr. Chairman.

3027 And, Dan, great to have you here. One of my last times to harass

3028 a Secretary of Energy and I had to waive on. I feel like a

3029 freshman. I had to wait like 2 hours. So, but it is an important

3030 issue and you know the issues. I had to drop off to talk with

3031 the corn growers on fuels and that those questions have been asked

3032 by Dave Loebsack.

3033 So you also know that a lot of my career has been spent on nuclear 3034 fuel and nuclear waste and I want to talk about, start with the 3035 closing of the fuel cycle and the current federal law is that 3036 the federal government should take title to the spent nuclear 3037 fuel and the defense waste. The Nuclear Waste Policy Act passed 3038 in '82 and '87 identified that that was our responsibility; is

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3039 that correct?

3040 Secretary Brouillette. It is. Yes, sir.

3041 Mr. Shimkus. And would you also agree that it is the

3042 international scientific consensus that long-term geological

3043 repository for high-level nuclear waste and defense waste is the

3044 international scientific consensus?

3045 Secretary Brouillette. I would agree with that. I think there 3046 is a general consensus in the scientific community that that is 3047 the best long-term way to dispose of the spent fuel.

3048 Mr. Shimkus. Yeah. Britain is looking at it. France is 3049 looking at it. Sweden is looking at it. Finland is looking at So you know where I am going. It is no surprise that we 3050 it. 3051 have the law of the land for failure of the appropriators to spend 3052 the money. Our spent fuel should be going and our defense waste should be going to Yucca Mountain in Nevada, which has been, done 3053 3054 the research, the due diligence, and has passed the scrutiny of 3055 So we will continue to drive those issues hopefully science.

3056 in other venues.

Let me go to the other really important issue which is the beginning of the fuel cycle. In the beginning of the fuel cycle when we are reprocessing, how many plants do we have that reprocess

3060 to help create nuclear fuel in this country?

3061 Secretary Brouillette. I am sorry. I didn't quite hear. How 3062 many plants do we have that reprocess?

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- 3063 Mr. Shimkus. Yeah, or that do the yellow cake into the process 3064 of like we see at Metropolis?
- 3065 Secretary Brouillette. That do the conversion processes?

3066 Mr. Shimkus. Right.

- 3067 Secretary Brouillette. To my knowledge I think we only have 3068 one, but I will double check that.
- 3069 Mr. Shimkus. And that one is, and that one, we believe, is in 3070 Metropolis. And is that operating right now?

3071 Secretary Brouillette. They are in a standby mode, as I

- 3072 understand. They are not fully operational.
- 3073 Mr. Shimkus. So we appreciate this nuclear energy working group and which addressed the domestic uranium reserve which we talked 3074 3075 about offline, and I appreciate that. And as I raised to you 3076 on our call, there is a gap of work that may help the reprocessing 3077 Since there is a shutdown now, the concern is in the future. 3078 is that we are not going to have a facility to deal with this 3079 front end even with this domestic uranium reserve.
- 3080 Can you talk about some options that might be on the table to 3081 help places like Honeywell in Metropolis, Illinois?
- 3082 Secretary Brouillette. Sure. I am happy to do that. You know, 3083 as we pointed out in the Nuclear Fuels Working Group, it is not 3084 enough for us just to simply create a uranium reserve. It is 3085 not enough for us to pull it out of the ground and stack it up 3086 someplace and have it available for some future use. You must

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3087 convert it. You must enrich it. You must have it available as 3088 fuel for it to have any practical value.

3089 And that is our intent with the Working Group. That is our 3090 That is why we requested \$150 million in the President's intent. 3091 budget to establish this reserve. We fully respect the right 3092 of Congress to disagree with that, but we think it is important 3093 for us to do as a nation. With regard to that one facility, you 3094 know, that you mentioned earlier, we think it is important for 3095 us to maintain that type of capability here in the United States. 3096 And it is my commitment to you, it is our Department's commitment 3097 to you to be focused on that over the course of the next few days and weeks, because I understand the critical economic condition 3098 3099 in which that particular facility is in and I look forward to 3100 working with you to see what we might do in terms of finding options or solutions to maintain this important capability here in the 3101

3102 United States.

3103 Mr. Shimkus. Thank you very much.

3104 Chairman, my time has expired. I yield back.

3105 Mr. Rush. The gentleman yields back. The chair recognizes Mr.

3106 O'Halleran. Are you there, Mr. O'Halleran?

3107 The chair now recognizes the final member today who has also

3108 waived on. Mr. Burgess, you are recognized for 5 minutes.

3109 Mr. Burgess. I thank the chairman for letting me waive on.

3110 I was actually a member of this subcommittee for over a decade,

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3111 but when I was called to duty on the Rules Committee, I had to 3112 give up one of my subcommittees and, unfortunately, Energy was 3113 that subcommittee. But happy to be with you, Mr. Secretary. 3114 As we are looked upon by Billy Tauzin's portrait up on the wall, it is significant that you are here today. 3115 Fascinating 3116 discussion hearing you talk about getting energy from where it 3117 is created to where it is needed. Your predecessor, Secretary 3118 Perry, when he was my governor, the longest-serving governor in 3119 Texas history by the way, created these Competitive Renewable 3120 Energy Zones for, as a state program, but bringing wind energy from West Texas to the population centers in the eastern part 3121 3122 of the state and, of course, those crossed the district that I 3123 represent.

3124 And just like as you might imagine, a pipeline or a highway 3125 bringing those high-tension electrical wires across your district from west to east can create a great deal of attention, so it 3126 3127 is not just the pipelines. It is not just other areas, but we are, you know, being in favor of wind energy means you also need 3128 3129 to be in favor of the infrastructure that is the deliverable to 3130 get it to where it is needed. And again, your predecessor was, 3131 when he was Governor of Texas was certainly very involved in that. 3132 On the issues of the Strategic Petroleum Reserve, and you and I have had an opportunity to talk about this and the -- just can 3133 3134 you speak to where we are with the modernization of the Strategic

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3135 Petroleum Reserve and what it, as you see its future utility might 3136 be over and above what its national security implications have 3137 been in the past?

3138 Secretary Brouillette. I would be happy to, Mr. Burgess, and 3139 thank you for your service to Texas. It means a lot to all of 3140 us who live there. Even as an adopted son of Texas, I really 3141 appreciate your service to the state and to the country.

3142 You know, the Strategic Petroleum Reserve is a national asset 3143 and as you well know, because of your long history here on this 3144 committee and in Texas, you know it's important to our national 3145 What we need to do with the Strategic Petroleum security. Reserve, in my view, is to continue the Life Extension program 3146 3147 that was started some time ago. The facility has become quite 3148 It is important that we continue to maintain it in a way old. that allows it to continue to be helpful to the nation. 3149

3150 I would also suggest that the Congress might want to consider 3151 perhaps upgrading some of the facility as well. When it was designed, it was designed to take in oil. 3152 It wasn't designed 3153 to discharge oil. Not very effective. Or, I am sorry, I had 3154 that backwards. It was designed to take it out, not put it in. 3155 And it is very important that we think about, you know, whether or not we would like to upgrade the facility so that it would 3156 3157 allow us to take in oil even more efficiently than we can currently 3158 do so today.

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3159 As you know, you know, the President directed me to fill the 3160 Strategic Petroleum Reserve and we have been doing exactly that. 3161 We are somewhat limited by the amount and the volume of oil that 3162 we can actually take in to the facility itself. So as we move 3163 forward, I would love to work with this committee. I would love 3164 to work with Congress more broadly to think about how we might 3165 upgrade that important facility.

Mr. Burgess. Well, certainly that, in my opinion, was an oversight to leave the purchase of additional petroleum for the Strategic Petroleum Reserve out of the CARES Act, and I do have a bill with Senator Hoeven designed to do just that and I do want to work with you on that.

3171 Can I just ask you a question? Since I am also on the Rules 3172 Committee, we are going to be hearing about the National Defense 3173 Authorization Act in the Rules Committee at the end of this week 3174 and the whole issue of the authority, taking the authority from 3175 the Department of Energy to some other location for America's Historically, you have maintained and had the 3176 nuclear weapons. 3177 authority over the nation's nuclear capability. Can you speak 3178 to why civilian control of the nuclear arsenal is so important? I think, I don't know that I can give 3179 Secretary Brouillette. you all of the details around it, but it is a longstanding 3180 military, it is a longstanding tenet in our national security 3181 3182 apparatus here in the United States. It is one of the reasons

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I think, you know, especially when you are talking about nuclear warheads, I mean we are not talking about side arms. We are not talking about, you know, 9 millimeter rounds. We are talking about, you know, weapons of mass destruction. These are very large warheads.

3188 From its very creation, the Atomic Energy Commission was created 3189 as a civilian agency because it was civilian scientists who helped develop the technology. It has been those scientists and their 3190 3191 successors who have maintained that capability here in the United 3192 It has always been in the Department of Energy. States. It has 3193 always been in the scientific realm and that is why we have 3194 developed these national laboratories.

3195 It is also why we have developed the supercomputing capabilities 3196 that allow us to simulate things like testing today. You know, 3197 the United States stopped testing its warheads in 1992. As these 3198 warheads now age, it is very, very important that we monitor that 3199 aging process and we ensure the safety and effectiveness of the To do that we rely upon the national laboratories 3200 stockpile. 3201 that are all part of the DOE network and all part of the DOE 3202 enterprise.

And that is why, if Congress is considering a change, I would urge it leave it within the Department of Energy so that the NNSA can continue to rely upon these national assets.

3206 Mr. Burgess. I will just commit to you and anything in the future

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- 3207 this committee can do to ensure that the security, National
- 3208 Nuclear Security Agency stays within the Department of Energy,

3209 I think, is critically important and I will make that commitment

3210 to you as well.

- 3211 Secretary Brouillette. Thank you.
- 3212 Mr. Burgess. All right, thank you.
- 3213 Thank you, Mr. Chairman. I yield back.
- 3214 Mr. Rush. The gentleman yields back.

3215 We have some unanimous consent requests that I want to itemize 3216 here and request unanimous consent to enter into the record a letter from former Secretaries Perry and Moniz to the Armed 3217 3218 Services Committees; a letter from the Secretary of Energy to 3219 Chairman Inhofe; a letter from Chairman Pallone and Ranking Member 3220 Walden to the Armed Services Committee; a letter from Norm 3221 Augustine and Richard Mies to the NDAA Conferees; a letter from 3222 former DOE Secretaries to the NDAA Conferees; a letter from 3223 Ranking Member Upton and former Chairman Waxman to the Armed 3224 Services Committees; a February 2016 memorandum from the 3225 Secretary of Energy Advisory Board; and, finally, a May 2020 op-ed 3226 by Secretary Brouillette. And hearing no objection, the 3227 unanimous consent request is approved. This concludes the witness questioning portion of our hearing, 3228

3229 and I want to thank you, Mr. Secretary, for your participation 3230 in today's hearing. It has been a lengthy hearing --

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3231 Secretary Brouillette. Thank you.

- 3232 Mr. Rush. -- but it has been an excellent hearing and we thank3233 you for your excellent testimony.
- 3234 I do remind members that pursuant to committee rules they have
- 3235 10 business days to submit additional questions for the record
- to be answered by the Secretary who has appeared before this
- 3237 subcommittee. I ask the Secretary to respond promptly to any
- 3238 such questions that you may receive.
- 3239 And at this time, the subcommittee is hereby adjourned.
- 3240 [Whereupon, at 3:39 p.m., the subcommittee was adjourned.]