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- 4 QUADRENNIAL ENERGY REVIEW AND RELATED DISCUSSION DRAFTS
- 5 TUESDAY, JUNE 2, 2015
- 6 House of Representatives,
- 7 Subcommittee on Energy and Power
- 8 Committee on Energy and Commerce
- 9 Washington, D.C.

- The Subcommittee met, pursuant to call, at 10:04 a.m.,
- 11 in Room 2123 of the Rayburn House Office Building, Hon. Ed
- 12 Whitfield [Chairman of the Subcommittee] presiding.
- 13 Members present: Representatives Whitfield, Olson,
- 14 Barton, Shimkus, Pitts, Latta, Harper, McKinley, Pompeo,
- 15 Kinzinger, Griffith, Johnson, Long, Ellmers, Flores, Mullin,
- 16 Upton (ex officio), Rush, McNerney, Engel, Green, Capps,
- 17 Castor, Welch, Loebsack, and Pallone (ex officio).

18 Also present: Representative Cramer. 19 Staff present: Nick Abraham, Legislative Associate, 20 Energy and Power; Gary Andres, Staff Director; Will Batson, 21 Legislative Clerk; Sean Bonyun, Communications Director; 22 Leighton Brown, Press Assistant; Allison Busbee, Policy 23 Coordinator, Energy and Power; Karen Christian, General 24 Counsel; Patrick Currier, Counsel, Energy and Power; Graham 25 Dufault, Counsel, Commerce, Manufacturing, and Trade; Tom 26 Hassenboehler, Chief Counsel, Energy and Power; Peter 27 Spencer, Professional Staff Member, Oversight; Dan Schrieder, 28 Press Secretary; Jeff Carroll, Democratic Staff Director; 29 Caitlin Haberman, Democratic Professional Staff Member; 30 Ashley Jones, Democratic Director, Outreach and Member 31 Services; Rick Kessler, Democratic Senior Advisor and Staff

Director, Energy and Environment; John Marshall, Democratic

Policy Coordinator; and Tim Robinson, Democratic Chief

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Counsel.

35 Mr. {Whitfield.} I would like to call the hearing to 36 order this morning. And the title today is the hearing on 37 the Quadrennial Energy Review and Related Discussion Drafts, 38 including Title III, Energy Diplomacy. We will have two 39 panels of witnesses this morning. And, of course, on the 40 first panel we have our Secretary of Energy, Mr. Moniz, who 41 is no stranger to this committee or to Congress. So we 42 appreciate him being with us very much, and look forward to 43 his opening statement. And then we will have some questions 44 relating to his testimony, as well as other issues. 45 And at this time, I would like to recognize myself for 5 minutes for an opening statement. 46 47 Everyone is very much aware that this subcommittee and 48 the Congress has been working on a bipartisan energy bill for 49 several months now. Many people are even asking, not 50 surprisingly, is there enough common ground between our 51 efforts and the Obama Administration to enact meaningful 52 energy legislation. And I do believe that this question was 53 answered with a clear yes when the Department of Energy's 54 first installment of its Quadrennial Energy Review was 55 released last April. This detailed study focuses on the

56 infrastructure implications of America's new energy boom, and 57 many of its recommendations overlap with provisions of our 58 draft energy bill. 59 And so we are excited that Mr. Moniz is here today, so 60 that we can explore the perspective of the Department of 61 Energy as the country makes dramatic changes in its energy 62 distribution, production, transmission system. We have a lot 63 of infrastructure needs. We are focusing on the diplomatic 64 diplomacy aspects of energy, which is becoming more and more 65 important to our friends in the European Union, who find 66 themselves reliant on natural gas coming from Russia. And so we have many opportunities in the United States to come forth 67 68 with a good energy policy. And I think that most of the 69 provisions that we are focused on in this energy bill, democrats and republicans agree that they need to be 70 71 addressed, and one of the biggest is infrastructure needs, 72 and trying to improve the permitting process, for an example. 73 So I look forward to the testimony of all of our 74 witnesses today. And we have a real opportunity here and we 75 don't want to drop this ball, so we are getting close to the 76 end of drafting this legislation, coming up with a final 77 product, and we look forward to move it in a meaningful way.

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80 Mr. {Whitfield.} And at this time, I would like to 81 recognize the gentleman from Illinois, Mr. Rush, for his 82 opening statement. Mr. {Rush.} I want to thank you, Mr. Chairman, for 83 84 holding this important hearing today on the QER, and--as well 85 as on a variety of other energy issues covered in the 86 discussion draft. 87 Mr. Chairman, let me first begin by welcoming the 88 Honorable and distinguished Secretary of Energy, Mr. Moniz, 89 here to the subcommittee today. Welcome, Mr. Secretary. Mr. 90 Secretary, let me commend you for the outstanding work you 91 have been involved in on a myriad of different issues, all 92 important to the American people. Mr. Chairman--Mr. 93 Secretary, you might not accept this, you might not--you 94 might think that this is a -- not something that you see, but 95 in my mind and in the mind of a number of my constituents, 96 you are indeed a superstar Secretary. We are proud of your 97 work on behalf of our Nation. Mr. Secretary, from your 98 leadership in the historic nuclear talks with Iran, to 99 establishing the much-needed Minorities and Energy Initiative 100 at DOE, to overseeing the development of the comprehensive

101 QER, are among your more important accomplishments. 102 have no doubt that you will go down as one of the most 103 significant and effective Energy Secretaries of modern time. 104 You see, I am a fan, Mr. Secretary. 105 Mr. Secretary, as you may be aware, I have a bill that I 106 will soon be introducing that will amend the Department of 107 Energy Organization Act to replace the current requirement 108 for a biannual energy policy plan with a quadrennial energy 109 review. It is my hope that this bill, like its Senate 110 counterpart that was recently introduced by Secretary Coons 111 of Delaware and Senator Alexander of Tennessee, will attract 112 bipartisan support. In fact, Mr. Secretary, I have held off on introducing the bill as of yet so that my office can 113 114 continue to hold talks with the majority side in order to 115 find language that both sides can agree on. And, Mr. 116 Chairman, I will continue to reach across the aisle for 117 support on this nonpartisan issue of codifying a quadrennial 118 energy review, and I hope that we can find common ground. 119 Mr. Chairman, the QER addresses many areas that are also 120 covered in the discussion draft of the Comprehensive Energy 121 Bill we have all been working on. Issues such as increasing 122 the resilience, reliability, and safety of the grid are

123 discussed in both packages. Additionally, there are many 124 similarities in both the QER and in the discussion draft 125 regarding integrating North American energy markets, 126 modernizing the grid, and enhancing employment and workforce 127 training. However, Mr. Chairman, there is still much work to 128 be done in bridging the gap in areas where there are some 129 disagreements, such as in signing and permitting and 130 addressing the environmental aspect of transportation -- or 131 transmission rather, storage, and distribution infrastructure. Specifically, in the discussion draft before 132 133 us today, I have some concerns regarding the cross-border 134 approval process described in Section 3104. In this section, the burden is shifted away from farming companies and onto 135 136 agency officials to issue so-called certificates of crossing, 137 unless the official finds the project, and I quote, ``is not in the public interests of the United States.'' 138 139 Another concern that I have, Mr. Chairman, is in Section 140 3102, which sets up an interagency taskforce to evaluate 141 North American energy flows. However, the task is noticeably 142 missing representatives from either the Council of 143 Environmental Quality, the Environmental Protection Agency, 144 as well as the Departments of Interior or Transportation,

145 among others who may weigh in on environmental issues. 146 Mr. Chairman, as we move forward with the goal of 147 putting forth a truly bipartisan energy bill, it is my hope 148 that the majority side will work with us to find common 149 ground on most of these issues, and put precedence in doing 150 the right thing above doing it quickly. 151 Mr. Chairman, I thank you, and I yield back the balance 152 of my time. 153 [The prepared statement of Mr. Rush follows:]

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155 Mr. {Whitfield.} Thank you, Mr. Rush, for that opening 156 statement. 157 At this time, I would like to recognize the chairman of 158 the full committee, Mr. Upton, for 5 minutes. 159 The {Chairman.} Well, thank you, Mr. Chairman. I just 160 want to say in response to Mr. Rush's comments, I look 161 forward to working with him and Mr. Pallone, and all of our 162 members on both sides of the aisle, to do this right. And 163 appreciate those kind words. 164 We are delighted to welcome back Secretary Moniz to the committee to discuss the first installment of the Quadrennial 165 166 Energy Review that focused on energy transport and 167 infrastructure; something we need to do. America's energy 168 picture is rapidly changing, and our laws and regulations 169 need to change with it. Longstanding concerns about 170 declining domestic energy output have been erased by rapidly 171 rising oil and natural gas production. 2013 alone, according 172 to the QER, the U.S. added 1.2 million barrels per day of 173 production, a record increase by one country in 1 year. 174 Domestic production of natural gas and related liquids has 175 experienced equally dramatic increases. 2014, the U.S.

176 became the world's number 1 energy-producing nation, and it 177 is time we start acting like it. 178 Unfortunately, the scarcity mindset is still embedded in 179 our national energy policy. Rising energy production 180 requires more energy infrastructure; what I have called the 181 architecture of abundance. Both the energy legislation and 182 the QER include a number of ideas for upgrading and expanding 183 the Nation's energy infrastructure. And in light of the 184 recent pipeline spill in California, I would add that both 185 aim to ensure that this new infrastructure is built with 186 state-of-the-art technologies that reduce the environmental and safety risks. But our energy abundance can be more than 187 just an economic success story; it can be--it, indeed, can be 188 189 a foreign policy success story as well. And that is why 190 recently released discussion draft of our energy diplomacy 191 title is so important. 192 This--the discussion draft builds on the extensive work 193 done by this subcommittee on LNG exports. At numerous 194 hearings over the last couple of years, we heard from many of 195 our allies around the globe who said they would rather get 196 their natural gas from us than the likes of Russia or Iran. 197 That message was underscored last month when I led a high-

198 level delegation to several of our European allies, including 199 Ukraine, and we came away with a profound new understanding 200 of just how vital these partnerships can be. In established 201 parts of the EU, leaders are coming together to promote a 202 unified energy market because of its potential for security, 203 affordability, and innovation. In Ukraine, where the 204 commitment to freedom and democracy is hard-fought each and 205 every day, their energy aspirations are fundamental to their 206 dreams for a peaceful future. 207 While our discussion draft encourages North American 208 energy cooperation and cross-border infrastructure, 209 opportunities for energy diplomacy extend well beyond our own 210 continent. For example, there is broad recognition that U.S. 211 LNG exports will benefit the U.S. economy, our consumers, and 212 yes, our allies. While the same could be said for oil 213 exports, a statutory ban has prevented us from pursuing these 214 benefits for the last 4 decades. And it is time that 215 Congress considers revising the ban on crude oil exports. 216 {Voice.} Amen. 217 The {Chairman.} As with natural gas, America now has 218 enough oil production to make increased exports feasible, 219 especially the lighter grades of crude that the QER notes

220 have experienced the most rapid supply increases. Economic 221 and foreign policy experts across the political spectrum 222 believe that expanding the markets for American oil would be 223 a net jobs creator at home, while enhancing our geopolitical 224 influence abroad. And at the same time, reports from the 225 GAO, CBO, and Energy Information Administration all point to reductions in the price of gas as a result of increased oil 226 227 exports. In other words, oil exports can be a win for the 228 American people and a win for our allies. 229 The energy sector has been the Nation's most significant 230 job creator in recent years, but with the drop in oil prices, 231 as many as 100,000 energy industry positions have been lost. The case for creating more jobs by expanding the market for 232 233 American oil is a key reason why oil exports should be on 234 this committee's agenda this year. And while we are not 235 currently considering any such provisions in this pending 236 legislation, I do look forward to working with my good 237 friend, Mr. Barton, and others on both sides of the aisle to 238 ensure that we get the policy right. 239 I yield back the balance of my time.

[The prepared statement of Chairman Upton follows:]

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242 Mr. {Whitfield.} Gentleman yields back. 243 At this time, recognize the gentleman from New Jersey, 244 Mr. Pallone, for 5 minutes. 245 Mr. {Pallone.} Thank you, Chairman Whitfield and 246 Ranking Member Rush. 247 Let me begin by welcoming Secretary Moniz back to the 248 committee, and congratulating you on completing the first 249 installment of the Quadrennial Energy Review. It is a truly 250 comprehensive look at our Nation's energy infrastructure, and 251 its recommendations will help us chart a path forward in the 252 rapidly changing energy sector. 253 This installment relates to the transportation, storage, 254 and distribution of energy. These TS&D connections between 255 suppliers and users can impact our energy reliability and 256 security, and affect our ability to meet environmental and 257 economic goals. TS&D infrastructure is vulnerable to a wide 258 and expanding array of threats from natural disasters to 259 physical and cyberattacks, so it is important we thoroughly understand these vulnerabilities and how to mitigate their 260 impacts. At the same time, its modernization can help 261 262 achieve meaningful greenhouse gas reductions and other

- 263 environmental goals, while enhancing safety, security, and
- 264 reliability. Ultimately, the OER represents the forward-
- 265 thinking we need to ensure a smarter, more resilient, cost-
- 266 effective, and environmentally sound energy system for the
- 267 future. And I look forward to working with you, Mr.
- 268 Secretary, to translate these important ideas into
- 269 legislation and law.
- I wish I could be as upbeat in discussing the majority's
- 271 Energy Diplomacy Discussion Draft. Rather than building on
- 272 a--on the strong relationships with our North American
- 273 neighbors, the majority has chosen to resurrect controversial
- 274 legislative proposals that have already drawn democratic
- 275 concerns and presidential veto threats. For example, the
- 276 bill would eliminate the current presidential permitting
- 277 process for liquid and gas pipelines, and electric
- 278 transmission lines that cross the U.S. border with Mexico and
- 279 Canada, and it replaces the process with one that effectively
- 280 rubberstamps permit applications and eliminates any
- 281 meaningful environmental review.
- 282 While it now would only take effect after President
- 283 Obama leaves office, and specifically excludes the Keystone
- 284 Pipeline, it still appears to allow TransCanada to avail

285 itself of the new process by reapplying with a revised route. 286 The provision also limits federal approval and environmental 287 review to the small segment of the project that physically 288 crosses the national border. It also creates a rebuttal 289 presumption that these projects are in the public interest; 290 shifting the burden of proof to project opponents. This all 291 but guarantees permit approval, and virtually eliminates the 292 opportunity for protective permit conditions. 293 The draft bill also recycles LNG export language 294 designed to address nonexistent delays at the Department of 295 Energy. In fact, DOE recently testified, and I quote, that 296 ``Right now, there are zero applicants sitting in front of us 297 for a decision. The last application that came out of FERC, 298 we turned that around in 1 day.'' Nonetheless, the bill 299 would make changes to an otherwise successful process. 300 And finally, another provision would create a taskforce, 301 burdening federal energy regulatory actions with additional 302 red tape, and undermining environmental considerations. 303 fact, it speaks volumes that the very agencies tasked with 304 natural resource and environmental management, like EPA and 305 DOI, are excluded from the taskforce.

So I hope this committee can start to work towards

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307	consensus legislation instead of resurrecting problematic							
308	issues of the past.							
309	But thank you, Mr. Chairman. I yield back.							
310	[The prepared statement of Mr. Pallone follows:]							
311	********* COMMITTEE INSERT *********							

Mr. {Whitfield.} Gentleman yields back.

That concludes the opening statements for today. And,

Mr. Secretary, once again, thank you for joining us. We do

look forward to your insights on these important issues. And

would like to recognize you for 5 minutes for your opening

statement.

318 ^STATEMENT OF HON. ERNEST MONIZ, SECRETARY, DEPARTMENT OF 319 ENERGY 320 Secretary {Moniz.} Well, thank you, Chairman Upton and 321 Whitfield, and Ranking Members Pallone and Rush. 322 Mr. {Whitfield.} I am not sure the microphone is on, 323 but--324 Secretary {Moniz.} The light is--yeah. Okay. 325 again. 326 Okay. Well, again, Chairman Upton and Whitfield, and 327 Ranking Members Pallone and Rush, distinguished members of 328 this subcommittee, thank you for the opportunity to be with 329 you again today. And I really appreciate the leadership that 330 this committee has shown in working towards comprehensive and 331 bipartisan energy legislation that includes many of the topics in the QER first installment. I look forward to 332 333 working with you to move these ideas forward, and really 334 appreciate in the opening remarks the statements about common 335 ground and the opportunities we have to work together. 336 As was already stated, the U.S. has reaped enormous 337 benefits from our energy revolution the last several years

338 which, I point out, includes, of course, hydrocarbon 339 production, but also dramatically increased renewables 340 deployment to energy productivity gains. This revolution, 341 however, has produced changes that are challenging our energy 342 infrastructure. And to be direct, we need to modernize and transform our energy infrastructures and our shared commodity 343 344 infrastructures. This will require major new investments, 345 and we have to get it right. 346 We should acknowledge that, while the choices we make 347 and the decisions we take today and in the near future are 348 critical, we also have to acknowledge that the choices and 349 decisions that we fail to take in a timely way are very 350 important for generating our infrastructure for the 21st 351 century. 352 To help quide these investment choices, the QER provides 353 recommendations based on a 15-month, multiagency process that 354 included 14 public meetings across the country, and 355 consultations with Canada and Mexico. The QER focuses on 356 TS&D, including the network of pipelines, wires, storage, 357 waterways, railroads, and other facilities that form the 358 background--the backbone of our energy system. 359 I ask the chairman's permission to submit the summary

360 version of the QER into the record. 361 The full QER is available online, and you have my 362 written testimony, so let me just take the opportunity to 363 highlight five crucial tasks that we need to take. 364 First, our infrastructure and investments can and must 365 serve energy security in a broader sense than the oil-centric 366 focus of the last several decades. An example is found in 367 the definition of energy security that the U.S. and our G7 368 allies developed after the Russian aggression in Ukraine that includes seven critical elements in a modern view of energy 369 370 infrastructure. Supply diversification, for sure, but also 371 transparent markets, greenhouse gas emissions reductions, 372 enhanced efficiency, clean energy, infrastructure 373 modernization, and emergency response. This doesn't mean 374 that global oil disruptions are not a concern. Indeed, in 375 the context of the QER and its recommendations, modernizing 376 the SPRO both from a physical distribution standpoint, as 377 well as the authorities for its use, is a major area of 378 Through its analysis of resilience and infrastructure focus. 379 modernization, the QER goes beyond global oil supply 380 disruptions as the single focus of energy security policy, 381 leading, for example, to recommendations related to regional

382 fuel disruptions, as we have seen across the country. More 383 coordinated state planning is also essential. And most 384 notably, we feel that state planning grants to help states 385 update and expand their emergency preparedness and security 386 strategies and exercises to enhance electricity reliability, 387 to accommodate several changing factors, are all critical. 388 Other ways to improve energy security include programs to 389 make our energy infrastructures more resilient to a range of 390 hazards and vulnerabilities. These are addressed in part 391 through the QER's recommendation for a pre-disaster hardening 392 grant program, options for transformer reserves, and a 393 systematic program to replace aging unsafe natural gas distribution pipes. 394 395 Second, QER and its recommendations underscore the 396 indispensable role of states. These really are test beds. 397 We need to advance studies such as a new framework for 398 evaluating energy services to help things like rate structure 399 development. 400 Third, the QER analysis showcases the importance and 401 complexity of how our energy revolution challenges our shared 402 transport infrastructures. Frankly, when we started the QER, 403 we did not anticipate that we would end up with this as a

404 major area of focus. However, the dramatic oil production 405 increases in unconventional locations, coupled with things 406 like the RFS and pending exports of natural gas, have placed 407 strains on those transport infrastructures; rail, barge, 408 locks, port facilities, and the like. The QER includes 409 recommendations focused on innovative funding mechanisms for 410 these infrastructures and, for example, recommends a program 411 for port connectors being stressed by new energy supplies. 412 Fourth, the QER recommends coordinated efforts for 413 skills training, and recruitment of works to build and staff 414 our modernized energy infrastructure system, and support jobs 415 for working families. A national job-driven skills training system with rigorous curricular and standards that includes a 416 417 special emphasis on training for veterans, on minorities and 418 energy, is critical to our energy future. I might note that 419 yesterday, 85 minority interns started working at DOE for the 420 summer. I also created the Job Strategy Council to look at 421 how we can capture the energy sector opportunities that we 422 have for new jobs. 423 And finally, fifth, we need to acknowledge the critical 424 federal role in incentivizing our energy infrastructure 425 investments. While the bulk of the QER recommendations fall

426 under this committee's jurisdiction, the Congress has other 427 committees with equities in energy infrastructure, especially 428 in shared infrastructure and North American energy 429 integration. 430 I would just note in closing that the Administration's 431 most recent budget request includes a down payment for 432 funding some of the QER's key recommendations at about half a 433 billion dollars, however, in the current budget environment 434 where sequestration has placed artificial caps on spending, 435 DOE's programs and the shared infrastructure programs for the 436 Corps of Engineers and others, frankly, placed these critical 437 programs in competition with very restricted budget 438 allocations. And so, for example, the House Appropriations 439 mark does not meet our needs for energy infrastructure. 440 In closing, Department of Energy and all the agencies 441 that developed this report and its recommendations see great 442 potential for benefit, and we look forward to working with 443 this committee again to find bipartisan ways of advancing our 444 TS&D infrastructure. 445 Thank you, and I would be pleased to answer questions.

[The prepared statement of Secretary Moniz follows:]

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448 Mr. {Whitfield.} Well, thank you, Secretary Moniz. 449 And at this time, I will recognize myself for 5 minutes 450 of statements and questions. 451 We all recognize that the Clean Energy Plan has been at 452 the very center of President Obama's initiatives, and I think 453 everyone recognizes that the tension between the Obama 454 Administration and republicans in the House and Senate, as 455 well as elsewhere, has been--many of us feel that the 456 President is moving so quickly through regulations without 457 adequate communication with the legislative body, and while 458 we all recognize the need for an all-of-the-above policy 459 emphasizing clean energy, we look at Europe and we see how 460 some policies over there in which countries like Germany have 461 made decisions to eliminate nuclear energy, has created low 462 wholesale prices, extremely high retail prices, and as a 463 result, Europe has some really--some real economic problems. 464 So what we want to be sure about in America is, we made this 465 mad rush for change, that we do so in a way that we can 466 protect the reliability, the affordability, so that America 467 can continue to be competitive in the global marketplace. 468 Mr. McKinley, who left, was just telling me that in West

469 Virginia, they have lost 45 percent of their coal jobs. And 470 so this economic impact affects all of us, and that is why we 471 are trying to move this energy bill. That is why the 472 Quadrennial Energy Review is so important to look at all 473 aspects of everything because it is -- everyone knows that we 474 are fortunate, we have an abundant energy supply, natural gas 475 particularly, we--and oil as well, but we have infrastructure 476 needs. And it is very difficult to get permits, it takes 477 years, and so as we are shutting down coal plants through 478 regulatory orders, we don't always have the capability to get 479 the energy product to where it needs to go. And so that is 480 what this is all about. 481 So one of the things I just wanted to ask you, you were 482 talking about the development of this first installment was a 483 colossal undertaking with at least 22 agencies involved and 484 more than a year of work. And if this is the first 485 installment of the QER, will there be a new installment each 486 year for the next 3 years, and then the process will begin 487 all over again? Is that what your understanding is? No--488 yeah, there you go. 489 Secretary {Moniz.} I apologize. The -- so this first

installment, frankly, did take us a few more months than we

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491 had hoped. We are now in the process of working across the 492 government to settle on the next installment. We would like 493 to get something into your hands early next year again, and 494 then again at the end of 2016. 495 Mr. {Whitfield.} Um-hum. Now--496 Secretary {Moniz.} And clearly--I might just--and 497 clearly, this will be now expanding into the supply and 498 demand ends of the energy sector. 499 Mr. {Whitfield.} Yeah. And the -- my time is already running out here. I want to focus on one issue because--500 501 maybe because I was in the railroad industry, but railroads 502 provide a vital transportation network for all sorts of commodities in America, and historically railroads have 503 504 generated lots of income from moving coal. And the coal 505 shipments have dropped dramatically, even though our coal 506 exports are up, even--despite problems with trying to open up 507 coal export facilities in Washington State. But many people 508 are genuinely concerned about the financial viability of the 509 railroad industry with this extreme reduction in coal 510 transportation. Was that discussed in the quadrennial review 511 process from your personal knowledge? Was there any

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discussion about that at all?

513 Secretary {Moniz.} Yes, Mr. Chairman. Of course, the 514 Department of Transportation would have prime responsibility 515 in that area, but there were discussions because we did see 516 in some cases, especially in the upper Midwest, some coal 517 shortages for a while, but it was not because the trains 518 weren't operating, they were just carrying other commodities 519 which, my understanding, may have had a higher margin of--for 520 them. 521 So one of the initiatives that we have taken, and the 522 DOE EIA is working with the Surface Transportation Board at 523 DOT, is to--first of all, to try to get more data and 524 understanding of how commodities, including energy commodities are moving on the railroads, because it is coal, 525 526 it is obviously oil, and it is -- and ethanol competing, in a 527 certain sense, with a whole variety of other commodities. 528 Mr. {Whitfield.} Yeah. 529 Secretary {Moniz.} But I think data--more data and data 530 transparency will be very important --531 Mr. {Whitfield.} Yeah. 532 Secretary {Moniz.} --for federal and state planning. 533 Mr. {Whitfield.} Yeah. Because we do have to have a 534 strong financial railroad sector just because of the impact

- 535 it has on our entire economy.
- So my time has expired. At this time, I would like to
- 537 recognize Mr. Rush for 5 minutes.
- Mr. {Rush.} Thank you, Mr. Chairman.
- Mr. Secretary, as I asserted in my opening statement, I
- 540 believe that you will go down as one of the most
- 541 consequential Energy Secretaries of our time. And again, I
- 542 want to commend you on your fine work and the initiatives
- 543 that you have established during your tenure. And as you
- 544 know, Mr. Secretary, when one attempts to change the culture
- 545 and the practices of institutions that have been doing things
- 546 a certain way for a long time, then inevitably there will be
- 547 resistance and apprehension when those entities are asked to
- 548 change. And it is with this in mind, Mr. Secretary, that I
- 549 ask you to follow up with me to gage where we are with some
- 550 of the initiatives that you and I have discussed before in
- 551 the past. Specifically, I would like to discuss with you the
- 552 issue of inclusiveness and outreach at the publicly funded
- 553 national labs including, but not limited to, Argonne and
- 554 Fermi in my state. And my office will be in touch with you
- 555 to schedule a meeting for some time in the very near future
- 556 between you and I. It is my opinion, Mr. Secretary, that

557 they are--Argonne and Fermi specifically, are faking and 558 fumbling on the issues of inclusiveness and outreach. It 559 seems to me that they are trying to run out the clock on you 560 and I. They are not seriously taking our requests and our 561 initiatives and our discussion to heart. 562 Mr. Secretary, on another issue, I would like to get 563 your thoughts and feedback on the QER legislation that was 564 introduced in the Senate. And I -- as I said before, I will be 565 offering a companion bill in the House soon. As you know, 566 Mr. Secretary, this bill will simply amend the DOE 567 Organizational Act to replace the current requirement for biannual energy processing plan with a quadrennial energy 568 review. And can you give the subcommittee some feedback on 569 570 this bill? From your understanding, would DOE take the lead 571 in addressing a QER, and is there a need for legislation such as what I previously discussed? 572 573 Secretary {Moniz.} Thank you, Mr. Rush. Yes, the--by 574 the way, on the most--on the consequential issue, I hope they 575 are positive consequences. And I might also at this point 576 say that I think our energy policy and Systems Analysis 577 Office did a heroic job in marshaling this huge QER forward.

On your first question, and culture, et cetera, I might

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579 add that there is a wonderful expression by Peter Drucker, 580 the famous management consultant, that culture eats strategy 581 for breakfast. We can change rules but it is harder to 582 change culture. But I think we are certainly making 583 advances, certainly on the issue of minorities and energy, 584 and if you know otherwise, I would like to discuss it with 585 you because I do see enthusiasm going forward. Argonne, for 586 example, one of their initiatives is in terms of making sure 587 that minority businesses are quite aware of the opportunities for procurement. We also have, and Dot Harris has been a 588 589 leader in our place-based initiative. So a good example is 590 working, in this case, in southwest Louisiana with the 591 enormous construction going on driven by natural gas, for 592 training minorities to get some of those jobs. In terms of 593 research collaborations, another example would be our 594 Jefferson Lab, working closely with Hampton University. Ι 595 mentioned the interns already. So we are going to keep 596 pushing on all these fronts, and I want to work with you on 597 that, and if you find problems, let me know because I will be 598 sure to--599 Mr. {Rush.} I certainly will--600 Secretary (Moniz.) Okay.

- Mr. {Rush.} --Mr. Secretary.
- Secretary (Moniz.) Thank you. The--secondly, on the
- 603 QER and the possibility of legislation, let me say that I
- 604 certainly share the driver of this, which is that I think--
- 605 and by the way, the initial reaction to the QER, including in
- 606 this hearing, I think is--suggests that institutionalizing
- 607 this could really be very important for continuing a
- 608 bipartisan Administration-Congress discussion, so I am happy
- 609 to work with both chambers in terms of how that might go
- 610 forward. I would say that Department of Energy, in this
- 611 first installment, clearly did provide kind of the analytical
- 612 horsepower for it, but I do want to note that the Executive
- 613 Office of the President also played a crucial role in being
- 614 able to convene 22 agencies to come together to work on it.
- 615 So anyway, we would be happy to discuss that further.
- Mr. {Rush.} Thank you.
- Mr. {Whitfield.} Gentleman's time has expired.
- At this time, recognize the gentleman from Michigan, Mr.
- 619 Upton, for 5 minutes.
- The {Chairman.} Thanks again, Mr. Chairman.
- Mr. Secretary, in my opening I reaffirmed the desire of
- 622 this committee to work with you and the Administration to

623 find areas of mutual agreement on some QER legislative 624 recommendations, and we look forward to that, and receiving 625 technical assistance on some of the other sections of the 626 bill as well. 627 One of the areas that I wanted to zero-in on is SPRO 628 this morning. As I note in your response to the committee 629 yesterday, the SPRO was established in 1975 and it is the 630 largest government petroleum reserve in the world. It has 631 been used successfully on multiple occasions to respond to different types of energy supply disruptions. But it is now 632 633 2015 and global and domestic oil markets have changed significantly, we would all recognize that, and SPRO needs to 634 635 be modernized. 636 So as you know, the committee recently voted a--to drawn 637 down a limited amount of SPRO oil to pay for our 21st Century 638 Cures package beginning in 2018. And as you conduct the 639 ongoing study to recommend the new size and role of SPRO 640 going forward, would you support an additional change that 641 would allow the President to draw down and sell surplus SPRO 642 crude oil in order to use the funds to pay for operations and 643 maintenance in line with the DOE budget request and potential 644 modernization plans? In other words, using what we call

645 mandatory savings to provide for the modernization and need 646 improvements that really have to take place in the next 647 number of years. And I would imagine that would be a pretty 648 small draw down. 649 Secretary {Moniz.} Mr. Chairman, well, first of all, as 650 you know, I have a -- some considerable concern about using the 651 SPRO for anything other than energy security and resilience 652 issues, for which it was -- for which it is intended. Now, the 653 issue of--first of all, I have to say, the issue of what is or might be called surplus, I think, is really part of the 654 655 study going on because we understand that there are certain IEA requirements, but that may or may not be the metric for 656 657 us to use. That is the first thing. Secondly, we did 658 identify, of course, in the SPRO--in the QER, excuse me, 659 needs right now for modernizing the SPRO for--well, there are issues of maintenance, there are issues of modernization, and 660 661 the particular issues of addressing distribution systems for 662 getting SPRO oil onto water, in particular, in an emergency. We estimated that as \$1-1/2\$ to \$2\$ billion. That is part of663 664 the discussion with Congress, how to address that. Clearly, 665 what you propose is -- would be a case in which, if one were to 666 do that, it would be being used, I would argue, for the

- energy security intent of the petroleum reserve.
- The {Chairman.} So as you know, the QER recommends more
- 669 flexibility and anticipatory authority to initiate a SPRO
- 670 drawdown. Do you envision a greater role for SPRO to
- 671 moderate global prices?
- Secretary {Moniz.} The motivation for recommending
- 673 somewhat greater anticipatory authority is not motivated by a
- 674 desire to use the SPRO to manipulate oil prices. The issue
- 675 is that the current anticipatory authorities are highly
- 676 restrictive. Thirty--up to 30 million barrels, and only if
- 677 that keeps you above 500 million barrels. So there are
- 678 issues there, and we feel that should a larger drawdown be
- 679 required, or if the SPRO were at 500 million barrels, one
- 680 shouldn't have to wait to see the consequences on consumers
- 681 of a spike in global oil prices before one can act. So I
- 682 think that is the spirit, as opposed to manipulating oil
- 683 prices.
- The {Chairman.} So I would note, as the QER discusses,
- 685 the last time SPRO had a major release was--in reaction to
- 686 Libya was back in 2011. Seems like yesterday, but it was
- 687 2011. Since then, the supply situation has greatly changed
- 688 for sure, as demonstrated in the test sale this last year.

- 689 If there is an interruption somewhere in the world that
- 690 doesn't impact the supply to U.S. refiners, would it make any
- 691 sense at all to export SPRO crude?
- Secretary {Moniz.} Well, once again, I would say that
- 693 that should be part of the study that--studies really, that
- 694 we are--are going on, but I might say that it is hard to see
- 695 how a major global disruption would avoid impacting our
- 696 imports, because again, we still import 7 million barrels a
- 697 day, and--only because with a major disruption, even if that,
- 698 let's say, country is not directly importing to us right now,
- 699 there would probably be a redistribution of the market that
- 700 would impact our imports. But nevertheless, hypothetically,
- 701 if that were the case, I think there would still be an issue
- 702 of putting SPRO out would have the effect of backing our
- 703 imports that would then equilibrate in the global market. So
- 704 we could discuss that further.
- 705 The {Chairman.} My time has expired. Thank you very
- 706 much--
- 707 Secretary (Moniz.) Yeah.
- 708 The {Chairman.} --for your appearance again today.
- 709 Mr. {Whitfield.} At this time, recognize the gentleman
- 710 from New Jersey, Mr. Pallone, for 5 minutes.

711 Mr. {Pallone.} Thank you, Mr. Chairman. 712 Secretary, climate change, as you know, is real and we 713 are already feeling its effects across the country. 714 damaging impacts range from heatwaves and droughts, to 715 reduced crop yields and increased wildfires. Every region in 716 the country and every part of the globe is affected. 717 concerned about impacts of extreme weather events and sea 718 level rise that are already, you know, problems that we have 719 with our energy infrastructure. So my question is, the QER 720 outlines a number of findings in this area, how is your 721 energy transmission, storage, and distribution, or TSE&D 722 [sic] infrastructure, vulnerable to the impacts of climate 723 change? 724 Secretary {Moniz.} Thank you, Mr. Pallone. The--725 Chairman Pallone. The--first of all, as the data in the QER 726 show, we have been seeing increasing impacts, probably 727 impacting the economy, at the order of \$25 billion a year on 728 average over the last decade. And with rising sea level, the 729 effects of storms, major tropical storms, for example, are 730 amplified. So we feel it is very important now to address 731 the hardening of these infrastructures, not only coastal, but 732 coastal is one major issue, and that is why we recommend a

733 joint set of initiatives. One is to provide energy assurance 734 grants for states to do planning, and to provide a basis for 735 the states to then compete for what we recommend as a several 736 billion dollar opportunity for these hardening kinds of 737 I will give one example. It happens to be in activities. New Jersey. It was not part of the recommendations here, but 738 739 in New Jersey, there was the case where we cost-shared with 740 the state, a study on implementation of a very significant 741 micro grid to protect electrified transportation corridors. 742 The state then used that study to compete for Sandy recovery 743 money, and in fact, got several hundred million dollars to 744 implement that. That is the kind of thing. Do these studies 745 get technical assistance, and then have the opportunity to 746 move forward with cost sharing major resiliency projects. 747 Mr. {Pallone.} Well, I appreciate your mentioning our 748 New Jersey grant because, you know, obviously, we did have a 749 lot of vulnerabilities during Super Storm Sandy. We saw a 750 breakdown of the infrastructure and services, both 751 electricity and water supply. 752 But in terms of this competitive grant program that, you 753 know, is going to promote innovative solutions for

infrastructure resilience, reliability, security, just give

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755 me a little more information about how that program would 756 I know you mentioned the New Jersey program, but what 757 other kinds of projects would be eligible for those grants? 758 Secretary {Moniz.} Well, it could be, again, any kind 759 of project that hardens infrastructure. The electric grid 760 is--has clearly shown vulnerability to storms. So it could 761 be things like I mentioned with micro grids. It could be the 762 use of advanced technologies. I could mention some things 763 like synchrophasors that would allow system operators to 764 respond much more quickly to something that is happening, to 765 protect spreading of a blackout, for example. It could be in terms of fuels requirements. One of the recommendations that 766 767 we have in there is to expand analyses of what different 768 kinds of regional product reserves might do. Now, this is a 769 case where, again, in the northeast and New Jersey--770 Mr. {Pallone.} Right. 771 Secretary {Moniz.} --we have already moved there, but 772 there are issues in California, there are issues in the 773 southeast, there could be issues in the upper Midwest. And 774 so we recommend that. And there could be opportunities there 775 for new resiliency projects.

Mr. {Pallone.} All right. Thanks a lot. I just--I do

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- 777 want to applaud you for your efforts to strengthen, you know,
- 778 these vulnerable and critical energy infrastructures,
- 779 especially in the face of global climate change. So thanks
- 780 again.
- 781 Thank you, Mr. Chairman.
- 782 Secretary (Moniz.) If I--
- 783 Mr. {Whitfield.} At this time--
- Secretary (Moniz.) If I may, I might just add that this
- 785 is an example of the importance of the broader view of energy
- 786 security, including resilience of our infrastructure.
- 787 Mr. {Pallone.} Yeah, exactly. Thank you.
- 788 Mr. {Whitfield.} Thank you. At this time, I will
- 789 recognize the gentleman from Texas, Mr. Barton, for 5
- 790 minutes.
- 791 Mr. {Barton.} Well, thank you, Mr. Chairman. And, Mr.
- 792 Secretary, welcome back.
- 793 Mr. Rush and you seem to have a mutual admiration
- 794 society going. Superstar Energy Secretary. I wouldn't go--
- 795 Mr. {Rush.} Don't get jealous.
- 796 Mr. {Barton.} Say what?
- 797 Mr. {Rush.} Don't--do not get jealous.
- 798 Mr. {Barton.} Do not get jealous? Well, I wouldn't go

- 799 quite so far as superstar, but my daughter has a saying that
- 800 she learned in college, when something is really cool, it is
- 801 money. And I would--it is money. When you say it is money,
- 802 it means that, man, that is hot and it is cool and it is
- 803 right on the bean. Well, I would say Moniz is money. So not
- 804 superstar but money.
- Now, you know what I am going to--
- 806 Secretary (Moniz.) I asked for this.
- 807 Mr. {Barton.} I am going to give you a chance to show
- 808 just how money you are. What do you think I am going to ask
- 809 you right now?
- Secretary {Moniz.} I don't know but I am covering my
- 811 wallet.
- 812 Mr. {Barton.} You heard the chairman's opening
- 813 statement. He talked about oil exports and, you know, as you
- 814 well know, Mr. Secretary, back in the '70s we had the Arab
- 815 OPEC Embargo, and this committee and the Congress passed a
- 816 lot of legislation to deal with that, most of which has been
- 817 repealed. We had price controls on the wellhead natural gas
- 818 prices, we had price controls on crude oil, we had even
- 819 retail price controls on gasoline. We limited what natural
- 820 gas could be used for. That has all been repealed. The only

thing that hasn't been repealed is the ban on crude oil 821 822 exports. 823 Now, the U.S. is number one in the world in oil 824 production; over 10 million barrels a day. World use is 825 somewhere around 94, 95 million barrels a day. Would you 826 agree that if we were to let our domestic oil potentially be 827 exported, that it would, at a minimum, keep prices from going 828 up on world markets, and it is a possibility that the world 829 oil price might go down? Would you agree with that? 830 Secretary {Moniz.} I think the key issue, Mr. Barton, 831 is whether or not in a country like ours, that still imports 832 7 million barrels a day, the question would be whether that 833 did or did not stimulate any appreciable additional 834 production. And that would be the issue in terms of global 835 Internally, there would be an issue as to how rents price. 836 are shared between, say, refiners and producers, but in terms 837 of the economy-wide, the real issue was whether there is more 838 production, and certainly in today's market, it is hard to 839 imagine that happening. Now, in a future market--840 Mr. {Barton.} I am not a Harvard economics professor--841 Secretary {Moniz.} Nor am I.

Mr. {Barton.} --but I took--I did go to graduate

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843 school, and if we want to talk about sharing of rents, our 844 refiners are taking those rents and putting them in their 845 pockets today. They are not sharing those with the retail 846 consumers. If we let the producers have the option of 847 putting that oil on the world market, the consumer in the 848 United States could potentially benefit from the world price 849 going down, and is -- I think you will agree with me that 850 retail gasoline prices are basically set based on the world 851 price for crude. You will agree with that. 852 Secretary (Moniz.) Absolutely, yes. 853 Mr. {Barton.} So--854 Secretary {Moniz.} EIA has confirmed that. Mr. {Barton.} So I have a list here of studies where 855 856 they have looked at what the price would--what would happen 857 to the price in the United States at retail for gasoline, and the Brookings Institute, NERA, Resource for the Future, 858 859 Council on Foreign Relations, Bipartisan Policy Center, Baker 860 Institute, Center for Global Energy Policy at Columbia 861 University, Energy Policy Research Institute, Aspen 862 Institute, Progressive Policy Institute, IHS Energy, ICF 863 International Heritage Foundation, American Council for 864 Capital Formation, Congressional Budget Office, Energy

- 865 Information Administration, General Accounting Office,
 866 Federal Reserve Bank, have all concluded that if we allowed
- 867 our oil to be exported, there would be no increase in the
- 868 domestic price of--for gasoline, and in most cases it might
- 869 go down. Now, those aren't oil company hacks; those are
- 870 bipartisan usually, I would say, objective institutes. Have
- 871 you--are you aware of--you have to be aware of some of those
- 872 studies.
- Secretary {Moniz.} Well, yes. And again, I think they
- 874 are all in agreement with the fundamentals that, again, the
- 875 issue is whether or not such a move would lead to an increase
- 876 of production of any appreciable magnitude. If it doesn't--
- Mr. {Barton.} Well, if you will send--
- 878 Secretary {Moniz.} If it doesn't, then there is
- 879 essentially no impact on price.
- Mr. {Barton.} Yeah. My time has expired--
- 881 Secretary (Moniz.) Yeah.
- Mr. {Barton.} --but if you will send one of your crack
- 883 aids to the Republican Study Committee Taskforce on Energy
- 884 Seminar this afternoon, you will hear 4 or 5 experts all say
- 885 that if we allow our oil to be exported, U.S. production will
- 886 stabilize and probably go up.

887 Secretary {Moniz.} And that--888 Mr. {Barton.} So--889 Secretary {Moniz.} Again, that is the key issue. We--890 Mr. {Barton.} Yeah. 891 Secretary {Moniz.} I think we all agree on the facts. 892 Mr. {Barton.} Okay. Thank you, Mr. Secretary. 893 you, Mr. Chairman. 894 Mr. {Whitfield.} At this time, the chair recognizes the 895 gentleman from California, Mr. McNerney, for 5 minutes. 896 Mr. {McNerney.} Thank you, Mr. Chairman. 897 Mr. Secretary, I do appreciate the big effort that went 898 into producing this QER document. Nice work. The document 899 does recommend legislation actions. Would you elaborate on 1 or 2 of the most urgent actions that would be required? 900 901 Secretary (Moniz.) Well, certainly, I think one of 902 them -- one of the very important ones, as I already mentioned, 903 is this issue of providing funding, particularly for states, 904 to compete for good projects that will provide resiliency of 905 infrastructure. I think that is a very important one. 906 Another one is we recommend a fund that again would allow for 907 competition for accelerating the modernization of natural gas 908 distribution infrastructure for both environmental and safety

909 reasons. Clearly, the Federal Government should not and 910 cannot pay for what may be a quarter trillion dollar bill, 911 but what we recommend is acceleration in which the Federal 912 Government could help absorb any great increase for low 913 income families. Those are two examples of the number. 914 Mr. {McNerney.} Very good. One of the things that is 915 discussed is the potential for energy storage and grid 916 modernization, grid resilience. Do you think that there is a 917 short-term potential for that energy storage to be useful in 918 grid resilience and in, you know, lowering the cost and 919 improving access for renewables and so on? Secretary {Moniz.} Yes. Well, in fact, we all know 920 921 California is in the lead, as if often the case--922 Mr. {McNerney.} Right. 923 Secretary {Moniz.} --in terms of storage. And clearly, 924 except for the places geographically where pumped storage is 925 available, we still need to bring down the costs of storage, 926 but they are coming down. They could be a game changer in 927 terms of large-scale, variable renewables, but also 928 distributed storage--929 Mr. {McNerney.} Yeah.

Secretary {Moniz.} --at the household or commercial

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- 931 enterprise level could be another game changer, particularly
- 932 in terms of distributed generation enablement.
- 933 Mr. {McNerney.} Are we pretty close to having the
- 934 technology available?
- 935 Secretary (Moniz.) Well, the technology is available.
- 936 It is the cost. And we probably need another factor of two
- 937 to three reduction in the cost to make it wide-spread
- 938 available.
- 939 Mr. {McNerney.} Well, thank you. Do you feel that the
- 940 regional grid reliability would be put at risk by the Clean
- 941 Power Plan?
- 942 Secretary {Moniz.} Well, we don't see any evidence in
- 943 our analyses yet that this could not be managed in a pretty
- 944 normal way. For example, we did a specific analysis in terms
- 945 of the natural gas transmission infrastructure because of the
- 946 issues raised in terms of, you know, dramatically expanding
- 947 gas use in the power sector, and that found that while one
- 948 would probably have some regional issues to develop, that
- 949 there was--it was not like we needed a massive program
- 950 because we actually have been building out that
- 951 infrastructure pretty substantially for the last 15 years,
- 952 and frankly, there is overcapacity. So we don't see that as,

- 953 you know, as a particularly difficult issue.
- 954 Mr. {McNerney.} Any way to deal--what would be the best
- 955 way to deal with the regional question then that you just
- 956 referred to of grid reliability?
- 957 Secretary (Moniz.) I think it would be just in the
- 958 normal process. As the supply distribution is understood in
- 959 that region, the companies would go through the usual FERC
- 960 process for, let's say, interstate gas transmission pipes.
- 961 Mr. {McNerney.} Well, there seems to be a patchwork of
- 962 transmissions citing initiatives across federal agencies.
- 963 The QER highlights a need to improve coordination between all
- 964 the stakeholders for transmission-permitting processes. Do
- 965 you believe that the Rapid Response Transmission Team has
- 966 been effective, and should its role be expanded?
- 967 Secretary {Moniz.} I believe that it is--what I would
- 968 say is I think it has really gained traction. It has been--
- 969 in my view, I will be honest, I think it is a little bit slow
- 970 getting going, but I think now the whole pre-application
- 971 standardization has kind of come into play, and I think that
- 972 we do need to, in fact, keep up the pace and, if anything,
- 973 strengthen it, yes.
- 974 Mr. {McNerney.} Okay, thank you.

- 975 Mr. Chairman, I yield back.
- 976 Mr. {Whitfield.} Gentleman yields back.
- 977 At this time, recognize the gentleman from Texas, Mr.
- 978 Olson, for 5 minutes.
- 979 Mr. {Olson.} I thank the chair. And welcome, Secretary
- 980 Moniz.
- 981 My first question is about the Federal Power Act. Under
- 982 Section 202(c), DOE, you, can order a power plant to stay
- 983 running during a grid crisis. In following your order, the
- 984 plant might squeak past their clean air permits. Unfairly,
- 985 that plant can be fined and sued by others for doing so. One
- 986 regulator says go, another says stop. That plant has to
- 987 decide whether they want to acquiesce in a power shortage,
- 988 maybe a brownout or blackout, or cut a check, breaking the
- 989 permit for just a few days, maybe a few hours. I have a
- 990 bipartisan bill with Representative Doyle and Green to fix
- 991 this in the energy package we are working on. This is not
- 992 about a company riding roughshod over environmental laws; we
- 993 are talking about days or hours in a crisis.
- The other week, FERC and NERC endorsed our bill. Your
- 995 predecessor, Secretary Chu, told me in this committee that he
- 996 is ``very supportive'' of the idea. The bill has passed this

- 997 committee three times now, and the whole House twice, in the
- 998 110th--I am sorry, the 112th and 113th Congress.
- 999 And so my question to you is, can I count on your
- 1000 support in the 114th Congress, will you be very supportive of
- 1001 the bill like your predecessor?
- 1002 Secretary (Moniz.) And, Mr. Olson, thank you. You have
- 1003 asked me this question before, and let me say that the answer
- 1004 is basically yes. I know our DOE staff has worked with both
- 1005 sides on this, and I think we are guite comfortable with it.
- 1006 Thank you.
- 1007 Mr. {Olson.} Great, thank you for that clarification.
- 1008 As you know, my home State of Texas has 1/2 our southern
- 1009 border, over 1,200 miles with our neighbor to the south,
- 1010 Mexico, and we know how important that relationship with
- 1011 Mexico is for our trade. Your QER points out that we trade
- 1012 tens of billions of dollars in energy each year with Mexico.
- 1013 Secretary (Moniz.) Sixty-five.
- 1014 Mr. {Olson.} Sixty-five. I like that even better. In
- 1015 fact, some of Texas' only power line connections outside of
- 1016 ERCOT come from our neighbor to the south, Mexico. You might
- 1017 recall that those lines prevented rolling blackouts and
- 1018 brownouts with crises in the fall--I am in sorry, in the

1019 spring--the early winter of 2011 and August of that same 1020 year. My question is, we know this oil plays -- we know that 1021 oil and gas -- those plays -- shale plays don't stop at the 1022 southern border. The new Administration in Mexico is 1023 reforming its energy economy, and I think those opportunities will expand in the future. Your QER on our energy package 1024 1025 will address the topic North American energy. I believe 1026 better coordination and trade will be critical in the years 1027 ahead. My question is, can you please tell me what you see 1028 as the next major opportunities for North American energy and 1029 where that relationship is headed? 1030 Secretary {Moniz.} In particular, the--I would say 1031 actually last week, I spent four, I want to emphasize, 1032 workdays in Mexico with Western Hemisphere and other energy 1033 ministers. The energy reform in Mexico, I think, offers 1034 tremendous opportunities for us. Clearly, in the hydrocarbon 1035 sector. We know that. Our companies are going to Mexico in 1036 the current auctions, and are prepared to offer lots of 1037 technical assistance to get engaged in the shale plays as 1038 well. However, in discussions with Minister Joaquin, the 1039 Energy Minister of Mexico, he has emphasized something that I 1040 agree with, and that is that the reform of the electricity

- 1041 sector may actually offer qualitatively new opportunities
- 1042 because the reform, I think, will bring our systems of
- 1043 regulation, et cetera, and standards much more into
- 1044 alignment, as we have with Canada, where we have a completely
- 1045 integrated electricity system.
- 1046 So we are looking forward to that. It is going to be a
- 1047 major focus. We have both a bilateral working group that I
- 1048 chair on the American side with the--it is a multiagency
- 1049 group, with the Minister of Environment in Mexico, Minister
- 1050 Guerra. And then I also am one of the three chairs of
- 1051 Canada, U.S. Mexico trilateral energy ministers, and we are
- 1052 already well along into a trilateral data cooperation. And
- 1053 just last week, we--we have a release that went out, I would
- 1054 be happy to get it to you--
- 1055 Mr. {Olson.} Yeah, thank you.
- 1056 Secretary {Moniz.} --where the three of us announced
- 1057 that we are now going to expand the cooperation--
- 1058 Mr. {Olson.} Right.
- 1059 Secretary {Moniz.} --with a full agenda laid out, which
- 1060 will include things like emissions and hydrocarbon
- 1061 production, and energy infrastructure issues. So it is a
- 1062 very, very active--

- 1063 Mr. {Olson.} Thank you, sir. I am out of time. I want
- 1064 to extend an invitation to come down and see the work at MIT
- 1065 in your current position, the Petra Nova Project in
- 1066 Thompsons, Texas, the only viable carbon capture and
- 1067 ancillary recovery project in the whole world. Come down and
- 1068 see it. You will love it.
- 1069 I yield back.
- 1070 Mr. {Whitfield.} At this time, recognize the gentleman
- 1071 from Texas, Mr. Green, for 5 minutes.
- 1072 Mr. {Green.} Thank you, Mr. Chairman. Mr. Secretary,
- 1073 you will get an overdose of Texas.
- I see my colleague, Joe Barton, is not here, but I don't
- 1075 know if our members heard that his mom passed away last week,
- 1076 and--
- 1077 Secretary (Moniz.) Sorry.
- 1078 Mr. {Green.} --I just wanted to express regret to Joe.
- 1079 Mr. Secretary, welcome back. According to the DOE Web
- 1080 site, for projects that cross the U.S. international border,
- 1081 DOE must comply with NEPA requirements to consider
- 1082 environmental consequences of a proposed project. Mr.
- 1083 Secretary, are you familiar with that requirement?
- 1084 Secretary (Moniz.) Um-hum, yes.

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          Mr. {Green.} When making cross-border decisions, does
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     DOE adhere to NEPA regulations and guidelines set forth by
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     the Council on Environmental Quality?
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           Secretary {Moniz.} Um-hum.
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           Mr. {Green.} Does this include cumulative indirect
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      impacts?
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           Secretary {Moniz.} I am sorry, Mr. Green--
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          Mr. {Green.} Does that--
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           Secretary {Moniz.} --can you modify the guestion?
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          Mr. {Green.} When the--making these decisions, does DOE
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      adhere to NEPA regulations and guidelines set forth by CEQ,
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     and you said yes, but does that analysis include cumulative
      and indirect impacts? Does the NEPA process include that?
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           Secretary {Moniz.} I guess I am not quite sure if that
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      is actually part of the NEPA process or not.
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          Mr. {Green.} Okay. CEQ--
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           Secretary {Moniz.} I mean clearly--
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          Mr. {Green.} --requires--
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           Secretary {Moniz.} Clearly, there are, in general, when
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     we make public interest determinations--
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           Mr. {Green.} Yeah.
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           Secretary {Moniz.} --cumulative impacts are part of
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- 1107 that.
- 1108 Mr. {Green.} Okay. CEQ requires an environmental
- 1109 impact for major federal actions significantly affecting the
- 1110 quality of human environment. It is reasonable for--to
- 1111 conclude that DOE would require an environmental impact for a
- 1112 cross-border project, an EIS?
- 1113 Secretary (Moniz.) Absolutely. We always require an
- 1114 EIS, yes.
- Mr. {Green.} Would DOE consider approval of a cross-
- 1116 border project a major federal action? I am getting down to
- 1117 the whole--
- 1118 Secretary (Moniz.) Yes. Yes, all right.
- 1119 Mr. {Green.} CEQ has determined that NEPA applies to
- 1120 significant federal actions and can't be avoided by
- 1121 segmenting a project. So that means that a project coming
- 1122 across from Texas to Mexico, not just a cross-border crossing
- 1123 but the project itself, would DOE decision-making on cross-
- 1124 border segments of a cross-border project require compliance
- 1125 with NEPA?
- 1126 Secretary {Moniz.} Certainly. I mean we always
- 1127 require, yeah, NEPA compliance.
- 1128 Mr. {Green.} The discussion draft in the bill would

- 1129 eliminate the presidential permit process and grant cross-
- 1130 border decision-making to DOE for electric transmission
- 1131 facilities. If this draft would become law, the DOE will be
- 1132 charged with promulgating a rule to implement the granted
- 1133 decision-making. Is it reasonable to conclude that any DOE
- 1134 issues, new regulations, these regulations, would include
- 1135 NEPA requirements about the cross-border--a cross-border
- 1136 project?
- 1137 Secretary {Moniz.} Well, if I might take a step back.
- 1138 I think there are two principles that we would always insist
- 1139 upon. I mean, one is proper environmental review--
- 1140 Mr. {Green.} Um-hum.
- 1141 Secretary (Moniz.) -- and secondly would be a judgment
- 1142 that this is in the public interest. I mean I think those
- 1143 are the two basic principles.
- 1144 Mr. {Green.} Okay. The--there is language in Section
- 1145 3104 of the bill that would limit the department's ability to
- 1146 fully comply with NEPA requirements. Do you believe that
- 1147 that language is needed?
- 1148 Secretary (Moniz.) Well, again, clearly, I think we
- 1149 need to make sure that the environmental requirements are
- 1150 met. So if the bill--if the proposal would curtail that,

- 1151 then obviously I would not support it.
- 1152 Mr. {Green.} Okay. Are you familiar with what is
- 1153 called the federal NEPA small handle issues?
- 1154 Secretary (Moniz.) No, I am not.
- 1155 Mr. {Green.} Okay. If federal small handle issues
- 1156 relate to how much federal control should be exercised over a
- 1157 private project, specifically whether a full NEPA review is
- 1158 required, when the federal agencies control only a small
- 1159 segment in an otherwise private project. Courts have
- 1160 determined if an otherwise private project cannot proceed
- 1161 without federal permits, then federal agencies are required
- 1162 to satisfy NEPA requirements.
- 1163 Mr. Secretary, is it possible for a cross-border project
- 1164 to proceed without a presidential permit under current law
- 1165 now?
- 1166 Secretary {Moniz.} I really had better check that with
- 1167 my general counsel.
- 1168 Mr. {Green.} Okay.
- 1169 Secretary (Moniz.) I would have thought not, but I--I
- 1170 am--
- 1171 Mr. {Green.} Well, my concern is that we have been
- 1172 trying to set a standard in this bill and previous

- 1173 legislation on cross-border electric transmission, natural
- 1174 gas pipelines, and of course, crude oil pipelines. And in
- 1175 this case, the Department of Energy would have the authority
- 1176 over electric transmission--
- 1177 Secretary (Moniz.) Wires.
- 1178 Mr. {Green.} --and whether Department of Energy would
- 1179 use the NEPA project--process to approve those cross-border--
- 1180 Secretary {Moniz.} Yeah. Well, again, I--my assumption
- 1181 is that, again, the two principles are there. The
- 1182 environmental impact, which is the NEPA process, certainly
- 1183 for the part in the United States, and the determination of
- 1184 public interest. Those are the two requirements and the two
- 1185 principles that I would uphold.
- 1186 Mr. {Green.} Well, I am out of time, but I appreciate--
- 1187 you know, I know DOE, if we pass this bill with this
- 1188 particular section in it--
- 1189 Secretary (Moniz.) Yeah.
- 1190 Mr. {Green.} --would have that authority, and I just
- 1191 wanted to see what the regulatory process would be with DOE.
- 1192 And I yield back, Mr. Chairman.
- 1193 Secretary (Moniz.) Okay, and I would be happy to
- 1194 discuss that.

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1195
           Mr. {Whitfield.} The gentleman's time has expired, but
1196
     are you saying that under 3104, our legislation would not
1197
     require a NEPA review?
1198
           Mr. {Green.} It does require a NEPA review.
1199
           Mr. {Whitfield.} Okay, because I--
1200
           Mr. {Green.} And that is what I was wondering, because
1201
     there has been some confusion on our legislation that we have
1202
     done separately that NEPA review is not required--
1203
           Mr. {Whitfield.} Yeah.
1204
           Mr. {Green.} --and I want to make sure folks understand
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     that it is--
1206
           Mr. {Whitfield.} It is.
1207
           Mr. {Green.} --it is in this bill--
1208
           Mr. {Whitfield.} It is required.
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           Mr. {Green.} --it was in the previous bill we passed
1210
     out of the House last session--
1211
           Mr. {Whitfield.} Right.
1212
           Mr. {Green.} --and on cross-border issues, not just for
1213
     DOE.
1214
           Secretary {Moniz.} Okay.
1215
           Mr. {Green.} Thank you, Mr. Chairman--
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Mr. {Whitfield.} Thank you.

1216

- 1217 Mr. {Green.} --for clarifying.
- 1218 Mr. {Whitfield.} At this time, I will recognize the
- 1219 gentleman from Illinois, Mr. Shimkus, for 5 minutes.
- 1220 Mr. {Shimkus.} Thank you, Mr. Chairman. Mr. Secretary,
- 1221 welcome.
- 1222 You know, the--your department really was developed and
- 1223 instituted based upon our nuclear heritage, as you know, and
- 1224 also is focused on our nuclear future, and then you have to
- 1225 deal with a lot of legacy issues. That is not really part of
- 1226 the hearing, but I--the introduction is just to let you know
- 1227 I appreciate the support I receive from your professionals
- 1228 down at Savannah River, which I visited yesterday, and the
- 1229 contractors there, and they took good care of me--
- 1230 Secretary (Moniz.) Great.
- 1231 Mr. {Shimkus.} -- and I just want to put that on the
- 1232 record.
- 1233 The--now to the QER. The QER devotes an entire chapter
- 1234 to improving North American energy integration, but makes no
- 1235 mention of issues belying cross-border presidential
- 1236 permitting in general, or the Keystone XL Pipeline in
- 1237 particular. It is kind of some of the questions I think Mr.
- 1238 Green was alluding to. Do you agree that the, and I quote,

- 1239 ``ad hoc or siloed permitting process'', as the QER puts it,
- 1240 creates significant uncertainty?
- 1241 Secretary (Moniz.) Yes, it certainly can in many cases,
- 1242 um-hum.
- 1243 Mr. {Shimkus.} Has the inability to render a decision
- 1244 on Keystone Pipeline impacted other energy projects in
- 1245 Canada? Do you know of--
- 1246 Secretary (Moniz.) I am not aware of it, but--um-hum.
- 1247 Mr. {Shimkus.} Yeah. And if--can you check back with
- 1248 us? Obviously, there might be, otherwise I wouldn't be
- 1249 asking this question.
- 1250 Secretary (Moniz.) Well, only in the sense that,
- 1251 obviously, I have seen discussions about other pipelines to
- 1252 take out things east or west, for example, but-
- 1253 Mr. {Shimkus.} Right. The--I think the public and--as
- 1254 a whole, I don't think they really--I--sometimes I put up the
- 1255 transmission system on a map just to identify how many cross-
- 1256 border pipelines and transmission lines we already have, both
- 1257 north and south, and--
- 1258 Secretary (Moniz.) Yeah, I think it is like 74
- 1259 pipelines or something.
- 1260 Mr. {Shimkus.} Right. And the--obviously, just

1261 curious, we have problems with 1, and the debate is will we 1262 have problems with the future or has this uncertainty kind of 1263 slowed down the process. 1264 The cross--and that--and so part of the legislation 1265 which the chairman is pointing to talks about this cross-1266 border energy infrastructure language, in the committee's 1267 energy diplomacy discussion draft, would attempt to address 1268 unnecessary delays in the permitting of cross-border 1269 pipelines and transmission lines. Have you looked at this, 1270 and is there room for improvement when we are talking about 1271 pipelines or wires? 1272 Secretary {Moniz.} Well, obviously, as was already 1273 stated, the pipelines, as you know, are not in our jurisdiction, the wires are, and I think it is going pretty 1274 1275 straightforwardly. I might add that just the projects 1276 discussed over the last 5 years for new transmission lines 1277 would total about 5 gigawatts of additional capacity coming 1278 into the northeast. 1279 Mr. {Shimkus.} Yeah, and we had a hearing just a week 1280 ago, I think, on the -- really the desert -- really the natural 1281 gas desert of the New England States, we had the Governor of

Maine here, which would address, obviously, pipeline

1282

- 1283 infrastructure and probably cross-border also with them. I
- 1284 mean I--it is--I think a lot of people would kind of shake
- 1285 their head understanding that we still heat with fuel oil in
- 1286 some major states in our union, where access to natural gas
- 1287 pipelines might help them transition--
- 1288 Secretary (Moniz.) Um-hum.
- 1289 Mr. {Shimkus.} --especially with the abundance that we
- 1290 seem to be having now with our production.
- 1291 Secretary (Moniz.) May--if I may just--
- 1292 Mr. {Shimkus.} You may.
- 1293 Secretary (Moniz.) About a week and a half ago, we did
- 1294 approve for potential FTA re-export a project to Canada--a
- 1295 natural gas project to Canada.
- 1296 Mr. {Shimkus.} The energy diplomacy discussion draft
- 1297 also talks about improving the process for permitting major
- 1298 energy projects. Do you agree that it would bring greater
- 1299 clarity and predictability to the process, and help in this
- 1300 energy diplomacy part?
- 1301 Secretary (Moniz.) Could you clarify? If we did what
- 1302 exactly?
- 1303 Mr. {Shimkus.} Well, the formulation of coordinated
- 1304 procedures and criteria balance energy security impacts with

- 1305 environmental consideration. So you have to--especially in 1306 energy diplomacy, Shimkus is ethnically Lithuanian, a lot of 1307 people here have heard that before. I have toured the LNG 1308 Terminal. This energy diplomacy for our friends around the 1309 world, whether it is Japan or whether it is the eastern 1310 European countries, is really critical to give them choices of energy. And so the question is cost benefit analysis, and 1311 1312 how can you expedite it, and I think your quadrennial review 1313 addresses this a little bit. 1314 Secretary {Moniz.} Well, again, as I said earlier, the 1315 whole issue of energy security is we are looking at it in a 1316 broader sense than the traditional way. And by the way, 1317 maybe not here, but if you would like we would be happy to 1318 come to your office and discuss the work on Ukraine 1319 specifically, since that seems to be an interest potentially. 1320 Mr. {Shimkus.} That would be of great interest to many 1321 many members of the--1322 Secretary {Moniz.} We would be happy to do that--1323 Mr. {Shimkus.} Thank you. 1324 Secretary {Moniz.} --but we--yeah, we--anyway, we are 1325 trying to expedite these issues.
- 1326 Mr. {Whitfield.} At this time, the chair recognizes the

1327 gentlelady from Florida, Ms. Castor, for 5 minutes. 1328 Ms. {Castor.} Thank you, Mr. Chairman. Good morning, 1329 Mr. Secretary. 1330 I would like you to elaborate a little bit more on the 1331 transmission, storage, and distribution, beyond what you have 1332 already testified to, because America's energy infrastructure 1333 is aging, it is not well-matched with the new sources of 1334 supply, it is exposed to increasingly dangerous extreme 1335 weather events associated with climate change, such as sea 1336 level rise. In my neck of the woods, we are concerned about 1337 more intense electrical storms, and then drought and 1338 wildfires. And I know you are sensitive to the potential for 1339 cyber and physical attacks as well. And part of America's 1340 policy right now is to encourage these new clean energy 1341 supplies, and greater energy efficiency such as the 1342 availability of rooftop solar that holds great promise for 1343 powering households and businesses across the country, and 1344 our growing energy efficiency sector that will rely on smart 1345 meters, a smart grid distributed generation, but these run 1346 completely counter to the traditional electric utility model. 1347 Now, you have testified already today about, well, energy 1348 assurance grants for states. Maybe you need to go into

1349 greater detail on the micro grids. I don't--I have never 1350 heard of a synchrophasor. What else really must we be 1351 looking for to modernize America's grid and infrastructure 1352 going forward? 1353 Secretary {Moniz.} Well, in terms of the grid, 1354 including both the transmission and distribution systems, I 1355 think one major theme is that we need to really push forward 1356 on what we have just barely started, and that is real 1357 integration of information technology into the grid and all 1358 of the associated requirements to take the data to be 1359 analyzed, of course. Synchrophasors are a part of that. 1360 we can discuss that some other time. 1361 Ms. {Castor.} Okay. 1362 Secretary {Moniz.} But sensors, control systems, 1363 coupling information technology into distributed decision-1364 making so that the grid can respond--can be--can respond 1365 quickly if there is something developing on the reliability 1366 side, for example. So that really is, I would say, the 1367 overarching theme, more and more information technology 1368 integration into that system. The -- that does, of course, 1369 potentially exacerbate another thing you mentioned which is 1370 the cyber risk that we have to stay ahead of. And I would

1371 say there, I just might add that under the leadership of our 1372 deputy secretary, we head something called the Energy Sector 1373 Coordinating Council which has EEI and a number of CEOs that 1374 meet 3 times a year to discuss these kinds of risks to the 1375 infrastructure, to the grids especially. On the grid, there 1376 are some other issues besides those I mentioned, such as the 1377 role of potentially DC--long-distance DC transmission where 1378 that is much more prevalent in other parts of the world right 1379 now, but again, IT, I would say, number 1 in terms of where 1380 we have to go. 1381 Ms. {Castor.} And back on your energy assurance grants, 1382 are they--would they be open only to states, or would local 1383 communities and businesses be able to tap into those grants? 1384 Secretary {Moniz.} I think the--there is still really a 1385 lot of program design to do, and we would be happy to talk 1386 with the members about that. I think the way we have been 1387 envisioning it is principally through the states, but hoping 1388 that the states, to be competitive, would be working with 1389 localities and tribes in the appropriate states, for example. 1390 But that is all a detailed program design that--1391 Ms. {Castor.} I would hope you would open it up to 1392 local collaboratives or regional collaboratives. Sometimes

- 1393 you have recalcitrant states, even--there is an unwritten
- 1394 state policy in Florida right now, you can't even say climate
- 1395 change, so that doesn't bode well for our ability to compete
- 1396 for those grants. And I have--
- 1397 Secretary (Moniz.) Okay, we will take that under
- 1398 consideration.
- 1399 Ms. {Castor.} Great.
- 1400 Secretary (Moniz.) Yeah, it has been raised before in
- 1401 terms of cities wanting to be able to have--be direct
- 1402 applicants.
- 1403 Ms. {Castor.} Absolutely. There has been some
- 1404 discussion today about exports of oil and gas. How much--you
- 1405 have used a number today, how much right now is America
- 1406 importing in petroleum and gas?
- 1407 Secretary {Moniz.} I think we are still importing close
- 1408 to 7 million barrels a day of crude oil--
- 1409 Ms. {Castor.} Okay.
- 1410 Secretary {Moniz.} --although we are net exporters of
- 1411 about 2-1/2 million barrels of oil products. So our net
- 1412 imports are maybe 4-1/2 million barrels.
- Ms. {Castor.} Doesn't the export heavy focus run
- 1414 counter to America's policy imperative to reduce carbon

1415 pollution? 1416 Secretary {Moniz.} Well, as I said, frankly, I think in 1417 our current situation where we are still major importers, 1418 relaxation of export is probably likely to more or less just 1419 swap around different oil quality--oil qualities in different 1420 places, as opposed to lead to tremendously increased 1421 production or demand. That is my view. 1422 Ms. {Castor.} So you do not think that exporting 1423 additional carbon fuels would exacerbate the problem of 1424 carbon pollution --1425 Secretary {Moniz.} I think the--1426 Ms. {Castor.} --across--1427 Secretary {Moniz.} I think the key is that even as we 1428 are producing more, and we--and this debate is going on in 1429 terms of exports, I think the important thing is, and we 1430 satisfy this, is keep your eye on the ball for reducing oil 1431 dependence. And that means we are aggressive on efficient 1432 vehicles, we are aggressive in terms of developing low carbon 1433 fuel alternatives, like next generation biofuels, and we are 1434 aggressive in supporting the move towards electrification of 1435 vehicles with clean electricity supplying those vehicles. 1436 So--

- 1437 Mr. {Whitfield.} Gentlelady's time--no, go ahead.
- 1438 Secretary (Moniz.) No, I was just going to say, so if
- 1439 you--and if you look at it, we are, I think, succeeding. For
- 1440 example, in the last--I think it is 5--I forget, some number
- 1441 of years, maybe a decade, even as our population has
- 1442 increased, as our GDP has increased 13 percent, we have
- 1443 actually decreased petroleum fuel use.
- Mr. {Whitfield.} Okay. Gentlelady's time has expired.
- 1445 At this time, recognize the gentleman from Pennsylvania,
- 1446 Mr. Pitts, for 5 minutes.
- 1447 Mr. {Pitts.} Thank you, Mr. Chairman. Thank you, Mr.
- 1448 Secretary, for coming today.
- 1449 Chairman Upton mentioned his interest in Ukraine and the
- 1450 meetings over there with the Ukrainian Parliament, the EU,
- 1451 getting resources over there. You said something that you
- 1452 are doing a lot with Ukraine. Would you care to elaborate
- 1453 please?
- 1454 Secretary (Moniz.) I would be pleased to. The--
- 1455 starting in middle of 2014, the G7 energy ministers together
- 1456 with the EU met to discuss energy security issues, and that
- 1457 included specifically the Russia-Ukraine situation. Out of
- 1458 that came a commitment to work with Ukraine for that winter.

1459 And so DOE led a team of several U.S. agencies, plus Canadian 1460 experts, that went to Ukraine several times and guided them 1461 to a winter contingency plan for energy. So that occurred. 1462 Including, by the way, a tabletop exercise at the level of 1463 the deputy prime minister. Then we are back there helping 1464 them again look forward to next winter, but other things as 1465 well. For example, we pointed out the dependence not only on 1466 natural gas, but on Russian nuclear fuel. And you may have 1467 seen now that has led to Westinghouse now has a contract to 1468 be a fuel supplier for the Russian reactors in Ukraine. has caught the attention of some, breaking a monopoly again. 1469 1470 So we are working in a number of ways to help Ukraine on the 1471 energy situation. 1472 Mr. {Pitts.} Thank you. The Department of Energy has 1473 made progress on a few LNG export applications, but the fact 1474 of the matter is that more than 30 applications still await 1475 final decision from DOE. And I realize that you decided to 1476 reconfigure the process to allow FERC to go first with its 1477 environmental review, but the process as a whole remains 1478 complicated, unpredictable, especially for U.S. allies who 1479 are unfamiliar with the bureaucratic process between DOE and 1480 FERC. My question is, when will DOE finalize its follow-on

- 1481 economic study of exports in the 12 to 20 billion cubic feet
- 1482 per day range?
- 1483 Secretary {Moniz.} I can't give you an exact date, but
- 1484 I expect it quite soon. So I mean I don't think it is going
- 1485 to be an impediment because today, we are--I forget, 8-1/2 I
- 1486 think BCF per day. Approved for non-FTA countries.
- 1487 Mr. {Pitts.} Would the transpacific partnership or the
- 1488 transatlantic trade and investment partnership clear the way
- 1489 for automatic LNG export approvals?
- 1490 Secretary (Moniz.) I think that will depend on the
- 1491 specifics of how it is negotiated, but it may very well
- 1492 provide FTA status to more countries, in which case the
- 1493 approval is, you know, more or less automatic. Although I
- 1494 would caution, because this statement is also often raised
- 1495 with regard to TTIP and Europe, that the reality is that the
- 1496 market prices probably have a bigger impact than whether you
- 1497 are labeled FTA or non-FTA.
- Mr. {Pitts.} Do you support the provisions within the
- 1499 discussion draft which would effectively give DOE 60 days to
- 1500 act on an application following the FERC environmental
- 1501 review?
- 1502 Secretary {Moniz.} Well, we have made our statements

1503 very clear on that, in particular, in a hearing in the 1504 Senate, that we, frankly, find it unnecessary. We have been 1505 acting quite quickly. It is workable. We have said it is 1506 workable. We can work with it, but we don't think it is 1507 necessary. 1508 Mr. {Pitts.} U.S. oil production has risen rapidly in the last several years, and imports are falling. In fact, 1509 1510 only about 1/4 of the petroleum consumed in the U.S. is 1511 imported from foreign countries, which is the lowest level in 1512 30 years. When asked about lifting the ban on oil exports, 1513 you have made the point that the U.S. still imports oil, 1514 which is a fact, but given our role in the global market, 1515 would it make sense to both import and export oil? 1516 Secretary {Moniz.} Well, again, we need--or I mean I 1517 imagine we are going to meet our needs, and so if we--right 1518 now, if we export a barrel, we are going to import a barrel 1519 to replace it. So as I said earlier, the only real issue in 1520 terms of the exports is whether that would lead to any 1521 material increase of production as opposed to just, in 1522 effect, swapping oil. There could be some issues there in terms of oil quality. For example, the Mexicans have 1523 1524 specifically petitioned for a swap in which we would send

- 1525 light oil to Mexico in return for heavier oil coming back.
- 1526 That is an example of a swap. But I have to say it is not as
- 1527 though we have not been able to absorb all of the oil
- 1528 production today in the United States. It has been--you
- 1529 know--so anyway--
- 1530 Mr. {Pitts.} Thank you. My time has expired.
- 1531 Mr. {Whitfield.} Gentleman's time has expired.
- 1532 At this time, recognize the gentlelady from California,
- 1533 Mrs. Capps, for 5 minutes.
- 1534 Mrs. {Capps.} Thank you, Mr. Chairman, for holding this
- 1535 hearing. And I thank you, Mr. Secretary, for your testimony.
- 1536 The discussion of our Nation's energy infrastructure is
- 1537 very important, and the--as is the Administration's work on
- 1538 the Quadrennial Energy Review. I am particularly interested
- 1539 in the pipeline safety aspect of it. Over my years on this
- 1540 committee, I have referenced very many times the Santa
- 1541 Barbara oil spill of 1969. That oil spill had tremendous
- 1542 local and national ramifications, giving birth to our modern
- 1543 environmental movement, in many ways, and changing much of
- 1544 the way our Nation as a whole has viewed the environment and
- 1545 oil development. Sadly, the Santa Barbara community was
- 1546 recently hit with another terrible oil spill along the coast.

1547 On May 19, more than 100,000 gallons of crude oil spilled 1548 from the ruptured Plains All American Pipeline along the 1549 treasured Gaviota Coast just north of Santa Barbara. The oil 1550 quickly flowed under the highway, onto the beach, and into 1551 the ocean, where the oil slick spread south for miles along 1552 the coastline. While the exact causes of this spill are 1553 still being investigated, it is already clear that woefully 1554 inadequate federal pipeline safety standards have played a 1555 significant role. It turns out that the Plains All American 1556 Pipeline is the only federally regulated pipeline in Santa 1557 Barbara County. It is also the only transmission pipeline in 1558 the county that does not have an automatic shutoff valve 1559 built into its system, and this is not a coincidence. Every 1560 other comparable oil pipeline in Santa Barbara County has an 1561 automatic shutoff valve because the county has required it, 1562 but the federal Pipeline and Hazardous Material Safety 1563 Administration, or PHMSA as it is called, does not make this 1564 requirement of pipeline operators. While an automatic 1565 shutoff valve may not have prevented this spill, it certainly 1566 could have minimized it. Plains was actually allowed to 1567 squirrel away tens of millions of dollars into what they 1568 called a contingency fund for when their pipeline would

1569 inevitably fail, yet they weren't even required to spend a 1570 fraction of that amount on installing basic spill prevention 1571 technologies. This, to me, defies commonsense, and it cannot 1572 be allowed to continue. And this is just one example of lax 1573 safety standards. My constituents are understandably angry, 1574 and I share their anger. With all due respect for my 1575 seatmate, Mr. Green, who appropriately isn't here right now, 1576 oil and gas development at its core is dangerous and dirty 1577 business. The mere fact that Plains and other companies have 1578 oil spill contingency funds shows that there is no such thing 1579 as a safe pipeline. Spills do happen, and they will continue 1580 to happen as long as we depend on fossil fuel for our energy 1581 needs. We obviously cannot end this dependence overnight, 1582 but we clearly need to take bigger and bolder actions to 1583 achieve the clean energy future that we all know is needed. 1584 Secretary Moniz, I appreciate the President's and your 1585 strong commitment to pursuing renewable energy. 1586 objectives of QER are important. We cannot build a clean 1587 energy future without modernizing our infrastructure and 1588 preparing for new challenges, but we must also do everything 1589 in our power to ensure that this infrastructure is as safe as 1590 possible. Congress has repeatedly directed PHMSA to

1591 strengthen its standards, and yet PHMSA has done very little. 1592 The QER specifically mentions all--a draft PHMSA rule in 1593 development that would help strengthen some of these 1594 standards, but PHMSA first be taking--began taking comment on 1595 this rule nearly 5 years ago, and nothing has been published 1596 so far. And in 2011, Congress enacted legislation explicitly 1597 directing PHMSA to issue a rule requiring automatic shutoff 1598 valves on new pipelines by January of last year. Still not 1599 even a proposal let alone a final rule. I find this really 1600 inexcusable. I know DOE does not have direct control over 1601 this agency, Transportation does, or rulemaking, but what is 1602 the point of replacing aging pipelines and building new ones 1603 if they are all built using ineffective and outdated safety 1604 standards? The pipeline that burst in my district was not even 30 years old, so age is clearly not the only factor 1605 1606 here. 1607 So, Mr. Secretary, my question for you, and I would 1608 appreciate if you can get back to me because I have taken 1609 most of this time, but what is the Administration going to do 1610 now to ensure--there is a lot of attention focused on this 1611 topic, to ensure that a new pipeline infrastructure is as 1612 safe as possible?

- 1613 Secretary {Moniz.} Well, again, as you said, PHMSA 1614 obviously is in the Department of Transportation, and I would 1615 certainly be happy to talk with Secretary Fox and get back to 1616 you, but obviously, the QER focus is, we have to rebuild 1617 infrastructure in a way that is reliable and resilient, and I 1618 would say this is an example of resilience by having the 1619 kinds of safety systems in place that maybe cannot avoid but 1620 can dramatically limit the impacts. So this is just part of 1621 why we need this discussion, I think. 1622 Mrs. {Capps.} Thank you very much.
- 1623 Secretary {Moniz.} Thank you.
- 1624 Mr. {Whitfield.} At this time, recognize the gentleman
- 1625 from Ohio, Mr. Latta, for 5 minutes.
- 1626 Mr. {Latta.} Thank you, Mr. Chairman. And, Mr.
- 1627 Secretary, welcome back to the committee. It is always good
- 1628 to have you here.
- 1629 If I could just follow up what the gentleman from
- 1630 Pennsylvania, Mr. Pitts, was asking, and you mentioned about
- 1631 the swap--the light versus heavy with Mexico. Maybe some
- 1632 folks might not understand why you would have to have a swap.
- 1633 Why is that? That you would have to swap light for heavy
- 1634 crude. Is--

- 1635 Secretary {Moniz.} I just mentioned that that is what 1636 the Mexicans have petitioned for because, I think in the--1637 currently, we do not have authorities for exporting oil 1638 directly to Mexico, so they recommend -- so I -- my understanding 1639 is--it isn't at DOE, of course, but my understanding is they 1640 asked for this kind of idea of a swap. 1641 Mr. {Latta.} Thank you. 1642 Secretary {Moniz.} Which is under consideration, I 1643 believe, at the Department of Commerce, I believe. 1644 Mr. {Latta.} Okay, thanks very much. You know, another 1645 issue not only has this subcommittee taken up but also 1646 especially the Telecom Subcommittee, in regards to 1647 cyberattacks and physical attacks that could occur to our 1648 infrastructure in this country. And so it is really a -- not 1649 only a growing concern but a great concern that we all have 1650 as to what could happen. The committee's discussion draft on 1651 energy reliability and security provides the Secretary of 1652 Energy the authority to take emergency measures to protect 1653 the bulk power system from grid security emergencies. 1654 you generally supportive of the DOE having grid security 1655 emergency authority?
- 1656 Secretary {Moniz.} Well, I believe we have that—we

have the authorities, but only under emergency conditions. 1657 1658 Mr. {Latta.} Well, let me ask, what other grid security 1659 recommendations you would make to this committee that we 1660 should consider at this time? 1661 Secretary {Moniz.} Well, I don't know what is 1662 appropriate for statutory direction, but I think utilities, 1663 for example, on physical security. Many of them have taken 1664 significant steps since the California incident. 1665 not always advertised for obvious reasons, but they have been 1666 doing that. Similarly by the way, many of the utilities -- but 1667 the reason we need to complete a study on the transformer 1668 issues, whether it is because of a physical attack or just, 1669 you know, wear and tear, a number of utilities have really 1670 moved in terms of their backup there, but it is not uniform. 1671 And, of course, we have very, very different utility 1672 structures, organizational structures, so it is very 1673 different for IOUs versus co-ops, et cetera. So I think 1674 there is some--that is an example where, maybe after a study, 1675 some statutory action could be called for in terms of how do 1676 we provide appropriate resilience to the low probability but 1677 very high consequence of not having access to big 1678 transformers.

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          Mr. {Latta.} Let me ask this. Are--how concerned are
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     you about electromagnetic pulses against the grid system?
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           Secretary {Moniz.} Well, that is another risk that we
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      identified. There are studies on that. The National Academy
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     has studied that. I would say it is, once again, an example
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     of a probably low probability but significant consequence
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     possibility.
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           Mr. {Latta.} When you say--
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           Secretary {Moniz.} And there has been--
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          Mr. {Latta.} When you--
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           Secretary {Moniz.} There has been--
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           Mr. {Latta.} When you say low probability, how--what
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     percent probability would you put that at?
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           Secretary {Moniz.} Well, I am not going to give a
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     number, but it is just--it is low.
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          Mr. {Latta.} Okay. Well, you know, because--
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           Secretary {Moniz.} But again, there has been hardening
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      done by many to keep transformers, et cetera.
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           Mr. {Latta.} Okay, thank you. Could you explain the
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      importance of the -- of information sharing and public-private
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     partnerships as it relates to security the electric grid?
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Secretary {Moniz.} I am sorry, could you--

1700

1701 Mr. {Latta.} Yeah. Could you explain the importance of 1702 information sharing and public-private partnerships as it 1703 relates to securing the electric grid? 1704 Secretary {Moniz.} I think that is very important. 1705 Once again, the Energy Sector Coordinating Council that our 1706 deputy secretary heads is part of that public-private 1707 partnership. And by the way, I have to say groups like EEI 1708 have been just excellent partners in that. And in terms of 1709 information-sharing, just one particular example, there is a 1710 lot of information-sharing in terms of reliable operations, 1711 et cetera, but one area I would highlight that this council 1712 does is including through providing selective security 1713 clearances sharing cyber threat data with the private sector. 1714 Mr. {Latta.} Okay. And finally, in the very short 1715 period of time I have, in analyzing recent power plant 1716 retirements, the QER mentions market factors, low cost of 1717 natural gas, and changing coal prices as the driving factors 1718 behind the retirements. Would you agree that environmental 1719 regulations like the Mercury Air Toxics Standard and the 1720 proposed Clean Air Power Plan also played a role in the 1721 retirement of some of our electric generator units? 1722 Secretary {Moniz.} Well, certainly, things like mercury

- 1723 restrictions obviously raise costs, and that is always the
- 1724 cost calculation. But again, I think by far the dominant
- 1725 issue over these last years has been, you know, gas prices of
- 1726 \$2.50. And for certainly inefficient coal plants, even the
- 1727 variable cost is beat by the--by natural gas combined cycle.
- 1728 Mr. {Latta.} Thank you. Mr. Chairman, my time has
- 1729 expired. I yield back.
- 1730 Mr. {Whitfield.} At this time, the chair recognizes the
- 1731 gentleman from Vermont, Mr. Welch.
- 1732 Mr. {Welch.} Okay, thank you very much.
- I have one comment and four questions, so I will go
- 1734 lickety-split. And I think I will ask them all four so you
- 1735 can answer them.
- 1736 The comment, you have been getting praised for being a
- 1737 great Secretary of Energy, and sideline as a nuclear
- 1738 negotiator, but I don't think people know that you do the
- 1739 best imitation of Luis Tiant, his windup, delivery, and
- 1740 pitch. And I think all members should ask for a
- 1741 demonstration. The--but--
- 1742 Secretary {Moniz.} Including the look to God.
- 1743 Mr. {Welch.} The look to God. The whole thing.
- 1744 But the questions, one, this committee has been doing

1745 great work on energy efficiency. And energy efficiency in Vermont has been fully embraced, and it has led to our 1746 1747 transmission company, VELCO, being able to avoid about \$400 1748 million in expenses associated with transmission lines. 1749 want your comment on what we can do as a committee and the 1750 Government--Federal Government can do to help get the 1751 benefits of avoided cost. 1752 Second, we have been trying to get real-time information 1753 on electricity rates in New England, in significant part 1754 because our rates are very high, and your department has been 1755 helpful trying to get real-time information in all the 1756 states, and Canada and Mexico, but has been having real 1757 challenges in actually getting that information. And I am 1758 curious to know what you find is the reasons why it is so 1759 tough to get that, and what the department and FERC can do to 1760 help reduce the electricity bills for New Englanders. 1761 Third, this is a smaller issue but quite important. We 1762 have some biomass stove manufacturers, and the standards 1763 evolve. One of those stove companies is Hearthstone, and 1764 they are having a real hard time getting basically an answer 1765 on what the standards are so that they can comply. So I 1766 need--we need--

1767 Secretary {Moniz.} For efficiency? 1768 Mr. {Welch.} --some help on that. Yeah, that is right. 1769 So they have a great product, but if they don't get a real 1770 definition of what the standard is then it makes it tough for 1771 them to stay out there on the market, and he has been having 1772 an awful hard time with that. Small company, but important 1773 company, and real jobs to Vermonters. 1774 And then finally, net metering. That is tough because 1775 you have to have net metering if you really want to deploy 1776 energy efficiency. On the other hand, it obviously has an 1777 impact on the economic model. Vermont has gone in a 1778 different direction than most states, led by Green Mountain 1779 Power, our biggest utility, to embrace and promote expansion 1780 in net metering. What could we do at the Federal Government 1781 to help that process that is going to help deploy energy 1782 efficiency, but also deal with the economic realities of 1783 many--1784 Secretary {Moniz.} Um-hum. 1785 Mr. {Welch.} --of our big power producers? Thank you. 1786 Secretary {Moniz.} Great. Well, thank you, Mr. Welch. 1787 So the four questions -- well, actually, the third question on 1788 the emission standards of biomass stoves I think is something

1789 that we will get back to you on because I just don't know the 1790 answer right now, but that is one we can take care of. 1791 On the energy efficiency in Vermont, well, again, we 1792 are--and as you know, I was in Vermont with the delegation, 1793 and Vermont has done a fabulous job in terms of efficiency, 1794 with novel, novel business models for supplying energy. 1795 I would say there, the main thing--the recommendation in the 1796 QER of relevance to that, and to a certain extent to the net 1797 metering discussion as well, is that we need to develop, at 1798 at DOE we will start really delving into this much more, we 1799 need to devise a much better way of valuing all the services 1800 that can be provided in the electricity system. Efficiency, 1801 storage, diversity, capacity, power quality, there are all of 1802 these issues, and when we had the traditional business model 1803 and it was basically one way from a central plant to a house, 1804 well, it kind of all got lumped together. But now with much 1805 more diversity, with storage coming in in some cases, 1806 distributed generation, we know that energy efficiency, this 1807 involves another hot issue right now that is in the courts, 1808 is to what extent does end-use efficiency come back all the 1809 way to the wholesale market, which, you know, FERC is engaged 1810 in. So I think this issue of valuing all the services is

- 1811 really core, and that is something that we want to, over the
- 1812 next months, really work hard on, and that is something that
- 1813 needs dialog with the members. So that is, I think, an
- 1814 absolute critical recommendation.
- 1815 And on terms of electricity prices and real-time prices,
- 1816 I would just note that the EIA has, in fact, not so long ago,
- 1817 launched a new product which has much more real-time data
- 1818 being collected from the ISOs and the RTOs and combined
- 1819 together so that one can research it and one can understand
- 1820 how prices are moving.
- 1821 Mr. {Whitfield.} Gentleman's time has expired.
- 1822 At this time, recognize the gentleman from West
- 1823 Virginia, Mr. McKinley, for five.
- 1824 Mr. {McKinley.} Thank you, Mr. Chairman. And thank you
- 1825 again for coming before us.
- In the last week, during that--the break, I returned to
- 1827 West Virginia and was on overload of negative information
- 1828 coming at us in West Virginia. The first newspaper I got
- 1829 when I got back there was, dark day for miners. They just
- 1830 announced that 2,268 coalmining jobs were lost. 2,268
- 1831 families now are looking for jobs as a result of this mining-
- 1832 -then I got--then soon thereafter we got another power plant

1833 closed down, the Kammer Power Plant. Even though FERC has 1834 said that -- and they have testified before us, that the 1835 concern that they have is that we are going to have rolling 1836 blackouts in the Midwest if we don't start replacing these 1837 power plants, but we are continuing to shut these power 1838 plants down. And then there was another one that went on to 1839 say, just in one community, one small community, that it is 1840 going to--they are going to lost \$61 million in wages as a 1841 result of this. 1842 So I am dealing with all of this crisis. We are--when 1843 you add the additional losses, these 2,268, now we are up to-1844 -and I believe the chairman mentioned it earlier today, that 1845 we have now lost in West Virginia 45 percent of our 1846 coalminers are unemployed since 2012. Just in 3 years. 1847 Three years we have lost--45 percent of our coalminers are 1848 looking for work. 1849 Now, I went on--last Friday I met with the Coal 1850 Association and I could see there, they said there is going 1851 to be further contraction as a result of what policies and--1852 that are happening nationally. So they are very concerned 1853 about what is going on with it. This loss of the Kammer and 1854 other power plants, it challenges, you well know, the grid

1855 stability that we have, this dependability. It also--but it 1856 is not -- it goes beyond that, you know that, and that is what 1857 about property taxes, what about the local income tax that 1858 people are going to pay? It--you can take away the power 1859 plant but now you are affecting the schools, you are 1860 affecting how a community operates with this happening. 1861 So my first question of two questions would be, what is-1862 -what would you suggest that would--to the coal industry to 1863 reverse this decline? 1864 Secretary {Moniz.} Well, Mr. McKinley, first of all, of 1865 course, you know, we all feel, for whatever reason, when 1866 there are these major disruptions in communities, it is 1867 obviously something that we need to pay attention to. And 1868 the Administration does have some programs to look at some 1869 retraining, particularly in the overlap areas with natural 1870 gas production, the Power Plus Plan that has been put 1871 forward, but I recognize that these don't address 45 percent 1872 of a workforce. So they help in the right direction, but 1873 they certainly do not ``solve the problem.'' 1874 Mr. {McKinley.} Well, but keep in mind too, Mr. 1875 Secretary, you know some -- that coalminers are -- average age is 1876 going to be in their 50s. What are we going to retrain them-

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1877
     -so I--my second question, since I didn't--and,
     unfortunately, you don't have a guick answer either--
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1879
           Secretary {Moniz.} No.
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          Mr. {McKinley.} --on this as to how to stop the--
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           Secretary {Moniz.} We--
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          Mr. {McKinley.} --hemorrhaging. But the second
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      question, so if you are sitting in the kitchen with this 55-
1884
      year-old that just lost his job, he has been working 30 years
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      in a coalmine, what do you tell him?
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           Secretary {Moniz.} Well, look, again, it is--look, I--
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     you know, I am completely with you. This is a very, very
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      difficult -- it is very difficult. I think in the end, it is
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      about having to try to produce some other economic
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      opportunities. Revitalization, some retraining, and--
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           Secretary {Moniz.} But these are real--you understand,
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      these are real people that have--
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           Secretary {Moniz.} Yes, and I--
1894
           Mr. {McKinley.} --really lost their job--
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           Secretary {Moniz.} I understand. And the following--
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          Mr. {McKinley.} --and--
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           Secretary {Moniz.} And the following is not on the
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     right timescale for you, but I have said previously, I think
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      in front of this committee as well, that we do have many
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     programs, many different kinds of programs, that are
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      addressing the issue of a future of coal, even in a low-
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     carbon world, but that is not going to solve that gentleman's
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     problem tomorrow. I completely agree with that.
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           Mr. {McKinley.} So in the 23--how--what do we tell him?
           Secretary {Moniz.} I think the key--
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1906
           Mr. {McKinley.} He has to make--he has a mortgage
1907
     payment--
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           Secretary {Moniz.} He has to be--
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           Mr. {McKinley.} --he has a healthcare bill, he has got
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      a--what are we doing for him?
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           Secretary {Moniz.} The key has to be economic
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      development and providing other opportunities. And I might
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      just mention, Mr. McKinley, that -- and I am happy to say it
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     here, that recently Senator Manchin has asked me to come to
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     West Virginia, and I would be happy to join him and you and
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      come to West Virginia and try to understand the situation and
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     what we can do.
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           Mr. {McKinley.} Thank you, Mr. Secretary.
1919
           Secretary {Moniz.} Yeah.
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Mr. {Whitfield.} At this time, recognize the gentleman

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- 1921 from New York, Mr. Engel, for 5 minutes.
- 1922 Mr. {Engel.} Thank you very much, Mr. Chairman.
- 1923 Secretary Moniz, than you for your testimony today, and thank
- 1924 you for all your good work in so many things. We really
- 1925 appreciate it.
- 1926 I would like to join everyone in applauding your
- 1927 efforts--
- 1928 Secretary (Moniz.) I am having a hard time hearing you.
- 1929 Mr. {Engel.} I am--I will do this. This is better.
- 1930 Secretary {Moniz.} Thank you. Thank you, that is
- 1931 better.
- 1932 Mr. {Engel.} Okay. Generally not so hard to hear New
- 1933 Yorkers talk. I will just try to talk a little louder and
- 1934 not slur my words.
- 1935 I want to applaud your efforts and the efforts of
- 1936 everybody involved in producing the first report of the QER
- 1937 Taskforce. I believe it really establishes a very sensible
- 1938 blueprint, making our electric grid more resilient, and to
- 1939 identify and improve vulnerabilities in our current energy
- 1940 transmission and distribution system.
- 1941 As you know, Super Storm Sandy swept through my district
- 1942 and the surrounding region in October 2012, knocking out

1943 power to over 8 million people, and causing several fuel 1944 supply and distribution problems. Some New Yorkers in my 1945 district waited more than 2 weeks for their lights to turn 1946 back on, and struggled the whole time to keep their families 1947 safe and warm. So as a result, I am particularly focused on 1948 the ability of our grid and our entire energy transmission 1949 and distribution system to withstand future shocks, and also 1950 to recover quickly from any outage that might occur. 1951 So could you please discuss how we are better prepared 1952 today than we were in 2012 for a storm like Sandy, and how 1953 the suggestions in the QER would build upon the improvements 1954 we have made? In particular, please touch on the 1955 establishment of the northeast reserve and the potential 1956 expansion of distributed generation through the REV 1957 Initiative in New York. 1958 Secretary {Moniz.} Thank you. Well, first on the 1959 regional gasoline reserve. As you know, that has been 1960 established with a million barrels, distributed in three 1961 locations from the New York Harbor area, up to Portland, 1962 Maine, and that complement to the heating oil reserve that 1963 was established some years back. I might point out that one 1964 of the recommendations, by the way, in--which I would put in

1965 front of the committee is that it would be very useful if the 1966 authorities for using those reserves could be harmonized 1967 because they are quite different, and this would not help in 1968 terms of a coordinated response in terms of an issue. So 1969 that is successfully put in place. The--it is paid for as 1970 well for 4-1/2 years of operation. And I might add, we are 1971 currently now about 1/3 of the way through to using the 1972 remainder of the money to repurchase 4.2 million barrels of 1973 crude oil to go back into the reserve, because we took out 5 1974 million, so it will be 4.2 crude, 1 million gasoline, and 4-1975 1/2 years of operations of the reserve. 1976 The--secondly, with regard to the grid and resiliency, 1977 again, I would like to highlight what we consider to be one 1978 of the most important recommendations, and that is the--1979 actually, two recommendations, one is to support, in our 1980 fiscal year 2016 budget request, state assurance grants to 1981 allow planning for hardening infrastructure. And then, and 1982 this is a case we have to find out working with you, how to 1983 raise the revenue, how to raise the resources, but to 1984 establish several billion dollars for competitive resiliency 1985 projects. That could include things like micro grids, but 1986 designed for resiliency of the energy system.

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          Mr. {Engel.} Thank you. Let me ask one more question.
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      The QER report also recommends ways to further integrate the
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      energy infrastructures of the U.S., Canada, and Mexico, and
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      the idea is to enhance market opportunities, energy security,
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     and sustainability. Some transmission lines already send
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     hydropower from Quebec to the northeast United States, and
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      the potential exists, obviously, for more capacity on more
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      transmission lines in the region. Could you please talk
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      about what role, if any, these transmission lines should play
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      in our energy future?
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           Secretary {Moniz.} Well, I think these are very
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      important. Of course, one that was approved recently was the
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      Champlain Hudson line that would take power to New York from-
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      -hydropower. And there are a variety of projects for 4 to 5
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      gigawatts of additional hydropower that could be available to
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      the northeast and upper Midwest. This, obviously, would be
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      clean energy and -- to meet our needs.
2004
          Mr. {Engel.} Thank you. Thank you, Mr. Secretary.
2005
           Thank you, Mr. Chairman.
2006
           Mr. {Whitfield.} Chair now recognizes the gentleman
2007
      from Virginia, Mr. Griffith, for 5 minutes.
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Mr. {Griffith.} Thank you very much, Mr. Chairman.

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2009 do appreciate that. 2010 Let me reference the comments made by Mr. McKinley of 2011 West Virginia. We have had hundreds of layoffs in my 2012 district alone. Of course, in my neighboring State of West 2013 Virginia and Kentucky, there have been thousands, and it has been devastating. 2014 2015 You referenced natural gas in relationship to the 2016 closing of some of the coal-fired power plants as one of the 2017 factors. Of course, it is one of the factors, but other--the 2018 regulations coming in also, yesterday we closed down the Glen 2019 Lyn facility in my district. It was paid for by the 2020 ratepayers. Wouldn't cost them any additional. It was only 2021 being used at this point for the peak periods. That is now 2022 gone. The Clinch River facility in my district had three 2023 EGUs, three electric generation power plants. They are 2024 converting two of the three over to natural gas, however, the 2025 third one is not going to be converted, and the 2/3 that used 2026 to be there will produce about 1/2 of the electricity. 2027 I am just concerned that in the peak periods of use, now 2028 that they are gone, how are they going to be replaced in 2029 southwest Virginia and in other parts of the AEP footprint? 2030 Secretary {Moniz.} Well, of course, I don't know well

2031 enough the exact geography and the distribution of power 2032 plants. Clearly--if I talk more broadly, one of the issues, 2033 clearly, is the continuing build-out of the transmission 2034 system to move power around effectively. And I might say 2035 that I was a little bit surprised, frankly, with the data 2036 that came out in the QER that the spending on transmission in 2037 the country has actually reached \$14, \$15 billion per year 2038 with a continuous increase, basically, over the last 10 to 15 2039 years. So we actually don't think that there--that--like any 2040 significant increase in resources will be required. 2041 issue will be to make sure that the lines are configured, of 2042 course, to make sure that energy gets to all the various 2043 places. 2044 Mr. {Griffith.} And I get that, and that brings up 2045 natural gas pipelines. And talking about all of this, and 2046 they are building them in my district, with great opposition 2047 from many people who don't like the pipeline concept. They 2048 are also building them in a district just north of mine. 2049 Pipelines are going everywhere. But I noticed in the QER you 2050 note the need for pipeline replacements for existing 2051 pipelines, and that you suggest a DOE-run grant program 2052 designed to allow states to receive funds to aid in

2053 improvements to pipeline infrastructure. I support improving 2054 our current system for existing pipelines, and I am 2055 interested in learning more about the details. What new 2056 authorities do you all think you need at DOE, or do you want 2057 at DOE in order to create this program, and will you be 2058 providing language to the committee so that we can see about 2059 putting that into the appropriate bill? How do you envision 2060 the DOE replacement program working? Where would--how would 2061 the funding get to the existing states? Would it be the 2062 existing funding or are you going to come up with new 2063 funding? Where is the money going to come from? What is the 2064 timeline, and how would the states apply, et cetera? I throw 2065 all those out at you at once. I will be glad to go back and 2066 review them but I don't want my time to run out. 2067 Secretary {Moniz.} I think we will have to get back to 2068 you with a lot of the detail, but let me make several points. 2069 First of all on the resources issue, we were very clear that 2070 we do put--we had about half a billion dollars proposed in 2071 the fiscal year 2016 budget to address various QER 2072 recommendations, but there were another \$15 billion of need 2073 identified, which we were very clear we have to have a 2074 discussion in terms of where can those resources come from.

2075 That is over many years, but still. So specifically, the 2076 funding for the acceleration of natural gas distribution 2077 infrastructure replacement is not in our budget. So that is 2078 one those cases. And they are--we have in the past, of 2079 course, had many examples of raising resources in various 2080 ways for major infrastructure projects. I think that is the 2081 discussion we need to have with the Congress, are we prepared 2082 to find these mechanisms for a significant push on energy 2083 infrastructure. 2084 Mr. {Griffith.} And as we transition then and we use 2085 more natural gas, then it would seem that at some point that 2086 funding is going to have to come forward, which means it is going to be passed on to the ratepayer, and yet another 2087 2088 expenses added onto one of their energy bills. 2089 Secretary {Moniz.} Right, and what are seeing today, by 2090 the way, I have a, you know, at least for these years, I have 2091 a place in D.C., and on my bill there is a specific surcharge 2092 on there for replacement of the natural gas distribution 2093 pipe. What we are saying is we think this needs to be 2094 accelerated. I will be clear, the -- I guess it is Washington 2095 Gas, I don't know, whoever it is, the surcharge is for a 40-2096 year replacement program. I -- that seems like an awfully long

- 2097 time. So what we are arguing is we need to shorten these--
- 2098 utilities are typically doing this many, many decades to keep
- 2099 the rate low. We are saying, geez, we need to accelerate
- 2100 this. And what we are proposing is funding that would go to
- 2101 help low-income households absorb the rate hit.
- 2102 Mr. {Whitfield.} Um-hum. Gentleman's time has expired.
- 2103 At this time, recognize the gentleman from Ohio, Mr.
- 2104 Johnson, for 5 minutes.
- 2105 Mr. {Johnson.} Thank you, Mr. Chairman. And thank you,
- 2106 Mr. Secretary, for being here with us again today.
- 2107 I--at the risk of piling on, I want to associate myself
- 2108 also with the concerns already mentioned regarding the coal
- 2109 industry. My district is a district and a state heavily
- 2110 dependent upon the coal industry, not only for reliable
- 2111 energy, affordable energy, but also the jobs that it
- 2112 represents.
- 2113 You know, I was on a trip to Europe just a couple of
- 2114 weeks ago, and one of the statements that one of our European
- 2115 colleagues in the energy sector made was that, you know, over
- 2116 the last 20 years or so, they have led America in shutting
- 2117 down much of their coal industry in an effort to reduce their
- 2118 carbon emissions, but some of those European countries, when

2119 we ask them what their energy profile looked like, they are 2120 returning to a higher percentage of a use of coal. And when 2121 I questioned them about that, I said why is that the case and 2122 how do you think you are going to be able to reach this 40 2123 percent reduction by 2030, and this official said, look, we 2124 have learned, our ratepayers, our businesses and our residential customers, have learned--have said they are no 2125 2126 longer willing to pay the exorbitant high prices for energy. 2127 You know, the idea is you make coal so expensive by taxing 2128 the carbon emissions that renewables and other alternative 2129 forms of energy are more economically attractive. They are 2130 going back to coal. I don't know why America, Mr. Secretary, 2131 why we have to learn this lesson the hard way; that coal still provides the most reliable, affordable energy on the 2132 2133 planet. 2134 And so let me get off of this subject because I have 2135 some others I want to talk to you about. You expressed a 2136 willingness to come to West Virginia with Senator Manchin and 2137 Representative McKinley. Can you swing through Ohio at the 2138 same time--2139 Secretary {Moniz.} We can try to do that.

Mr. {Johnson.} --that you are in the region, and I

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- 2141 would love to take you to talk to some of our coalmining
- 2142 cooperators and some of the manufacturers who are being asked
- 2143 to idle their plants because there is not enough energy on
- 2144 the grid to meet the peak demand. And that is today. That
- 2145 doesn't even count for what is coming.
- 2146 Secretary {Moniz.} Could--if I may make a suggestion
- 2147 that might be useful. We have a very, very excellent person
- 2148 named Dave Foster who is really the creator of our Job
- 2149 Strategy Council. Perhaps a meeting with those of you with
- 2150 kind of Appalachian connections in coal, just to brainstorm
- 2151 around what might be other ways of going. I would be happy
- 2152 to do that.
- 2153 Mr. {Johnson.} Can you help facilitate that?
- 2154 Secretary (Moniz.) Yeah, I would--
- 2155 Mr. {Johnson.} Good.
- 2156 Secretary (Moniz.) -- be happy to do that.
- 2157 Mr. {Johnson.} Well, my office will be in touch and we
- 2158 will--
- 2159 Secretary (Moniz.) Certainly, the two of you and Mr.
- 2160 McKinley would be among those.
- 2161 Mr. {Johnson.} All right. We would like to do that.
- 2162 Let me move quickly to these other questions. In March,

2163 William O'Keefe, the CEO of Marshall Institute, penned an 2164 editorial in the Washington Times where he notes that the 2165 Council of Economic Advisors' annual economic report for 2015 2166 details the beneficial effects for LNG exports--that LNG 2167 exports would bring for domestic employment, geopolitical 2168 security in the energy industry and the environment. He also 2169 makes the point that unless we act soon, we are going to lose 2170 many of these benefits. He says, while the American 2171 policymakers procrastinate, other countries are stepping up 2172 to meet these needs. The United States has an incentive not 2173 to wait. Our window of opportunity is closing. 2174 So with that in mind, what are your thoughts not only on 2175 LNG exports, but are there any specific steps and policies we 2176 should be putting in place today to realize this opportunity 2177 before it is lost? 2178 Secretary {Moniz.} Well, I have to say first of all 2179 that we are not procrastinating. The -- we have -- now, we have 2180 approved--and by--this is separate from the conditional 2181 approval that we made last week for the Alaska project, 2182 because that is a separate gas source, but for the lower 48 2183 we have approved roughly 8-1/2 billion cubic feet per day to 2184 non-Free Trade Agreement countries. We have no other

2185 applications to work on at the moment. The -- and just to give 2186 a scale, I mean the largest LNG exporter in the world is 2187 Qatar, and they are at about 10 billion cubic feet per day. 2188 Now, the first cargos--2189 Mr. {Johnson.} I mean I--I hear you, Mr. Secretary. 2190 Then why does the rest of the world, why are they still 2191 urging America to get into the LNG export market on a global 2192 basis? Why does the rest of the world--2193 Secretary {Moniz.} Well--2194 Mr. {Johnson.} --and the oil and gas industry thing 2195 that we are not participating in the global export? 2196 Secretary {Moniz.} I think that, first of all, there is 2197 a lot of misunderstanding, to be honest, number one. Number 2198 two, clearly, they are sitting there with \$12, \$15 gas, and 2199 they see us at \$2.50, and they think that looks pretty good. 2200 Now, of course, by the time it reaches them, when you add \$6 2201 or \$7 for the supply chain, it is not going to be our prices, 2202 but it still beats their prices. So clearly, they have an 2203 They want to see that. Well, the fact is that if interest. 2204 you look at the economic studies that have been done, not by 2205 DOE, by others, in terms of what they expect to be our real

export market, very few of them come in above, say, 10 BCF

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- 2207 per day, given competition in various parts of the world. So 2208 all I know is that is for the private sector to sort out. 2209 We have approved -- we have studies that take us up to a 2210 potential 12 BCF per day. Earlier it was pointed out we have 2211 commissioned another study that would even look at 20 BCF per 2212 day, but in the meantime, we have approved 8-1/2. The 2213 projects are being built. The first cargos will get on the 2214 water probably the beginning of 2016, and then we are going 2215 to start exporting. 2216 Another issue is, and a lot of our European friends say, 2217 you know, they want the gas, I might just point out as an 2218 aside, no value judgments, there are a lot of places in the 2219 world that don't want to develop their own indigenous 2220 resources but would like ours. Okay, well, that is fine, but 2221 we do not direct where cargos go. We approve export licenses to non-FTA countries, and those are commercial contracts. 2222 2223 Frankly, it is a constitutional issue in terms of our not 2224 doing that. 2225 Mr. {Johnson.} Mr. Chairman, I--my time has expired. Mr. {Whitfield.} Gentleman--2226
- 2227 Mr. {Johnson.} I would submit to our committee and to 2228 the Secretary, there is a big disconnect somewhere because

- 2229 the experts tell us that our price is going to rise when we
- 2230 get into the global export market. We haven't seen that. We
- 2231 have heard that the global market price is going to come
- 2232 down. We haven't seen that. So I don't know where the
- 2233 disconnect is, but there is a big disconnect somewhere.
- 2234 Mr. {Whitfield.} Yeah. Thank you.
- 2235 At this time, I am going to recognize the gentleman from
- 2236 Missouri, Mr. Long, for 5 minutes.
- 2237 Mr. {Long.} Thank you, Mr. Chairman.
- 2238 And, Mr. Secretary, the discussion draft provides the
- 2239 Department of Energy with some new responsibilities beyond
- 2240 your current mission. For example, we direct the department
- 2241 to study the feasibility of establishing a federal strategic
- 2242 transformer reserve, and arm the Department of Energy with
- 2243 new authority to address certain grid security emergencies,
- 2244 which I think is foremost in everyone's mind as far as grid
- 2245 security. Do you believe the Department of Energy has the
- 2246 expertise and capability to meet these new duties?
- 2247 Secretary {Moniz.} I--well, yes, sir. First of all, on
- 2248 the transformer reserve, we are moving forward to study that.
- 2249 We have one study already from our--from WAPA, our western
- 2250 organization, but we are moving forward on that and will,

2251 depending on the study, engage then in the appropriate 2252 public-private partnership to make sure that we are secure. 2253 With regard to grid security emergencies, again, we 2254 already do a lot of this. We work under the FEMA umbrella. 2255 We are the lead agency for energy infrastructure. And so, 2256 for example, you may have read about the typhoon going 2257 through Guam a couple of weeks ago I think it was, well, we 2258 had people--we had a person in Guam as part of the FEMA 2259 response for energy infrastructure. So we are already doing 2260 this. Now, additional authorities could be helpful. 2261 Mr. {Long.} Okay. In your testimony, you mention that 2262 one of the key energy objectives is enhancing energy 2263 reliability. What impact do you think that the proposed 2264 Clean Power Plan will have on energy reliability and transmission issues? 2265 2266 Secretary {Moniz.} Well, again, first of all, we do--we 2267 analyze these issues, but of course, we don't have a final 2268 rule yet to know how to analyze it. But what we have done to 2269 date and what we have done in terms of technical analysis 2270 around the proposal of last year, again, suggests that 2271 reliability will be quite manageable, but we have to wait to 2272 get the final rule before we can really do the--

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2273
           Mr. {Long.} So you don't think the proposed plan will
2274
     have a big effect?
2275
           Secretary {Moniz.} Well, as I mentioned earlier, one
2276
      example of something that we did, there was an issue around
2277
      the projected significant increase of natural gas for the
2278
     power sector versus coal, and when we looked at the
2279
      infrastructure issues of the gas delivery, we just did not
2280
      find that there was likely to be any significant challenge.
2281
      There would be some work to do, but not a significant
2282
      challenge.
2283
           Mr. {Long.} We--with Mr. Griffith from Virginia a while
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      ago, you had a discussion about money to the states and
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      things, and with this Quadrennial Energy Review recommend
     providing state financial assistance, which I think you all
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2287
      spoke about a few minutes ago, and grants and investment
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     plans for electric reliability and efficiency. Can you
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      discuss a little bit of some of the criteria, regardless of
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     where the money is coming from, because we know there is a
2291
      shortage of money, but can you discuss some of the criteria
2292
      the Department of Energy will require for the states to
2293
      receive this financial assistance?
2294
           Secretary {Moniz.} Well--
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2295 Mr. {Long.} Assuming, again, there would be money 2296 there. 2297 Secretary {Moniz.} Yeah, well, the money issue is 2298 relevant, and I must say I am--I was very, very disappointed 2299 in the appropriations mark, which did not give--provide any 2300 funding for either the reliability or the assurance grants, 2301 which I think is shortsighted, to be perfectly honest, 2302 because I think the states need to have this kind of planning 2303 capability. We would provide technical assistance. Now, in 2304 terms of program design, that remains to be done, but what we 2305 envision will be ultimately proposals around things like 2306 micro grids, for example, for reliability and resilience. We 2307 would see, again, the integration of IT and smart grids as providing those services. And as I said, we hope in the 2308 2309 reliability and assurance arenas to then have funding for 2310 competitive cost-share grants. 2311 Mr. {Long.} Would the criteria be the same from state 2312 to state or would it change across the country? 2313 Secretary {Moniz.} I think the criteria--well, that still remains to be worked out completely, but the criteria, 2314 2315 no, would be around enhanced reliability and resilience. 2316 Those--that is the criteria.

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2317
          Mr. {Long.} I understand that but I am just--my
2318
      question was whether it would be the same from state to state
2319
      across the country or whether different--
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           Secretary {Moniz.} I think--
2321
           Mr. {Long.} --different states would--
2322
           Secretary {Moniz.} No, I think--
2323
           Mr. {Long.} --face different criteria.
2324
           Secretary {Moniz.} I think the same criteria, but the
2325
     way the projects would be structured would look very
2326
      different depending upon the regional and state resources.
2327
           Mr. {Long.} Okay. I am past my time so if I had any
2328
      time I would yield back. But thank you again for your
2329
      testimony. Mr. Chairman--
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           Mr. {Whitfield.} Yeah, at this time, I am going to
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      recognize the gentleman from Texas, Mr. Flores, but I also
2332
      just want to make a comment that we really appreciate your
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      taking the leadership with the Republican Study Group on the
2334
      forum on oil exports, and have an opportunity to examine that
2335
     more thoroughly today, so--
2336
          Mr. {Flores.} Well, thank you.
2337
           Mr. {Whitfield.} --you are recognized for 5 minutes.
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Mr. {Flores.} Thank you, Mr. Chairman. I hope

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2339 Secretary Moniz will send someone to the discussion this 2340 afternoon. 2341 Of course, I want to talk about exports like my friend, 2342 Mr. Barton, did. One of the things you talked about is that 2343 there--one of the good reasons for the ability to have oil 2344 exports is because you have a better matching of the 2345 qualities of grades that are needed by the refineries in 2346 different geographical areas around the world. And you 2347 didn't go quite far enough, I don't think, because one of the 2348 things that happens when you have that better matching is you 2349 have economic efficiency, and economic efficiency releases 2350 additional capital, and that additional capital, based on my 2351 experience is--with 30 years in the business, would go back 2352 into reinvestment, which stimulates the production. So next 2353 time you are answering that question, if you would go all the 2354 way through that economic cycle I think that it would be 2355 helpful. 2356 The next thing has to do with, I guess I would call it a 2357 safety valve question. As you know, there are multiple 2358 versions of--or proposals for oil exports out there, and some 2359 of them include giving the President the authority to--the 2360 ability to suspend oil exports in the situation where we had

2361 some sort of an energy crisis, or if it is deemed in the 2362 national interest, or to be able to use the strategic 2363 petroleum reserve under those same circumstances. And so 2364 with those two safety valve features in place, doesn't that 2365 make it more compelling to allow oil exports? 2366 Secretary {Moniz.} Well, again, the--obviously, more 2367 flexibilities are always welcome, but I think the 2368 fundamentals of the oil export question are those that we 2369 discussed earlier, I think. And I agree with you, of course, 2370 in terms of your economic argument. 2371 Mr. {Flores.} Okay. One of the things that was interesting about timing is, while you were--your agency and 2372 2373 others were working on the QER, the Administration was also 2374 involved in negotiations with Iran, and in early April your 2375 agency estimated that a deal with--with a deal in place and 2376 the sanctions lifted, Iran might start selling us a stockpile 2377 of 30 million barrels or more later this year, and raise its 2378 output by \$700,000--700,000 barrels a day by the end of 2016. 2379 This would come at a time when we would already have a global 2380 gut of crude oil. 2381 And so my first question is this. What analysis, if 2382 any, has DOE performed to better understand the implications

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     of the entry of Iranian oil into the global markets on global
2384
      supply and demand--global supply and prices, rather?
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           Secretary {Moniz.} Well, I think, first of all, you
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     have stated the basic conclusion; that one would see over
2387
      some year to 2 years, certainly, several hundred thousand
2388
     barrels per day, probably of increased production.
2389
     would go into the 95 million barrel per day or so pool.
2390
      -there are so many uncertainties in that timescale; in
2391
     particular, on the demand side. For example, a recovering
2392
     European economy would put substantial then pressure on the
2393
      supply side. Clearly, the nuclear negotiation is quite
2394
      independent of that dynamic. That is about nuclear weapons
2395
      issues that we think are important to block.
2396
           Mr. {Flores.} Well, no, I do understand the independent
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     nature of the two discussions, however--
2398
           Secretary {Moniz.} Yeah.
2399
           Mr. {Flores.} --the impact is the same. So I mean the
2400
      outcomes are the same.
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           Secretary {Moniz.} Well, it is all supply and demand
2402
      and, you know--
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           Mr. {Flores.} Exactly.
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Secretary {Moniz.} Right.

2404

- 2405 Mr. {Flores.} Exactly. And so I guess under these
- 2406 circumstances, doesn't it seem like the President would have
- 2407 a--an increasingly difficult time justifying lifting the
- 2408 sanctions on Iranian oil, and at the same time keeping the
- 2409 sanctions on domestic oil in place, where domestic oil can't
- 2410 be sold abroad?
- 2411 Secretary (Moniz.) Well, I think the big difference is
- 2412 that we import 700 million barrels a day of crude oil. We
- 2413 are not a net exporter. We are an importer.
- 2414 Mr. {Flores.} Right, but we are on track to be in a
- 2415 position to export, so it makes sense to lift the sanctions.
- 2416 Secretary {Moniz.} Well, that would be--that is quite a
- 2417 few years away. I mean we are still--even if you add in oil
- 2418 products, we are still at 4-1/2 million products a day.
- 2419 Mr. {Flores.} Okay.
- 2420 Secretary (Moniz.) So--
- 2421 Mr. {Flores.} I have no additional questions. Thank
- 2422 you. I yield back.
- 2423 Mr. {Whitfield.} At this time, recognize the gentleman
- 2424 from Oklahoma, Mr. Mullin, for 5 minutes.
- 2425 Mr. {Mullin.} Thank you, Mr. Chairman. And, Secretary,
- 2426 thank you for being with us again today. I know--I believe

2427 this is the second time you have been in front of this panel. 2428 Secretary {Moniz.} More than that. 2429 Mr. {Mullin.} Well, I mean--but this year, if I am not 2430 mistaken. At least this is the second time you and I have 2431 had an opportunity to visit. And the last time we spoke, we 2432 talked about the lack of infrastructure with the power plants 2433 as far as the coal-fired plants that are coming down. 2434 have a report from Southwest Power Pool there is going to be 2435 12,900 megawatts lost just in their area. And just a while 2436 ago while you were being questioned, I believe by Mr. Long, 2437 you said that you didn't see any significant challenges to 2438 meet those needs, but yet where is the power going to come 2439 from? 2440 Secretary {Moniz.} Well--2441 Mr. {Mullin.} If we are going to lose 12,000 just in my 2442 region, then where is the extra power going to be made, or 2443 where it is going to be produced? The gas lines aren't 2444 there. We are seeing 4 years to take a permit, to just 2445 simply get a permit to install a gas line. Unless there are 2446 power plants that are being built that I am not aware of in 2447 my region, then I believe there is going to be a significant 2448 challenge to meet the power needs.

2449 Secretary {Moniz.} Well, again--but first of all, let 2450 me emphasize that I did state that what we have seen to date, 2451 but we, of course, await a final rule. Secondly, of course, 2452 demand--now, I am talking nationally, not in any particular 2453 specific region--2454 Mr. {Mullin.} Well, but the--specifically speaking, the coal-fired plants are in a specific region. 2455 2456 Secretary {Moniz.} No, no, sure. Well, every plant--2457 Mr. {Mullin.} And so--I understand that, but we have 2458 12,900 megawatts being lost in one region, and you said that 2459 there was--you didn't see any significant challenges in 2460 meeting those needs. Where is that extra power going to come 2461 from? Secretary {Moniz.} Well, I mean, first of all, I made 2462 2463 it very clear that I--the same when I discussed the natural 2464 gas transmission pipes, there will be local issues that have 2465 to be resolved in some places with new infrastructure, but if 2466 you look--again, I am--all I can do is look at the broad 2467 picture nationally and note that, first of all, electricity demand nationally is not going up, it is essentially flat. 2468 2469 We are building a significant amount of natural gas and wind, 2470 in particular, capacity--

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2471
          Mr. {Mullin.} So it is okay because--
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          Secretary {Moniz.} --annually--
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          Mr. {Mullin.} --the numbers aren't going up--
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          Secretary {Moniz.} And Oklahoma, by the way--
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          Mr. {Mullin.} --it is okay--
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          Secretary {Moniz.} --has plenty of wind.
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          Mr. {Mullin.} Yeah, but it is okay to bring the power
2478
      down because we don't need it right now? I mean--
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          Secretary {Moniz.} I--
2480
          Mr. {Mullin.} --that is like saying--
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          Secretary {Moniz.} I did not--
          Mr. {Mullin.} --let's--
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2483
          Secretary {Moniz.} I did not say that. All I said was
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      that we are building substantial capacity even as out demand
      is flat, and secondly--
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2486
          Mr. {Mullin.} Where is the building--
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          Secretary {Moniz.} --we have substantial--
2488
          Mr. {Mullin.} --we are losing power, you are saying we
2489
      are building significant capacity. What are we building it
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          Because power cannot replace -- or wind cannot replace
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     what we have here. You can have miles and miles of
2492
     windfarms, which we have in Oklahoma, which I, frankly, don't
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- think is very pretty, I think it leaves a lot bigger

 to be described as a lot bigger

 to be described as a local property of the leaves a lot bigger

 to be described as a local property of the loca
- 2495 topic, but we are losing 12,900 megawatts in one area. I am
- 2496 going back to what you said--
- 2497 Secretary (Moniz.) Right.
- 2498 Mr. {Mullin.} --with the gentleman from Missouri--
- 2499 Secretary (Moniz.) Yes.
- 2500 Mr. {Mullin.} --when you said you don't see significant
- 2501 challenges meeting those needs. So what I think I hear you
- 2502 saying, now, correct me if I am wrong, that it is okay that
- 2503 we lose it because our increase for electricity isn't--the
- 2504 need isn't there so it is okay that we lose it. Is that what
- 2505 I am understanding?
- 2506 Secretary {Moniz.} No, that is--what I am saying is
- 2507 that, first of all, we have about 68,000 megawatts of wind,
- 2508 the--but what I am saying is that there will, obviously, all
- 2509 the local planning authorities will have to be planning, but
- 2510 at the macro level, we are not seeing the likelihood of
- 2511 enormous challenges. We are being cautious. We have to wait
- 2512 for the final rule to come into place.
- 2513 Mr. {Mullin.} But you guys are already moving forward
- 2514 with it. And, Mr. Secretary, you are over the Department of

- 2515 Energy, and you are saying that the local communities, local
- 2516 areas, need to get together. What is DOE's specific plan to
- 2517 meet this need? Is there not a need--
- 2518 Secretary {Moniz.} Well--
- 2519 Mr. {Mullin.} --it is just saying we are going to let
- 2520 them go down--
- 2521 Secretary (Moniz.) I mean--
- 2522 Mr. {Mullin.} --and let everybody else figure it out,
- 2523 it is not our problem?
- 2524 Secretary {Moniz.} Look, first of all, in our system,
- 2525 we--I mean the private sector obviously builds the power
- 2526 plants, builds--
- 2527 Mr. {Mullin.} But you guys are the ones that pick
- 2528 winners and losers.
- 2529 Secretary {Moniz.} No.
- 2530 Mr. {Mullin.} Yeah, it is, because--
- 2531 Secretary (Moniz.) The--
- 2532 Mr. {Mullin.} --you have said coal is going out, wind
- 2533 is the new thing.
- 2534 Secretary {Moniz.} The--obviously, there is a
- 2535 responsibility of government, whether statutory or
- 2536 regulatory, to set certain rules of the road in terms of

- 2537 environmental protection, et cetera, et cetera. The private
- 2538 sector and typically state regulatory bodies then respond to
- 2539 that. So--
- 2540 Mr. {Mullin.} So if I am hearing correctly--
- 2541 Secretary (Moniz.) -- that is the way it works.
- 2542 Mr. {Mullin.} --there is no plan. We are just going to
- 2543 drop the power and let everybody else figure it out.
- 2544 Secretary (Moniz.) There--
- 2545 Mr. {Whitfield.} Gentleman's time has expired.
- 2546 Secretary (Moniz.) They are no more--
- 2547 Mr. {Mullin.} I yield back. Thank you.
- 2548 Secretary (Moniz.) --or no less plan than there always
- 2549 has been.
- 2550 Mr. {Whitfield.} Um-hum. Mr. Pompeo of Kansas is now
- 2551 recognized for 5 minutes.
- 2552 Mr. {Pompeo.} Great, thank you, Mr. Chairman. And
- 2553 thank you for your patience today. You have been with us a
- 2554 long time. We are getting towards the end and so a lot of
- 2555 the questions have been asked. And so maybe I will open the
- 2556 aperture just a little bit, starting with this. Do you
- 2557 believe that the American taxpayer has received good value
- 2558 for the tens of billions of dollars that have been spent on

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2559
     carbon capture technologies -- federal dollars that have been
2560
      spent on carbon capture technologies to date, yes or no?
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           Secretary {Moniz.} Well, first of all, I don't think it
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      is tens of billions of dollars, so it is quite a bit less
2563
      than that.
2564
           Mr. {Pompeo.} Okay, whatever the number is, sir--
2565
           Secretary {Moniz.} But the--
2566
           Mr. {Pompeo.} --do you think we have gotten good value
2567
      for--
2568
           Secretary {Moniz.} Yeah.
2569
           Mr. {Pompeo.} --that?
           Secretary {Moniz.} But I think the answer is that, yes,
2570
2571
      it will prove to have been very, very well spent.
2572
           Mr. {Pompeo.} Great, thank you. I think they look more
2573
      like slender than success, so we disagree. Yes or no, do you
2574
      agree with French Foreign Minister who has said that the
2575
      global climate change agreement that is being negotiated this
2576
      year should be worded in a way that does not require
2577
      congressional approval? Yes or no.
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           Secretary {Moniz.} I am not aware of that statement.
2579
           Mr. {Pompeo.} So--
2580
           Secretary {Moniz.} The--
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2581
          Mr. {Pompeo.} --do you think--I will ask it more--
           Secretary {Moniz.}
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          Mr. {Pompeo.} --directly--
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2584
           Secretary {Moniz.} The--if I may say, the--currently,
2585
      obviously, the Climate Action Plan that we are executing is
2586
     based upon administrative authorities to get an economy-wide
2587
     approach eventually, but it will require legislation.
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           Mr. {Pompeo.} The government that you are a part of is
2589
     negotiating an agreement this year, at the end of the year,
2590
      it intends to enter into an agreement, they have made that
2591
     very clear. Do you believe that the agreement that the
2592
     United States enters into ought to be submitted for
2593
     congressional approval?
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           Secretary {Moniz.} I think we need to see what the
2595
     nature of this agreement is. There are many agreements--
2596
          Mr. {Pompeo.} So I can't get you to say--
2597
           Secretary {Moniz.} --that are political agreements
2598
          Mr. {Pompeo.} --yes, that you think that a climate
2599
      agreement should be approved by Congress.
2600
           Secretary {Moniz.} I think it very much depends upon
2601
     what the nature of the agreement is.
2602
          Mr. {Pompeo.} I will take that as a no. Today, we have
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2603
     had a lot of questions about crude exports. It seems to me
2604
      that the only country that you are currently advocating to
2605
      export crude oil is Iran. Is that right?
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           Secretary {Moniz.} Excuse me?
2607
           Mr. {Pompeo.} Well, you are sitting in a set of
2608
     negotiations where we are going to free-up the Iranians to
2609
      export their crude products, but you won't advocate for
2610
     Americans to be able to export their crude products. Is
2611
     that--
2612
           Secretary {Moniz.} As I said earlier, the situations
2613
      are completely different, and we are a large importer of oil.
2614
           Mr. {Pompeo.} The situations are identical. They--it
2615
     would benefit each country greatly to be able to access
2616
      foreign markets and sell their products at market prices
2617
      around the globe, and both consumers and exporters would
2618
     benefit from those in both countries if they are opened up.
2619
     Do you agree with that or disagree?
2620
           Secretary (Moniz.) Obviously, for Iran--
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           Mr. {Pompeo.} I mean it is a simple question--
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           Secretary {Moniz.} Obviously--
           Mr. {Pompeo.} --Mr. Secretary.
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Secretary {Moniz.} --if Iran--

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          Mr. {Pompeo.} It is not a trick question.
2626
           Secretary {Moniz.} --had sanctions lifted, it helps
2627
      their economy.
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           Mr. {Pompeo.} And if we lifted ours--
2629
           Secretary {Moniz.} And it indeed helps us--
2630
           Mr. {Pompeo.} --it would help ours too.
2631
           Secretary {Moniz.} --on the nuclear weapons side.
2632
      -as I said earlier, the only issue on oil exports in the
2633
     United States of large-scale relevance is whether or not
2634
      there is a significant increase in production as a result,
2635
      and I have said, in the current oil market, that may be a
2636
     difficult case to make.
2637
           Mr. {Pompeo.} Right. You don't believe in supply and
2638
      demand when it comes to crude--which you think no more supply
2639
     will be lodged. So we have been through that. In 18 months
2640
      there will be a new President, although maybe not a new
2641
      Secretary of Energy. One never knows. Your QER was prepared
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     based on this President's vision of greenhouse gases, their
2643
      impact around the world, and America's role in diminishing
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            If the next President comes in and has a different
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     view with respect to that, tell me what remains of the value
2646
     of the QER work that you all did.
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2647 Secretary {Moniz.} Essentially, all of it. The QER is 2648 really aimed clearly at facilitating more clean energy, but 2649 it is about energy security, resilience of our 2650 infrastructure, it is -- it has -- it is about energy -- North 2651 American energy, it has huge, huge implications for our 2652 energy infrastructure, independent of the climate issues. 2653 Mr. {Pompeo.} Yeah, I just have a different view of 2654 what is in the QER. When I stare at it, I see the analysis 2655 and I appreciate that. I agree with your analysis of the 2656 requirements for increased infrastructure. We don't disagree 2657 there. But it seems to me most of what is in the QER was 2658 aimed at federal intervention in the marketplace. You spent-2659 -have several references to classic market failure with 2660 respect to public goods and negative externalities. I think 2661 much of the conclusions in the QER about how that 2662 infrastructure will be ultimately built out, and who will 2663 decide which infrastructure will be built out, is heavily 2664 dependent on this President's vision for climate change and 2665 how the United States can impact that. And I just think--it think it was a wonderful exercise, I am glad we did the work 2666 with respect to infrastructure, but I think the conclusions 2667 2668 drawn on the QER will need to be revisited immediately by the

2669 next Administration. 2670 With that, I yield back, Mr. Chairman. 2671 Mr. {Whitfield.} Gentleman yields back. 2672 And that concludes our questions. We have one 2673 additional member though, Mr. Cramer of North Dakota, who is 2674 a member of the Energy and Commerce Committee, he is not in 2675 this particular subcommittee, but he has been so focused on 2676 these issues that he sat here for 2-1/2 hours with us, and we 2677 are going to give him the opportunity to ask 5 minutes of 2678 questions. 2679 Mr. {Cramer.} Yeah, well, thank you, Mr. Chairman. And 2680 thanks to my colleagues for the indulgence. 2681 You know what, it doesn't only take one good North 2682 Dakotan to represent the entire state, so I spread myself 2683 fairly thin, Mr. Secretary. So I thank the members. And I 2684 also, Mr. Secretary, want to thank you not only for being 2685 here, but for at least agreeing to, if not joyfully, although 2686 I think you are a joyful person, to holding one of the 2687 listening sessions in North Dakota. I know it was a late 2688 request, and it was a late addition to the agenda for you and 2689 Secretary Fox and others, but I thoroughly enjoyed the time 2690 that you were out there.

2691 And I notice in the QER, there is a lot of reference to 2692 things that you learned last August in North Dakota, as--2693 especially as it pertains to the transportation 2694 infrastructure, and some of the challenges particularly 2695 reflected are the challenges for the railroads that move 2696 multiple commodities, as you know. And you heard quite 2697 clearly, and I think, again, indicated in the report quite 2698 clearly, that there were challenges, but at the same time I 2699 think--one of the things I want to do, I think, is to sort of 2700 bring the record up-to-date a little bit. Last August, we 2701 were following on two record winters and two bumper crops, we 2702 had two seasons in a row that strained the infrastructure for 2703 sure for agricultural commodities. I think one of the more--2704 bigger challenges was the fact that not only was it a record 2705 crop or a bumper crop, but it was a late harvest, it was--due 2706 to weather, it was also a late and a very wet harvest. so there was a consolidation of all of those commodities. 2707 2708 And the additional, you know, moisture creating other 2709 transportation problems like the movement of propane, for 2710 example, for grain drying. That perfect storm created 2711 incredible stress on the infrastructure, and--along with, of 2712 course, 700,000 or so barrels per day of oil being moved by

2713 rail. So there is a fair bit of--there was a lot of 2714 criticism last August. There is a fair bit of that reflected 2715 in the report, but just in the last 10 months, the storm has 2716 sort of shifted, I think, and I want to stress some of those 2717 points, but also encourage you and the team to continue to 2718 monitor it on a very regular basis, because some of the 2719 things that were identified have worked. I mean the STB's 2720 weekly--the requirement for the weekly reports, for example, 2721 from--by the class 1 railroads has been very helpful in 2722 transparency, allowed better planning. A warmer winter with 2723 a more traditional harvest season, and, frankly, lower 2724 commodity prices has -- have created more normalcy. And during 2725 which time, and I can be the railroad's worst nightmare, but 2726 I also want to acknowledge when they have done their part, 2727 and I have to say for BNSF, which is our--obviously, our 2728 largest railroad by far, they have invested mightily in 2729 personnel, locomotive, energy, cars, and certainly double-2730 track--double-tracking much of the Bakken region and much of 2731 the Upper Midwest. And I just--I want to be sure that the 2732 record is clear, but I also want to, again, encourage you to 2733 remain flexible and update the report regularly to 2734 acknowledge that this robust infrastructure does exist.

2735 it is my hope and my expectation that that additional and 2736 more robust rail infrastructure actually enhances all 2737 commodities. 2738 I also think it is worth noting that because of the STB 2739 reports, we have noticed that they are pretty well caught. 2740 Not just pretty well caught up, but caught up to the point 2741 where there is extra capacity. And much like the electrical 2742 grid, it doesn't hurt to have a little extra capacity, but it 2743 also creates opportunity for growth. 2744 So, you know, I would only probably ask that, you know, 2745 for you to comment on my comments if you would like to, but 2746 again, express my appreciation for your attention to the 2747 issues. 2748 Secretary {Moniz.} Well, thank you. And we certainly 2749 appreciated, by the way, your participation in the QER field 2750 hearing in North Dakota, along with your Senate colleagues. 2751 The--first of all, I think you have put your finger on 2752 really what was the main driver of our discussion on this 2753 subject in the QER, and that was the need for more data. 2754 be perfectly honest, the railroads have not always been the 2755 most transparent in terms of data availability. And I think

that has certainly been improved, and certainly, the issues

2756

- 2757 around coal, for example, have been certainly relieved.
- 2758 There are other issues, as we know, in terms of oil by rail
- 2759 that are being addressed, and I might say that the -- with the
- 2760 Department of Transportation we have now launched the next
- 2761 phase of the study of relevance to crude properties and rail.
- 2762 Mr. {Cramer.} Yes.
- 2763 Secretary {Moniz.} It will take about 18 months before
- 2764 we are ready with that. But anyway--but I think you are
- 2765 absolutely right. The -- we have had some progress on the data
- 2766 front and that allows--and EIA, by the way, is playing a role
- 2767 in there as well.
- 2768 Mr. {Cramer.} Yes, they are. Yes.
- 2769 Secretary (Moniz.) So it is great.
- 2770 Mr. {Cramer.} Well, thank you. And thank you again,
- 2771 Mr. Chairman.
- 2772 Mr. {Whitfield.} Well, thank you.
- 2773 And that concludes the first panel. Secretary Moniz,
- 2774 thank you very much for your testimony and answers to our
- 2775 questions, and we look forward to continuing to work with you
- 2776 on many pressing issues as we move forward. And thanks again
- 2777 for your leadership. And Mr. Rush will be notifying you of
- 2778 the formation of the fan club, and we will be getting

- 2779 together soon with that.
- 2780 Mr. {Rush.} Yes.
- 2781 Secretary (Moniz.) Well, thank you, Mr. Chairman.
- 2782 Thank you, gentlemen.
- 2783 Mr. {Rush.} Mr. Chairman, we will have our first
- 2784 meeting relatively soon.
- 2785 Secretary (Moniz.) Okay.
- 2786 Mr. {Whitfield.} And there will be a huge crowd there,
- 2787 so.
- 2788 I would like to call up the second panel of witnesses at
- 2789 this time. And I want to thank them for their patience. I
- 2790 know many of them came from long distances.
- On our second panel today we have Mr. Rudolf Dolzer, who
- 2792 flew all the way to the U.S. from Bonn, Germany, to testify.
- 2793 And we appreciate him being here. We have Mr. Jason Grumet,
- 2794 who is the President of the Bipartisan Policy Center. And we
- 2795 have Mr. Gerald Kepes, who is Vice President, Upstream
- 2796 Research and Consulting. We have Ms. Alison Cassady, who is
- 2797 the Director of the Domestic Energy Policy for the Center for
- 2798 American Progress. We have Ms. Emily Hammond, who is
- 2799 Professor of Law at George Washington University Law School.
- 2800 And I am going to call on my colleague, Mr. Pitts of

- 2801 Pennsylvania, to introduce one of our witnesses as well.
- 2802 Mr. {Pitts.} Thank you, Mr. Chairman. I am very
- 2803 pleased to introduce Mr. Scott Martin, a County Commissioner
- 2804 from Lancaster County, Pennsylvania, formerly chairman of
- 2805 that commission, and also active in the statewide Association
- 2806 of County Commissioners. An outstanding commissioner who I
- 2807 am very pleased could travel down from Pennsylvania to be
- 2808 with us today.
- Thank you, Mr. Chairman.
- 2810 Mr. {Whitfield.} Thank you. And, Mr. Martin, thank you
- 2811 for being with us.
- Once again, I want to thank all of you. We really look
- 2813 forward to your testimony. And I am sorry that there was
- 2814 such a delay in your testifying. We had to reschedule a
- 2815 little bit. But, Mr. Dolzer, I think you came the longest
- 2816 distance and--from Bonn, Germany, and I think you were in the
- 2817 German Parliament at the time, and you are a professor also
- 2818 at the University of Bonn, and so we genuinely appreciate
- 2819 your making this effort. And I am going to recognize you to
- 2820 start off with for 5 minutes. And then after everyone has
- 2821 concluded, we will have some questions for some of you. So,
- 2822 Mr. Dolzer, you are recognized for 5 minutes.

2823 ^STATEMENTS OF RUDOLF DOLZER, ADVISORY BOARD MEMBER, 2824 ASSOCIATION OF INTERNATIONAL PETROLEUM NEGOTIATORS, AND 2825 PROFESSOR OF INTERNATIONAL LAW, UNIVERSITY OF BONN; JASON 2826 GRUMET, PRESIDENT, BIPARTISAN POLICY CENTER; SCOTT MARTIN, 2827 COMMISSIONER, LANCASTER COUNTY, PENNSYLVANIA; GERALD KEPES, 2828 VICE PRESIDENT, UPSTREAM RESEARCH AND CONSULTING, HIS; ALISON 2829 CASSADY, DIRECTOR OF DOMESTIC ENERGY POLICY, CENTER FOR 2830 AMERICAN PROGRESS; AND EMILY HAMMOND, PROFESSOR OF LAW, 2831 GEORGE WASHINGTON UNIVERSITY LAW SCHOOL 2832 ^STATEMENT OF RUDOLF DOLZER 2833 Mr. {Dolzer.} Thank you, Chairman Whitfield, Ranking 2834 Member Rush, members of the committee. My name is Rudolf 2835 Dolzer, I am a German national who, all together, has lived 2836 about 8 years in the United States. In Germany, I became a 2837 law professor. Subsequently, I was director general of the 2838 Federal Office of the Chancellor and the Chancellor Kohl. 2839 This is where my gray hair come from. And then I was 2840 appointed three times to the German Parliament's Commission 2841 of Inquiry. We have that in Germany, you can be appointed to

- 2842 Parliament without the right to vote.

 2843 In the U.S. I studied in Spokane
- 2843 In the U.S., I studied in Spokane, Washington, at
- 2844 Gonzaga University. Then I studied for a longer period at
- 2845 the Harvard Law School. I later taught at 5 U.S.
- 2846 universities; the last time in Dallas in Texas. In Houston,
- 2847 I am a member of the Advisory Board of the Association of
- 2848 Independent Petroleum Negotiators. A month ago, I published
- 2849 a larger study of international cooperation in global energy
- 2850 affairs.
- 2851 Mr. Chairman, the era of abundance, as you say, opens up
- 2852 new opportunities of leadership for the United States, and
- 2853 the world is looking at the United States. This reminds us
- 2854 also, at least me, that energy is not just about energy, it
- 2855 is about foreign affairs, it is about national security, it
- 2856 is about finances. But ultimately, energy has its own
- 2857 characteristics and dynamics and, this is my first major
- 2858 point, foreign affairs, national security, and also issues
- 2859 such as trade must be folded into the fabrics of energy
- 2860 politics and not the other way around. This is also my view
- 2861 as regards climate change.
- 2862 Energy politics, Mr. Chairman, and when I look at your
- 2863 draft on energy diplomacy, energy politics also calls for

2864 arrangements of its own when it comes to international 2865 cooperation. Title III of your bill--the present bill 2866 represents an innovative modern approach, also from an 2867 international point of view. This Title may even be 2868 strengthened by a transatlantic trade and investment 2869 partnership. Again, trade is not just one aspect of energy. 2870 Recent events, and this has been addressed this morning, in 2871 Russia and Ukraine, and Europe in general, have underlined 2872 that energy independence will require safe energy supplies, 2873 and will require political foresight and a robust long-term 2874 strategy. Together, we must understand the nature of that 2875 issue. 2876 Europe--and this is not well known, Europe as a whole 2877 will, in the coming decade become more vulnerable as our 2878 resources dwindle, in particular in Norway. So this is 2879 Europe as a whole. The forums as proposed in your bill will 2880 serve to provide a common basis, but I propose that we go 2881 further and establish a more advanced concept which I call 2882 the Transatlantic Energy Agenda. We need to update and 2883 broaden existing arrangements with the new involvement, I 2884 think of parliaments and of the private sector. We have 2885 longstanding arrangements for cooperation in foreign affairs,

in national security, in agriculture, for example. For 2886 2887 energy, arrangements of this kinds are lacking at the moment, 2888 and I think that ought to change. We need more exchange, we 2889 need better exchange, we need to know what we are doing, and 2890 we need exchange about best practice. 2891 America's abundance also lends itself to strengthening 2892 of regional partnerships. In Europe, we have particular 2893 experience in this respect. Since 2009, the European Union 2894 has the competence to deal with the establishment of a single 2895 market, but the member states have retained their sovereign 2896 powers to determine the energy mix. The French made sure 2897 that no one touches their right to work with atomic power. 2898 This is a very complex jurisdictional situation which we have in Europe. We now have a set of rules promoting competition 2899 2900 in Europe with liberalization with unbundling. We have less 2901 progress, and I think this is of interest here so far with 2902 regard to internal and cross-border connections to overcome 2903 isolated domestic markets. 2904 The key concept which has been worked out in the last 24 2905 months has been the idea of project of common interests, as 2906 it is called. The new rules call, and I think this is of 2907 interest here, for a much more rapid process of approving

2908 permits. So far, that time, don't be astonished, took about 2909 10 years or more to have a permit for a trans-border 2910 arrangement. This is now going down to 3-1/2 years at a 2911 maximum, according to the new law. Also member states now 2912 must introduce one-step authorities instead of the multitude 2913 of--institutional arrangements we have had so far. 2914 Now, the funds needed for a single energy market will be 2915 considerable, but I think the advantage will justify the 2916 cost. Costs in terms of secure supply, new infrastructure 2917 urgently needed, more options for the customers, more-better 2918 position -- negotiating position on the international level. 2919 When you negotiate with Russia or the OPEC or Venezuela, I 2920 think the larger your market, the better it is. In North 2921 America, I think a new taskforce by the NAFTA countries, 2922 similar to the European Commission, might help to elaborate a 2923 unified energy strategy. 2924 Mr. Chairman, I conclude. In the past, energy issues 2925 have at times been a bone of contention between the United 2926 States and Europe; sometimes a bitter contention. I think 2927 your bill with Title III has the promise and the hallmarks of 2928 a new era of cooperation, with tangible benefits on both 2929 sides of the Atlantic.

2930	Thank you very much for your attention. I very much
2931	appreciate this opportunity to express my views before your
2932	important committee. Thank you very much.
2933	[The prepared statement of Mr. Dolzer follows:]
2934	******** INSERT B ********

2935 Mr. {Whitfield.} Well, thank you, Dr. Dolzer.

2936 And our next witness, as I said, is Mr. Jason Grumet,

2937 who is the President of the Bipartisan Policy Center. And

2938 thank you very much for being with us. You are recognized

2939 for 5 minutes.

2940 ^STATEMENT OF JASON GRUMET 2941 Mr. {Grumet.} Well, thank you very much, Chairman 2942 Whitfield, Mr. Rush, and the resilient members of the 2943 committee. On behalf of the Bipartisan Policy Center, it is 2944 a pleasure to join you in this important discussion on the 2945 economic and policy architecture governing our Nation's 2946 energy abundance. 2947 My testimony can be summarized into 3 main points. 2948 First, I want to applaud the committee for focusing on 2949 significant opportunities to strengthen North American energy 2950 integration and collaboration. North American energy 2951 security and self-sufficiency are, in fact, realistic goals 2952 that must be vigorously pursued, and not taken for granted. 2953 My second point, Mr. Chairman, is that increased North 2954 American cooperation is a critical component of a larger 2955 effort to promote economic growth through efficient markets, 2956 to enhance North America's role in global energy trade, and 2957 to project U.S. power and global interests. 2958 And my third point is that we must seize the opportunity 2959 to translate this strength of abundance into a long-term and

2960 sustainable energy strategy, and not allow this strength to 2961 result in unintended complacency. 2962 In short, Mr. Chairman, this committee and Congress has 2963 the disorienting challenge of managing success, which is a 2964 new problem for our Nation when it comes to energy policy, 2965 and I think it creates real opportunities that we need to 2966 discuss. 2967 So let me begin by saying a little bit about the energy 2968 integration and collaboration. I believe the provisions in 2969 this legislation that promote data quality and sharing, that 2970 coordinate planning and improve permitting and siting, are 2971 all essential to achieving the promise of North American 2972 energy security. 2973 The opportunities are particularly pronounced in the 2974 case of Mexico. While U.S. companies have much to gain in 2975 increased trade with Mexico, it is hard to overstate the 2976 importance of energy production to the Mexican economy, and 2977 the broader U.S.-Mexican relationship. Even as--after years 2978 of decline, energy production remains a key source of high-2979 paying jobs, and is responsible for actually 1/3 of the 2980 Mexican Government's overall activities. If modernization 2981 efforts succeed, energy production could be a significant

2982 driver of Mexican economic development and individual 2983 opportunity. And the implications here are quite broad. The 2984 Bipartisan Policy Center believes that we must reform our 2985 Nation's broken immigration system. And while this hearing 2986 is not the place to discuss the challenges and intricacies of 2987 protecting the southern border or enhancing our legal 2988 immigration, there is no question that improved economic 2989 opportunity in Mexico is an essential component of successful 2990 and lasting immigration reform. 2991 Let me turn now to the issue of siting. While our 2992 technology for producing energy has evolved dramatically over 2993 the last decades, our permitting policies date back to the 2994 1950s and 1960s, and are poorly matched to our rapidly 2995 evolving needs. We commend the committee's substantive 2996 efforts to make the cross-border permitting process more 2997 transparent and predictable. BPC also commends the 2998 committee's political judgment in crafting this provision to 2999 exempt the still-pending Keystone decision. It is time to 3000 have a broad-based bipartisan energy debate that is 3001 explicitly beyond Keystone, and it is encouraging to see the 3002 committee working diligently to avoid a focus on symbolic 3003 disagreements in favor of producing an agenda that can secure

3004 broad bipartisan support and become law.

3005 I would like to now move to the second point, which is a 3006 focus on the component that North America plays in the larger 3007 global picture. Our Nation has made, I think some very good 3008 progress of late supporting LNG exports, but as was discussed 3009 earlier, current restrictions on crude oil are undermining 3010 out commitment to efficient markets, they diminish our 3011 ability to promote free trade and fair trade, and they 3012 empower our adversaries who seek to use energy as a weapon. 3013 I cannot build upon Mr. Barton's string site of studies 3014 except to agree that there has been a spate of recent 3015 analyses that all conclude that adding a reliable supply of crude to the global market will continue to exert downward 3016 3017 pressure and actually protect U.S. consumers. 3018 My final point is on the challenge of how we use this 3019 abundance to promote our long-term sustainability and 3020 security needs. There is a broad critique of the abundance 3021 agenda that must be grappled with if we are going to secure 3022 the broad-based support for an effective national energy 3023 policy. The concern is that stable, low-cost supplies of oil 3024 and gas are undermining investment in the diverse array of 3025 technologies our Nation and the world will require over the

3026 next century to meet global demand, to protect our security interests, and to confront the risks of climate change. 3027 3028 legitimate concern, however, leads to very different policy 3029 pathways. The Bipartisan Policy Center believes that 3030 additional action must be taken to confront climate change, 3031 but we reject the idea that we should pursue a low-carbon 3032 future by erecting and undermining barriers to the resurgence 3033 of oil and gas production. Perpetuating inefficient markets 3034 and creating transportation and infrastructure bottlenecks in 3035 the hope of somehow reducing global reliance on fossil fuels 3036 is not an effective climate change strategy, and if anything, 3037 it will result in increased emissions. Instead, as we 3038 vigorously pursue the benefits of abundance, we must be 3039 equally determined in conducting the research and creating 3040 the incentives to develop and commercialize the next 3041 generation of energy breakthroughs. From carbon capture and 3042 storage, to utility-scale solar, to next generation biofuels, 3043 advanced nuclear energy storage, and an array of energy-3044 saving technologies, we must find ways to encourage greater 3045 investment, despite the current low price environment. 3046 America's hydrocarbon renaissance has given us the gift 3047 of time. The question before the committee and Congress is

3048	what do we do with this time.
3049	In closing, the Bipartisan Policy Center looks forward
3050	to continuing to work with the committee as you build an
3051	architecture for abundance that grows our economy, enhances
3052	our security, and confronts domestic and global environmental
3053	threats.
3054	Thank you.
3055	[The prepared statement of Mr. Grumet follows:]
3056	********* INSERT C ********

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3057
          Mr. {Whitfield.} Thank you.
3058
          And our next witness, who has already been introduced,
3059
     but is Mr. Scott Martin, who is a County Commissioner,
3060
     Lancaster County, Pennsylvania. Thanks for being with us,
3061
     and you are recognized for 5 minutes.
3062
           Mr. {Martin.} Thank you, Mr. Chairman. Just for the
3063
      record, it is Lancaster, not Lancaster.
3064
           Mr. {Whitfield.} What did I say?
3065
          Mr. {Martin.} Lancaster, that is what--you said like
3066
     Burt Lancaster.
3067
          Mr. {Whitfield.} Okay.
3068
           Mr. {Martin.} That is in Lancaster County, so--
          Mr. {Whitfield.} Well, I am going to--
3069
3070
           Mr. {Martin.} --we will have Mr. Pitts work with you on
3071
     that one.
3072
           Mr. {Whitfield.} I am going to let you and Mr. Pitts
3073
     work that out.
3074
          Mr. {Martin.} All right, well, thank you, Mr. Chairman.
3075
          Mr. {Whitfield.} But thanks for letting me know.
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3076 ^STATEMENT OF SCOTT MARTIN 3077 Mr. {Martin.} You are welcome. Thank you, Mr. 3078 Chairman, and members of the subcommittee. It is an honor to 3079 be here. Again, I serve on the Lancaster County Board of 3080 Commissioners. 3081 The United States must work to develop a coherent, 3082 logical, and clear national energy strategy. I applaud 3083 Chairman Upton for his architecture of abundance legislative 3084 framework that will hopefully stimulate a wide-ranging and 3085 bipartisan debate on the need for a long-term national energy 3086 agenda based upon economic development, commonsense 3087 regulations, a modern and safe energy infrastructure, greater 3088 efficiencies, increased exports, especially with LNG, to 3089 support our foreign policy goals, environmental sensitivity, 3090 minimal government involvement, and utilization of free 3091 market economic principles. 3092 There are certainly many positive developments and 3093 trends in energy, however, there are also numerous challenges 3094 and issues that urgently need to be addressed. The longer we 3095 wait to address and solve these issues will only make them

more difficult, expensive, complicated, and controversial. 3096 3097 One of the most pressing priorities is energy 3098 independence. Of course, energy independence can only be 3099 achieved through new and recoverable sources. The required 3100 infrastructure exists, the regulatory environment is not 3101 hostile, excuse me, capital is available to finance the 3102 expansion in both domestic and international markets are 3103 functioning properly. Thankfully, due to horizontal 3104 hydraulic fracturing, known as fracking, and the discovery of 3105 vast new oil and gas reserves, America is now the world's 3106 largest oil and natural gas producer. As they should, energy 3107 prices have been decreasing. The United States is 3108 increasingly able to export large amounts of LNG around the 3109 world, and especially to European countries. The volatile 3110 and tense situation in Ukraine demonstrates very clearly why 3111 we need to build the Keystone XL Pipeline, greatly accelerate 3112 the permitting of LNG export facilities, and work to expedite 3113 the building of pipelines and compressor stations. 3114 As noted above, a significant technological improvement 3115 has been the use of fracking and extracting natural gas from 3116 The use of fracking in Pennsylvania, and the shale. 3117 construction of necessary infrastructure, has had widespread

3118 and significant economic development impacts. Some of these 3119 include 96 percent of new energy hires were from the 3120 Appalachian area, 45,000 new building trade jobs in that same 3121 region, 243,000 new energy jobs in Pennsylvania, over \$1 3122 billion invested by the shale industry in road and 3123 infrastructure improvements, and including energy industry 3124 grants to community college and trade schools to train the 3125 workers needed by extraction companies in the Marcellus Shale 3126 region, with an average core wage of \$68,000 a year. 3127 This increased shale gas production in Pennsylvania has 3128 also saved the average Pennsylvania family between \$1,200 to 3129 \$2,000 annually in energy savings costs. Businesses and 3130 other institutional energy users have also benefitting from 3131 the greatly increased availability of cheap natural gas. 3132 Pennsylvania National Guard and Army Reserve components of 3133 Fort Indiantown Gap, the Garden Spot Public School District, 3134 and the Shady Maple Companies, all in our area, have 3135 experienced significant savings in their energy bills after 3136 switching to natural gas. 3137 Cheaper energy will further a developing industrial and 3138 manufacturing renaissance in America. In brief, lower energy 3139 costs create more disposable income, and hence, greater

3140 aggregate demand. Decreased transportation costs lead to 3141 lower prices, and American products are more globally 3142 competitive. The domestic oil and gas revolution can only be 3143 successful long-term if the necessary pipelines are quickly 3144 built and brought online. The Williams Company has proposed 3145 to build 180 mile interstate pipeline, known as the Atlantic 3146 Sunrise Project, from northern Pennsylvania and connect it to 3147 their main U.S. gas pipeline that travels from Texas to the 3148 northeast. The actual connection point would be in southern 3149 Lancaster County. Thirty-seven miles of the proposed 3150 pipeline would go through my county, and we are talking about 3151 a \$2.6 billion economic impact throughout the construction of 3152 this project. Williams has been very cooperative and easy to 3153 work with as various concerns have come up. Over 100 route 3154 changes, which is more than 1/2 of the original route, have been made based on stakeholder input. Williams is also 3155 3156 committed to making the pipeline open access so that 3157 potential customers in Lancaster County could directly access 3158 the pipeline. 3159 As you can imagine, a project of this size does generate 3160 controversy and opposition. One early controversy was the 3161 proposed routing of the pipeline through a protected and

3162 environmentally sensitive area parallel to the Susquehanna 3163 The Board of Commissioners, working with several 3164 local organizations, went to Williams and expresses strong 3165 concerns regarding this route. Williams guickly found a new 3166 route and completely moved away from the sensitive areas, and 3167 did so with Native American sites and water source areas. 3168 Lancaster County has five significant pipelines running 3169 through our county. Many property owners are not even aware 3170 of the pipelines that cross their land. Based upon 3171 discussions with local farmers having existing pipelines on 3172 their property, Williams, including with their major U.S. 3173 pipeline, has been very responsive to their needs. 3174 Lancaster County is one of the leaders in agricultural 3175 production, not only in Pennsylvania but across the county, 3176 but we also preserve more farmland than any other county in 3177 the United States, with over 100,000 acres preserved. 3178 Needless to say, the county ordinances that govern our 3179 farmland preservation program have allowed pipelines since 3180 inception. Since November of 2014, there have been two 3181 elections where the proposed pipeline was in a de facto 3182 manner on the banner -- on the ballot, and the voters were very 3183 clear in rejecting efforts to stop the proposed pipeline,

3184	including an effort to have two townships adopt a community-
3185	based ordinance that would essentially declare that federal
3186	and state laws do not apply in these municipalities. I
3187	believe that many of these voters clearly recognize that this
3188	pipeline represents the concept of a greater good being
3189	served.
3190	In closing, I want to again emphasize how incredibly
3191	important the ongoing energy revolution is to the future of
3192	the United States, and indeed, the world. While renewables,
3193	greater efficiencies, clean coal, next-generation nuclear,
3194	and a secure and smart grid are vitally important, it is
3195	really the virtually unlimited supply of clean, recoverable
3196	natural gas from shale that will lead America into the
3197	future.
3198	Thank you.
3199	[The prepared statement of Mr. Martin follows:]
3200	********* INSERT D ********

3201 Mr. {Whitfield.} Thank you, Mr. Martin.

3202 And our next witness is Mr. Gerald Kepes, who is Vice

3203 President of Upstream Research and Consulting. And, Mr.

3204 Kepes, thanks for being with us, and you are recognized for 5

3205 minutes.

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3206
      ^STATEMENT OF GERALD KEPES
3207
          Mr. {Kepes.} Thank you, Mr. Chairman. Members, thank
     }
3208
      you for having me here.
3209
          Mr. {Whitfield.} Did you turn your microphone on?
3210
           Mr. {Kepes.} I will do that. How about that?
                                                           Does
3211
      that come across? Okay. Apologize for that.
3212
           Mr. Chairman, members, thank you very much. I am
3213
      actually very pleased to be in front of you today because in
3214
     my world, which is--
3215
          Mr. {Whitfield.} Mr. Kepes, forgive me for
3216
      interrupting. Would you mind taking Ms. Cassady's microphone
3217
      and try that one?
3218
           Mr. {Kepes.} Push that again. Thank you very much.
3219
     Again, my apologies. I hope this doesn't eat into my 5
3220
     minutes here.
3221
           Mr. Chairman, members, thank you. I am very pleased to
3222
     be here today because the world that I usually am in is the
3223
     business world, in the exploration and production business.
3224
      I am a geologist. I have been in and around the oil and gas
3225
      industry for 30 years, so you can decide whether that makes
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3226 me objective or not on this business, but I think I am fairly 3227 knowledgeable. And I am also representing the work and 3228 analysis and experience of my colleagues at my company. 3229 What I really want to talk today about is 3230 competitiveness of the E&P sector, and more than the volumes 3231 that have been produced, the new supplies from shale, just as 3232 important for you to think about is the incredible 3233 competitiveness of the energy industry right here. And the 3234 reason is that competitive basically means cost and 3235 efficiency, and reaction to market conditions. 3236 example, as we look at this low oil price period, which has 3237 many benefits for the economy, consumers, et cetera, at one 3238 point clearly, perhaps the Saudis and others thought that the 3239 U.S. oil industry was just a phenomenon of high oil prices. 3240 That is not the case. In other words, many thought that this 3241 industry, the shale oil and gas industry, could survive only 3242 with high oil and gas prices. That is not the case. So that 3243 is actually one of my first points today. This is not a high 3244 oil price phenomenon. But we have had low natural gas prices 3245 for about 6 years right now, and shale gas production has 3246 sustained and, in fact, grown. That is critically important. 3247 And why is that so important? Because when it comes to

3248 thinking about energy diplomacy and the idea that we can 3249 export the volumes that we have, because we will match or 3250 meet the internal requirements, it is not just about volumes. 3251 What we are really exporting is competitiveness. And I want 3252 to make that point, is that anything that you might consider 3253 in terms of these energy diplomacy objectives or goals, which 3254 are actually quite admirable, they will be sustainable and 3255 viable as long as this competitiveness exists because it is 3256 not just offering to send supplies somewhere, the marketplace 3257 is what is pulling them. Whether it is the Ukraine or parts 3258 of Europe or Mexico, as I will talk about next here, which is 3259 a great example, they wouldn't be doing this if these 3260 supplies exported from U.S. shores were not competitive and a 3261 lower-priced alternative to other factors. This is 3262 particularly important because if we define very simply what 3263 energy security is, which is really, we would argue, reliable 3264 supply at affordable prices. 3265 So let's take Mexico. Right now, there is a lot of 3266 interest in Mexico because of the opening of the E&P sector, 3267 that is exploration and production, because of the fact that 3268 we have had over 70 years of a monopoly of the state oil 3269 company, PEMEX, going to be reversed. But that is actually

3270 not the biggest issue going on. The bigger issue is the fact 3271 that Mexico is going to be importing a lot more natural gas 3272 from the United States. I am sure the committee knows that 3273 right now, they import about 2 billion cubic feet a day. 3274 That number could go up to 5 or 6 billion cubic feet a day 3275 within the next 10 years. It is a bigger impact because, two 3276 things. One, all this will draw more much gas-fired power 3277 generation if the reforms work in the midstream and 3278 downstream in Mexico, and we hope that they will. That 3279 should result in lower energy prices for the entire economy. 3280 We don't know yet if it is 10 percent lower or if it is 30 3281 percent lower, but the impact of that on the Mexican economy 3282 competitiveness, this is actually the big picture. It is not 3283 so much the oil side, what I am trying to say, it is the gas 3284 side and what we are about to do right there. That is a very 3285 important factor. 3286 Now, it is said, and it is quite true, that Mexico has 3287 substantial natural gas resources, but in this case, the 3288 decision that they made was, if they tried to develop their 3289 own natural gas resources right now, it is so expensive that 3290 it made far more sense to import less expensive U.S. natural 3291 gas. That is a choice for competition, it is a choice for

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3292
      competitiveness, and again, if you want to look at it from an
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      energy policy program for the U.S., a tremendous success,
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     because as this goes forward, that competitiveness, that
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      lower price and efficiency is what is going to have a larger
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      impact on the Mexican economy, and a huge contributor to what
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     has already been troubled at times, but a very successful
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     U.S.-Mexican relationship.
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           So that is the arguments I want to put in front of you.
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      That, one, shale production is not a high-priced phenomenon.
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     Also intrinsic to the supply volumes that we have, which is
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      important, is the competitiveness of that. One, that if it
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      is going to be part of U.S. energy diplomacy initiatives,
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      then that competitiveness needs to continue. That is going
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      to undergird all of that in order for it to be successful.
3306
     And finally, U.S. infrastructure processes and regulations,
3307
     naturally, have to be equally competitive in order to allow
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      this to be sustained.
3309
           Thank you very much for giving me the time.
3310
           [The prepared statement of Mr. Kepes follows:]
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3311 *********** INSERT E *********

3312 Mr. {Whitfield.} Well, thank you, Mr. Kepes.

3313 And our next witness is Alison Cassady, who is the

3314 Director of Domestic Energy Policy for the Center for

3315 American Progress. And thank you very much for being with

3316 us, and you are recognized for 5 minutes.

3317 ^STATEMENT OF ALISON CASSADY 3318 Ms. {Cassady.} Thank you, Chairman Whitfield, Ranking 3319 Member Rush, and members of the subcommittee, thank you for 3320 the opportunity to testify today. My name is Alison Cassady, and I am Director of Domestic Energy Policy for the Center 3321 3322 for American Progress. CAP is a nonprofit organization 3323 dedicated to improving the lives of Americans through 3324 progressive ideas and action. 3325 Before I jump into my more specific comments on the 3326 energy diplomacy section of -- the energy diplomacy discussion 3327 draft, I would like to highlight a topic that is not a subject of today's hearing, but I think should be, and that 3328 3329 is climate change which, to me, is the most urgent and 3330 challenging energy diplomacy issue of our time. 3331 Climate change has become a priority in international 3332 relations because the climate science is so clear. A failure 3333 to act on climate change risks severe, irreversible impacts 3334 on a global scale. As the committee considers the Nation's 3335 energy policy and its interaction with the rest of the world, 3336 CAP urges you to put climate change front and center of any

3337 policy that you develop. We can no longer afford to separate 3338 energy policy from climate policy. 3339 So with that introductory context in mind, I am going to 3340 jump into a few thoughts on Section 3104 of the discussion 3341 draft about cross-border energy projects. 3342 As you all know, under current law, entities wanting to construct or operate a cross-border pipeline or transmission 3343 3344 line are required to obtain a presidential permit. 3345 section of the bill eliminates that requirement, and instead 3346 requires the relevant federal agency to issue a certificate 3347 of crossing; that is, unless the agency finds that the cross-3348 border segment of the project is not in the public interest 3349 of the United States. 3350 And I have a few concerns about this approach. First, 3351 the new process presumes that the project is in the public 3352 interest, placing the burden of proof on concerned 3353 stakeholders to demonstrate that it is not, instead of asking 3354 the applicant to make the affirmative case that it is. 3355 Second, under the new process, the applicant only needs to 3356 obtain federal approval for the portion of the project that physically crosses the U.S. border, even if the project 3357 3358 itself spans hundreds of miles. And finally, the new process

3359 limits environmental review under NEPA to just the cross-3360 border section of the project. To me, this makes little 3361 sense since we all know that these types of projects can have 3362 environmental impacts well beyond the border. For a truly 3363 transcontinental project, such as a pipeline that runs 3364 through numerous states down to the Gulf Coast, the current 3365 presidential permitting process is the only venue for the 3366 public and stakeholders to examine and understand the 3367 potential impacts of the whole project that is under 3368 consideration. Under the process established by this bill, 3369 the review would be fragmented, it would be state-by-state, and no one except the project applicant would ever examine 3370 the project as a whole. 3371 3372 I also have a few concerns about Section 3106, which is 3373 the LNG export section. This section sets a 30-day deadline 3374 upon the completion of an environmental review for the DOE to 3375 issue a final decision on any application to export natural 3376 gas to a non-free trade county. The United States is well on 3377 tract to becoming a new exporter of natural gas. To date, the DOE has issued final authorizations to 6 facilities to 3378 3379 export up to 8.6 billion cubic feet per day of LNG. 3380 more than 10 percent of daily U.S. natural gas consumption,

and that is on top of what we already export to free trade

3381

3382 countries like Mexico. 3383 The existing DOE permitting system appears to be 3384 working. It puzzles me, therefore, why we need a bill that 3385 would seek to fast-track new DOE permit approvals. 3386 clear, CAP does not oppose LNG exports in principle, but we 3387 have concerns about placing an artificial deadline on agency 3388 review of permit applications. Congress should not preclude 3389 DOE from taking the time it needs to make a considered and 3390 well-informed decision, particularly on the most difficult 3391 The stakes are simply too high for natural gas projects. 3392 consumers here in the United States. Last year, the Energy 3393 Information Administration concluded that increased LNG 3394 exports lead to increased natural gas prices. And these 3395 higher natural gas prices create economic winners and losers. 3396 Certainly, natural gas producers and employees of natural gas 3397 producers would be the clear winners, but, for example, 3398 manufacturers that use natural gas as a feedstock would face 3399 much higher energy costs. 3400 In short, the decision to export significant volumes of 3401 natural gas, even to our allies, is a complex one that should 3402 not be made lightly given the potential consumer impacts here

3403	in the United States. This decision is made even more
3404	complicated given the growing demand here at home for natural
3405	gas in both the electricity sector and the transportation
3406	sector. So if the United States overcommits to natural gas
3407	exports via long-term 20-year contracts, consumers here could
3408	pay the price, and that is why thea deliberative process is
3409	so important.
3410	With that, I will end my testimony, and be happy to
3411	answer any questions.
3412	[The prepared statement of Ms. Cassady follows:]
3413	******** INSERT F ********

Mr. {Whitfield.} Thank you, Ms. Cassady.

And our next witness is Ms. Emily Hammond, who is

Professor of Law at George Washington University Law School.

And thank you for joining us, and you are recognized for 5

minutes.

3419 ^STATEMENT OF EMILY HAMMOND 3420 Ms. {Hammond.} Thank you, Chairman Whitfield, Ranking 3421 Member Rush, and the distinguished members of the 3422 subcommittee. I appreciate the opportunity to testify today. 3423 In my testimony, I would like to highlight several 3424 concerns that undermine the discussion draft's important goal 3425 of a unified energy policy. These concerns relate 3426 specifically to Sections 3102, 3104, and 3106. In short, 3427 those provisions fail to properly account for the 3428 reliability, fuel diversity, and environmental implications 3429 of energy policy, and they also fail to adequately permit the 3430 energy agencies to undertake their work in a participatory, 3431 deliberative, and well-reasoned manner. 3432 Let me start with the Interagency Taskforce. Despite 3433 that the lines between energy and the environment no longer 3434 truly exist, the--excuse me, the composition of the taskforce 3435 has significant gaps that will hinder rather than help the 3436 development of a comprehensive energy policy. Most critical 3437 is the absence of agencies with environmental expertise. But 3438 other key agencies like those whose missions relate to jobs,

3439 to the economy, and to transportation, are also omitted from 3440 the taskforce. As demonstrated by the QER, which we heard 3441 about this morning, all of these agencies can successfully 3442 work together toward unified energy policies, and 3443 administrative law will show that when agencies collaborate 3444 in this way, they are more successful, and that they tend to 3445 have broader stakeholder support, and they have reduced 3446 vulnerability to judicial challenges. 3447 For the same reasons, the criteria for the Interagency 3448 Taskforce as planned should include environmental issues, and 3449 especially climate change. Failing to do so will only deepen 3450 the current dysfunctions in our energy regulatory system and 3451 in the energy markets. 3452 Second, the authorization for cross-border 3453 infrastructure projects does not make clear how DOE would 3454 implement its authority differently from how it currently 3455 does under the presidential permit framework. Currently 3456 procedures do account for environmental issues, and those 3457 should be retained. I note as well that the provisions 3458 striking portions of the Federal Power Act, and in particular 3459 Section 202(f), threaten to undermine important backstop 3460 authority that the Federal Power Act retains for FERC that

3461 allow it to ensure grid reliability for intrastate projects 3462 that cross international boundaries. I urge the subcommittee 3463 to carefully reexamine the striking provisions of this 3464 section. 3465 Finally, the 30-day deadline for DOE action on LNG applications is of concern. Even if DOE is able to act 3466 3467 quickly in some circumstances, it needs more flexibility, 3468 given the very complex issues at stake. Imposing a rigid 3469 deadline actually threatens more delay. First, deadline 3470 suits, which are contemplated by the discussion draft, tend 3471 to impose additional delays even if those suits are 3472 successful. And second, with stakes so high and such engaged 3473 stakeholders, judicial challenges are inevitable. All right, 3474 we can easily predict lawsuits no matter DOE's decision, and 3475 if DOE is rushed in making its determination, the record is 3476 less likely to be carefully developed, the agency's reasoning 3477 may not be clear, and once again, it is likely to be more 3478 vulnerable to judicial remand and imposition of even further 3479 delays. 3480 To summarize, the relationship between energy and the 3481 environment must be considered as the United States seeks a 3482 uniform energy policy. Careful attention to administrative

3483	procedure and its role in promoting good government must also
3484	accompany any new energy statutes. If we move forward with
3485	U.S. energy policy with these principles in mind, we can make
3486	substantial improvements for the future.
3487	Thank you again for the opportunity to testify today,
3488	and I look forward to your questions.
3489	[The prepared statement of Ms. Hammond follows:]
3490	*******

3491 Mr. {Whitfield.} Well, thank you, Ms. Hammond. 3492 And that concludes the opening statements. I just want 3493 to make an announcement that we are expecting some votes 3494 around 1:30 or so. There are only six members here, so we 3495 each get 5 minutes. That will be 30 minutes. I think that 3496 we can make it through and give you all an opportunity to 3497 respond if we go efficiently and quickly. 3498 So I am going to recognize myself for 5 minutes, make 3499 sure I get mine in, Bobby, and then we will go from there. 3500 Ms. Cassady and Ms. Hammond both made comments about 3501 climate change, and certainly, that is something we are very 3502 much concerned about, but I would like to remind everyone 3503 that within the Federal Government, just the U.S. Federal 3504 Government, there are 68 different initiatives on climate 3505 change. There has been a total of about \$36, \$37 billion 3506 spent by the U.S. Government alone each year just on climate 3507 change. So the differences that we are having with President 3508 Obama, truthfully, is that he views it as the most important 3509 issue facing mankind, and some of us have different views 3510 that a job, access to healthcare, clean water, affordable 3511 energy, economic growth are very important also. So I

- 3512 appreciate your comments--and now Mr. Pallone is coming in so
- 3513 that is another person, so I am going to have to hurry.
- 3514 Okay. I wanted to make that comment.
- Now, Dr. Dolzer, in France, they have a large percentage
- 3516 of their electricity produced from nuclear. Germany made the
- 3517 decision, I guess, to stop the--all production of energy by
- 3518 nuclear. Is that still the policy in Germany?
- 3519 Mr. {Dolzer.} That is the policy. We decided 3 days
- 3520 after the Fukushima events in 2010 to phase-out. We had an
- 3521 earlier change in 2000, then we had another change in 2009,
- 3522 and Fukushima is still the key event in Germany. At the
- 3523 moment, my prediction is--the current situation is that 1/2
- 3524 of the nuclear plants have already been phased-out after
- 3525 2011, and the rest, the 8--8 of them are still in operation.
- 3526 They will be phased-out by 2021.
- Mr. {Whitfield.} And, of course, you all have been--in
- 3528 Germany, they have been moving very quickly to renewable
- 3529 energy; wind, solar, whatever. So what has the result been?
- 3530 I mean has it affected your reliability? Has it affected the
- 3531 retail prices of electricity or not?
- 3532 Mr. {Dolzer.} It has affected the price of the consumer
- 3533 considerably. I think the price went up by about 30 percent

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      for electricity for the private households.
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           Perhaps one conclusion is, and I am not here taking any
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     particular position, if you change policies to it in a
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     pragmatic manner without too much momentary intervention, I
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      think the change in Germany has forced us to react very
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      quickly. It had some rather unintended consequences. At the
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     moment, we are the main importer of U.S. coal. Now, of
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     course, this is a little bit odd and awkward to have more
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     coal--
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           Mr. {Whitfield.} I was told that last year--
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           Mr. {Dolzer.} --as a consequence--
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          Mr. \{Whitfield.\} --2/3 of U.S. coal exports went to
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     Europe.
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           Mr. {Dolzer.} Correct. So we are supporting West
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     Virginia. A consequence of our decision to phase-out nuclear
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     was de facto to promote coal. For the moment, my prediction
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      is this policy will not change. None of the major political
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     parties, including the one to which I belong, intends to
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      change. However, I think if I listen to--correct to what my
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     wife tells me, opposition among the people is growing to this
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     policy. The question is, is that affordable, what we are
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      doing at the moment in the long-run. Germany has many
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      issues, as most other states. We need more schools, we need
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     better universities, we need more streets, and the question
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      is can we focus our budget in the way we did on one issue
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     alone, which is--
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           Mr. {Whitfield.} Yeah.
                                    When you--in your testimony,
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     when you were talking about Europe being more vulnerable, is
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      that what you were referring to?
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           Mr. {Dolzer.} That is correct. The--
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           Mr. {Whitfield.} The policy about the renewables and
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      the push for--
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           Mr. {Dolzer.} The policy about renewables, together
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     with the policy of phasing-out nuclear power means that we
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     need more energy in the future as regards gas. We have a
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     very special situation; we can get more gas from Russia, from
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      Iran, from Algeria, or at the moment from Norway, but Norway
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      is about to peak. In other words, our choices are not
      considerable. And here I would like to come back for a
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     moment to U.S. policy. The U.S. has criticized us, of
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      course, for the -- being dependent too much on Russian gas.
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     Correct. Almost 40 percent. At the same time now, of
      course, in an era of abundance, one would hope -- the Europeans
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3577
     would hope that the United States allows for more gas to be
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- 3578 exported to Europe in a situation where we need stronger support with our alternatives. And I think even small 3579 3580 additional imports from the United States would help on a 3581 symbolic manner. In other words, the position in Europe that 3582 you hear quite often is, on the one hand the U.S. criticizes 3583 that we are too dependent on Russia or Iraq or--3584 Mr. {Whitfield.} Yeah, okay. 3585 Mr. {Dolzer.} --whoever, on the other hand, the U.S. 3586 does not allow and facilitate --3587 Mr. {Whitfield.} Yeah. 3588 Mr. {Dolzer.} --exports to Europe. I think this is a 3589 position that may be reconsidered. 3590 Mr. {Whitfield.} Okay. At this time, I am going to
- 3592 Mr. {Rush.} I want to thank you, Mr. Chairman. Mr.
- 3593 Chairman, I just want to take a moment to welcome back to the
- 3594 committee Ms. Cassady. She served for many, many years as an
- 3595 expert staffer under our former chairman, Henry Waxman, and
- 3596 she was on this side of the table, and now she is on that
- 3597 side of the table. But I just wanted to welcome her back.
- 3598 So good to see you again, and you are continuing your
- 3599 outstanding work. So thank you so very much.

recognize Mr. Rush for 5 minutes.

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3600
           I want to ask you a question, and also Ms. Hammond.
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      is in kind of--it is in response to some of the comments of
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      the chairman. In your opinion, and both of your -- if you will
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      respond, are energy and environmental issues inherently
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      related, and why is it so very, very important that any kind
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     of comprehensive energy policy also integrate environmental
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     concerns in that policy? And do either of you have any
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     specific--
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           [Audio malfunction in hearing room.]
3609
           Ms. {Hammond.} --plan itself. Thank you.
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           {Voice.} Excellent.
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           Ms. {Cassady.} I would just add to that, the energy
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      infrastructure decisions we make today will last decades.
                                                                  So
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     we decide to build a pipeline today or build a new energy
3614
     production facility, we are locking in decades of new
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     emissions or not, and that is why it is very important to
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      consider, whenever we are considering energy policy, to be--
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     we should consider climate policy as well, and think through
3618
     how will this energy project affect our transition negatively
3619
     or positively toward a zero carbon future.
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           Mr. {Rush.} I yield back.
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           Mr. {Whitfield.} Gentleman yields back.
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3622 Because we now have called votes, I am going to reduce 3623 the amount of time to 3 minutes for everyone so that, 3624 hopefully, we can give everybody a chance. 3625 So, Mr. Olson, you are recognized for 3 minutes. 3626 Mr. {Olson.} Thank you, Chairman. I am with you. 3627 Welcome to our witnesses. I apologize you got behind an energy superstar, and now votes in a hearing coming in this 3628 3629 hearing room about 2 o'clock, so I have one guestion for you, 3630 Mr. Grumet. It is about Mexico. 3631 As you mentioned in your testimony, Mexico is on the 3632 verge of a revolution for energy. Changes, changes, changes. 3633 I moved to Texas in 1972. I saw the stronghold OPEC had on 3634 America firsthand. 1979, I had just gotten my license. I 3635 was sent down to get in line for gasoline. Gasoline 3636 dependent upon, you have a long line, get gas depending upon 3637 the last digit of your license plate. If it was an even 3638 date, go on an even day, even number. Long lines. 3639 prices doubled. They had a stronghold on us. Now, with all 3640 the street production in America, our neighbor to the north, 3641 Canada, and Mexico, I see a vision of OPEC going away, 3642 replaced by NAPEC. North American Petroleum Exporting 3643 Countries.

3644 My question is, sir, what is the one thing we can in--3645 Congress can do to help make that reality, make NAPEC head of 3646 OPEC? 3647 Mr. {Grumet.} Thank you for that question, and I will 3648 note that usually you put the warm-up band before the rock 3649 star, so you might want to do that -- all right, I am back. I think you make a very important point. We used to, you know, 3650 3651 look at our headlines, and OPEC was having a meeting and 3652 there would be a, you know, a chill through the land. Now, 3653 you know, they can meet or not meet, it doesn't matter much 3654 to us if, in fact, we seize the opportunity of abundance. 3655 And I think our opportunities with Mexico are profound. 3656 have to give a lot of credit to President Nieto for trying to 3657 reverse 60 years of an investment policy that basically 3658 discouraged first world technology. I think the 3659 opportunities to spend a lot of time working with Mexico on 3660 something that is pedestrian but incredibly important, and 3661 that is data quality. The ability to have North American 3662 energy security depends on having good data, shared analysis, shared understandings, and a transparency across our 3663 3664 analytical platforms. That is a very boring but incredibly 3665 difficult and important thing to do. Our energy

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      administration here is the gold standard, and I think we
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      really should spend a lot of time, it is going to require
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      some resources if we want Mexico to join us. If we had that
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      shared data foundation and we have thoughtful laws that, as
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     our colleagues have suggested, provide time for environmental
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     deliberation, but then actually require a decision, I think
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     we can have an integrated energy system that will raise both-
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           Mr. {Olson.} So shared data, number one.
                                                      We need to
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     have that in Congress. That is the best we can do right now?
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           Mr. {Grumet.} I think that is something you could
3677
      actually get done right now, that would be very true.
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           Mr. {Olson.} That is even better. I like that.
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           Yield back, sir.
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          Mr. {Whitfield.} Gentleman yields back.
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           At this time, recognize the gentleman from New Jersey
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      for 3 minutes, Mr. Pallone.
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          Mr. {Pallone.} Thank you, Mr. Chairman.
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           I just wanted to follow up on a few statements made
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      earlier today about Section 3104. This provision makes an
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      end run around the National Environmental Policy Act, and
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would eliminate meaningful review of the environmental

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3688 impacts of proposed cross-border energy projects. And this 3689 section dramatically narrows the scope of environmental 3690 review to only the cross-border segment of the energy 3691 project, the tiny portion that physically crosses a national 3692 boundary. 3693 So, Ms. Cassady, does limiting NEPA review to just a 3694 small sliver of a cross-border energy project make any sense 3695 to you, and what are some of the drawbacks of looking at just 3696 the cross-border segment of a pipeline or transmission line? 3697 Ms. {Cassady.} Thank you for the question. No, it 3698 doesn't make much sense to me simply because if you look at 3699 the more controversial pipeline and other projects that we 3700 have examined over the last few years, the controversy has 3701 never been around the impacts at the border. We all know, 3702 even the best-constructed, highest technology pipeline, an 3703 accident can happen. And those pipelines span hundreds of 3704 miles, they pass through sensitive ecosystems, over aquafers, 3705 over private and public lands. And an environmental review--3706 the purpose of an environmental review is to make sure that 3707 policymakers have all of the facts about the impacts of the--3708 the potential impacts of the project over the entire course 3709 of the project, not just the small part at the border, in

- 3710 order to better understand how to mitigate those potential 3711 impacts. So in order to understand the potential 3712 consequences of a project, we need to look at it in its 3713 entirety and not just at the border. 3714 Mr. {Pallone.} How about the legislation's presumption 3715 that cross-border projects are in the public interest, how 3716 would you -- how would looking at just the cross-border segment 3717 impact an agency's ability to determine whether or not a 3718 project is in the public interest? 3719 Ms. {Cassady.} The presumption of approval stacks the 3720 deck against a stakeholder who has legitimate concerns about 3721 whether or not a project is in the public interest. 3722 forces the concerned stakeholder to make the case that it is 3723 not in the public interest, rather than forcing the applicant 3724 to make the case that it is. And that is just a higher 3725 burden of proof. And the way the bill is written, since it 3726 is so focused on a very narrow part of the proposal and 3727 doesn't look at all of the potential impacts, it is going to 3728 be much harder for a concerned stakeholder to make the case 3729 that this tiny little part of the project is not in the 3730 public interest.
- 3731 Mr. {Pallone.} Well, thank you. I think these energy

- 3732 infrastructure projects are a lot more than just a border
- 3733 crossing; they are going to last for decades, and
- 3734 fundamentally NEPA requires us to look before we leap, and
- 3735 that is just basic commonsense. So we should not be
- 3736 carelessly narrowing or creating loopholes in the law, and I
- 3737 think we need to understand the impact of these projects
- 3738 before they are constructed so that we can protect public
- 3739 health and safety and the environment, and I think ignoring
- 3740 the impacts is not going to make them disappear. So thank
- 3741 you again.
- 3742 Thank you, Mr. Chairman.
- 3743 Mr. {Whitfield.} At this time, recognize the gentleman
- 3744 from Pennsylvania, Mr. Pitts, for 3 minutes.
- 3745 Mr. {Pitts.} Thank you, Mr. Chairman.
- 3746 Mr. Martin, Lancaster County doesn't have any wells of
- 3747 Marcellus Shale being drilled in it. Probably the nearest
- 3748 well is 100 miles away. But how is Lancaster County
- 3749 benefitting from Marcellus Shale, the boom that you
- 3750 mentioned, even if there are no wells being drilled in the
- 3751 county?
- Mr. {Martin.} Well, first and foremost, what we have
- 3753 seen is, one, Pennsylvania putting forth an impact fee with

3754 monies that were distributed back not only to well counties, 3755 but also to counties who end up having pipelines. Those 3756 kinds of funds that are coming back are used to conserve open 3757 space, preserve ag preservation easements, and also really 3758 replace structurally deficient bridges. But we are also 3759 seeing the economic impact as well here. We have IT 3760 companies that do data mappings of pipelines and wells that 3761 have grown dramatically. Engineering firms. One of the 3762 larger engineering firms in the Marcellus Shale region, 3763 Virtue Engineering, more than doubled in size. Over a 2-year 3764 period, they bought an additional 75 vehicles. 3765 I used in my testimony examples of the Pennsylvania 3766 National Guard or Shady Maple. Shady Maple saving over 170--3767 it is a smorgasbord, if anyone has ever been to one, I highly 3768 recommend it. \$175,000 a year in energy costs, which then 3769 Garden Spot School District saw, which is in the same area, 3770 and said we are going to tape in, and they are going to 3771 realize those savings. 3772 Now, we would like to see more of it. Unfortunately, 3773 about 1/2 of Pennsylvanians do not have access to that 3774 natural gas, but given the premise of the open access nature 3775 of pipelines, you will start to see more of these entities

3776 like the Pennsylvania National Guard at Fort Indiantown Gap, 3777 and others, who are able to tap in and be able to realize 3778 that savings. And where we expect to see most of it, and 3779 where we hear from a lot of our constituents, is especially 3780 in the area of manufacturing, especially those who are 3781 heavily reliant on energy to do that. We have companies that 3782 spend over \$3 million a year in energy costs, but they are 3783 nowhere near the nearest pipeline. So I think we will see 3784 further opportunities coming forth. 3785 But I just want to add, Congressman, 1 of the--2 of the 3786 great things I see is, you are now able to get an education 3787 in Pennsylvania in the petroleum and gas industry that you 3788 had to go to like Texas Tech to used to be able to get. 3789 are investing in areas--I think \$2-1/2 million dollar grant 3790 from the industry to Lackawanna Community College. Two-year 3791 program, cost for that 2 years about \$22,000. And as--when 3792 they are coming out of that program, they are starting rate 3793 is like \$68,000. So those are the types of things that you 3794 are seeing. These are good middle-class jobs that not only 3795 use your head but also use your hands. And we are seeing 3796 that grow, and that is something we hopefully continue to see 3797 grow not only through Lancaster County, but throughout

- 3798 Pennsylvania.
- 3799 Mr. {Pitts.} Thank you very much, Mr.--my time has
- 3800 expired.
- 3801 Mr. {Whitfield.} At this time, recognize the gentleman
- 3802 from Texas, Mr. Green, for 3 minutes.
- 3803 Mr. {Green.} Thank you, Mr. Chairman. I appreciate
- 3804 hearing from the county commissioner. My accent gives me
- 3805 away, but obviously, every school in Texas has energy
- 3806 courses, from our community colleges all the way up to not
- 3807 only Texas Tech and Lubbock, but UT and A&M and University of
- 3808 Houston, and everywhere else.
- 3809 Ms. Cassady, I want to welcome you back to the
- 3810 committee. I know you are familiar with the NEPA regulations
- 3811 promulgated by the Council on Environmental Quality, not only
- 3812 from our--your work on the committee, but with the center.
- 3813 Under NEPA, an agency is specifically prohibited from
- 3814 segmenting projects, known as piecemealing. The Code of
- 3815 Federal Regulations states proposals or parts of proposals
- 3816 which are related to each other closely enough to be, in
- 3817 effect, a single course of action are evaluated. The
- 3818 discussion draft requires the State Department to promulgate
- 3819 rules on cross-border pipelines, and you heard Secretary

3820 Moniz say that the agencies are required to do it. 3821 Ms. Cassady, wouldn't the federal agency in charge of 3822 the environmental review be charged with the NEPA review that 3823 satisfies these CEQ regulations, and looking at the whole 3824 project? 3825 Ms. {Cassady.} My understanding of the bill is that the 3826 NEPA review only applies to the cross-border segment of the 3827 pipeline project or the transmission line, and so the federal 3828 approval only applies to that portion as well. Therefore, 3829 NEPA would only apply to that portion. There would be state-3830 by-state reviews if it was passing through a state. In terms 3831 of federal review, the -- it just applies to the cross-border 3832 segment. 3833 Mr. {Green.} Well--3834 Ms. {Cassady.} That is my understanding of the legislation. 3835 3836 Mr. {Green.} Shouldn't the, you know, the cross-border 3837 review--so much of our NEPA process is also done by other 3838 federal agencies and a party to it. For example, if you have 3839 a pipeline coming from Texas in Eagle Ford to Mexico, that 3840 cross-border pipeline, you know, state law covers it on the

property that is not federal, but it may be crossing federal

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3842 lands, and so the NEPA process would come into play on that. 3843 But granted, the cross-border, which is international, and of 3844 course, as taxpayers we own that--our part of the border, 3845 then they would do it. But don't you--you don't think that 3846 the bill calls for them to look at the whole project? And it 3847 may not be one agency doing it, but there will be other agencies doing a NEPA process on their required -- on what they 3848 3849 are required to do in that pipeline, from whether it be at 3850 Eagle Ford, you know, of course, into Mexico. That is what 3851 worries me because I know, and my colleague from New Jersey 3852 said that the NEPA process is not covered. I think it is, 3853 because if it is not the Department of Energy, for example, 3854 for electricity transmission, it would be another federal 3855 agency if they had the authority in there, or in some cases, 3856 state agencies. So the NEPA process would be included. 3857 And, Mr. Chairman, I know I am almost out of time, and 3858 we are almost out of time for--3859 Mr. {Whitfield.} Well, Mr. Green, that is our view as 3860 well, and we would love for our staff to sit down with Ms. 3861 Cassady in more detail, but it is our understanding that this 3862 does not change the NEPA process. 3863 Mr. {Green.} Yeah. Now, I have to admit, in my few

- 3864 seconds, I have a problem with the State Department. We have
- 3865 a company in Texas who was--a Canada pipeline that was
- 3866 dormant, they wanted to change the name because they bought
- 3867 it, and their goal was to not only bring crude oil from
- 3868 Canada, but it was also to attach into the United States from
- 3869 Bakken, and the State Department decided they needed to
- 3870 review what was on the U.S. property.
- Now, I want a federal agency looking at it, but the
- 3872 State Department shouldn't be deciding whether the--a
- 3873 pipeline out of Bakken is good or not because, you know,
- 3874 granted, we are getting crude oil in trains into Houston,
- 3875 Texas, because our refiners do that. It is so much safer and
- 3876 easier to put a pipeline in there than it is bring those 100-
- 3877 car trains full of crude oil from Canada.
- 3878 Mr. {Whitfield.} Gentleman's time has expired.
- Recognize the gentlemen from Virginia, Mr. Griffith, for
- 3880 3 minutes.
- 3881 Mr. {Griffith.} Thank you very much. I appreciate it.
- 3882 All right, I will take anybody who can answer this, and
- 3883 I suspect it will be Mr. Grumet or Ms. Cassady, or Ms.
- 3884 Hammond.
- 3885 Are you all familiar with the regulations relating to

3886 production of electricity in Mexico by coal? And no is a fine answer. If you don't know, you don't know. 3887 3888 knows. Because the reason I ask that question is it is part 3889 of our proposal here, and one that I am interested in, has 3890 electric transmission facilities, it is not just pipelines. 3891 And one of my concerns is that we are putting coalminers out 3892 of work in Appalachia. Like Lancaster, down our way it is 3893 not Appalachia, it is Appalachia, and we are putting 3894 coalminers out of work in Appalachia, but if we allow 3895 electric transmission lines to cross over from Mexico using 3896 not-as-good a coal, with not-as-good a process, in not-as-3897 clean plants, what gain have we made environmentally? 3898 think this is a case where, while Ms. Cassady and I are not 3899 going to agree on much, we might actually agree on that, that 3900 that ought to be a concern. 3901 Mr. Grumet, do you have any thoughts on that at all? 3902 Mr. {Grumet.} I mean you make a very important point, and Dr. Dolzer's testimony referred to it as well, right. 3903 3904 You know, electrons and molecules don't have a lot of concern 3905 about arbitrary political boundaries, and that is why we 3906 actually have to have a shared solution that brings the 3907 technology of the United States to bear on the issues in

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     Mexico. We have to have shared agreements. And I am not
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      going to try to get into a lengthy conversation about
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      regional climate action in 60 seconds, but--
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           Mr. {Griffith.} Well--
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           Mr. {Grumet.} --you know, I think there is a real
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      opportunity to actually lift the Mexican system so that it
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      actually has parity with the U.S.
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           Mr. {Griffith.} And I certainly don't mind lifting up
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      the Mexican system, but I am reminded of the old NASA study
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     that shows it takes 10 days for the air to get from the
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     middle of the Gobi Desert to the eastern shore of Virginia,
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     so if we are going to eliminate coal, waiting another 30 or
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      40 years on Asia just really means we are putting our people
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     out of work and we are not really doing that much for the
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      overall northern hemisphere--
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           Mr. {Grumet.} All I will say is--
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           Mr. {Griffith.} --air.
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           Mr. {Grumet.} --that we fundamentally have to find a
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     way to burn coal in a way that meets our security interests
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      and our environmental interests, and there is one way we can
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     do that if we invest the resources to get it done. We are
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     not doing that right now, so--
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          Mr. {Griffith.} And I agree with you completely. We
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     can do more and we should do more. I look forward to working
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     with you on clean coal technologies.
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           I yield back.
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          Mr. {Whitfield.} And there are no other questions.
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     thank all of you once again for your patience, and we look
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      forward to maintaining contact with you and continuing to
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     work with you as we try to bring this legislation to the
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     committee.
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           I am also asking unanimous consent that a statement from
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     the Canadian Electricity Association be submitted for the
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      record. And without--
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          Mr. {Rush.} No objection.
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          Mr. {Whitfield.} Without objection, so ordered.
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           [The information follows:]
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******* COMMITTEE INSERT ********

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          Mr. {Whitfield.} Is this it? Okay. And we are going
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     to keep the record open for 10 days for any additional
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     material that may need to be submitted.
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          And once again, that will conclude today's hearing.
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     Thank you all for your interest. And, Mr. Dolzer, thanks for
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     coming all the way from Germany.
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           [Whereupon, at 1:42 p.m., the Subcommittee was
3953
     adjourned.1
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