May 9, 2013

California Energy Commission
Docket Office, MS-4
1516 Ninth Street
Sacramento, CA 95814-5512

Re: Docket No. 12-AAER-2A, Consumer Electronics

ARRIS Group, Inc. ("ARRIS") appreciates the opportunity to comment on the California Energy Commission's ("CEC's") Invitation to Participate in the Development of Energy Efficiency Measures for a wide array of household appliances, including set-top boxes ("STBs") and network equipment.[1] ARRIS's recent acquisition of the Motorola Home business combined two industry leaders in the development of innovative, energy-efficient solutions in network infrastructure, transport, and user experience.[2]

ARRIS shares CEC's goal of achieving greater energy efficiency for household appliances, and focuses its comments in this proceeding on steps that are already being taken in the marketplace to fulfill CEC's objectives with respect to STBs and network equipment. Today's video device marketplace is highly competitive and dynamic, and it is driving manufacturers and service providers to deliver energy-efficient solutions, without any regulations or mandates. Whole-home experiences, thin-clients and Digital Transport Adapters that consume less power, all-digital systems, cloud-based approaches to service delivery, and system-on-a-chip advanced power management are all examples of recent innovations that deliver more capabilities and flexibility to consumers while improving overall household energy efficiency. As a founding member and signatory to the industry-wide Voluntary Agreement for Ongoing Improvement to the Energy Efficiency of Set-Top Boxes ("Voluntary Agreement"),[3] ARRIS is committed to working with our service provider customers to drive sound technical solutions and achieve immediate energy savings, without negatively impacting the innovation and investment that is critical to consumers.

In light of the marketplace-driven success yielding improvements in energy efficiency, there is no need for CEC to include STBs or network equipment in its rulemaking to establish efficiency regulations for other consumer appliances.

---

1 CEC, Invitation to Participate in the Development of Appliance Energy Efficiency Measures (Mar. 25, 2013).

2 On April 17, 2013, ARRIS acquired the Motorola Home business from Motorola Mobility LLC, a subsidiary of Google.

3 Voluntary Agreement for Ongoing Improvement to the Energy Efficiency of Set-Top Boxes (Dec. 6, 2012) ("Voluntary Agreement"), *available at* http://www.ce.org/CorporateSite/media/ce_news/FINAL-PUBLIC-VOLUNTARY-AGREEMENT-%2812-6-2012%29.pdf.

I. ARRIS and Motorola are Recognized Industry Leaders in Energy Efficient Solutions and Share CEC's Goals of Increasing STB Energy Efficiency.

ARRIS is committed to improving STB energy efficiency. The acquisition of Motorola's Home business combined two companies that have long recognized the critical importance of implementing environmentally sustainable business practices – not just in specific product offerings, but also as part of our overall business model.[4] For example, we have taken steps to redesign product packaging and increase the amount of recycled materials used in product manufacturing.[5] This commitment to green practices has yielded widespread recognition and acclaim from government agencies, clean energy advocates, and industry partners.[6]

We also have taken concrete steps to improve the energy efficiency of our STBs. For example, we typically achieve approximately 20 percent improvement in energy efficiency from generation to generation of devices within a given product class (*e.g.*, digital dual tuner DVRs).[7] And we have been a partner in the EPA's Energy Star program since its inception and continue to support development of consensus standards that promote STB energy efficiency. More fundamentally, we recognize that improving energy efficiency requires an innovative rethinking of the way consumers use technology. To that end, we have pioneered whole-home solutions that improve overall household energy efficiency by enabling a single device – a whole-home gateway – to perform the functions that once required multiple devices.[8]

ARRIS is now implementing the next generation of energy-efficient video delivery solutions. Our newest line of STBs already incorporates innovative technology such as "light-sleep" capability, and we are working with our service provider partners to make these and other energy-efficiency features more robust. We are also focused on continuing to improve the energy efficiency for our STBs and gateway products, such as through the development of "deep sleep" capabilities. These efforts are being driven by marketplace demands for greater innovation and improved performance, not government mandates. And the Voluntary Agreement conclusively demonstrates the continued commitment by ARRIS and the STB

---

4 *See* Attachment A (Comments of Motorola Mobility LLC, Department of Energy Docket No. EERE-2012-BT-TP-0046 (Apr. 8, 2013)).

5 *See generally* Motorola – Products and the Environment, http://responsibility.motorola.com/index.php/environment/products/ (last visited May 8, 2013).

6 Motorola ranked seventh among technology and telecommunications companies in the Environmental Protection Agency's ("EPA's") Green Power Partnership, a voluntary program that combats climate change by encouraging the adoption of environmentally-friendly power sources such as solar, wind, geothermal, low-impact biomass, and low-impact hydro resources. Motorola purchased 80 million kilowatt-hours of green energy in 2012 alone, representing two-thirds of the company's total energy use. *See* EPA, Top 20 Tech & Telecom | Green Power Partnership, http://www.epa.gov/greenpower/toplists/top20tech.htm (last visited May 8, 2013); *see also* EPA, Green Power Partnership: An Environmental Choice for Your Organization (2013), *available at* http://www.epa.gov/greenpower/documents/gpp_brochure.pdf.

7 Since 2005, the energy consumption of Motorola STBs has been reduced by over 50 percent through the transition from analog to digital to IP-based technologies.

8 For example, a single IP-based gateway device today can provide the same features and functionality that used to require multiple digital video recorders ("DVRs"). The gateway-based home architecture results in an overall energy savings of approximately 36.5 percent.

industry to improve energy efficiency without compromising the user experience or hampering essential innovation.[9]

II. The Voluntary Agreement and CEA-2043 Ensure That Energy Efficiency Goals Will Be Met Without Sacrificing Innovation or Investment.

On December 6, 2012, fifteen multichannel video service providers that deliver service to more than 90 million American households (and 90 percent of multichannel video service customers), and device manufacturers (including ARRIS) that produce most of the STBs used by those providers, signed an unprecedented Voluntary Agreement. The fundamental achievement of the Voluntary Agreement is that it allows industry leaders to adopt an approach that will ensure the achievement of the energy savings goals shared by industry and policymakers, without the potential innovation-hampering effects of government mandates.[10]

By signing the Voluntary Agreement, which went into effect in January 1, 2013, signatories committed to, among other things:

- At least 90 percent of all new STBs purchased and deployed after December 31, 2013 will meet EPA Energy Star 3.0 efficiency levels,[11] which EPA says are 45 percent more efficient than previous models.[12]

---

9 Even if there was not substantial marketplace evidence counseling against regulation of STBs, there is still some question as to whether regulation of STBs by the CEC is permissible under the relevant federal statute. For example, as parties have noted during CEC's previous consideration of STB regulation, Section 624(e) of the Cable Act expressly preempts state and local regulation of technical standards for subscriber equipment. *See, e.g.*, Comments of Cal. Cable & Telecomms. Ass'n ("CCTA"), Docket No. 11-AAER-1, at 1 (Sept. 30, 2011); *see also* Comments of Nat'l Cable & Telecomms. Ass'n ("NCTA") & CCTA, Docket No. 12-AAER-2A, at 32 (May 9, 2013) ("Federal law preempts the State of California – or any state – from adopting state-level standards related to cable set-top boxes. In September 2004, after considering the adoption of appliance efficiency standards for set-top boxes in Docket 03-AAER-1, the Commission recognized that federal law preempted state-specific standards, and excluded set-top boxes and certain televisions with set-top functions from further consideration. . . . [T]hat federal preemption remains in place today."). Section 624(e) states that "No State or franchising authority may prohibit, condition, or restrict a cable system's use of any type of subscriber equipment or any transmission technology." 47 U.S.C. § 544(e).

10 For example, the Voluntary Agreement will result in an annual residential electricity savings of at least $1.5 billion for consumers once the initial commitment is fully realized. *See* Voluntary Agreement; *see* Press Release, Consumer Elecs. Ass'n ("CEA"), *Set-Top Box Energy Conservation Agreement Expected To Save U.S. Consumers $1.5 Billion Annually*, Dec. 6, 2012, *available at* http://www.ce.org/News/News-Releases/Press-Releases/2012-Press-Releases/Set-Top-Box-Energy-Conservation-Agreement-Expected.aspx ("Voluntary Agreement Press Release"). Service Provider signatories include: Bright House Networks, Cablevision, Charter, Comcast, Cox, Time Warner Cable, AT&T, CenturyLink, Verizon, DirecTV, and Dish Network. *See* Voluntary Agreement, Annex 7. Equipment Manufacturer signatories include Cisco Systems, ARRIS, and EchoStar. *Id.*

11 Voluntary Agreement § 3.1.2; *see also* Voluntary Agreement Press Release.

12 *See* ENERGY STAR, Set-top Boxes & Cable Boxes, http://www.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup&pgw_code=ST (last visited May 8, 2013). Notably, the cable industry has already deployed 13 million Energy Star 3.0-compliant STBs and more than 70 percent of their newest purchases and installations are Energy Star 3.0-compliant. *See* Comments of NCTA & CCTA, *supra* note 9, at 18.

- Cable operators have downloaded "light sleep" capabilities in more than 12 million STBs that are already in subscribers' homes, saving $50 million annually in residential power. "Deep sleep" functionality in next generation cable STBs will be field tested in 2014 and deployed if successful.[13]

- This year, telcos will offer light sleep capabilities and Automatic Power Down ("APD") features; satellite providers will include an APD feature in 90 percent of STBs purchased and deployed.[14]

- Telco and satellite providers are offering or will offer this year energy efficient whole-home solutions as an alternative to multiple in-home DVRs for subscribers.[15]

The Voluntary Agreement includes terms that will hold signatories accountable to these commitments, and make STB energy efficiency more transparent to consumers.[16] And, unlike government-prescribed regulation, the Voluntary Agreement will accommodate innovation and the dynamism of the marketplace. For example, it will be reviewed annually to consider additional energy efficiency commitments.[17] Thus, the signatories to the Agreement are free to innovate and design at a rapid pace, while still committing to concrete energy efficiency improvements and working toward additional savings in the future.

Implementation of the Voluntary Agreement is well underway. Some of the service providers' commitments have already been implemented, and the steering committee held its first meeting on February 22, 2013.[18] The next steering committee meeting is scheduled for May and will focus on potential energy efficiency opportunities for 2014 and beyond.

The Voluntary Agreement has received widespread, bipartisan praise. Numerous members of Congress, including California Senator Dianne Feinstein,[19] have applauded the

---

13 Voluntary Agreement, Annex 3; *see also* Voluntary Agreement Press Release.

14 Voluntary Agreement, Annexes 4A, 4B, 5; *see also* Voluntary Agreement Press Release.

15 Voluntary Agreement, Annexes 4A, 4B, 5; *see also* Voluntary Agreement Press Release.

16 For example, the Agreement calls for (i) service providers to submit annual confidential compliance reports to the Agreement's independent administrator; (ii) audits of compliance reports and/or field verification of actual STB performance; (iii) posting of STB energy efficiency on service providers' websites for subscribers to see; and (iv) creation of aggregate annual reports. Voluntary Agreement §§ 7.1, 7.3, 7.5, 8. Notably, testing for compliance under the Voluntary Agreement will follow the test procedures described in the industry consensus standard, CEA-2043. *Id.*, Annex 6.

17 *Id.* § 10.1. The steering committee – the body that, among other things, ensures compliance with the commitments – provides a forum to discuss additional energy savings opportunities. *Id.* § 9.

18 At that meeting, members provided progress reports, elected officers, and discussed the implementation of tracking guidelines and other ways to measure and report the results of the Agreement. *See* NCTA, Cable Tech Talk Blog, *Set-Top Box Energy Conservation Agreement Update*, Feb. 25, 2013, http://www.cabletechtalk.com/green-tech/set-top-box-energy-conservation-agreement-update/.

19 Press Release, Office of Senator Dianne Feinstein, *Feinstein Applauds Agreement on Energy Efficient Set-Top Boxes*, Dec. 6, 2012 ("Last year, I asked the industry to utilize more efficient equipment, and I am very pleased they have taken the first step to accomplish that.").

Voluntary Agreement and industry's willingness to act without the need for government intervention.[20]

Stakeholders also have come together to address energy efficiency issues by adopting CEA-2043, a voluntary consensus standard that defines a method for measuring STB power consumption.[21] Unlike a government prescribed test procedure, CEA-2043 will allow industry to achieve energy efficiency goals and be flexible enough to accommodate the pace of innovation and investment in this marketplace. Combined with the commitments made in the Voluntary Agreement, CEA-2043 will ensure that the current trend of increased STB energy efficiency, even as functionality increases, will continue.

* * * * *

[20] *See, e.g.*, Press Release, U.S. Senate Committee on Energy & Natural Resources, *Sen. Murkowski Commends Cable Box Energy Efficiency Agreement*, Dec. 6, 2012 ("I commend the industry for proactively developing a consensus agreement that will save their customers money, and not waiting for a federal mandate that forces them to act. This agreement is a wonderful example of how we can capture the benefits of energy efficiency without relying on top-down government . . . ."); Press Release, Office of Rep. Edward Markey, *Markey: End of Republican War on Energy Efficiency?*, Feb. 26, 2013 ("I commend the pay-TV industry for working cooperatively in a competitive marketplace to take the initiative in voluntarily adopting the Set-Top Box Energy Conservation Agreement. . . . In the rapidly changing telecommunications space, this strong industry-led efficiency agreement can deliver meaningful near-term energy savings while laying a foundation for future innovation and efficiency improvements. I am pleased that the industry has taken this step in the absence of congressional action . . . .").

[21] CEA, Public Project Overview, ANSI/CEA-2043 Set-Top Box Power Measurement, http://standards.ce.org/apps/group_public/project/details.php?project_id=51 (last visited May 8, 2013). *All* stakeholders – including the Department of Energy, energy advocate groups, and industry – participated in the development of CEA-2043.

In light of the foregoing, ARRIS respectfully requests that CEC refrain from initiating a rulemaking to regulate STB or residential small network equipment energy efficiency. Please contact me if you have any questions regarding this matter.

Sincerely,

/s/ Jason E. Friedrich

Jason E. Friedrich
Head of U.S. Government &
Regulatory Affairs
ARRIS Group, Inc.
101 Tournament Drive
Horsham, PA 19044

ATTACHMENT A

BEFORE THE

Department of Energy

WASHINGTON, D.C.

In the Matter of	)	
Energy Conservation Program:	)	Docket Number:
Test Procedure for Set-Top Boxes	)	EERE-2012-BT-TP-0046

COMMENTS OF MOTOROLA MOBILITY LLC

Motorola Mobility LLC
Jason E. Friedrich
Head of U.S. Government and
Regulatory Affairs
1101 New York Ave., NW
Suite 210
Washington, D.C. 20005

April 8, 2013

TABLE OF CONTENTS

BEFORE THE
Department of Energy
WASHINGTON, D.C.

In the Matter of	)	
Energy Conservation Program:	)	Docket Number:
Test Procedure for Set-Top Boxes	)	EERE-2012-BT-TP- 0046

COMMENTS OF MOTOROLA MOBILITY LLC

Motorola Mobility LLC ("Motorola") hereby responds to the Department of Energy's ("Department's") Notice of Proposed Rulemaking ("*Notice*") in the above-referenced docket seeking comment on proposed test procedures for set-top boxes ("STBs").[1] Marketplace forces already are pushing Motorola and other STB manufacturers and service providers to develop more innovative, energy efficient solutions. The development of the ANSI/CEA-2043 standard ("CEA-2043") and the adoption of the industry-wide voluntary agreement demonstrate that the Department's goals are already being met, and further Department action is both unnecessary and potentially counterproductive.

I. INTRODUCTION & SUMMARY

The video device marketplace has never been more vibrant and dynamic than it is today. It is a marketplace where innovation and industry-led efforts have already led to significant advances in STB energy efficiency without *any* government action. Device manufacturers like Motorola and video service providers are developing and deploying innovative solutions that

[1] *Energy Conservation Program: Test Procedure for Set-Top Boxes*, Notice of Proposed Rulemaking, 78 Fed. Reg. 5076 (Jan. 23, 2013) ("*Notice*").

provide greater functionality and flexibility to the user, even while improving overall energy efficiency. And last December, Motorola and other industry leaders signed a voluntary agreement that establishes tangible commitments and future goals for STB energy efficiency that will result in at least $1.5 billion of savings being passed on to consumers' electricity bills.

Of course, the Department already knows this. Almost two years ago, the Department issued its Proposed Determination that STBs should be considered "covered products" under the Energy Policy and Conservation Act ("EPCA"). In the ensuing two years, interested parties and various stakeholders have submitted dozens of comments and other pleadings highlighting that, while there are certainly many issues that need government attention and action, STB energy efficiency is not one of them. Nevertheless, and without having taken the necessary step to issue a Final Determination that STBs are covered products, the Department has continued down this regulatory path by proposing a mandatory test procedure for STBs.

The Department should stop here. Any Department action to regulate STB energy efficiency likely would stymie innovation, hamper investment, and ultimately harm consumers – all without *any* tangible improvements in energy efficiency. The Consumer Electronics Association ("CEA"), through its working group in which industry, energy advocates, and government – including the Department – participated, *already has developed* a draft test procedure for measuring STB energy efficiency: CEA-2043. Consistent with the National Technology Transfer and Advancement Act, CEA-2043 eliminates the need for the Department to adopt a mandatory test procedure because it accomplishes every goal the Department has advanced for adopting a test procedure.

Motorola and other industry leaders share the Department's goals of improving the energy efficiency of the video devices that they develop and deploy. Industry is working

diligently, driven by marketplace forces, to make these goals a reality through innovation and investment in more energy efficient solutions. The best way for the Department to achieve its goals is to continue to allow the marketplace to work.

II. INDUSTRY ADVANCES IN STB ENERGY EFFICIENCY HIGHLIGHT THAT DEPARTMENT ACTION IS UNNECESSARY.

Today's video services marketplace is highly competitive and dynamic. Service providers and STB manufacturers are constantly driven to develop innovative solutions that provide greater functionality and flexibility to the user, even while improving overall energy efficiency. Whole-home experiences, thin-clients and Digital Transport Adapters that consume less power, all-digital systems, cloud-based approaches to service delivery, and "system-on-a-chip" ("SOC") advanced power management are all examples of innovations that deliver more capabilities and flexibility to consumers while improving overall household energy efficiency.[2] In light of these ongoing industry efforts, the Department should not adopt its proposed test procedure.

For its part, Motorola has been widely recognized as an industry leader in driving more energy-efficient device solutions. Most recently, as a signatory to the industry-wide Voluntary

---

[2] *See, e.g.*, Ex Parte Letter from Neal M. Goldberg, Vice President & General Counsel, Nat'l Cable & Telecomms. Ass'n, Docket No. EERE-2010-BT-DET-0040, at 4 (Dec. 5, 2011); Comments of Motorola Mobility, Inc., Docket No. EERE-2011-BT-NOA-0067, at 3 (Mar. 15, 2012) ("Motorola 3/15/12 Comments"). The industry's achievements have been detailed at great length in the record by Motorola, CEA, NCTA, and other industry stakeholders, both in response to the Department's Proposed Determination and in response to its Request for Information. *See, e.g.*, Motorola 3/15/12 Comments; Comments of Consumer Elecs. Ass'n, Docket No. EERE-2011-BT-NOA-0067 (Mar. 15, 2012); Comments of Nat'l Cable & Telecomms. Ass'n, Docket No. EERE-2011-BT-NOA-0067 (Mar. 15, 2012); Comments of Cisco Systems, Inc., Docket No. EERE-2011-BT-NOA-0067 (Mar. 14, 2012); Comments of Nat'l Cable & Telecomms. Ass'n, Docket No. EERE-2010-BT-DET-0040 (Sept. 30, 2011); Comments of Verizon Communications Inc., Docket No. EERE-2010-BT-DET-0040 (Sept. 30, 2011); Comments of AT&T Services, Inc., Docket No. EERE-2010-BT-DET-0040 (Sept. 30, 2011); Comments of Consumer Elecs. Ass'n, Docket No. EERE-2010-BT-DET-0040 (Sept. 30, 2011). As this record amply demonstrates already, today's marketplace is already accomplishing many of the Department's policy goals, and continuing down a regulatory path risks hampering the vibrant and innovative marketplace forces without any commensurate public interest benefits.

Agreement for Ongoing Improvement to the Energy Efficiency of Set-Top Boxes ("Voluntary Agreement"),[3] Motorola has committed to working with its service provider customers to ensure that this trend continues. Motorola also has participated in the development of a voluntary consensus standard – CEA-2043 – that establishes a test method for measuring STB power consumption. These voluntary, marketplace-driven efforts eliminate the need for Department action in this proceeding, and also meet the Department's goals in a more flexible, less burdensome manner than any federal mandate could allow.

A. Motorola is a Recognized Industry Leader in Energy Efficient Solutions and Shares the Department's Goals of Increasing STB Energy Efficiency.

Motorola has long recognized the critical importance of implementing environmentally sustainable business practices – not just in its specific product offerings, but also as part of its overall business model. Motorola currently is implementing a strategy to conform all of its existing and future buildings worldwide to the Leadership in Energy and Environmental Design ("LEED") standards and to adopt green procurement and cleaning guidelines.[4] Motorola also has taken steps to redesign product packaging, increase product recyclability, and increase the amount of recycled materials used in product manufacturing.[5] This commitment to green practices has yielded widespread recognition and acclaim for Motorola from government agencies, clean energy advocates, and industry partners. Motorola ranked seventh among technology and telecommunications companies in the Environmental Protection Agency's

---

3 Voluntary Agreement for Ongoing Improvement to the Energy Efficiency of Set-Top Boxes (Dec. 6, 2012) ("Voluntary Agreement"), *available at* http://www.ce.org/CorporateSite/media/ce_news/FINAL-PUBLIC-VOLUNTARY-AGREEMENT-%2812-6-2012%29.pdf.

4 *See generally* Motorola – Green Buildings, http://responsibility.motorola.com/index.php/environment/operations/GreenBuildings (last visited Apr. 3, 2013).

5 *See generally* Motorola – Products and the Environment, http://responsibility.motorola.com/index.php/environment/products/ (last visited Apr. 3, 2013).

("EPA's") Green Power Partnership, a voluntary program that combats climate change by encouraging the adoption of environmentally-friendly power sources such as solar, wind, geothermal, low-impact biomass, and low-impact hydro resources.[6]

Motorola's efforts have won acclaim from clean energy groups like Carbonfund.org, which recently awarded Motorola its CarbonFree Products Award in recognition of Motorola's "commitment to sustainable practices and to the support of important external carbon reductions."[7]

Motorola also has taken concrete steps to improve the energy efficiency of its STBs. Motorola recognizes that improving energy efficiency requires a fundamental, innovative rethinking of the way consumers use technology. To that end, Motorola has pioneered whole-home solutions that improve overall energy efficiency enabling a single device – a whole-home gateway – to perform the functions that once required multiple devices.[8] At the same time, Motorola has been improving energy efficiency of individual devices. Motorola typically achieves approximately 20 percent improvement in energy efficiency from generation to

---

6 Motorola purchased 80 million kilowatt-hours of green energy in 2012 alone, representing two-thirds of the company's total energy use. *See* EPA, Top 20 Tech & Telecom | Green Power Partnership, http://www.epa.gov/greenpower/toplists/top20tech.htm (last visited Apr. 3, 2013); *see also* EPA, Green Power Partnership: An Environmental Choice for Your Organization (2013), *available at* http://www.epa.gov/greenpower/documents/gpp_brochure.pdf.

7 Press Release, *Motorola Mobility – For Planet and People CarbonFree Products Category Award*, Carbonfund.org (Mar. 2, 2012), *available at* http://www.carbonfund.org/blog/item/4504-motorola-mobility-for-planet-and-people-carbonfree-products-category-award. Motorola also received Verizon's 2010 Supplier Recognition Award in the Green/Sustainability category in recognition of its development of green STBs and smartphones. *See* Press Release, *Motorola Mobility is Honored with Verizon's 2010 Supplier Recognition Award*, Motorola (Apr. 26, 2011), *available at* http://www.motorola.com/mediaexperiences2go/2011/04/motorola-mobility-is-honored-with-verizons-2010-supplier-recognition-award/.

8 For example, a single IP-based gateway device today can provide the same features and functionality that used to require multiple digital video recorders ("DVRs") or a multi-room DVR and multiple home network connected set-tops. The gateway-based home architecture results in an overall energy savings of approximately 36.5 percent.

generation of devices within a given product class (*e.g.*, digital dual tuner DVRs).[9] And Motorola has been a partner in the EPA's Energy Star program since its inception and continues to support development of consensus standards that promote STB energy efficiency.[10]

Motorola is now implementing the next-generation of energy-efficient solutions. Its newest line of STBs already has the capability to operate in "light-sleep" mode, and Motorola is working with its service provider partners to make these and other energy-efficiency features more robust. Motorola is also focused on continuing to improve the energy efficiency for its gateway architecture and is experimenting with "deep sleep" capability. Moreover, as evidenced by its decisions to join the Voluntary Agreement, Motorola is committed to working cooperatively with other stakeholders to lower energy usage without compromising the user experience or slowing innovation.

B. The Industry's Voluntary Agreement Ensures That Significant Energy Savings Will Continue.

On December 6, 2012, fifteen multichannel video service providers that deliver service to more than 90 million American households (and 90 percent of multichannel video service customers), and device manufacturers (including Motorola) that produce most of the STBs used by those providers, signed an unprecedented Voluntary Agreement. This is the first time that industry leaders have agreed to meeting a common set of goals that ensure significant improvements in energy efficiency. The Voluntary Agreement will result in an annual

---

[9] *See* Motorola, Environment: Set-Top Boxes, http://responsibility.motorola.com/index.php/environment/products/settop/ (last visited Apr. 3, 2013). Since 2005, the energy consumption of Motorola STBs has been reduced by over 50 percent through the transition from analog to digital to IP-based technologies.

[10] In fact, Motorola is the top manufacturer of Energy Star-compliant IP and traditional STBs, with 18 unique models qualifying. *See* EPA, ENERGY STAR Set-top Box Product List (Apr. 3, 2013), *available at* http://downloads.energystar.gov/bi/qplist/Set_Top_Boxes_Product_List.xls?90a3-3058.

residential electricity savings of at least $1.5 billion for consumers once the initial commitment is fully realized.[11]

By signing the Voluntary Agreement, which went into effect in January 1, 2013, signatories committed to, among other things:

- At least 90 percent of all new STBs purchased and deployed after December 31, 2013 will meet EPA Energy Star 3.0 efficiency levels,[12] which EPA says are 45 percent more efficient than previous models.[13]
- Cable operators have downloaded "light sleep" capabilities in more than 12 million STBs that are already in subscribers' homes, saving $50 million annually in residential power. "Deep sleep" functionality in next generation cable STBs will be field tested in 2014 and deployed if successful.[14]
- This year, telcos will offer light sleep capabilities and Automatic Power Down ("APD") features; satellite providers will include an APD feature in 90 percent of STBs purchased and deployed.[15]
- Satellite and telco providers are offering or will offer this year energy efficient whole-home solutions as an alternative to multiple in-home DVRs for subscribers.[16]

The Voluntary Agreement includes terms that will hold signatories accountable to these commitments, and that will make STB energy efficiency more transparent to consumers. For

---

11 *See generally* Voluntary Agreement; *see* Press Release, *Set-Top Box Energy Conservation Agreement Expected To Save U.S. Consumers $1.5 Billion Annually*, CEA (Dec. 6, 2012), *available at* http://www.ce.org/News/News-Releases/Press-Releases/2012-Press-Releases/Set-Top-Box-Energy-Conservation-Agreement-Expected.aspx ("Voluntary Agreement Press Release"). Service Provider signatories include: Bright House Networks, Cablevision, Charter, Comcast, Cox, Time Warner Cable, AT&T, CenturyLink, Verizon, DirecTV, and Dish Network. *See* Voluntary Agreement, Annex 7. Equipment Manufacturer signatories include Cisco Systems, Motorola, ARRIS, and EchoStar. *Id.*

12 Voluntary Agreement § 3.1.2; *see also* Voluntary Agreement Press Release.

13 *See* Set-top Boxes & Cable Boxes: ENERGY STAR, http://www.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup&pgw_code=ST (last visited Apr. 3, 2013). Notably, Motorola is currently meeting this threshold with 100 percent of our products. And the cable industry has already deployed 13 million Energy Star 3.0-compliant STBs and more than 70 percent of their newest purchases and installations are Energy Star 3.0-compliant.

14 Voluntary Agreement, Annex 3; *see also* Voluntary Agreement Press Release.

15 Voluntary Agreement, Annexes 4A, 4B, 5; *see also* Voluntary Agreement Press Release.

16 Voluntary Agreement, Annex 4A, 4B, 5; *see also* Voluntary Agreement Press Release.

example, the Agreement calls for (i) service providers to submit annual confidential compliance reports to the Agreement's independent administrator;[17] (ii) audits of compliance reports and/or field verification of actual STB performance;[18] (iii) posting of STB energy efficiency on service providers' websites for subscribers to see;[19] and (iv) creation of aggregate annual reports.[20] Notably, testing for compliance under the Voluntary Agreement will follow the test procedures described in the industry consensus standard, CEA-2043.[21]

Unlike government-prescribed regulation, the Voluntary Agreement will accommodate innovation and the dynamism of the marketplace. It will be reviewed annually to consider additional energy efficiency commitments.[22] The steering committee – the governing body of the Agreement that, among other things, ensures compliance with the commitments – provides a forum to discuss additional energy savings opportunities.[23] Thus, the signatories to the Agreement are free to innovate and design at a rapid pace, while still being able to commit to energy savings and work toward additional savings in the future.

Implementation of the Voluntary Agreement is well underway. As noted above, some of the service providers' commitments have already been implemented. And the steering committee held its first meeting on February 22, 2013. At that meeting, members provided

---

17 Voluntary Agreement § 7.1.

18 *Id.* § 8.

19 *Id.* § 7.5.

20 *Id.* § 7.3.

21 *Id.*, Annex 6.

22 *Id.* § 10.1.

23 *Id.* § 9.

progress reports, elected officers of the committee, and discussed the implementation of tracking guidelines and other ways to measure and report the results of the Agreement.[24]

The Voluntary Agreement has received widespread, bipartisan praise, as numerous members of Congress have applauded the Voluntary Agreement and industry's willingness to act without the need for government intervention.[25] As the National Cable and Telecommunications Association ("NCTA") and CEA have stated, "[w]hile the Department of Energy continues to explore a lengthy rulemaking about setting standards for set-top boxes, our industries will be delivering results that will achieve significant energy reductions and savings for consumers, while protecting innovation and competition."[26]

* * * *

Industry already has significant marketplace incentives to develop, invest in, and deploy energy efficient STBs. Motorola's efforts underscore this reality, as does the Voluntary Agreement. These developments render Department action entirely unnecessary.

---

[24] *See* Nat'l Cable & Telecomms. Ass'n, Cable Tech Talk Blog, *Set-Top Box Energy Conservation Agreement Update*, Feb. 25, 2013, http://www.cabletechtalk.com/green-tech/set-top-box-energy-conservation-agreement-update/.

[25] *See, e.g.*, Press Release, U.S. Senate Committee on Energy & Natural Resources, *Sen. Murkowski Commends Cable Box Energy Efficiency Agreement*, Dec. 6, 2012 ("I commend the industry for proactively developing a consensus agreement that will save their customers money, and not waiting for a federal mandate that forces them to act. This is a wonderful example of how we can capture the benefits of energy efficiency without relying on top-down government . . . ."); Press Release, Office of Senator Dianne Feinstein, *Feinstein Applauds Agreement on Energy Efficient Set-Top Boxes*, Dec. 6, 2012 ("Last year, I asked the industry to utilize more efficient equipment, and I am very pleased they have taken the first step to accomplish that."); Press Release, Office of Rep. Edward Markey, *Markey: End of Republican War on Energy Efficiency?*, Feb. 26, 2013 ("I commend the pay-TV industry for working cooperatively in a competitive marketplace to take the initiative in voluntarily adopting the Set-Top Box Energy Conservation Agreement. . . . In the rapidly changing telecommunications space, this strong industry-led efficiency agreement can deliver meaningful near-term energy savings while laying a foundation for future innovation and efficiency improvements. I am pleased that the industry has taken this step in the absence of congressional action . . . .").

[26] *See* Nat'l Cable & Telecomms. Ass'n, Cable Tech Talk Blog, *supra* note 24.

III. THE DEPARTMENT SHOULD NOT – AND CANNOT – MANDATE A FEDERAL PROCEDURE FOR TESTING STB ENERGY CONSUMPTION.

The Department has proposed detailed test procedures for STBs. Such rules are unnecessary for the reasons set forth above and also in light of the fact that the industry, through CEA's working group, has *already* created a voluntary consensus standard – CEA 2043 – that provides a test method for measuring STB power consumption. This standard will meet the Department's goals in a more flexible, less burdensome manner than any federal mandate could allow. Further, even if it made sense to adopt a federal test procedure, which it does not, the Department could not do so here because it has yet to make a final determination that STBs are a "covered product" under EPCA. Unless and until such a determination is made, the Department cannot regulate STBs in any manner.

A. The Industry Consensus Standard, CEA-2043, Already Achieves the Department's Goals of Further Energy Savings While Maintaining Industry's Flexibility to Innovate and Adapt The Industry Standard to Changing Technology.

Industry stakeholders have devoted significant time, energy, and technical expertise to drafting CEA-2043, a voluntary consensus standard that defines a method for measuring STB power consumption.[27] Unlike a federal test procedure, CEA-2043 will achieve the Department's policy goals and be flexible enough to accommodate the pace of innovation in this marketplace. By contrast, a federal test procedure would be time-consuming and burdensome, waste industry and government resources, and be antithetical to federal law that directs agencies to rely on voluntary consensus standards where practical.

---

[27] Consumer Elecs. Ass'n, Public Project Overview, ANSI/CEA-2043 Set-Top Box Power Measurement, Project Overview, http://standards.ce.org/apps/group_public/project/details.php?project_id=51 (last visited Apr. 3, 2013).

CEA's working group for CEA-2043 has treated the Department's proposals as comments to the standards-making process.[28] With the exception of a few instances where the Department inserts performance criteria that have no place in a test procedure (as discussed further, below), most of the Department's proposed changes are editorial in nature and do not substantially alter CEA-2043. It thus makes sense for the working group to consider incorporating these changes before the standard becomes finalized – as CEA has done.[29] The standard was left in draft form for this very purpose, and the Department's input will only make CEA-2043 a more effective test procedure.

But pushing forward with a federal test procedure will eliminate the efficiencies and flexibility of an industry-driven standard. CEA-2043 can be readily maintained and easily revised through the industry working group, including with any input from the Department and the EPA, without slowing further innovation in the STB marketplace. In contrast, the process of implementing even the smallest changes to a government-mandated test procedure would be extremely time-consuming and challenging, requiring lengthy rulemaking processes that will be unable to keep up with the pace of innovation.[30] As technology outpaces Department action, manufacturers and service providers will be saddled with the burden of seeking waivers or

---

28 *See* Comments of Consumer Elecs. Ass'n, Docket No. EERE-2012-BT-TP-0046, at 4 & Attachment A (Apr. 8, 2013).

29 *See id.*

30 As CEA explains in it comments, the difference in agility of industry versus Department standards has played out in the TV and STB context. CEA-861 (DTV Profile for Uncompressed High-Speed Interfaces), which defined digital output data requirements for STBs, was developed in 2001 and has been revised eight times in ten years to keep pace with innovation and errors in previous versions. In contrast, the Department's TV test procedure was adopted in 1979. After 30 years and only after being prompted by outside petitions, DOE repealed the test procedure in 2009. Its proceeding to adopt a new test procedure is still pending. *See id.* at 10.

risking non-compliance, even though these innovations would improve the consumer experience and increase STB energy efficiency.

Moreover, in light of the substantial work that has gone into industry's development of CEA-2043, for the Department to now develop and mandate its own test procedure is a waste of both government and industry time and resources. Such a mandate would be contrary to the National Technology Transfer and Advancement Act ("NTTAA").[31] The Office of Management and Budget ("OMB") Circular A-119 (which implements the NTTAA) directs federal agencies "to use voluntary consensus standards in lieu of government-unique standards except where inconsistent with law or otherwise impractical."[32] OMB Circular A-119 further directs agencies to consult with voluntary consensus standards bodies and participate in the development of such standards when doing so is in the public interest and compatible with the agency's mission, priorities, and budget resources.[33] These directives are clearly applicable here, where CEA-2043 – nearly complete and inclusive of the Department's input – eliminates the need for the Department to create a test procedure of its own.

---

[31] National Technology Transfer and Advancement Act of 1995, Pub. L. No. 104-113, 110 Stat. 775 (1996). This Act requires that "all Federal agencies and departments shall use technical standards that are developed or adopted by voluntary consensus standards bodies, using such technical standards as a means to carry out policy objectives or activities determined by the agencies and departments." *See id.* § 12(d); 15 U.S.C. § 272, note 1.

[32] OMB Circular No. A-119 Revised, *Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities* (Feb. 10, 1998), *available at* http://www.whitehouse.gov/omb/circulars_a119. OMB defines a "standard" to include "test methods and sampling procedures." *Id.* ¶ 3(a). As OMB Circular A-119 explains, government use of voluntary consensus standards "[e]liminate[s] the cost to the Government of developing its own standards and decreases[s] the cost of goods procured and the burden of complying with agency regulation." *Id.* ¶ 2.

[33] *Id.* ¶ 7. The Obama Administration has reiterated that "reliance on private sector leadership, supplemented by Federal Government contributions to discrete standardization processes as outlined in OMB Circular A-119 . . . . remains the primary strategy for government engagement in standards development." *See* Memorandum for the Heads of Executive Departments and Agencies, from Aneesh Chopra, U.S. Chief Technology Office, Office of Science and Technology Policy, et al., *Principles for Federal Engagement in Standards Activities to Address National Priorities*, at 1-2 (Jan. 17, 2012).

Finally, adopting a test procedure would conflict with President Obama's directive in Executive Order 13,563 to "select, in choosing among alternative regulatory approaches, those approaches that maximize net benefits."[34] A mandatory test procedure *jeopardizes* the energy efficiency gains that industry already has achieved and will continue to achieve through the Voluntary Agreement and through innovation driven by marketplace forces. In contrast, simply relying on CEA-2043 accomplishes the Department's goals without unnecessarily risking the continued innovation and investment that will bring additional energy efficiency gains, thereby making this the approach that "maximizes net benefits" to the public.

B. The Department Has Not Adopted a Final Determination That STBs Are a "Covered Product" Under EPCA, and It Cannot.

The Department initiated the process of determining whether to designate STBs as a "covered product" subject to regulation under the EPCA in June 2011.[35] Despite being fully briefed by interested parties,[36] the Department has still not issued a Final Determination as to whether it considers STBs a "covered product." The Department's insistence on proceeding with the regulatory process without making the threshold regulatory determination is creating uncertainty and needlessly imposing costs on both industry and the Department itself.

---

34 Exec. Order No. 13,563, 76 Fed. Reg. 3821 (Jan. 21, 2011), *available at* http://www.whitehouse.gov/the-press-office/2011/01/18/executive-order-13563-improving-regulation-and-regulatory-review.

35 *See Energy Conservation Program for Consumer Products and Certain Commercial and Industrial Equipment: Proposed Determination of Set-Top Boxes and Network Equipment as a Covered Consumer Product*, Proposed Determination, 76 Fed. Reg. 34,914 (June 15, 2011). At the time, the Department noted that "If DOE issues a final determination that set-top boxes and network equipment are a covered product, DOE will consider test procedures and energy conservation standards for set-top boxes and network equipment." *Id.* at 34,915.

36 Numerous parties representing a wide range of interests submitted detailed, thoughtful comments in response to the Proposed Determination and the subsequent Request for Information issued in December 2011. *See, e.g.*, *supra* note 2.

This is especially true considering that the record fully and conclusively demonstrates that STBs are not "covered products" as that term is defined in EPCA. The Secretary's authority to determine that a device is a "covered product" is limited by the requirement that such an action be "necessary or appropriate to carry out the purposes of [EPCA]."[37] As parties have explained, the "necessary and appropriate" standard sets a high bar and requires the Department to determine that federally-mandated standards would be "superior to energy saving measures that can be achieved through non-regulatory means."[38] In light of the enormous progress being made by individual companies like Motorola and through industry-wide initiatives like CEA-2043 and the Voluntary Agreement, it is clear that federal standards would not be "superior" to the energy efficiency gains already underway in the absence of regulation. In fact, because a federal standard would inhibit innovation and negate these private sector efforts, regulation would almost certainly result in *inferior* energy saving measures.

Even if the Department disagrees with this conclusion, it must issue a Final Determination that a consumer product is a covered product *before* a test procedure can be issued.[39] Here, the Department issued a Proposed Determination that STBs are covered, and the comments submitted by various stakeholders raised significant issues and questions that demand resolution. The Department has failed to respond to the feedback it has received on that

---

[37] 42 U.S.C. § 6292(b)(A). The relevant purposes of EPCA include (1) "to conserve energy supplies through energy conservation programs" and (2) "to provide for improved energy efficiency of . . . certain other consumer products." *Id.* § 6201.

[38] Comments of Nat'l Cable & Telecomms. Ass'n, Docket No. EERE-2010-BT-DET-0040, at 14 (Sept. 30, 2011).

[39] EPCA permits the Secretary to "prescribe test procedures *for any consumer product classified as a covered product* under section 6292 (b) of this title." 42 U.S.C. § 6293(b)(1)(B) (emphasis added). The plain language of the statute unambiguously limits the Secretary's authority to prescribe test procedures to products that have already been classified as covered products.

threshold question and explain how it can regulate in this area given the clear restriction placed upon its authority by EPCA. And, should STBs ultimately be found *not* to be a covered product under EPCA – which would be the correct result – the Department will have wasted months of its own time and resources. The Department can avoid imposing additional costs on all stakeholders and further chilling innovation by determining that STBs are not covered products and confirming that it will refrain from adopting both a test procedure and an energy standard.

IV. SOME OF THE DEPARTMENT'S PROPOSALS WOULD ALTER CEA-2043 IN WAYS THAT WOULD IMPEDE INNOVATION AND HAMPER INVESTMENTS IN SET-TOP BOXES.

Despite the fact that the majority of the Department's proposed changes to CEA-2043 are editorial in nature and are already being considered by the CEA working group for inclusion in the standard, a handful of the proposals would change CEA-2043 in ways that could ultimately stymie innovation and investment in STBs. In particular, proposals to include performance criteria in the test procedure would lock in place requirements that are sure to become outdated as technology advances. And a handful of other proposals would have the effect of discouraging the future deployment of advanced technologies that hold great promise for reducing household energy consumption, or unnecessarily limiting industry's flexibility in testing and reporting under the test procedure. These efforts highlight how it makes more sense to leave development of the test procedure to industry.

A. The Department Proposes Changes That Establish Performance Criteria That Are Inappropriate In a Testing Procedure.

A test procedure should be agnostic as to energy consumption performance criteria. Yet some of the Department's proposed changes to CEA-2043 blur the line between test procedure and standard, and inappropriately incorporate performance criteria within the proposed test procedure. This is problematic because such criteria will be frozen into place via the test

procedure, chilling innovation that may ultimately lead to greater energy savings. Two proposals, in particular, highlight why the Department should refrain from moving forward in this proceeding: (1) the requirement that a STB take 30 seconds or less to wake from sleep mode, and (2) the four-hour on mode-to-sleep mode cap for an APD feature.

Thirty-Second Sleep Requirement. In defining sleep mode, the Department proposes using the same language as CEA-2043, but adding a requirement that "[t]he set-top box shall be able to transition from this mode to on mode within 30 seconds to be considered in sleep mode."[40] The *Notice* explains that, if the STB cannot meet this 30-second sleep-to-on transition, the box will *not* be considered to have sleep mode capability and *shall not be tested* for the energy consumption in sleep mode.[41] Thus, if a box takes 31 seconds to wake up from sleep mode, under the Department's proposal, it would not be tested for its energy consumption during sleep mode at all, because the "test procedure" would treat that box as if it had no sleep capability whatsoever. The purported justification for this proposal is that wake times of longer than 30 seconds would be a significant barrier to consumer adoption.[42]

Even if consumer adoption is a valid concern, this restriction amounts to a performance criteria that has no place in a test procedure. A test procedure should be just that – a process for how to test energy consumption in various modes, under different settings, using specific measurement techniques. The appropriate transition time from sleep-to-on would be more appropriately worked out in the marketplace, not dictated by government fiat. Sleep modes are still in their infancy, and they already are being trialed, developed, and, in some instances,

---

40 *See Notice*, 78 Fed. Reg. at 5084.

41 *See id.* at 5085.

42 *Id.* The Department chose 30 seconds somewhat arbitrarily; it points to industry comments saying that wake times of longer than one minute could be a barrier to consumer adoption. *Id.*

implemented and deployed – without Department mandates. But the 30-second restriction risks undermining this innovation, thwarting further sleep mode development and the realization of significant energy savings. Providers and manufacturers that cannot achieve the transition from sleep-to-on in less than 30 seconds would have no incentive to implement *any* sleep mode, despite the fact that their sleep mode would still be saving energy and would be a positive step in the process to balance user preferences and energy efficiency. And, by locking the 30-second target into place, the Department would discourage innovation to develop transition times that are less than 30 seconds. The current definition in CEA-2043, which does not include such a restriction, should not be altered.

APD Requirement. In the *Notice*, the Department proposes to perform an APD test as a second sleep mode test.[43] As part of this test, the Department proposes to alter CEA-2043 to require that, if four hours pass and the STB is not in sleep mode, then the STB is considered not to support an APD feature. As with the 30-second requirement, if the four-hour transition to sleep via APD cannot be met, the Department proposes that the tester not run the APD test at all.[44]

For the very same reasons discussed with respect to the 30-second sleep requirement, it is inappropriate to define the transition time required to be able to count the box as supporting APD in what should be an agnostic test procedure. This four-hour APD requirement acts as a performance criteria that has no place in a test procedure. It will hamper innovation and investment as industry works to develop APD features and incorporate them into STB models, and potentially will thwart the development of features that would lead to greater energy savings.

---

43 *See id.* at 5094.

44 *Id.* at 5097.

B. Other Proposed Changes are Not Justified by any Potential Public Interest Benefits.

The Department proposes other changes to CEA-2043 that could hamper innovation more generally. These proposals reflect a misunderstanding of the dynamic and highly competitive nature of the video device marketplace, and provide further evidence for why the Department should refrain from any further action in this proceeding.

First, the Department's proposed definition of "set-top box" is overly broad, particularly with respect to its treatment of gateways. In the *Notice*, the Department proposes to define a STB as "a device combining hardware components with software programming designed for the *primary purpose of receiving television and related services* from terrestrial, cable, satellite, broadband, or local networks, *providing video output using at least one direct video connection.*"[45] This definition properly *excludes* "headless" gateways (i.e., gateways without direct video connections), but arguably includes a "headed" gateway (i.e., gateways that send video and data over a home network interface to client devices, but also happen to have a direct video connection to a display device).

All gateways should be excluded. As Motorola and others have discussed at length on the record in this proceeding, gateways – both headed and headless – are, and will be, an invaluable tool to reducing whole-home energy consumption, and the Department should not hamper further development and usage of gateways by manufacturers and service providers. Gateways have significantly more complexity and functionality than traditional STBs. Even though they consume more energy than a simple STB, they also reduce overall energy consumption in a

45 *Id.* at 5080-81 (emphasis added).

typical household substantially.[46] Including *any* gateways within the strictures of this test procedure would distort marketplace incentives and discourage the development and deployment of these dynamic, energy efficient devices and, thus, would be counter-productive to the Department's stated goals.

Second, the Department's proposal does not provide sufficient flexibility to account for network-initiated activity during sleep mode power measurement. In the *Notice*, the Department proposes that each sleep mode test last for a duration of between four and eight hours.[47] However, it also proposes that no service provider network-initiated action requiring a transition to on mode occur during that four-to-eight-hour period.[48] If a network-initiated action cannot be disabled and does occur, the Department proposes that the testing time period be extended beyond eight hours, until the STB's power consumption returns to a specified slope value.[49] If the test is extended beyond eight hours, the Department proposes that the average power consumption over the entire test duration be used to calculate the rated power consumption in sleep mode.[50]

---

46 *See* Motorola 3/15/12 Comments at 3 ("Th[e][gateway] approach also improves energy efficiency: even though a gateway device may use more power than a set-top box, the *overall* power consumption of the solution is less than that of a solution that involves using full functionality set-top boxes to provide similar access throughout the home."); *id.* at 11-12 ("Incorporating all of these capabilities into a single device likely means that the gateway itself will consume more energy than a traditional set-top box, but the *overall* effect is better energy efficiency and better service quality across video devices in the home: the customer would be consuming 60 percent less energy . . . *and* would be able to access multichannel video on a wider range of devices.").

47 *See Notice*, 78 Fed. Reg. at 5094.

48 *Id.*

49 *Id.* at 5094-95.

50 *Id.* at 5095.

As the Department admits in the *Notice*, extending the time for sleep mode testing longer than eight hours would be burdensome to the tester.[51] Because the proposed test procedure defines the entry and exit event time for any network initiated action, it would be less burdensome to allow testers to simply remove the data recorded for the network action from the test results, and extend the test duration only by the amount of time necessary to account for the data removal. Removal of the data for the network action could easily be noted in the test report. This will achieve the same data without extending the time beyond eight hours, removing the burden of increasing an already lengthy testing time from the process.

[51] *See id.* ("DOE is concerned that if the time period of the sleep mode test is extended to be much longer than 8 hours, the test may increase test burden.").

V. CONCLUSION

Motorola urges the Department to refrain from adopting a test procedure or STB energy consumption standard. In light of the energy efficiency improvements that manufacturers like Motorola and service providers already have achieved and will continue to realize as innovative new technologies make their way into the marketplace and consumers' homes, action by the Department is unnecessary and inappropriate – and potentially counter-productive. The risk that regulation will impede additional innovation and investment in this space is too great, and the accretive public interest benefit of Department action is insignificant, at best.

Respectfully submitted,

/s/ Jason E. Friedrich
Jason E. Friedrich
Head of U.S. Government and
Regulatory Affairs
Motorola Mobility LLC
1101 New York Ave., NW
Suite 210
Washington, D.C. 20004

April 8, 2013