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6	DOE MODERNIZATION: LEGISLATION TO AUTHORIZE
7	A PILOT PROJECT TO COMMERCIALIZE THE
8	STRATEGIC PETROLEUM RESERVE
9	TUESDAY, JULY 24, 2018
10	House of Representatives
11	Subcommittee on Energy
12	Committee on Energy and Commerce
13	Washington, D.C.
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17	The subcommittee met, pursuant to call, at 10:15 a.m., in
18	Room 2322 Rayburn House Office Building, Hon. Fred Upton [chairman
19	of the subcommittee] presiding.
20	Members present: Representatives Upton, Olson, Barton,
21	Shimkus, Latta, McKinley, Kinzinger, Johnson, Bucshon, Flores,
22	Hudson, Walberg, Duncan, Walden (ex officio), Rush, McNerney,
23	Peters, Green, Doyle, Welch, Tonko, Loebsack, Kennedy, and
24	Pallone (ex officio).
25	Staff present: Samantha Bopp, Staff Assistant; Kelly

Collins, Legislative Clerk, Energy/Environment; Jerry Couri,
Chief Environmental Advisor; Wyatt Ellertson, Professional
Staff, Energy/Environment; Margaret Tucker Fogarty, Staff
Assistant; Jordan Haverly, Policy Coordinator, Environment;
Mary Martin, Chief Counsel, Energy/Environment; Sarah Matthews,
Press Secretary, Energy & Environment; Drew McDowell, Executive
Assistant; Brandon Mooney, Deputy Chief Counsel, Energy; Brannon
Rains, Staff Assistant; Mark Ratner, Policy Coordinator; Peter
Spencer, Professional Staff Member, Energy; Austin Stonebraker,
Press Assistant; Madeline Vey, Policy Coordinator, Digital
Commerce and Consumer Protection; Hamlin Wade, Special Advisor,
External Affairs; Everett Winnick, Director of Information
Technology; Andy Zach, Senior Professional Staff Member,
Environment; Tiffany Guarascio, Minority Deputy Staff Director
and Chief Health Advisor; Rick Kessler, Minority Senior Advisor
and Staff Director, Energy and Environment; John Marshall,
Minority Policy Coordinator; Alexander Ratner, Minority Policy
Analyst; Tuley Wright, Minority Energy and Environment Policy
Advisor; and C.J. Young, Minority Press Secretary.

45 I know there is a couple different subcommittee Mr. Upton. meetings today, but good morning. 46 Good morning. 47 Welcome to the Energy Subcommittee for a 48 legislative hearing on a discussion draft that authorizes DOE 49 to conduct a pilot program to lease spare capacity in the Strategic 50 Petroleum Reserve. 51 I want to thank Vice Chairman Barton and Ranking Member Rush 52 for partnering on this draft as we continue our work to modernize 53 the Department of Energy. 54 The SPRO is the world's largest emergency stockpile of crude 55 in the world. More than 40 years ago, Congress authorized the 56 creation of the SPRO in response to the Arab oil embargo to mitigate the threat of an energy supply disruption. 57 58 Back then, our domestic production was in the decline, energy costs were rising, and we were becoming increasingly reliant on 59 60 imports. 61 The oil embargo exposed our vulnerabilities and panic Some of us will remember those long lines at 62 quickly spread. 63 the gas pump for sure. 64 The U.S. is, arguably, more energy So let's go to today. 65 secure now than ever before. We are the number one world producer 66 of oil and gas and our imports have declined by about 70 percent 67 since peaking in 2005. 68 With the surge of domestic production, our private stocks 69 of crude oil are at record levels, our pipelines are full, and 70 our refineries are operating at near peak capacity. 71 So I want to thank our witnesses on both panels for appearing 72 before us today to provide their views on this legislation. 73 want to thank Vice Chair Barton and Ranking Member Rush for their 74 work on this important piece of legislation. I look forward to working with both of them and all members 75 of the subcommittee as we move this bill, hopefully, to the House 76 77 floor in the coming months. And I now yield to the ranking member of the subcommittee, 78 79 Mr. Rush, for an opening statement. 80 [The prepared statement of Mr. Upton follows:] 81 *********INSERT 1****** 82

83 I want to thank you, Mr. Chairman, for holding Mr. Rush. this important hearing this morning examining legislation to 84 85 authorize a pilot project to commercialize SPRO. 86 As you know, Mr. Chairman, subcommittee staff from the 87 minority and the majority side worked together on this bipartisan bill and I am pleased to co-sponsor this legislation with my good 88 89 friend and colleague, Mr. Barton of Texas. 90 Mr. Chairman, since the inception of the SPRO, this was, 91 as you indicated, established as a result of the oil shortages 92 The energy portfolio of the United States has of the 1970. 93 changed dramatically. 94 In fact, the U.S. is expected to go from a heavy importer 95 of foreign oil to become the global leader in oil exports by as 96 early as next year, according to the IEA. 97 As a result of these shifting dynamics, Mr. Chairman, it is important for policy makers including members of this 98 subcommittee to examine important questions including if there 99 100 is still a need for the SPRO. If so, how large should it be and 101 how should it be continued. 102 It is my hope, Mr. Chairman, that the pilot program outlined 103 104 105

in this bill will help inform our decision regarding the SPRO -- regarding the feasibility of leasing all or part of the SPRO to the private sector or to foreign governments even -- those that do not pose a national security risk.

As we will discuss today, congressionally-mandated sales

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of SPRO oil has provided an opportunity to potentially lease the subsequent unused space to private companies and/or foreign governments as a way to maximize taxpayers' return on investment.

Mr. Chairman, I am also pleased that we have with us today

Mr. Chairman, I am also pleased that we have with us today representatives from both the Department of Energy and the GAO, among other witnesses, as both agencies have issued reports to help guide our decision making on matters regarding the SPRO.

Unfortunately, Mr. Chairman, there appears to be some discretion between the two agencies over the final recommendations that GAO made in its May report entitled "Strategic Petroleum Reserve: DOE Needs to Strengthen Its Approach to Planning the Future of the Emergency Stockpile."

First, Mr. Chairman, DOE appears to concur with the GAO's recommendation to supplement its 2016 review by conducting additional analysis regarding the objective and purpose of the SPRO, taking into account additional factors such as market projections and private sector response.

DOE also agreed with the GAO's recommendation to periodically reexamine the size of the SPRO with analysis looking at the cost and benefits of the SPRO for a variety of different sizes.

DOE also appears to concur with the GAO's findings as the agency considers options for the long-term continuation of the SPRO after the impact of congressionally-mandated sales of SPRO oil are taken into account.

133	Mr. Upton. That's not my wife either.
134	[Laughter.]
135	Mr. Rush. Maybe it's my newly my new wife.
136	Mr. Upton. Your new wife. Yes, sir.
137	[Laughter.]
138	Mr. Upton. Better answer it.
139	Mr. Rush. Yes.
140	Mr. Upton. You want to keep being married another 60 years.
141	Mr. Rush. All right, Mr. Chairman.
142	Hold on, dear.
143	[Laughter.]
144	Based on the testimony, it appears that some of these
145	recommendations will be included as a part of GAO's small
146	post-sale configuration study expected to be completed in October
147	of this year.
148	Mr. Chairman, the largest area of disagreement appears to
149	be over GAO's recommendation that DOE Department of Energy
150	conduct a cost benefit analysis of establishing regional
151	product reserves around the country around the country at areas
152	that have been identified as vulnerable to fuel supply disruption.
153	Mr. Chairman, I hope that we can get to the bottom of this
154	and I look forward to the testimony provided by our witnesses
155	today.
156	And finally, I want to tell our witnesses that we appreciate
157	them appearing before us today.

162 statement. 163 The Chairman. Thank you, Mr. Chairman. 164 You know, over the course of the past year, the Energy and 165 Commerce Committee has been hard at work identifying what's 166 necessary to modernize the Department of Energy's national and 167 energy security functions. 168 The urgency of our focus has been driven by domestic and 169 international challenges that will be confronting the nation in 170 the decades ahead. These challenges, which range from 171 maintaining our nuclear security to protecting the reliable supply and delivery of energy, require a Department of Energy 172 that has appropriate organization, management focus, and 173 authorities to succeed in its missions. 174 175 In recent months, the committee has moved legislation that 176 will establish enduring leadership within the DOE for addressing all energy emergencies, including cybersecurity threats. 177 178 It has moved legislation that will ensure there is sufficient 179 coordination for secure and reliable delivery of fuels we rely upon for our energy needs, including bulk electric power. 180 181 And just over the past few weeks, we moved legislation that 182 will strengthen DOE's support for next-generation nuclear energy. **NEAL R. GROSS**

Thank you, Mr. Chairman. I yield back.

Mr. Upton. The gentleman yields back.

The chair will recognize the chairman of the full committee

from the good state of Oregon, Mr. Walden, for an opening

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We've also moved reforms that streamline DOE's cumbersome regulatory approval process for foreign nuclear commerce, which has inhibited American businesses from competing effectively in global nuclear energy markets.

So with today's draft legislation that Vice Chairman Barton and Ranking Member Rush have put together offers a similar forward-looking path -- this one, toward ensuring the nation's Strategic Petroleum Reserve, managed by DOE, will be more capable of responding to oil supply emergencies for decades to come.

Congress, under this committee's leadership, established the SPRO in the wake of the 1973-1974 Arab oil embargo. That incident and the gasoline shortages and price spikes of ensuing years really underscored the growing vulnerability of the United States to international oil supply shocks, especially as reliance on imported oil was rapidly increasing.

Well, times have changed, of course, and dramatically. The resurgence in American oil and gas production over the past decade has placed the United States into a dominant role when it comes to global oil and gas supplies and has begun to shift how we should view our SPRO assets.

While the role of the SPRO may be shifting, it remains important for energy security. It will continue to help us meet our treaty-level obligations to international partners in the event of major supply disruptions.

It will also help maintain our international energy diplomacy, inhibiting adversaries from attempting to use oil as an economic weapon, which ultimately benefits our own and our allies' energy security.

Yet, we know that SPRO facilities require considerable upgrades to be responsive when called upon, and as Congress has mandated sales of some 290 million barrels, there is risk that without serious reforms much of the reserves' capacity to serve as a strategic stockpile will degrade further as those stocks decline.

So against this backdrop arrives the draft legislation, which offers an innovative way to accelerate reforms to the SPRO by leasing underutilized space created as the reserve is drawn down over the next decade.

A successful leasing program would attract investment into improving facilities' operations that would be responsive to commercial needs.

This, in turn, would enable more responsive use of federal oil stocks during those emergencies and by preserving the existing capacity of the reserve's caverns, the pilot program also ensures this asset will remain available for DOE's security missions well into the future.

So I appreciate the testimony of those who are testifying today and we will continue to work on this legislation. I don't know if anybody else wants the balance of my time.

233	But if not, I will yield back.
234	[The prepared statement of Chairman Walden follows:]
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237 Mr. Upton. The gentleman yields back. The chair would recognize the ranking member of the full 238 239 committee, Mr. Pallone, for an opening statement. 240 Mr. Pallone. Thank you, Mr. Chairman. 241 Today, we will be discussing bipartisan draft legislation on the future of the Strategic Petroleum Reserve. 242 In December 243 2016, then Chairman Upton and I wrote the Government 244 Accountability Office requesting that GAO review the Strategic 245 Petroleum Reserve as it is currently configured. 246 We asked whether there might be more cost-effective options 2.47 for protecting against supply shocks and for meeting our international obligations. 248 249 Most other countries have used contracts with private 250 companies to address these matters. So it's fair to ask whether 251 there might be more efficient and effective ways for us to address 252 our energy security needs in this area. 253 There were a number of reasons why I thought this request 254 of GAO was particularly important in 2016. First, former Energy 255 Secretary Moniz had laid out one vision for modernization of the 256 SPR in the Quadrennial Energy Review that the Obama administration 257 released in 2015. 258 As part of that vision, Secretary Moniz suggested the 259 establishment of more regional refined product reserves, like 260 the Northeast home heating oil and gasoline supply reserves.

Second, at the end of 2015, Congress lifted the 40-year-old

262 ban on crude oil exports and this was done at a time when we were seeing a radical alteration of the transportation fuels 263 264 landscape. 265 Supply was increasing, demand was decreasing, and we were 266 seeing a rise in electric vehicles. 267 Third, beginning in 2015, Congress had turned to the SPR 268 repeatedly as an offset for deficits, highways, and other items. 269 In fact, it has been used far more in recent years for those 270 purposes than for energy security. 271 And recently, the Trump administration has even been sending 272 signals that it's seriously considering releasing oil from the reserve for the express purpose of lowering gas prices, in my 273 opinion to help Republicans heading into the midterm elections. 274 275 When you get to the point where an administration is publicly discussing using the SPR for blatantly political purposes, then 276 it is certainly a good time to discuss the future of the reserve. 277 278 And this discussion is also timely now since we are already requiring the sale of so much oil for nonenergy reasons, which 279 280 will free up a great deal of physical space in the reserve. 281 We need to consider ways to ensure taxpayers continue to 282 receive value for the salt dome storage caverns and associated 283 facilities that comprise the crude reserve if they are not being 284 used to store oil. 285 The draft legislation that Vice Chairman Barton and Ranking 286 Member Rush are championing is an important first step in

287 realizing that goal. The draft bill would facilitate the leasing of unused storage space in the reserve while attempting to ensure 288 289 that government and taxpayers benefit from those leases, and 290 that's important no matter what the future has in store. 291 If we elect to keep the SPR in its current form, the Energy 292 Department will need to repair and upgrade facilities to keep 293 them useful and if we elect to create regional reserves either 294 in addition to or in place of the SPR, we will still need to fund 295 those regional reserves, and this bill will help bring in the 296 revenue we need to do that. 297 There are still questions that need to be answered about 298 this proposal. I want to make sure that the taxpayers see 299 meaningful return on the investment that we made in the SPR and 300 I want to ensure that the government isn't left holding the bag 301 for environmental liability costs while private industry gets 302 all the benefits of the leasing arrangement. 303 So as long as we can get assurances on these two key points, I think moving forward with this pilot project makes a lot of 304 305 sense. 306 And unless someone else wants the time, I'll yield back, 307 Mr. Chairman. 308 The gentleman yields back. Mr. Upton. Thank you. We are joined, again, by two panels. We will start with 309 310 Steven Winberg, assistant secretary of fossil energy from the 311 Department of Energy. We welcome you here.

We appreciate you submitting your testimony in advance and if you wouldn't mind taking no more than five minutes to summarize that, at which point we will go into questions, that would be terrific.

The time is yours. Thank you.

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317 STATEMENT OF STEVEN WINBERG, ASSISTANT SECRETARY OF FOSSIL 318 ENERGY, U.S. DEPARTMENT OF ENERGY 319 320 Mr. Winberg. Thank you, Chairman Upton, Ranking Member 321 Rush, and distinguished members of this committee. 322 pleasure to appear before you to discuss the Department of 323 Energy's Strategic Petroleum Reserve and the related use of 324 underutilized SPRO facilities resulting from 325 congressionally-legislated crude oil sales. The mission of the SPRO, as has been discussed, is to protect 326 327 the United States' economy from severe petroleum supply interruptions and to carry out U.S. obligations under the 328 international energy program. 329 330 As a member of the International Energy Agency, the United 331 States has two primary objectives. First, as a net importer, the United States must maintain crude oil and/or refined product 332 333 inventories whether held by industry or government equal to at least 90 days of net petroleum imports. As of June 30th of this 334 335 year, the United States held about twice that amount. 336 Second, the United States must be able to contribute a 337 proportionate share of an IEA collective action response based 338 on its share of IEA oil consumption, which is currently at 41.4 339 percent. 340 The U.S. government relies on use of SPRO to meet this 341 requirement, although commercial stocks may also contribute,

albeit voluntarily.

In the event of an international oil supply disruption large enough for the president to authorize the release of the SPRO, U.S. crude oil production alone would not be able to ramp up quickly enough to make up for the lost barrels in a crisis.

The SPRO can be ready to deliver crude oil within 13 days of a presidential finding while domestic production would take months to substantially expand.

Turning to the proposed legislation, it is expected that the SPRO will have approximately 300 million barrels of unused storage capacity by the end of fiscal year 2027 or, roughly, 45 percent of the current design capacity.

To that end, DOE is currently conducting the SPRO post-sale configuration study that will recommend the configuration of the SPRO post-2027.

This study should be completed within the next six months and understanding the best configuration for the SPRO will guide us as we continue to sell barrels over the next several years.

It will also guide us in identifying the SPRO storage caverns or related facilities likely to become underutilized or operationally inefficient, therefore, informing possible decisions concerning site decommissioning.

Further, determining the optimum configuration for the SPRO to meet domestic needs will be critical in developing and executing this proposed pilot program.

367 The department is supportive of maximizing the value of this taxpayer-funded asset and there are a number of issues that need 368 369 to be considered related to the configuration of the SPRO 370 post-2027. 371 Therefore, we believe it is premature to comment on the 372 operational feasibility of commercially leasing underutilized 373 storage. But I can discuss with you some of the challenges. 374 Further, it is important for both Congress and the department 375 to consider the impact of using government facilities to compete 376 with commercially available petroleum storage capacity. 377 Finally, we need to review the logistical and infrastructure challenges associated with the likely commercial requirement for 378 increased inflow and outflow activities. 379 380 Accommodating this requirement may require large up-front 381 capital expenditures to enable commercial leasing. 382 I would also like to take this opportunity to discuss the 383 recently released GAO report titled "Strategic Petroleum 384 I would like to focus on the one recommendation the Reserve." 385 department did not concur with. Specifically, we did not concur 386 with the recommendation to conduct or complete studies on regional 387 refined product reserves. 388 It's important to understand that while hurricanes and other 389 natural disasters may create severe short-term logistical 390 constraints for gasoline supplies that therefore impact gasoline 391 prices, these constraints and price increases are quickly

392 overcome when a hurricane passes. 393 This was evidenced by Hurricane Irma in 2017. Even if more 394 gasoline was available in Florida during Hurricane Irma, there 395 would not have been enough trucks or other transportation 396 infrastructure to get the supplies to the retail gasoline stations where they were needed due to, first, increased evacuation traffic 397 398 and then, later, flooded roads. 399 So given the cost of above-ground gasoline storage, it would 400 be inappropriate to use taxpayer funds to conduct any additional studies on the use of federally-owned storage of refined petroleum 401 402 products. 403 While there is certainly more information about the SPRO 404 that I could discuss, I will refer the committee to my written 405 testimony submitted to the record. 406 Mr. Chairman and members of the committee, this completes 407 my prepared statement and I am happy to answer any questions. 408 Thank you. [The prepared statement of Mr. Winberg follows:] 409

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411 Well, thank you very much for coming up this Mr. Upton. 412 morning. I have a couple of questions. 413 My first couple relate to the GAO study that I know that 414 you're familiar with. It was published in May, two months ago. 415 On Page 27, it talks about the DOE could close at least one 416 SPRO site based on the analysis by CBO of projected excess storage 417 capacity. 418 For example, if DOE were to close the smallest SPRO site 419 -- Bayou Choctaw -- the agency could also explore selling the 420 connected pipeline and marine terminal, which is currently being 421 leased to a private company. 422 The DOE could consider leasing excess storage capacity to 423 other countries so that they could store oil at SPRO. 424 not entered into any such leases with other countries. It has 425 not considered such leases because, according to DOE, the SPRO 426 has historically lacked capacity to store additional oil. 427 DOE has not proposed any of these options or explored the 428 revenue the agency could generate by selling or leasing these 429 According to DOE officials, the agency would examine 430 the feasibility of such options in the ongoing SPRO pool sale 431 configuration study. 432 Does that sound like a potential that DOE would support? 433 Mr. Winberg. Yes. Yes, we would. The first requirement 434 we have under SPRO is to make sure that we are meeting our domestic 435 requirements as well as our IEA requirements.

436 And so, based on the math and reducing the SPRO by some 300 437 million barrels, I think it's quite possible that we may end up 438 deciding we need to -- we can close one of the sites. Which site? 439 440 We don't know yet, and that's the purpose of the SPRO 441 post-sale configuration study. Completing that study they then 442 will inform us on which caverns we need to keep open, which 443 facilities we need to keep open, so that we can meet those 444 requirements. 445 Not all caverns are alike, and so various of our caverns 446 can discharge oil at faster rates. And so we need to do that 447 study so that we clearly understand what our options are and then also, sir, our options with respect to using these facilities 448 449 in a commercial nature. 450 Now, as you know, we have the father of -- the author of the EPCA bill -- Mr. Barton -- down at the end of the 451 452 dais here. 453 Officials said that under EPCA -- the Energy Policy and 454 Conservation Act -- it gave DOE authority to lease underutilized 455 storage to other countries but not to the private sector. 456 DOE doesn't currently have the authority to pursue that, 457 according to the agency officials. What is your -- what is the 458 department's view on opening that up -- on making that change to allow the DOE the authority to sell to the private sector as 459 460 well? Are they supportive of that? Would they --

461 Mr. Winberg. Yes. Yes, we are supportive. But if I might, 462 there are some technical challenges with doing that. 463 start off with other IEA member companies that also have a reserve 464 requirement. 465 That would be generally for long-term storage. We wouldn't 466 expect to be moving that product in and out of the caverns. 467 In a commercial situation, that may not be the case and the 468 commercial suppliers of oil use the storage and then discharge 469 and then want to inject and discharge. So there is a cycling mechanism, and the challenge with this 470 471 particular geography or geology is that these were soft caverns 472 and the way we discharge oil out of these caverns is we inject fresh water and that starts to erode the walls of the cavern in 473 474 the lower part of the cavern. 475 And so if you do that numerous times, you may affect the 476 integrity of the salt cavern. 477 So what we would need to do to go to a commercial operation 478 where they -- we are going to inject and discharge on a very regular 479 basis we would have to go with what we call a brine drive system, 480 meaning we would use saturated brine water and we'd have to store 481 that and then inject that down into the caverns so that we weren't

But we know that it is not going to be inexpensive and that's part of the post-sale configuration studies to begin to look at

dissolving the walls of the cavern, and we have not yet come up

with a cost for doing that.

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486 those costs. 487 Mr. Upton. Great. Thank you. My time has expired. 488 Mr. Rush. 489 Mr. Rush. Assistant Secretary Winberg, will the DOE's SPRO 490 post-sale configuration study, which will be out in -- released 491 in October, examine issues that would help to determine a future 492 optimal size of the SPRO? 493 Will that study make recommendations regarding opportunity 494 to release SPRO storage space to the private sector or to other 495 countries that are now a part of the IEA's collective action? 496 And if not, when can we expect information from DOE on those 497 specific topics of interest? 498 The post-sale configuration study, sir, will 499 indeed address the optimal size for the SPRO to meet -- again, 500 to meet U.S. needs and also our IEA requirements. 501 It will help inform us on what caverns we might be able to 502 use for leasing purposes. As I mentioned earlier, if we are going to lease those caverns to other IEA member countries, it's 503 504 considerably easier in terms of the mechanics of utilizing that 505 storage. 506 The post-configuration study will not be able to give us 507 complete guidance on what we might be able to do in terms of leasing to the commercial sector. That's going to take some more work 508 509 beyond the configuration study.

And what I would propose we could and should do for the

commercial market is to send out a request for information — an RFI — and we'd be looking for two, maybe three, basic bits of information: number one, does the commercial marketplace value this asset; number two, in what manner would they like to use the asset, meaning would they want to inject oil and then extract oil on a very frequent basis because then that will help inform us on what upgrades we need to make; and then number three, how does the private sector view the federal government stepping into oil storage leasing business, which has been the domain of the private sector for many, many years.

And so those are the three pieces of information that we would want to glean from this RFI. With that information, I think that would help inform us on what type of a leasing program we would want to develop, whether we would want to have the entity leasing the facility to make the investment necessary so that they can inject and extract or whether we make that investment, which would take appropriations, and then factor that into the cost of the lease.

So a lot of moving parts there.

Mr. Rush. All right. I am going to move on to another area.

Can you briefly discuss the disagreement between GAO and DOE regarding the recommendation that the department conduct a cost-benefit analysis for establishing regional product reserves in areas around the country that may be vulnerable to fuel supply disruptions?

536 Why does DOE disagree with this recommendation and is this 537 disagreement only due to funding issues? 538 Mr. Winberg. It's in part due to the cost but it's in part 539 due to the viability of petroleum -- refined petroleum reserves 540 -- gasoline storage. 541 So let me start with the logistics, and I talked about this 542 in my testimony a little bit. Having regional or even state 543 gasoline storage reserves above ground doesn't necessarily solve 544 the problem because you need to get that stored gasoline to the 545 retail outlets -- the gasoline stations. 546 The problem is when you're in an evacuation situation along 547 the coast -- Florida, I think, is probably a good example of what 548 happened during the Hurricane Irma -- you couldn't get the 549 gasoline from the storage to the retail outlets because the roads 550 were being used for evacuation. 551 Right after the hurricane passed through then the roads were 552 flooded and so having that storage wouldn't have done Florida 553 much good at all -- perhaps none at all. 554 And so we'd be incurring quite a cost in order to maintain 555 regional or state gas reserves around the country. We spend about 556 somewhere between \$10 and \$30 million per year on the Northeast 557 gasoline supply reserve. 558 It currently has about a million barrels of gasoline. so multiply that by whatever number a regional refined petroleum 559 560 facilities we might contemplate.

561 The costs get pretty expensive pretty quickly and we may not be able to use it because of the logistics of getting it to 562 563 the retail stations. 564 Mr. Upton. Thank you. The gentleman yields back. 565 Mr. Barton. 566 Mr. Barton. Thank you, Mr. Chairman and Ranking Member Rush 567 for scheduling this hearing. I'd like to make a few comments 568 and then I have a few questions. 569 First, I want to thank Congressman Rush for working with 570 me as one of the two lead bipartisan sponsors. Legislation, I 571 think, always is better if it is bipartisan and certainly we, 572 on the majority side, want to make every effort to make this 573 bipartisan. 574 I was very heartened by the opening comments of Mr. Rush 575 and Mr. Pallone. I think -- I think we have got a chance to help the country if this draft becomes, in fact, a bill and is passed. 576 It doesn't change the basic mission statement. 577 It doesn't 578 change the authorized level of the Strategic Petroleum Reserve. 579 Doesn't change the presidential authority. 580 What it does do is add to the mission statement. It gives 581 the secretary of energy the authority so long as it doesn't impact 582 the basic existing mission statement the ability to lease and utilize underutilized capacity of the existing SPR to the private 583 sector for storage and, hopefully, utilization of crude oil. 584 585 I think that's an important point -- that we are not -- we

586	are not trying to change the basic statement that was became
587	law in the 1970s. We are just trying to adopt the SPR to the
588	modern situation.
589	A couple of questions for our friend from DOE what is
590	the authorized capacity currently of the SPR in terms of millions
591	of barrels?
592	Mr. Winberg. The design capacity is 712 million barrels.
593	In 2018 right now we have 660 million barrels and in 2027 we
594	will be down to 405.
595	Mr. Barton. What did Congress authorize the capacity to
596	go up to? I thought we were about 900 million barrels. Is that
597	not true?
598	Well, I can find out. I just thought you might know.
599	Mr. Winberg. I'll get back to you on that.
600	Mr. Barton. Okay. Whatever the authorized capacity is,
601	if I understand you correctly, the existing physical capacity
602	is a little over 700 million barrels. Is that correct?
603	Mr. Winberg. Yes, sir.
604	Mr. Barton. And of that, how much oil is actually stored
605	right now?
606	Mr. Winberg. We have 660 million barrels stored right now.
607	Mr. Barton. Okay. So not we are not quite at 100 percent
608	of existing physical capacity?
609	Mr. Winberg. That's correct.
610	Mr. Barton. Okay.
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611	If this draft legislation becomes law, whatever the
612	authorized capacity is and let's assume that it is 900 million
613	because I think that's right under this pilot program would
614	it authorize the secretary of energy if it meets all the other
615	requirements under the draft legislation to actually add capacity
616	to the SPR so long as it doesn't go above the authorized level?
617	Mr. Winberg. In order to add capacity above the 712, it
618	would take some additional capital investment in the facility
619	to get
620	Mr. Barton. But there is nothing in the law that would
621	prevent going above what's physically available today. Is that
622	not correct?
623	Mr. Winberg. I believe that's correct.
624	Mr. Barton. Okay. I have one more question. I think
625	I think I'll yield back.
626	One final comment we don't claim Mr. Rush and I
627	that this draft is perfect. If we go through the hearing and
628	there are things that we need to change, I think I speak for
629	everybody on the majority side that we are very open.
630	But I also think I speak for the majority and the minority
631	that we hope that this is something that can move reasonably
632	expeditiously and that means actually end up in a bill the
633	president signs and this Congress.
634	And with that, Mr. Chairman, thank you for your leadership
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and Mr. Rush's and Mr. Pallone's, and I yield back.

637 that the two of you are working on this. It's something that 638 needs to be done and we look forward to getting this to the 639 president's desk before the year is out, if we can. 640 Mr. Pallone is recognized for an opening statement. 641 Mr. Pallone. Thank you, Mr. Chairman. 642 Mr. Secretary, the idea of establishing regional refined 643 product reserves came out of the first Quadrennial Energy Review 644 and was strongly supported by former Secretary Moniz. 645 And now GAO is also saying we need to look at regional 646 reserves, particularly in the Southeast and the West and I, too, 647 think that regional refined product reserves needs to be a part 648 of any SPR modernization effort. 649 Now, you can correct me if I am wrong. But you mentioned, 650 I believe, that the Trump administration seems hostile to the 651 In fact, President Trump had proposed doing away with concept. 652 the Northeast gasoline supply reserve, which had been created 653 administratively by President Obama in response to the dangerous 654 shortages that occurred in the wake of Superstorm Sandy, including 655 in my area of New Jersey. 656 And, frankly, I think this administration's attempt to undue 657 the Northeast reserve is reckless and that's why I introduced legislation to establish that reserve in statute. 658 659 But it seems like everybody but the Trump administration 660 sees the benefit establish regional reserves and particularly

The chair would just say that I am delighted

661 one in the Southeast, where states like Florida, Georgia, South 662 and North Carolina are extremely supply constrained, and those 663 states are really vulnerable in the face of an extreme weather 664 Yet, this administration and you, I think, said don't 665 want to take any action on that. 666 So can I just ask you, Mr. Assistant Secretary, you said 667 that the price of gasoline I think -- you can correct me -- I 668 think you said that the price of gasoline goes back to normal 669 soon after a storm like Sandy or Irma. What is that based on? 670 I mean, that wasn't true in New Jersey 671 after Sandy. Did I misunderstand you? I thought that's what 672 you said, as one of the reasons why it wasn't necessary to have 673 these regional reserves. 674 The -- the first point, I wouldn't Mr. Winberg. 675 characterize the administration's position as hostile against 676 the gas reserves. What I talked about before -- what I talked about in my 677 678 testimony is, A, the cost of these gasoline reserves, and I used 679 680 Yes. You said they would cost the government Mr. Pallone. 681 too much and -- I mean, my understanding is I just -- we only 682 have two and a half minutes -- my understanding you said that you were not supportive of it or the administration wasn't because 683 684 the price of gasoline goes back quickly after a storm like --685 you know, like Sandy -- I think you said Irma.

686 And then you also said that the regional reserves would cost 687 the government too much. So that -- I am just asking you what 688 those two things are based upon because I am wondering -- wouldn't 689 the same argument be used against the existing SPR? 690 saying -- I don't believe it's true that the price goes up quickly 691 right after and I don't believe that this is going to cost the 692 government too much -- certainly, less than it costs to maintain 693 the SPR. 694 I am just challenging those two statements. That's all. 695 I can address the pricing issue with respect Mr. Winberg. 696 to Hurricane Irma. The prices came back down to relatively normal

levels.

I can't speak to every gasoline station around Florida.

But as the product moved back into the state and retail stations

were opening back up again, there was competition and prices reflected that.

I think that the bigger issue is that if we set up reserves and we have these fairly sizeable storage areas and we can't get the gasoline to the retail outlets because of congested roads due to evacuation and then flooded roads, then it is an expense that's not really serving the public good.

Mr. Pallone. But what I was arguing -- see, look, I understand what you're saying in all these cases. But I just would like to know, you know, what that's based on.

In other words, my experience in Sandy which, admittedly,

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711	is only one hurricane, is that the price it does take a while
712	before the price goes back to normal and that I don't know why
713	it would cost more to have these regional reserves, you know,
714	significantly more than it does to maintain the SPR.
715	I mean, I guess you argue maybe that you I am not saying
716	we shouldn't have an SPR but I think the costs of the regional
717	ones would actually be less. And it seems like everybody's
718	suggesting that this is a good idea.
719	There is going to be some cost to the government, but I'd
720	just like to know you know, if you get back to me, tell me,
721	you know, what's the evidence that the price goes back quickly?
722	
723	Why are you saying it's going to cost so much and now you're
724	saying that they can't bring it to the to the gas stations.
725	That's not my experience.
726	So I just want you to get back to us and either now or
727	get back to us and explain what these you know, what this is
728	based on because it seems to be contrary to everything I've heard.
729	Mr. Winberg. We will be happy to get back to you with some
730	specific cost numbers an utilization.
731	Mr. Pallone. All right. I'd appreciate it.
732	Thank you, Mr. Chairman.
733	Mr. Upton. Mr. Olson.
734	Mr. Olson. I thank the chair and welcome, Mr. Winberg, and
735	please give your boss, Secretary Rick Perry, my best. It's not

736 very good, but it's my best. 737 Mr. Winberg. I will do so. 738 Mr. Olson. He will know where that comes from. 739 The SPR is important back home in Texas-22 in southeast 740 Texas. You mentioned the status of your modernization program. 741 Could you please talk about the most important steps DOE can 742 take in this next year to continue to improve the readiness of 743 the SPR? 744 Mr. Winberg. Yes, sir, I can. Thank you. 745 One of the steps that I mentioned already is the post-sale 746 configuration study and then the second one is we have -- we are 747 developing the Life Extension program. 748 We are in the process of pulling that together and the Life 749 Extension program is going to allow us to continue to meet our 750 needs under IEA, number one. 751 And then, number two, the Life Extension program will focus 752 on those assets that we are going to continue to need post-2027. 753 That's the primary role of the Life Extension program. 754 Mr. Olson. The second question, sir -- as you know, Texas 755 oil production is booming. The Permian Basin itself is projected 756 in a few years to produce more oil than every country in the world 757 except for Saudi Arabia. 758 One oil plain in Texas takes over all the world except for 759 one country -- Saudi Arabia. A lot of that crude has to go to

export -- go to the Gulf Coast ports -- goes to either Corpus

761 Christi, Houston, Port Arthur, Beaumont -- all those ports --762 Brownsville -- goes there for refining and export. 763 If we pass this discussion draft before us, do you think 764 the oil industry will view the SPR sites on the Texas Gulf Coast 765 as a good holding site for their oil and are their needs looking 766 more shorter term than what the SPR is designed for? 767 Mr. Winberg. The answer to your first question, we are not 768 yet sure how the commercial market is going to view this government 769 asset -- the SPRO and our ability to potentially store oil for 770 the commercial sector. 771 That's part of the RFI -- the request for information that 772 we are going to send out so that we can better understand what 773 the commercial industry needs and wants and whether the SPRO will 774 fulfill that requirement. 775 So when -- as we get that information I'll be happy to meet 776 with the committee or meet with you individually --777 Mr. Olson. Thank you. 778 Mr. Winberg. -- and give you the results of the study. 779 Mr. Olson. Thank you. 780 My final question -- as we had these SPR drawdowns over and over and over -- June of 2011, 30 million barrels of oil; August 781 782 of 2012, 1 million barrels of oil; November of 2015, 58 million 783 barrels; December 2015, 66 million barrels; January 2017, 8 784 million barrels -- over and over. 785 I am curious to hear how about the state of the SPR is with

786 all these draw downs. Specifically, how much -- we have a lot 787 of light crude here at home. 788 Are you happy about the balance between light crude and heavy 789 crude in the SPR and the balance between sweet and sour oil? 790 I know there is lots of people concerned especially about heavier 791 crude with a supply disruption because of this wave of sweet crude 792 and light crude. Any concerns about the SPR's makeup with those 793 issues, sir? 794 Mr. Winberg. Well, we are going to -- I don't have any 795 particular concerns about them. But that is part of the post-sale 796 configuration study to evaluate sweet crude versus sour crude 797 and what percentage we should have of both of those, given the 798 changing dynamics in the -- of oil production here in the United 799 States. But I don't have any particular concerns about them right 800 now. 801 Mr. Olson. My time is about to expire. I yield back. 802 Thank you. 803 Mr. McNerney. Mr. Upton. 804 Mr. McNerney. Well, I thank the chairman for holding the 805 hearing and I thank Mr. Barton for your work on it. I thank the 806 witnesses for your thoughtful answers so far. 807 Similar to the Northeastern gasoline supply reserve, what do you think about establishing a reserve in the West for hurricane 808 preparedness and other sorts of emergencies that we have out 809 810 there, as opposed to hurricanes, which we won't have?

811 Earthquakes. 812 Mr. Winberg. I think the same issues that we have -- our 813 concerns about our ability to develop a surface reserve and then 814 get that product in that surface reserve to the market where it's 815 needed or --816 Mr. McNerney. Well, I mean, you don't have a lot of warning 817 for earthquakes so you don't have an evacuation problem. 818 Mr. Winberg. Well --819 Mr. McNerney. You have some roads disrupted but, I mean, I think it's a better case to be made in the West where we could 820 821 have those difference sorts of emergencies. That's true. But if we have an immediate 822 Mr. Winberg. 823 earthquake situation, there is some road damage --824 Mr. McNerney. Right. 825 Mr. Winberg. -- that means that the gasoline can still 826 move in through the normal infrastructure and transportation 827 mechanisms that it would. There may be some that would be cut 828 off, depending on where the earthquake --829 Mr. McNerney. Right. 830 Mr. Winberg. -- happened and the effect of it and how many 831 roads or rails might be damaged. But, generally, there are 832 multiple routes into an urban area or a suburban area where there 833 is --834 Mr. McNerney. So we have a pretty good case to be made for 835 establishing those reserves -- the product reserves in the West? 836 Mr. Winberg. I am sorry. Say that again. 837 Mr. McNerney. We have a pretty good case to be made then 838 for establishing those reserves in the West? 839 Mr. Winberg. Well, I think if you had limited damage to 840 road or railroad infrastructure then you'd have to look at the 841 cost of establishing that reserve and maintaining it and whether 842 it would provide a lot of value in the case of -- in this example 843 of an earthquake situation. 844 Mr. McNerney. Okay. Changing the subject a little bit, 845 what about the challenges with respect to the infrastructure of 846 the existing SPRO facilities? 847 My understanding is that the extraction network 848 infrastructure was aging and not in very good shape. 849 the degradation of the caverns when you recycle -- when you put 850 in that water to push out the oil and so on. 851 Can you talk a little bit more about that existing 852 infrastructure? 853 Mr. Winberg. Sure, and I think there is two parts to the 854 infrastructure. One is the subsurface and then the other is the 855 surface. And on our Life Extension program, that we are involved in 856 857 right now, mostly that is surface infrastructure. So we are 858 talking about pipes, pumps, and motors and that type of 859 infrastructure. 860 And so we have got a program in place to upgrade that because,

861 as was mentioned earlier, the SPRO has celebrated it's 40-year 862 anniversary last year. 863 The subsurface infrastructure, while we have had a number 864 of withdrawals, the caverns are generally good for about five 865 withdrawals and then refills before you start to see a lot of 866 degradation. 867 And so part of the assessment that we are looking at in the 868 configuration study is the stability of the caverns, how much 869 erosion -- well, it's not erosion. It's really --870 Mr. McNerney. Well, I mean, five cycles doesn't sound like 871 a lot if we are going to be leasing out space. 872 Mr. Winberg. Well, those are the cycles given -- that's 873 how the -- what the caverns were designed for. If we leased it 874 out under commercial operation, we might see considerably more 875 than that because people store oil and they use it as a hedge. 876 877 The price goes up, they are going to want to withdraw, and 878 then they are going to want to reinfect. So it could happen many, 879 many times, not -- which is our concern about the integrity of 880 the caverns. 881 Mr. McNerney. What happens to the water when you inject 882 water to pressurize release? What happens to that excess water? 883 Does it just get absorbed into the landscape? 884 The water stays down into the -- in the cavern Mr. Winberg. 885 and if we refill it then we would extract the water.

886	Mr. McNerney. So it's
887	Mr. Winberg. Then we have to we have to treat the water.
888	Mr. McNerney. Is it better to be at 100 percent capacity
889	or is it better to be 90 percent capacity or some lower value?
890	Mr. Winberg. Operationally, it's probably always better
891	to be somewhere in the 90 to 100 percent. But there is a cost
892	associated with being at that capacity level. You're storing
893	oil in a lot of facilities.
894	Mr. McNerney. All right. I thank the chairman. I yield
895	back.
896	Mr. Upton. The gentleman yields back.
897	And before we move to Mr. Shimkus, Mr. Barton will have a
898	brief announcement here.
899	Mr. Barton. I have a point of personal privilege. In the
900	back of the room, my grandchildren two of my granddaughters
901	and my two daughters and their significant others are watching
902	the hearing and, in typical millennial fashion, they are sitting
903	on the minority side of the room.
904	[Laughter.]
905	If they would stand up and let us acknowledge their presence.
906	[Applause.]
907	Mr. Upton. Maybe we will let Mrs. Rush give them a call
908	as well.
909	[Laughter.]
910	Mr. Shimkus.
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911 Mr. Shimkus. Thank you, Mr. Chairman. 912 Mr. McNerney's just leaving but I wanted to follow up on 913 some of his comments because they had raised maintenance as an 914 issue and this was going to be my third question. But I am going 915 to bring it up just in the timely manner that he addressed it. 916 The GAO reported that the SPRO had experienced at least five major equipment failures since 2013 including a major pipeline 917 918 failure that shut down the Big Hill site for five years. 919 Could leasing underlie SPRO capacity help offset the cost 920 of operations and maintenance? 921 Mr. Winberg. Yes, and under two different scenarios. 922 we might make the upgrades and then roll that in to the price 923 of the lease or -- but that would require appropriations. 924 Another option, of course, is to have the entity leasing 925 the space to make those upgrades. 926 Mr. Shimkus. Yes. Based on my experience with the 927 appropriation committees, I wouldn't encourage the first course 928 I would think that maybe in the leasing agreement 929 of upgrades that would be a more straightforward process. 930 that's me. We also -- it was also talked about a little bit earlier 931 932 in the question and answers about spare caverns and I think you 933 -- being able to, in essence, lease those out and there was some 934 interest to that. 935 Did I understand that question and answer process? Another 936 member mentioned about excess space in other caverns and the ability to, you know, lease that out to private entities. 937 938 Mr. Winberg. Yes. Congressman, we have not yet tested the 939 market, if you will, on commercial interest in leasing the space. 940 That would be the subject of the request for information that 941 we will be sending out. Mr. Shimkus. Let me -- let me also talk about there has 942 943 been some debate about the refined product reserves that are 944 established and I think there is a cost to doing this, right? 945 A financial cost of setting these things up. 946 Mr. Winberg. Yes. 947 Do you know what it is for the East coast Mr. Shimkus. 948 refined product? 949 It's -- we spend between \$10 and \$30 Mr. Winberg. Yes. 950 million a year for, roughly, a million barrels of gasoline. 951 Mr. Shimkus. That's per year? 952 Mr. Winberg. Yes, sir. 953 Mr. Shimkus. So I think it's credible for us to have the 954 debate of a cost benefit analysis. If we are spending that much 955 millions -- \$25 million a year for 1 million of refined product 956 versus the timeliness of transportation and the access, I think 957 that's where the debate is. Everybody would like to have a 958 refined reserve available next door for disruption. 959 In the Midwest, we have tornadoes and things go down and

power goes off. But the question is, is \$25 million for 1 million

961	I don't think that makes financial sense.
962	So let me go to I wanted to raise that. The last thing
963	I want to address is U.S. will become a net energy exporter by
964	2022. That's the expectation. Do you agree with that?
965	Mr. Winberg. Yes, sir. I do.
966	Mr. Shimkus. Do you think there is a need for a strategic
967	petroleum reserve. I mean, I was a big supporter of this years
968	ago when we were worried about the our enemies around the world
969	shutting off the sea lanes because we were importing our crude
970	oil.
971	But if we are a net exporter does that even lend to the
972	question of whether we need a SPRO?
973	Mr. Winberg. I think it's difficult to forecast what kind
974	of geopolitical challenges we might have
975	Mr. Shimkus. Well, if we listen to Olson, Texas is going
976	to supply the whole world. So I
977	Mr. Winberg. But there is also the hurricanes and other
978	
979	Mr. Shimkus. And I would think that more speaks to pipelines
980	and diversification of a refinery basis and I think that's
981	occurring as we speak right now, too, with, you know, North Dakota
982	and some other places where we are having that occurring.
983	So those are just questions I pose. It's great to have you
984	here. We live in, you know, some exciting times. Whoever

thought that we'd be exporting crude oil and exporting liquefied

I I	
986	natural gas, and we all know the benefits for that just for our
987	balance and our income or the trade balance but also for our allies
988	who, in some places around the world, are being held hostage by
989	foreign powers who really don't like us that much.
990	So I appreciate it. Send my regards to the department and
991	with that, Mr. Chairman, I yield back.
992	Mr. Upton. Mr. Green.
993	Mr. Green. Thank you, Mr. Chairman. Thank you for being
994	here.
995	You have a couple Texans on the committee, both Republican
996	and one Democrat. But I have a district in east Harris County
997	and so the salt domes that are created are there in Chambers County
998	all the way through southeast Texas.
999	This Congress and previous Congresses have chosen to sell
1000	oil from the SPRO since 2015. The cumulative sale of these
1001	barrels 250 billion barrels could occur about 2027. Is
1002	that correct?
1003	Mr. Winberg. Yes, sir.
1004	Mr. Green. Okay. And leave us with the expected inventory
1005	of 410 million barrels?
1006	Mr. Winberg. 405.
1007	Mr. Green. 405. Okay. I know we talked about it one time.
1008	Over the years the SPRO had as much as 500 I mean, 725 million
1009	barrels. Is that correct?
1010	Mr. Winberg. Yes. Well, I think the capacity is 712
	NEAL D. CDOSS

1011	million barrels.
1012	Mr. Green. Okay. The although the authorization or the
1013	intent was to have a billion barrels?
1014	Mr. Winberg. Yes, I believe that's correct.
1015	Mr. Green. Back when it was created. You know, with what's
1016	happening today in the energy market I can't imagine us are
1017	we buying crude oil into the SPRO now?
1018	Mr. Winberg. No, we are not.
1019	Mr. Green. Okay. And because as a Texan, you want to buy
1020	it at 30 and sell it for 70 and so I would hope we would not be
1021	buying \$70 a barrel oil.
1022	One of the concerns I have is that during the Hurricane Harvey
1023	that was last year, Hurricane Ike that was 2008, even Katrina,
1024	because part of the SPRO goes into southwest Louisiana, has the
1025	storage facilities been damaged because of these hurricanes?
1026	Mr. Winberg. I think there was some surface damage but that
1027	damage has been repaired and the SPRO is fully capable of meeting
1028	its withdrawal requirements.
1029	Mr. Green. Okay.
1030	When the this crude oil is selling from SPRO on the open
1031	market, do you have any idea who's buying it? Is it you know,
1032	because I have five refineries in east Harris County that
1033	typically uses the heavier crude still, although they are
1034	retooling now because of the lighter sweet coming.

Is it typically local refineries that are buying that or

1036 are they other countries or anything else that you know of --1037 anyone who sells oil from the SPRO? 1038 We do know who's buying the crude and I don't Mr. Winberg. 1039 have the specifics here with me but I am happy to get that 1040 information to your office with respect to whether it was domestic 1041 or international purchases. 1042 You know, at one time, I think people would be 1043 concerned about someone from another country that's not an ally 1044 buying our crude oil. But since we are exporting crude oil now from everywhere 1045 1046 I can imagine on the Gulf Coast in Texas and Louisiana, that's 1047 probably not a big issue. 1048 Is the -- does U.S. or the DOE SPRO post-sale configuration 1049 study -- has it been completed? 1050 Mr. Winberg. No, sir. It's underway right now. 1051 we will complete it this autumn. The SPRO is a lot of different sites in 1052 Mr. Green. Okay. 1053 the salt dome because some of that salt dome underneath southeast 1054 Texas and Louisiana may have to be qualified or, you know, for 1055 -- how would we expand to get -- if we wanted to get to a billion 1056 barrels, how could we do that? Is it engineeringly possible? 1057 Mr. Winberg. Yes. Yes, we could develop more storage 1058 If we ended up selling into the commercial market and 1059 we needed to develop the brine drive system so that we could plug

the caverns and then reinject oil, we would need some additional

1061	caverns for the brine storage system.
1062	Mr. Green. We are currently required to maintain a 90-day
1063	supply of crude oil and, currently, we have a supply of about
1064	170 days. Is that correct?
1065	Mr. Winberg. Yes, sir. I think that's correct.
1066	Mr. Green. In DOE's opinion, are the current level of
1067	reserves adequate for future potential disruptions?
1068	Mr. Winberg. Yes, sir.
1069	Mr. Green. Okay. And, again, the market has changed so
1070	much because, literally, just down the road we are seeing a lot
1071	of crude oil produced. Although, again, it's typically lighter
1072	sweet than compared to the heavier crude.
1073	Mr. Chairman, I appreciate you having this hearing on the
1074	oversight. This is kind of in the neighborhood for those of us
1075	in southeast Texas. So we have a big interest in it.
1076	Thank you for being here.
1077	Mr. Winberg. Thank you.
1078	Mr. Upton. Mr. McKinley.
1079	Mr. McKinley. Thank you, Mr. Chairman, and thank you for
1080	the sponsors of this legislation to consider that.
1081	Mr. Winberg, you've some of your testimony has just raised
1082	more questions for me as a result. The one was your testimony
1083	you talked about the annual cost for this the gasoline
1084	reserve we have in the Northeast at about \$25 to \$30 million a
1085	year.
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1086 But I remember a few years ago we were having that discussion 1087 about this because it was done not by legislation but by -- through 1088 the administration, that as one of the discussions we have to 1089 replenish that -- that you can't -- gasoline does not have a shelf 1090 life very long. 1091 So do you -- is it physically empty and restored? How do 1092 you -- how is the mixture so that we know the age of that gasoline 1093 there? 1094 Mr. Winberg. We do roll the gasoline, Congressman. I don't 1095 know specifically how many turns we do. But I can find out for 1096 you. 1097 Mr. McKinley. I am just curious because if crude is selling 1098 for \$70 a barrel but you're selling refined product at only \$30 1099 a barrel, something's wrong with the math here. You must not 1100 be emptying it entirely and using it. 1101 So we can have more of a conversation. I am just curious 1102 to see how that's functioning there. Also, you talked about the 1103 five -- perhaps you can cycle about five uses or draw down about 1104 five times out of the salt dome. 1105 But if we go to this process -- this is what I am having 1106 a little concern with -- by leasing it out to other entities and 1107 then you indicated that perhaps they might want to draw down more 1108 often than five. 1109 Do you see a possibility that you will have them posting

bonds or some kind of verifications that they pay for the repairs

1111	to the salt dome if that other security so that someone with
1112	an outside interest could cause us to lose the integrity of our
1113	salt storage?
1114	Mr. Winberg. We believe we have a technical solution for
1115	the problem and that technical solution would be what we are
1116	calling the brine drive system.
1117	So rather than injecting fresh water into the salt cavern
1118	to lift the oil, we would inject a saturated brine solution.
1119	Mr. McKinley. I heard you I'd like to know a little bit
1120	more about that. I heard you talk about some additional brine
1121	that you had put back into that. That was interesting.
1122	How do you verify because we got the problem with the
1123	ethane storage hub up in the Appalachian area how do you verify
1124	the thickness of the walls of the salt dome in an existing while
1125	it's in operation?
1126	How are you doing that so that you could make a determination
1127	maybe five years it could reach its life? How do you verify that?
1128	Mr. Winberg. That's a great
1129	Mr. McKinley. The extent of their degradation.
1130	Mr. Winberg. That's a great question and, Congressman, I
1131	don't know the answer. But I will get back to you and let you
1132	know specifically what testing mechanisms we use to determine
1133	
1134	Mr. McKinley. Just one engineer to another engineer. I
1135	am just curious how you're going to do that.
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1136	And the last is more about security. I've never really
1137	actually seen a map that showed where our salt domes are located
1138	until today. I didn't want to know where they were.
1139	But if I know now, hostile actors can know where those salt
1140	domes are, and if they are that important to our national security
1141	why would we ever put it on a map where those things are?
1142	Mr. Winberg. Well, these are pretty large facilities and
1143	so people know where they are. They are very secure
1144	Mr. McKinley. My point, again how secure are they? If
1145	someone got we had that we lost at the Greenbriar we
1146	used to have a bunker there for congressmen to go hide until
1147	someone revealed where it was and then that we had to do away
1148	with that.
1149	Now we are revealing all where all these are our
1150	strategic reserve is 600 million barrels of gas or crude oil.
1151	The bad actors know exactly where that is. So if we had to
1152	abandon the Greenbriar what are we doing here?
1153	Mr. Winberg. Well
1154	Mr. McKinley. How secure is it?
1155	Mr. Winberg. Yes. We have an ongoing security program and
1156	so we are updating it, both physical security as well as
1157	cybersecurity. You know, we are opening up a new office in DOE,
1158	the CESER, which is going to address the cyber issues.
1159	The physical security issues that
1160	Mr. McKinley. It's not the cyber. I am talking about

1161	something a bad actor I don't I don't know that we have
1162	an Iron Dome outside these things. So I am just curious how we
1163	are going to protect them.
1164	Mr. Winberg. Well, they are fenced in. We have guards,
1165	guns, and gates.
1166	Mr. McKinley. I yield back. Thank you.
1167	Mr. Olson. [Presiding.] The gentleman yields back.
1168	The chair notes for the record that the Greenbriar is doing
1169	just fine because this week the Houston Texans started their
1170	practice for the football season at the Greenbriar.
1171	The chair now calls upon Dr. Bucshon for five minutes.
1172	Mr. Bucshon. Thank you, Mr. Chairman.
1173	Mr. Winberg, we spend more than \$200 million per year on
1174	SPRO management and operations, yet most of the equipment is
1175	beyond its serviceable life and there is a growing backlog of
1176	deferred maintenance.
1177	For example, GAO reported that this that the SPRO has
1178	experienced at least five major equipment failures since 2013,
1179	including a major pipeline failure that shut down the Big Hill
1180	site for five weeks.
1181	You're talking about changing to a brine-related way to
1182	extract oil. I mean, it seems like we need to catch up on this
1183	maintenance first.
1184	What's been the reason why we are there is a backlog of
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deferred maintenance and all the equipment is beyond its

1186 serviceable life and is there -- what can we do about it? 1187 I think the backlog is because we didn't have Mr. Winberg. 1188 appropriations sufficient to keep the facility in optimal 1189 operating condition. We now have our --1190 Mr. Bucshon. Okay. I am just going to interrupt you there for a second because that's the -- that's the -- I think that's 1191 1192 the answer we get from every federal agency no matter anytime 1193 we ask this question. 1194 But the appropriations -- what specifically -- were there 1195 requested appropriations that didn't get appropriated? 1196 there no appropriations or, I mean, there is more -- there is 1197 more to it than that, I would imagine. 1198 Would the gentleman yield? Mr. Barton. 1199 Mr. Bucshon. I will yield. 1200 I don't want to speak for the Department of 1201 Energy, but the draft legislation allows, without going through 1202 the appropriation process, funds generated by using this facility 1203 for private purposes to be used for maintenance of the facility. 1204 So we have tried to solve that problem in the legislation before 1205 us. 1206 Mr. Bucshon. Thank you, Mr. Barton, because that -- I am 1207 getting to -- that's going to be my next -- one of my next 1208 questions. 1209 So it sounds like we have -- probably had an appropriations

issue over the years.

1210

I get that, and it seems like we need to

1211 address that. 1212 So the question, and is a follow-up to what Mr. Barton just 1213 said, could leasing underutilized space, capacity, help offset 1214 the cost of operations and maintenance? 1215 Mr. Winberg. Yes, I think it could. Again, we need to test 1216 the -- we need to query the market and find out what value they 1217 place on this storage and what they are willing to pay for it. 1218 Mr. Bucshon. Yes. So potentially this draft legislation could help us solve what appears to be a long -- probably a 1219 long-standing issue with our maintenance and serviceable life 1220 1221 of our equipment being at the end of its serviceable life if we 1222 find more money and put that into operation and maintenance. Also, most of the time it sits idle, could some of the spare 1223 1224 caverns -- and I think you went over this and the answer is yes 1225 -- be commercialized in such a way to improve its overall 1226 operational readiness? 1227 Mr. Winberg. Absolutely. Yes, sir. 1228 Mr. Bucshon. And you described some of that -- I was 1229 interested in the fact that on a commercial basis you'd have to 1230 have more going in and out all the time, right? Couldn't you 1231 -- could you isolate that to the commercial space versus the 1232 noncommercial space? 1233 So you're not talking about the entire -- the entire reserve

being accessed all the time. Were you talking about a way to

cordon off, so to speak, what we would -- what we could utilize

1234

1236	and in that way the caverns wouldn't of the whole reserve
1237	wouldn't be at risk.
1238	Mr. Winberg. That's correct. We would we would utilize
1239	the brine drive system in those caverns where we were discharging
1240	and refilling on a frequent basis for commercial purposes.
1241	Also, I spoke earlier about leasing this some of the space
1242	to other countries that are members of the IEA activity and in
1243	that case then those countries would not be withdrawing and
1244	injecting on a routine basis, and by having that capacity our
1245	overall costs likely would go down because we would have more
1246	oil stored so you'd spread the cost out over
1247	Mr. Bucshon. Right. So we would do that on a build-out
1248	basis or they would pay for it or we'd build out what they need
1249	or they'd pay for that?
1250	Mr. Winberg. Well, I think we would utilize the excess
1251	capacity we have and if there was a big enough market I think
1252	we could look at building out additional. But we are going to
1253	have 300 million barrels of capacity when we finish the draw down
1254	in 2027.
1255	Mr. Bucshon. Understood.
1256	Thank you, Mr. Chairman. I yield back.
1257	Mr. Olson. Thank you.
1258	Mr. Duncan, five minutes for questions, sir.
1259	Mr. Duncan. Thank you, Mr. Chairman.
1260	You know, there is no doubt that demand for oil is much
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1261	greater now than when the SPR was originally developed, and I
1262	wonder is the SPR big enough to have an impact in the case of
1263	a real crisis in the 21st century. Is it big enough?
1264	Mr. Winberg. I think it probably is big enough.
1265	Mr. Duncan. Is it storing enough?
1266	Mr. Winberg. I think it is storing enough right now. As
1267	we move into 2027, we are going to be very close to meeting our
1268	IEA requirements. In fact, we
1269	Mr. Duncan. Have you all looked at the demand as it as
1270	it applies in the 21st century here and 2018, right, or
1271	Mr. Winberg. Yes, we have. But a balancing factor for
1272	that, of course, is that we have much more domestic production
1273	and that domestic production, while it takes several months to
1274	come online, it's much quicker than it was before the
1275	unconventional oil plays became commercial in the United States.
1276	So we are down to four or five or six months to get wells
1277	online as opposed to
1278	Mr. Duncan. Well, let me just let me ask you this. In
1279	your opinion, has SPR been used effectively over the past four
1280	decades to respond to oil price volatility?
1281	Mr. Winberg. I believe it has, yes.
1282	Mr. Duncan. Has been used effectively? Okay.
1283	Has it been appropriately used as a tool to balance supply
1284	and demand?
1285	Mr. Winberg. I don't think it's that's not its purpose

to balance --

Mr. Duncan. I remember the oil shortage in the 1970s and since then we really haven't had a true oil shortage. We have had price volatility, right?

So given the change in landscape, the fact that the United States is now a net exporter, do you see the SPR being able to balance the supply and demand or even necessary to balance the supply and demand when we have an abundant supply?

Mr. Winberg. Well, the purpose of the SPRO was never to balance supply and demand but, rather, its purpose was to be there in the event that there was a -- more of a crisis situation rather than short-term supply and demand imbalances.

And so that was its purpose. That still is its purpose, and I think where we are right now, even with the draw downs, given the fact that we have much more domestic production and that production can come on much quicker, I think that we have sufficient reserves and sufficient capacity with the SPRO.

However, getting to an earlier question, we do need to upgrade it and maintain mostly the surface facilities but also subsurface facilities to make sure that we can meet the --

Mr. Duncan. Let me ask your opinion about -- Congress has sold off some of the SPR in order to cover deficits and when we have had some of these crisis since I've been in Congress -- eight years -- it also seems like we always sell it for a lot less than we paid for it, and that's kind of opposite of buy low sell high,

1311 || right?

That's the first thing. Who manages what price point we purchase or replenish? If you've got a high-value asset that you paid less for, do you all play the market in that regard and sell it at a higher price and buy it again at a lower price to help the American taxpayer?

Mr. Winberg. When we have a release we do it under an auction mechanism. So we get the highest price that the market's willing to pay.

Under some releases, we -- where we have a test sale, for example, then whoever buys that oil has to replenish that oil plus an additional amount of oil.

So in that manner, we are paying for the cost of extracting oil from the facility. But the SPRO and the operation of the SPRO does not play the market, per se. We do it through an auction mechanism.

Mr. Duncan. Mr. Chairman, 30 seconds I've got left.

Since I've been in Congress, we have used the SPR as an opportunity to offset spending with cut-go or whatever, and that's wrong. This is a strategic petroleum reserve to help us in the time of a crisis and oil shortage or restriction of the flow of oil by OPEC like we saw in the late 1970s.

And I am always going to argue that this Congress and this government should not use this as a pay for. It should be used as it's designed.

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1336	But we also ought to manage it if you've got a bulk asset
1337	that you've got a high basis on sell it buy it low and help
1338	the American taxpayer.
1339	With that, I yield back.
1340	Mr. Olson. Thank you.
1341	Mr. Tonko, are you ready, sir? Are you ready? Five minutes
1342	for questions.
1343	Mr. Tonko. Thank you, Mr. Chair.
1344	Mr. Winberg, can you provide us with an update of DOE's
1345	current modernization plan and how great is the need to invest
1346	in the infrastructure in order to keep it operating effectively?
1347	Mr. Winberg. Yes. We to answer the second part of your
1348	question, I think the need is pretty great. This facility, as
1349	we have talked about, is over 40 years old.
1350	The last major upgrade was about 25 years ago. So we have
1351	piping, pumps, and valves that need to be replaced on the surface.
1352	So the need is pretty great. We have got a Life Extension
1353	program and we are developing that program so that, A, we can
1354	best handle the legislatively mandated sales, and then, B, the
1355	Life Extension program is being designed so that we can upgrade
1356	our systems to allow the SPRO to operate post-2027 for an
1357	additional 25 years.
1358	Having said that, the Life Extension program on the way it's
1359	been designed has enough flexibility so that if we decide we are
1050	

going to lease space to other countries or commercial leases,

1361 we have got enough flexibility in the program so that we can adjust 1362 it so that we are not using taxpayer dollars to upgrade systems 1363 that perhaps someone leasing would pay for. 1364 Mr. Tonko. Thank you. 1365 And do you believe there is private sector demand for SPRO 1366 capacity? 1367 That's a great question, and we don't know 1368 the answer to that yet. What we are planning to do is send out 1369 a request for information on RFI out into the marketplace and what we want to find out is, A, is there a need for government-owned 1370 1371 storage in the commercial market; B, how would they utilize that 1372 storage space if we leased it to them; and then, C, are there 1373 concerns or issues with the government leasing space in a market 1374 that has mostly been done by commercial entities. 1375 So and how would it compare to existing storage Mr. Tonko. 1376 options -- for example, a tank storage or --1377 Right. We don't yet know the answer to that Mr. Winberg. 1378 That will be informed by the RFI. question either. 1379 how private industry might want to utilize this storage, then 1380 we can put a cost, because there will be some capital needed in 1381 order to facilitate commercial activities. 1382 Mr. Tonko. And do you believe there is an opportunity to 1383 use the revenues raised by commercial leases to invest in 1384 modernization to benefit the public's use of SPRO?

Mr. Winberg.

1385

I think there might be. But, again, we will

1386 -- we are a little bit early in the process to know that right 1387 now. 1388 But that's, certainly, the hope, and I think if there wasn't 1389 value to the taxpayer I would -- I'd question whether or not we 1390 want to enter into this type of arrangement. 1391 Okay. And SPRO is able to draw down and deliver Mr. Tonko. 1392 crude oil within 13 days? 1393 Mr. Winberg. Yes, sir. 1394 Mr. Tonko. Are you confident that space can be leased 1395 without slowing down the federal government's ability to utilize 1396 SPRO? 1397 Mr. Winberg. That would be one of the key issues or key 1398 elements of any leasing program that we entered into with 1399 commercial clients but also with other countries, if we chose 1400 to go that route. 1401 The American taxpayers bought and paid for this thing. 1402 have maintained it for the last 40 years. So our responsibility 1403 is to the U.S. taxpayers to make sure that, A, we are meeting 1404 our domestic oil requirements and, B, that we are meeting our 1405 international requirements as well. 1406 Mr. Tonko. And I appreciate that. 1407 In the Northeast, we are particularly vulnerable to supply 1408 disruptions, which can be caused by natural disasters such as 1409 a hurricane like Superstorm Sandy. 1410 The Northeast gasoline supply reserve was created to

1411	mitigate those risks and, thankfully, it hasn't been needed yet.
1412	But that doesn't mean it won't be needed in the future.
1413	So I would really caution the administration against trying
1414	to dissolve this reserve. I think, again, for our region of the
1415	country it's of great concern.
1416	And with that, I thank the chair and yield back.
1417	Mr. Olson. Thank you.
1418	And seeing no more further witnesses, members seeking to
1419	ask questions, I'd like to thank you, Mr. Winberg, for coming
1420	today.
1421	All members should know they have five days to submit
1422	questions for the 10 days another panel. Okay. I'll back
1423	off.
1424	Thank you, Mr. Winberg. Before you leave, as Vice Chairman
1425	Barton will confirm with your boss, you have to say gig 'em over
1426	and over. Thumbs up. Gig 'em, Aggies.
1427	Mr. Winberg. Thank you.
1428	Mr. Olson. Uh-oh. Is your mic? You sure? One more time.
1429	Thank you, Mr. Winberg.
1430	Mr. Winberg. Thank you.
1431	Mr. Olson. Second panel, please come up.
1432	It looks like we are ready so let's kick off the second panel.
1433	Our witnesses for the second panel today include Mr. Frank
1434	Rusco, director of natural resources and environment at the GAO;
1435	Mr. Daniel Evans, project manager for Fluor Federal Petroleum

Operations; and Mr. Kevin Book, managing director for ClearView Energy.

We are so thankful for you all being here today. We will begin this panel with Mr. Frank Rusco. You are recognized for five minutes to give an opening statement.

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1441 STATEMENTS OF FRANK RUSCO, DIRECTOR, NATIONAL RESOURCES AND 1442 ENVIRONMENT, GOVERNMENT ACCOUNTABILITY OFFICE; DANIEL M. EVANS, 1443 PROJECT MANAGER, FLUOR FEDERAL PETROLEUM OPERATIONS; KEVIN BOOK, 1444 MANAGING DIRECTOR, CLEARVIEW ENERGY PARTNERS, LLC 1445 1446 STATEMENT OF FRANK RUSCO 1447 Thank you, Mr. Chairman, Ranking Member, and 1448 members of the subcommittee. 1449 I am pleased to be here today to discuss our recent report The SPR is an important energy 1450 on DOE's management of the SPR. 1451 security asset capable of mitigating negative effects of global 1452 oil supply disruptions in concert with other IEA member countries. 1453 In several collective actions of IEA members, the SPR has 1454 been effective at adding oil supply during actual or expected 1455 supply disruptions. 1456 To date, however, the SPR has most often been used in response 1457 to domestic supply disruptions caused by extreme weather. In 1458 such events, the SPR has been less effective because SPR 1459 infrastructure has not been able to deliver reserves when, where, 1460 and in the form they are needed. In particular, when severe weather has battered Gulf Coast 1461 1462 states, damaging refineries or electricity grids needed to run 1463 pipelines, SPR oil reserves in the Gulf Coast have not been 1464 effective in mitigating what have generally been shortages in 1465 finished petroleum products such as gas line and diesel fuel.

1466 Most IEA member countries hold significant parts of their 1467 strategic reserves as petroleum products. DOE has studied such 1468 product reserves and the conclusions of its studies point to net 1469 benefits in some regions. 1470 Yet, DOE has disagreed with our recommendation to complete 1471 these studies and advise Congress of its findings. 1472 In addition, we found that DOE's most recent strategic 1473 analysis of the SPR, which was mandated by Congress, was deficient 1474 in several key ways. These deficiencies denied Congress better information to 1475 1476 make decisions about the size, disposition, and configuration 1477 of the SPR. 1478 For example, DOE did not do adequate risk-based scenario analyses of when the SPR may be called upon to deliver oil or 1479 1480 petroleum products and, as a result, DOE cannot advise Congress 1481 on even a credible range of sizes, composition, or disposition 1482 of reserves that would best enhance energy security across a range 1483 of potential future events. 1484 Further, in part, because of the way in which the SPR has 1485 been used over the years and in part just because needed 1486 maintenance has been deferred for many years, the SPR storage 1487 and delivery infrastructure is in serious disrepair. 1488 DOE's current plan is to rebuild the existing SPR 1489 infrastructure in its historical configuration and capacity. 1490 If this is done and, given planned future sales of SPR oil, the SPR will have excess storage capacity in the future.

However, DOE made its plan to rebuild and repair SPR infrastructure without adequately studying alternatives, including selling or leasing such excess capacity.

The discussion draft that is the focus of this hearing goes a long way toward requiring DOE to rectify some of the deficiencies in its strategic study and its SPR modernization plan.

Specifically, the discussion draft requires DOE to take actions to evaluate and test the market for leasing its excess capacity by, one, authorizing the leasing of storage and related facilities to private sector and foreign entities; two, directing revenue earned from such leases to the general fund and to cover costs associated with leasing; and three, requiring a pilot program to lease 200 million barrels of excess capacity.

To make fiscally prudent decisions about how to implement such a pilot, DOE will have to conduct additional analyses. For example, DOE's decision to use fresh water to displace oil during releases has caused the SPR's salt caverns to deteriorate over time with use.

Fresh water absorbs salt, which increases the size and alters the shape of caverns and damages their integrity. Alternatively, there are salt cavern facilities operated by the private sector that use brine to displace that oil during release, which does not have these effects.

Brine ponds add operation and maintenance costs but increase

1516	the life of caverns. Ideally, GAO should evaluate this and many
1517	other factors we have identified before finalizing its
1518	modernization plans to ensure the SPR is run in an effective and
1519	fiscally prudent manner.
1520	Thank you. This ends my oral remarks. I'll be happy to
1521	answer questions.
1522	[The prepared statement of Mr. Rusco follows:]
1523	
1524	********TNSERT 4******

1525	Mr. Olson. Thank you, Mr. Rusco.
1526	Mr. Evans, five minutes for an opening statement, sir.
1527	Microphone, please. Sounds like hit the right button
1528	here.
1529	Mr. Evans. I am here. There we go. Start again.

STATEMENT OF DANIEL EVANS

Mr. Evans. Good morning, Vice Chairman Olson, Ranking Member Rush, and members of the Subcommittee on Energy.

I am the project manager for Fluor Federal Petroleum Operations, Dan Evans. We are the maintenance and operation contractor for the Department of Energy at the Strategic Petroleum Reserve since 2004.

Fluor's partnerships with DOE date back to the Manhattan Project. Today, in addition to the SPR, we are currently active in roles with DOE facilities that are part of the Environmental Management and National Nuclear Security Administration missions.

The congressionally-mandated sales have changed the day-to-day operations of the SPR dramatically. The sites have gone from a 4.4 million barrel per day draw down and readiness posture to maintaining draw down readiness while at the same time conducting intermediate variable rate deliveries from the reserves.

Working with DOE, Fluor has met this challenge. One example is the response to the impacts to Hurricane Harvey. We were able to maintain mission draw down readiness throughout the event and deliver approximately 5 million barrels of crude oil to refineries in need.

I would like to note that to support this need, certain

1555 employees volunteered to leave their own homes at peril, their 1556 whole families, and endure the hurricane at the Texas sites. 1557 They provided day-to-day monitored conditions and real time 1558 updates on the readiness for us to fill the nation's mission. 1559 The dedication of SPR employees to the mission is American 1560 exceptionalism at its finest. 1561 The sales have and continue to put a significant level of 1562 stress on aging SPR infrastructure. In some cases, we have 1563 postponed planned maintenance and diverted funding to address 1564 emergency repairs. 1565 As we continue the draw down over the next nine years, 1566 Congress should not lose sight of the importance of the SPR's 1567 annual maintenance funding to be able to address the needs of 1568 the sites and make necessary repairs to execute the current 1569 contemplated draw down schedule. 1570 Next, I would like to address the ideas raised by the 1571 subcommittee's discussion draft. Fluor, of course, stands ready 1572 to support the leasing and operation of underutilized cavern 1573 capacity. 1574 We anticipate in the particular draft legislation the 1575 committee has provided the authorization without further 1576 appropriation to use a portion of leased revenue cost related 1577 to storage and removal incurred by the SPR as a result of releases.

operates under one of two models -- segregated or co-mingled.

Commercially-leased petroleum storage currently presently

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In segregated storage, the product accepted for storage is the same product that is ultimately delivered. Under the co-mingled model, a limited range of products are accepted for storage.

When a withdrawal is made, a product of agreed to specification is then provided to the owner of the equivalent product that was accepted into storage.

Either model presents challenges for leasing at SPR facilities while maintaining government inventories.

Presently, the government practices intensive inventory management -- segregating crude oil by two specifications and tracking the volumes down to the very barrel not only across caverns but also with piping, pipelines, and crude oil storage tanks.

If the SPR designates specific caverns to be leased for storage under the segregated model, the cavern is nonetheless integrated into the site infrastructure.

The operation of a storage cavern requires routine ability to convey crude oil, water, and salt brine in and out of the cavern for purpose of preventative and corrective maintenance.

The cycling of fluids in and out of leased caverns with equipment in common with the SPR storage caverns will, inevitably, lead to co-mingling of government and commercial assets which will, in our opinion, require additional capital investments.

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1605 The co-mingled model shares the same challenges of the 1606 segregated model and also adds additional complexities in terms 1607 of product quality matters and tracking thereof. 1608 In conclusion, two policy issues require resolution prior 1609 to implementing a lease storage concept. The first, it's a target 1610 inventory of the SPR. 1611 Congress should also carefully consider the overall leasing 1612 concept to be adopted. We strongly recommend that should 1613 Congress move forward with a leasing regime, it allows sufficient time to make this determination and to develop and physically 1614 1615 implement the necessary SPR enhancements. 1616 Mr. Vice Chairman, thank you again for the opportunity to 1617 appear here today. I stand by to answer any questions that you 1618 might have. 1619 [The prepared statement of Mr. Evans follows:] 1620 **********INSERT 5******* 1621

1622

Mr. Olson. Thank you, Mr. Evans.

1623

Mr. Book, five minutes for an opening statement, sir.

1624 STATEMENT OF KEVIN BOOK 1625 1626 Mr. Book. Thank you. 1627 Good morning, Vice Chairman Olson, Ranking Member Rush, Vice 1628 Chairman Barton, distinguished members of this committee. 1629 My name is Kevin Book. 1630 Energy Partners, an independent firm that analyses macro energy 1631 issues for institutional investors and corporate strategists. 1632 1633

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Thank you for inviting me to contribute to your discussion regarding modernization of the SPR. I would like to begin by offering my admiration for the foresight the U.S. Congress showed in creating the SPR.

I lead the research team at ClearView

In my view it remains one of the greatest energy security achievements in modern history. It still matters, too. with U.S. crude production averaging 11 million barrels per day during the week ending July 13, that surge is good news. But those barrels already have customers.

As a government-controlled stockpile, the SPR can provide emergency supply that comes from outside the market.

That said, ensuring against worldwide economic fallout and sheltering U.S. consumers may require a robust and well-functioning reserve capable of delivering its full design capability.

Today's discussion reflects that Congress has passed six major laws in the last four years that mandate, roughly, 300

1649 million barrels of oil sales from the SPR. 1650 Those sales could leave the SPR with approximately 400 1651 million barrels at the start of fiscal 2018. It, therefore, seems 1652 prudent to ask whether and how the resulting surplus storage 1653 capacity might be put to productive use. 1654 Today's legislative draft would expand storage leasing 1655 currently available to foreign governments so that private 1656 commercial entities could lease SPR space too. 1657 In my opinion, a pilot leasing program of this sort could potentially benefit U.S. producers and refiners in need of 1658 1659 additional storage. 1660 If that program also helped to preserve or expand SPR 1661 capabilities at the same time, it could enhance petroleum supply 1662 insurance for U.S. consumers, too. 1663 My testimony offers several additional considerations. 1664 From a feasibility perspective, DOE might wish to evaluate the 1665 costs of restoring, rehabilitating, or improving spare capacity 1666 to support the requirements of commercial lessees. 1667 requirements can differ in many cases from current long-term 1668 strategic storage requirements. 1669 DOE might also wish to evaluate availability of takeaway 1670 capacity from leased storage sites, especially in the absence 1671 of incremental SPR marine distribution capacity. 1672 Storage with faster deliverability can command a higher

market price also.

1674 From a competitiveness perspective, it may be useful for 1675 DOE to evaluate the market impact of introducing up to 2 million 1676 barrels of crude storage into the Gulf Coast, also known as PAD 1677 3. 1678 In March 2018, the Energy Information Administration, or 1679 EIA, counted 341.2 million barrels of working storage capacity 1680 at refineries, tank farms, and underground facilities in PAD 3. 1681 The agency assessed that about 49 percent of that capacity 1682 was in use of that time. That was a big change from two years 1683 earlier. 1684 Storage volumes grew by 29.7 million barrels since the EIA's 1685 March 2016 report and did not report the agency-assessed PAD's 1686 restorage capacity at a much higher 68 percent capacity 1687 utilization. 1688 It could be undesirable if additional low-cost 1689 government-run SPR storage were to crowd out existing privately 1690 operated facilities. 1691 Likewise, salt cavern storage tends to be significantly 1692 cheaper than thank storage and so-called floating storage in 1693 But draw down constraints and take-away leased tankers. 1694 bottlenecks could limit commercial demand compared to tank farms 1695 and ships. 1696 Finally, from a strategic perspective, capacity leasing 1697 should probably also reflect the vision Congress and the

department have for the reserve.

1699 For example, today's draft would allocate net balances to 1700 the general fund. It might be worth considering whether proceeds 1701 could also pay for expanded modernization. To this point, the U.S. has dramatically reduced its net 1702 1703 petroleum imports. But U.S. refiners still import gross volumes 1704 of about 6.3 million barrels per day. 1705 When they do, they pay global prices that reflect global 1706 supply demand balances. Today's oil prices remain high, relative 1707 to historical norms. Partly, this is because global oil production is itself 1708 1709 running at relatively high capacity utilization. Crude prices are also high because global inventories have thinned out. 1710 1711 Currently, OPEC producers are drawing on spare capacity to offset losses from collapsing Venezuelan production. 1712 1713 could lean even harder on spare production capacity to replace Iranian crude oil barrels. 1714 1715 That, by the way, set off my Siri. I apologize. I am not 1716 sure why. 1717 And what happens when the production system is stressed and 1718 inventories are lean and a big supply disruption occurs somewhere 1719 in the world? 1720 In that situation, without strategic reserves, the oil 1721 market must balance and painfully so on the backs of consumers. 1722 Preventing that result, in short, is the nature of the insurance 1723 the SPR provides.

1724	Mr. Chairman, this concludes my prepared testimony. I will
1725	be happy to answer any questions at the appropriate time.
1726	[The prepared statement of Mr. Book follows:]
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1729 Mr. Olson. Thank you, Mr. Book, and thank you, all our 1730 witnesses. 1731 I will now move into the Q and A portion of the hearing. 1732 I will begin the questioning. I recognize myself for five 1733 minutes. 1734 First of all, again, welcome to our three experts. A special 1735 welcome to Mr. Evans. Fluor Enterprise -- big tall building, 1736 one street light up from my official office area -- Sugarland, 1737 So welcome, welcome, welcome, dear friend. My first question is for you, Mr. Book. 1738 As a point on the 1739 first panel, Texas oil production is booming. I won't brag, but 1740 right now we are moving a lot of light crude to the coast about 1741 as fast as we possibly can. If the SPR were open to lease by the industry, do you think, 1742 1743 first of all, number one, there would be interest? Number two, 1744 would there be value as a holding location for more oil or would 1745 the benefits be in the uncertainties going forward with leasing 1746 this great asset we have, the SPR? 1747 Mr. Book. Congressman, I think bragging is appropriate and 1748 That crude is going to keep going to coast, you should be proud. 1749 as you say, and exported to global markets that can use it for 1750 value. 1751 I think Secretary Winberg was wise to suggest that an inquiry 1752 of commercial interest would be a good place to start.

the issues that you have right now is that you do have storage

1754 building at export and transit sites in the Gulf Coast and its 1755 building quite rapidly. 1756 The SPR could serve a different purpose for long-term storage 1757 But as the other witnesses have mentioned, it would 1758 require adaptation to be potentially useful for the kinds of 1759 commercial applications that different kinds of customers might 1760 use. 1761 But definitely there's going to need to be more storage if 1762 you in Texas keep producing more crude. Count on it, guaranteed. 1763 Mr. Olson. 1764 Second question is for you, Mr. Rusco. AS you know, the 1765 DOE has taken some steps in modernizing the SPR. 1766 work still remains and at the moment the SPR seems to lack a clear 1767 end goal. 1768 Can you talk about the most important steps DOE has taken 1769 -- what you think the best forward pathway forward to them to 1770 get this thing up and running to modernize? 1771 I am encouraged that the assistant secretary 1772 was talking about testing the market and going out and trying 1773 to figure out what the market is and also that is cognizant of 1774 the differences in a way that different entities might use excess 1775 capacity. 1776 So it's our cost of storing fuel -- oil in the ground is 1777 much lower than most IEA members' costs and there are members

that would like to store oil in our reserves.

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So that may be

1779 ultimately the best way. But you got to test the market to know. 1780 I am encouraged about that. 1781 What I am concerned about is DOE has not done a good job 1782 of periodically assessing how the market has changed, how energy 1783 security issues have changed, and doing complex risk-based 1784 analysis involving scenarios of possible use. That's what they 1785 need to do. 1786 Mr. Olson. Thank you. Mr. Winberg is right over your left 1787 shoulder. So message accepted and sent. Thank you so much. Final questions for you, Mr. Evans, of Fluor. The SPR sites 1788 1789 are made for long-term storage. But we certainly have a lot of 1790 maintenance issues. 1791 Fluor has been maintained as this asset for over almost two 1792 decades, as you said. Can you please tell me about the most common 1793 cause of maintenance issues and whether the DOE or the private 1794 sector can be better suited to fix these problems as quickly as 1795 possible? 1796 So the most common maintenance issues that we 1797 face today are with regards to the equipment that was not placed 1798 during Life Extension One. That was the '91 to '95 time frame. 1799 We have a lot of piping valves, actuators, and those kinds 1800 of pieces of equipment that are 40 years old. We did have a 1801 rupture in a low-pressure fresh water system at the Big Hill that 1802 was a dramatic one and that's our second significant rupture 1803 there.

1804 We find more and more common leaks and we are able to deal 1805 with them very quickly. But Life Extension Two, and if it's 1806 smartly coupled with a concept to commercialize could replace 1807 and deal with, those highest level of common kinds of maintenance 1808 risks. 1809 We also have a very old degasification plant that's on its 1810 last legs at the West Hackberry Louisiana site. Part of LE2 then 1811 is to recycle that and come in with a new much more modular modern 1812 design that will be more efficient to make sure that we can deliver crude oil even during difficult hot months -- the end of the 1813 1814 pipeline system. 1815 Thank you, Mr. Evans. Mr. Olson. 1816 My time has expired. Now the chair calls on the ranking member of the 1817 1818 subcommittee, Mr. Rush, for five minutes. 1819 I want to thank you, Mr. Chairman. 1820 I want to ask each witness if you would give me feedback 1821 on this draft legislation. 1822 Do you feel that there is a need for the draft or you --1823 do you find it helpful or are you concerned about any of the 1824 unintentional consequences? And I would like to just ask each 1825 one of you if you would respond to the question, and beginning 1826 with you, Mr. Rusco.

an important issue that DOE had not been thinking about when they

I think that the draft legislation addresses

Mr. Rusco.

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1829 planned their modernization and that is that there is going to 1830 be excess capacity. 1831 And it makes good sense to try to use that capacity in a 1832 way that can help pay for the modernization and pay for the routine 1833 operations and maintenance so that we don't end up 10, 20 years 1834 later with a bunch of deferred maintenance and depreciated 1835 usefulness of the assets.

> Mr. Rush, we at Fluor here to implement these Mr. Evans. at the pleasure of the Congress and the department. We certainly would be responsive in the near term to integrating immediate team needs to, as I mentioned earlier, to go the market to understand what market demands are, to perform engineering and operations analysis studies that would take a look at what we needed to do to operate under market conditions.

> Number three, see how to fully integrate those with Life Extension Two so we can take advantage of the significant change in investment that Congress is making in the SPR, and then do all the environmental studies necessary as well to make sure that that operates as integrate smart hole.

> I do think that, with the addition of things like brine caverns that were mentioned earlier by Secretary Winberg, those would be very beneficial for overall operation in the long run for the SPR for the government as well as for commercial customers.

Mr. Rush. Mr. Book.

Congressman Rush, I think it's a good idea to Mr. Book.

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1854 make best use of what you have, particularly if you have a way 1855 of making money for the taxpayer using an asset owned by the 1856 That's always a good idea. taxpayer. 1857 You asked about unintended consequences and I think that 1858 Secretary Winberg has already suggested that he wants to take 1859 a look at it -- the implications of this. Part of understanding 1860 the role of government is understanding the way in which 1861 government actions can impact private investment. 1862 It's always a bad idea to lean too heavy with the government 1863 on something that where private industries put capital to work. 1864 And so if I had any concern it would be that -- that there 1865 would a risk potentially of commercially undercutting existing 1866 investments. But until one looks at it, there's no reason to not proceed 1867 1868 with looking into it. 1869 I want to thank each and every one of you. 1870 Mr. Rusco, in your testimony you state that if DOE is 1871 authorized to lease unused small storage capacity to the private 1872 sector, as this bill would do, this leasing capacity could 1873 generate revenue that could help offset the costs of 1874 modernization. 1875 Are you confident that DOE will indeed look at this issue 1876 and, if not, what are some of the missing opportunities of not 1877 examining this particular topic or subject? 1878 I am confident that DOE will pay attention to Mr. Rusco.

1879	what you all do and my concerns are sort of where the bill doesn't
1880	specify what to do and DOE has not been very proactive in
1881	evaluating the strategic, you know, purpose and future on an
1882	ongoing basis of the strategic petroleum reserved and, hence,
1883	we got to a point where we, clearly, according to a lot of folks
1884	in Congress had more oil than we ought to have.
1885	There's been a lot there's going to be a lot of drawdowns.
1886	But that was done without a really quality strategic look at
1887	the pros and cons of that from DOE.
1888	Mr. Rush. Well, thank you, Mr. Chairman. I yield back.
1889	Mr. Olson. Thank you.
1890	The chair now calls upon the one man who knows more about
1891	this topic than any single human being in Congress, vice chairman
1892	of the full committee, Chairman Joe Barton.
1893	Five minutes, sir.
1894	Mr. Barton. Well, I am not sure that's true, Mr. Chairman.
1895	But if it is true that still doesn't say much.
1896	So well, but it does point out a fact is that there really
1897	hasn't been a strategic look at the SPR in a long time and the
1898	last three or four Congresses, as our oil production has ramped
1899	up in the United States, especially since the repeal of the crude
1900	oil export ban and our ability to lessen our imports, the Congress
1901	is using this as a piggy bank and it's not being evaluated.

own committee -- we did it the last Congress.

It's we need money -- let's take oil out of the SPR.

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21st Century Cares

1904 -- we needed some money, we've got jurisdiction over the SPR so 1905 we just said we are going to use the -- we are going to sell some 1906 The Budget Committee is using it. The omnibus oil and use it. 1907 is and the appropriation process is. 1908 Long story short, under current law, even though it says 1909 only the president can make a decision to use the reserve and 1910 he has to declare that it's a national emergency, Congress says 1911 not withstanding any other law we are going to sell oil for this 1912 or that or bacon fat.

> And so this draft bill before us says we don't want to change the basic mission statement but we want to add a mission statement. Under current law, you can't use the SPR for storage for private It's illegal. purposes.

> And so we decided let's see if maybe the private sector wants Now, Mr. Book's concerns -- we don't want the private -- we don't want the private sector to be crowded out on storage I think that's valid. capacity.

> But it's not mandatory. We are going to -- if we don't -if we don't sell another barrel of oil other than what we've already authorized, we are going to have over a 100 million barrels of existing capacity that could be utilized -- maybe two -- we were authorized up to a billion barrels. But we don't have the capacity -- current physical capacity but about a little over 700 million.

Let's see if the private sector might want to use that, and

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85 1929 this problem of being able to maintain the reserve because it 1930 has to be appropriated -- we've got to ask the appropriators to 1931 appropriate it -- and some years they do, some years they don't. 1932 We changed that. We give the specific authority to the 1933 secretary. All the money goes into the general fund. 1934 allow money from rentals fees, so to be used to maintain and 1935 improve the reserve without appropriate -- and go through the 1936 appropriation process. That puts control in this committee in 1937 the Energy and Commerce. So we are trying to fix that problem. 1938 I quess I will ask 1939 Mr. Book, given the existing market dynamic, would the private 1940 sector decide to utilize the reserve to store their own crude 1941 What's your bet on that? 1942 Mr. Book. Well, if you ask an analyst to take a bet you're 1943 probably going to get an analyst answer. It could be right or 1944 wrong and I will come up with a new one for you when it's wrong. 1945 But the private sector breaks down into different sets of 1946

But the private sector breaks down into different sets of customers. So you do have folks who are trading oil, and when the future price of oil is higher than the current price of oil, there's an incentive to store.

They're going to want to move oil out of their storage pretty quickly when the market turns around, as it sometimes does. And then you have the government customers that we mentioned and other potential long-term storage customers or longer-term storage customers and we have different needs.

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1954 And I think until you ask and see what's on offer out there, 1955 it's hard to know. Right now, what you have are mid-stream 1956 companies that are building out storage as their developing transit capabilities, leasing that storage, and coming up with 1957 1958 innovative new ways. 1959 But they're having to pay capital costs to build Mr. Barton. 1960 and operate it. 1961 Well, that's right. Mr. Book. They do have --1962 And under this case, you have existing capacity 1963 that it's a lease or a rental -- I am not sure how they would 1964 -- how we would do it. But there's no upfront cost, except a 1965 commitment -- probably a time certain commitment. 1966 Mr. Book. Yes. I mean, the costs of salt cavern storage 1967 are generally cheaper than tank storage and certainly cheaper 1968 than leasing a ship to store it and then floating storage when 1969 things get tight. 1970 So it could be very competitive. 1971 Well, what we're -- what we are trying to do 1972 -- Mr. Rush and I -- we are trying to -- we have an asset that's 1973 We are going to have excess capacity. underutilized. 1974 Why not have a new mission statement that complements the 1975 private sector -- allows the private sector but doesn't mandate 1976 Maybe it'll work. Maybe it won't. the private sector? 1977 But we are not going to be worse off than we are and we will

probably be better off if the private sector makes a decision

1979	to utilize it because it's going to give some funding that's at
1980	the discretion of the secretary of energy to improve the facility
1981	and I think it's worth a shot.
1982	But there may be other ideas. Anyway, my time has expired.
1983	Mr. Olson. Thank you. The chair now calls upon the
1984	gentleman from California, Mr. McNerney, for five minutes, sir.
1985	Mr. McNerney. Well, thank you, Mr. Chairman.
1986	I appreciate Mr. Barton's remarks about this. But I have
1987	a question. Is sort of a philosophical question is leasing
1988	capacity to foreign governments or private entities is that going
1989	to degrade the capacity the long-term capacity of the caverns?
1990	Mr. Evans.
1991	Mr. Evans. I am not an expert in the interests of foreign
1992	governments. I think that if appropriately handled that the
1993	caverns themselves can remain integral, if we use brine drive
1994	to be able to handle those issues and do multiple small drawdowns
1995	that we could continue to operate those in the interests of the
1996	government, should we wish to terminate agreements with either
1997	commercial or foreign countries.
1998	Mr. McNerney. Well, Mr. Rusco, do you believe that the
1999	current proposed legislation will give us enough information to
2000	provide that guidance to the operating SPRO effectively and not
2001	degrading its capability?
2002	Mr. Rusco. I think it's I think that the implementation
2003	of this legislation by DOE would have to matters a lot. They

2004 would have to implement this in a way where there are controls. 2005 So, for example, if they were to lease this to other IEA 2006 members, lease the access capacity to store long-term oil, which 2007 I want to say we have the cheapest -- the cheapest storage of 2008 anybody in the world and we know of at least two countries that 2009 have actually contacted DOE about leasing space like this. 2010 If you did that, then you're really enhancing global energy 2011 security because you have longer -- you have larger storage of 2012 crude oil in exactly the same place that it would be if we owned 2013 it all. 2014 Now, if the private sector owns it, then we have smaller 2015 capacity here. Other countries have to have their storage 2016 capacity somewhere else. So my question is does the proposed 2017 Mr. McNerney. 2018 legislation give us and you and the operators the capability to 2019 operate it in a way that would be beneficial rather than 2020 detrimental to the long-term capacity? Or does it need to be 2021 enhanced or improved? 2022 I think that what I have read, which is just Mr. Rusco. 2023 the discussion draft, that there -- you could implement this in 2024 a way that would give you flexibility to say okay, we want more 2025 -- if we want more of that capacity for our own storage, then 2026 when a contract is terminated you could take it back and use it 2027 as U.S. storage. So I believe it would have that flexibility. 2028 Mr. McNerney. Okay. Thank you.

2029 Again, Mr. Rusco, do you think there's a good enough case 2030 for product reserve capacity in the western part of the country 2031 -- on the West coast where we have earthquakes? 2032 We looked at studies that were done by DOE and 2033 those studies came to the conclusion that in the case of the 2034 Southeast and the West Coast there were net positive benefits to these things. 2035 2036 DOE chose not to release those reports. They say they're 2037 not complete. They've chosen not to complete those reports. 2038 But everything that is in those reports indicates that there are 2039 net positive benefits to that. 2040 Mr. McNerney. Thank you. 2041 Mr. Evans, you talked a little bit about co-mingling and 2042 the inevitability of co-mingling, and refineries are specialized 2043 in terms of the kind of oil they take. 2044 How is the co-mingling going to impact the refineries' 2045 ability to produce product -- gasoline and other products? 2046 I think the -- it's a great question. 2047 particular demand would be somewhat different, Congressman. 2048 But, however, if we were to lease to a, say, a shell or a 2049 commercial entity, the crude oil that would be stored there in 2050 their own cavern, if you would, you would think that it would 2051 make sense for them to store the material that they would utilize 2052 most effectively in terms of a turnaround of a refinery without 2053 product.

2054	So I think the market handles that piece. We'd have to be
2055	very careful about co-mingling the crude oil with the government
2056	oil, and those are practices that are commonly done this is
2057	not an impossibility.
2058	But we are, for example, very sensitive to a high gas content
2059	oil in our reserves. We believe that's very detrimental to the
2060	overall safety and quality of the reserves.
2061	So we have to manage that extremely carefully. We think
2062	our current regime is a good one in terms of being able to respond
2063	to refinery needs on an instant basis and if we were able to add,
2064	similarly, that to that mix within the right blend level, that
2065	that ought to be utilized well as well.
2066	Mr. McNerney. Thank you.
2067	Mr. Chairman, I yield back.
2068	Mr. Olson. Thank you.
2069	Mr. Doyle, five minutes for questions, sir.
2070	Mr. Doyle. And I thank you to the witnesses today.
2071	Let me just ask all the witnesses it's been noted I think
2072	in Mr. Rusco's testimony that the U.S. will become a net exporter
2073	in the late 2020s but then become a net importer again in 2040,
2074	2050s.
2075	So in your opinion, how should the U.S. be prepared for this
2076	long-term outlook for the SPRO?
2077	Mr. Rusco. Our most recent report is not the first time

we've recommended to DOE that they do periodic strategic studies

2079 of conditions and report to Congress about what they see coming 2080 down the pike. 2081 So if we see a situation where our net imports are going 2082 to be increasing over the next few decades at some point, DOE 2083 should be up here talking to you all and saying we need to rethink 2084 our capacity. 2085 Similarly, if they think that they're -- that risks have 2086 either reduced or increased of global supply disruptions or if 2087 there's big changes to demand or supply in any other way, all of that stuff needs to be modelled on a regular basis so that 2088 2089 they can give you really quality information so you can make good 2090 decisions. 2091 Do you agree with that, Mr. Evans? 2092 I think the market volatility is very Mr. Evans. I do. 2093 significant right now. I am not an expert in global markets. 2094 But reading the newspaper leads me to believe that there are 2095 a number of scenarios that could be invoked over time and, 2096 certainly, a value in having reserves. 2097 Mr. Doyle. Mr. Book. 2098 I think it would take -- humility would be the Mr. Book. 2099 minimum requirement for anyone looking at the global oil market, 2100 given how much things have changed over the last 10 years. 2101 Mr. Doyle. Yes. Thank you. 2102 Mr. Rusco, you mentioned that \$2 billion from the sale of 2103 crude oil from the SPRO is authorized for the modernization

2104 program. 2105 Has this been implemented, in your opinion, effectively so 2106 far and do you have a status update on the use of these funds? 2107 I don't. I don't have an up to date status. 2108 I know that there have been some sales. I think it's \$700 2109 million. But I don't think most of that money or much of that 2110 money has actually been spent. 2111 I think that DOE is further -- doing some further analysis 2112 before they actually spend that money. But I can't give you much I could give you something for the record. 2113 more of an answer. 2114 Mr. Doyle. Okay. Thank you. 2115 Mr. Evans, how safe is the current infrastructure and how is your company prioritizing and planning for long-term safety? 2116 2117 So we are very safety conscious. You will note 2118 our last three years on the SPR are the safest years that we have 2119 seen in the 40-year operation. It's one of Fluor's core values. 2120 2121 We are very sensitive to the infrastructure and the quality 2122 of the infrastructure. We run routine programs and 2123 investigations that will allow us to take a look at the quality, 2124 for example, of the piping and those kinds of things. 2125 In the short term, it's manageable with, for example, the 2126 degasification unit it's on its last legs. We are not going to 2127 extend that unit. It simply is infeasible and impossible to do 2128 that.

2129 When we invest in Life Extension Two, we'll specifically 2130 look at those old and perhaps more risky components that need 2131 to be removed and to see how we can possibly configure those to 2132 be in a more safe and operating environment in the future. 2133 For example, old pipelines that are 40 years old that are 2134 underground that are not possible to send a "smart" pig through 2135 perhaps we want to reroute those and have a different method to 2136 be able to track the quality of what we've done. 2137 So those are all a part of our -- the department's plans 2138 in moving forward. 2139 So tell me, what type of financial investment Mr. Doyle. 2140 does Congress as well as the DOE need to make to update and secure 2141 the SPRO's infrastructure? 2142 Well, I think the current, roughly, \$1.4 billion 2143 is a terrific start in getting the infrastructure where it needs 2144 It certainly attacks the high-profile things that we've 2145 got in our infrastructure. However, it will not replace all of the issues. 2146 We'll need 2147 to have a continual authorization and appropriation for major 2148 maintenance projects as they come around because by no means are 2149 we able to use the current funding to replace everything that 2150 we know that will be coming along in the next five to 10 years. 2151 Do you have any idea what that number looks like, Mr. Doyle. 2152 down the road? 2153 I do not, sir. We can take a look Mr. Evans. I am sorry.

2154	at that and get back to you.
2155	Mr. Doyle. Okay.
2156	Thank you, Mr. Chairman. Thank you.
2157	Mr. Olson. Thank you, Mr. Doyle.
2158	Mr. Tonko, five minutes for questions, sir.
2159	Mr. Tonko. Thank you, Mr. Chair, and welcome, gentlemen.
2160	Mr. Rusco, as we have heard this morning, there have been
2161	a number of legislative requirements to sell SPRO oil in recent
2162	years.
2163	Do you believe that the frequent changes to SPRO's long-term
2164	size target have impacted DOE's ability to develop and maintain
2165	a modernization plan?
2166	Mr. Rusco. Well, I think that DOE's modernization plan was
2167	made largely without consideration for those sales and now they're
2168	adjusting to those sales and doing further analyses.
2169	So I think the modernization plan will also be affected by
2170	any legislation that comes out of this Congress about leasing
2171	excess capacity.
2172	But even if Congress does not mandate that they look into
2173	leasing excess capacity, DOE should do something with its excess
2174	capacity. They should either tell you that they need to shrink
2175	capacity or they or sell some, for example.
2176	But they need to do something because just leaving that
2177	excess capacity there is just throwing money away.
2178	Mr. Tonko. Thank you.

2179 And Mr. Evans, depending on how the leases are structured, 2180 might they result in additional stress on aging SPRO 2181 infrastructure, requiring greater investments in modernization 2182 and improvements that then might otherwise be required? 2183 Mr. Evans. It is certainly hopeful that we'll -- with 2184 decisions made on a timely basis to go forward from Congress that 2185 we'll be able to integrate many of the needs for commercialization 2186 within the current LE2 environment since there are significant 2187 upgrades to pipelines and those kinds of things. Certainly, we are not currently intending to build brine 2188 2189 That's an additional cost that we would incur. drive caverns. 2190 There may be other costs associated as well with piping 2191 interlinking and valving and control room modifications. 2192 now, we are not aware of those. 2193 However, I would venture that in the long term those would 2194 also benefit the longevity and utilization of the reserve. 2195 Thank you very much. Mr. Tonko. 2196 And this question, I guess, could go to any of the three 2197 It's my understanding that the proposed pilot program 2198 would allow DOE to recover additional costs from the leases. 2199 How much of the proposed pilot program's revenue should be 2200 dedicated to investing in the SPRO modernization? 2201 I don't have a number figure. That's probably Mr. Evans. 2202 better answered to you when we have some more detailed engineering 2203 studies and can get back to you on that topic.

2204	Mr. Tonko. Anyone else? Mr. Book, anything?
2205	Mr. Book. I am just an analyst, sir.
2206	[Laughter.]
2207	Mr. Tonko. Mr. Rusco, currently, is DOE able to enter into
2208	an agreement with a foreign nation to store oil at the SPRO without
2209	a change to the statute?
2210	Mr. Rusco. We believe that's correct, yes.
2211	Mr. Tonko. Thank you.
2212	And Mr. Book, I noticed in your testimony that there are
2213	other nations that meet their IEA requirements by holding oil
2214	abroad. Are there any reasons why entering into a contract with
2215	a foreign government may be preferable?
2216	Mr. Book. Well, the long-term nature of government
2217	strategic reserves comports with the existing infrastructure
2218	capabilities of the SPRO today.
2219	So the customer of first resort would be the customer that
2220	requires the least incremental maintenance. For that reason,
2221	it might make sense.
2222	Mr. Tonko. Mm-hmm. And do you believe that there would
2223	be demand from the private sector to lease this space?
2224	Mr. Book. Well, it depends an awful lot on what a market
2225	test shows that there is going to be demand for more storage
2226	for crude oil in PAD 3 because there's going to be more crude
2227	oil production that will need to be stored.
2228	Mr. Tonko. Okay. Anyone else have ideas on that?

2229	Mr. Rusco. I am sure there's going to be private interest
2230	in this capacity. It's the cheapest way to store oil.
2231	Now, you have to make changes in the way that you take it
2232	put it in, take it out. You have to use the brine drive to
2233	do that. But it's still going to be cheaper.
2234	Mr. Tonko. Right.
2235	Mr. Evans, did you want to comment on that?
2236	Mr. Evans. We would also agree that with Mr. Book that
2237	it would be simplest, most efficacious and, perhaps, quickest
2238	to be able to lease whole caverns to foreign governments as an
2239	instantaneous benefit to them and to the U.S. government as well.
2240	Mr. Tonko. Thank you. Thank you, gentlemen, and thank you,
2241	Mr. Chair.
2242	I yield back.
2243	Mr. Olson. Thank you, and the chair now calls upon the
2244	ranking member, Mr. Rush, for one additional question.
2245	Mr. Rush. I really Mr. Tonko opened up some thoughts
2246	and I just want to ask we've been talking a lot this morning
2247	about private interests and I don't think we've been hearing
2248	enough thought and consideration to foreign governments.
2249	Are any of you aware of any interests by foreign governments
2250	in leasing the underutilized storage space here in the U.S. and
2251	if you want to what's the potential for
2252	Mr. Rusco. We spoke with representatives from Australia
2253	and New Zealand, both of whom have an interest in leasing oil

2254	and space in the SPRO, and they have actually spoken with DOE
2255	about this in the past.
2256	Mr. Rush. Is there any just those two nations?
2257	Mr. Rusco. Yes, but I
2258	Mr. Rush. Do you see any potential for other similarly
2259	situated foreign governments?
2260	Mr. Rusco. I would be surprised if there are no other
2261	governments that are interested because of the differential cost.
2262	A lot of countries are storing oil and product in tanks and if
2263	you can store oil in a salt dome it's much cheaper, and so I would
2264	assume that there would be additional interest.
2265	Mr. Rush. Thank you, Mr. Chairman. I yield back.
2266	Mr. Olson. Thank you, and seeing no further members wishing
2267	to ask questions, I would like to thank our witnesses for coming
2268	today, and before you leave, Mr. Evans, one special tie we have
2269	together, we have the Fluor tie but I just found out my dad was
2270	a Fighting Siwash. Knox College played football there '56
2271	through '60.
2272	Mr. Evans. Are you kidding me? That is absolutely amazing,
2273	Mr. Olson.
2274	Mr. Olson. No prairie fire. Siwash, Siwash.
2275	Mr. Evans. Siwash is when I was at Knox, which is a
2276	terrific institution, we were the Fighting Siwash and I've never,
2277	fortunately, given that up. That's so amazing.
2278	Mr. Olson. Mr. Rush knows that's in Galesburg, Illinois
J	.1

2279	Knox College.
2280	Mr. Evans. Galesburg. Grew up in Illinois and went to
2281	school there and my family has lived there since the 1850s. So
2282	Knox is a terrific institution. Thank you for that.
2283	Mr. Olson. Yes, sir. Yes, sir.
2284	And before we conclude, I ask unanimous consent to submit
2285	the following documents to the record: a report by GAO and a
2286	report from the Center on Global Energy Policy.
2287	[The information follows:]
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2290	And pursuant to committee rules, I remind members that they
2291	have 10 business days to submit additional questions for the
2292	record and I ask that the witnesses submit their responses within
2293	10 business days upon receipt.
2294	Without objection, this subcommittee is adjourned.
2295	Go Siwash.
2296	[Whereupon, at 12:35 p.m., the committee was adjourned.]