

Submitted Testimony of Spire Inc.

to the

House Committee on Energy and Commerce; Subcommittee on Energy and Power

for the Hearing

“Home Appliance Energy Efficiency Standards Under the Department of Energy– Stakeholder Perspectives”

by

**Mark E. Krebs
June 10th, 2016**

About Spire Inc

Spire Inc. (“Spire”) formerly known as The Laclede Group, Inc., is a holding company that owns and operates natural gas utilities in Missouri and Alabama. Today, these companies provide natural gas distribution service to more than 1.5 million residential, commercial and industrial customers; making Spire the fourth largest publicly traded gas-only utility company in the United States per number of customers served.

Summary of Testimony

Spire is very encouraged by the scope of the [memo from House staff to its members dated June 9th, 2015](#). Ideally, Spire would have preferred that the hearing also focus on the impact of various DOE initiatives on natural gas distribution companies. While we realize that this conference was initiated by the appliance manufacturers, and we support most of their grievances, it should be noted that our interests differ when it comes to fuel preferences: They sell gas and electric appliances. We only distribute gas. Therefore, Spire is submitting this testimony in hopes that it will be read, placed into the record, fully considered and that natural gas distribution companies, like Spire, will be given a greater role next time such matters are considered.

Spire contends the Energy Efficiency and Renewable Energy (EERE) division of the Department of Energy (DOE) has a long-standing bias towards electricity; even though the direct use of natural gas is nearly three times more efficient than electricity when the complete fuel-cycle is considered as illustrated by the following graphic:

Comparative Overall Efficiencies of Natural Gas to Electric Deliveries



**Based on 2009 actual generation mix of all energy sources*

Source: [AGA 2016 Playbook PowerPoint Presentation](#)

Further evidence of bias is clear within most of DOE/EERE minimum efficiency “determinations” for appliances that often omit any consideration of establishing similar efficiency standards for electric appliances. That usually means gas appliances become more expensive relative to their electric counterparts. In turn, that tends to move the market towards more electrification. In the end, this has and will continue to lead to a “lessening competition” where consumer choice will inevitably be more and more limited to electric appliances. Moreover, the evidence that has accumulated over the past decade or more indicates that this result is deliberate.

To address these critical concerns, Spire’s recommends that:

1. Congress initiate another moratorium on appliance efficiency codes similar to the one referenced in the above referenced memo.
2. Congress take action to impose a moratorium on DOE/EERE’s ever-increasing efforts to federalize the development of building codes so as to move them away from the direction of net-zero energy (e.g. [Sec. 433 of EISA](#)).

3. Congress hold additional hearings or technical conferences to gain a better understanding of the flaws and irregularities that permeate the DOE/EERE processes and methodologies for making its energy efficiency “determinations.”

Body of Testimony

Our testimony, as shown below, presents the basis and rationale for our requests. Out of respect for the Committee’s time, we will be concise; starting with the “big picture” which is: DOE/EERE intends to do to natural gas what it is doing to coal. The ostensible reason appears to be based on the fact that natural gas, like coal, has carbon in it and the radical beliefs that carbon-based fuels are “bad” and their consumption should be minimized (if not eliminated).

The truth of the matter, however, is that natural gas utilities should not (and probably cannot) be phased out because:

1. Natural gas delivers more usable energy directly to American consumers than electricity.
2. Natural gas does so far more economically and with far less overall pollution than electricity.
3. Efforts to phase out natural gas end users will thwart rather than advance the very efficiency and environmental goals that DOE supposed wishes to promote with its rulemaking initiatives.

DOE/EERE and their environmental clientele nevertheless support such an approach, presumably on the mistaken belief that electricity will be dominated by renewables and that resultant economies-of-scale will make electricity less expensive. Spire believes that anyone advocating such an untenable scenario should have an obligation to demonstrate exactly how such an outcome is economically and operationally possible; which then should be fully open for debate.

The following three graphics are excerpts from a November 2015 study titled: “[Policy Implications of Deep Decarbonization in the United States](#)”. They illustrate the DOE/EERE end game for weaning consumers off of the direct use of natural gas and on to electricity under the unsubstantiated and fanciful belief that someday soon electricity will be primarily derived from renewable sources. DOE/EERE, through its “national labs” funded this study.

Congress should further note that this “study” is being conducted and coordinated with the United Nations. This is evidenced by the statement on the cover of this study: “A GLOBAL INITIATIVE FOR THE UNITED NATIONS.” Spire would hope that issues of such critical importance to the American economy and energy consumers in this country will not be relegated to the decision making apparatus of other nations.

Figure 7. Average Household Spending for Energy Goods and Services, 2050 Mixed Case

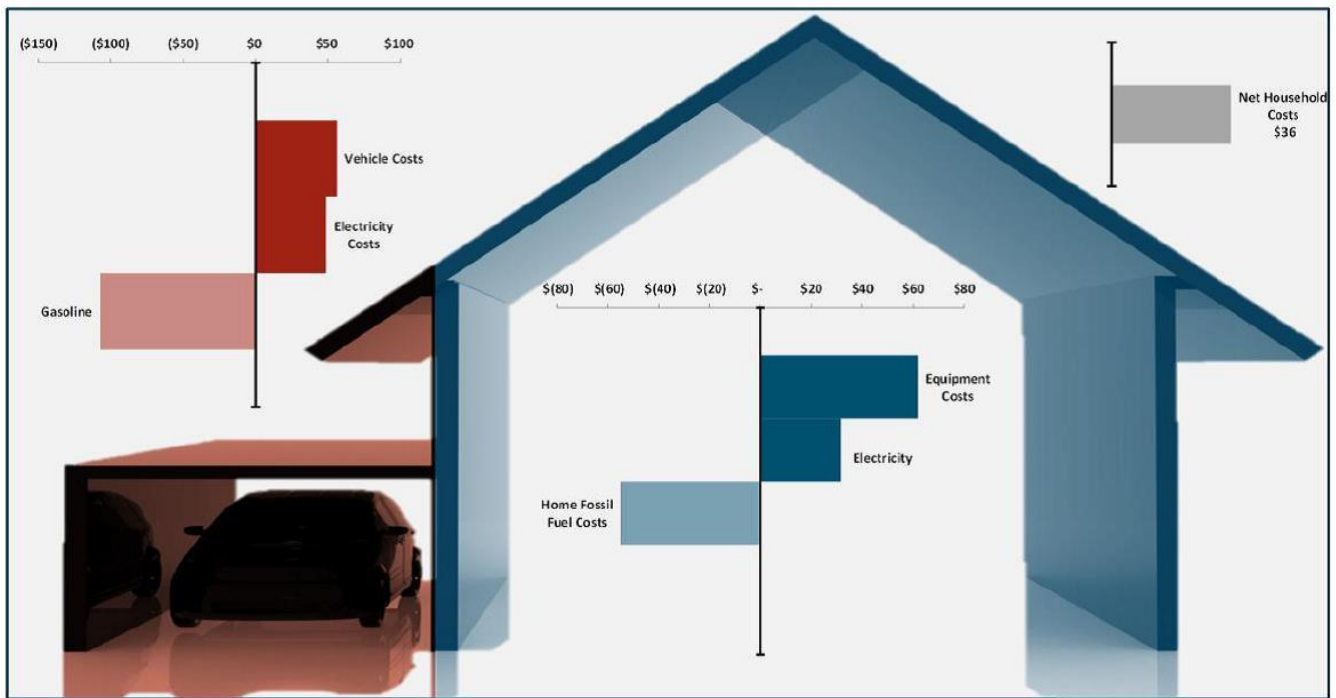


Figure 2. U.S. Energy System in 2014

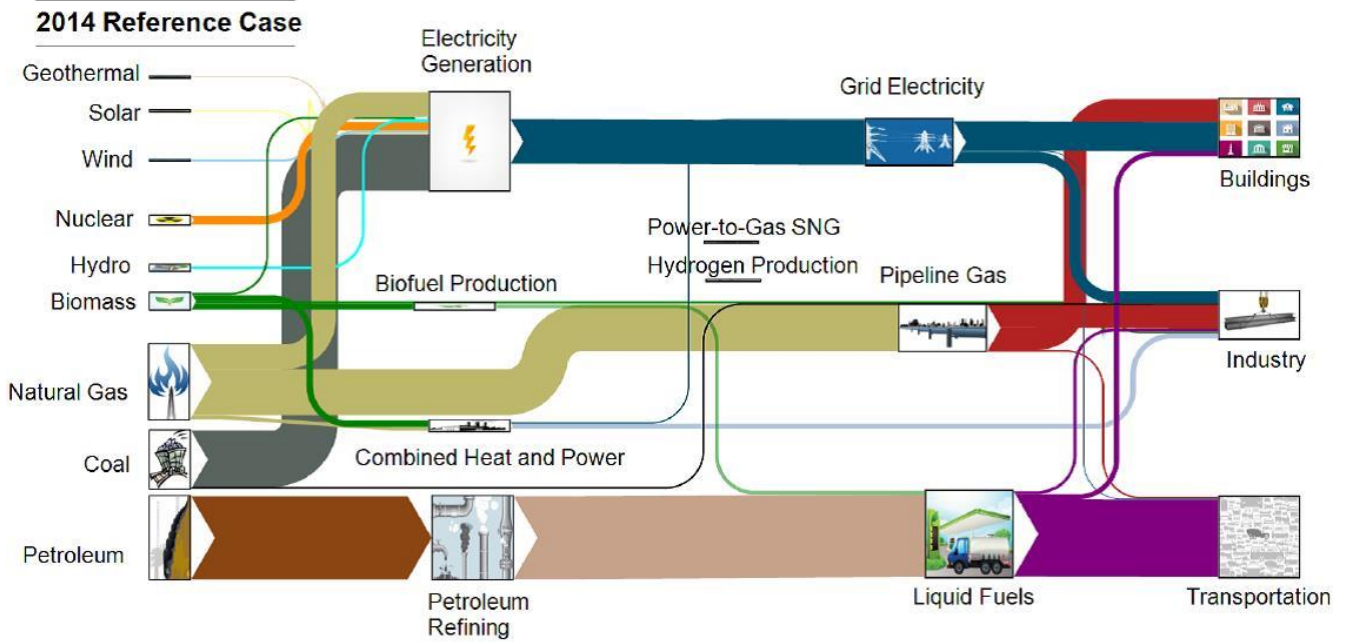
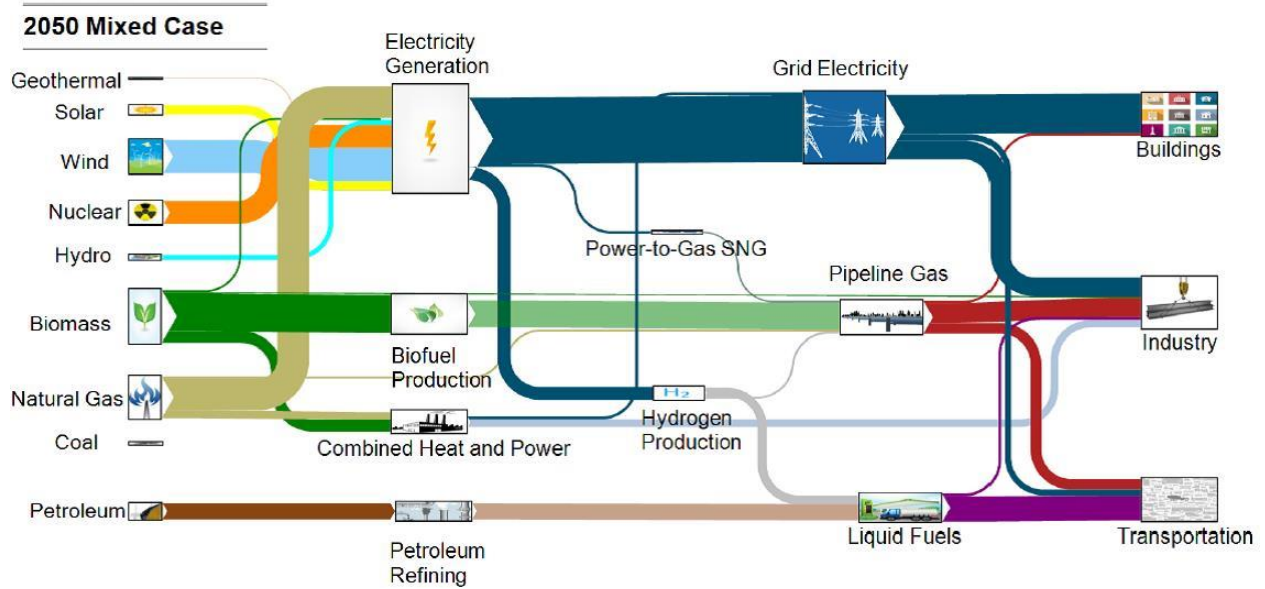


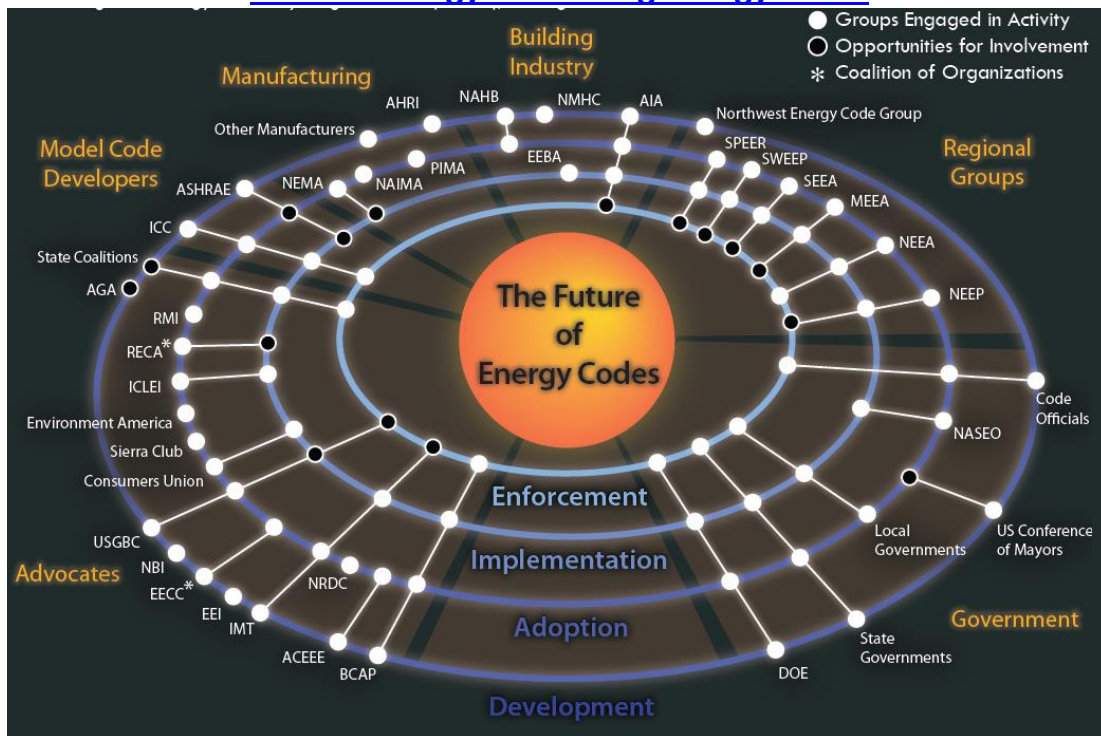
Figure 3. Deeply Decarbonized U.S. Energy System in 2050 (Mixed Case)



In addition to appliance minimum efficiency standards, DOE/EERE is also moving in the direction of “deep decarbonization” through what is tantamount to a nationalization of what once were independent energy codes. Spire has video evidence of DOE/EERE exerting what Spire believes to be undue influence on one such code body; the International Conservation Code (ICC).

Congress increases DOE/EERE funding for such activities without fully understanding the implications. Like most Federal bureaucracies, more funding equates to more centralized control. In the case of building energy codes, the end game is to have DOE/EERE at the center of the building code universe as shown below:

The cosmology of building energy codes



DOE/EERE legal violations

In seeking to establish various DOE/EERE's various appliance minimum efficiency standards DOE/EERE has routinely violated or disregarded several procedural requirements contained within [10 CFR 430\(a\)](#) and elsewhere. As identified in the previously cited memo from Committee Staff to its Members, these and other violations in the face of the extensive efforts to reform standards-making processes resulted in the product of the 1996 "Process Improvement Rule" which in turn led to 10 CFR 430(a). Specifically:

1. DOE/EERE is demonstrating a pattern of ignoring the procedural requirement prohibiting simultaneous development of test procedure and efficiency rulemakings [10 CFR 430, Subpart C, Appendix A, 7 "Test Procedures"].

Section 7(c) of the Energy Policy and Conservation Act (EPCA) affirmative requires that "*Final, modified test procedures will be issued prior to the NOPR on proposed standards.*" Despite this explicit legal requirement, DOE/EERE is issuing NOPR's without adopting such test procedures. The following is DOE's explanation in Docket Number EERE-2014-BT-STD-0031/ RIN NO. 1904-AD20 (for residential furnaces) for not complying with this requirement:

DOE has "tentatively determined" that this amendment to the test procedure would not be substantial enough to merit a revision of the proposed AFUE efficiency levels for residential furnaces.

Nowhere does DOE provide the basis for its "tentative determination" that an up-to-date test procedure is unnecessary. Nor does DOE explain how such determination relieves it of its legal obligation to adopt one. Unfortunately, this pattern is being repeated In DOE/EERE's recently released NOPR's for commercial boilers and commercial water heaters. To date, DOE/EERE has failed to provide any analysis that would justify such tentative determinations.

2. DOE/EERE "Utility Impact Analysis" consistently only addresses electric utilities.

Per the aforementioned "Process Improvement Rule" DOE is supposed to conduct a utility impact analysis that specifically calls for "estimated marginal impacts on electric and gas utility costs and revenues." [Emphasis added] However, DOE/EERE's Utility Impact Analysis routinely omit analyses of impacts on gas utility costs and revenues as required.

3. DOE/EERE routinely attempts to eliminate whole product classes; a result that contributes to a significant lessening of competition. Among other things, this is evidenced by
 - A. DOE/EERE lack of response to comments calling for the establishment of separate but workable product classes for condensing and non-condensing furnaces, (rather the complete elimination of the latter)
 - B. DOE/EERE's failure to meaningfully revisit its proposed elimination of the non-condensing furnaces in response to the court directive in APGA vs. DOE.
 - C. DOE/EERE's Lack of agency leadership regarding negotiations on alternative product class treatment of non-weatherized residential gas furnaces based on Btu input, which is

prohibited by statute since it eliminates products based on “sizes and capacities.” Also, lack of agency leadership addressing the statutory “small furnace” definition and the negotiation of another definition presents conflicts.

D. DOE/EERE’s capricious elimination of product classes (commercial package boilers) based on public comments on “efficiency” where unique product consumer utility provided the original basis of condensing and non-condensing product classes.

4. DOE/EERE’s failure to define specific criteria for “economic justification” of proposed minimum standards, omissions that allow major percentages of consumers and consumer groups to be negatively impacted.
5. DOE/EERE’s failure to engage stakeholders in development of supporting analysis at the beginning of the analytical process, instead forcing stakeholders to learn what DOE did after significant expenditure of funds and when fundamental corrections in the analytical procedure and data develop are unlikely if not impossible to undertake.

Summary & Conclusions

We realize the above list may be “getting into the weeds” a little deeper than the Committee is prepared to go at this time. However, in order to exercise Congressional authority over DOE/EERE, Congress should fully understand just how opaque and deficient DOE/EERE’s analyses have become and how DOE/EERE has effectively shifted the burden of proof to “industry;” particularly the gas utility industry. Basically, DOE/EERE’s game is “if you don’t like it sue us.” The American Public Gas Association (APGA) tried in 2011 and they are still recovering from the expense.

The primary strategy that DOE routinely employs in its appliance minimum efficiency “determinations” is to increase the efficiency requirements imposed on gas appliances more than those imposed on their electric counterparts. The end result is that gas appliances cost more. This, in turn, artificially moves the market to increased levels of electrification. This market movement is readily apparent by shipment data for cooking, clothes drying, commercial water heating, etc.

DOE’s biases against natural gas direct use are based in radical concepts of “deep decarbonization.” In the case of the coal industry, self-defense against such a “mission” was futile. Increasingly, the sights are now being set on natural gas; but only for direct use market segments. Somehow, natural gas is still deemed “clean, but only if it is used in electric power plants and efficiency is only calculated at the point-of-use.”

DOE/EERE chronically rejects industry suggestions to improve the transparency of DOE’s data and procedures. Rather than recount such incidents, Spire suggests a more technical hearing/conference be held by Congress for the purpose of gaining a better understanding of DOE/EERE serial misuse of its authority.

Another source of administrative misuse of its authority can be found in legislation that contains terms that enable DOE to do what it wants. Such terms include “As the Secretary determines” and the word “consider.”

Spire would refer the Committee to Appendix A and the links provided below for additional details and insight regarding DOE/EERE’s chronic “energy efficiency” failures. These include:

1. December 1996 Public Utilities Fortnightly article: [“It’s a War Out There: A Gas Man Questions Electric Efficiency”](#)
2. All articles at [Master Resource](#) by Mark Krebs (by entering “Mark Krebs” into the search box)
3. [Filed comments by the Laclede Group for Docket Number EERE-2014-BT-STD-0031/ RIN NO. 1904-AD20 and dated July 10th, 2015](#)

Appendix A may be especially useful to give Congress a quick sense of how arbitrary and capricious DOE/EERE minimum efficiency “determinations can be; at least in the case of residential furnaces. It is a table that compares how vastly DOE/EERE’s “determinations” regarding the impact of its proposed efficiency requirements changed for residential furnaces between 2011 and 2015. So far, DOE has not explained why or how it reached these widely varying analytical results in the span of just a few years.

This concludes Spire’s testimony.

Respectively submitted



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Appendix A

In an effort to graphically illustrate what appears to be DOE's vindictive behavior, the following table compares key differences in DOE's official "determinations " within its Life Cycle Cost (LCC) spreadsheets between the 2011 DFR and this current NOPR.

Comparison of 2011 & 2015 Life Cycle Cost (LCC) Spreadsheet Results for Non-Weatherized Residential Gas Furnaces

	AFUE	<u>2011 Average LCC savings</u>	<u>2015 Average LCC savings</u>	Delta	% Change
National - All Installations	90%	\$87	\$236	\$149	170.9%
	92%	\$136	\$305	\$169	124.1%
	95%	\$205	\$388	\$183	89.1%
	98%	\$46	\$441	\$395	859.1%
North - All Installations	90%	\$155	\$208	\$53	34.0%
	92%	\$215	\$277	\$62	29.0%
	95%	\$323	\$374	\$51	15.7%
	98%	\$198	\$467	\$269	135.9%
South/Rest of Country - All Installations	90%	-\$13	\$267	\$280	2156.3%
	92%	\$19	\$336	\$317	1667.2%
	95%	\$28	\$404	\$376	1341.4%
	98%	-\$181	\$412	\$593	327.7%
National - Replacements	90%	-\$11	\$113	\$124	1130.2%
	92%	\$39	\$179	\$140	355.5%
	95%	\$111	\$264	\$152	136.8%
	98%	-\$26	\$319	\$346	1309.0%
North - Replacements	90%	\$90	\$106	\$16	17.4%
	92%	\$151	\$172	\$21	13.6%
	95%	\$262	\$259	-\$3	1.1%
	98%	\$158	\$362	\$204	129.0%
South/Rest of Country - Replacements	90%	-\$160	\$120	\$280	175.4%
	92%	-\$125	\$188	\$312	250.5%
	95%	-\$110	\$268	\$378	343.7%
	98%	-\$297	\$273	\$570	191.7%
National - New Construction	90%	\$383	\$588	\$205	53.6%
	92%	\$429	\$659	\$230	53.5%
	95%	\$487	\$730	\$244	50.0%
	98%	\$264	\$764	\$499	188.9%
North - New Construction	90%	\$343	\$484	\$141	41.2%
	92%	\$404	\$557	\$153	38.0%
	95%	\$502	\$665	\$163	32.5%
	98%	\$315	\$704	\$389	123.4%
South/Rest of Country - New Construction	90%	\$445	\$710	\$265	59.5%
	92%	\$469	\$779	\$310	66.0%
	95%	\$463	\$807	\$344	74.3%
	98%	\$184	\$834	\$649	352.3%

Notes to table:

- 2011 data from EERE-2011-BT-STD-0011-0010 LCC spreadsheet, summary tab, cells K9:K58, L9:L58 & AI9:AI58
- 2014 data from EERE-2014-BT-STD-0031-0021 LCC spreadsheet, summary tab, cells O8:O41, AE8:AE41 & AT:AT41

This table was presented to DOE at the continuation of its public meeting on April 13th, 2015 and subsequently entered into regulations.gov on April 30th, 2015. At that time, I asked DOE to account for these changes. At page 127, line 21-22, of the transcript, DOE's explanation was:

1. *BROOKMAN: Okay. We're going to move on now to manufacturer impact analysis.*