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4 ``THE AMERICAN ENERGY INITIATIVE: A FOCUS ON ALTERNATIVE
5 FUELS AND VEHICLES, BOTH THE CHALLENGES AND THE
6 OPPORTUNITIES''
7 TUESDAY, JULY 10, 2012
8 House of Representatives,
9 Subcommittee on Energy and Power
10 Committee on Energy and Commerce
11 Washington, D.C.

12 The Subcommittee met, pursuant to call, at 10:06 a.m.,
13 in Room 2322 of the Rayburn House Office Building, Hon. John
14 Sullivan [Vice Chairman of the Subcommittee] presiding.

15 Members present: Representatives Sullivan, Shimkus,
16 Burgess, Bilbray, Scalise, McMorris Rodgers, Olson, McKinley,
17 Pompeo, Griffith, Cassidy, Barton, Rush, Markey, Engel,
18 Green, Castor, Gonzalez, Sarbanes, and Waxman (ex officio).

19 Staff present: Anita Bradley, Senior Policy Advisor to
20 Chairman Emeritus; Maryam Brown, Chief Counsel, Energy and
21 Power; Allison Busbee, Legislative Clerk; Cory Hicks, Policy
22 Coordinator, Energy and Power; Ben Lieberman, Counsel, Energy
23 and Power; Chris Sarley, Policy Coordinator, Environment and
24 Economy; Michael Aylward, Democratic Professional Staff
25 Member; Greg Dotson, Democratic Energy and Environment Staff
26 Director; and Caitlin Haberman, Democratic Policy Analyst.

|
27 Mr. {Sullivan.} I call this hearing to order, and I
28 recognize myself for an opening statement.

29 This is the 23rd day of our hearing on the American
30 Energy Initiative. This morning we will be discussing
31 alternative fuels and vehicles, both the challenges and the
32 opportunities.

33 Gasoline and diesel fuel currently dominate the
34 transportation sector, and that is not likely to change any
35 time soon. For that reason, we need to take steps to ensure
36 plentiful and affordable supplies of petroleum and the fuels
37 that are made from it. That means expanding domestic oil
38 production, approving the Keystone XL pipeline to allow more
39 Canadian oil to come into the country, and reviewing the red
40 tape that raises the cost of refining crude into gasoline and
41 diesel fuel. That is why I strongly supported measures like
42 the Domestic Energy and Jobs Act, and why I will continue to
43 fight for a commonsense, pro-consumer, pro-jobs, and pro-
44 energy policy.

45 But in addition, we need to look at options other than
46 petroleum derived fuels, and indeed we are doing so. We are
47 well into the implementation of the Renewable Fuel Standard
48 created in the 2005 energy bill and expanded in the 2007
49 bill. The RFS has achieved some successes such as increased

50 ethanol production. However, some also see shortcomings with
51 the RFS that need to be addressed.

52 Even beyond ethanol and other biofuels, there are many
53 other alternative fuels and vehicles, including natural gas,
54 electricity, coal-to-liquids, methanol, and flex-fuel
55 vehicles. Each offers its own unique mix of advantages as
56 well as disadvantages, and all offer the benefits of
57 diversification.

58 I look forward to learning more about these options, and
59 exploring the question of what role, if any, the Federal
60 Government should play in shaping the fuels and vehicles
61 markets of the future.

62 [The prepared statement of Mr. Sullivan follows:]

63 ***** COMMITTEE INSERT *****

|
64 Mr. {Sullivan.} Thank you, and I yield the balance of
65 my time to Congressman Shimkus.

66 Mr. {Shimkus.} Thank you, Chairman Sullivan. I want to
67 thank Chairman Upton also for allowing us to have the
68 hearing.

69 Gasoline remains the primary source of fuel, and it will
70 remain that for a long time. The Republican position on
71 energy security is ``all of the above,' ' and so part of the
72 RFS hearing today and other pieces of legislation that I have
73 introduced are really to address that ``all of the above''
74 arena.

75 Ethanol has been a great success at this time. We will
76 hear more about that from Mr. Dinneen, but a couple
77 highlights I wanted to start with were ethanol produced 14
78 billion gallons in 2011. U.S. oil and imports dropped to
79 just 45 percent of demand that same year. Ethanol represents
80 10 percent of our national gasoline pool. Last year, ethanol
81 reduced wholesale gas prices by an average of \$1.09 per
82 gallon. And as I try to remind people, that is without a
83 blender's credit, which has gone away. People still think
84 that there is a tax credit with ethanol blending, and that is
85 not the case.

86 So the question is, why not add a variety of alternative

87 transportation fuels to the mix, which is the part of this
88 debate, and I am glad we have a huge panel today. Our
89 country must challenge our scientists and engineers towards
90 that end. The bipartisan Open Fuel Standards, H.R. 1687, is
91 intended to move this conversation forward, and I really want
92 to thank my colleague and friend, Mr. Engel from New York,
93 for really being a leader on that and Congresses before this
94 one.

95 H.R. 1687 would have an increasing percent of new
96 automobiles take on a variety of fuels like natural gas,
97 electricity, biodiesel, hydrogen, flex fuel vehicles that can
98 run on blends of methanol and ethanol, or other emerging
99 technologies. This would create a marketplace where fuels
100 can compete with each other for the consumer's dollars.

101 I look forward to hearing from our witnesses on the
102 opportunities and challenges presented by having an open Fuel
103 Standard. I also look forward to the panel talking about
104 some of the challenges that are faced in EPA permitting a
105 defined liquid transportation fuel, but then liability
106 concerns and restrictions that is addressing some of the
107 concerns in H.R. 4345.

108 I appreciate all the witnesses for being here, and
109 particularly want to thank Don Althoff from the Flex Fuel
110 U.S. for rescheduling from earlier in the year to testify

111 today.

112 And with that, Mr. Chairman, I yield back my time.

113 [The prepared statement of Mr. Shimkus follows:]

114 ***** COMMITTEE INSERT *****

|
115 Mr. {Sullivan.} Thank you, Mr. Shimkus, and I yield to
116 Congressman Rush for 5 minutes.

117 Mr. {Rush.} I want to thank you, Mr. Chairman, for
118 holding this hearing and I want to thank all of the witnesses
119 for being here today.

120 Mr. Chairman, it is extremely important that both sides
121 work together to identify short and long-term strategies and
122 objectives for developing alternative fuels for vehicles. So
123 5 or 10 years from now, this country will not be subject to
124 fluctuating global gas prices due to unrest in the Middle
125 East or anyplace else in the world.

126 For too long now, we are seeing wildly fluctuating gas
127 prices due to a lack of a comprehensive policy to move us
128 away from imported oil and petroleum. Every year or 2, we
129 are back in the same exact position where we were a few
130 months ago, discussing extremely high gas prices at the pump.
131 We are no closer to permanently solving this issue which has
132 such a devastating effect on the lower and middle income
133 family's budget who must, too often, choose between putting
134 food on the table or filling up their cars in order to go to
135 work.

136 Mr. Chairman, we are willing to provide much-needed
137 direction, much-needed funding to develop alternative fuel

138 supplies. We can provide economical and practical benefits
139 to Americans by deciding the amount of oil we import, while
140 also permanently decreasing the price our families pay at the
141 pump. However, we all understand that before we are able to
142 enjoy the benefits that will also come from alternative
143 fuels, we must first invest in the research and development
144 of these supplies. Even if we are able to come together on a
145 comprehensive policy to develop these fuels, we must also
146 invest in the infrastructure to support these fuels as well.

147 So Mr. Chairman, I look forward to today's hearing to
148 discuss both the opportunities and the challenges we face as
149 we attempt to transition from alternative fuels to power our
150 cars and trucks. The National Oceanic and Atmospheric
151 Administration informs us that the first 6 months of 2012
152 were the warmest first half of any year on record in the
153 lower 48 contiguous States, and more than 170 temperature
154 records were tied or broken just in the month of June,
155 according to the agency. Mr. Chairman, as a representative
156 from a corn-growing State, my beloved Illinois, I look
157 forward to hearing more about the impact that this record-
158 breaking heat wave has had on corn crops and how it may
159 impact the production of corn ethanol.

160 Mr. Chairman, I am very interested to hear from these
161 experts today on not only the impact of corn ethanol, but

162 also the opportunity for additional alternative fuel sources
163 for transportation, including biofuels, electricity, natural
164 gas, coal and liquids, and many others. That means if we are
165 prudent and we work together on both sides of the aisle, we
166 can develop a policy for alternative fuel production that
167 would be to the benefit of all our constituents and to the
168 American people in their homes.

169 Mr. Chairman, we have our work cut out for us, but I am
170 pleased that today we are taking the first step toward
171 understanding where we are and what we need to do in order
172 for us to move forward.

173 With that, I yield back the balance of my time.

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

175 ***** COMMITTEE INSERT *****

|
176 Mr. {Sullivan.} Thank you, Congressman Rush.

177 Now I recognize Congressman Pompeo from Kansas for 5
178 minutes.

179 Mr. {Pompeo.} Thank you, Mr. Chairman. Thanks for
180 holding this hearing today on alternative fuels, and thank
181 you for inviting a panel with what I know will be a broad and
182 diverse set of views with respect to this.

183 I have to say when I hear us talk in Washington about
184 alternative fuels, I think you could sometimes substitute
185 alternative for consumer rejected or unaffordable or
186 imaginary, in normal, everyday, practical existence fuels.
187 When we talk about alternative fuels here, we often talk
188 about government mandate and subsidies. When we talk about
189 coal and oil and natural gas, we talk about relieving federal
190 burdens from the EPA and others. We have very different
191 views or very different policy principles when we talk about
192 these very different potential energy sources. I, like no
193 one, hope that we can find the next great energy source and
194 we can have a broad and diverse array of those.

195 But when I hear us talk about alternative energies, it
196 is always about if the mandates goes away, so will my
197 business. If the subsidy goes away, so will my ability to
198 make consumers happy. All of these things are interventions

199 at the federal that, in my judgment, often do enormous risk
200 to consumers and I know to taxpayers as well.

201 I have my own views on what will be the best next energy
202 source. I imagine most of the folks on this panel have their
203 own idea of what this would be, too, but that is not my role.
204 My role is not to decide which of these technologies is best
205 and which one will be successful. It is all of the great
206 innovators and engineers and technicians out there trying to
207 find that great next energy source that we ought to free to
208 do that without the Federal Government's intervention. I
209 think things like Solyndra, which is just a simple, single
210 example of where the government thought we had a good
211 solution and we were smarter than the average bear and we
212 could direct consumers to the right place. This demonstrates
213 the absolute dangers of federal intervention in energy
214 markets.

215 Sooner or later on all these energies we have got to
216 take the training wheels off and let all these energies
217 compete in an open space. With that, I yield the balance of
218 my time to Congressman Barton.

219 [The prepared statement of Mr. Pompeo follows:]

220 ***** COMMITTEE INSERT *****

|
221 Mr. {Barton.} Thank you, Mr. Pompeo. Do I yield time
222 to somebody, too, or--okay.

223 Well first, I want to thank Chairman Whitfield and also
224 Chairman Sullivan for holding this hearing. I think this is
225 the 23rd in the series of hearings on this. Today we are
226 going to look at alternative fuels. I would have to say that
227 natural gas or LNG should be one of those that we take a
228 serious look at. I have a company in my district called
229 Green Energy Orefield Services that is beginning to outfit
230 trucks to run on LNG to carry the various hydraulic
231 fracturing products to and from the gas and oil wells. I
232 think this is a win/win.

233 I know there is quite a bit of controversy over biofuel
234 program in the Navy. I think it is appropriate for the Navy
235 to be doing some pilot programs on biofuels, but at the
236 expected cost of over \$27 a gallon, I certainly think that we
237 shouldn't forget, again, LNG and natural gas and even coal to
238 liquids, for that matter, as alternative energy sources for
239 our Navy. Biofuels should and can play an important role in
240 a balanced energy portfolio, there is no question about that,
241 but we shouldn't forget the fuels that have made it possible
242 for us to have the greatest economy in the world, and that is
243 our basic hydrocarbon fuels that we are so adept at right now

244 in manufacturing and discovering and producing and
245 transporting.

246 All in all, Mr. Chairman, I think this is a very good
247 hearing, and I look forward to hearing from the witnesses.

248 I still have a minute, so I am willing to yield to
249 somebody if there is another member that wishes--would like
250 some time. If not, I yield back to the distinguished
251 chairman.

252 [The prepared statement of Mr. Barton follows:]

253 ***** COMMITTEE INSERT *****

|
254 Mr. {Sullivan.} Thank you, Congressman Barton. Next I
255 yield 5 minutes to the gentleman from California, Congressman
256 Waxman.

257 Mr. {Waxman.} Thank you, Mr. Chairman. Today, the
258 Subcommittee examines the opportunities and challenges
259 associated with the alternative fuels and vehicles. This
260 topic is important for the Nation's environmental and
261 economic health, and our national security.

262 Just a few years ago, nearly 60 percent of U.S.
263 transportation fuels came from abroad, and projections were
264 discouraging. Experts predicted higher oil consumption and
265 more imports far into the future. Carbon pollution for the
266 transportation sector was expected to grow and grow and grow.
267 Under the leadership of President Obama, we have reversed
268 this trend in a historic and fundamental shift.

269 In April of 2010, the Administration finalized fuel
270 efficiency and carbon pollution standards for model year 2012
271 to 2016 cars and trucks. These standards will save consumers
272 on average more than \$3,000 in fuel costs over the life of a
273 new vehicle. This is the net savings after accounting for
274 any increased vehicle costs. This is a good example of
275 government intervention that has been very successful.

276 In November, 2011, the Obama Administration proposed to

277 expand this successful program to include model years 2017 to
278 2025. The benefits of this program to the Nation are
279 profound. Families will save \$8,000 in fuel costs over the
280 life of a new vehicle. These savings will accumulate and
281 consumers, as a group, will save \$1.7 trillion over the life
282 of the program. These standards will save 2.2 million
283 barrels of oil a day by 2025. This will make our economy
284 stronger and help ease our national security challenges. It
285 will also reduce our carbon pollution by over 6 billion
286 metric tons. That is as much as the whole country emits in a
287 year. This reduction is an important step in our efforts to
288 stabilize the climate.

289 These carbon pollution tailpipe standards are a
290 win/win/win for the Nation, improving our environment,
291 economy, and national security, but we have more work to do.
292 American families are still getting rip-sawed when gasoline
293 prices unexpectedly spike. The money we spend on oil abroad
294 continues to conflict with our foreign policy goals and
295 national security, and the wildfires, drought, heat waves,
296 and extreme weather events tell us that we must do more to
297 address climate change.

298 In March, the Intergovernmental Panel on Climate Change
299 released a report concluding that climate change already has
300 led to climate extremes and extreme weather events around the

301 world. As carbon pollution climbs and as our climate
302 continues to warm, these extreme weather events are likely to
303 become more frequent and more severe. Last year, 14 weather-
304 related disasters, each costing more than \$1 billion, struck
305 the United States, a record number. This year has seen even
306 more bizarre weather, according to the National Oceanic and
307 Atmospheric Administration. More than 40,000 hot temperature
308 records have been set this year. The deadly combination of
309 heat and drought has resulted in more than 2.1 million acres
310 burned in wildfires so far. At the end of June, more than
311 113 million people in the U.S. were in areas under extreme
312 heat advisories. Some of those are areas that vote
313 Republican, as well as Democratic.

314 We are seeing the types of extreme events that
315 scientists have been predicting who are common with climate
316 change. For instance, Jonathan Overpeck with of the
317 University of Arizona recently stated, ``The extra heat
318 increases the odds of worse heat waves, droughts, storms, and
319 wildfire.'' We cannot afford to ignore climate change in the
320 development of our energy policies. The two are inextricably
321 linked.

322 The good news is that as we increase our efficiency and
323 move towards alternative fuels, we not only reduce our
324 dependence on fossil fuels, we also have the opportunity to

325 reduce our carbon pollution. It is not a given that we will
326 make the right choices. Some will advocate today that we
327 abandon our efforts to cut carbon pollution. That would be a
328 serious mistake. Progress will not be easy, but it is
329 necessary. We need to continue our push toward alternative
330 fuel vehicles, whether they are plug-in electric drive
331 commuter vehicles, long haul natural gas trucks, or renewable
332 fuels. The Obama Administration has made real progress on a
333 seemingly retractable problem. We are finally heading in the
334 right direction.

335 I look forward to hearing from today's witnesses,
336 reading their testimony, and I hope we can continue to build
337 on this progress.

338 Thank you, Mr. Chairman.

339 [The prepared statement of Mr. Waxman follows:]

340 ***** COMMITTEE INSERT *****

|
341 Mr. {Sullivan.} Thank you, Congressman Waxman.

342 Now we will move to our first panel, and I want to thank
343 our eight witnesses for being here. Thank you so much for
344 coming up to the Hill and presenting this. Each of you will
345 have 5 minutes.

346 We are going to hear today from Mr. Joseph Petrowski,
347 CEO of the Cumberland Gulf Group; Mr. Jack Gerard, President
348 and CEO of the American Petroleum Institute; Bob Dinneen,
349 President and CEO of the Renewable Fuels Association; Tom
350 Tanton, Executive Director and Director of Science and
351 Technology Assessment, American Traditions Institute; Richard
352 Bajura, Professor, Mechanical and Aerospace Engineering,
353 Director of National Research Center for Coal and Energy,
354 West Virginia University; Michael McAdams, President,
355 Advanced Biofuels Association; and Michael Breen, Vice
356 President, Truman National Security Project; and Felice
357 Stadler, Director, Dirty Fuels Campaign, National Wildlife
358 Federation. First, we will go to Mr. Petrowski. You have 5
359 minutes, sir.

|
360 ^STATEMENTS OF JOSEPH H. PETROWSKI, CEO, THE CUMBERLAND GULF
361 GROUP; JACK N. GERARD, PRESIDENT AND CEO, AMERICAN PETROLEUM
362 INSTITUTE; BOB DINNEEN, PRESIDENT AND CEO, RENEWABLE FUELS
363 ASSOCIATION; TOM TANTON, EXECUTIVE DIRECTOR AND DIRECTOR,
364 SCIENCE AND TECHNOLOGY ASSESSMENT, AMERICAN TRADITION
365 INSTITUTE; RICHARD A. BAJURA, PROFESSOR, MECHANICAL AND
366 AEROSPACE ENGINEERING, AND DIRECTOR, NATIONAL RESEARCH CENTER
367 FOR COAL AND ENERGY, WEST VIRGINIA UNIVERSITY; MICHAEL
368 MCADAMS, PRESIDENT, ADVANCED BIOFUELS ASSOCIATION; MICHAEL
369 BREEN, VICE PRESIDENT, TRUMAN NATIONAL SECURITY PROJECT; AND
370 FELICE STADLER, DIRECTOR, DIRTY FUELS CAMPAIGN, NATIONAL
371 WILDLIFE FEDERATION

|
372 ^STATEMENT OF JOSEPH H. PETROWSKI

373 } Mr. {Petrowski.} --Gulf Oil Group, and as part of
374 background, we are the Nation's eighth largest convenience
375 retailer of petroleum products and convenient items over 13
376 States. Our wholesale oil division, Gulf Oil, carries and
377 merchandises over 350,000 barrels of petroleum products and
378 biofuels over 29 States, \$13 billion revenue places us in the
379 top 50 private companies in the country. We employ 8,000
380 employees, and I would like to report successfully that we

381 are a growing company.

382 As part of also background, we like to say that our
383 company is fuel agnostic. We do not drill, we do not refine
384 petroleum products. What we care to sell are products that
385 our customers want to buy that are most economic for them to
386 achieve their desired transport, heating, and other energy
387 uses in a lawful manner.

388 We blend--in addition to selling petroleum products,
389 which is our primary product that we sell, we blend over 1
390 million gallons a day of biofuels across our system, and just
391 recently, we have purchased 24 Class A trucks to begin to
392 fuel on natural gas to deliver our fuel products to our
393 stations and stores.

394 While I like to say we are fuel agnostic, we are not
395 unbiased. We believe that a sound energy policy rests on
396 four bedrocks. One is that we have diverse fuel sources, and
397 there are two reasons for that. The future is unknowable.
398 The new shale technology that has taken over the industry in
399 natural gas was unheard of more than 2 decades ago.
400 Technology and events are beyond our abilities to understand
401 where we are going, and so to bet any of our future on one
402 single source of fuel would be a mistake. We believe
403 diversity in all systems ensures health and stability. And
404 so we look for diversity in fuel, not only by fuel type, but

405 to make sure that we are not concentrated in taking it from
406 one region, particularly the Middle East and unstable
407 regions. So we do support that.

408 Number two, we have a bias. We want low costs and non-
409 volatile fuel. A million and a half customers pass through
410 our stores and stations every day. We see what the high
411 prices do to our consumers. In the State of Massachusetts
412 where we are headquartered, the per capita consumption is
413 about \$50,000 a year. The average resident in Massachusetts
414 uses about 2,500 gallons of fuel, both in home heating oil
415 and in gasoline. The average car uses about 600 gallons a
416 year. A \$1 rise in the price of fuel takes almost 50 percent
417 of discretionary income away from that family. High fuel
418 costs are the most regressive form of taxation possible.

419 Number three, we believe in secure and domestic sources.
420 I think I heartened a few years ago, our net imports of BTU
421 products was approaching \$1 trillion. Today, because we have
422 made advances in domestic drilling for oil from 4 million
423 barrels to almost 6, shale gas has increased dramatically
424 from 65 BCF a day to 100 BCF, and because of better
425 consumption and conservation, we now use--our net imports are
426 \$400 billion, and we believe in the next 3 years that this
427 country, with the right policies, can be a net exporter of
428 BTUs, which will break our dependence on Mideast oil.

429 Finally, we think that in any policy, the fourth bedrock
430 is that anything you put in place, we have to take into
431 account and externalities. We think House Bill 4345 is a
432 large step in the right direction. I do want to point out to
433 all the members that we have billions, hundreds of billions
434 of dollars invested in terminals, gas stations, barges,
435 transportation, and we have to live with the realities of the
436 marketplace and the particulars.

437 I have pointed out many times when people talked about
438 the XL pipeline that it is seven times more expensive for us
439 today to move petroleum product from Chicago to Philadelphia
440 than it is from the east coast of India to Philadelphia. And
441 so we think as we craft and design policy, understand the
442 external cost is important.

443 Thank you.

444 [The prepared statement of Mr. Petrowski follows:]

445 ***** INSERT 1 *****

|
446 Mr. {Sullivan.} Mr. Gerard, you have 5 minutes. Sorry.

|
447 ^STATEMENT OF JACK N. GERARD

448 } Mr. {Gerard.} Thank you, Vice Chairman Sullivan and
449 members of the Committee. It is a pleasure to be with you
450 today. As mentioned, I am Jack Gerard, President and CEO of
451 the American Petroleum Institute. We appreciate the
452 opportunity to present our views on the Renewable Fuel
453 Standard today. We represent all sectors of America's oil
454 and natural gas industry. We employ 9.2 million Americans,
455 responsible for 7.7 percent of all the gross domestic product
456 in the United States, and contribute \$86 million a day to the
457 federal Treasury.

458 API's more than 500 member companies include many of our
459 Nation's refiners, who are critical to our U.S. national and
460 economic security. U.S. refiners support over half a million
461 jobs, provide the vital products that Americans rely on
462 daily. It is these refiners who shoulder the principal
463 responsibilities for meeting the RFS requirements.

464 Over the past 7 years, the two RFS laws passed in 2005
465 and in 2007 have substantially expanded the role of
466 renewables in America. Biofuels are now in almost all
467 gasoline. While API supports the continued appropriate use
468 of ethanol and other renewable fuels, the RFS law has become

469 increasingly unrealistic, unworkable, and a threat to
470 consumers. It needs an overhaul.

471 Most of the problems relate to the law's volume
472 requirements. These mandates call for blending increasing
473 amounts of renewable fuels into gasoline and diesel.
474 Although we are already close to blending an amount that
475 would result in a 10 percent concentration level of ethanol
476 in every gallon of gasoline sold in America, that which is
477 the maximum known safe level, the volumes required will more
478 than double over the next 10 years. The E10, or 10 percent
479 ethanol blend that we consume today could, by virtue of RFS
480 volume requirements, become at least an E20 blend in the
481 future. This would present an unacceptable risk to billions
482 of dollars in consumer investment in vehicles, a vast
483 majority of which were designed, built, and warranted to
484 operate on a maximum blend of E10. It also would put at risk
485 billions of dollars of gasoline station equipment in
486 thousands of retail outlets across America, most known by
487 small independent businesses. I believe well over 60 percent
488 of retail establishments in this area are Ma and Pa
489 operations.

490 The research on higher ethanol blends, including testing
491 performed by DOE's National Renewable Energy Laboratory,
492 shown an estimated half of existing service station pumping

493 equipment may not be compatible with just a 15 percent
494 ethanol blend, or E15. Vehicle research conducted by the
495 Auto Oil Coordinated Research Council shows that E15 could
496 also damage the engines of millions of cars and light trucks,
497 estimates exceeding five million vehicles on the road today.
498 E20 blends may have similar, if not worse, compatibility
499 issues with engines and service station attendants.

500 Automobile manufacturers, who I believe you will hear
501 from in the second panel, now advise car owners not to exceed
502 the 10 percent blend amount. They say damage to an engine
503 caused by higher concentrations may not be covered by
504 warranties. EPA's premature approval of E15 thus raises
505 substantial product liability issues that we would like to
506 thank Mr. Shimkus for his leadership, as mentioned by Mr.
507 Petrowski, in looking at that liability question to help make
508 it more feasible to introduce these products into the market.

509 Despite the warning signs, EPA has already approved the
510 sale of E15. Apparently EPA finds it acceptable to let the
511 market, including consumers, sort out any problems that may
512 arise, whatever the cost.

513 The RFS law also requires increasing use of cellulosic
514 ethanol, an advanced form of ethanol that can be made from a
515 broader range of feed stocks. The problem is, you can't buy
516 the fuel yet because no one is making it commercially. While

517 EPA could waive that provision, it has decided to require
518 refiners to purchase credits for this nonexistent fuel, which
519 will drive up costs and potentially hurt consumers.
520 Mandating the use of fuels that do not exist is absurd on its
521 face and is inexcusably bad public policy.

522 Another problem with implementation of RFS is how EPA is
523 handling fraudulent renewable federal credits, known as RINs,
524 that some refiners have purchased in good faith under a
525 program that the EPA created.

526 We believe that there is a solution and a resolution of
527 this challenge. We are working closely with EPA to fix it at
528 this time.

529 Thank you for the opportunity to share our views. As
530 mentioned, we believe biofuels are an important part of our
531 Nation's energy mix, but the current law and its
532 implementation is increasingly problematic and can hurt
533 consumers. We need to fix it.

534 Thank you.

535 [The prepared statement of Mr. Gerard follows:]

536 ***** INSERT 2 *****

|
537 Mr. {Sullivan.} Thank you, Mr. Gerard. Mr. Dinneen?

|
538 ^STATEMENT OF BOB DINNEEN

539 } Mr. {Dinneen.} Thank you, Mr. Chairman and members of
540 the Committee.

541 This is a timely hearing. Continued volatility in crude
542 oil markets, last spring's near-record gasoline prices,
543 threats by hostile nations to shut down key oil shipping
544 routes, new concerns about the environmental impacts of
545 hydraulic fracking and tar sands, these issues and others
546 underscore our Nation's desperate need to recommit to an
547 energy future that embraces alternative transportation fuels
548 and vehicles, an energy future that is truly ``all of the
549 above,'' not just finite resources from below.

550 One important alternative fuel, ethanol, is already
551 helping to address these national concerns. America's
552 ethanol industry, buttressed by a visionary Renewable Fuel
553 Standard, is already decreasing our reliance on foreign oil,
554 already exerting downward pressure on gasoline prices,
555 already employing tens of thousands of American workers, and
556 already cleaning up our air. As a result of the forward-
557 looking nature of the RFS, the industry is poised to make
558 even more significant contributions to our Nation's economic
559 and environmental security in the future. Simply put, the

560 RFS is among the most successful energy policies this Nation
561 has ever adopted. It is working exactly as intended. It
562 most certainly does not need an overhaul.

563 As Congressman Shimkus had noted in his opening, from an
564 energy security standpoint, the RFS is most definitely
565 demonstrating its success. As he noted, when the bill passed
566 in 2005, our Nation was 60 percent dependent on imported oil
567 for liquid transportation fuels. Today, as a consequence in
568 the growth in ethanol, as a consequence in ethanol now
569 represents 10 percent of our Nation's motor fuel supply. As
570 a consequence of the RFS, we are now just 45 percent
571 dependent on foreign oil for our liquid transportation fuels.

572 Now, some at this table would suggest to you that that
573 is because we have increased the production of oil in this
574 country, and that is true. Over the last couple of years,
575 that is true. But 80 percent of the increased domestic
576 production of liquid transportation fuels has been ethanol
577 since 2005. It is absolutely ethanol that has driven those
578 numbers to where they are today.

579 I will tell you that I absolutely agree with many of
580 you, that we need to have an all of the above, all energy
581 sources energy policy in this country, but I will also tell
582 you that we cannot frack our way to energy independence. A
583 study that EIA produced a short while ago said that if you

584 take the two largest shale places in this country, the Bakken
585 fields and Eagle Ford in Texas, that that would get you 7
586 billion barrels of oil, a big amount, absolutely. But when
587 put in context of our oil needs in this country, that
588 represents 1 year and 4 months of supply. I will tell you
589 that the need for domestic renewable fuels will outlive the
590 current fracking frenzy.

591 Ethanol today is already having a tremendous impact
592 driving down the price of gasoline. Mr. Shimkus noted a
593 study that had been done by Iowa State and University of
594 Wisconsin that concluded ethanol is helping to reduce
595 gasoline prices by \$1.09 a gallon when you look at last
596 year's prices. If you don't like the Iowa State study, how
597 about a Louisiana State study in the home of oil country that
598 concluded ethanol was helping to drive down the price of
599 gasoline by some 84 cents a gallon, when you look at 2011.
600 Without a doubt, because ethanol is less expensive than
601 gasoline today, because ethanol is displacing the need for 10
602 percent of our Nation's imports, we are having a tremendous
603 impact on gasoline prices.

604 Let me just say as well, one of the principle objectives
605 of the RFS was to drive investment in new technologies. It
606 is also doing that. Not as quickly as anyone would like, but
607 I will tell you that nobody anticipated the economic collapse

608 of 2008 and the consequent freeze on lending that occurred.
609 But the next generation of biofuels facilities is happening
610 today. There are four cellulosic plants that are under
611 construction today in States like Florida, in Kansas, in
612 Iowa, and elsewhere. There are other biofuels operations
613 that are moving forward as well.

614 I look forward to working with this Committee to talking
615 about some more of the issues that have arisen already,
616 perhaps in questions, and I appreciate the continued interest
617 of this Committee to move this Nation's energy policy
618 forward, but I do trust that that means all energy sources,
619 because we need them all.

620 Thank you.

621 [The prepared statement of Mr. Dinneen follows:]

622 ***** INSERT 3 *****

|
623 Mr. {Sullivan.} Thank you, Mr. Dinneen. Mr. Tanton?

|
624 ^STATEMENT OF TOM TANTON

625 } Mr. {Tanton.} Thank you, Mr. Chairman, members of the
626 Committee. I am here to testify today about the strategic
627 importance of energy for transportation fuels. I am from
628 California, and I am here to help. But I am not here to help
629 in the way you might expect. I am here to give you a
630 cautionary tale.

631 In California, we have had almost 4 decades of energy
632 policies, many of which have been suggested to you today,
633 many of which you have considered. It hasn't worked. We
634 remain second highest per capita petroleum consumption in the
635 country. Our economy is worse than the rest of the country.
636 Our unemployment is worse than the rest of the country. Our
637 rate of foreclosures is worse than the rest of the country.
638 These are inextricably linked to our energy policies over the
639 last 4 decades. Truckers are leaving California on one-way
640 trips. They are taking manufacturing away from us. They are
641 taking agricultural production away from us. It is
642 unfortunate that our energy policies have driven us to this
643 point.

644 I have a few remarks to make with respect to the Open
645 Fuel Standard, H.R. 1687, but my comments should be viewed

646 more generally. What we have missed consistently in
647 California, and I think in the Nation, is as Mr. Pompeo
648 mentioned, a consumer perspective. When alternative fuels
649 are more expensive, the natural reaction is to subsidize the
650 price differential, but that doesn't take into account the
651 fact that most alternative fuels require more frequent
652 refueling, and the time value of that extra refueling is a
653 consideration for most consumers.

654 The state of purpose of the Open Fuel Standard is to
655 ensure that new vehicles enable fuel competition so as to
656 reduce the strategic importance of oil to the United States,
657 and it has in it a ramp-up provision of mandated percentages
658 of cars that can use the variety of different fuels. I would
659 suggest to the Republican caucus that it not be all of the
660 above, but in fact be any of the above. Any of the above
661 that satisfies consumer's needs, desires, opportunities, and
662 challenges.

663 In my view, the Open Fuel Standard replicates, in many
664 regards, California's failed Zero Emission Vehicle Standard,
665 which also had a ramp-up schedule, but in which was basically
666 just an electric vehicle mandate. In each case, they have
667 failed due to the lack of the consumer's acceptance of the
668 alternative subsidized or mandated by the government.

669 H.R. 1687 also fails or falls short in enabling real

670 competition. There is nothing today that precludes auto
671 manufacturers from selling alternative fuel vehicles, except
672 for one thing, and that is the consumer's acceptance of them.
673 Such vehicles are offered for sale. They are not sold in
674 numbers. Many of them have other strategic and important
675 strategic considerations. Electric vehicles require rare
676 earths. We are more dependent on rare earths from one
677 country, China, than we are on petroleum from a variety of
678 countries. There is not adequate time for the markets to
679 evolve and bring with them the technologies.

680 There is also no flexibility to account for changes in
681 the future. For example, the EIA estimates that our level of
682 imports will drop by 13 percentage points between now and
683 2035. That in itself improves the strategic importance of
684 petroleum to this country. XL pipeline would as well.

685 We need more informed consumers, not informed with
686 myths, but informed with facts. They need to know that many
687 of these alternative fuels have with them indirect costs that
688 are not reflected in either the initial cost of the car or
689 the price differential of the alternative fuels. Electric
690 vehicles, for example, and plug-in electric vehicles are more
691 expensive to insure, reflecting the higher cost of
692 replacement.

693 Bottom line is that government efforts must acknowledge

694 consumer perspectives, needs, and opportunities, not try and
695 overwhelm them. My recommendation is don't mention any fuel
696 in legislation or in standards. Base the standards, base the
697 legislation on performance and protocols and principles, and
698 rely on the free market wherever possible, which is
699 everywhere.

700 Thank you for the opportunity to testify.

701 [The prepared statement of Mr. Tanton follows:]

702 ***** INSERT 4 *****

|

703 Mr. {Sullivan.} Thank you, Mr. Tanton. Next, Dr.

704 Bajura, you are recognized for 5 minutes.

|
705 ^STATEMENT OF RICHARD A. BAJURA

706 } Mr. {Bajura.} Thank you, Mr. Chairman.

707 In my activities at West Virginia University, I have had
708 the benefit of working with the University of Kentucky on the
709 Consortium for Fossil Fuels Science. We believe that there
710 are more things you can do with coal than just simply
711 generate electricity.

712 We can generate alternative fuels such as jet, diesel,
713 and gasoline that are almost sulfur-free, have very few
714 carcinogenic compounds. They out-perform petroleum, and have
715 fewer particulate emissions. We do this by a process called
716 gasification, where we take coal and turn it into carbon
717 monoxide and hydrogen. These are very simple building blocks
718 on which we can construct anything chemically, aspirin, for
719 example, urea, and chemicals and gasoline. The other aspect
720 is a Fischer-Tropsch process, which converts this fuel--this
721 gas into a liquid fuel. These are known technologies. They
722 are fairly expensive, but in the age of high oil prices, we
723 think we can be competitive. We are now also faced with the
724 challenge of sequestering the carbon dioxide that comes out
725 of these processes. We do this by injecting CO2 into
726 geologic formations, or we use biomass, which in effect is

727 using CO2 from the atmosphere instead of liberating new CO2
728 from the ground. These processes are very effective. We can
729 capture the CO2 from these processes for as little as 15
730 cents a gallon.

731 We know that projections for the future are that costs
732 for petroleum will be in excess of \$100, perhaps even up to
733 \$200 by 2035. With the technologies I described, we can
734 reduce liquid fuels at about \$94 a barrel with carbon storage
735 capability, and \$104 a barrel with 15 percent biomass in
736 carbon storage. These estimates are based on today's
737 technology. They can be even more improved by advanced
738 research. We would also emit 25 percent less CO2 over the
739 life cycle compared to regular petroleum fuels.

740 The other aspect I would like you to consider is using
741 the CO2 that is captured. In an oil reservoir, we punch a
742 hole in the ground and the oil comes up by the pressure
743 underground. That is called primary. Next, we use water to
744 flood the reservoir and produce additional oil. That is
745 called secondary. We might leave as much as 70 percent of
746 the oil in place. If we do a tertiary process with CO2
747 injection, we can produce additional oil, perhaps getting as
748 much as 50 percent now of the oil in place.

749 I would like to introduce you to a concept called CCUS
750 with EOR. This stands for using the carbon dioxide that is

751 captured from a process to produce oil through this EOR
752 recovery process. A study conducted by the National Coal
753 Council last month, which I chaired, showed that we have
754 about \$4 million barrel per day capacity of oil that we could
755 get with enhanced EOR applications.

756 Consider this example. For example, if we said we
757 wanted to have a national program to produce 2.5 million
758 barrels a day of synthetic fuels, we would capture that CO₂
759 and we would also capture the CO₂ from 100 gigawatts of
760 advanced coal plants. With this CO₂, we can produce 4
761 million barrels a day in enhanced oil recovery. That,
762 coupled with 2.5 million barrels a day that we are producing
763 from the coal plants get us 6.5. By 2035, we are
764 anticipating an import of about 7.4 million barrels a day.
765 That leaves us less than a million that we have to import.
766 In 2011, 61 percent of our trade balance was due to imported
767 oil. You can see the impact this would have on our economy.

768 This case I described would yield benefits by 2030 of
769 \$200 billion in industry sales annually, \$60 billion in taxes
770 to federal, State, and local jurisdictions, and would create
771 one million jobs.

772 This CTL industry that we are discussing would also give
773 us some sense of security from things like hurricanes. If
774 you remember, we were knocked out of oil production with the

775 hurricanes that hit the Gulf several years ago. We can
776 deploy these plants into other regions, taking advantage of
777 the oil in place in States like Ohio, and bringing additional
778 jobs to those jurisdictions.

779 I focus today here on the benefits of this technology.
780 We need additional research that would improve our ability to
781 capture the carbon, to deploy these enhanced oil recovery
782 technologies better, and to buy down the cost of putting
783 these plants in place. It is very expensive to put a
784 Fischer-Tropsch plant in place to produce liquid fuels.

785 We know that we are going to depend upon petroleum and
786 the internal combustion engine for many years to come. I
787 recommend that we do these kinds of technologies that will
788 help reduce our costs of production and reduce the need to
789 employ--import foreign oil. Financial risks need to be
790 brought down. We need new technologies to recover oil more
791 effectively, and we need to encourage early movers to build
792 these first-of-their-kind plants.

793 I view that H.R. 2036, which Congressman Griffith has
794 introduced and three other members of this Committee have
795 introduced would be a very good place for us to use the CO2
796 technologies as a way to accomplish these goals.

797 Thank you, Mr. Chairman.

798 [The prepared statement of Mr. Bajura follows:]

799 ***** INSERT 5 *****

|
800 Mr. {Sullivan.} Thank you, Mr. Bajura. Next, Mr.
801 McAdams, you are recognized for 5 minutes.

|
802 ^STATEMENT OF MICHAEL MCADAMS

803 } Mr. {McAdams.} Thank you, Mr. Chairman. Vice Chairman
804 Sullivan, Ranking Member Rush, members of the Committee, I am
805 delighted to be here with you today on behalf of the Advanced
806 Biofuels Association. Since our inception, we believed
807 strongly in technology neutrality. It has been our driving
808 force.

809 The Advanced Biofuels Association represents over 45
810 companies deploying advanced renewable technologies that are
811 helping to create jobs and reduce dependence on foreign oil
812 by adding to our domestic fuels production capacity. The
813 Advanced Biofuels Association supports an all of the above
814 energy approach for the United States.

815 Today, I want to leave you with two points. First, the
816 Renewable Fuels Standard is the bedrock of our Nation's
817 renewable transportation fuels policy, and it is directly
818 responsible for the progress that has been made to date in
819 the advanced biofuels sector.

820 Second, as a result of this policy, a number of
821 companies have made significant investments in R&D, pilot and
822 demonstration phases, as well as commercial deployment.
823 Currently, a number of sophisticated manufacturing companies

824 have over a billion dollars of private capital ready to build
825 their first commercial facilities.

826 As you well know, uncertainty chills investment, and
827 uncertainty about whether the Congress might change the rules
828 at this critical time by changing the RFS would have negative
829 implications for those who have already invested in the
830 future of this country. This past has brought significant--
831 the past year has brought significant progress for our
832 industry. We have seen the top fighter planes in the Air
833 Force, Navy, and Marines fly using drop in jet fuels produced
834 from a wide range of feed stocks and technologies. We have
835 seen U.S. major airlines fly U.S. transcontinental flights--I
836 was on it--and last year alone, Lufthansa operated more than
837 1,000 flights in Europe on a 50/50 blend of biofuels. Last
838 week, the Air Force flew an A-10 warthog on the first
839 alcohol-to-jet fuel produced by U.S.--in the U.S. by Gevo, a
840 Colorado company.

841 As I look down the list of those testifying today, I
842 doubt a single witness would disagree that adopting a
843 portfolio approach to energy is in the Nation's best
844 interest. Energy is not a partisan issue. It is an issue of
845 economic and national security. Energy policy is a key
846 driver in the future prosperity of this Nation, and I applaud
847 the chairman and the Committee members for holding a truly

848 fact-finding hearing today.

849 Biofuels, as you heard from my colleague, Mr. Dinneen,
850 have already made a significant contribution to our Nation's
851 transportation supply. America began our journey in
852 renewable fuels policy with ethanol in 1978. It took 20
853 years to deliver the first 2 billion gallons of fuel. Since
854 the adoption by this Committee of the Renewable Fuels
855 Standard in 2005, we have seen an explosion in gallons of
856 U.S. renewable fuels. As a result, the BP Statistical Review
857 of 2012 released on June 15 now shows the United States
858 having 48 percent of the production of biofuels worldwide.

859 It was only 5 years ago that this Committee extended the
860 government's commitment to renewable transportation fuels by
861 passing the Energy Independence and Security Act. As you
862 know, the legislation challenged the industry to produce 36
863 million gallons of fuel by 2022. In less than 5 years, we
864 have already new operating plants turning out hundreds of
865 millions of gallons of advanced biofuels. If you consider
866 that it generally requires 18 months to 2 years to site,
867 permit, and build a plant, that is simply a remarkable
868 achievement, and many more are on the way.

869 In speaking with members of Congress this year, I have
870 been asked where are the gallons? Is this another technology
871 that is always 5 years away? The answer is emphatically no.

872 We are putting steel in the ground and creating jobs for
873 Americans all over this country today.

874 So let me share with you a few examples. In your
875 testimony, I included a picture of the new Dynamic Fuels
876 facility located in Geismar, Louisiana. That has a name
877 plate capacity of 75 million gallons. It is making 1 million
878 gallons a week without a tax credit in place, and it is
879 selling it in a competitive basis. Additionally, Neste Oil
880 has built over 650 million gallons worldwide, and expects to
881 deliver 30 million gallons of renewable diesel to the United
882 States this year. With a name plate capacity of 27 million
883 gallons, last year my small family-owned company, Triton,
884 employed 15 people and used corn oil as its base feed stock,
885 and the list goes on. This year, we will see Texas-based
886 KiOR bring an 11 million gallon facility in Mississippi, Gevo
887 a 22 million gallon facility in Minnesota, and additionally,
888 companies like BP and DuPont have demonstrated their
889 technologies, purchased the land, and are deep into
890 engineering a design for the first cellulosic ethanol plants.

891 My message is simple, that it has only been 5 years
892 since you passed the RFS. Two, the RFS is fundamentally
893 working, and we are just getting started.

894 Let me conclude by observing this new industry is
895 helping make America steadily more energy and economically

896 secure. We all watched the price of oil spike earlier this
897 year and felt its impacts. You have the ability to send a
898 signal to industry and markets that you stand behind the RFS.
899 That signal, like this hearing of a balanced portfolio
900 approach, would be greatly appreciated and we appreciate
901 being here.

902 [The prepared statement of Mr. McAdams follows:]

903 ***** INSERT 6 *****

|
904 Mr. {Sullivan.} Thank you, Mr. McAdams. Next, Mr.
905 Breen, you are recognized for 5 minutes, sir.

|
906 ^STATEMENT OF MICHAEL BREEN

907 } Mr. {Breen.} Thank you, Chairman Sullivan, Ranking
908 Member Rush, ladies and gentlemen. I serve as the Vice
909 President of the Truman National Security Project, and I am
910 also proud to be one of the leaders of Operation Free, a
911 fiercely nonpartisan coalition of over 1,000 patriotic
912 veterans across the country, who stand together in the common
913 belief that our dependence on oil as a single source of fuel
914 poses a clear national security threat to the United States.

915 To be clear, oil is an immensely important substance to
916 our economy and will remain so for the foreseeable future.
917 Its value goes far beyond its utility as a liquid fuel.
918 Petroleum is a key input in advanced manufacturing,
919 pharmaceuticals, agricultural products, and a host of other
920 applications. Unfortunately, however, a near total
921 dependence on oil as a fuel has eclipsed petroleum's other
922 contributions. Our dependence on oil as a single source of
923 transportation fuel poses a clear national security threat to
924 the Nation.

925 Oil is a fungible, globally traded commodity with prices
926 set on a world market. In other words, global supply and
927 global demand set the market and drive the price, not

928 American supply and American demand alone. This has crucial
929 implications for policy. Since any potential increase in
930 U.S. supply must be considered in light of global demand.

931 Some claim that recent technological advancements will
932 solve our oil-related national security problems, eliminating
933 the need to develop alternatives, but this is a fallacy for
934 at least three reasons.

935 First, it is highly unlikely that we can drill enough
936 here in the United States to meet our needs, at least for any
937 appreciable length of time. Second, American families will
938 remain vulnerable to swings in gasoline prices, even if U.S.
939 oil imports drop dramatically. In 2000, truck drivers in the
940 United Kingdom went on strike over rising gas prices. The
941 United Kingdom was a net oil exporter at the time, but that
942 didn't protect British truckers from rising world oil prices.
943 The tough reality is that when it comes to the price we pay
944 at the pump, there is simply no such thing as foreign oil.
945 Third, global demand for oil is rising at a breathtaking
946 pace, with no sign of slowing. According to the EIA,
947 America's oil consumption is expected to grow by 11 percent
948 over the next 2 decades. Meanwhile, China's oil consumption
949 is expected to grow by 80 percent, India's by 96 percent.

950 This is a market with clear winners and losers. The
951 winners, by and large, are non-free market countries, with

952 nationalized oil companies, many of whom are openly opposed
953 to the United States. According to the CIA, over 50 percent
954 of Iran's entire budget comes from the oil sector. As the
955 price of oil climbs, Iran's nuclear program and support for
956 global terrorist organizations are among the biggest winners.
957 Meanwhile, the losers are American service members facing oil
958 fueled uncertainties, Syrian revolutionaries facing Russian
959 supplied weapons, and American families at the gas pump.

960 Small wonder that Secretary of the Navy Ray Mabus
961 recently called the Navy's reliance on oil a ``strategic
962 vulnerability.''

963 Today, oil is a strategic commodity, but 2 centuries
964 ago, the world's top strategic commodity was not oil, it was
965 salt. Salt was the world's preeminent way of preserving
966 food, especially on long voyages. Wars were fought over
967 salt, kingdoms were built on it, and then salt was out-
968 innovated by an alternative technology, the ice box. Every
969 one of us still uses salt, but it no longer dictates the fate
970 of nations.

971 When government set aggressive yet maintainable
972 standards for private industry while providing real
973 incentives for innovation, there is nothing American
974 businesses can't achieve. That is the real strength of
975 technology neutral standards, like CAFÉ standards and the

976 Open Fuels Standards Act, legislation sponsored by two
977 members of this Committee, Congressman Shimkus and
978 Congressman Engel. There is nothing new or radical about
979 this, it has worked countless times before.

980 Next week, over 25,000 American sailors and Marines will
981 embark on one of the largest Naval war games ever conducted.
982 The exercise will be an opportunity to test a wide range of
983 new technologies produced by American companies, including
984 submarine-launched unmanned aerial vehicles, ``blue laser''
985 underwater communications technology, and the fuel for the
986 exercise itself, a 50/50 biofuel blend based on advanced
987 algae oils and recycled cooking oil. Navy pilots will fly
988 the world's most advanced combat aircraft at over twice the
989 speed of sound, powered by renewable American fuel.

990 We can and must follow the military's example. The
991 credible debate on oil dependence and national security is
992 all but over. There is simply no question at this point that
993 single source dependence threatens our future security and
994 our prosperity. It is time for Congress to act and to lead.

995 Thank you.

996 [The prepared statement of Mr. Breen follows:]

997 ***** INSERT 7 *****

|
998 Mr. {Sullivan.} Thank you, Mr. Breen. Next, Ms.
999 Stadler, you are recognized for 5 minutes.

|
1000 ^STATEMENT OF FELICE STADLER

1001 } Ms. {Stadler.} Great, thank you. I am here today
1002 representing National Wildlife Federation's four million
1003 members and supporters who are united by a shared value for
1004 clean air and clean water, and for open spaces that are safe
1005 havens for wildlife and places where we go to seek solace.

1006 I am here today under the assumption that we all share
1007 these values, that we are working together to identify the
1008 best course for our country when it comes to the energy
1009 choices we make today.

1010 We are at an energy crossroads, and now, more than any
1011 other time, is when we need to put politics aside and choose
1012 the path that will sustain and grow our economy, protect our
1013 local water supplies, and prevent disastrous climate-related
1014 weather events from increasing.

1015 I would like to take a minute to share a personal story
1016 of what my neighbors and I experienced nearly 1 week ago. I
1017 live in Silver Spring, Maryland, and I share a street with
1018 elderly residents, local business owners, government
1019 employees, with Republicans, Democrats, artists, lawyers, and
1020 sportsmen.

1021 I faced the ``derecho'' storm with a profound sense of

1022 fear for my children. I prayed my kids wouldn't wake, that
1023 no tree would fall on my house and that any destruction
1024 facing me in the morning would be tolerable. We were lucky.
1025 Sadly, my elderly neighbor down the street wasn't. She lost
1026 her life when the top half of a giant oak tree crashed
1027 through her roof. And my neighborhood was not alone.

1028 As we know, the damage we have sustained from weather-
1029 related disasters is being felt in communities across the
1030 country. Fires in Colorado have destroyed over a thousand
1031 homes, already costing taxpayers \$40 million to fight. The
1032 Poudre River, Colorado's only wild and scenic river outside
1033 of Fort Collins, is running black, a toxic mix of ash,
1034 debris, and fire retardant. In Florida, extensive flooding
1035 occurred last month when Tropical Storm Debbie deluged parts
1036 of the state with an astounding 26 inches of rain over a 72-
1037 hour period. The heat wave has been lost on no one.

1038 The weather extremes affecting us are exactly the sorts
1039 of climate change impacts that scientists have been
1040 projecting for years, so here is where we stand at a
1041 crossroads. Carbon pollution is changing our climate; and
1042 our changing climate is contributing to extreme weather; and
1043 in order to slow down this devastating trend, we need to
1044 dramatically cut carbon pollution.

1045 This is an urgent matter. We must begin this downward

1046 trend by 2020, just 8 years from now, if we are to have at
1047 least a 2 to 1 chance of keeping temperatures from rising to
1048 the point of dangerous interference with the climate system.
1049 Yet, our carbon emissions are still on a decidedly upward
1050 trajectory.

1051 Faced with these stark climate-changing realities, the
1052 National Wildlife Federation is propelled to ignite a
1053 national call to move this country swiftly down an alternate,
1054 sustainable, low-carbon fuels and electric generating path.

1055 We are not naïve to think that getting off high-carbon
1056 liquid fuels will be an easy task. It will require a major
1057 overhaul of our car and truck fleet; a major revamping of our
1058 public transit systems; a major investment in sustainable,
1059 renewable fuels; and a major shift in our fossil fuels
1060 subsidies structure.

1061 The good news is that we are making progress in a few
1062 limited areas. Corn ethanol has shown what is possible, but
1063 it is not the long term answer to our Nation's energy needs.
1064 We need more support to get us to the next generation of
1065 biofuels from non-food, perennial crops and wastes, that
1066 create significant greenhouse gas reductions and not lead to
1067 other major environmental problems.

1068 New fuel economy standards are essential. Recent and
1069 proposed fuel economy and greenhouse gas standards for cars,

1070 SUVs, and pickups has the potential to cut about 10 percent
1071 of total U.S. carbon pollution. In addition, steady
1072 expansion of electric vehicle technology can take us even
1073 further, to a mass market, high performance vehicle fleet
1074 that uses little oil and produces near zero pollution.

1075 Consumers can save money, communities and natural
1076 resources will not stand in harm's way of climate-related
1077 impacts, and American ingenuity can thrive. But this will
1078 only happen if we are bold in our resolve to address the root
1079 causes of climate change, the runaway carbon pollution that
1080 is generated by our current fossil-intensive fuel mix. This
1081 is the energy vision we need.

1082 National Wildlife Federation looks to you for your
1083 leadership at this critically important time, and Americans
1084 are eager to learn of the solutions path you will lead them
1085 down as you exert your authority and power as lawmakers.

1086 Thank you for the opportunity to provide comments on
1087 this important matter.

1088 [The prepared statement of Ms. Stadler follows:]

1089 ***** INSERT 8 *****

|
1090 Mr. {Sullivan.} Thanks, Ms. Stadler.

1091 Now we will move to the question period, and I will
1092 recognize myself for 5 minutes.

1093 Mr. Petrowski, the first one is to you. What are the
1094 costs to gas station owners of complying with the RFS? Do
1095 you expect those costs to increase in the years ahead, and if
1096 so, why? What other current or proposed regulations pose
1097 challenges for you? What is the impact of the RFS and other
1098 regulations on your customers?

1099 Mr. {Petrowski.} Well right now, the main threat we
1100 face on the RFS is, as was mentioned, when we mandate the use
1101 of a fuel that doesn't exist. We have to go out and purchase
1102 RINs. That adds to the cost of gasoline. Ethanol, which has
1103 spent most of this year actually below the price of gasoline,
1104 has not added a lot of costs this year. Ethanol has been
1105 blended in and accepted by our customers. Our customers are
1106 very, very price sensitive. I mean, that is one thing that
1107 you know in the retail business. A 2 to 3 cent differential
1108 between gas stations will cause huge shifts in demand.

1109 What I am worried about going forward, in addition to
1110 higher blends than are mandated, our liability of our
1111 equipment, our dispensers, private action lawsuits that are
1112 all addressed by House Bill 4345, and I worry right now

1113 currently the drought that we are experiencing in the
1114 Midwest, ethanol has gone up 40 to 45 cents in the last 2
1115 months and we may reach a situation this summer where ethanol
1116 is a significant premium to gasoline, and that will add to
1117 the cost of the finished product. We have a price-resistant
1118 and price sensitive customer.

1119 Mr. {Sullivan.} Thank you. Mr. Gerard, from a
1120 refiner's perspective, what are the problems created by the
1121 blend wall? If E15 must be used, what legal risks do
1122 refiners face? Is there any way under existing law to avoid
1123 the blend wall? What do you feel you need in order to
1124 address the challenges posed by the blend wall?

1125 Mr. {Gerard.} There are a lot of answers to that, Vice
1126 Chairman Sullivan, but let me just address it generally, if I
1127 can.

1128 First as to the blend wall, we have come to the blend
1129 wall much quicker than anticipated. Back when the RFS was
1130 first enacted, though I was not part of that debate, I think
1131 it was expected in 2018, 2019, et cetera is when we had come
1132 to that point of addressing it. What has happened today, if
1133 we go beyond the blend wall, then we are pushed into other
1134 fuel blends like E15. As I mentioned in my testimony
1135 earlier, recent research we have done with the auto industry
1136 shows that E15 has impacts on engine durability. The engines

1137 that we test with the auto shows that as many as five million
1138 of our existing vehicles would not be able to operate or
1139 would have adverse impacts.

1140 So there is issues associated with moving beyond the E10
1141 blend wall, as mandated by the RFS. That is why we believe
1142 it is critically important to come back and address that
1143 issue by opening it up.

1144 Looking at the other questions Mr. Petrowski talked
1145 about, such as cellulosic, our guys are major investors in
1146 alternative renewable forms of energy. In many ways, we lead
1147 the country in investing these energies. But we have got to
1148 be realistic about what it does, particularly to the
1149 consumer. When you talk about impacts on local service
1150 stations, convenience stores, impacts on autos, not to
1151 mention small utilities, boats, chainsaws--the list goes on--
1152 we think we have got to step back and address that and make
1153 sure we are thoughtful, because at the end of the day, if we
1154 impact the consumer adversely unintentionally, we are going
1155 to discourage the very use of the fuels that we are trying to
1156 promote. So we think it is a serious issue that needs to be
1157 looked at. RFS should be reopened to adjust for the reality
1158 of what the marketplace shows.

1159 Mr. {Sullivan.} Also, Mr. Gerard, what is the potential
1160 for increased E85 use, and why has it not caught on so far?

1161 Mr. {Gerard.} Well I think it really goes back to
1162 consumer choice. As I understand it, it is about 4 percent
1163 of the vehicles today that are E85 compatible or flex fuel
1164 vehicles. Less than 2 percent of our service stations around
1165 the country can provide it, and even flex fuel vehicle owners
1166 and users use it less than 1 percent of the time.

1167 So once again, it is a consumer question. If you make
1168 it available out there and the consumer chooses not to buy it
1169 for whatever reason, we need to be sensitive about that. We
1170 need to make sure the policy is done in a way that we don't
1171 get the rejection from the very people we are trying to
1172 convince to new, better forms of energy, other forms of
1173 fuels.

1174 Mr. {Sullivan.} Thank you, Mr. Gerard.

1175 Mr. Tanton, the President has officially--occasionally
1176 pointed to California energy and environmental policies as a
1177 model for the Nation. Do you agree with him?

1178 Mr. {Tanton.} No, I don't. I mean, people often point
1179 to Hollywood models, but you know, we suffer from the Charlie
1180 Sheen phenomenon. We have very many self-inflicted wounds.

1181 We often hear during campaign season that we need to run
1182 government more like business. In 40 years in California, I
1183 have finally figured out what business we are in. We are in
1184 the business of building stranded assets. We had a large

1185 corn-to-ethanol facility. It went belly up. It is now just
1186 coming back online, but what happens often in policy is we
1187 try to pick the technology du jour, and tomorrow it is
1188 another technology. We need to focus on constantly improving
1189 productivity, which is what got this Nation to be the
1190 wealthiest nation on earth. We need to practice our policy--
1191 focus our policies on principles and process, not picking
1192 technologies.

1193 Mr. {Sullivan.} Thank you so much. Next I recognize
1194 Congressman Rush for 5 minutes.

1195 Mr. {Rush.} I want to thank you, Mr. Chairman. Mr.
1196 Chairman, I have a question I am going to ask both Mr.
1197 Dinneen and Mr. McAdams to address. Under the Energy
1198 Security and Independence Act, which passed out on the Floor
1199 for many in 2007, contained the RFS as a role of reaching 36
1200 million gallons of renewable fuels by the year 2022.

1201 I want to ask each of these fine gentlemen, are we
1202 currently on pace to meet that goal, and if not, what
1203 additional steps are needed in order to make sure that we are
1204 on pace to meet those objectives? And what are some of the
1205 broader benefits to our economy that Renewable Fuel Standard
1206 would bring? What would be the standard--what would the
1207 standard have--the effects of the standard on future gas
1208 prices? What type of an impact would meeting the goals of

1209 the Renewable Fuel Standard have on jobs here in America? So
1210 first, Mr. Dinneen, and then Mr. McAdams.

1211 Mr. {Dinneen.} Congressman, thank you for that question
1212 and the opportunity to respond. Look, I have been in this
1213 business for 25 years, so I am the eternal optimist. I do
1214 believe that the 2022 target of 36 billion gallons can be
1215 met, but it needs to have some policy certainty to it. As
1216 Mr. McAdams noted, the uncertainty created about the RFS or
1217 the uncertainty with respect to tax incentives is going to
1218 have a big role in determining whether or not those targets
1219 are met in the out years. Clearly we are not meeting them
1220 early on, but that really is a function of an economic
1221 collapse in '08 and the consequent freeze on financing that
1222 occurred.

1223 But I have been to half a dozen plants producing
1224 cellulosic ethanol today from a variety of feedstocks. It
1225 really is not a technological question, it has been how do
1226 you encourage the financing to be given. It is happening
1227 today. Once the ethanol industry is allowed to continue to
1228 grow and evolve, as I believe that it can and it will, you
1229 are going to see tremendous economic and energy benefits
1230 beyond what you have today.

1231 I am real proud of the ethanol industry today. It is an
1232 industry that is responsible for some 400,000 jobs. It is an

1233 industry that last year added \$53 billion to our gross
1234 domestic product. It is an industry that displaced the 477
1235 million barrels of oil last year. It is a tremendously
1236 successful industry as it is. Those benefits will just
1237 expand further if the ethanol industry is allowed to continue
1238 to evolve.

1239 Mr. {McAdams.} Let me just echo what Mr. Dinneen said.
1240 I represent more of the second and third generation parties,
1241 and so I want to correct one myth. There is only one pool
1242 that has been short of--yes, I have it on. There is only one
1243 pool that has been short in terms of hitting the targets, and
1244 that is the cellulosic pool. So let me take Mr. Gerard's
1245 comment on about that pool.

1246 So what the EPA has under your vision, when you wrote
1247 the statute you allowed EPA to have flexibility to waive if
1248 the pool was short. So you waived--the EPA waived over 95
1249 percent of the statutory mandate for the cellulosic pool.
1250 And so what we are dealing with is less than 5 percent of the
1251 pool that was kept in place. If you waived it back in, then
1252 you have completely removed any certainty of the market to
1253 finance the building of any plant that will build the fuel.

1254 So that is why we have a dispute about it, and I would--
1255 with Jack, thoughtfully--about you can't give it--you can't
1256 give away 95 percent of the statute up front and then give

1257 away the last 5 percent in the back or no one will believe
1258 that they need to finance the building of these plants. The
1259 financing of the building of these second generation plants
1260 is the big deal.

1261 Jobs, here is a neat idea. All over the southeast, all
1262 over the west, there are different feedstocks that will be
1263 available for these new advanced technologies. Woods,
1264 different types of trees that grow oil, different types of
1265 grasses, an enormous amount of biomass that will be used in
1266 these different types of platforms. They create new jobs.
1267 They create new farm opportunities. Many of these feedstocks
1268 are grown on lands that couldn't sustain row crops, so they
1269 have no other use but to grow, for instance, maybe a pine
1270 tree. Now you can grow giant Miscanthus or something else.

1271 So you see not only on the technological deployment side
1272 an opportunity, you also see on the rural development side an
1273 opportunity with the advent of these new fuels. Thank you
1274 for the question.

1275 Mr. {Gerard.} Mr. Rush, could I respond to that?

1276 Mr. {Rush.} Certainly.

1277 Mr. {Gerard.} Thank you. Let me just add a little
1278 nuance to what Mr. McAdams said, and generally we are in sync
1279 on these as we work on these important alternative fuels.
1280 The--cellulosic, it has not met its target. We agree on

1281 that. The EPA did waive the 95 percent of it. The problem
1282 is there is 5 percent they didn't waive. It cost the
1283 industry \$15 million, merely because EPA set a fictitious
1284 number out there. We sought a waiver after it was already
1285 determined that there was no cellulosic produced that year to
1286 meet the requirement of the RFS, and we were just ignored and
1287 they said sorry, we decline your waiver.

1288 So what has happened under the law is you have given EPA
1289 almost a taxing authority. EPA could have mandated the \$500
1290 million under that--500 million barrels under the statute and
1291 put a very significant tax on the oil and gas industry
1292 because of that, or the obligated party.

1293 So that is where we think we need to open this up and
1294 take a close look at it. We are not trying to discourage
1295 what is trying to be accomplished in a broader energy policy
1296 here. Where we take great issue is when a statute mandates
1297 essentially a fan of fuel, and then you have the EPA,
1298 supposedly Environmental Protection Agency, that has almost
1299 unfettered discretion to decide how much they are going to
1300 charge the obligated parties each year. It is absurd. It is
1301 outrageous. It is bad public policy. That is what we are
1302 trying to address, not to discourage the advanced biofuels.
1303 We understand that. Again, our industry are major investors
1304 in a lot of those, as I think most on the panel here know.

1305 Mr. {Sullivan.} Thank you, Mr. Rush. Next, Mr.
1306 Shimkus, you are recognized for 5 minutes.

1307 Mr. {Shimkus.} Thank you, Mr. Chairman, and again, to
1308 the panel. I appreciate your coming in. I wish I had 5
1309 minutes for each one of you. I am sure our visitors wouldn't
1310 like that, but I sure would.

1311 Let me go first to Mr. Petrowski. You know, EPA has
1312 approved the E15 for sale, so what are your hurdles?

1313 Mr. {Petrowski.} We need some liability protection.

1314 Mr. {Shimkus.} What do you mean by that?

1315 Mr. {Petrowski.} A private action--if a customer comes
1316 in, even though the EPA has deemed E15 usable, and he puts it
1317 in his vehicle that does not warranty anything above E10, we
1318 do not want to be held responsible for that private action.
1319 It is--if we have a dispenser or an underground tank, we need
1320 to have the manufacturer and our insurance certificate
1321 warranty that it is okay to have E15 in there. We don't want
1322 to be excused from handling fuel properly and from things
1323 that we do that are our fault, but we don't want to try to
1324 comply in putting E15 in our equipment and then be held
1325 liable for that later.

1326 Mr. {Shimkus.} What about E85?

1327 Mr. {Petrowski.} We have 70 E85 stations within the
1328 Gulf-Cumberland network. Special equipment was used--

1329 Mr. {Shimkus.} And let me interrupt. In my
1330 congressional district I have--I can travel throughout my
1331 now--my 30 county area and always fill up at an E85 location
1332 anywhere in my congressional--but it is primarily the
1333 independent marketers. Why is that? Do you have any idea
1334 why it is more the independents than--

1335 Mr. {Petrowski.} I really don't--again, the retailer
1336 cares to sell the most volume he can and get his customer to
1337 come in, especially coming into our stores. And do remember,
1338 85 percent of the gas stations in the United States are owned
1339 by independents and major oil is down to 10 to 15 percent.
1340 We had a very successful E85 program when it was priced
1341 accordingly. As the price spread between conventional
1342 gasoline or RFG 10 percent blend and E85 now, we lost demand
1343 for the E85. It is simply a matter of price.

1344 Mr. {Shimkus.} Great, thank you.

1345 Let me--can I ask to put now--giving credit to Bungee,
1346 we are going to put up a slide, a picture of a kernel of
1347 corn, and I do this because a lot of times the debate on food
1348 fuel or anything else, or cellulosic, people don't really
1349 understand what occurs with a kernel and they think well, the
1350 whole thing goes.

1351 So first I would like Mr. Dinneen to talk about the
1352 component parts of a kernel, and then Mr. McAdams, I will

1353 segue to you really talking about next generation cellulosic,
1354 based upon a National Research Center, you know, announcement
1355 about a month ago.

1356 Mr. Dinneen?

1357 Mr. {Dinneen.} Well not being a farmer myself, the corn
1358 kernel is not necessarily my wheel house, but I will tell
1359 you, in the production of ethanol, we are just using the
1360 starch component of that corn kernel, and what is left behind
1361 is a very high protein, high fiber, high mineral content feed
1362 product that then goes to cattle and poultry markets across
1363 this country.

1364 Mr. {Shimkus.} So it is called distillers dry grains
1365 after the processing of the kernel, and distillers dry grains
1366 is really a major component in feed products for livestock.
1367 And I do this for my colleagues and friends who are concerned
1368 about the corn--the food fuel debate on livestock. The
1369 distillers dry grains is a commodity product sold after the
1370 refinery process, is that correct?

1371 Mr. {Dinneen.} Yes. In fact, last year, the ethanol
1372 industry produced some 36 million metric tons of distillers
1373 dry grains that was then fed across the country, and to put
1374 that in context, 36 million metric tons is enough feed to
1375 feed every cattle fed on a feed lot in this country.

1376 Mr. {Shimkus.} Well, and I would also say that we have-

1377 -we produce so much distillers dry grains that we are
1378 exporting distillers dry grains to other countries throughout
1379 the world, China, in particular, in their feedstock, so
1380 again, addressing the food fuel debate.

1381 Mr. McAdams, we talk about cellulosic, and I am not sure
1382 you followed the National Corn to Ethanol Research
1383 announcement where they talked about research demonstrated
1384 proof of the viability of generation 2.0 ethanol, and it is
1385 basically from the bran portion of the kernel, and that is
1386 why we have the kernel up there.

1387 Mr. {McAdams.} Well you also can use this stock in the-
1388 -

1389 Mr. {Shimkus.} Pull that microphone closer. I think
1390 that--

1391 Mr. {McAdams.} You can also use this stock in the
1392 leaves. So when you are looking at cellulosic technologies,
1393 you have different types. Thermal chemical, which is a
1394 gasification at different degrees, can use a range of
1395 different feedstocks. Prevalent in the southeast, for
1396 instance, in the woody biomass, woodchips, so you have a
1397 company like Sun Drop, I see you have Louisiana members here,
1398 that is going to build a 50 million gallon facility in
1399 Louisiana using wood chips and rice hulls, and they are going
1400 to turn it into synthetic gasoline with an MGA Exelon

1401 technology, again, to the partnership that Jack was talking
1402 about across the range.

1403 You have Enios using grasses, you have other people with
1404 synthetic biology now that can take cellulosic sugars, that
1405 is, extracting say, 40 or 50 percent of the sugar out of
1406 various compounds, either grasses or woods. Now you use
1407 bacteria, you modify the DNA bacteria and the bacteria
1408 literally spits out an oil, a gasoline, a jet fuel, exactly
1409 as if it came out of the barrel oil through a refinery. It
1410 is amazing technology that is coming--

1411 Mr. {Shimkus.} Thank you very much. Thank you, Mr.
1412 Chairman.

1413 Mr. {Sullivan.} Thank you, Mr. Shimkus. Next,
1414 Congressman Green from Texas, you are recognized for 5
1415 minutes.

1416 Mr. {Green.} Thank you, Mr. Chairman.

1417 Mr. McAdams's and Mr. Dinneen's testimony that he thinks
1418 that the RIN fraud situation is being overblown, but I am
1419 hearing that this is a real problem that the industry groups
1420 affected parties are working hard to solve this issue.
1421 First, do you agree with Mr. Dinneen on this overblown--that
1422 it is overblown?

1423 Mr. {McAdams.} I can understand--honestly, I can
1424 understand why Bob feels that. Ethanol does not have the

1425 same issue as the D-4 RIN pool. I can tell you, I have six
1426 members that effectively shut down in November when EPA
1427 announced the fraud that took place in Maryland and Texas.
1428 They completely shut down. Why? They are small operators.
1429 They make what is called a D-4 RIN credit, which is the
1430 biomass-based diesel pool, and for them to sustain their
1431 operations, they had to be able to sell the RIN credits.
1432 They went through--not to get too detailed, but they went
1433 through a RIN separation process. That created an issue with
1434 respect to whether the major oil companies felt safe with
1435 their RINs, given the fact that they got stuck for \$60
1436 million, so we are, as Mr. Gerard said, we are working very
1437 closely with EPA and API to try to range the risk of the
1438 various opportunities, the various buckets of RINs, so that
1439 we can have a more reliable system and stand the OFS up so
1440 that you have surety and liquidity in the marketplace.

1441 Mr. {Gerard.} So Congressman, I would be glad to put a
1442 little context around that comment, if you would like.

1443 Mr. {Green.} Well let me finish with my question,
1444 though. Do you take those RIN frauds seriously then, it
1445 sounds like?

1446 Mr. {Gerard.} I think all of us in the biofuels
1447 industry do not want to have fraud in our market, and so yes,
1448 we do take it seriously. And so the issue here is how do you

1449 de-risk the current market.

1450 Mr. {Green.} Well, again, you know, I know you are
1451 trying to work on it, but we haven't had much success on our
1452 subcommittee with EPA wanting to step up to the table.
1453 Hopefully they are.

1454 Bob, I know you wanted to get in.

1455 Mr. {Dinneen.} I appreciate that. Look, all I was
1456 trying to point out is we have had 29 billion RINs that have
1457 been issued, and 140 million of those, all D-4 RINs, have
1458 been found or alleged to be fraudulent. The lion's share of
1459 this program are D-6 RINs, ethanol RINs, and there has not
1460 been any suggestion of an issue with those RINs. So you are
1461 talking about half of 1 percent that deserves a serious
1462 response, and the RFA is indeed working with the API and
1463 others to identify an appropriate response. But I think the
1464 response needs to be focused on where the problem is, and
1465 people ought not get too disturbed about the integrity of the
1466 whole program, because I think the whole program has--

1467 Mr. {Green.} Let me get Mr. Gerard to respond to that.

1468 Mr. {Gerard.} Let me just very briefly respond, and I
1469 appreciate what Bob is saying. However, back to what Mr.
1470 McAdams said, these RINs are in buckets. When you look at
1471 the bucket on the biodiesel area where we found the fraud, it
1472 is 5 to 12 percent of the market. That is a serious problem,

1473 as those who buy the RINs and then EPA turns around and says
1474 well gee, you bought a fraudulent RIN, so go buy another one.
1475 So we have come back to the EPA and say let us create a
1476 process here where we can certify a mechanism to make sure we
1477 are not promoting or allowing fraud in the RIN process. It
1478 is that simple, but it is a serious issue. Five to 12
1479 percent of the market in the biodiesel area has been
1480 determined or estimated to be fraudulent. That is a problem
1481 for those of us buying the RINs.

1482 Mr. {Green.} So are you--is API and Mr. McAdams and the
1483 renewable fuels folks actually working with EPA, and what is
1484 the response from EPA?

1485 Mr. {Gerard.} Well Mr. McAdams and I are working
1486 together. I think today Bob and company haven't really
1487 thought it was their issue because in their space, in their
1488 bucket of RINs, there doesn't appear to be a problem, not
1489 yet. We hope there never is. We are working with the EPA.
1490 They have been slow to respond with solutions, but in
1491 combination with the White House and EPA, we are hopeful we
1492 can get a resolution by the end of the calendar year, so
1493 going in to 2013. We have got certainty in the program
1494 because you can appreciate, those buying the RINs will look
1495 to those we have got most confidence in, and that discourages
1496 some of the smaller plants and others that are trying to get

1497 into the market.

1498 Mr. {McAdams.} Let me drive that home, just real
1499 quickly. Let me put money on the table.

1500 So in the D-4 RIN pool, the D-4 RIN credit today is
1501 \$1.20. For a small producer, \$1.20 represents this whole
1502 margin. That is his cash flow in his business. If Mr.
1503 Gerard's numbers don't believe the D-4 RIN pool is valid and
1504 that there is more fraud in it and my guys can't sell that
1505 \$1.20 RIN, they can't operate. And that is why we have to
1506 have quality assurance in the D-4 pool.

1507 Mr. {Green.} And that is a concern that I have, because
1508 that \$60 million, believe me, the folks at the pump paid for
1509 that, and so that is just an additional adding to our
1510 gasoline costs.

1511 Mr. Chairman, I know I am out. I wish I had more time
1512 for Mr. Dinneen because I have a line of questions, so I
1513 don't know if we will have time to do a second round, but
1514 thank you.

1515 Mr. {Sullivan.} Thank you, Congressman Green. Next we
1516 recognize Congressman Burgess from Texas for 5 minutes.

1517 Dr. {Burgess.} Thank the chair for the recognition.

1518 On the RIN issue--and I wasn't going to devote any time
1519 to this, but we are having a subcommittee hearing in
1520 Oversight and Investigations on this issue. I have several

1521 small producers in my district in Texas who were, in fact,
1522 harmed very badly by this and their margin was cut to the
1523 point where they are likely out of business, and there is a
1524 significant dollar involvement that they will be looked to to
1525 make good on, and it is rather startling to think that we set
1526 up a program that had all of the good aspects of retailing
1527 of--securities and product of the energy market, and probably
1528 an object lesson for all of us. But I would just--an open
1529 invitation, if any of you have things that you would like to
1530 share with my office, we are going to be looking into this in
1531 detail during the Oversight and Investigations Subcommittee
1532 that will probably be in this very room.

1533 Mr. Gerard, I wanted to ask you a question on the--you
1534 know, I do travel some and travel by automobile, and when I
1535 go out of the Dallas/Ft. Worth immediate metroplex area, of
1536 course, we are under some air quality considerations where
1537 ethanol blends are mandated in our fuels that we sell over
1538 the summer, but sometimes when you get out to east Texas or
1539 even a State like Oklahoma or Arkansas, there will be a gas
1540 station that will put a big placard up that says no ethanol
1541 in my gas. And I always rejoice when I find those stations,
1542 because I am going to get extra miles per gallon out of my
1543 little Prius when I fill up. But is that day coming to an
1544 end where those retailers are going to be able to have

1545 ethanol-free gas? Your comments that under the current
1546 mandates that that 10 percent volume will have to be in every
1547 gallon of gas that is sold, and what did you say, by 2020
1548 there will have to be a 20 percent volume?

1549 Mr. {Gerard.} Well, if you look at the mandates in the
1550 Renewable Fuel Standard, it could grow to essentially--and
1551 this is projection--an E20 standard. And what I mean by
1552 that, when you get to the 36 billion gallons that were talked
1553 about by 2022 in the current construct, that is about where
1554 it is projected to go. In fact, some people believe it will
1555 go higher than that.

1556 So the more you mandate that, the less likely you are to
1557 find pure, conventional gasoline. I imagine there will be
1558 some creative folks out there, and Mr. Petrowski has probably
1559 seen some of them in the industry, who may try to avoid some
1560 of that or to offer it as an alternative, but at the end of
1561 the day, the more you mandate, the less likely it is you will
1562 see some without a blend, without fuel mix.

1563 Dr. {Burgess.} And of course, it is troubling as a
1564 consumer but also, I mean, I guess because of the--of 10
1565 percent ethanol I spend a lot of time at my lawn mower repair
1566 shop, Lowery's Motors, in Lewisville, Texas, and he said that
1567 the ethanol in gasoline had been very good for the lawn mower
1568 repair business or the small engine repair business, because

1569 he gets a lot of business. Is that observation accurate?

1570 Mr. {Gerard.} Very much so. In fact, particularly in
1571 the small business area, motor boats and others, I noticed
1572 just the other day on a boat system around the gas cap, you
1573 know, nothing beyond E10. Toyota and the other individual
1574 companies now will tell you that it is unlikely they will
1575 warranty anything that goes beyond E10, and there are
1576 actually gas caps on their automobiles this year that do
1577 that.

1578 So it is a serious issue. The warranty question is a
1579 serious question, and perhaps more so even in the small
1580 engines, to your point, the lawn mowers, the other engines.
1581 And that is why we believe you have got to go back and look
1582 at these questions. Let us be thoughtful about energy
1583 policy. We need all of the above, but we don't need to
1584 mandate and push something that creates problems for
1585 consumers that could cost them hundreds of millions of
1586 dollars.

1587 Mr. {Dinneen.} I am sorry, if I could just add here--

1588 Dr. {Burgess.} Well no, because I have an--

1589 Mr. {Dinneen.} Just to corroborate an interesting point
1590 though--

1591 Dr. {Burgess.} Let me just--I will give you a chance to
1592 follow up, but just a moment. In the last Congress, we

1593 should have had a hearing on this and we didn't. What we had
1594 was a briefing. We had a briefing down in the committee
1595 room, but the difference between a briefing and a hearing is
1596 there was no record. C-SPAN wasn't on and some very good
1597 questions were asked about what was the testing that went
1598 into the E15 regarding older engines and smaller engines.
1599 And it really was a series of finger pointing by the
1600 Environmental Protection Agency and Department of Energy. We
1601 had asked who is in charge here and it was this sort of
1602 activity. That is why I am so grateful we are having this
1603 hearing today. We should have had one in the last Congress
1604 before we got so far down the road on this. But we are
1605 putting people's investments at risk, certainly the retail
1606 gas outlets are going to be under some difficulty from
1607 liability concerns, and we have a responsibility to do this
1608 correctly. Unfortunately, in the last Congress we found it
1609 necessary not to.

1610 I also just need to point out, Mr. Tanton, I hope you
1611 gave us the upbeat version of your testimony? Is that right?

1612 Mr. {Tanton.} Staying in California requires that one
1613 is an eternal optimist.

1614 Dr. {Burgess.} Well, in a joint Economic Committee
1615 hearing that we had here just before the break, the green
1616 jobs phenomenon was looked to actually cost jobs. Is that

1617 something that you have experienced in your State as well?

1618 Mr. {Tanton.} Yes, and you are referring to the studies
1619 out of Spain, Italy, Denmark--

1620 Dr. {Burgess.} Right.

1621 Mr. {Tanton.} --Germany? Yes.

1622 Dr. {Burgess.} One green job equals three lost regular
1623 jobs.

1624 Mr. {Tanton.} Yes, we haven't enumerized it yet, but it
1625 is not a positive.

1626 Dr. {Burgess.} All right, thank you.

1627 Mr. {Sullivan.} Go ahead for a second.

1628 Mr. {Dinneen.} Thank you, Mr. Vice Chairman.

1629 Congressman, your points are all well-taken, of course,
1630 but you had teed up that question--that series of questions
1631 to Mr. Gerard suggesting that your own lawn mower was having
1632 difficulties with E10. I just wanted to point out that all
1633 small engine manufacturers warranty up to E10, and Mr.
1634 Gerard's answer indicated that above E10 might be an issue,
1635 and that could be true. I agree with you that there probably
1636 should have been a hearing to discuss the testing that had
1637 been done before E15 was approved, because I think the record
1638 would have shown that there was an exhaustive amount of
1639 testing. The Department of Energy and EPA did more than 100
1640 vehicles, more than 6 million miles, 12 trips to the Moon and

1641 back, testing on E15. They did not do testing on older
1642 vehicles or small engines, older vehicles in part because it
1643 is difficult to test for the full life of a vehicle on
1644 vehicles that have already been beyond their full useful
1645 life.

1646 And so in an abundance of caution, EPA did not approve
1647 the use of E15 in those older vehicles or for small engines.
1648 We support that action. We do think that there was enough on
1649 the record to demonstrate that older vehicles would not have
1650 seen a problem as well, but again, in an abundance of
1651 caution, EPA has limited E15 so that those engines for which
1652 it is not appropriate would not be able to use it.

1653 Dr. {Burgess.} So the retailer is going to have to rush
1654 out and say no, no, you can't fill your 2000 year automobile
1655 with this tank because you need to use the tank around the
1656 corner? I mean, this was the problem. We had that--we had a
1657 briefing and not a hearing. There is no record. I promise
1658 you, that was a series of finger pointing.

1659 Mr. Chairman, I thank you for your indulgence. I am
1660 going to yield back, but it was not the proper way to go
1661 about this. We have an obligation to people to do this
1662 correctly. I yield back.

1663 Mr. {Sullivan.} Mr. Gerard?

1664 Mr. {Gerard.} I will be very brief, Mr. Vice Chairman.

1665 My apologies. I just can't let that entirely stand. I am
1666 not sure how long the research went that EPA did to the Moon
1667 and back. I will tell you it was very limited research and
1668 it was conducted on the basis of catalytic converters. It
1669 wasn't engine durability. We, in combination with the auto
1670 industry, with DOE and with EPA, were doing a comprehensive
1671 analysis on engine durability. We told the EPA, let us wait
1672 until we get our research done. Let us look at this before
1673 we make a final decision. They rushed ahead. Our research
1674 now shows that two of those engines essentially failed of the
1675 eight we tested, and puts at risk five million autos in the
1676 current fleet as a result of the E15 decision. That is what
1677 the actual research shows on engine durability.

1678 So we believe, again, we should have more research. We
1679 have been doing this in collaboration with DOE and EPA, and
1680 we shouldn't rush into these issues. That is why we got to
1681 take a look at the RFS.

1682 Mr. {Dinneen.} But one of those engines also failed on
1683 E0, so it suggests that there maybe is an issue with the
1684 vehicle technology, not the fuel--

1685 Mr. {Sullivan.} Okay.

1686 Mr. {Dinneen.} And one of the failures was about a
1687 component of the vehicle that was under recall--

1688 Mr. {Sullivan.} We have got to move on.

1689 Mr. {Gerard.} So let us suggest we need more research,
1690 Mr. Vice Chairman, and I think we agree on that as opposed to
1691 rushing head on into policy decisions without careful
1692 consideration.

1693 Mr. {Sullivan.} Thank you, sir.

1694 Mr. Gonzalez, you are recognized for 5 minutes.

1695 Mr. {Gonzalez.} Thank you very much, Mr. Chairman. I
1696 am going to ask each of the witnesses for a yes or no answer.
1697 I would appreciate if you would give me a yes or no answer.
1698 It goes directly--it ties right in to what my colleague from
1699 Texas was pointing out about E15 and the mandate of
1700 increasing ethanol blends.

1701 This question is going to be predicated on two points.
1702 One is fact and the other is just an assumption in worst case
1703 scenario, but the fact would be that the following
1704 manufacturers will not warrant their vehicles if you exceed
1705 E10: Chrysler, Ford, General Motors, Mercedes Benz, Honda,
1706 Mazda, Toyota, Nissan, Volkswagen, Volvo, BMW, Hyundai, Kia.
1707 I don't know who that--I don't know, I guess that leaves out
1708 Ferrari, Maserati, Lamborghini, but I assure you, they
1709 probably would not warrant their engines either.

1710 The second--that is fact, unless it has been updated and
1711 they have reversed their positions. I don't think that is
1712 going to happen. The other is the assumption is that EPA was

1713 just wrong and Mr. Gerard was right. They didn't conduct the
1714 research as they should have to arrive at that particular
1715 conclusion and mandate.

1716 Do you believe that it would be proper for Congress--now
1717 we are talking judiciary, but we will work with judiciary--to
1718 pass a law that would immunize the producer, the supplier,
1719 and the retailer of E15 from liability by the consumer? Just
1720 a yes or no, is that a good thing for Congress to do?

1721 Mr. {Petrowski.} Yes.

1722 Mr. {Gerard.} Yes.

1723 Mr. {Dinneen.} Yes.

1724 Mr. {Tanton.} No.

1725 Mr. {Bajura.} No.

1726 Mr. {McAdams.} No.

1727 Mr. {Breen.} I don't know.

1728 Ms. {Stadler.} I don't think that is going to make
1729 sense.

1730 Mr. {Gonzalez.} All right. Does it make sense for
1731 Congress to pass a law that will allow the consumer who, in
1732 fact, suffers some damage as a result of a miscalculation or
1733 inappropriate testing by the Federal Government that requires
1734 a mandate for the supplier to supply, the retailer to
1735 obviously make available, something they put in their gas
1736 tank that destroys their engine, should that consumer have a

1737 remedy against the Federal Government to make them whole
1738 again? Yes or no.

1739 Mr. {Petrowski.} Yes.

1740 Mr. {Gerard.} If you are going to mandate the fuel, the
1741 government should take responsibility. They are the mandater
1742 of the fuel.

1743 Mr. {Dinneen.} Yes.

1744 Mr. {Tanton.} I got to think about it more.

1745 Mr. {Bajura.} Yes, but more importantly, every
1746 November.

1747 Mr. {McAdams.} I don't think that is a proper role.

1748 Mr. {Breen.} Yeah, I have to think about it.

1749 Ms. {Stadler.} Yeah, I am going to pass.

1750 Mr. {Gonzalez.} If you think this--I mean, from the
1751 point of our constituents, your customers, come on. They
1752 have to put something in their engines that is mandated by
1753 someone out there in authority, and then everyone escapes
1754 liability. I believe liability instills accountability. It
1755 is called human nature, and if we don't have that, then EPA
1756 or even the private sector can do whatever they want without
1757 any consequence. And that is what we are seeing today.

1758 I am a supporter of what EPA does most of the time. In
1759 this particular case, they did move quickly, prematurely. If
1760 I have the manufacturers of these vehicles telling you they

1761 are not going to warrant this, how is it fair for us to
1762 impose that kind of consequence on the consumer? We are all
1763 concerned about the producers, we are all concerned about the
1764 suppliers and the retailers. Is anyone talking about the
1765 consumer? Why wouldn't all of you say look, if the Federal
1766 Government is requiring you to do something, you shouldn't be
1767 held liable for any unintended consequence? Why aren't all
1768 of you all saying to the American people that if we force
1769 something on you and you have no choice but to use it, and it
1770 basically destroys your only means of transportation, someone
1771 should be held liable. Believe it or not, that is the basis
1772 of our American jurisprudence, is liability, believe it or
1773 not. It instills responsibility and accountability. That is
1774 what has been missing.

1775 Now I am going to tell you, we do have a piece of
1776 legislation out there when it comes to the producers,
1777 suppliers, retailers, and so on. Mr. Green and I have a
1778 piece of legislation out there that views it from the
1779 consumers' viewpoint and will allow them a remedy. I do
1780 think all of us need to be acting, you know, going in that
1781 particular direction so that we move forward, and I know that
1782 we are going to have conflicts among many of you as to what
1783 is the proper blend and such, but at a minimum, we should be
1784 looking at this incredibly important question.

1785 Thank you for your testimony today, and I yield back,
1786 Mr. Chairman.

1787 Mr. {Green.} If the gentleman would yield just 1
1788 second?

1789 Mr. {Gonzalez.} I think I have got a second.

1790 Mr. {Green.} I know our Committee passed a bill that
1791 would not provide it, but the bill you and I have that would
1792 actually follow up just like we did on vaccines that the
1793 Federal Government mandates, we take the responsibility, why
1794 wouldn't we do that though on my 2002 Blazer I like to drive
1795 at home. So thank you.

1796 Mr. {Sullivan.} Mr. Olson, you are recognized for 5
1797 minutes.

1798 Mr. {Olson.} I thank the chairman, and good morning to
1799 the witnesses. Hope you all had a happy 4th of July.

1800 Before I start with my questions, I just want to be sure
1801 we all have the facts, because every one of us is entitled to
1802 an opinion, but none of us are entitled to their own facts.
1803 Here are the facts about the American energy future.

1804 Our Nation thrives because we have cheap, reliable
1805 sources of energy, American fossil fuel energy. We will be a
1806 fossil fuel Nation for at least the next 25 years minimum.
1807 We have limited abilities to recover the oil and gas we have
1808 in our country. Now for most of the past century, we only

1809 got about 25 percent of the oil and gas out of the ground
1810 that we knew was down there, but we didn't have the
1811 technology to do that.

1812 Enter the American entrepreneur. In two techniques,
1813 directional hydraulic drilling--I am sorry, directional
1814 drilling, horizontal drilling, and hydraulic fracturing.
1815 Because of those two techniques, our energy portfolio has
1816 changed dramatically. We actually have a chance--I have been
1817 on this planet for about 50 years now. We have a chance to
1818 become energy independent, or at least depend upon North
1819 American sources of energy, Canada and Mexico, and it is
1820 because of these two techniques.

1821 We have got shale plays happening all over this country.
1822 North Dakota last month became the second largest producer of
1823 oil and gas in America. North Dakota. They got ahead of
1824 Alaska with that pipeline. My home State is still number
1825 one, I am not worried about that.

1826 None of us in this room could have foreseen these
1827 technologies and what it is doing for our country 20 years
1828 ago. None of us could see that. And so I want to tell
1829 everybody in this room, never, ever underestimate the power
1830 of the American entrepreneur in a free market system.

1831 And that is what concerns me about the RFS, because it
1832 interferes with the American innovator in the market, and

1833 forces them to pursue technologies that the government wants,
1834 not that the market supports.

1835 So my first questions are for you, Mr. Gerard and Mr.
1836 Tanton. A civil--we are stuck with the RFS, and I really
1837 want to get rid of it. I mean, again, it is the government
1838 choosing winners and losers, but assuming that we are stuck
1839 with the program as it currently is, given the increase in
1840 volume of ethanol mandate each year, shouldn't we diversify
1841 the sources from which we can produce ethanol to include
1842 abundant and cheap fossil fuels developed right here at home
1843 in America?

1844 Mr. {Gerard.} Well, if you allow fossil fuel production
1845 to meet the mandate, that could be one option, of course.
1846 But let me just add to your earlier comment on technology.
1847 One of the overlooked technology developments in the country
1848 today is in the oil and gas spaces you commented, our deep
1849 water drilling, hydraulic fracturing, horizontal--it is a
1850 whole new game and we shouldn't overlook that as we, once
1851 again, consider the energy future of the United States. So
1852 those would be options.

1853 Mr. {Olson.} Yes, sir. Care to comment, Mr. Tanton?

1854 Mr. {Tanton.} Yes. We need to diversify our sources,
1855 including the sources for renewable fuels. There has been a
1856 lot of talk today about cellulosic ethanol requirement. It

1857 is very simple to make cellulose into an alcohol fuel. It
1858 turns out as wood alcohol, methanol. You know, if I was
1859 going to make one tweak to the RFS, I would allow cellulosic
1860 methanol to compete, as well as cellulosic ethanol. But you
1861 can also make methanol out of natural gas, and of all the
1862 resources that have been--become available, expanded, I think
1863 perhaps natural gas is the one.

1864 Now I sort of bad-mouthed California energy policy. We
1865 are considering passing a hydraulic fracturing ban in
1866 California. For those of you from California or any
1867 influence in California, please help me stop that.
1868 California is the third largest refining State in the Nation.
1869 We are about to lose 30 percent of our refining capacity
1870 because of this so-called Low Carbon Fuel Standard, which was
1871 passed as part of our Global Warming Act.

1872 Mr. {Olson.} You kind of led to my next questions for
1873 you, Mr. Dinneen. I mean, you noted in your testimony that
1874 the Renewable Fuels Association's main mission is to drive
1875 expanded production of the U.S. American made corn-based
1876 ethanol.

1877 Mr. {Dinneen.} Just ethanol.

1878 Mr. {Olson.} Okay, exactly. But there are examples out
1879 there in this world, Brazil has an ethanol mandate but it is
1880 sugar-based. Mr. Tanton, this wasn't coordinated but I have

1881 got a company in my district that select these natural gas to
1882 make some sort of--ethanol. So do you support extending the
1883 RFS beyond corn-based ethanol?

1884 Mr. {Dinneen.} I think the RFS envisions that there are
1885 going to be a wide range of renewable fuels that will
1886 compete, and I would inform Mr. Tanton, including methanol if
1887 it is produced and can be done so competitively. The fact of
1888 the matter is, corn-derived ethanol today is the lowest cost
1889 alternative fuel that is out there. We are less expensive
1890 than Brazilian ethanol. Brazilian ethanol still comes in, it
1891 does compete, but the RFS is not an ethanol mandate. It is a
1892 renewable fuels mandate. It empowers the kind of
1893 entrepreneurship that you are seeking, because Mike's members
1894 and some of my members are looking for ways to evolve this
1895 industry to new feedstocks and new technologies. It is
1896 really an exciting time to be in the industry, because you
1897 see that evolution occurring before our eyes.

1898 But one thing that would undermine that, however, is to
1899 repeal the underpinnings for that development. And if you
1900 choose to move the Renewable Fuels Standard away from its
1901 foundation of a renewable fuel to allow for non-renewable
1902 technologies to compete, then you are going to drive
1903 investment there. Then you are picking winners and losers.
1904 I think that there is certainly a role for some of those

1905 nonconventional, you know, petroleum fuels and if there are
1906 programs that you can develop in addition to the RFS to
1907 encourage those, have at it. We would support it. But the
1908 RFS was designed as a renewable fuel program, and I think it
1909 should stay as such.

1910 Mr. {Olson.} And the chairman has given me about 2
1911 minutes extra time, so I thank him for that, and I yield
1912 back.

1913 Mr. {Sullivan.} Thank you. Next yield to Ranking
1914 Member Waxman for 5 minutes.

1915 Mr. {Waxman.} Thank you, Mr. Chairman.

1916 It is a good thing when we are less dependent on foreign
1917 oil. It is a good thing that we can have lower costs for our
1918 fuels, but the elephant in the room is climate change. And
1919 this year, the United States has experienced record heat
1920 waves across the country, debilitating droughts, and forest
1921 fires that threaten our communities in the West.

1922 Two weeks ago, Rex Tillerson of the Exxon Mobil
1923 acknowledged that burning fossil fuels is warming the planet
1924 and changing our climate, and I was pleased to hear Mr.
1925 Tillerson acknowledge this serious threat. Mr. Gerard, does
1926 the API agree with Mr. Tillerson that the burning of fossil
1927 fuels increases the temperature of the planet?

1928 Mr. {Gerard.} I think there are two responses to that,

1929 Mr. Waxman. First is, as you know, Mr. Tillerson is an
1930 important member of ours and we have a broad diversity within
1931 our group. I will say the general consensus is they
1932 recognize it as a challenge, but what they have done as
1933 industry is they have stepped forward and their single
1934 largest industry investors in forms of energy that are zero
1935 carbon emitting or low carbon emitting technologies.

1936 Mr. {Waxman.} That is helpful. So the association does
1937 not necessarily agree with Mr. Tillerson? They have
1938 different views?

1939 Mr. {Gerard.} No, our membership has different views,
1940 particularly different views as to how you would address it.
1941 Some support a carbon tax, you know, we had some that
1942 supported your--

1943 Mr. {Waxman.} Well before--we have those who support
1944 one thing or another. Presumably those who support one
1945 position or another recognize there is a problem and that we
1946 have global warming.

1947 Dr. Bajura, you aren't a climate scientist but you are
1948 the director of University Energy and Environmental Center.
1949 You are an expert on coal. I understand that you have
1950 acknowledged that fossil fuel pollution is responsible for
1951 climate change. In a presentation you gave to the National
1952 Coal Council, you stated that carbon management must be an

1953 integral part of coal-to-liquids technology. Dr. Bajura, I
1954 have a simple question for you. Is climate change a hoax?

1955 Mr. {Bajura.} I don't want to get involved in the issue
1956 of climate change is a hoax. We are concerned about CO2
1957 emissions and if we are looking at the effect of CO2
1958 emissions, it is a greenhouse gas. We have learned that in
1959 our fundamental science and engineering. It could contribute
1960 to climate change.

1961 Mr. {Waxman.} Unfortunately, the House Republicans seem
1962 to think climate change is a hoax. They voted to deny this
1963 science and to repeal any authority to address the problem.

1964 Ms. Stadler and Mr. Breen, I want to ask you about
1965 whether our energy policies should be rooted in science or in
1966 denial. Particularly Mr. Breen, can you explain from a
1967 national security perspective how climate change should
1968 inform our energy policy?

1969 Mr. {Breen.} Absolutely, and thank you for the
1970 question.

1971 There is a pretty strong emerging consensus among many
1972 national security leaders, including most of the most
1973 prominent think tanks in the field, that climate change is a
1974 dire national security threat. It is what the Pentagon calls
1975 an accelerant of instability or a force multiplier of
1976 instability. It creates the conditions that lead to

1977 insurgency, terrorism, interstate warfare, large mass
1978 migrations of people. We are already seeing some of this
1979 happening, that according to even the most conservative
1980 climate projections, is set to increase, especially in some
1981 of the most volatile areas in the world where our military is
1982 the most active, including central Asia. It is a huge
1983 problem.

1984 I am not a climate scientist, but according to all the
1985 research I have seen, 95 percent of climate scientists do
1986 believe that climate change is real and as a military
1987 officer, if I were informed that 95 percent of my
1988 intelligence told me I was facing a lethal threat, if I
1989 didn't act I would be committing unconscionable military
1990 malpractice.

1991 Mr. {Waxman.} Well military matters are handled by
1992 government. It is not left to private entrepreneurs to
1993 figure out what the military strategy ought to be for
1994 national security. Energy policy should be, in some ways,
1995 directed by our government. Not to--and we should not expect
1996 that private entrepreneurs are going to risk their profits in
1997 order to develop some technologies that may help our
1998 attention to the climate change issue when it is not
1999 profitable for them.

2000 Ms. Stadler, can you explain what our energy policy

2001 should look like if we want to be guided by science, and do
2002 we have the luxury of time to establish such a policy?

2003 Ms. {Stadler.} Well, we are running out of time, so I
2004 don't think we can sit around and think we have another
2005 decade to figure this out. I know this is going--is a debate
2006 that has been dragged on for multiple decades. There is
2007 strong scientific consensus that we are nearing a tipping
2008 point and that we really need to start ratcheting down carbon
2009 pollution, and if we don't, we are going to see more extreme
2010 storms and weather events like we have already seen.

2011 In terms of how we develop fuels policies, you know, we
2012 believe that we need to--not just when it comes to fuels, but
2013 energy policy more broadly, we need to evaluate them based on
2014 their ability to drive down carbon pollution. So when we
2015 talk about all of the above, we don't think that works when
2016 we are in this time of a tipping point.

2017 Mr. {Waxman.} Well all of the above is unfortunately
2018 the direction we have to take, because no one is going to
2019 stop using coal. No one is going to stop using oil. But
2020 what we need are alternatives and market incentives to
2021 develop the technology that will allow us to use oil and coal
2022 and other fossil fuels and take the carbon out of it, because
2023 our focus has to be, I think, on this climate change threat.
2024 It is not going to happen with the free market responding to

2025 it, because there is no competition to try to achieve what is
2026 a national--international goal by entrepreneurs, unless they
2027 can also make money. So we have got to give them the
2028 financial incentives to accomplish that goal.

2029 Thank you very much, Mr. Chairman.

2030 Mr. {Sullivan.} Gentleman's time is expired. I
2031 recognize the gentleman from Kansas, Mr. Pompeo, 5 minutes
2032 for questions, please.

2033 Mr. {Pompeo.} Great. Thank you, Mr. Chairman.

2034 You know, if folks back in Kansas were listening to this
2035 hearing this morning, they would be amazed, talking about D-4
2036 RINs and mandates and liabilities and fining companies
2037 because they don't buy a product that doesn't exist. I mean,
2038 they would be floored, I just have to tell you.

2039 Mr. Dinneen, you talked about RFS. Did you say there
2040 need to be no changes in the RFS? Did I understand that
2041 correctly? You said not to make broad sweeping changes.
2042 Does that go to say that you think there ought to be no
2043 changes in the RFS as well?

2044 Mr. {Dinneen.} I think it has been a tremendously
2045 successful program. I think one of its successes is founded
2046 upon the fact that this Committee gave EPA tremendous
2047 flexibility in addressing some of the issues that have
2048 arrived.

2049 Mr. {Pompeo.} So is that no changes--

2050 Mr. {Dinneen.} Yes, no changes.

2051 Mr. {Pompeo.} No changes. So in spite of the fact that
2052 a product doesn't exist, you think we should penalize
2053 companies for not purchasing the product?

2054 Mr. {Dinneen.} The product does exist. It is being
2055 produced today. It is not being commercialized as rapidly as
2056 we would like, but EPA has had the authority to reduce the
2057 cellulosic requirement, and they have done so.

2058 Mr. {Pompeo.} Right, it is amazing. You all talk about
2059 having reduced 95 percent of the requirement, is that right?
2060 What a stunning statement, to say that they have reduced it
2061 by--what a mess we made.

2062 Mr. {Dinneen.} It was a pretty stunning recession, I
2063 agree.

2064 Mr. {Pompeo.} I guess we are just not as smart on this
2065 side of the podiums as we thought we were.

2066 You also talked about how price sensitive consumers are.
2067 In fact, in Wichita, in the radio you can flip the radio on
2068 in the morning and they are advertising which gas station has
2069 the lowest price that morning by 2 cents, you know. They
2070 will talk about--I hear it all the time. Why are--do I not
2071 hear from my constituents screaming for E15 and E85 if it is
2072 such a good thing to lower consumer prices? I will tell you

2073 what, my constituents don't hesitate to call me when there is
2074 something they want. Tell me why I don't hear that very
2075 often.

2076 Mr. {Dinneen.} Well, I think there are going to be some
2077 constituents that will want it, absolutely.

2078 Mr. {Pompeo.} But I am telling you, in my experience--I
2079 have only been here 18 months, I will concede that--but I
2080 don't hear it. I was in four parades this week, and not a
2081 sole asked me about, sir, please, bring me E85.

2082 Mr. {Dinneen.} Maybe your constituents don't want to
2083 have choice, but I think most consumers--

2084 Mr. {Pompeo.} No, I promise you they do.

2085 Mr. {Dinneen.} --around the country want to have the
2086 option to utilize E15 if it is a lower cost, if it is
2087 appropriate for their vehicle, and we are not talking about
2088 mandating E15, and Mr. Gerard's repeal, he talked about E20,
2089 were are not talking about mandating E20. We are talking
2090 about giving consumers the choice to use it.

2091 Mr. {Pompeo.} That is just not right. You are not
2092 talking about giving them a choice, you are talking about a
2093 mandate. You are talking--you are not--I am happy--E100,
2094 knock yourself out. If you are prepared to give up the
2095 mandate here this morning, I am prepared to advocate for
2096 E100. Deal? I mean, you talk about choice, but it is

2097 fundamentally misleading to say that the consumers aren't
2098 looking for just--you are looking for a government mandate
2099 for your product.

2100 Mr. {Dinneen.} For 100 years, we have had a government
2101 mandate for gasoline. What we are doing right now is trying
2102 to--

2103 Mr. {Pompeo.} Sir, if you will point me to statute--

2104 Mr. {Dinneen.} --create incentive for other
2105 alternatives.

2106 Mr. {Pompeo.} If you will show me the statute mandating
2107 consumer's use of petroleum products, I will be happy to
2108 withdraw my previous comment. You can't. You can't point to
2109 it. I have asked your organization before for that very
2110 statute, and you can't point to it. I don't want to get into
2111 an argument. It is true.

2112 Mr. McAdams, you talked about financing. Why wouldn't--
2113 should we not just have government financing? You said you
2114 can't get these things financed because there is uncertainty
2115 about the RFS. Just have a government loan program.

2116 Mr. {McAdams.} I didn't suggest that.

2117 Mr. {Pompeo.} No, you didn't. I am suggesting it would
2118 be easier and cleaner--

2119 Mr. {McAdams.} I suggested there needs to be a
2120 partnership and vision with the advanced biofuels industry

2121 with the Federal Government, much like we had with the
2122 aircraft industry or we wouldn't have airplanes today; much
2123 like we had with the space program or we never would have put
2124 a man on the moon; much like we did with the internet, or we
2125 wouldn't have the internet.

2126 There is a partnership that can take place between the
2127 Federal Government and this innovative technology--

2128 Mr. {Pompeo.} Right. I am suggesting an even deeper
2129 partnership. Why don't we just give you the money, or loan
2130 it to you at a really cheap rate that you couldn't get any
2131 place else because the market just won't accept your product?

2132 Mr. {McAdams.} I am not going to sit here and defend
2133 the Loan Guarantee Program. I am not so sure that model
2134 worked very well. After all of my members looked at the Loan
2135 Guarantee Program, in all honesty, they were only awarded
2136 one. Most of--felt the transactional rates weren't right.

2137 Mr. {Pompeo.} Mr. McAdams, you agree it is the same
2138 effect. We are lowering the cost of financing. You want a
2139 mandate to lower the cost of financing. There is--it is
2140 different, the economics are slightly different, but the
2141 outcome for industries that are demanding federal mandates is
2142 largely the same.

2143 Mr. {McAdams.} I don't know what the combination
2144 between tax policy, grant policy is. I just know that we

2145 went through a very difficult period of time from 2008 to
2146 date--

2147 Mr. {Pompeo.} The whole economy did. So did our
2148 consumers, who were having to pay the tax bill--

2149 Mr. {McAdams.} Absolutely.

2150 Mr. {Pompeo.} --for your mandates and your subsidies.

2151 I want to ask one other question. So we have this
2152 restriction on RFS that only certain things--I have had
2153 several folks come into my office and talk about products
2154 like Mr. Olson was talking about that don't fit today's
2155 mandate. Another way to open this up, you complain about
2156 cheap natural gas. It is--that causes problems because
2157 natural gas--because you can't--you don't have enough price
2158 differential. Why not just put an enormous tariff on
2159 imported oil? Solves Mr. Breen's problem. We won't be
2160 taking oil from nasty companies. I am not advocating, I am
2161 just asking Mr. Dinneen or Mr. McAdams, why not just put an
2162 enormous tariff on imported oil and let everyone compete
2163 across that spectrum? We would obviously raise the price for
2164 gasoline.

2165 Mr. {McAdams.} If history serves me, I believe it was
2166 Bob Dole that suggested an import tariff, and it didn't
2167 receive much support.

2168 Mr. {Pompeo.} Would you advocate for that?

2169 Mr. {McAdams.} I wouldn't.

2170 Mr. {Pompeo.} Mr. Dinneen, would you?

2171 Mr. {Dinneen.} I wouldn't, but I think it does point
2172 right to the issue that we have here, is that you don't have
2173 a free market when it comes to energy.

2174 Mr. {Pompeo.} I am past my time. Thank you, Mr.
2175 Chairman.

2176 Dr. {Burgess.} [Presiding] The gentleman's time is
2177 expired. Chair recognizes gentlelady from Florida, Ms.
2178 Castor, for 5 minutes.

2179 Ms. {Castor.} Thank you, Mr. Chairman. Thank you all
2180 on the panel for being here today.

2181 I do believe that the overarching goals of the Renewable
2182 Fuel Standard are very important, and I think that they are
2183 goals that while we may not have our constituents demanding
2184 E85 at the pump, they do believe that it is important to
2185 reduce greenhouse gases and the Renewable Fuels Standard
2186 proposes as a goal by 2022, a greenhouse gas emission
2187 reduction of over 138 metric tons. We do hear our
2188 constituents clamoring for ways to reduce the risk of these
2189 extreme weather events tied to climate change. They can't do
2190 it by themselves, and they need leadership out of the
2191 Congress to do it. I think that is an important goal, and we
2192 are all struggling for how to get there and provide that

2193 leadership.

2194 I think our constituents also believe that it is
2195 important to provide our country with greater energy
2196 security, and that means greater domestic sources, and this
2197 is one in the all of the above category, that really
2198 challenges how we get to the second generation. I am
2199 frustrated by it, but you know, we are--the American people
2200 are kind of impatient and this is a goal that was set in
2201 2005, 2007. It is 2012, and gosh, we haven't seen the second
2202 generation of biofuels emerge. That is frustrating. And I
2203 hear people say well, be patient. But you know, we are
2204 hearing a lot more now, a growing chorus saying this is
2205 impacting our ability to have affordable food. The relying
2206 so much on corn has not--while maybe people were willing to
2207 say up front okay, we will do that to kick this off, we have
2208 got to make that transition now off corn-based ethanol into
2209 the second generation. I have heard some discussion here
2210 today, and Mr. McAdams, I wish you would get a little more
2211 specific with financing and how we move into the advanced
2212 biofuels and beyond the corn-based ethanol that is competing
2213 with food.

2214 Mr. {McAdams.} Well, let me give you an example why one
2215 size doesn't fit all. So if I am BP or DuPont, I can still
2216 finance the building of a cellulosic plant. I am a big

2217 entity, I have my own draw and capital. That is something I
2218 can do, and both of those companies are looking at building
2219 their own plants. If I am a smaller, innovative company, I
2220 don't have that line. So for instance, one of my companies,
2221 Sun Drop Fuels, has adopted a different model, so they went
2222 to Chesapeake, a natural gas company, because they are going
2223 to use natural gas as part of the feedstock in their plant.
2224 And so Chesapeake is going to help build this plant, along
2225 with the State of Louisiana. The State of Louisiana has put
2226 up \$450 million worth of bonds to build this plant, to create
2227 this new 50 million gallon cellulosic gasoline plant.

2228 And that is one point I want to make to Madam
2229 Congresswoman, is this is not all about ethanol. Most of the
2230 people that I represent make hydrocarbon drop-in fuels. So
2231 most of the technologies I am talking about are sugar-based
2232 fuels to gasoline, diesel, or jet fuel. Our wood-based fuels
2233 to gasoline, diesel or jet fuel, they are not going to make
2234 ethanol. They are going to make a fungible fuel which we
2235 will partner with the oil industry with, that will move
2236 through the existing infrastructure, does not need
2237 infrastructure changes and does not need changes to the
2238 engines. We will not have a lot of these subsidiary issues.

2239 So I think there is a bright future there, but my answer
2240 on what do you need, which is why I appreciated Mr. Pompeo's

2241 questions, it depends on who you are trying to help and what
2242 the scheme looks like. It is a tax piece, is it
2243 depreciation? I can tell you, if a big oil company wants to
2244 partner with one of my members and you give them accelerated
2245 depreciation, that is a lot more appealing than other forms
2246 of tax structure. So it depends. Multiple limited
2247 partnerships just offered by Senator Kuhns, another
2248 interesting model, then used very well by the independent oil
2249 industry. We don't have multiple lending partnerships in the
2250 biofuels world. We don't have intangible drilling costs in
2251 the biofuels world.

2252 So when you look at energy policy, you have got to
2253 create a level playing field across the whole sector, because
2254 we are going to use oil and gas for the next 30 to 40 years.
2255 And we ought also have the same kind of optionality for
2256 advanced biofuels and cellulosic biofuels that we have given
2257 to the inherent incumbent--

2258 Ms. {Castor.} And I think that you said here in the
2259 U.S. we are a leader globally when it comes to advanced
2260 biofuels, but are there some lessons we can take from what is
2261 happening in other countries when it comes to the advanced
2262 biofuels?

2263 Mr. {McAdams.} I think we can look from other companies
2264 for guidance, okay, and the concept that we have a free

2265 market, well, go talk to China or Brazil. They are financing
2266 the building of a lot of innovative technologies. We are
2267 developing the IP in the United States. I got two companies
2268 building their first plant in Brazil. Why? The federal
2269 government of Brazil sees a future there and they are helping
2270 fund the building of the plant. We are not doing that here.
2271 We are arguing about whether or not the Department of Defense
2272 can, you know, help glide a limited amount of money to build
2273 three plants.

2274 Dr. {Burgess.} Gentlelady's--

2275 Mr. {McAdams.} Brazil is building them all over the
2276 country.

2277 Ms. {Castor.} Thank you very much.

2278 Dr. {Burgess.} Gentlelady's time is expired. Recognize
2279 the gentleman from Virginia, Mr. Griffith, 5 minutes for
2280 questions.

2281 Mr. {Griffith.} Thank you, Mr. Chairman.

2282 Dr. Bajura, one of the greatest benefits of coal-derived
2283 fuels is the ability to provide our military with a more
2284 stable domestic source of energy. I was happy to hear you
2285 mention my bill, H.R. 2036, in your testimony, the American
2286 Alternative Fuel Act of 2011, which would repeal Section 526
2287 of the 2007 Energy Bill. This section effectively sets us on
2288 a course to rely even more on unstable regions where many of

2289 our military personnel are now deployed. Do you believe the
2290 potential to source military fuel from domestic resources,
2291 such as liquid fuel derived from coal, is a national security
2292 issue?

2293 Mr. {Bajura.} Yes, sir, I think it is, and it makes
2294 sense for us to have a diversity of supplies. The Department
2295 of Defense wants to ensure that it has the ability to have
2296 fuel to fund all of its operations. I think another thing
2297 that could be benefitted by having the Department of Defense
2298 program put in place is we talked about \$4 a gallon
2299 petroleum, we talked about \$27 a gallon renewable fuels, but
2300 at the war theater, a gallon of fuel might cost \$300. If we
2301 had coal-to-liquids or gasification in Fischer-Tropsch
2302 technologies, we might be able to produce that fuel right
2303 there at the theater, and that would reduce the cost of
2304 transporting it, which is another advantage to the Defense
2305 Department.

2306 I would also--

2307 Mr. {Griffith.} Hang on, sir, before you go on, can you
2308 explain that in a little bit more detail for all of us folks
2309 and at home who are watching?

2310 Mr. {Bajura.} Well, what we are doing--

2311 Mr. {Griffith.} Why would it cost so much at the war
2312 theater and what makes it advantageous to perhaps have that

2313 technology in that theater?

2314 Mr. {Bajura.} You want to ensure a security of supply,
2315 not only getting it there but the quality of supply. If you
2316 bought something elsewhere, would you know that it wasn't
2317 contaminated, for example. So you want to ensure security.
2318 So we take our own fuel to the theater. If we made our fuel
2319 there, it would be cheaper. Using gasification Fischer-
2320 Tropsch, we could produce it with materials that are there in
2321 that country.

2322 Mr. {Griffith.} All right. Go ahead.

2323 Mr. {Bajura.} I would also--one other comment to you,
2324 Section 526 is based upon an assumption of the amounting of
2325 greenhouse gases emitted in 2005 when we set a baseline for
2326 petroleum production. We are outmining the Department of
2327 Defense by alternative fuels, say, from coal, but yet if we
2328 import fuel from Venezuela, for example, petroleum, it
2329 doesn't have the same greenhouse gas content. It is emitting
2330 more, but we are allowing them to import the fuel but on our
2331 own industries to make the fuel here.

2332 Mr. {Griffith.} And you believe that with using the
2333 coal gasification we can actually reduce the greenhouse gas
2334 in the total process of that fuel, is that correct?

2335 Mr. {Bajura.} I think in doing coal gasification, for
2336 example, we have the ability to capture the CO2 there. If we

2337 produce Fischer-Tropsch fuels, as I commented earlier, we use
2338 biomass, we can sequester the carbon that is generated and as
2339 a result, we have fewer emissions than with regular
2340 petroleum.

2341 Mr. {Griffith.} Okay. What role do you believe long-
2342 term contracting authority for the Department of Defense
2343 could play in the development of a robust alternative fuels
2344 industry?

2345 Mr. {Bajura.} Long-term contracting is--it was
2346 proposed--was designed to provide some guarantees for a
2347 company that builds a plant. We are talking big bucks here
2348 if you are saying it is \$100,000 per daily barrel of output
2349 and you need 25,000 barrels a day, you are talking billions
2350 of dollars. There is a lot of risk in investing in a
2351 technology like that. We might say the elements are known,
2352 but putting such a big plant together is very costly. The
2353 price of oil is dynamic. I think it is important for us to
2354 have the floor and ceiling for prices, and as that
2355 legislation was proposed, we were even looking at ways where
2356 the Federal Government would not have to pick up the cost if
2357 it were a higher price--if the fuel production was cheaper
2358 than on the market, it would be beneficial.

2359 I think this is important that we ensure that
2360 development of the technology, once it is developed and

2361 proven, then I think industry will step in and do it.

2362 Mr. {Griffith.} And so part of what you are saying is--
2363 and I think I am correct in interpreting this--is that if we
2364 use that research capability, then we put it into the field,
2365 if somebody is going to invest the billions of dollars in
2366 putting something into the field, it might need something
2367 longer than a 5-year contract from the military to feel
2368 comfortable in putting that money into the investment. Is
2369 that a correct statement?

2370 Mr. {Bajura.} That is correct. That is why I want to
2371 do a long-term contract, because you look at a coal plant and
2372 you have got a 20, 30-year repayment cost for your capital
2373 contents. And we need that stability.

2374 Mr. {Griffith.} And so 20 years is more rational than a
2375 5-year?

2376 Mr. {Bajura.} Most definitely.

2377 Mr. {Griffith.} All right. Thank you very much, and I
2378 believe my time is up. I yield back.

2379 Dr. {Burgess.} Gentleman yields back his time. I
2380 recognize the gentleman from New York, Mr. Engel, 5 minutes
2381 for questions, please.

2382 Mr. {Engel.} Thank you very much, Mr. Chairman. I am
2383 very happy that this hearing includes legislation that I have
2384 long championed, the Open Fuel Standard Act, H.R. 1687.

2385 Every President for the past 40 years has pledged to free
2386 ourselves from the dangers of oil dependence, and you know,
2387 our transportation sector is the reason why we are still
2388 dependent on oil. Only 1 percent of U.S. electricity is
2389 generated from oil, but virtually every car and truck and bus
2390 and train, ship and plane manufactured and sold in America
2391 runs on oil, and for the most part, they cannot run on
2392 anything less. It is by far the biggest reason why we send
2393 \$400 billion per year to hostile nations and we know that
2394 money winds up funding terrorists in their efforts to harm
2395 us.

2396 What frustrates me in conversations about oil dependence
2397 are usually dominated by calls to drill more or use less.
2398 Both can be helpful, but neither is even close to sufficient.
2399 Between 2000 to 2008, drilling increased by 66 percent, and
2400 yet gas prices tripled. OPEC merely responded by decreasing
2401 its supply, keeping the overall amount of oil in the market
2402 the same. So I believe we need a game changing way to alter
2403 this dynamic.

2404 My colleague, John Shimkus, and I believe that the
2405 cheapest way and most effective way to do this is to allow
2406 fuels to compete in every new vehicle sold in the U.S., and
2407 that is why we have worked together to write the Open Fuels
2408 Standard Act. It has 28 sponsors in the House, 16 Democrats

2409 and 12 Republicans, and our bill would simply require new
2410 vehicles to be able to operate on non-petroleum fuels, in
2411 addition to or instead of petroleum-based fuels. Any kind of
2412 fuel would qualify: natural gas, alcohol, hydrogen,
2413 biodiesel, plug-in electric, fuel cell, anything other than
2414 just plain gasoline, and we are simply looking to open the
2415 fuel market to competition so that consumers can choose
2416 whichever fuel they want at any given price.

2417 Mr. McAdams, you mentioned and you talked about Brazil.
2418 I travel to Brazil, and it has long frustrated me that in
2419 Brazil fuel competition is a regular part of life. Not here,
2420 but in Brazil. Drivers pull into a fueling station and they
2421 get to choose which fuel they want to buy. Drivers make the
2422 choice, not the government, not the oil companies, and as a
2423 result, when global oil prices spiked in 2008, Brazilians
2424 simply purchased more ethanol than gasoline and were largely
2425 unaffected. But the American consumer cannot be as smart or
2426 as shrewd as the Brazilian consumer, because our cars cannot
2427 run on anything but oil, and that would change if we passed
2428 our Open Fuels Standard Act.

2429 And I want to just say before I ask my question, the
2430 United States Energy Security Council, really smart people,
2431 former Secretary of State George Schultz, former Secretaries
2432 of Defense Bill Perry and Harold Brown, former Secretary of

2433 Homeland Security Tom Ridge, former Chairman of the Federal
2434 Reserve Alan Greenspan, former Director of the CIA Jim
2435 Woolsey, they are all part of this and they stress that we
2436 need to break oil's monopoly over our transportation sector
2437 by opening the fuel market to competition from sources other
2438 than petroleum and fully support Mr. Shimkus's and my bill.

2439 So let me say, Mr. Petrowski, your testimony made
2440 references to four bedrock points. One was the need for
2441 diverse fuel sources, which I clearly support, and another
2442 was a concern over externalities. Your written testimony
2443 provides more detail in what you mean by that, but I just
2444 want to ask you simply would you be willing to sit down with
2445 Mr. Shimkus and myself to discuss how these externalities
2446 would be impacted by the Open Fuel Standard?

2447 Mr. {Petrowski.} Sure, I would love to. I would love
2448 to sit down. As I stated in my written statement and oral
2449 statement, we believe in diversity. I would caution, I would
2450 not exclude petroleum. Again, we may be on the verge of
2451 seeing ethanol spike for a short period of time this summer
2452 if we don't get sufficient rain and relief in the Midwest.
2453 You do not want to lock the industry into one fuel, whether
2454 it is ethanol or petroleum. Flexibility and optionality is
2455 the key to survival.

2456 Mr. {Engel.} I agree with you.

2457 Mr. Breen, your testimony mentioned that the price for
2458 oil was set by the global market and when the price of oil
2459 spikes, it spikes for everyone. You mentioned that in '08
2460 when the price of oil went to \$147 per barrel, truckers in
2461 the U.K. went on strike over the high cost of fuel and that
2462 happened even though the U.K. was self-sufficient, thanks to
2463 the oil it produces in the North Sea. And the global price
2464 spikes impacted them like everybody else. So contrary to
2465 popular belief, only 9 percent of U.S. oil supply comes from
2466 the Persian Gulf, yet the U.S. economy is affected by spikes
2467 in oil prices when the Persian Gulf destabilizes. So since
2468 '05, we have been producing more and more oil while consuming
2469 less and less, so we increased our production, decreased our
2470 demand, yet American motorists paid more for fuel than any
2471 other year. Clearly something is wrong in our approach. I
2472 would like--Mr. Breen, do you agree?

2473 Mr. {Breen.} I do. I think we have got to remember
2474 that this is a globally traded commodity. Like many, many
2475 other globally traded commodities, there are spikes and
2476 decreases in the price, depending on what the global demand
2477 and the global supply looks like. I think the key point is
2478 the point that you made and the point that your bill makes,
2479 which I very much endorse, which is that flexibility and
2480 optionality is, as Mr. Petrowski said, are absolutely key.

2481 It is not that oil is not incredibly important to our economy
2482 and unlikely to be so for the foreseeable future, it is. It
2483 is that we need to have choices. It is that we can't be
2484 blocked into a single--the behavior of a single commodity
2485 that determines our national destiny. That is the issue.

2486 Mr. {Engel.} I couldn't put it better myself.

2487 Thank you. Mr.--

2488 Dr. {Burgess.} Gentleman's time has expired.

2489 Mr. {Engel.} Oh, I am sorry. Thank you.

2490 Dr. {Burgess.} The chair will recognize the gentleman
2491 from West Virginia, Mr. McKinley, 5 minutes for questions.

2492 Mr. {McKinley.} Thank you, Mr. Chairman.

2493 Dr. Bajura, if I could focus back a little bit on some
2494 of your remarks and some of your testimony and things that
2495 you had submitted. There is--from the Energy Information
2496 Agency that suggested that there are about 18 billion short
2497 tons of coal recoverable assets in America. Is that--do you
2498 agree with that?

2499 Mr. {Bajura.} I think that is a reasonable number, yes.

2500 Mr. {McKinley.} And what would--so that we can relate
2501 to it, at the current burn rate that we have in America, what
2502 would--how many years would that provide us for service in
2503 this country?

2504 Mr. {Bajura.} We are currently consuming about 1.1

2505 billion tons a year of coal, so that would be 18 years.

2506 Mr. {McKinley.} So we have--you say we have 18 years
2507 left of coal? I don't think that is correct.

2508 Mr. {Bajura.} I don't think that is right either.

2509 Mr. {McKinley.} Thank you.

2510 Mr. {Bajura.} I think we have like 250 years of coal.

2511 Mr. {McKinley.} Thank you. Do your math and--but so do
2512 you think the federal policies are helping us or hurting us
2513 in the coal production?

2514 Mr. {Bajura.} I think we have coal at the resource that
2515 we could continue to use. We generate much more electricity
2516 from coal than we do from renewables. I think it would be
2517 worthwhile for us to make more investments in coal--

2518 Mr. {McKinley.} Well that is what I want--that is where
2519 I am really headed towards, Doctor, is trying to get us over
2520 into that--first identifying what we have and then how we can
2521 use it so that we are not importing it.

2522 But the--you are aware, perhaps, with the National
2523 Energy Technology Laboratory in Morgantown, just nearby where
2524 you work, also in Pittsburgh, that the President has thumped
2525 his chest that he was good for all of the above and he was
2526 going to help innovate--how to innovate, be creative, but
2527 yet, you are aware he slashed the clean coal technology and
2528 the research into alternative fuels there at the NETL by 41

2529 percent. Are you aware of that?

2530 Mr. {Bajura.} Yes, I am, sir, and I had done some
2531 homework on the recommendations for funding for a fossil
2532 energy program of all of the five energy programs, nuclear,
2533 renewable, science, and things of that sort. Coal has taken,
2534 by far, the biggest hit, roughly say 33 percent in terms of
2535 requested funding and allocated funding since the last 2
2536 years. I think we do need to use coal in the future. I
2537 think with technology we can answer the concerns people have
2538 about carbon sequestration, taking coal, putting the CO2 in
2539 the ground, making electricity. There are no--

2540 Mr. {McKinley.} I think some of the things you said are
2541 very innovative, and I have had a chance to read your report
2542 that you submitted last year.

2543 But let us go back to how we are, as engineering and
2544 scientists in America, how we are competing, what we are
2545 doing compared to the global market with China and perhaps
2546 India as well, with the CTO and SNG, what are we doing? Are
2547 they outperforming us? What kind of investments are they
2548 putting into coal-to-liquid?

2549 Mr. {Bajura.} China is making investments in coal-to-
2550 liquid technology. They don't have much as a petroleum-based
2551 resource, and so they are making these investments, and they
2552 are doing them with government support. They are taking very

2553 big steps whereas we are taking smaller steps. They have no
2554 concerns about demonstrating a technology that hasn't been
2555 extremely well proven, because they are willing to put the
2556 money behind it. We are not funding our programs well enough
2557 that we can do demonstration programs. I think if we did
2558 demonstration programs, we could also hasten this technology
2559 into our marketplace. I am concerned that with the way the
2560 Chinese are developing their technologies in advanced coal
2561 electricity plants and coal-to-liquids, coal-to-chemicals
2562 plants, we may wind up buying our technology from China if we
2563 don't make investments here in this country to develop these
2564 technologies ourselves.

2565 Mr. {McKinley.} Do you subscribe to the fact that
2566 perhaps with the fact that they are developing in such a
2567 rapid way in the production of coal because they wrapped in
2568 at 3 billion tons of coal production a year? Are they just
2569 ignoring the environment, or do they have a different view on
2570 it than we do? Are they going to be--could we anticipate
2571 they are going to have bad weather conditions in the years
2572 ahead because they are producing coal--burning coal?

2573 Mr. {Bajura.} My observations about China is they are
2574 going to come lately, so to speak, to the aspect of global
2575 climate change. But what I have seen in terms of the
2576 technology and the discussions I have had with the people

2577 from China, their managers of their coal plants are very
2578 concerned about meeting environmental standards. They are
2579 doing everything they can to deploy new technologies to
2580 capture the criteria pollutants, and they are making great
2581 strides in terms of doing carbon capture and sequestration.
2582 For example, they built a large coal-to-liquids plant that
2583 produces 25,000 barrels per day of liquid fuels. They are
2584 capturing the CO2 that comes from that. Roughly, that is
2585 like 3 million tons a year of CO2 and they are planning to
2586 inject it underground. To actually doing that with the
2587 plant, we were not able to go forward with our plant, the
2588 Mountaineer plant in West Virginia because we couldn't get
2589 the financing to make it happen. While China might be late
2590 to the game, I think they are aggressively pursuing not only
2591 developing the technologies, producing the products, but they
2592 are also taking advantage and doing what they can for the
2593 environment.

2594 Mr. {McKinley.} Unfortunately my time is expired, but
2595 thank you very much for coming here today.

2596 Dr. {Burgess.} The gentleman's time has expired. The
2597 chair recognizes the gentleman from Massachusetts, Mr.
2598 Markey, for 5 minutes for questions.

2599 Mr. {Markey.} Thank you, Mr. Chairman, very much.

2600 This is a very important hearing, and because it focuses

2601 upon what became a consensus after the first oil embargo,
2602 which was that it was critical for the United States to not
2603 have American produced oil be exported to foreign countries.
2604 And that is an almost 40-year policy now, a consensus that we
2605 had reached. And with few exceptions, that has been
2606 consistent with American policy over the last 37 years, to
2607 keep American crude oil in America, to supply fuel for
2608 Americans.

2609 So Mr. Gerard, you were quoted last month as saying that
2610 you support the lifting of restrictions on the exportation of
2611 American crude oil and that that needs to be a serious
2612 consideration, that we start increasingly exporting our crude
2613 oil. My problem is that even with Americans paying an
2614 average of \$3.38 for a gallon of gasoline, that the large oil
2615 companies want to send our resources to foreign countries.
2616 With American men and women on the ground in the Middle East,
2617 fighting and dying to protect oil supply lines, I don't think
2618 that it is really good for the American Petroleum Institute
2619 to say that we should be sending American crude oil abroad,
2620 otherwise, we should just change the name of the institute to
2621 the World Petroleum Institute, not the American Petroleum
2622 Institute, because it is not about America anymore. Because
2623 I just don't think that we are advancing American security,
2624 American employment, and American economy if we are thinking

2625 about this oil supply is anything other than something that
2626 should be used here in the United States, given the vast
2627 amount of oil that we still import into our country on a
2628 daily basis. Exporting oil just doesn't make any sense. It
2629 actually goes counter to our goal to reduce our total
2630 dependence upon imported oil.

2631 Mr. Breen, do you think it is a good idea to export
2632 American crude oil as long as there are American soldiers
2633 that are dying to protect foreign oil overseas? Shouldn't we
2634 keep our domestic resources right here at home so that fewer
2635 Americans will have to give their lives so that we can put
2636 gasoline into our cars and our trucks?

2637 Mr. {Breen.} I think, Mr. Markey, the--my sort of
2638 central point standard is that it is a global market and so
2639 when we talk about American production, even if we are
2640 talking about American exports, we have got to ask ourselves,
2641 are we going to be able to produce enough to meet global
2642 demand, which is skyrocketing? Again, you know, Chinese
2643 demand is supposed to go up 80 percent in the next 2 decades,
2644 Indian demand 96 percent in the next 2 decades. So I think
2645 it is highly unrealistic to imagine that we are going to be
2646 able to produce enough to touch that, especially in a global
2647 market where many of the dynamics are dictated by OPEC in
2648 cartels that will just lower their own production.

2649 Mr. {Markey.} Well as you know, since President Bush
2650 left office the amount of imported oil in the United States
2651 has dropped from 57 percent down to 45 percent. My goal
2652 would be to see it just keep going lower and lower, the
2653 percentage of oil that we import. Do you think that would be
2654 a good goal for the United States?

2655 Mr. {Breen.} Absolutely.

2656 Mr. {Markey.} You think exporting crude oil advances
2657 that goal?

2658 Mr. {Breen.} Probably not.

2659 Mr. {Markey.} That is what I am saying. That is the
2660 goal that I would have, to make sure that we don't see that
2661 occur, especially since we are now at our highest level of
2662 production in the United States in 18 years, highest level of
2663 production of oil in 18 years right now, today, in the United
2664 States of America. And that is quite an achievement for the
2665 Obama Administration. I mean, Obama really has embraced
2666 drill baby, drill. I mean, he is just incredible. Eighteen
2667 year high, something the United States never achieved by the
2668 Bush Administration. In fact, it kept going down during the
2669 Bush Administration, so let us give this guy credit, all of
2670 us. He deserves a lot of credit.

2671 Mr. {Gerard.} Mr. Markey, can I comment on that?

2672 Mr. {Markey.} About the exportation? I would like you

2673 to comment on the exportation of crude oil, if you could.

2674 Mr. {Gerard.} I am anxious to see which quotes you are
2675 saying. I am not aware that I ever said that as it related
2676 to crude oil.

2677 But we have strongly opposed approaches like you have
2678 advocated at others to get in the business of managing the
2679 marketplace and denying exports, be it natural gas and--

2680 Mr. {Markey.} If I may just interrupt you, you said it
2681 is a serious consideration that as America's changing energy-
2682 -call for more supporters of domestic oil and gas production,
2683 and possibly an eventual shift of U.S. energy export policy.
2684 American Petroleum Institute President Jack Gerard told
2685 Reuters in an interview. ``It is a serious consideration as
2686 we continue to produce more and more in this country,''
2687 Gerard said, at the API's Washington, D.C., office--

2688 Mr. {Gerard.} Absolutely, it is a very serious
2689 consideration. The very reason it is a serious consideration
2690 is due to modern technologies, that is why we are driving
2691 down the amount of imported oil in this country.

2692 Mr. {Markey.} Right.

2693 Mr. {Gerard.} There are two reasons. Number one, the
2694 economy--

2695 Mr. {Markey.} Well should we keep the oil here?

2696 Mr. {Gerard.} Well, why don't we--let us produce our

2697 resource here.

2698 Mr. {Markey.} That is what I am saying. Should we--if
2699 we produce the resource here, should we keep it here? That
2700 is the question. Yes.

2701 Mr. {Gerard.} We would love to work with you to expand
2702 the development of U.S. oil production--

2703 Mr. {Markey.} I am saying but if we produce it here,
2704 should we keep it here?

2705 Mr. {Gerard.} Absolutely, until we can produce enough
2706 to fill our market and then allow the market to work on a
2707 global basis--

2708 Mr. {Markey.} So you don't think we should export crude
2709 oil until we achieve that goal of filling our own market, is
2710 that what you are saying?

2711 Mr. {Gerard.} As you know, today we export less than 1
2712 percent, and that is generally in a trader market. As you
2713 know, that is the current public policy and has been for--

2714 Mr. {Markey.} But should that be--should we continue
2715 the policy of keeping the crude oil here--

2716 Mr. {Gerard.} Yes, we should focus on adding to the
2717 supply to get--

2718 Mr. {Markey.} But should we keep it here if we do add
2719 to the supply?

2720 Mr. {Gerard.} The marketplace will dictate that and it-

2721 -

2722 Dr. {Burgess.} Chair would instruct that the
2723 gentleman's time has expired. The witness has answered the
2724 question.

2725 Mr. {Gerard.} I would be happy to come visit with you.

2726 Mr. {Markey.} He has not answered the question.

2727 Dr. {Burgess.} The chair recognizes the gentleman from
2728 California, Mr. Bilbray, 5 minutes for questions, please.

2729 Mr. {Bilbray.} Thank you, Mr. Chairman. Mr. Chairman,
2730 I just want to clarify the history. There was a reference to
2731 the development of the aircraft being a government-subsidized
2732 endeavor. I think if you remember your history--well, the
2733 partnership was you had one government-financed effort here
2734 on the Potomac, and you had one private enterprise of two
2735 bicycle makers in the Midwest. The fact is, Langley was
2736 highly subsidized by the Federal Government and spent more
2737 time worrying about getting his government subsidy than
2738 developing the wind tunnels that could develop a successful
2739 aircraft, where the bicycle makers were the ones who actually
2740 developed it. So there is a perception that government
2741 involvement helps to move technology along the times.
2742 History again and again--and I can talk about environmental
2743 stuff--have proven that government intervention and control
2744 actually can divert those resources and the development of

2745 aircraft really is an example.

2746 On the dome of the Capitol, you do not see in that
2747 relief Langley's painting on the wall, you see the Wright
2748 Brothers chasing the airplane. So I think that we have got
2749 to learn from our mistakes.

2750 Now, I would ask Mr. McAdams, do you believe that we
2751 should be fuel neutral?

2752 Mr. {McAdams.} Yes, sir.

2753 Mr. {Bilbray.} Okay. Do you believe that we should
2754 make sure that our standards are fuel neutral?

2755 Mr. {McAdams.} Yes, sir.

2756 Mr. {Bilbray.} Now, if I can get 100 miles on one fuel
2757 with this much, and 100 miles with this much, do you think we
2758 should be giving our mandates and our benefits based on
2759 volume or based on BTUs?

2760 Mr. {McAdams.} Well, our association specifically when
2761 we went into the RFS--

2762 Mr. {Bilbray.} I want to know--don't go around. Should
2763 it be based on how much energy or how much volume?

2764 Mr. {McAdams.} We support energy density as a key
2765 component of the federal policy, and we did in the RFS too,
2766 and--

2767 Mr. {Bilbray.} Excuse me. Last I checked, aren't we at
2768 10 percent by volume?

2769 Mr. {McAdams.} You are talking about ethanol. I am
2770 talking about hydrocarbon based--

2771 Mr. {Bilbray.} I am talking about across the board, do
2772 you think that we should--our standards should always be
2773 based on percentage of BTU rather than volume of the fuel
2774 itself?

2775 Mr. {McAdams.} I think that is a novel policy in terms
2776 of performance-based. Our association specifically supported
2777 energy density as a component in the RFS--

2778 Mr. {Bilbray.} Okay. Do you believe that this should
2779 get the same benefits as this if the same amount of energy is
2780 contained in each?

2781 Mr. {McAdams.} That is certainly a policy a lot of my
2782 members would endorse.

2783 Mr. {Bilbray.} But you can't--you wouldn't endorse it
2784 at this time?

2785 Mr. {McAdams.} Well, I don't know what you are talking
2786 about. Are you talking about a tax policy, are you talking
2787 about RIN credits?

2788 Mr. {Bilbray.} Mandate 10 percent by volume is a pretty
2789 clear definition. Now, if I put 10 percent of something that
2790 has only 70 percent of the energy in of something that has
2791 100 percent. Let us-- you know, we can get into it, but the
2792 fact is BTUs is what the consumer--you want to give the

2793 consumer choice. When they buy--fill up their tank, don't
2794 they have the right to know that they are getting the same
2795 amount of mileage, quality, performance out of what they are
2796 putting in the tank--

2797 Mr. {McAdams.} I don't have a problem with that. Most
2798 of my guys make 124,500 BTU molecule--

2799 Mr. {Bilbray.} Okay.

2800 Mr. {McAdams.} That is identical to a molecule coming
2801 out of a barrel of oil through a refinery.

2802 Mr. {Bilbray.} Okay, and when we get into our
2803 environment, per emissions, we have been going to--don't you
2804 think it is a little absurd that we continue to give a per
2805 gallon emission standard rather than a per mile or per BTU?
2806 In other words, we are back to this issue that when you have
2807 unequal fuel potential, don't you think our support, our
2808 mandate, and our environmental regulation should reflect the
2809 reality of how much mileage you get out of that fuel, not
2810 just how much of the fuel is there?

2811 Mr. {McAdams.} I think you have a series of regulations
2812 across the board that are incumbent regulations that need to
2813 be looked at to recognize the new molecules that will come
2814 into the market.

2815 Mr. {Bilbray.} Okay. I am just getting back to the
2816 fact that in California--let us move over to in California we

2817 ran into a situation with the liability issue, didn't we, Mr.
2818 Tanton?

2819 Mr. {Tanton.} Yes, we did.

2820 Mr. {Bilbray.} We actually had boat owners suing the
2821 oil companies for putting ethanol into their fuel system,
2822 right?

2823 Mr. {Tanton.} Correct, and I think those were
2824 misdirected. They should have been aimed at the Air
2825 Resources Board and the elected officials who mandated that
2826 ethanol.

2827 Mr. {Bilbray.} Well, as a former member of the Air
2828 Resources Board, I so agree with you. The question really
2829 comes down to is that we got into that conflict, nobody is
2830 talking about would you, Mr. Tanton, leave your lawn mower
2831 with E10, let alone E15, with gasoline in it? Would you
2832 actually leave your lawn mower without burning out all the
2833 fuel before you put it away for the season?

2834 Mr. {Tanton.} No, I would not, and I think we need to
2835 keep in mind that people keep their lawn mowers longer than
2836 they keep their cars.

2837 Mr. {Bilbray.} Well, how much I use my lawn.

2838 Mr. Chairman, I appreciate that. Can I ask for one
2839 thing? This is a hearing but I would ask that we have a
2840 hearing about the fact that we don't even talk about natural

2841 gas being the alternative to traditional oil for the next 10
2842 to 20 years that consumers could have. And we totally--both
2843 sides ignore that natural gas option, and I will say it
2844 again. In 1992, I drove a natural gas car. It is compatible
2845 with the use of traditional fuels, or renewable fuels, and it
2846 is the orphan child of energy options out there, and it is
2847 the one thing that can break the monopoly of oil companies of
2848 the solid oil companies where we get into it. And I wish
2849 both sides of the aisle would finally admit it, but we need
2850 to have a hearing separate on that issue, because they have
2851 been left out in most of these hearings.

2852 I yield back.

2853 Mr. {Shimkus.} [Presiding] And I think my colleague
2854 looks at the Open Fuel Standard, and that would address some
2855 of the concerns of being able to use and not let the market--
2856 let the competition dictate the fuel.

2857 So I would like to ask unanimous consent--and Mr.
2858 Cassidy be recognized for 5 minutes. Before I give him that
2859 time, there are votes called. It is a vote to adjourn. I am
2860 willing to miss it. It is a stupid vote. So if we can get
2861 someone back from the Minority, I will try to keep moving on.
2862 But Mr. Cassidy, without objection, you are recognized for 5
2863 minutes.

2864 Dr. {Cassidy.} Thank you. First, for my colleague, Mr.

2865 Bilbray, actually House--my bill, 1712, promotes the use of
2866 natural gas as a transportation fuel, so I hope to see you as
2867 a cosponsor.

2868 Mr. Tanton, I really enjoyed your testimony. I always
2869 figure that California is the cutting edge of Democratic
2870 policy, and I see how poorly you all have done. I say well,
2871 what a tremendous State, how you can screw up even
2872 California? I also say I really like your attachment, your
2873 excerpt from Prop 87, energy security should come from
2874 shifting to a system of manageable risk. That is a great
2875 quote. Now Mr.--

2876 Mr. {Tanton.} Feel free to use it.

2877 Dr. {Cassidy.} I will. I will steal it and from hence
2878 forth, not attribute it.

2879 Mr. Engel mentioned in the Open Fuel Standard bill, what
2880 is your feeling--because you are little bit kind of
2881 annalistic about the ability of government to be positive.
2882 On the other hand, what do you think about the Open Fuel
2883 Standard bill?

2884 Mr. {Tanton.} I think the Open Fuel Standard bill is a
2885 good idea, but perhaps not implemented very well. I would be
2886 glad to work with the authors to improve it. It is, in many
2887 ways, identical to programs we have had in California over
2888 the past 4 decades. There is no consumer perspective. While

2889 it aims to allow for competition on the fuel side, it does so
2890 by denigrating competition on the vehicle side.

2891 Dr. {Cassidy.} Now let me ask you, because there is a
2892 little bit of a chicken and egg. If you don't create the
2893 potential to use an Open Fuel Standard, then you can never
2894 have an Open Fuel Standard.

2895 Mr. {Tanton.} Certainly, but every one of the vehicles
2896 that are called out in the Open Fuel Standard bill, have been
2897 or are available today. I mean--

2898 Dr. {Cassidy.} Now let me ask you--

2899 Mr. {Tanton.} There was an earlier question about
2900 natural gas.

2901 Dr. {Cassidy.} Yes, let me go there.

2902 Mr. {Tanton.} Okay.

2903 Dr. {Cassidy.} Again, I am not challenging, again, you
2904 and--because of California's issues.

2905 Mr. {Tanton.} Okay.

2906 Dr. {Cassidy.} Now in Idaho--I believe it is Idaho,
2907 they actually have a disseminated way to distribute natural
2908 gas. A utility has it and regular customer can go up and
2909 pump natural gas.

2910 Mr. {Tanton.} Okay.

2911 Dr. {Cassidy.} I am told they are shipping natural gas
2912 vehicles from around the country to be resold in Idaho

2913 because there is actually a market for them. If you will,
2914 the infrastructure was there so now people purchase cars, so
2915 you have to have one or the other lead the way and then the
2916 other follows. It makes sense to me that you would at least-
2917 -that somehow you have to break ground and allow one to lead
2918 the way.

2919 Mr. {Tanton.} Okay.

2920 Dr. {Cassidy.} Now so with that said, you agree to that
2921 it sounds, but you would still take issue with the Open Fuel
2922 Standard, what seems to me is just a way to break ground and
2923 help it lead the way?

2924 Mr. {Tanton.} I agree that a portfolio is important.
2925 Achieving the portfolio needs to recognize that consumers
2926 have diverse needs, diverse wants, have different risk
2927 perspectives. What is in the best interest of my retirement
2928 portfolio may not be in the best interest of Dr. Bajura's
2929 retirement portfolio. Everybody's portfolio is different. I
2930 find that when government subsidizes or mandates, which is,
2931 in effect, the same thing, a particular technology, even if
2932 it a menu of technologies, something goes awry.

2933 Dr. {Cassidy.} Okay, I think I have your point and I am
2934 running short on time, so let me go to Mr. Gerard.

2935 Mr. {Tanton.} I will try to make my answers shorter
2936 next time.

2937 Dr. {Cassidy.} Okay. Mr. Gerard, I actually met with
2938 folks from a major oil company regarding the use of methanol,
2939 because obviously produced from natural gas, a way to
2940 domestically supplement. We have the experience from
2941 California where E85 cars can run. I was told by one of
2942 their engineers--they are very nice. They brought somebody
2943 in from their testing facility--that EPA will not approve the
2944 use of the chemicals required to make methanol immiscible in
2945 gasoline. So sure, methanol itself is environmentally okay,
2946 but the chemicals used to make it mixable or miscible with
2947 the gasoline is not. Is it your understanding, this man's
2948 understanding, that EPA is a major roadblock in using
2949 products such as E85?

2950 Mr. {Gerard.} I would have to check on that specific
2951 case, Congressman. I would be happy to do so, but clearly,
2952 EPA is driving a lot of the energy policies I talked about
2953 earlier on cellulosic mandates and others. There is a lot of
2954 discretion, and that is one of the reasons we think the RFS
2955 needs to be open so we can deal with some of that discretion
2956 so you, as those elected officials, drive the policy and not
2957 the regulators. But I will look at the specifics of that
2958 case. I don't have an answer for you right now.

2959 Dr. {Cassidy.} Okay. Ms. Stadler, would you approve--
2960 would you agree with the Open Fuel Standard?

2961 Ms. {Stadler.} Right now we have not--the organization
2962 has not taken a formal position on the Open Fuel Standard.
2963 We firmly believe that we need to look at shifting
2964 investments to getting sustainable, renewable fuels into the
2965 marketplace, but specifically with respect to that piece of
2966 legislation we have not taken a position.

2967 Dr. {Cassidy.} I yield back. Thank you for your
2968 generosity, Mr. Chairman.

2969 Mr. {Shimkus.} You are more than welcome. We really
2970 thank the panel. We really need to have more hearings like
2971 this. Of course, I was bouncing between two, just to make
2972 sure the debate is out there so we can ask these questions,
2973 hopefully eventually get to some consensus, and as far as I
2974 am concerned, we are all friends and allies here, even our
2975 friend from the far right, as I am looking at Ms. Stadler,
2976 because of the positive things she said about ethanol. So I
2977 was happy with that.

2978 So we will just keep working together. We do want
2979 energy security. We want to decrease our reliance on
2980 imported crude oil. There are a lot of options to go to, our
2981 own natural resources and things. But the plan now is to
2982 dismiss the first panel, and if my colleague is going to
2983 stay, we are going to empanel the second panel and try to
2984 move through opening statements while the other members come

2985 back from the vote.

2986 Just an announcement while we are doing this, there is
2987 going to be another series of votes at 1:30, so that is why
2988 we are trying to expeditiously get through the second panel.

2989 We would like to call the second panel in the hearing
2990 room to order, and welcome you all for coming. You have sat
2991 through a pretty extensive first panel, so that might
2992 encourage more questions. Hopefully my colleagues come back.
2993 Obviously for full disclosure, we are in a vote series so--
2994 but hopefully they will get back in time to participate.

2995 So on the second panel we have--and the way I like to
2996 operate, I will introduce you all first and then we will go
2997 from left to right and have your 5-minute opening statement.
2998 And remember that your full testimony is submitted for the
2999 record.

3000 So joining us on the second panel is Mr. Gregory Dolan,
3001 Executive Director, Americas/Europe Methanol Institute. We
3002 welcome you. Next is Mr. Donald Althoff, Chief Executive
3003 Officer, Flex Fuel U.S. I don't know if you were there for
3004 my introductory comments, but we do appreciate the bouncing
3005 around and being able to make it. Mr. Shane Karr, Vice
3006 President of Federal Government Affairs, the Alliance of
3007 Automobile Manufacturers; Mr. Thomas Hassenboehler, Vice
3008 President of Policy Development and Legislative Affairs for

3009 America's Natural Gas Alliance; and Ms. Mary Ann Wright, Vice
3010 President of Global Technology Innovation, and the Chair of
3011 the Electric Drive Transportation Association, Johnson
3012 Controls, Incorporated. Again, your full statements are in
3013 the record. You are going to be recognized each for 5
3014 minutes, and we will start with Mr. Dolan.

|
3015 ^STATEMENTS OF GREGORY A. DOLAN, EXECUTIVE DIRECTOR -
3016 AMERICAS/EUROPE, METHANOL INSTITUTE; DON ALTHOFF, CEO, FLEX
3017 FUEL U.S.; SHANE KARR, VICE PRESIDENT, FEDERAL GOVERNMENT
3018 AFFAIRS, ALLIANCE OF AUTOMOBILE MANUFACTURERS; TOM
3019 HASSENBOEHLER, VICE PRESIDENT OF POLICY DEVELOPMENT AND
3020 LEGISLATIVE AFFAIRS, AMERICA'S NATURAL GAS ALLIANCE; AND MARY
3021 ANN WRIGHT, VICE PRESIDENT, GLOBAL TECHNOLOGY AND INNOVATION,
3022 JOHNSON CONTROLS, INC., AND CHAIR, ELECTRIC DRIVE
3023 TRANSPORTATION ASSOCIATION

|
3024 ^STATEMENT OF GREGORY A. DOLAN

3025 } Mr. {Dolan.} Thank you. It is a pleasure to be here
3026 today, and thank you for inviting me to testify on behalf of
3027 the Methanol Institute, representing methanol producers,
3028 distributors, and related technology companies from around
3029 the world. I am here today to talk about the global
3030 experience of methanol fuels and offer some insight into how
3031 the U.S. can once again regain its position as a leader in
3032 transportation innovation.

3033 In the late 1970s, when high gasoline prices driven by
3034 instability in the Middle East led to long lines at the pump,
3035 our country began to explore new alternatives in earnest. At

3036 that time, the State of California looked at the range of
3037 alternative fuels that can reduce the economic burden of oil,
3038 and also provide environmental benefits for consumers.
3039 California at that time determined that methanol offered the
3040 best range of benefits. California launched the Nation's
3041 first large scale alternative fuel demonstration program,
3042 placing nearly 18,000 methanol-fueled vehicles on the roads
3043 and establishing a network of 100 methanol fueling stations.
3044 America was leading the way in transportation innovation with
3045 the methanol experiment.

3046 Methanol is the most basic form of alcohol, and is
3047 naturally occurring in the environment. Methanol is readily
3048 biodegradable and it is much more environmentally benign than
3049 gasoline. Commercially, methanol can be made from anything
3050 that is or ever was a plant. It can be made from natural gas
3051 and coal. It can also be made from forest thinnings,
3052 biomass, municipal solid waste, even CO2 itself. We have
3053 members at our trade association around the globe that are
3054 actively producing these second generation biofuels at the
3055 commercial scale today. Worldwide, methanol demand exceeds
3056 15 billion gallons per year, while generating \$35 billion in
3057 economic activity and 100,000 jobs.

3058 California not only chose methanol for the wide
3059 availability of different feedstocks to produce it, they also

3060 selected methanol for its low cost and excellent performance.
3061 With its high octane rating and efficient burning
3062 performance, methanol is most often associated with racing
3063 fuels.

3064 But the low cost of methanol is its most impressive
3065 feature. For the past 5 years, the wholesale cost of
3066 methanol has ranged from \$1.05 a gallon to \$1.15 per gallon.
3067 If you were to sell methanol fuel as M85 at the pump today,
3068 adding distribution, retail taxes and markup, plus 15 percent
3069 gasoline, and accounting for the difference in energy content
3070 of methanol, consumers would still pay just \$3 a gallon at
3071 the pump without any incentives, almost 40 cents a gallon
3072 cheaper than the national average of gasoline, which today is
3073 \$3.38 a gallon.

3074 Alcohol fuels also have the lowest cost fuel
3075 infrastructure, with pumps costing just 20 to \$60,000, and
3076 because you can get significant margins from selling methanol
3077 at the pump, there is room for investment for retail fueling
3078 infrastructure.

3079 California's experiment continued for a number of years,
3080 but ultimately prices for gasoline were brought back down
3081 towards historic norms and consumers and governments quickly
3082 forgot about the stinging pains of high prices and continued
3083 business as usual.

3084 The question on everyone's mind as we gather here today
3085 is ultimately, how do we implement meaningful, long-term
3086 change that will have a significant impact on our dependence
3087 on foreign oil, help reduce costs at the pump, and be a
3088 bridge to the next generation of energy innovation? Other
3089 countries are answering that question by taking on methanol.
3090 In China, a methanol mix of about 8 percent of their
3091 transportation fuel pool and they use domestic feedstocks to
3092 meet that demand. The Chinese have buses, taxis, trucks, and
3093 passenger vehicles on the road that are running on a wide
3094 range of methanol fuels. China's power National Development
3095 Reform Commission considers coal-based methanol to be a
3096 strategic transportation fuel. Between 2005 and 2011, China
3097 increased its methanol production capacity from 1.5 billion a
3098 year to 15.5 billion gallons.

3099 There are no technical hurdles to the use of ethanol as
3100 an alternative fuel. We know what materials to use in the
3101 cars. We know how to make those cars run efficiently. The
3102 first flexible fuel vehicles that Ford built ran on both
3103 ethanol and methanol. Lotus Engineering has been building
3104 tri-fuel engines. We also know that the cost to add a flex
3105 fuel capability to a new car is just \$150.

3106 A recent study by MIT noted that methanol was the liquid
3107 fuel most efficiently inexpensively produced from natural

3108 gas. The U.S. is currently experiencing a boom in natural
3109 gas production, and then is creating a resurgence in the
3110 domestic methanol industry. We have seen--right now a plant
3111 is being reopened in Beaumont, Texas, that had been
3112 mothballed for years because of the lower natural gas costs.
3113 LyondellBassell has announced it is reopening a plant in
3114 Texas; so is Celanese. Methanex is moving a plant from Chile
3115 to Louisiana to take advantage of the lower natural gas
3116 prices.

3117 Now Congressman Shimkus and Congressman Engel have
3118 introduced legislation would take the first step in our path
3119 away from oil dependency. They have developed the Open Fuel
3120 Standard Act, H.R. 1687. The legislation would require that
3121 an increasing percentage of vehicles sold in the U.S. be
3122 capable of running on alternative fuels and technologies, in
3123 addition to or replacement of gasoline. This means that
3124 electric vehicles, natural gas vehicles, fuel cell vehicles,
3125 biodiesel, and of course, alcohol FFVs will all qualify under
3126 this standard. The bill is about competition and economics.
3127 It is not about dictating what alternatives should move
3128 forward. The Open Fuel Standard Act would ensure that new
3129 vehicles on the road are no longer dependent on oil-derived
3130 gasoline. By embracing choices offered by the Open Fuel
3131 Standard Act, Congress has a chance to take action that will

3132 help serve as a bridge to new technologies and new solutions
3133 at no cost to the Federal Government. The Open Fuel Standard
3134 Act is an all of the above strategy for our passenger car
3135 fleet.

3136 Thank you for your attention.

3137 [The prepared statement of Mr. Dolan follows:]

3138 ***** INSERT 9 *****

|
3139 Mr. {Shimkus.} And thank you. Now Mr. Althoff, you are
3140 recognized for 5 minutes.

|
3141 ^STATEMENT OF DON ALTHOFF

3142 } Mr. {Althoff.} Thank you, Mr. Chairman, and thanks for
3143 continuing to invite me back. We think this is an important
3144 dialogue and we have lots to contribute.

3145 Most people probably weren't aware, but actually today
3146 there is an EPA-certified street legal E85 flex fuel
3147 conversion kit on the market today. Flex Fuel U.S. LLC has
3148 developed the first federal EPA-certified product which
3149 legally converts existing cars and light duty trucks to run
3150 on any combination of ethanol and gasoline, up to E85. The
3151 conversion system is low cost, it is easy to install, factory
3152 warranties are maintained. We have had successful pilots in
3153 some of the most demanding testing done on any vehicles in
3154 the country at DOE and at the EPA.

3155 While we are a new company, we have hundreds of these
3156 vehicles converted. We have got millions of miles running.
3157 They have delivered trouble-free and exceptional performance,
3158 and with the average vehicle life lasting longer than 15
3159 years, it would take way too long to reach economies of scale
3160 if we only relied on new vehicle technology to get us where
3161 we want to go. So we see retrofitting as a bridge, a bridge
3162 that helps us achieve our ultimate fuel solution faster.

3163 Existing retrofit systems are cost effective and should be a
3164 serious consideration today.

3165 We support the Open Fuel Standard because the new
3166 legislation would have a significant impact on what I believe
3167 is the most critical area in building a sustainable, economic
3168 alternate fuel marketplace, which is creating economies of
3169 scale. For any alternate fuel approach to be economically
3170 competitive against gasoline, a large percentage of the
3171 vehicles on the road must be alternate fuel, the fuel supply
3172 chain must be large, efficient, and competitive. In most
3173 alternate fuel policy debates, the old ``chicken or the egg''
3174 dilemma surfaces. If there were enough vehicles available,
3175 the retailers would add fuel, or if the retailer would just
3176 add fuel, the car companies would build more alternative
3177 vehicles. This has been true for all the alternative
3178 technologies coming forward. This legislation resolves this
3179 dilemma by creating a large flex fuel fleet, or alternate
3180 fuel fleet in the marketplace.

3181 We also support the standard because the legislation can
3182 create scale in the marketplace at very low cost, versus
3183 other alternative fuels, that is, for flex fuel. The
3184 incremental cost to produce alternate fuel vehicles is very
3185 low. Several credible studies conclude that the incremental
3186 cost is less than \$100 a vehicle. Retrofitting existing

3187 vehicles with our EPA-certified system can also be
3188 accomplished at a very low price. With scale, the retrofit
3189 can be done for under \$500 a vehicle, and is available for
3190 tens of millions of vehicles on the road today.

3191 Another advantage, as the number of flex fuel vehicles
3192 on the road grows, we will also see more competition to build
3193 better flex fuel vehicles and to see more aggressive pricing
3194 at the retail sites. These are subtle but important aspects.
3195 Today, most flex fuel vehicles are built without an ethanol
3196 sensor, which reduces the cost for the builder but has done--
3197 was done so at the expense to performance. So when we think
3198 that there is high demand for the product, that the product
3199 will be engineered to a higher quality and a higher standard.

3200 I would also like to emphasize that the economics work
3201 for ethanol blends today. The payback on the investment to
3202 build or convert a flex fuel vehicle could be as short as 1
3203 year, in some markets. This may surprise some people, but
3204 the facts bear it out. In Chicago, the average spot price
3205 differential for E85 has averaged 22 percent less than
3206 gasoline for the last 4 years. It has been 20 percent lower
3207 in 2012, even when the blender credit has been taken away. A
3208 properly designed flex fuel vehicle should have a fuel
3209 economy loss of 15 to 20 percent. We did a major test in the
3210 city of Chicago on 26 police vehicles with millions of miles

3211 driven that had a fuel economy loss of 18 percent. So in
3212 this example, you are saving somewhere between 4 to 6 percent
3213 on your fuel costs every year on every vehicle. So the
3214 economics work.

3215 Now although we see a lot of advantages for it, we do
3216 believe there are some areas where the legislation could be
3217 enhanced, or new policies created. We think they are simple
3218 and pragmatic, but they would enable us to achieve our goals
3219 in a faster pace.

3220 First, we believe that retrofitting existing vehicles is
3221 critical for the overall program. As I said earlier, with
3222 the average life of 15 years, it simply will take too long to
3223 get there. The other thing that retrofitting provides is it
3224 allows you to target where you convert. One of the
3225 interesting things today is demand of vehicles tends to say
3226 where the flex fuel vehicles end up. There are more flex
3227 fuel vehicles in California and it has the fewest number of
3228 E85 pumps in the country. So this method of allocating isn't
3229 very--doesn't create economies of scale and make the system
3230 work.

3231 The last piece that we would like to see is we believe
3232 that there needs to be some incentives for marketing and
3233 promoting the fuel. We believe that there is not strong
3234 public and consumer perception today, but that is mostly

3235 based on inaccurate data around the quality of the fuel, the
3236 fuel economy that is out there, and the pricing for the
3237 product.

3238 So we believe with those two simple enhancements, the
3239 fuel can go even further to make a big difference in the
3240 market. Thank you.

3241 [The prepared statement of Mr. Althoff follows:]

3242 ***** INSERT 10 *****

|

3243 Mr. {Shimkus.} Thank you. Now the chair recognizes Mr.

3244 Karr for 5 minutes.

|
3245 ^STATEMENT OF SHANE KARR

3246 } Mr. {Karr.} Thank you, Mr. Chairman.

3247 Mr. {Shimkus.} Sometimes they just have to be pulled
3248 closer. That is the problem.

3249 Mr. {Karr.} My name is Shane Karr, and I am
3250 representing the Alliance of Automobile Manufacturers today.
3251 We are a trade association of 12 light duty vehicle
3252 manufacturers, OEMs, representing roughly 3/4 of the market,
3253 the new car market by volume every year. I appreciate the
3254 opportunity to offer our views on the challenges and
3255 opportunities with alternative fuels.

3256 I want to start by saying that auto makers have invested
3257 \$200 billion over the last decade in R&D on fuel efficiency
3258 and other features. We are perennially back and forth with
3259 pharmaceuticals for the largest R&D investors on an annual
3260 basis.

3261 Today, consumers have more than 270 models that get over
3262 30 miles per gallon, and we are working on, as you all know,
3263 a variety of additional technologies that will improve fuel
3264 economy and reduce gasoline consumption.

3265 But the fact is that none of us have a crystal ball.
3266 None of my members have a crystal ball. And ultimately,

3267 consumers over a long period of time with their vehicle
3268 purchase choices are going to decide which technologies are
3269 the right ones for them.

3270 Given that fact, while we agree that alternative fuels
3271 are an important component of an energy security and
3272 independence strategy, we strongly believe that legislation
3273 mandating a particular vehicle technology or fuel or set of
3274 fuels would be a mistake. Vehicle production mandates--there
3275 are two problems with vehicle production mandates. They
3276 divert resources that could otherwise be used on other fuel-
3277 saving technologies, and they reduce the incentive for
3278 manufacturers to innovate.

3279 I do want to say that we agree with you, Mr. Shimkus and
3280 Mr. Engel, that E85 FFVs are an important and worthwhile
3281 technology. As you know, my guys make them. We sell a
3282 little over a million a year. There are approaching 12
3283 million on the roads today. They are clearly a piece of the
3284 puzzle, but their effectiveness in actually displacing
3285 gasoline consumption, which I understand is the goal of the
3286 Open Fuel Standards Act, has been relatively small thus far,
3287 and it--frankly, it is a function of fuel price,
3288 availability, and consumers' willingness to use the fuel.

3289 We hear all kinds of different numbers about the cost to
3290 manufacture FFVs, but--and everyone talks about a per car

3291 cost. I would just remind folks that we are selling about
3292 hopefully 14 million vehicles in the U.S. this year, so even
3293 \$100 a car quickly gets you over \$1 billion in costs to
3294 consumers for this technology. The other thing that is
3295 particularly relevant to this Committee is to know that
3296 emission standards in approximately 40 percent of the United
3297 States, California and the States that follow California, are
3298 about to be increased, and that increase in emissions
3299 standards is somewhat problematic with FFV technology. It is
3300 not insurmountable, but it is likely to make FFV technology
3301 more expensive.

3302 The other important point to note is that the Open Fuel
3303 Standard, as Mr. Dolan has highlighted, requires vehicles to
3304 run on E85, which is ethanol, and M85, which is methanol.
3305 You know, while we certainly have built vehicles that can run
3306 on methanol in the past and we could do it again, the fact is
3307 there are no production facilities in the U.S. making
3308 methanol in commercial--you know, for transportation use in
3309 commercial quantities right now. There are a number of other
3310 significant issues that would have to be further studied and
3311 addressed if we were going to go in that direction.

3312 What we are open to are perspective policies that, you
3313 know, reflect a comprehensive commitment to make new fuel
3314 successful in the marketplace, and those are policies that

3315 address production and distribution equally with vehicles and
3316 consumer acceptance. There, you know, we are looking at the
3317 timing and availability of new fuels coinciding with the
3318 availability of vehicles that can run on them. This really
3319 is a far preferable approach to introducing fuels and then
3320 trying to retroactively fit them in the marketplace. Above
3321 all, we would want the opportunity to build vehicles that
3322 deliver the best fuel economy, performance, and most cost
3323 effective compliance to improve the value proposition for our
3324 customers.

3325 I will just close by saying, you know, it is worth
3326 stressing again that competition is the best driver for
3327 technology innovations. My guys are placing bets on a
3328 variety of advanced technologies in alternative fuels.
3329 Ultimately, consumers will have the final say in determining
3330 which technologies and fuels will succeed or fail in the
3331 marketplace, and that is how it should be.

3332 [The prepared statement of Mr. Karr follows:]

3333 ***** INSERT 11 *****

|
3334 Mr. {Shimkus.} Thank you very much. Now I would like
3335 to recognize Mr. Hassenboehler for 5 minutes.

|
3336 ^STATEMENT OF TOM HASSENBOEHLER

3337 } Mr. {Hassenboehler.} Thank you, Mr. Shimkus, members of
3338 the Subcommittee. My name is Tom Hassenboehler, and I am
3339 here on behalf of America's Natural Gas Alliance. ANGA is an
3340 educational and advocacy organization dedicated to increasing
3341 appreciation for the environmental, economic, and national
3342 security benefits of North American natural gas. ANGA's 30
3343 members include many leading North American independent
3344 natural gas exploration and production companies.

3345 As has been discussed with the advent of new
3346 technologies and the advancement of shale gas production, the
3347 recoverable natural gas resource base in the U.S. has
3348 increased dramatically in recent years, and the U.S. has now
3349 surpassed Russia as the world's top producer of natural gas.
3350 In addition, crude oil and natural gas prices in the U.S.
3351 have diverged since about 2009. The EIA projects this trend
3352 to continue and the gap to widen through 2035. These
3353 developments present a tremendous energy security and
3354 environmental opportunity for the U.S. to increase its use of
3355 natural gas as a transportation fuel.

3356 ANGA works to promote a policy environment that
3357 increases market-driven use of natural gas as a

3358 transportation fuel. We support efforts to encourage a
3359 substantial transition of fleet vehicle to natural gas
3360 through policies that encourage natural gas vehicle
3361 conversions and original equipment manufacturer production.
3362 ANGA also supports significant expansion of natural gas
3363 fueling infrastructure along key transportation corridors
3364 throughout North America.

3365 These targeted efforts represent the most prudent and
3366 efficient means to encourage the development of economies of
3367 scale within this market, while decreasing emissions,
3368 dramatically reducing exportation of domestic capital, and
3369 advancing U.S. energy security. Similarly, ANGA is aware of
3370 the current challenges in this economic climate and the
3371 responsibility at all levels of government to be conservative
3372 in its expenditure of public funds. ANGA's efforts emphasize
3373 the importance to maintain parity among alternative
3374 transportation fuel policies, as has been discussed.

3375 One region where ANGA has had recent success is the
3376 Texas Clean Transportation Triangle, or the CTT. The goal of
3377 the CTT is to develop sufficient natural gas stations and
3378 initial fleet users to transform heavy duty trucking in
3379 Texas. On July 15, 2011, Texas Governor Rick Perry signed
3380 into law Senate bill 385, a first of its kind legislation
3381 designed to help create a sustainable network of natural gas

3382 refueling stations along the interstate highways connecting
3383 Houston, San Antonio, Austin, and Dallas/Ft. Worth. The
3384 legislation allocates funding from the Texas Emissions
3385 Reduction Plan, as well as private sources, to support the
3386 development of new stations and the deployment of NGVs.
3387 Similar broad stakeholder efforts are now underway in other
3388 parts of the country, especially in areas of shale gas
3389 production like the Marcellus or Rocky Mountain regions.

3390 Another example of NGV momentum is the bipartisan effort
3391 underway by Oklahoma governor Mary Fallin and Colorado
3392 governor John Hickenlooper. Last fall, they announced a high
3393 level initiative to use NGVs in State fleets by aggregating
3394 vehicle purchase numbers. Since then, the governors of 11
3395 additional States have signed the NGV MOU. The governors
3396 recently sent a letter to 19 auto manufacturers with plants
3397 in the U.S., pushing for the increased production of more
3398 affordable compressed natural gas vehicles. As an incentive,
3399 the governors reaffirmed their commitment to buy CNG vehicles
3400 for their respective State fleets.

3401 While these efforts are encouraging, still less than .1
3402 percent of domestic natural gas in 2010 fueled our Nation's
3403 vehicles, and this remains true, despite the fact that there
3404 are over 12 million NGVs worldwide today in other parts of
3405 the world, and that number continues to grow. Only about 1

3406 percent of those 12 million vehicles are here in the U.S.,
3407 despite our resources.

3408 At the federal level, ANGA supports efforts to create a
3409 level playing field among alternative fuel policies. We
3410 agree that it takes all of the above alternative fuels to
3411 enhance our energy security. However, current levels of
3412 support for NGVs are not on par with other alternatives. We
3413 encourage the Committee to take a comprehensive technology
3414 and feedstock-neutral approach when evaluating current levels
3415 of federal support for alternative fuels among all areas of
3416 the Federal Government, including Executive Branch, federal
3417 fleet performance, federal agency regulatory programs such as
3418 CAFE and EPA greenhouse gas standards, existing mandates such
3419 as the RFS, and research and development programs.

3420 ANGA appreciates the efforts of Congressmen Shimkus and
3421 Engel, and the other cosponsors of the Open Fuel Standard
3422 Act. While we are encouraged by this discussion the
3423 legislation is helping to create, we are concerned that this
3424 mandate on auto makers will not create the level playing
3425 field for fuels that is paramount to ANGA. We do look
3426 forward to continuing to work with Mr. Shimkus and the
3427 Committee on constructive policies that do help to level the
3428 playing field and contribute to greater energy security
3429 through the increased use of natural gas.

3430 Thank you.

3431 [The prepared statement of Mr. Hassenboehler follows:]

3432 ***** INSERT 12 *****

|

3433 Mr. {Shimkus.} Thank you. Now we would like to ask Ms.

3434 Wright, you are recognized for 5 minutes.

|
3435 ^STATEMENT OF MARY ANN WRIGHT

3436 } Ms. {Wright.} Thank you. On behalf of the over 25,000
3437 Johnson Controls employees who live in work in your States,
3438 and the 115 Electric Drive Transportation Association members
3439 really appreciate the opportunity to be here today. I am
3440 going to focus on three things. One is just an overview of
3441 the powertrains available in the marketplace. Number two is
3442 where are we in the advanced battery space in the United
3443 States, and number three, where do we go next in terms of
3444 establishing the U.S. as a competitor in clean vehicle
3445 technology.

3446 I would turn your attention to the slide that I put in
3447 your deck to just give you an overview--and I think we are
3448 going to put it up on the screen, to give you the spectrum of
3449 powertrain technologies. I can do--

3450 Mr. {Shimkus.} She is trying. She is getting there.
3451 She was sleeping.

3452 Ms. {Wright.} The powertrain technologies, you go from
3453 the left to the right, you see the internal combustion engine
3454 which we have had around for over 100 years, burns gasoline,
3455 diesel, and some of the ethanol fuels that we have talked
3456 about today, getting more and more efficient. Really

3457 interesting space called the start/stop, and what this does
3458 is combine a more robust battery with that efficient gas
3459 engine to deliver 5 to 20 percent fuel efficiency at a much
3460 more attractive value equation. And then, of course, we have
3461 the hybrids like the Prius, the plug-ins like the Volt, and
3462 the all electric vehicles like the Leaf, that compliment this
3463 spectrum, and two important things that you need to take away
3464 from this, one is this spectrum of portfolio--powertrain
3465 portfolios gives consumers a choice while delivering fuel
3466 efficiency, and number two, all of them need batteries.

3467 Which brings me to my next point, and that is where are
3468 we in our advanced battery industry? If we think about
3469 staying competitive with advanced vehicle technologies, the
3470 U.S. needs to continue to develop its manufacturing and
3471 technology capabilities in advanced batteries. We have laid
3472 the foundation over the last couple of years, but we are
3473 really catching up to the Pacific Rims, which have for
3474 decades been making significant investments in R&D
3475 manufacturing and supply chain development. As a result,
3476 they dominate the market for consumer electronics and
3477 advanced batteries for vehicles.

3478 In the fall of 2010, Johnson Controls opened the first
3479 high volume domestic lithium ion battery manufacturing plant
3480 in Holland, Michigan. This plant was established with the

3481 help of the ARA matching grant, and I will tell you, this
3482 plant would not have been built in the United States had it
3483 not been for that program. By the end of this year, we will
3484 transfer the production from our French manufacturing
3485 facility to the U.S. to support our global customers. These
3486 batteries will be made in Michigan and exported to Europe for
3487 assembly and distribution throughout the world.

3488 If we could turn to the next graphic, please? Johnson
3489 Controls is also investing hundreds of millions of its own
3490 dollars to establish an advanced battery industry in the
3491 United States. We have shored up many existing domestic
3492 suppliers and have brought Pacific Rim suppliers to the U.S.,
3493 who are providing Johnson Controls as well as other
3494 manufacturers with equipment and materials. When we built
3495 the manufacturing facility in Michigan, over 85 percent of
3496 the equipment and the infrastructure was sourced through U.S.
3497 companies, and the map on the screen shows the locations of
3498 our suppliers, many of whom are in your States, for our
3499 lithium ion battery industry, which is also creating
3500 additional U.S. jobs.

3501 When we think about where we need to go from here, we
3502 need to develop a viable and competitive domestic advanced
3503 vehicle technology industry, which includes not only
3504 batteries, but also electric motors, drives, controls, and

3505 software. It is critical for the long-term health of the
3506 U.S. economy that our national energy security and continue
3507 the position as source of global technology leadership. The
3508 Electric Drive Transportation Association, along with its
3509 membership, brings together the entire value chain of
3510 electric drive to speed technology and infrastructure
3511 advancements, and are helping to shape the market through
3512 consumer education, public outreach, and productive policy
3513 shaping.

3514 Well, what role does the government play? It is
3515 critically important of continued federal support for
3516 research, development, and deployment for these technologies.
3517 The Department of Energy is successfully promoting innovation
3518 in transportation through public-private partnerships,
3519 leveraging private sector investments to accelerate
3520 technology breakthroughs, manufacturing capability, and
3521 deployment of electric vehicles and infrastructure. They are
3522 helping to fund bioresearch and development activities to
3523 advance vehicle electrification, bring down electric vehicle
3524 costs, and increase range and fast charging capabilities.

3525 The bottom line is that global competition in this
3526 industry will continue to be incredibly intense, particularly
3527 from the Pacific Rim, and we have to make sure that we are
3528 effectively competing with long-term commitment, focused

3529 investments, and continued public-private cooperation and
3530 collaboration across the industry.

3531 In conclusion, clean technology is about implementing
3532 proven technologies that large number of consumers are
3533 willing to purchase to improve fuel efficiency and reduce
3534 emissions across many types of vehicles. Our collective
3535 challenge is whether we make the right investments and
3536 decisions to domestically provide the advanced technologies
3537 and systems for these vehicles. As a country, we can make
3538 the choice to pursue energy security and build a domestic
3539 industry for advanced vehicle technology, or we can watch our
3540 current dependence for energy resources shift from the Middle
3541 East to Asia.

3542 Thank you.

3543 [The prepared statement of Ms. Wright follows:]

3544 ***** INSERT 13 *****

|
3545 Mr. {Shimkus.} Thank you very much, and I thank the
3546 second panel for your statements. I would now like to
3547 recognize myself for 5 minutes.

3548 You know--and Eliot is still here. I think the main
3549 focus of the Open Fuels Standard was to be technology and
3550 feedstock neutral. I mean, I think that is the whole focus.
3551 We can bring in electric vehicles and hybrid operations, and
3552 you see that quite a bit, what better option--and the start
3553 and stop option. So you have a start and stop option with a
3554 diversified liquid transportation fuel mix that is compatible
3555 in internal combustion engines, but also is hybrid so that
3556 you can go to electric. I mean, you talk about the overall
3557 savings and changing the dynamics. I thin, Mr. Karr, that
3558 addresses your concern on R&D in the future, but we are all
3559 in this together. I think we all can benefit if we can move
3560 forward, and so my--I have got a couple of questions I am
3561 going to ask, and then we will see how the rest of the--my
3562 colleagues, and you can see they are starting to come back,
3563 which is all good.

3564 Mr. Dolan, what is the cost of methanol today, relative
3565 to gasoline?

3566 Mr. {Dolan.} Well, the wholesale cost of methanol today
3567 in the Gulf Coast is about \$1.08 a gallon. Now when you look

3568 at methanol, it does have a lower energy content than
3569 gasoline so it takes roughly 1.7 gallons of methanol as N85,
3570 which is 85 percent methanol and 15 percent gasoline, to give
3571 you the same energy content or range as a gallon of gasoline.
3572 So even accounting for the lower energy content, adding
3573 distribution and retail markup and taxes, we are still
3574 looking at a pump price to the consumer of about \$3 a gallon.
3575 So you have got a margin today of about 38 cents a gallon
3576 that could be used for investment and infrastructure.

3577 Mr. {Shimkus.} Would these come down if we moved on a
3578 public policy and there was a possibility of the economies of
3579 scale? Would you imagine that would happen?

3580 Mr. {Dolan.} Yeah, and we are already seeing some of
3581 that take place today. Right now, there is about 280 million
3582 gallons of methanol production in the U.S. Most of that
3583 production is used for the chemical industry as a feedstock
3584 for hundreds of products that touch our daily lives, but
3585 within the next 3 years, we are going to see that number
3586 increase to a billion gallons.

3587 Mr. {Shimkus.} Let me go quickly. What about consumer
3588 acceptance issues, do you think that will be of concern?

3589 Mr. {Dolan.} Well, when methanol was used in the past
3590 as N85 and a lot of fleet experiences, not only in California
3591 and other parts of the world, there were surveys that were

3592 done by fleet administrators. And they said uniformly that
3593 the methanol fuel operated very well for their consumers and
3594 their members.

3595 Mr. {Shimkus.} Thank you. Mr. Althoff, what is the
3596 typical cost for you to convert a vehicle to flex fuel?

3597 Mr. {Althoff.} Today it is about \$800 a vehicle, but as
3598 we grow in scale we think we can get it down to about \$500.

3599 Mr. {Shimkus.} And you made--and I was distracted when
3600 you talked about--what did the EPA decide or announce today?
3601 In your opening statement I think you talked something about
3602 the EPA?

3603 Mr. {Althoff.} Oh, I was saying that the technology is
3604 EPA certified. The technology can be placed on any light--
3605 any car or light truck that is street legal, maintains the
3606 warranty--

3607 Mr. {Shimkus.} And for full disclosure, Mr. Engel has
3608 been pushing me on the Open Fuel Standard, but you all came
3609 down and drove, what is it, a Doge Hemi--a big Dodge Charger
3610 came down and with the technology involved with the sensor
3611 read and the oxygen content, and it was very impressive and
3612 not overly engineered with it right on the engine.

3613 Mr. {Althoff.} And today Chrysler doesn't make a flex
3614 fuel Dodge, so this is the only way you can get--and we
3615 created this model for law enforcement, so we have got Dodge

3616 Chargers that in flex fuel service today in Illinois and
3617 Iowa.

3618 Mr. {Shimkus.} And let me move to Mr. Karr. It is my
3619 understanding dealerships will often charge the same amount
3620 for a flex fuel vehicle as they do a standard model. Ford,
3621 for example, has mass produced FFVs in the past. Given this
3622 demonstrated ability in the past to produce and do so at
3623 similar costs, what hurdles or technological barriers do you
3624 believe are out there?

3625 Mr. {Karr.} One thing I definitely want to make clear
3626 is that, you know, from a technological standpoint we can do
3627 it and we are doing it. And today, anybody who wants to buy
3628 a flex fuel vehicle can buy a flex fuel vehicle.

3629 Mr. {Shimkus.} But the point of the question is the
3630 automobile manufacturers and retailers are selling vehicles
3631 that the consumer may not even know are flex fuel. The
3632 capability is there, and not even this prepared question, but
3633 my new GMC Terrain, I knew it because I could recognize the
3634 signal, but they didn't market it. When they sold the
3635 vehicle then they went through you could use this. But our
3636 point is, this is something we think we could do.

3637 I guess if the deadlines in the Open Fuel Standard
3638 cannot be met, what do you believe is a realistic deadline?

3639 Mr. {Karr.} I think the question is less one about

3640 deadlines than about, you know, where do you want to go?

3641 Mr. {Shimkus.} We know where we want to go, so yeah.

3642 Let me move to--and I am burdening my colleagues. Let me

3643 move to Tom for a second. Talk about liquid versus dry

3644 natural gas and using liquid in internal combustion engines.

3645 Can you?

3646 Mr. {Hassenboehler.} Well, I mean, there really are no

3647 differences in dry natural gas in an internal combustion

3648 engine. The same performance enhancements that can be done

3649 for liquid fuels can be done for natural gas vehicles. In

3650 fact, in the new CAFE regs that are currently pending, we

3651 make some of those same arguments that fuel economy--it is

3652 all about optimizing performance for the particular fuel, and

3653 if it is a dedicated fuel, it can be optimized on a similar

3654 level.

3655 Mr. {Shimkus.} Great, I appreciate it.

3656 Now I would like to turn to my colleague from Illinois,

3657 Mr. Rush, for 5 minutes.

3658 Mr. {Rush.} To each of you, in regards to alternative

3659 fuels and our ability to realistically meet new demands for

3660 the alternative fuels safely, what is the status of our

3661 infrastructure? Are we on track, and if not, what will it

3662 take for us to be on track? Are we--as we move forward in

3663 supplementing initial fuels--alternative fuels? Do each one

3664 of you want to take a stab at it?

3665 Mr. {Dolan.} Sure, I can jump in. On the methanol
3666 side, we have had not only the experience in California where
3667 they had 100 fueling stations, but we now have a lot of
3668 experience in China where they are using, by last count,
3669 about 2 billion gallons of methanol was used in
3670 transportation fuel in fuel dispensers selling M85, M100, and
3671 M15. So the technology is there. We know how to do it. We
3672 know the materials to use in those pumps that cost about
3673 \$20,000 to \$60,000 per pump for methanol, similar to the cost
3674 for an ethanol fueling facility.

3675 Mr. {Althoff.} On the ethanol side, it is growing,
3676 especially in the Midwest, but is still not as robust as it
3677 needs to be. The good news is a large piece of the supply
3678 chain is in good shape, so most of the gasoline retailers can
3679 haul ethanol around in their trucks, 100 percent compatible
3680 there. Retail gas stations are relatively low cost to
3681 convert, typically the traditional three tank retail outlet
3682 can add E85 or a blender pump for \$75,000. So I think what
3683 is missing is either the support to put the infrastructure in
3684 place, or a way to build scale on the vehicles so that there
3685 is demand for it.

3686 Mr. {Karr.} Your question is a very good one, and I
3687 think the important context is to remember we use about 130-

3688 odd billion gallons of gasoline a year. So when you are
3689 talking about making significant shifts to alternative fuels,
3690 you are talking about very significant investments, both in
3691 resources and time. It has taken us over 30 years to get to
3692 10 percent with ethanol, and so you know, we just need to go
3693 into that. It is not that we can't do it, it is just that we
3694 need to go into that with kind of eyes open understanding
3695 with the broader context of, you know, the U.S.--the fuel
3696 pool and the motor vehicle pool situation.

3697 Mr. {Hassenboehler.} I would agree on the natural gas
3698 side. While there is momentum, the challenges are still
3699 enormous, so competing with over 120,000 gasoline stations.
3700 There is currently 1,000 CNG stations in the U.S. with about
3701 94 that are currently planned all over the country, and we
3702 are trying to develop corridors around that. And then on the
3703 LNG side, we have got 53 LNG fueling stations with another
3704 100 that are in the planning stages as well.

3705 Ms. {Wright.} And on the battery side, it is really
3706 beautiful because we are very fuel agnostic. You mentioned
3707 start-stop, which is complimentary to a gas or a diesel
3708 engine, or natural gas or any other fuel that you want to
3709 build, but as you think about higher levels of
3710 electrification where electricity is your fuel, 80 percent of
3711 all the charging is done at home today, and there is over

3712 4,000 fueling infrastructures in place now. The technology--
3713 this is an area where the technology is really progressing
3714 quite quickly to help be able to recharge in a timeframe that
3715 is acceptable to a customer, similar to what they do in a gas
3716 station today.

3717 Mr. {Rush.} So what I am seeing from each of you is
3718 that we have a long way to go, except in the battery area.
3719 We have a long way to go in terms of helping to bring the
3720 infrastructure on par with what we think the future of
3721 alternative fuels is, and should be. What do you suggest
3722 that we in Congress do in relation to that?

3723 Mr. {Dolan.} I think one solution is the Open Fuel
3724 Standard Act. We have got the chicken and the egg conundrum
3725 here where the retailers aren't going to be putting any
3726 infrastructure until the vehicles are capable of using
3727 alternative fuel. The Open Fuel Standard Act would break
3728 that by having the cars capable of running on something other
3729 than gasoline, and then you have the ability with the free
3730 market competition to determine which fuels and which
3731 technologies can really make it in the marketplace. We think
3732 methanol would offer some real economic advantages to the
3733 consumer.

3734 Mr. {Althoff.} Yeah, I would double down on the Open
3735 Fuel Standard as well, and also talk about some focus in

3736 where it goes. So although the gasoline market is huge, and
3737 to take a big piece of it into alternate fuels would be
3738 significant, 85 percent of the ethanol that the U.S. consumes
3739 is made in the Midwest. I mean, that all can move around the
3740 U.S., you just need to change the retail sites to be able to
3741 accommodate it. And that is a relatively low cost, compared
3742 to other components in it, and it also creates another
3743 revenue stream for the retailers. So you know, if the focus
3744 were to start in the Midwest where the fuel is abundantly
3745 available, the big transportation pieces are in place, and we
3746 could get the vehicles out there to create demand. So the
3747 retailers put it on their lots and they price it
3748 competitively, I think the competition will take over and it
3749 will grow itself.

3750 Mr. {Shimkus.} The gentleman's time is getting close.

3751 Mr. {Rush.} My time isn't up. Thank you.

3752 Mr. {Shimkus.} Thank you. Now the chair recognizes the
3753 gentleman from Texas, Mr. Olson, for 5 minutes.

3754 Mr. {Olson.} I thank the chair and would like to
3755 welcome the second panel. Thank you for your patience, your
3756 persistence through the votes.

3757 My initial question is going to be for you, Mr. Karr,
3758 and you, Mr. Hassenboehler. I hope I pronounced that
3759 correctly, sir. I apologize if I didn't. But you both in

3760 your testimony seem concerned about government mandates, like
3761 the RFS standards replacing market driven policies, and I
3762 assure you, I share your concerns. I have an example of a
3763 market driven use of natural gas for transportation which
3764 works. It is my home school district, Clear Creek
3765 Independent School District there in the--right around the
3766 NASA and the Johnson Space Center. With a generous private
3767 sector donation from BP, they purchased 43 school buses
3768 powered by compressed natural gas, CNG. And to add to this,
3769 they had their own refilling facility right there, so the
3770 buses go out with the bus driver during the day, make their
3771 runs, come back at night, park it up. Nobody is on-site
3772 there. They get out, open the door, plug the thing in, shut
3773 it off, go home, come up the next day, take it out and do it
3774 again. What it has done for the school district, you can
3775 imagine the price of natural gas now, they are saving
3776 \$300,000 a year because they are converting compressed
3777 natural gas. That is money that is not being spent on
3778 transportation for diesel fuel or fossil fuels. That is
3779 money that is now being spent in the classroom.

3780 So there are private sector examples out there, and I
3781 just want to talk about, you know, what are some of the
3782 lessons learned from the RFS that we can use as we can look
3783 for ways to encourage use of domestic natural gas for

3784 transportation, like the Clear Creek Independent School
3785 District has done? Mr. Hassenboehler, you first, sir.

3786 Mr. {Hassenboehler.} Some of the lessons from the RFS,
3787 you know, I think looking back from 2005 when natural gas
3788 supply and demand was in a much different state than it is
3789 now, you have the advent of shale gas production, hydraulic
3790 fracturing which has really revolutionized the natural gas
3791 industry in this country. You have got a much more robust
3792 industry that can actually meet some of this new demand from
3793 transportation; however, you have got existing mandates and
3794 existing policies that favor one fuel over the other. They
3795 aren't technology neutral. You know, what we would recommend
3796 is going through the entire Federal Government, looking at
3797 all the different pathways to--that the government
3798 incentivizes alternative fuel use and just strike it when it
3799 says one over the other, and just put alternative fuels. Let
3800 everyone compete and then if you want to send a policy signal
3801 to get off foreign oil or use more domestic resources, let
3802 that be the real driving signal, not pushing one over the
3803 other.

3804 Mr. {Olson.} Mr. Karr?

3805 Mr. {Karr.} I think the primary lesson that we have
3806 learned is that we have to pay attention to implementation.
3807 You know, at the time I think we thought that large part of

3808 the renewable fuel pool would go into the E10 and the
3809 national, and the rest would be picked up in E85, and that
3810 obviously did not develop. So now, even the first panel
3811 spent a lot of time talking about the blend wall. I will
3812 tell you all, you know, we ran the numbers really just this
3813 past week in preparation for this hearing. If the flex fuel
3814 vehicles that are already on the road today, if the owners of
3815 those vehicles were using E85 once out of every three times
3816 that they go to the pump, so 1/3 of the time that they go to
3817 the pump, we wouldn't be having a conversation about the
3818 blend wall. With E10, not even with E15, with E10.

3819 So, you know, I don't necessarily know the answer, you
3820 know, exactly why the E85 uptake hasn't been what we expected
3821 in 2005 and '06 and '07. A lot of my guys expected it to be
3822 more significant than it has been. But it is definitely an
3823 issue that, you know, we have to look at going forward.

3824 Mr. {Olson.} Thank you. One more question. Is our
3825 country globally competitive in the manufacturing of natural
3826 gas vehicles? Do you think other countries do a better job?
3827 Anybody?

3828 Mr. {Hassenboehler.} I would defer to the Auto Alliance
3829 there, but certainly most of the auto manufacturers who
3830 operate in the U.S. produce natural gas vehicles overseas.
3831 There are some that have shown renewed interest in doing so

3832 going forward, and so I would leave it at that and defer to
3833 the Auto Alliance on anything else.

3834 Mr. {Karr.} Yes, I think he is right, you know, most of
3835 the production has been focused overseas, based on the
3836 markets. But as others have indicated, you know, a lot of my
3837 guys are taking a second look at the U.S. market on the basis
3838 of all the natural gas here. I am certain the heavy duty
3839 guys are moving quickly and the light duty guys are looking
3840 to expand their offerings as well.

3841 Mr. {Olson.} Thank you. That is my last question, but
3842 Clear Creek Independent School District is a great example of
3843 private sector money to utilize compressed natural gas. One
3844 thing to mention, my home State of Texas now is building what
3845 they call the energy corridor or natural gas corridor with--
3846 Houston to my region where I live, up to San Antonio/Austin,
3847 up to Dallas/Ft. Worth, building the CNG facility, so maybe
3848 if we can get some long haul trucks going on there and
3849 eventually get passenger vehicles and build it out. That is
3850 our future. Natural gas will be the transportation fuel for
3851 our future.

3852 Thanks for the time, and I yield back.

3853 Mr. {Shimkus.} The gentleman yields back his time. The
3854 gentleman will be proud to hear that I drove a natural gas
3855 big Ram pickup just in the last 2 weeks ago here. If you

3856 missed that opportunity, that was a great experienced
3857 produced. So we are just for all of the above and for energy
3858 security.

3859 Mr. {Olson.} If you drive a pickup truck, Mr. Chairman,
3860 you are welcome in Texas.

3861 Mr. {Shimkus.} It was a big one, so--it wasn't even a
3862 baby one.

3863 Chair now recognizes the other gentleman from Texas, Mr.
3864 Green, for 5 minutes.

3865 Mr. {Green.} Thank you, Mr. Chairman. Feedstocks for
3866 alternative fuels are weather dependent and subject to
3867 weather conditions. Just look at the current drought
3868 plaguing the Midwest. The news reports nightly show how the
3869 price of corn is going to go up and affect food prices and
3870 other industrial feedstocks. That is why I am a huge
3871 supporter, like my colleague and neighbor from Texas, of
3872 natural gas. Natural gas vehicles are currently most widely
3873 used alternative fuels incorporated in government fleets, and
3874 given the continued discovery of natural gas plays around our
3875 country, I think we seriously need to look at how we can
3876 support these vehicles.

3877 Mr. Hassenboehler, I would like to ask you some
3878 questions. Last summer Texas Governor Rick Perry signed into
3879 law the first of its kind legislation designed to help create

3880 a sustainable network of natural gas refueling stations along
3881 interstate highways connecting Houston, San Antonio, Austin,
3882 and Dallas. We may not be able to get our fast train from--
3883 in the Texas triangle, but we might be able to get natural
3884 gas facilities on those. Can you briefly describe the
3885 program?

3886 Mr. {Hassenboehler.} Yes, I had it in my testimony but
3887 I can just briefly say that it is--

3888 Mr. {Green.} Repetition means that we learn.

3889 Mr. {Hassenboehler.} It is based on--it is a
3890 sustainable network of fueling stations that connects the
3891 four major corridors. The legislation allocates funding from
3892 the Texas Emissions Reduction Plan to support the development
3893 of new stations and deployment of NGVs. It was a broad
3894 stakeholder effort. It is a combination of State dollars,
3895 highway dollars, congestion mitigation dollars, and private
3896 funding to really take and transform, plan a few areas of
3897 real development of real stations across--you know, near
3898 access for the highways. And this is really designed to get
3899 the LNG and the CNG trucks on the road, that will eventually
3900 lead to more medium duty and light duty vehicles to penetrate
3901 as well.

3902 So right now, we are working through it. They just had
3903 a grant from--a grant program that actually--I believe there

3904 was about 100 applicants that actually signed up for some of
3905 these stations, and so we are going to wait and see how they
3906 develop, but we are very optimistic and it is a very
3907 successful program so far.

3908 Mr. {Green.} Given the initial success so far of the
3909 program, what would a greater effort like the Natural Gas Act
3910 mean for expanding use of natural gas vehicles, not just in
3911 Texas but around the country?

3912 Mr. {Hassenboehler.} Well certainly if we had
3913 consistency within Washington with the tax code generally on
3914 what alternative fuels are going to be extended, which
3915 incentives are going to be extended, that would allow for
3916 greater planning for some of these end users to invest in
3917 their alternative fuels. Similar efforts can be looked at
3918 recently in the highway bill, the Congestion Air Mitigation
3919 Air Quality Program, allocated funding towards natural gas
3920 and electric vehicle charging infrastructure. Those are
3921 great ways to help incentivize and move forward the program.
3922 So it is not just the tax code or cost saving issues, there
3923 are other ways of doing it besides costing money.

3924 Mr. {Green.} Well, and it seems like--I know my
3925 colleague from Illinois has a preponderance of E85 stations
3926 in his district. I think I have one that is not in our
3927 district, but I only know of one in the Houston area. So are

3928 we going to end up being location emphasis, I guess, because
3929 obviously in the Midwest you are going to see more corn-based
3930 ethanol with E85, whereas in an oil and gas area you will see
3931 more options for natural gas. Those stations that the State
3932 envisions along those corridors, that is both for over-the-
3933 road trucking but also for individual vehicles.

3934 Mr. {Hassenboehler.} Yes, they are opening--they are
3935 prioritizing public access stations and yes, especially in
3936 areas of shale gas production and along the Marcellus, the
3937 Rocky Mountain regions, they are doing similar initiatives to
3938 really--it is a great way for the public to see the tangible
3939 benefits of the increased natural gas production is it
3940 touches everyone to be able to fuel their vehicle with
3941 natural gas.

3942 Mr. {Green.} Well, in the air emissions I know that is
3943 why some of the funding has come from the air reduction
3944 emissions from natural gas vehicles. We are talking about
3945 reinventing the wheel. I know in the 1960s I had an
3946 electrical contract with three trucks who used CNG in his
3947 trucks and obviously his maintenance went down and, you know,
3948 but he was doing it just for the savings because at that time
3949 gas was pretty low, too, as we are seeing now that with the
3950 discoveries in natural gas.

3951 Can you discuss how current levels of federal support

3952 for natural vehicles are not on par with the other
3953 alternatives?

3954 Mr. {Hassenboehler.} Well, the Nat Gas Act certainly
3955 brought that debate up, you know, and that was focused on the
3956 tax code and whether tax policy--currently there are still
3957 incentives for some other alternatives over NGVs, but beyond
3958 that, you have got programs--you got R&D programs, you have
3959 got CAFE credits, you have got, you know--you can look at the
3960 Renewable Fuel Standard as another example. Many of these
3961 programs--it depends on how you define a mandate, depends on
3962 how you define a program, but if one were to take a look at a
3963 technology neutral, feedstock neutral approach across the
3964 Federal Government's programs, both from the R&D side to the
3965 grant side to the mandate side, the Clean Air Act side, I
3966 think you could do better than what is currently existing
3967 now.

3968 Mr. {Green.} One last question, I know I am over my
3969 time, Mr. Chairman. What do you think the Open Fuel Standard
3970 mandate on auto makers would not create a level playing field
3971 for natural gas?

3972 Mr. {Hassenboehler.} The main concern with that, I
3973 mean, ANGA is not supporting mandates, but we--the main
3974 concern that we share is with the Auto Alliance is the
3975 timeframes are not on par. It is the lowest cost option for

3976 compliance would likely lead to flex fuel and compliance, and
3977 that isn't something that would create a level playing field,
3978 in our opinion.

3979 Mr. {Green.} Okay. Thank you, Mr. Chairman.

3980 Mr. {Shimkus.} Thank you. Now the chair recognizes the
3981 gentleman from New York, Mr. Engel, for 5 minutes.

3982 Mr. {Engel.} Well thank you, Mr. Chairman.

3983 First of all, let me say what a pleasure it has been
3984 working with you on our Open Fuel Standards bill. I have
3985 been pushing this for many, many years and I must say that I
3986 feel progress is being made, and much of it is through your
3987 good work, so I want to thank you for that.

3988 You know, some are criticizing the Open Fuel Standard as
3989 a mandate, when in reality it is just the opposite. It is
3990 opening the market up to competition, in contrast, doing
3991 nothing to--is equivalent to mandating a monopoly by a single
3992 fuel whose price is set by a foreign cartel. OPEC and the
3993 car manufacturers have essentially told us that we have no
3994 choice. We will drive on oil. The object is to break that.

3995 I must tell you, Mr. Karr, I am really infuriated over
3996 the automobile manufacturers. When Democrats were in the
3997 Majority, we passed a bill in this Committee and on the Floor
3998 that the comprehensive bill--which we tried to put an Open
3999 Fuel Standard in the bill and were fought tooth and nail.

4000 This was the so-called Cap and Trade bill. Tooth and nail by
4001 the automobile industry--I mean, given the way that we bailed
4002 out the automobile industry, I would think that there should
4003 be a little bit more of an open mind from the automobile
4004 industry about the Open Fuel Standard. I think Mr. Shimkus's
4005 point about how people are buying flex fuel cars, but it is
4006 not being marketed as it. So people have it, they don't know
4007 that they have it really. It hasn't been a factor in them
4008 buying it because it is sort of the best kept secret in town.

4009 You talked about estimates of what it would cost to
4010 manufacture cars at the beginning with flex fuel cars.
4011 Massachusetts Institute of Technology says \$90 per car.
4012 Former Director of the CIA Jim Woolsey cites General Motors
4013 as saying it is \$70 per car. One expert, Dr. Robert Zugren,
4014 who has run extensive tests, has concluded it is 41 cents per
4015 car. In any case, we are talking about \$100 or less. I do
4016 not understand why there is opposition, and quite frankly, I
4017 think the automobile industry is being quite ungrateful in
4018 terms of that they would have been gone if we didn't bail
4019 them out. I supported the bailout. I voted for it. I was
4020 criticized for it, because I think it is important to have a
4021 vibrant and strong American automobile industry. But
4022 frankly, I do not understand the opposition. If you worked
4023 with us, if you don't like the dates, if you think it is

4024 mandating too much, I can tell you Mr. Shimkus and I will
4025 adjust those dates. We are not looking to penalize the
4026 automobile industry, but on the other hand, the arguments
4027 that you are using and to some degree that I have heard today
4028 from Mr. Hassenboehler, are arguments that anybody uses to
4029 oppose any kind of change or anything that is new. If you
4030 worked with us, we would work with you. We would modify our
4031 bill. The goal here is not to penalize you guys. The goal
4032 here is to make--give Americans choices, so the choices are
4033 bring down cost and if the American consumer, you know, can
4034 do more.

4035 We talk about, you know, China was mentioned before by
4036 Mr. Dolan. I agree with Mr. Dolan's testimony, obviously.
4037 China is taking notice. It is already blending 15 percent
4038 methanol in its automotive fuel, and auto makers there, like
4039 Sherry Dealing and Shanghai Maple, have all introduced
4040 vehicles that are capable of running on methanol. And
4041 methanol is so much less costly per mile than gasoline that
4042 illegal fuel blending is rampant in China. The Chinese have
4043 buses, taxis, fleets, and passenger vehicles on the road that
4044 are running on M15, M85, and even M100 fuel. That is, of
4045 course, a concern for me.

4046 So Mr. Karr, I would like you to answer this. I hope
4047 you don't think I am attacking you personally. By the way,

4048 you have a great name for your position. But I am just
4049 really frustrated.

4050 Mr. {Karr.} Sure. Let me start by saying that, you
4051 know, I admire you and the place that you come from, and the
4052 fact that, as you say, you have been on this for multiple
4053 Congresses, and I know that your intentions are pure and I
4054 know that your goal is to, again, reduce the dependence on
4055 oil. Fair. Let us take that as a starting premise.

4056 The question is if we mandate, you know, E85 and M85
4057 capable vehicles, does that get you to your goal, and the
4058 experience to date is no. Again, we don't even produce
4059 methanol as a transportation fuel in the United States, so
4060 literally if every vehicle today was capable of running on
4061 methanol and gas prices shot to \$10 a gallon, there is no
4062 methanol for people to switch to.

4063 Mr. {Engel.} But let me just tell you, that is like
4064 what came first, the chicken or the egg? It is like on our
4065 side sometimes, we argue against drilling in Alaska because
4066 we say well, we are not going to get that oil for another 10
4067 years, so why should we even bother with that? Well, 10
4068 years has passed. If we had done it 10 years ago, we would
4069 have the oil. So those arguments don't really cut water in
4070 my estimation.

4071 Mr. {Karr.} The thing about--I mean, I think it was

4072 okay to make the chicken and the egg argument, you know, 7 or
4073 8 years ago, but the fact is we do have States in the
4074 Midwest, like Minnesota, where there are more than 400 E85
4075 pumps. You know, Mr. Shimkus can hit one any place in his
4076 district. We are still seeing E85 usage at basically the
4077 equivalent of one tank full per year. So again, I don't have
4078 all the answers. I don't know necessarily why the E85 uptake
4079 hasn't been better, hasn't been even what we as manufacturers
4080 projected it would be, but we are kind of past the chicken
4081 and the egg argument--

4082 Mr. {Engel.} But let me just ask you this. I know my
4083 time is up. Hasn't hydrofracking changed the game here in
4084 the United States? We are now producing more natural gas
4085 than we can use.

4086 Mr. {Karr.} We talked to natural gas manufacturers.
4087 Obviously, my guys want to know what to build and they want
4088 to know what direction the market is going, and what we hear
4089 is what you are hearing here and what you are seeing in
4090 legislation in terms of the Nat Gas Act. The focus is all on
4091 LNG and CNG, and not making natural gas into methanol. I
4092 don't know why that is, necessarily, but--well, I suppose LNG
4093 and CNG are significantly cheaper, even than methanol from
4094 natural gas--

4095 Mr. {Engel.} I will stop, I promise. MIT, there was a

4096 study called ``The Future of Natural Gas,' ' and it determined
4097 that the most economic way to utilize natural gas in
4098 transportation is to convert it to the liquid fuel methanol.
4099 We should stop fighting it and we should go with the flow.
4100 It will be better for the American consumer, and it will
4101 reduce a U.S. need for foreign oil.

4102 Mr. {Shimkus.} I want to thank my colleague for his
4103 passion, and I am glad he is on my team. I will just segue
4104 real quick and say on the retail locations, if you listen to
4105 SIGMA, their folks, recertification of the--and liability
4106 issues are one of the inhibiting reasons for that.

4107 So I would like to turn to my colleague from California,
4108 Mr. Bilbray, for 5 minutes.

4109 Mr. {Bilbray.} Thank you, Mr. Chairman, and thank you
4110 for giving the lead-in. I hope my colleague on the other
4111 side of the aisle, both of them recognize that government
4112 obstructionism is a major challenge to innovative technology.
4113 The gentleman from New York was talking about methanol.
4114 Methanol has been outlawed in my home State of California.
4115 It was outlawed for environmental reasons. In fact, I have
4116 the latest greenhouse gas regulation, AB 32, is going to
4117 outlaw domestic ethanol from being brought into California.
4118 They are going to import the ethanol from Brazil. So there
4119 is this issue.

4120 Mr. Karr, what is the largest automobile market in the
4121 United States?

4122 Mr. {Karr.} California is roughly 10 percent of the
4123 total U.S. market.

4124 Mr. {Bilbray.} Okay. And my--I just want to point out
4125 that we need to look at what we are doing for obstruction. I
4126 mean, and this goes way back to a lot of stuff. I mean,
4127 California has some of the most restrictive environmental
4128 regulations, has--the air is twice as clean now as it was in
4129 the '60s with twice the population. We also have the highest
4130 gas prices in America, with the environmental regulation.
4131 But when someone sits here and says that available domestic
4132 supply doesn't affect price, let me remind everybody, we
4133 have--we import more in California from overseas than any
4134 other State, and it is reflected in the price of gasoline.

4135 So I want to go back over to the natural gas issue. In
4136 '92, I was driving a natural gas vehicle, and unlike
4137 electric, when I ran out of natural gas I didn't have to stop
4138 and recharge, I flipped a switch and went to gasoline. One
4139 of the government barriers I saw at the time in the '90s was
4140 that the public utilities commissions were not allowing the
4141 public utilities to rate base the home dispensing pumps. And
4142 I bring this up, in California, 85 percent of the homes are
4143 plumbed with natural gas. People park their cars 3 feet from

4144 their water heater in their garage, but we have not figured
4145 out how to allow the consumer to fill up at home.

4146 With that barrier that people couldn't lease the home
4147 dispensing pump--what was the price of the home dispensing
4148 pump--do you know what the price was around before the
4149 company went under?

4150 Mr. {Hassenboehler.} Three thousand, roughly.

4151 Mr. {Bilbray.} Yes, so my frustration is while we spend
4152 half a billion dollars subsidizing thin film photovoltaic
4153 technology, we ignored the fact that we had a 3-foot gap that
4154 not 20 years from now, 30 years from now, but could give the
4155 consumer the choice today to either fill up at home while
4156 they are sleeping with 100 miles range of natural gas, or go
4157 to the gas station. But we have sort of taken natural gas
4158 and it has been the orphan fuel out there, and that
4159 flexibility was a federal--I mean, a local or a State
4160 government regulatory obstructionism. And oh God, I hear
4161 about the safety of it being at home, and I always say we
4162 will burn a candle next to the pump so it will be just like a
4163 water heater.

4164 I just want to raise that issue that the government
4165 barriers to the next--giving consumers choices is a major
4166 problem, even in California where my scientists developed the
4167 algae strains to produce true gasoline, true diesel, the

4168 State employees who developed that technology have to leave
4169 California to go into production, because they couldn't get
4170 the permits under--for 7 to 10 years. That is the kind of
4171 urgency. There is no urgency at us changing government regs
4172 to be able to get into it.

4173 The electric car issue, what percentage of future
4174 vehicles, efficient electric vehicles do you think are going
4175 to be using rare earth brushless motors?

4176 Ms. {Wright.} So I want to be sure that I understand
4177 your question, you want to know what percent--

4178 Mr. {Bilbray.} What percentage do you think is--you
4179 know, are we dependent on that cutting edge technology for
4180 efficiency?

4181 Ms. {Wright.} Well, today's motors depend upon the rare
4182 earth and for the magnetic motors. There is significant
4183 research going into alternative materials to allow us to get
4184 away from these rare earth--

4185 Mr. {Bilbray.} Right, isn't it true that Toyota,
4186 because of the embargo, is now thinking of going over to the
4187 traditional AC, which doesn't have the efficiency, loses
4188 efficiency substantially?

4189 Ms. {Wright.} Yes, the AC brushless type of a motor.

4190 Mr. {Bilbray.} Mr. Chairman, this is another issue
4191 where I say that if we want to have wind generation, if we

4192 want to have electric cars, then both sides of the aisle have
4193 got to be willing to say we need to open up our public lands
4194 for mining so this country has the resource to be able to do
4195 the environmentally responsible thing. If there is one
4196 slogan that I want this Committee to know why I wanted to
4197 come back here, as an environmental regulator, both sides
4198 have to understand that environmental regulations are
4199 standing in the way of environmental options, and we both
4200 should take the responsibility. This is something that we
4201 can't point fingers at the auto industry or the oil industry
4202 or the electric car industry. We should look at what are we
4203 doing, more than just writing checks and subsidizing, what
4204 are we doing to make our regulatory system compatible with
4205 innovative technology, rather than opposing it?

4206 And I will leave you with one example. You had an
4207 automobile that was designed to get 110 miles to 115 miles
4208 per gallon. The Federal Government would not give them a
4209 grant or a loan guarantee because it had three wheels, not
4210 four, and the government regulation said it is not a car if
4211 it doesn't have four, even though it carried two persons, two
4212 golf clubs, and two surfboards--in California, which is
4213 important. I just hope that all of us on both sides of the
4214 aisle look at this of what isn't government doing to make--
4215 give the consumer the choice? I don't blame the Federal

4216 Government--I mean, don't blame the private sector for not
4217 giving the choices if we are not willing to meet--you know,
4218 change the way we operate. That is why we need the rare
4219 earth, we need to allow natural gas to be an option. We need
4220 to be able to have the technologies being available before we
4221 start mandating more. Maybe we should mandate ourselves.

4222 Ms. {Wright.} So you raise a really important point,
4223 and that is not just on the rare earth, but it is just the
4224 materials we are using for any of our advanced technologies.
4225 And I think this is where the Department of Energy should be
4226 getting some credit in terms of engaging the universities and
4227 national labs and the private industry to come together to
4228 collaborate on what are the scientific breakthroughs that we
4229 need in order to ensure that we don't become dependent upon
4230 materials that are in places where it may not be friendly to
4231 U.S. interest.

4232 Mr. {Bilbray.} Mr. Chairman, let me point out, too,
4233 that every study that we did at AR Resources Board show that
4234 it was better to burn the natural gas in the car than it was
4235 to burn it at the power plant, generate electricity, and
4236 transform--I think even the electric car people understand
4237 that. And so we really have missed not just an economic
4238 opportunity, but an environmental one that if you are going
4239 to generate electricity, to generate--to run the electric,

4240 you want a zero emission generator and use natural gas at
4241 onsite, which is very low technology, as the auto industry
4242 knows, but that home dispensing is absolutely an essential
4243 part. I yield back.

4244 Mr. {Shimkus.} Gentleman's time is expired. Previously
4245 we asked unanimous consent for Mr. Cassidy to have questions
4246 in the first panel. I ask that again. Hearing no
4247 objections, Mr. Cassidy, you are recognized for 5 minutes.

4248 Dr. {Cassidy.} I want to thank Mr. Engel to the oil
4249 state caucus. Thank you all for being here. Great, great
4250 committee. Let me just first promote a bill I have, 1712,
4251 which actually seeks to promote the use of natural gas as a
4252 transportation fuel. In this bill, we say that the
4253 independents who are currently finding the natural gas will
4254 not lose their independent tax status if they were to invest
4255 in the infrastructure to use natural gas as a transportation
4256 fuel. It is agnostic how they do that. It can be methanol,
4257 it can be gas-to-liquids, it can be methanol. But
4258 nonetheless, I would encourage you all to look at that, and
4259 if you support it, let us know.

4260 Mr. Karr, I am kind of a methanol guy. I do look at
4261 this, and so--and there is actually a question of fact here.
4262 Frankly, I am hearing different things from you than your
4263 fellow panelists. So let me just kind of go through some

4264 stuff where I think--first we heard that FFVs were being
4265 produced at the same cost as non-flexible fuel vehicles, and
4266 yet you mentioned it will cost \$1 billion more, and yet
4267 Shimkus tells us that his FFV cost no more than a non-FFV.
4268 So where is the discrepancy between--

4269 Mr. {Karr.} Not produced--and I don't think Mr. Shimkus
4270 produced either, he said sold, which is true in a lot of
4271 cases. Manufacturers are essentially eating the difference
4272 or dealers are eating the difference. The--as I say, the
4273 numbers kind of range--and the numbers are going to vary a
4274 little bit for very large manufacturers who are going to be
4275 able to produce a little more cheaply.

4276 Dr. {Cassidy.} So economy of scale begins to work, so
4277 theoretically it is \$1 billion, but in reality that may come
4278 down to either negligible or something the industry would
4279 find acceptable?

4280 Mr. {Karr.} You know, even if you are talking about \$50
4281 on a per vehicle basis, at 15 million vehicles, you know, you
4282 get up to--

4283 Dr. {Cassidy.} I understand that, but it also helps you
4284 meet your CAFE standards, so there are some benefits.

4285 Let me ask you as well. You also mentioned--I think
4286 this is a little disingenuous as a guy from Louisiana, there
4287 is no production facilities in the U.S. making methanol for

4288 use as a transportation fuel. I will say, by 2014 there will
4289 be a plant in Louisiana making large scale methanol, and I
4290 have a friend who actually takes petrochemical plants and
4291 moves them overseas or back here, dependent upon the price of
4292 natural gas. I think the market would quickly respond. I
4293 just mention that not as a question, but an observation.

4294 Mr. {Karr.} Out of curiosity, because I did see that
4295 announcement, and you know, a lot of this is--Greg and I have
4296 had multiple conversations about kind of where they are
4297 going, and I just wasn't clear whether they--that company
4298 intends to actually make methanol as a transportation fuel or
4299 whether they were going to--

4300 Dr. {Cassidy.} I think they are going to make it for
4301 the market. Yeah, they are going to make it for the market.
4302 I mean, they are not owned by some vertically integrated
4303 plastic maker, are they going to sell it to the highest
4304 bidder, but I also know my friend Rotenberg, you give him a
4305 plant someplace else to move back here, he will do so and all
4306 of a sudden our cheap natural gas as an input is going to
4307 change that.

4308 You mentioned the environmental issues regarding
4309 methanol. What I read previously about methanol in
4310 California is that--first of all, methanol is that if it gets
4311 into water, it typically dissolves. It is CO, water is H₂O.

4312 It quickly disperses and is not an environmental risk. Then
4313 you also mentioned the formaldehyde, so I found a website,
4314 whatever it is worth, that on the whole, methanol is actually
4315 a better, cleaner burning fuel. Greenhouse gas is comparable
4316 to gasoline, nitrogen oxide, usually comparable or less,
4317 particulate matter, significantly less than diesel,
4318 formaldehyde, much higher but still low. So although it is
4319 much higher, it is still low. And then it goes on about
4320 these other things, which it is either the same or a little
4321 bit less, relative to ground level ozone, for example. Now
4322 do you feel as if the environmental hazards of methanol would
4323 be so damning that we could not consider its use, or do you
4324 have different facts than what this--

4325 Mr. {Karr.} No, no, and to be clear, you know, I am not
4326 necessarily making a representation about the environmental
4327 benefits or not of methanol; rather, we have a practical
4328 problem, which is that we have emission standards that we
4329 have to certify to, and that is where the formaldehyde--

4330 Dr. {Cassidy.} So then let me go to my next question--

4331 Mr. {Karr.} Sure.

4332 Dr. {Cassidy.} --because this I kind of open up to the
4333 panel. You may have heard my previous question to the
4334 previous panel. I was told by a fellow from the major oil
4335 and gas company exactly what you wrote in your testimony, Mr.

4336 Karr, that the testing required to get this through EPA is so
4337 onerous and long, hoops to jump, et cetera, that he was just
4338 like--it was like existentialism, like he couldn't live until
4339 tomorrow if he had to face, you know, having to go through
4340 EPA's hoops on this issue, saying that they are still testing
4341 the E85 and they have been doing that for 15 years.

4342 Now I see a lot of heads nodding. Would we say we have
4343 met the enemy and it is EPA, or what would we say about that?
4344 Mr. Karr, start with you and then work down towards Mr.
4345 Dolan.

4346 Mr. {Karr.} Mr. Althoff can speak kind from even more
4347 personal experience. Again, we have made tremendous
4348 environmental strides in terms of emissions from vehicles,
4349 and that is a good thing. So I am, you know, not going to
4350 say that that is a bad thing. The fact is that we as auto
4351 makers have to certify our emissions systems to last for what
4352 would be the effective life of the vehicle. It is a very
4353 long time and we are, these days, certifying extremely low
4354 emissions levels. And yes, that is a difficult thing and you
4355 do have to do it, you know, with each different fuel.

4356 Dr. {Cassidy.} And with each different engine, or can
4357 you say this engine is only tweaked, so therefore, it is
4358 okay? Mr. Althoff?

4359 Mr. {Althoff.} So it can be a challenge. Our

4360 experience was that they weren't very flexible, so we--the
4361 EPA's first flex fuel vehicle they ever tested in their own
4362 labs was our retrofit kit. They had never, at that point,
4363 tested any of the major auto maker's vehicles. We ran it at
4364 an independent lab, it ran great. We sent it to the EPA and
4365 it failed. We brought it back, we worked on it. About 9
4366 months later we figured out the problem, and the problem was
4367 that they never made the fuel before, so what they did was
4368 they took mead alcohol and mixed it with 85 percent gasoline
4369 and ended up with an off-spec fuel that didn't actually start
4370 very well. That was 9 months of working with the EPA to get
4371 to that point.

4372 I mean, I think that if they were more flexible and more
4373 open to it, I think that would be a big advantage. One of
4374 the studies that talked about \$100 per vehicle--and now I am
4375 in Mr. Karr's territory--said that \$80 of it was for the EPA
4376 certification cost, even though the auto industry self-
4377 certifies to get the certificate from the EPA, they pay a fee
4378 per car. And then the one study I read said that \$80 out of
4379 the 100 was the EPA's fee to certify the car, even though
4380 they never tested the car, never made it into their labs.

4381 So I think that in this space, it would behoove them to
4382 figure out a new pricing mechanism to really help with the
4383 cost side of it.

4384 Dr. {Cassidy.} Mr. Chairman, could I indulge and have
4385 Mr. Dolan respond, and I will be through?

4386 Mr. {Dolan.} I just wanted to suggest one other
4387 potential environmental benefit of legislation like the Open
4388 Fuel Standard Act. The OFS calls for the introduction, among
4389 other technologies, vehicles that can operate in alcohols up
4390 to 85 percent. A recent paper published by Ford indicated
4391 that, you know, in the U.S. we haven't increased our octane
4392 for our transportation fuel in 30 years, and they suggested
4393 one way of doing that is to going to higher levels or mid-
4394 levels of alcohol, going from E10 to 20 or 30 percent
4395 alcohol. What that will do is increase the octane of the
4396 fuel. Once you increase the octane of the fuel, the auto
4397 makers can increase the compression ratio of the vehicles,
4398 they can take greater advantage of turbo charging, and
4399 significantly increase the fuel economy of today's vehicles.
4400 That will not only help them meet the CAFE requirements, but
4401 will also help introduce more alcohol fuels in the
4402 marketplace to meet the RFS requirements as well.

4403 Dr. {Cassidy.} Thank you. You all have been a great
4404 panel. I appreciate it. Thank you for your indulgence.

4405 Mr. {Shimkus.} Thank you very much. We want to thank
4406 the second panel. We also want to ask unanimous consent that
4407 three letters that have already been viewed by the Minority,

4408 one from Growth Energy, one from American Fuel and
4409 Petrochemical Manufacturers, another one from Celanese be
4410 submitted for the record. Without objection, so ordered.

4411 [The information follows:]

4412 ***** COMMITTEE INSERT *****

|
4413 Mr. {Shimkus.} Again, thank you very much. The hearing
4414 is adjourned.

4415 [Whereupon, at 2:09 p.m., the Subcommittee was
4416 adjourned.]