

**PREPARING CONSUMERS FOR THE END OF THE  
DIGITAL TELEVISION TRANSITION**

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**HEARING**  
BEFORE THE  
SUBCOMMITTEE ON TELECOMMUNICATIONS AND  
THE INTERNET  
OF THE  
COMMITTEE ON ENERGY AND  
COMMERCE  
HOUSE OF REPRESENTATIVES  
ONE HUNDRED NINTH CONGRESS

FIRST SESSION

MARCH 10, 2005

**Serial No. 109-5**

Printed for the use of the Committee on Energy and Commerce



Available via the World Wide Web: <http://www.access.gpo.gov/congress/house>

U.S. GOVERNMENT PRINTING OFFICE

99-912PDF

WASHINGTON : 2005

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# PREPARING CONSUMERS FOR THE END OF THE DIGITAL TELEVISION TRANSITION

THURSDAY, MARCH 10, 2005

HOUSE OF REPRESENTATIVES,  
COMMITTEE ON ENERGY AND COMMERCE,  
SUBCOMMITTEE ON TELECOMMUNICATIONS  
AND THE INTERNET,  
*Washington, DC.*

The subcommittee met, pursuant to notice, at 1:11 p.m., in room 2322 of the Rayburn House Office Building, Hon. Fred Upton (chairman) presiding.

Members present: Representatives Upton, Shimkus, Radanovich, Bass, Terry, Barton (ex officio), Markey, Wynn, Gonzalez, Inslee, Boucher, Brown, and Dingell (ex officio).

Staff present: Neil Fried, majority counsel; Kelly Cole, majority counsel; Will Nordwind, policy coordinator; Howard Waltzman, majority counsel; Anh Nguyen, legislative clerk; Johanna Shelton, minority counsel; Peter Filon, minority counsel; and Turney Hall, research assistant.

Mr. SHIMKUS [presiding]. Let me call this hearing in order and make a comment. Obviously, I am not Mr. Upton, the chairman of the subcommittee. I am his evil twin “Skippy”. No, actually he is—we want to get the hearing moving rapidly, because there will be a series of votes relatively soon, which is going to cause—wreak havoc on the hearing, so we wanted to get started. I would like unanimous consent that his opening statement will be submitted for the record, Chairman Upton’s, and then I would like to yield to the ranking member of the full committee, Mr. Dingell, for an opening statement.

[The prepared statement of Hon. Fred Upton follows:]

PREPARED STATEMENT OF HON. FRED UPTON, CHAIRMAN, SUBCOMMITTEE ON  
TELECOMMUNICATIONS AND THE INTERNET

Good afternoon. Today’s hearing is entitled: Preparing Consumers for the End of the Digital Television Transition. How well consumers are prepared for the end of the transition will be a significant factor in assessing the success of our collective efforts to bring the DTV transition to an end.

Under active consideration by this Subcommittee is enactment of “hard date” legislation. However, it is important to note that, regardless of whether this Congress adopts such legislation, current law envisions that those 15% of television households which rely solely on over-the-air television service will lose their television service—unless they take an affirmative step to acquire a digital-to-analog set-top-box, purchase a television with a digital tuner, or subscribe to cable or satellite. So, setting aside the debate over “hard date” legislation, even the implications of current law compel us to focus significant time and attention on preparing the consumer for the end of the digital transition. Of course, many of these consumers are lower income, so we do need to consider some form of a digital-to-analog converter

box assistance program. Without a doubt, education is a critical component of adequately preparing the consumer. All stakeholders in this debate have an obligation to do their part in this education campaign. Many such consumer education campaigns are under way, and they are good campaigns. However, some suggest that, until we set a "hard date," such education campaigns are often lost on the vast majority of consumers who likely are coping with a dizzying array of more immediate issues in their lives. I tend to agree.

Moreover, even for those Americans who want to buy a new television today, I can speak from personal experience that the decision over what to buy and how it fits into the overall DTV picture is extremely complex and confusing. Often these purchasing decisions involve sizable amounts of money, although I would note that prices are coming down every day, and today we will hear about Thompson's latest announcement of a standard definition digital television for under \$300. But even in this context, more needs to be done to educate the consumer. This is why I believe that, in conjunction with setting a hard-date, we must consider requiring adequate warning labels on television sets to simply and clearly educate the consumer about what it is they are buying and what, if any, additional steps the consumer would need to take in order to make it work post-transition.

I want to welcome all of our witnesses today as they help us grapple with these important issues.

Mr. DINGELL. Mr. Chairman, you are very gracious. Thank you for the recognition, and thank you for moving forward with this hearing. I want to commend you for the important work being done here to address the problems of the transition from analog to digital television. Few consumers know that this country is in the middle of such a transition and that without new equipment, their over-the-air television sets will go dark.

Today's hearing is critical for this subcommittee to understand exactly what must be done to properly prepare consumers for the transition ahead. Consumers deserve a clear picture of how the digital television transition will affect them, and unfortunately, they are not receiving that today, nor, indeed, is industry. With different display technologies, transmission formats, and connections, buying a television is not as simple as it once was. Yet, our constituents need simple answers for what they must do to continue to receive free over-the-air television.

To provide these answers, both government and the private sector must intensify their efforts in an unprecedented campaign to educate consumers. Each industry has a role to play. As our chairman, Mr. Barton, has indicated, he experienced over the holiday season that consumers continue to receive confusing or ambiguous information about what they must do or how they will be affected when they go to a retail outlet to purchase a new television. Retailers clearly must do better here.

When consumers walk into a store, the necessary equipment, including low-cost digital-to-analog converter boxes must be stacked on the shelves. Consumers should see effective point of purchase displays that inform them of the transition and equipment functionality. Sales associates must accurately answer consumer questions. I am particularly interested in learning how retailers plan to market low-cost converter boxes. I would also like to know whether retailers are coordinating with broadcasters or others to publicize the transition in local communities.

Consumer electronics manufacturers have an equally important role in educating the public about their DTV products. It is critical that DTV equipment, including affordable digital-to-analog converter boxes, is available to retailers in sufficient volume. I am cu-

rious to know when manufacturers will produce and market low-cost converter boxes.

I also would like to know what steps manufacturers are taking to label television sets and related equipment with information about the change that will occur. Consumers deserve accurate and appropriate information about the products they are buying and about the future, how it will affect them and whether the equipment that they have is going to work to get them the services that they now enjoy.

The most critical piece of any consumer education campaign will be the efforts of the broadcast industry itself. Broadcast television is one of the most powerful mediums available to reach consumers. Broadcasters should use it to inform their over-the-air audience about this transition. And I see little being done in that area. I expect to see local broadcasters do much more to inform consumers about how to take part in the benefits of digital television.

Cable and satellite providers do not get a pass. They have a responsibility here, too. They must provide accurate and appropriate information to guide their subscribers through this process.

I am sympathetic to the predicament that without a firm deadline it is difficult to inform consumers when this transition will occur in their local market. We are all committed to a timely completion of the transition. A hard deadline may help to achieve this goal, but a hard deadline must allow adequate time to properly educate consumers about the transition and to ensure that they will have access to affordable equipment. We simply can not afford to leave 21 million exclusively over-the-air television households without the means to obtain local news, weather, and other information upon which they depend each day.

Consumer adoption is the linchpin to a successful DTV transition. Until we reach all Americans with accurate information about the transition, there is no way we can declare it a success.

I thank the witnesses for appearing here today. I look forward to testimony from the AARP, from the Hispanic Technology and Telecommunications Partnership on how particular segments of our society will be affected and what we all need to do to reach these audiences.

Thank you, Mr. Chairman.

Mr. SHIMKUS. I thank you.

And the Chair now recognizes the ranking member of the subcommittee, Mr. Markey.

Mr. MARKEY. Thank you. I thank the gentleman from Illinois, and I commend Chairman Upton for calling this hearing today. And I commend you for anything that you had to do with this hearing as well.

Mr. SHIMKUS. I just got it started.

Mr. MARKEY. And I commend everybody else who did anything at all to make this the obviously entertaining hearing which it is going to be.

Consumer education and awareness about the DTV transition will be critical for the success of any plan that ends analog television broadcasting. It is particularly troublesome that more hasn't been done already to inform consumers about the transition. Setting up websites with information is helpful, such as the informa-

tion that the FCC has put up, but we must remember that the context in which that is happening. We are talking chiefly about consumers who don't get cable, probably don't subscribe to satellite service, either. We are talking, according to the GAO, about some 20 million households who rely exclusively on free, over-the-air television, half of whom have household incomes of under \$30,000 a year. In other words, these are not likely to be people with computers at home visiting the FCC website.

In addition, we must also keep in mind the shockingly high number of consumers who continue to walk into stores every day and to buy analog TV sets, sets which, to the credit of the manufacturing industry, typically last 15 to 20 years. In 1997, I offered an amendment in this committee to end the sale of analog televisions by 2001. That amendment was defeated. But the FCC, on its own, subsequently, belatedly, and only a couple of years ago, put in place a staggered, dual analog-digital tuner mandate so that consumers buying sets would be able to receive digital broadcasts once analog TV ended. Yet this delay in getting digital TVs into the market in an affordable way has significantly hindered our ability to bring the DTV transition to an orderly and timely conclusion.

For instance, last year alone, in 2004, the television industry sold 31 million TV sets, just over 1 million of them included digital tuners to receive digital TV signals. That means that last year approximately 30 million TV sets were sold that had only analog TV reception capability. Let me repeat that. Last year, 30 million analog TV sets were sold. Those consumers who bought them were unlikely to have been told that the government intends, during the normal life of that TV set, to end analog television broadcasts, and they certainly didn't get any warning label to that effect in the box.

For example, my brother-in-law sent me a brand-new, 27-inch analog TV set for Christmas in 2004. It still sits there with obviously some difficult questions in my mind in terms of how you ask your brother-in-law to get you a different TV set because he didn't do a good enough job in understanding the digital transition—

Mr. SHIMKUS. You just did.

Mr. MARKEY. [continuing] that is underway. Well, I will tell you one thing about my brother-in-law, he has a life. As a result, he does not watch C-Span, okay. So I have high confidence that we are having this amongst that small group of dedicated, get-a-life crowds that is obsessed with watching Congressional hearings all day. And as—and so I am looking for expert help today as to how to handle that sensitive family discussion. Okay. And what those words might be with my brother-in-law with that TV set, to be honest with you, which still sits in a box in my house in Malden, Massachusetts, as I wonder how to handle that issue. So I will be looking for advice from everyone of our experts here as to how to handle that situation, which I can then pass on to others who are going to be similarly situated this whole coming year and all of next year with this very same, very touchy social problem.

So this is a huge issue. There have been 48 million analog sets that have been sold 2 years prior to the government's originally targeted as the year for ending analog television broadcasts. So even as we explore this possibility of warning labels, we have to recognize that by the time any bill passes containing that require-

ment, the bulk of the tens of millions of analog sets for which such labels are most necessary have already been sold.

And so we have a very important hearing that we are having today, Mr. Chairman, and I thank you for conducting it.

Mr. SHIMKUS. The gentleman yields back his time.

The Chair recognizes the gentleman—oh, excuse me. Does the gentleman from Nebraska have an opening statement?

Mr. TERRY. Yes. I buy my relatives—

Mr. SHIMKUS. The gentleman is recognized—

Mr. TERRY. [continuing] books.

Mr. SHIMKUS. Do what?

Mr. TERRY. I said I buy my relatives books on the Boston Red Sox.

I just—this is an important hearing, because we need to move the digital transition forward, but we don't want to disenfranchise people from their TVs. Now I have gone on the rotary circuit talking about the digital transition and the necessity for the government to take back that analog spectrum and how it—you know, the applications of that are so important to national security, homeland security, first responders, and just consumer convenience that we are seeing with the EN4G electronic gadgets that are already coming out that, as a gadgeteer, I think are really neat.

But we need to move this forward. But we—again, we have to find that right medium, I guess the new phrase is that tipping point, where we protect those that are the most vulnerable in this process, but continue to move forward.

So I appreciate all of our witnesses being here today to give us their insight and their help in this process.

Thank you.

Mr. SHIMKUS. The gentleman yields back his time.

The Chair recognizes the gentleman from Virginia.

Mr. BOUCHER. Well, thank you very much, Mr. Chairman.

I simply want to urge a note of caution and urge the members of this subcommittee and our full Committee on Energy and Commerce to proceed very carefully before we make any decisions to change the current mechanism and mandate a hard date for return of the analog spectrum.

We are told that there are 73 million analog television sets that rely on over-the-air reception. These sets are not connected to cable; they are not connected to satellite. It is clear beyond debate that the imposition of a hard date for the surrender of the analog spectrum would strand these 73 million television sets. These owners will be extremely angry if we render their sets useless and then expect them to purchase a converter box for somewhere between \$50 and \$125 in order to put the sets back into service. In some respects, television reception has become a new third rail of American politics.

I am sure we all remember the furor that was touched off several years ago when there was a threatened interruption of receipt by satellite of distant network signals. We all received thousands of cards and calls and e-mail communications, and we responded rather quickly by reauthorizing the Satellite Home Viewer Act. If we impose a cost of between \$50 and \$125 on the owners of 73 million television sets, you can well imagine the public wrath that is

going to be visited on every one of us. The distant network signal flare-up is going to look quaint and mild by comparison.

And I would suggest to my colleagues that you shouldn't think for a minute that we are going to be able to make that transition on the cheap. Anything less than supplying a government-funded converter box for each one of these 73 million sets is going to set off that predicted public furor and at \$100 per converter box, the cost is going to be \$7.3 billion. The low end of the estimate of the revenues to be derived from the public auction of the returned analog spectrum is about \$4 billion, and that is \$3.3 billion less than the cost of buying the converter boxes. The math is daunting. The public reaction to anything less than full funding for converter boxes is certain, and I urge the members to keep these realities firmly in mind as these hearings continue. A realistic alternative would be simply to leave the current transition mechanism in place.

Thank you very much, Mr. Chairman.

Mr. SHIMKUS. The gentleman yields back his time. The gentleman is correct. One of the few places when you—someone yells out in a local parade in Pike County, Illinois, rural Illinois, I want my local channels, someone who has lived in that environment, and so you make a very valid point about the response will be out in the public if we don't—if we are not careful.

The Chair now recognizes the gentleman from Ohio.

Mr. BROWN. Thank you, Mr. Chairman.

I certainly like the look of digital, as all of us do, and I—when I look at the comparison over there and see the analog picture, understanding that picture looks worse than the picture at my house, and I have a short antenna 50 miles from Cleveland, so I don't know that that exactly doesn't—anyway, so—

Mr. SHIMKUS. It is the building.

Mr. BROWN. It is the building. Okay. It is the building.

Thanks to our witnesses for joining us this afternoon. The transition to digital television will affect virtually every household in the U.S. According to the census, 98 percent of homes have televisions while only 95 percent of homes have telephones. So we consider setting a deadline, it is essential that we provide information assistance to those who have the fewest resources, as Mr. Boucher said. Consumers continue to purchase analog sets, unaware of the looming transition, ensuring consumers have access to clear, concise information on how the transition will affect them could not be more important, and no matter what deadline is set, we need to do that soon. We must also ensure that consumers have the ability to access digital TV. In Ohio alone, over 900,000 homes rely solely on over-the-air broadcasting, many of these, as Mr. Markey said, are low-income households that can't afford to purchase a new television set or new set-top box. How are we—the question is, how are we going to ensure that homes are not left behind?

Thank you, Mr. Chairman.

[The prepared statement of Hon. Sherrod Brown follows:]

PREPARED STATEMENT OF HON. SHERROD BROWN, A REPRESENTATIVE IN CONGRESS  
FROM THE STATE OF OHIO

Thank you, Mr. Chairman and thanks to our witnesses joining us this afternoon.

The transition to digital television will affect virtually every household in the U.S. According to the census, 98 percent of homes have televisions while only 95 percent of homes have telephones.

As we consider setting a deadline for the transition, it is essential that we provide information and assistance to those who have the fewest resources.

Consumers continue to purchase analog sets, unaware of the looming transition.

Ensuring consumers have access to clear, concise information on how the transition will affect them could not be more important, and no matter what deadline is set, this must be done soon.

We must also ensure that all consumers have the ability to access digital television.

In Ohio alone, over 900,000 homes rely solely on over-the-air broadcasting. Many of these are low-income households that cannot afford to purchase a new television or a set-top box.

How are we going to ensure these homes are not left behind?

Mr. SHIMKUS. The gentleman yields back his time. Does the gentleman from Texas wish to give an opening statement? The gentleman waives.

[Additional statements submitted for the record follow:]

PREPARED STATEMENT OF HON. CLIFF STEARNS, A REPRESENTATIVE IN CONGRESS  
FROM THE STATE OF FLORIDA

Thank you Mr. Chairman for holding this important hearing.

It is undeniable that the benefits will be immense when we finally complete the transition to Digital TV. Our public safety will improve, auctioning of the spectrum should bring in billions to the federal treasury, and it will help promote emerging wireless technologies so that Americans will continue to reap the benefits of the communications revolution.

And of course the quality of television-viewing will improve dramatically as American consumers switch from analog sets to digital televisions.

But as we make this transition, we must make sure that American consumers—our constituents—are not left in the dark when we finally do turn off the analog spectrum.

As of today, we estimate that millions of Americans are not ready for the digital era. These numbers cannot be underestimated or ignored.

That's why this hearing and other hearings that the Chairman has held or will hold in the future on this issue are so important. Congress must play a prominent role in helping make the transition as smooth and as convenient as possible for the American people.

Hopefully this hearing will help to continue to raise consumer awareness about this issue and provide us with some answers. I appreciate witnesses like AARP and the Hispanic Technology and Telecommunications Partnership coming here to explain how the people they represent are prepared or not prepared for the transition, and I look forward to hearing what the consumer electronics industry is doing or not doing to help accommodate the transition.

Thank you Mr. Chairman, and I yield back the balance of my time.

PREPARED STATEMENT OF HON. PAUL E. GILLMOR, A REPRESENTATIVE IN CONGRESS  
FROM THE STATE OF OHIO

Thank you, Mr. Chairman, for the opportunity to again discuss the DTV transition. I am pleased that our panel continues to be pro-active concerning this important matter.

In order for a consumer to make the transition from analog to digital television, conversion set-top boxes are available for purchase in selective retail outlets nationwide. However, they still need to be made more widely available, and more importantly, at a cheaper price. Currently, when confronted with the decision of whether to buy a DTV conversion box costing hundreds of dollars, a typical patron is likely to either hold off until the boxes go down in value, or continue to delay their decision until they can cough-up enough extra cash to take home a digital television set, leaving their old TV box-less, but otherwise in perfect working order.

Consumer education is just as important in preparing consumers for the digital television world. From my experience, while many have heard about digital television by either watching TV or browsing their local electronics store for a set with

the best picture, about just as many of them are not even aware of the transition deadline, its possible implications, or even what DTV actually is.

Furthermore, while the number of homes with digital capability is on the rise, in part due to its popularity, recent decrease in cost, and FCC requirements, today I am eager learn how we can better contribute to accelerating the current figure and encourage all parties involved in delivering such services to continue to educate the public with us, ultimately making the DTV transition a reality.

I welcome the well-balanced panel of witnesses, look forward to their testimony on this important issue, and again, thank the Chairman and yield back the remainder of my time.

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PREPARED STATEMENT OF HON. BARBARA CUBIN, A REPRESENTATIVE IN CONGRESS  
FROM THE STATE OF WYOMING

Thank you, Mr. Chairman.

I appreciate your continued engagement on issues surrounding the Digital Television transition. This is our fourth hearing in the past two years on this topic, and as I look at my calendar and see that we are nearly in the second quarter of 2005, the date of December 31, 2006 seems just around the corner. We need to eliminate the uncertainty of this process.

I don't think anyone on this Committee, or anyone who has testified before us on this matter doubts the benefits of a completed DTV transition. Higher quality picture, value-added content and more reliable over-the-air reception are just the tip of the iceberg. Of particular interest to me and others on this committee is the reallocation of precious spectrum for advanced wireless services which will lead to increased competition and consumer choice in the telecommunications marketplace.

What's become clear through these hearings is that this transition is not going to be so simple. We have identified an estimated 16 million households that receive television signals over the air and will be unable to view the new digital programming when the transition occurs without a digital-to-analog converter on their set. What's also clear is that no Member of Congress wants to be responsible for a blank television screen. What's also helping to muddy the picture is how promptly the DTV channel election process is proceeding. If broadcasters aren't up in digital by the end of 2006, they will be off the air no matter how many sets can receive digital signals.

We know what the challenges are and we know the benefits of this transition. Now we need to work together to ensure there is adequate education and expectations in place to make this happen.

I look forward to hearing from our panel on this important matter and want to continue our dialog as we take the next steps in this transition.

I yield back the balance of my time.

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PREPARED STATEMENT OF HON. JOE BARTON, CHAIRMAN, COMMITTEE ON ENERGY  
AND COMMERCE

Thank you, Mr. Chairman, for holding this hearing on preparing consumers for the end of the DTV transition. Consumer education will be essential to finishing the DTV transition. Only if consumers understand their options can they prepare and make rational choices based on their economic circumstances and entertainment preferences.

The question before us is how to achieve the smoothest outcome for a transition we all know is coming. Is it wiser to sit back and wait for television sets to go dark, or plan for the change? This hearing is the next step in a full and open dialogue on these issues. At the end of the day I hope we can enact a bipartisan plan to foster new innovation in video programming while easing the digital transition for those who need our help.

If we pass legislation along the lines I have been describing since becoming Chairman, I believe that the vast majority of consumers will need to take no action. Indeed, the more than 90 million households relying on cable, satellite, or digital over-the-air service will see the same pictures the day after the hard date as they saw before.

Other consumers, however, will need to obtain a digital-to-analog converter box, a digital tuner, or cable or satellite service. They will also need to know whether they qualify for the digital-to-analog converter box program, and how to participate.

These households will be faced with the very same choices if we take no legislative action because of the 85-percent penetration test in the current law. Without

my proposed hard deadline legislation, however, there will be no converter-box program to help these consumers continue to use their analog televisions.

The good news is that the education efforts have already begun. The FCC, broadcasters, cable operators, satellite operators, electronics manufacturers, retailers, and consumer groups have started sponsoring events and promotions, running advertisements, distributing materials, and creating web sites. Once we set a hard-date, this education effort will increase exponentially. The certainty of a DTV transition date will give all industry participants strong incentives to inform consumers of their options. In many cases, those incentives will be financial, as there will be revenue to be preserved or made depending on the choices consumers make.

I look forward to the testimony of our witnesses. I thank them for appearing, and yield back.

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PREPARED STATEMENT OF HON. ELIOT ENGEL, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW YORK

Mr. Chairman: I think it is a sign of the importance of this topic that we are again having a hearing on the transition to digital television.

I am very appreciative of this hearing's topic because I believe the lack of consumer education remains the greatest barrier to a successful transition.

I was an early advocate of requiring digital tuners in new televisions. I was also an early advocate of better educating the consumer about their options.

We have made some modest progress on the tuner mandate— but I believe we are still woefully behind on consumer education.

We, the members of this subcommittee, know the benefits that will accrue to the nation—more spectrum for different uses, more money in the treasury and better TV pictures as the Mets beat the Cubs!

But, without widespread consumer adoption, this exercise will all be for naught.

I am interested in what all sectors are doing—and studying ways that the federal government can assist in educating the public.

Now, I am not advocating that we undertake a propaganda campaign—that could get us in even more trouble! But, since it was Congress who set us on this path, I believe we have a responsibility to be a partner in the education of our citizens.

I look forward to hearing from our witnesses and working with all of my colleagues on moving forward with the digital transition.

Mr. SHIMKUS. We want to thank our panel for being here. Your opening statements are all in the record. We would like for you to summarize.

And we would like to start with Mrs. Lavada DeSalles, Member of the Board of Directors of the American Association of Retired Persons. We welcome you, and you have the floor.

**STATEMENTS OF LAVADA E. DESALLES, MEMBER, BOARD OF DIRECTORS, AMERICAN ASSOCIATION OF RETIRED PERSONS; MANUEL MIRABAL, FOUNDER AND CO-CHAIR, HISPANIC TECHNOLOGY AND TELECOMMUNICATIONS PARTNERSHIP; DAVID H. ARLAND, VICE PRESIDENT, COMMUNICATIONS AND GOVERNMENT AFFAIRS, THOMSON CONNECTIVITY BUSINESS UNIT, ON BEHALF OF THE CORPORATION; AND LEONARD H. ROBERTS, CHAIRMAN AND CHIEF EXECUTIVE OFFICER, RADIOSHACK CORPORATION, ON BEHALF OF RADIOSHACK, CONSUMER ELECTRONICS RETAILERS COALITION**

Ms. DESALLES. Thank you.

Good morning, Mr. Chairman, and members of the subcommittee. Thank you for this opportunity to testify today on behalf of AARP regarding a timely and important consumer issue.

Again, my name is Lavada DeSalles, and I am from Sacramento, California, and I am a member of AARP's Board of Directors. My remarks this morning will focus on the impact on older Americans

of the transition from over-the-air broadcast-only television to digital TV.

Since the first public demonstration of television in 1935, consumers have had a growing reliance on television technology. Today, television offers more than just entertainment. It provides consumers with life-saving weather forecasts, information on government, politics, and community news. For the older Americans that AARP represents, television can be a primary connection to the outside world. In fact, Americans age 50 and above watch the greatest average number of hours of television a day, almost 5.5 hours.

Digital technology is the greatest transformation that television service has experienced since the advent of color television 50 years ago. It offers consumers better quality transmission and a wider range of programming options.

However, there are also significant costs associated with the transition to digital TV. The transition will place millions of consumers at risk of losing their television service entirely and will require them to purchase additional equipment in order to continue to enjoy a service they have been receiving for free. Consumers with over-the-air broadcast-only television service will need to purchase and install a converter box. According to a 2004 survey, about 21 million consumers rely on over-the-air broadcast-only television and a recent GAO report states that of these, 48 percent have incomes under \$30,000. According to the report, non-white and Hispanic households are more likely to rely on over-the-air television than our white and non-Hispanic households. Of the 21 million over-the-air consumers, 8.6 million include at least one person over the age of 50, and millions of them are on fixed incomes and/or are in lower income brackets.

So we urge Congress to consider the health and welfare of these consumers and arrange an assistance program that is directed toward those that are greatest in need. An important first step to alleviate the negative impacts of the transition is to educate the general public well in advance of the date when the transition will be complete. AARP recommends that a comprehensive educational plan be implemented at least 1 year before the transition occurs, and suggests several steps to take to accomplish this objective.

First, PSAs for television and radio should be developed, perhaps by the FCC, to inform consumers that on the date determined, over-the-air broadcast-only television sets will not work unless certain steps are taken. PSAs could display a toll-free telephone number for consumers to call and receive more detailed information.

Second, a mail insert detailing the transition and providing the necessary consumer information should be prepared and sent in a government mailing received by the widest range of consumer populations.

Third, the FCC should expand its outreach plans and prepare consumer-friendly materials to be distributed at libraries, community centers, and other public places.

Fourth, any commercial place of business selling television sets should be required to inform consumers of the transition. Consumers should know that purchasing an over-the-air, broadcast-

only television set will require yet another expense to adapt to digital TV.

Finally, AARP commits to doing our part to educate our members about the transition. AARP has several communication tools that can be used to pass on critical information to our members and others. AARP will be pleased to work with Congress and the designated Federal agencies to help design the most effective plan to educate and assist consumers with the digital television transition.

Thank you very much for this opportunity to present AARP's views on this very important matter, and I would be happy to answer any questions you may have later.

Thank you.

[The prepared statement of Lavada E. DeSalles follows:]

PREPARED STATEMENT OF LAVADA E. DESALLES ON BEHALF OF AARP

Good morning. Mr. Chairman and members of the Subcommittee, thank you for this opportunity to testify today, on behalf of AARP, regarding a timely and important consumer issue, the transition from analog to digital television. My name is Lavada DeSalles. I'm from Sacramento, California and I am a member of AARP's Board of Directors.

My remarks this morning will focus on four critical issues concerning the impact of the digital television transition on older Americans:

- 1) Consumers, particularly older Americans, increasingly rely on the essential service television provides in the home;
- 2) While digital television offers benefits for consumers, there are also significant costs to consider in the transition from analog, or over-the-air broadcast-only, television;
- 3) Costs incurred by consumers will be disproportionately imposed on those least able to afford them and steps must be taken to mitigate these costs; and
- 4) A comprehensive and wide-reaching consumer education program must be instituted well in advance of any determined date of the transition to digital television.

CONSUMERS, PARTICULARLY OLDER AMERICANS, HAVE EXPERIENCED A GROWING RELIANCE ON TELEVISION.

Since the first public demonstration of television in 1935, consumers have had a growing reliance on television technology. Today, television offers more than just entertainment; it is also a source of information about what is happening in the community and around the world. It provides consumers with life-saving weather forecasts, information on government, politics, and community news, and brings them closer to every corner of the world. For the mid-life and older Americans AARP represents, television can be a primary connection to the outside world. In fact, Americans aged 50 and above watch the greatest average number of hours of television a day, almost 5.5 hours, compared to all other age groups.<sup>1</sup> Television gives those spending more time confined to their homes companionship and comfort, lessening a sense of isolation.

WHILE DIGITAL TELEVISION OFFERS BENEFITS FOR CONSUMERS, THERE ARE ALSO SIGNIFICANT COSTS TO CONSIDER IN THE TRANSITION FROM OVER-THE-AIR BROADCAST-ONLY TELEVISION.

Digital television technology is the greatest transformation television service has experienced since the advent of color television 50 years ago. It offers consumers better-quality transmission and a wider range of programming options. Digital television delivers a significantly sharper resolution than over-the-air broadcast-only television, and a higher-quality sound. This is an exciting technological development for television viewers.

Consumers anticipate the benefits this new technology will offer. However, there are also significant costs associated with this transition. The transition from over-the-air broadcast TV to digital TV will place millions of consumers at risk of losing

<sup>1</sup>Nielsen Media Research, 2005.

their television service entirely and will require them to purchase additional equipment in order to continue to enjoy a service they have been receiving for free. For consumers with over-the-air broadcast-only television sets, the move to digital television will be costly and inconvenient. Given all that television now offers consumers, we are concerned that a transition to digital television could disenfranchise some consumers, particularly older Americans.

COSTS INCURRED WILL BE DISPROPORTIONATELY IMPOSED ON THOSE LEAST ABLE TO AFFORD THEM.

A large number of consumers will have to incur some level of expense to convert their television sets to receive digital programming. According to a 2004 Congressional Research Service report, while the number of consumers purchasing digital television sets is increasing every year, only about 1% of households have purchased an integrated DTV, which contains a built-in digital tuner. These TV sets require no additional equipment, but are currently an expensive purchase for most consumers, sold at prices ranging from about \$1,000 to \$10,000. Digital monitors, sold for a more reasonable range of \$500 to \$1,000, must be coupled with a set-top digital receiver or tuner in order to receive digital broadcast signals. In 2004, these set-top receivers cost in the range of \$300 to \$500.

At the point when the transition from over-the-air broadcast-only to digital television is complete, millions of consumers will require some sort of equipment purchase to continue to receive television service. Those with digital monitors will need to purchase the set-top digital receivers; cable customers on basic, non-digital, service packages will need to purchase equipment to convert their analog service to digital cable service; and finally, consumers with over-the-air broadcast-only television service will need to purchase and install a converter box. The cost of such a converter box is expected to be in the range of \$50 to \$125, depending on the date of the transition and the volume of boxes to be purchased. In addition to the costs of the converter box, there could be additional costs for installation and for purchase of special rooftop antennas. These costs do not account for the time spent and inconvenience consumers will experience with the purchase and installation of the required equipment. According to a 2004 survey,<sup>2</sup> about 21 million consumers rely on over-the-air broadcast-only television. These are the consumers who will be without any television at the point of the transition unless steps are taken to adapt their television sets. In recent testimony before this Subcommittee, the GAO reported that of the 21 million over-the-air broadcast-only households, 48 percent have incomes under \$30,000. According to the report, "non-white and Hispanic households are more likely to rely on over-the-air television than are white and non-Hispanic households." Of the 21 million households, approximately 8.6 million include at least one person over the age of 50.<sup>3</sup> Millions of these consumers are on fixed incomes and/or are in lower income brackets.

AARP's major concern is with the millions of consumers, many of them older citizens, with over-the-air broadcast-only television sets. As noted, a significant number of these individuals and households will be hard put to afford costly conversion equipment. We urge Congress to consider the health and welfare of these consumers and arrange an assistance program that is directed toward those in greatest need.

A COMPREHENSIVE AND WIDE-REACHING CONSUMER EDUCATION PROGRAM MUST BE INITIATED WELL IN ADVANCE OF ANY DETERMINED DATE FOR THE TRANSITION TO DIGITAL TELEVISION.

An important first step to alleviate the negative impacts of this transition is to educate the general public well in advance of the date when the transition will be complete. When the transition occurs, millions of TV sets will go dark. Can you imagine the confusion and distress that will result if consumers are unaware that this will happen? AARP recommends that a comprehensive plan to educate the general public be implemented at least one year before the transition occurs. We suggest several steps to educate the public:

First, public service announcements (PSA) for television and radio should be developed, perhaps by the Federal Communications Commission (FCC), to inform consumers that on the date determined, over-the-air broadcast-only television sets will not work unless certain steps are taken. The PSA would display a toll-free telephone number for consumers to call and receive more detailed information on the equipment required for their television sets. Consumers will need specific information on

<sup>2</sup> Knowledge Networks/SRI, *Home Technology Monitor Ownership Survey*, Spring 2004.

<sup>3</sup> Nielsen Media Research TV Household Estimates, 2003-2004.

how to purchase a set-top box, the installation process, and all costs involved with these steps.

Second, a mail insert detailing the transition and providing the necessary consumer information should be prepared and sent in a government mailing received by the widest range of consumer populations. Annual tax forms are an example of a vehicle that could serve as the government mailing to include an enclosure with transition information.

Third, the Federal Communications Commission should expand its outreach plans for the digital television transition and prepare consumer-friendly materials for the general public. The materials should be distributed at libraries, community centers, and other public places that currently distribute consumer information. This is an opportunity for the FCC to be creative in crafting an effective outreach plan.

Fourth, any commercial place of business selling television sets should be required to inform consumers of the transition. If consumers need to buy a new television during the time prior to the designated transition date, they should know that purchasing an over-the-air broadcast-only television set will require another expense to adapt to digital television.

Finally, AARP commits to doing its part to educate our members about the transition. AARP has several communications tools that can be used to pass on critical information to our members. The bi-monthly AARP magazine and monthly Bulletin, distributed to all members, are two such communication tools we can utilize to inform consumers about the transition and what they will need to do to continue to watch their television service.

AARP will be pleased to work with Congress and the designated federal agencies to help design the most effective plan to educate and assist consumers with the digital television transition. Thank you for this opportunity to present AARP's views on this important matter.

Mr. SHIMKUS. Thank you, ma'am.

The Chair would now like to recognize Mr. Manuel Mirabal, Founder and Co-Chair of the Hispanic Technology and Telecommunications Partnership. Mucho gusto, and you are recognized for 5 minutes.

#### **STATEMENT OF MANUEL MIRABAL**

Mr. MIRABAL. Gracias.

Good afternoon, Mr. Chairman and members of the subcommittee. I greatly appreciate the opportunity to discuss the digital television transition with you today.

HTTP's concerns regarding the impact of the digital transition on Hispanic consumers are far-reaching. Hispanic consumers use free, over-the-air television more exclusively than other consumers. There is little doubt that the public stands to benefit from the digital transition. High-definition programming, additional programming streams, and more efficient use of spectrum will all enhance television service. Both the manner and impact of terminating analog programming are of great concern.

I wish to focus, in particular, on the impact this will have on Hispanic consumers and what Congress can do to ensure that Hispanic Americans are included in and benefit from the digital transition. This focus is warranted for several reasons. Reliance on over-the-air analog reception is highest among Hispanic viewers, one-third of whom rely exclusively on over-the-air reception for their television viewing, an additional 7 percent of which are DBS households that rely on over-the-air reception for all of their local programming. Thus a total of 40 percent of Hispanic households nationwide rely exclusively on over-the-air reception for their local news, emergency information, and other programming. Digital television technology has so far failed to make any inroads in the Hispanic community, with industry data indicating that use of DTV

receivers in Hispanic households is the lowest among all consumer groups.

Further, the Hispanic community is unique among consumer groups, because the percentage of Hispanics relying exclusively on over-the-air reception has actually increased significantly over the last few years while it has decreased for other segments of the population.

These three facts lead to one inescapable conclusion: any DTV transition plan that does not specifically address needs of the growing Hispanic population will disenfranchise the large segment of the Latino community. The Hispanic community has unique characteristics that will require special educational efforts to ensure that they understand the steps they must take to keep their sets working when analog TV ends.

Apart from potential language barriers, Hispanics are less likely to obtain information about the digital transition through the Internet. While the percentage of Internet use by the total population is now 58.7 percent, for Hispanics it is only 37.2 percent.

Many Hispanics are Spanish dominant or primarily Spanish dominant. Hispanics have larger family households with several generations living together. These result in larger numbers of television sets per household, typically three sets being used within the family.

Most importantly, television programming, and especially Spanish-language programming, is not merely a source of entertainment for America's Hispanic population. The Hispanic community depends on over-the-air television service as a critical source of news, public affairs, and uniquely local information that is necessary to keep Spanish speakers in the mainstream of American life. Recent immigrants, in particular, need over-the-air television to provide them access, in Spanish, to the news in their local communities and keep them informed of what is going on in order to better fully integrate them into the American society. Local over-the-air broadcast stations featuring: Univision, Telemundo, TeleFutura, TV Azteca, and other Spanish-language programming provide this vital information to the Latino community.

Because the Hispanic community relies so heavily on over-the-air television, it will face a disproportionate impact when analog service ends. Moreover, for the most vulnerable segment of this population paying hundreds and even thousands of dollars for new equipment or services will prevent a real financial hardship that they simply can not afford.

Solutions that do not take these factors into account will fail to address the needs of the Hispanic community. For example, I have seen proposals for a phased approach to the DTV transition whereby some analog stations are shut down each year until there are none left. However, the phased transition proposals would first shutdown those very same analog stations that are assigned to serve Spanish language and other minority-oriented communities. Such an approach would effectively abandon Hispanic viewers and is completely unacceptable.

To ensure that consumers are well informed of the DTV transition and understand fully the steps that they must take to continue to use their analog sets, several things must be done. The public

must receive effective notification in English and Spanish that analog broadcasting will be terminating. Information about the timing of the DTV transition and the planned obsolescence of analog television sets must be provided to the Hispanic community in Spanish via many types of media, including Spanish-language television, radio stations, local newspapers, equipment labeling, and documentation.

Second, we must make digital-to-analog converters readily available to the public. Providing digital converters at no cost to over-the-air viewers is an unavoidable price of the digital transition.

Third, before it establishes a hard date for the return of analog spectrum, Congress must give Hispanic consumers, and all consumers that receive over-the-air TV, adequate time to learn about the transition so that they can make informed decisions when, and if, they are buying new televisions and also to prepare for the end of the analog TV. Cutting consumers' analog televisions without ensuring that they possess a digital alternative will disenfranchise millions of consumers, harm the economy, and short circuit the digital transition.

It is, therefore, critical that Congress allocate the funds necessary to make the digital converters available and invest in the infrastructure necessary to broadly publicize and distribute them. To succeed, the government's efforts must reach Hispanic households, must be culturally sensitive, and must include a substantial Spanish-language public education component.

If Congress wants the digital TV transition to succeed, it must design a program that will, and I am borrowing a statement, truly leave no TV behind.

Thank you for inviting me to testify. We look forward to working with you to ensure that the Telecommunications and the Internet Subcommittee can make this TV transition a successful one.

Gracias.

[The prepared statement of Manuel Mirabal follows:]

PREPARED STATEMENT OF MANUEL MIRABAL, ON BEHALF OF THE HISPANIC TECHNOLOGY AND TELECOMMUNICATIONS PARTNERSHIP (HTTP)

Good afternoon, Mr. Chairman and members of the Committee. I am Manuel Mirabal, Founder and Co-Chair of the Hispanic Technology and Telecommunications Partnership (HTTP). HTTP is the largest coalition of national and regional Hispanic organizations and represents the interests of 44 million Americans of Hispanic descent on technology and telecommunications issues. HTTP members are nonprofit organizations dedicated to promoting the social, political, and economic advancement of Hispanic Americans by facilitating access to health care, quality education, economic resources, and technology tools and resources. Since 1993, I also have served as President of the National Puerto Rican Coalition, the largest national organization representing the social and economic interests of eight million Puerto Rican U.S. citizens. As President of NPRC, I served for five years as National Chairman of the National Hispanic Leadership Agenda (NHLA). NHLA is a coalition of 42 National Hispanic organizations and civic leaders that addresses national public policy issues affecting the Hispanic community. NHLA issues a national policy agenda on social and economic issues affecting all Latinos and a Congressional Scorecard tracking votes on legislation that affects Hispanic Americans. I am also an appointed member of the Nielsen Independent Task Force on Television Measurement. The task force was established to study and make recommendations about the methodology used to measure minority television viewership.

Thank you for inviting me to participate in this important discussion of the digital television transition. I welcome the opportunity to share with the Committee HTTP's concerns regarding the impact of the digital transition on Hispanic consumers, in particular, and to offer our thoughts on how best to inform Hispanic con-

sumers of the timing and effects of the transition and the steps that must be taken to ensure their continued access to free, over-the-air television service after the transition.

As you contemplate this daunting task, I urge you to consider that the success of the digital transition will ultimately be measured by its impact on over 70 million American citizens who rely on over-the-air broadcast television and the more than 40 million Americans who rely exclusively on over-the-air broadcast television for news, information, and entertainment. This hearing is an important step in identifying and beginning to address that impact, and I commend the Committee for its efforts here today.

The members of HTPP recognize that the public stands to benefit from the digital transition in numerous ways: high definition programming; additional new programming streams; and more efficient use of spectrum will all enhance consumer welfare. The potential to offer multiple streams of programming over a single television channel—including a high definition service—is particularly exciting, because this capability increases the opportunities for more Spanish-language programming on free, over-the-air television. There is, however, one fundamental prerequisite to realizing these benefits: viewers must be capable of receiving DTV signals. At the present time, a large percentage of the population, and virtually one hundred percent of over-the-air viewers, are unable to view DTV signals. Although the FCC has mandated that television set manufacturers include built-in digital receivers on a phased-in basis—a mandate that will not be fully implemented until July 2007—most experts agree that the vast majority of Americans will receive digital programming by subscribing to pay television services offered by multichannel video programming distributors (MVPDs), such as cable or direct broadcast satellite services. This means that consumers who cannot afford to buy expensive new television sets or subscribe to pay television service are at risk of losing access to television entirely. While it will be unfortunate if these viewers are deprived of the many benefits of the digital transition, it will be tragic if the principal impact of the digital transition upon their lives is rendering their analog televisions obsolete, thereby severing their television lifeline to news and emergency information.

While both the manner and the effect on consumers of terminating analog broadcasting are of great concern, I wish to focus in particular on the impact of this dramatic change on Hispanic households in the U.S. This focus on the Hispanic segment of the population is warranted for three reasons. First, as the FCC and the GAO recently acknowledged, reliance on over-the-air analog reception is highest among Hispanic viewers, one-third of whom continue to rely exclusively on over-the-air reception for all of their television viewing. An additional 7% of Hispanic households are DBS households that rely on over-the-air reception for all of their local programming. Thus, a total of 40% of Hispanic households nationwide rely exclusively on over-the-air reception for their local news, emergency information, and other local programming. Second, digital television technology has so far failed to make inroads into the Hispanic community, with Nielsen data indicating that use of DTV receivers in Hispanic households is the lowest among all consumer groups. Third, the Hispanic community is unique among consumer groups because the percentage of Hispanics relying exclusively on over-the-air reception has actually increased significantly over the past few years, while that percentage has been decreasing for other segments of the population.

These three facts lead to one inescapable conclusion—any DTV transition plan that does not specifically address the needs of the growing Hispanic population risks the disenfranchisement of a large segment of that population.

The Hispanic community is now the largest ethnic minority in the United States. The full inclusion of Latinos must be assured if we are to succeed in integrating new technologies into our society. To accomplish this in moving toward a fully digital television system, we must recognize that the Hispanic community has unique characteristics that will require special educational efforts to ensure that they understand the steps they must take to have continuous access to television service.

Although the Internet can be a very useful source of information, the Internet alone is not adequate for the purpose of informing America's Hispanic viewers of the key elements of the digital transition. Apart from potential language barriers, statistics show that Hispanics are less likely to obtain information about the digital transition through the Internet. The Department of Commerce's most recent report on Internet use by Hispanics indicates that the digital divide has grown to 21.5%. While the percentage of Internet use by the total population is 58.7%, for Hispanics it is only 37.2%.

Many Hispanics are Spanish dominant or primarily Spanish dominant. Therefore, information about the digital transition must be provided to them in Spanish via many types of media, including Spanish language television and radio stations, local

newspapers and equipment labeling and documentation. Language usage also affects the ability of Spanish-dominant Latinos to interact with government agencies, which are often less likely to have Spanish-speaking staff. Therefore, before it establishes a hard date for the cessation of analog broadcasting and the return of analog spectrum, Congress should require that information be made available—in Spanish and through the use of multiple media—to educate Hispanic consumers about the timing of the transition and the planned obsolescence of analog TV sets.

The obsolescence of analog TV sets also will have a particular impact on Latino Americans. Hispanics have larger family households, with several generations living together. This results in a larger number of television sets being used within the household, including, typically, a set in the family room, one for the children, and often a set that is reserved for the use of the grandparents. Therefore, any program to address the digital transition must anticipate that a large segment of the Hispanic community will require a solution that provides assistance for up to three TV sets in each household.

Television programming—and especially Spanish-language programming—is not merely a source of entertainment for America’s Hispanic population. The Hispanic community depends on over-the-air television service as a critical source of news, public affairs and other uniquely local information that is necessary to keep Spanish-speakers in the mainstream of American life. Recent immigrants in particular need over-the-air television to provide them access, in Spanish, to the news in their local communities and help them become fully integrated into American society. Local broadcast stations featuring Univision, Telemundo, TeleFutura, Azteca and other Spanish-language programming available over-the-air provide to their audiences Spanish-language news, information, and other programming on current events that affect their daily lives and keep them connected to their communities and the world.

Because the Hispanic community relies so heavily on over-the-air television, it will face a disproportionate impact when analog service ends. Most Hispanic Americans, particularly those who are native Spanish speakers, are not aware of the digital transition and thus are not prepared for its impact. They do not realize that on a certain date, their televisions will become inoperable unless they purchase expensive digital converter equipment or even more expensive digital television sets. Based on where the transition stands now, we should not be considering a near-term cut-off date that would disenfranchise millions of Hispanic consumers without addressing the issues we have identified here today. Moreover, for a segment of this population—the most vulnerable segment—paying hundreds or even thousands of dollars for new equipment or services will present a real financial hardship that they simply will not be able to shoulder. These viewers—just like those who can afford to buy new equipment—should be allowed to retain full access to free, local television programming during and after the digital transition.

Solutions that do not take these factors into account will fail to address the needs of the Hispanic community. For example, I have seen proposals for a “phased” approach to the DTV transition whereby some analog stations are shut down each year until there are none left. However, the “phased” transition proposals I have seen so far would first shut down those analog stations assigned to channels above channel 51. Unfortunately, that is precisely where Spanish-language and other minority-oriented stations are currently concentrated. Rather than moving Hispanic viewers to DTV sooner, such an approach would effectively abandon them altogether. This result is completely unacceptable for America’s largest minority population.

To ensure that Hispanic consumers are included in and benefit from the digital transition, some obvious steps need to be taken. First, given that 23.6 million analog television sets were sold last year, nearly fifty times the number of digital tuners sold in that same time period, the public must receive effective notification that analog broadcasting will be terminated. At a minimum, this will require labeling analog television sets in both English and Spanish with a warning that analog broadcasting will be terminated on a date certain and that the set will then be incapable of over-the-air reception without additional equipment.

Our government must also become much more effective than it has been so far in communicating this critical fact to consumers—in English and in Spanish—because even if no new analog sets are sold from this day forward, there are already hundreds of millions of analog sets in American homes that will need to be replaced or connected to a converter box to function. Studies have indicated that few consumers are even aware of the planned shut-down of analog television, much less know what steps they need to take to ensure continued access to their local news and entertainment programming. I note that a key component of the rapid DTV conversion in Berlin involved the government sending a letter to every household in-

forming consumers of what is involved in the transition to DTV, and providing information on what steps had to be taken by consumers to ensure continued access to television programming.

Beyond making consumers aware that they are about to find themselves on the wrong side of the digital divide, we also need to do all we can to bridge that divide. Right now, the most effective tool for accomplishing that is to make digital to analog converters readily available to the public. If Congress wants the DTV transition to succeed, it must adequately invest in a program that truly will "Leave No TV Behind," or face a long and painful series of costly, piecemeal efforts and improvised solutions aimed at resolving the issues afterward.

Providing digital converters at no cost to those needing them—principally over-the-air viewers—is the unavoidable price of admission to an all-digital broadcast system. Congress must also acknowledge that needy Americans cannot afford to buy expensive converters or digital equipment merely to avoid losing the free television service they already enjoy.

The solution, we believe, lies in providing a subsidy for the necessary equipment for those households that cannot afford to subscribe to an MVPD. The subsidy must be sufficient to pay for conversion equipment that will permit the viewer to gain full access to local television programming available in the digital format, including the higher quality video and audio outputs offered by digital broadcasts and future multiple programming streams.

Cutting consumers' analog television lifeline without ensuring that they possess a digital lifeboat would be a very short-term, and very harmful, solution. It is therefore critical that Congress allocate the funds necessary to make these converters available and invest in the infrastructure necessary to broadly publicize and distribute them. Ample supplies of converters will not help if consumers are unaware that they are entitled to a converter or don't know how to obtain one. To succeed, these efforts must reach Hispanic households, must be culturally sensitive, and must include a substantial Spanish-language public education component.

While we all look forward to the benefits that digital television will bring to all Americans, the DTV transition must be managed in a way that does not disenfranchise millions of Hispanic Americans. Only then will Americans of Hispanic descent, who depend on free, over-the-air television, be fully included in the digital transition.

Thank you for inviting me to testify before you today. I know that the members of HTTP stand ready to work with the Subcommittee on Telecommunications and the Internet to ensure that Hispanic consumers are informed of the DTV transition and understand fully the steps they must take to continue to use their television sets after analog broadcasting ends.

Mr. UPTON. Thanks—gracias.

I want to thank my colleague, Mr. Shimkus, for starting this hearing close to on time. I was under the mistaken impression that it was going to be in another room, and I was waiting for that hearing room to clear out.

I would also note, however, that we have, I believe, four or five votes on the House floor. The second bells have rung, so we are going to take a brief adjournment and we will come back as soon as the last vote is over. My guess is it will not be before 2:15. So we will start with Mr. Arland at that point, and we will stand adjourned until then.

[Brief recess.]

Mr. UPTON. Okay. All right. So we had so many votes, and we are now back, and we will resume with Mr. Arland. Welcome back to the subcommittee. It is good to see you. I am anxious to hear you. My staff has told me a little bit about the description of the TVs, so I am anxious to get the full details. Thank you, and welcome.

#### STATEMENT OF DAVID H. ARLAND

Mr. ARLAND. Very good. Thank you, Chairman Upton and members of the subcommittee for the opportunity to provide Thomson's

and TTE Corporation's perspectives on how to complete a consumer-friendly transition to digital television.

My name is Dave Arland. I am Vice President of Communications and Government Affairs for Thomson, and I am also here today to represent TTE Corporation, which is the world's largest television manufacturer.

This committee continues to play a pivotal role of the transition, and the marketplace response, I think, has been impressive. Since I last testified before this subcommittee in 2001, almost exactly 4 years ago, the number of DTV products sold in the U.S. has grown 16-fold. Digital television prices have fallen steadily, and the supply of HDTV programming has grown and continues to grow rapidly, so much so that my own mother says she can't watch analog TV anymore. It hurts her eyes.

As the digital television transition moves to completion, consumers, manufacturers, and retailers need, more than ever, the certainty of firm deadlines to ensure that their investments in digital products will generate the benefits long promised by the advocates of digital broadcasting.

As this committee clearly understands, however, the biggest challenge before all of us is how to ensure that American consumers, particularly those who rely exclusively on over-the-air signals, and also cable subscribers are sufficiently prepared for the day when their analog television morphs into digital.

Thomson believes that our collective ability to meet this challenge depends on several important factors.

First, of course, DTV must be affordable for all consumers. This year, we at RCA will introduce a new line of standard definition digital televisions that, for the first time, will offer consumers digital TV essentially at analog prices. Our new SDTV lineup, a prototype of which is on the right side of the display on the other side of the room, will include digital reception but carry a suggested retail price starting from under \$300 for a 27-inch TV and under \$400 for a 32-inch standard definition digital TV, or SDTV, and you can see the logo right above the screen.

While these sets are not designed to display HDTV in its full widescreen glory, they do offer DVD picture quality and are ideal for another key benefit of this transition: receiving multiple additional channels of standard definition digital programming transmitted by a local broadcaster.

In addition, looking ahead to those millions of consumers who will need to purchase a digital-to-analog set-top box, I have with me at the witness table this afternoon a prototype of the RCA low-cost set-top converter box, which, pending the establishment of a firm deadline for the broadcasters' return of their analog spectrum, will be available later this year at a suggested retail price under \$125. That is half the cost of similar converters now available at retail.

My second point is that all stakeholders must take responsibility for promoting digital television and educating consumers and retailers about the transition. The consumer electronics industry is keenly aware of the need to educate all Americans about the DTV transition and has been doing so for several years. For example, the Consumer Electronics Association has launched

Antennaweb.org, which is a complimentary website, operated for the last 4 years by CEA. It allows consumers to go in, easily enter their zip code, and get suggestions about what type of antenna would work best. I should mention that antenna sales have never been stronger. Not since the 1950's have we sold more than 3.9 million antennae, which is what we sold last year, at prices ranging from \$4 to \$80. There is a rabbit ear antenna that is on this demonstration here powering both the analog and digital feeds. It sells for \$14.95.

We also did, as an association, the DTV tip sheet.

Mr. UPTON. Excuse me just 1 second. I just know that the ACC tournament is on. I wonder if they could switch from cartoons to—

Mr. ARLAND. Well, I could do that.

Mr. UPTON. The Big 10 is playing as well. ESPN. All right. Right. I am trying to help out my friend from Maryland who—

Mr. WYNN. They lost already.

Mr. UPTON. Did they lose? See, I didn't know that, because I have been waiting for the score to appear. Okay.

Mr. ARLAND. So my answer on that is I could show you the analog signal, but unfortunately, UPN locally is sending out signals so weak I can't pick them up in this room, unfortunately. I would love to be able to switch on the tournament, however.

We have also worked together with the Consumer Electronics Retailers Coalition on a DTV tip sheet, which Leonard is going to say more about. It is a great piece also worked up with the FCC designed to educate retailers. It is a handy guide to all of the terms of the transition. And I think consumers would also find that useful. And our association has produced the HDTV guide, which this year has 55 manufacturers offering more than 500 different DTV products, and it has grown from a publication that was just about three pages several years ago.

Of course, manufacturers can't do this alone. Consumers need to learn about television on television. And I think more help needs to be given from broadcasters and from cable.

Finally, as consumers go digital, they will expect that digital is better than analog. Well, what does that mean? It means in some cases delivering high-definition movies, sporting events, and prime-time programming. It also means multiple new digital standard definition channels of local community-oriented programming, such as news, weather, sports, and non-English programs. It also means meeting consumers' expectations that they will be able to access and interact with digital television just as easily and conveniently as they interact today with analog TV, and that includes preserving the ability to receive cable programming without the need for a set-top box and preserving established home recording capabilities.

In conclusion, from our perspective, the most important thing this committee can do is enact legislation establishing a hard deadline. Set the analog spectrum return date. That is what this transition really needs.

I am, of course, prepared to respond to questions from members.  
[The prepared statement of David H. Arland follows:]

PREPARED STATEMENT OF DAVID H. ARLAND, VICE PRESIDENT, COMMUNICATIONS  
AND GOVERNMENT AFFAIRS, THOMSON, INC.

Thank you, Chairman Upton, Ranking Member Markey and Members of the Subcommittee for the opportunity to provide Thomson's and TTE Corporation's perspectives on how to complete a *consumer friendly* transition to digital television. My name is Dave Arland, and I am Vice President for Communications and Government Affairs for Thomson's Connectivity Business Unit.

Thomson is an international company that provides technology, systems and services to help its media & entertainment clients—content creators, content distributors and users of its technology—to realize their business goals and optimize their performance in a rapidly changing technology environment. Our goal is to become the preferred partner to the media and entertainment industries through our Technicolor, Grass Valley, RCA, and THOMSON brands.

I'm also here today to represent TTE Corporation, a joint venture established last summer between China's largest television manufacturer, TCL, and Thomson, one of Europe's largest companies serving the media and entertainment industries. TTE is a leading global television enterprise, specializing in research and development, manufacturing, and sales of TV products. TTE offers a complete range of television products—from budget to premium, from basic features to high-end innovation. RCA-brand televisions come from TTE Corporation.

This Committee—and particularly this Subcommittee—has played an instrumental role in moving forward the DTV transition. Indeed, we believe that this intervention—including the establishment of hard deadlines where needed—has provided stakeholders with the requisite certainty to make critical business decisions. Thanks in significant measure to the Committee's relentless prodding and the clear signals it has sent to the Commission, today we have: Digital Cable-Ready HDTV Sets that pull the plug on consumers' dependence on a set-top box; a phased-in tuner-decoder mandate to ramp up DTV penetration as well as affordability; secure digital interfaces and the Broadcast Flag, so consumers can enjoy, and record for their personal use, ever-greater amounts of high-quality digital programming while protecting such digital content from indiscriminate redistribution over the Internet.

The marketplace has responded impressively to this Committee's approach of targeted intervention, both formal and informal. Just look at the progress that's been made in the past four years. When last I testified before this Subcommittee, which was almost four years ago to the day:

In 2001, fewer than a million DTV sets and displays had been sold in the U.S. Today, that number exceeds 16 million. Another 13 million units of integrated DTV products are expected to be sold this year alone.

Four years ago, the average retail price for an HDTV Monitor (without a tuner-decoder) was in the range of \$2,200. Today, that price has dropped by a third to around \$1,400.

The price drop is far more dramatic for integrated HDTV receivers. For example, our first HDTV Set was a 61-inch model that carried an \$8,000 price tag. Today, a similar 61-inch model can be found for under \$3,000—an incredible 62 percent price reduction since the DTV transition began.

In 2001, the most affordable digital-to-analog converter box available (in fact, the first such converter box available)—the venerable RCA DTC100, offered by Thomson—was a then-remarkably-low \$549. I am pleased to announce this morning to this Subcommittee that later this year, pending the establishment of a firm deadline by which broadcasters must return their analog spectrum, Thomson will again lead the way in converter box affordability by introducing an RCA set-top converter box specifically designed to help consumers preserve the usefulness of their existing analog equipment. This small set-top receiver connects easily to an antenna and an analog TV and will carry a retail price of less than \$125—about half the current selling price for digital-to-analog converters. Even greater strides in affordability can be made if our customers, the nation's retailers, stock up in greater numbers, and, of course, as economies of scale are realized from increased sales. We need a firm analog spectrum return deadline to build a market for this type of affordable converter, since few consumers actually believe that a firm deadline will be established.

HDTV programming also has grown by leaps and bounds. Back in 2001, consumers purchasing an HDTV receiver or monitor could choose from only about three hours a day of HDTV programming from the major broadcast networks and, if they subscribed to cable or satellite, 5 or so pay networks that offered some HDTV programming. Today, the top broadcast networks combined offer 90 to 100 hours of HDTV programming each week, and that doesn't even include sports programming.

In addition, approximately 26—cable and satellite networks offer hundreds of hours of HDTV programming weekly.

Since 2001, the number of DTV broadcast stations on-the-air has grown from about 190 stations, mainly in the top 30 markets, collectively only covering 67 percent of all TV households, to nearly 1,400 stations in all 210 markets, covering over 99—percent of TV households, according to NAB's latest figures. Still, and quite troublingly, more than 200 stations have yet to get their digital signal on the air, and as many as half of the DTV stations that are on-the-air still may not be operating at sufficient power to provide a DTV signal to everyone in their coverage areas. At the very least, digital TV signals ought to cover the same service area as do analog broadcasts. Consumers expect that, and so should you.

Despite the significant advances that have been made, the DTV transition remains a work in progress, with important challenges still ahead. As this Committee clearly understands, however, the biggest challenge before all of us is how to ensure that American consumers—particularly those who rely exclusively on over-the-air signals but also cable subscribers—are sufficiently prepared for the day when their analog TV signals morph to digital.

Thomson believes that our collective ability to meet this challenge depends on several important factors. First, DTV must be affordable for all consumers. Second, consumers must have the information they need to make informed DTV purchasing decisions. And third, DTV must offer consumers some tangible, added value in exchange for their forced departure from analog television.

#### DTV MUST BE AFFORDABLE FOR THE AVERAGE CONSUMER

There is perhaps no surer way to “soften the DTV landing” for consumers, not to mention increase sales and maximize penetration, than to offer a choice of DTV products that are truly affordable to the average consumer. Making DTV as affordable as possible, as quickly as possible, has been a mantra for RCA from Day One of the transition, as well as for the members of this Subcommittee.

To achieve affordability, first it's important to recognize that approximately one-half of all analog television sets sold every year in the U.S. are tabletop TVs with screen-sizes 20-inches or smaller, typically carrying a retail price of well under \$200. These are just basic TVs, many of which are the second or third sets in a household that you find in the kitchen or bedroom. But these are consistently the industry's best-selling televisions because they are both small and affordable. And, as the Committee knows, 100% of TV sets 13-inch or larger will be subject to the tuner-decoder mandate by the middle of 2007.

Consistent with its history of introducing some of the industry's most affordable integrated DTV products, RCA once again is leading the way by introducing this year a line of standard definition DTVs that for the first time will offer consumers digital television at essentially “analog” prices.

Developed in the global laboratories of TTE Corporation, this new SDTV lineup still has suggested retail prices starting from under \$300. Consumers will be able to replace their old analog TV with a digital TV—specifically, a new product the industry calls SDTV, for standard-definition digital television. These sets, which range in standard aspect ratio screen sizes from 27-inch to 32-inch, include a built-in DTV reception capability, receive all 18 ATSC DTV formats, and display broadcast DTV at DVD quality. While these sets are not designed to display HDTV in its full widescreen resolution, they are ideal for another key benefit: receiving multiple additional streams of standard-definition programming when transmitted by a local broadcaster.

Looking ahead to the millions of consumers who will need a Digital-to-Analog set-top box to receive digital signals and view them on their current analog set, the new RCA low-cost set-top converter I have with me today will be available this fall at a suggested retail price of under \$125. Like RCA's SDTVs, this small converter will receive all 18 ATSC DTV formats and will enhance consumer's television experience by not only improving the analog TV's picture quality, but by receiving and displaying all multicast signals that broadcasters choose to transmit.

Of course, these low-cost products represent just one segment of the more than 30 new models of DTV products that TTE has slated for introduction this year, including integrated tuner-decoder rear-projection Digital Light Processing (DLP™) HDTV Sets, rear projection CRT (Cathode Ray Tube) HDTV Sets, and LCD and Direct View HDTV Sets. In short, whatever the need and budget of the American consumer, TTE is committed to offering a good looking and affordable RCA solution. In the 1920's, during radio's heyday, RCA advertised that it had a “Radiola for Every Purse”—something for everyone. The same can be said today.

## BROAD-BASED CONSUMER EDUCATION IS A RESPONSIBILITY OF ALL DTV STAKEHOLDERS

The consumer electronics industry is keenly aware of the need to educate all American consumers about the DTV transition. We simply can shoot no lower than that goal, given that all American households ultimately will have to make a DTV purchase in order to continue to receive broadcast television. As I will describe, the consumer electronics industry is deeply committed and fully engaged in that education effort—not only for consumers, but also for retailers, from whom consumers receive most of their product information. We cannot do it alone, however, especially within an accelerated time frame, when Congress enforces a “hard deadline.” Other DTV stakeholders—including broadcasters, cable and satellite operators—need to increase dramatically their outreach to consumers to ensure that no U.S. household is unprepared when the end of the transition finally arrives. For instance, broadcasters—who have the ability to reach every TV household quickly and repeatedly—should use that ability, through Public Service Announcements and through their regular program advertising, to better communicate with consumers about HDTV programming and the DTV transition generally. Broadcasters have asked for this transition to help them to compete head-to-head with other digital programming services; it’s time for them to get serious about promoting this transition and ensuring that consumers know as much as possible about it.

*The Consumer Electronics Industry Is Educating Consumers and Retailers About The Benefits of DTV*

The consumer electronics industry is engaged in a broad-based campaign to educate the public about the benefits of DTV and the wide-range of equipment choices now available to them. We also constantly engage in a number of programs, both individually as manufacturers and comprehensively as an industry, to educate retailers as a means of reaching consumers.

1. *Educating Consumers To Make Informed Choices*

The industry’s trade association, the Consumer Electronics Association (“CEA”), last year worked with the FCC and others to provide content for the Commission’s new website, DTV.GOV (<http://www.dtv.gov>). This website provides FCC-approved answers to the questions most frequently asked by consumers; a glossary explaining new DTV terminology; and a shoppers’ guide explaining what every shopper should know about DTV. This website also links to TV listings where consumers can enter their zip codes to access current local DTV and HDTV programs.

If they do not already use an antenna for over-the-air analog television reception—which in most cases will be perfectly suitable for receiving digital signals, consumers can get help selecting an antenna at ANTENNAWEB.ORG (<http://www.antennaweb.org>), a complementary website operated for the last four years by CEA which uses zip codes to provide location-specific advice. Regrettably, broadcasters, despite their oft-repeated concerns about the need for over-the-air antennas, declined CEA’s offer to join them in launching this extremely useful consumer website. It is worth emphasizing that *existing antennas do not need to be changed with the conversion to digital*. If an antenna worked for both VHF and UHF analog reception at one’s home, it will continue to work just fine for digital reception, so long as the broadcast station is operating its digital signal with full facilities equivalent to those for its analog signal. For those who do wish to purchase an antenna, there is an abundance to choose from at all price points. In fact, with sales of nearly 4 million last year, Thomson is one of the leading manufacturers and marketers of over-the-air antennas. We offer more than 46 different models under the RCA and Jensen brand names, ranging in price from \$4 to \$80.

To accelerate the digital transition, a number of publications have been designed and are distributed with the goal of educating consumers. Working with the Consumer Electronics Retailers Coalition (CERC) and the FCC, CEA designed, printed, and has made available both to retailers and industry groups, in paper form and on the CERC, FCC, and its own DTV.COM websites, a “tip sheet” that on one page clearly explains the DTV transition and basic DTV terms and technology.<sup>1</sup> Working with Comcast, CEA also released an educational DVD and booklet titled, *A Consumer’s Guide to the Wonderful World of HDTV*. In conjunction with Dealerscope, a NAPCO publication, CEA produced an “eGear Buyer’s Guide,” as well as an “eGear Seller’s Guide” related to DTV. CEA also recently teamed up with STARZ! to produce the educational brochure, *The 3 Simple Steps to HDTV*.

In addition, on behalf of the consumer electronics industry, CEA publishes the *HDTV Guide*. This 60-page guide, which is published three times per year, gives

<sup>1</sup> A copy of the “tip sheet” is appended to this testimony.

news of the latest DTV product developments and provides a comprehensive list of DTV products available in the U.S. CEA also ran a multi-page advertisement in *TV Guide* explaining the DTV transition targeted to over-the-air viewers; continues to run HDTV Update meetings in major markets to help accelerate the DTV transition at the local level; continues to sponsor the Academy of Digital Television Pioneers Awards program (<http://www.ce.org/dtvacademy>); continues to run its highly successful CEA Media Tour Program specifically targeted to inform consumers and the media about the DTV transition and to promote the sale of DTV products.

All of this, of course, is in addition to the hundreds of articles and news broadcasts that quote manufacturers who are offering a cornucopia of new DTV technologies.

Additionally, many players in the consumer electronics industry are promoting the DTV transition through their sponsorship of special high-definition broadcasts of popular sporting events. Sports fans have seen RCA sponsor the Super Bowl, the NCAA Final Four, and the U.S. Open Tennis Tournament in high-definition television, and we're just one brand among many that have helped to push the transition along.

## *2. Retailer Training: We Must "Educate The Educator"*

It's also critically important to recognize that, when it really comes down to it, the front lines of DTV education resides in the retail stores. Many, if not most, consumers rely largely on retail sales staff to help make their DTV choices and to answer the many questions consumers typically have, such as the difference between a standard definition display and a high definition display, or the difference between an HDTV with an integrated tuner and an HDTV Monitor. The sales person who has that "deer-in-the-headlights" look when a consumer asks a question about DTV is pretty much guaranteed to chill that consumer's confidence in making any DTV decision. Even worse, purchases based on inaccurate or incomplete information from a retail sales staff risks an even greater consumer backlash, particularly when higher-end products are involved. In other words, we must educate the educator.

In addition to retail training efforts being undertaken industry-wide by CEA (including through its operation of the website, "CEKNOWHOW.ORG" (<http://www.ceknowhow.org>), which encourages retail salespersons to obtain in-depth training about digital TV terms, products, and capabilities), Thomson and TTE are deeply involved in helping retail staff obtain the specialized, ongoing DTV training they need to ensure our customers can make informed DTV decisions.

In fact, we initiated an HDTV sales staff training program as early as 1998, when our integrated HDTV Sets were first introduced to the market. In the seven-year span since then, we have:

- Delivered over 15,000 HDTV training meetings;
- Trained over 125,000 retail sales associates;
- Conducted over 200,000 consumer demonstrations of HDTV at retail outlets nationwide; and
- Invested several million dollars in HDTV training materials, travel and personnel;
- Delivered more than 15,000 on-line HDTV training modules and tests via [RCAsupport.com](http://RCAsupport.com), and paid out \$750,000 in retail incentives for HDTV training on the Web; and
- Pioneered consumer and retailer education into non-traditional HDTV distribution channels such as home shopping networks and rental outlets.

In fact, our support of HDTV training has reached virtually every shape and size of retailer and distribution channel, utilizing virtually every conceivable type of media, from DVD, to print, to satellite broadcast, to the Internet. Notably for this Committee, we have led the way in HDTV training on integrated HDTV technology, reflecting our long-standing commitment to its integrated HDTV product line. In short, we have been as supportive of HDTV training as any consumer electronics manufacturer, and more so than most. Here's just one example of how this training pays off for retailers: we sold more than 5,000 RCA HDTV products in one day to armchair shoppers on a home shopping channel last year. Consumers are very interested in digital television, because it delivered better picture and sound than analog. The benefits, quite literally, are clear when consumers actually see HDTV—and consumers must see a benefit to this transition.

CONSUMERS MUST SEE SOME ADDED VALUE IN EXCHANGE FOR THEIR FORCED  
TRANSITION TO DIGITAL

Finally, since consumers ultimately are being forced to make some sort of DTV purchase to receive broadcast television when it migrates to a digital platform, that purchase must, in exchange, offer some added value, regardless of whether they in-

vest in a high-end HDTV, an SDTV or simply get a converter box for their existing analog equipment. Indeed, the Freudian concept that “pleasure is merely the absence of pain,” has no application here. Consumers have been told to expect great new things from DTV. They must get great new things from DTV or they will toss great big things at all of us.

What does “added value” really mean? For one, it means digital programming—lots and lots of digital programming. High definition movies and sporting events as well as prime time programming. Multiple new standard-definition channels of local, community-oriented programming, such as news, weather, sports, ethnic, and non-English programming. We must ensure that nothing stands in the way of filling-up this huge digital pipeline to the home with as much high quality and diverse programming as content owners can produce. We owe it to consumers to enable them to receive all of that programming in the same quality and resolution that it left the broadcast tower.

It also means meeting consumers’ expectations that they will be able to access and interact with digital television just as easily and conveniently as they interact today with analog TV. This includes preserving their ability to receive cable-delivered programming without the need for a set-top box, and preserving their established home recording capabilities.

#### CONCLUSION

We as a nation have made great strides toward the digital television conversion. In some ways, however, the most challenging part lies ahead: ensuring that our customers—your constituents—are comfortable with and hopefully enthusiastic about converting to digital. First, consumers cannot be harmed. That is a necessary but not sufficient condition for a successful transition. Beyond that, consumers must receive real added value from the conversion. They must have the opportunity to enjoy the full benefits of digital television technology and the accurate information to decide how they will receive it.

Both Thomson and TTE are proud of the leading role we continue to play in promoting digital television by offering consumers a choice of products, including the introduction of our new SDTV receivers offering digital TV at analog prices and this fall’s introduction of low-cost RCA Digital-to-Analog converter boxes. Indeed, whether it’s a movie or sports buff who wants the latest high-definition, ultra-thin DLP television, a budget-conscious consumer looking for the best value in HDTV, or someone seeking to replace an existing TV with a smaller-screen SDTV (that fits in their TV cabinet), or a lower-income household needing a cost-effective solution for watching digital signals while preserving the usefulness of their existing analog TV—Thomson and TTE have a product to fit those interests and needs.

As the digital television transition moves to completion, consumers, manufacturers, and retailers need the certainty of firm deadlines to ensure that their investments in this transition will reap the benefits long promised by the advocates of digital broadcasting.

The marketplace is responding impressively to this Committee’s approach of “targeted intervention” in key areas of the DTV transition, and indeed, we believe that this intervention—including the establishment of hard deadlines where needed—has provided stakeholders with the requisite certainty to make critical business decisions. The results speak for themselves: in the past few years: DTV product sales have increased dramatically (and are projected to almost double within the next year alone); prices for DTV products have dropped precipitously; consumers have access to an increasing amount of HDTV programming; DTV signals now reach almost every American household, and critical progress has been made in the areas of cable compatibility and digital broadcast content protection.

RCA was there with the introduction of radio. We pioneered the launch of black-and-white commercial television service. We developed the analog color TV system that will soon be retired, and our technology forms the digital compression backbone of today’s DTV standard. Along the way, we also popularized two of the most important home entertainment innovations in American homes: the home video recorder and the mini-dish satellite receiving system. Our motto at RCA is “Changing Entertainment. Again.” And we’re ready to keep pace with the products that America needs as we prepare consumers for the end of the digital television transition.

I would be pleased to respond to any questions Members might have.

Mr. UPTON. Thank you.  
Mr. Roberts, welcome.

**STATEMENT OF LEONARD H. ROBERTS**

Mr. ROBERTS. Thank you. It is good to be here.

My name is Len Roberts. I am Chairman and Chief Executive Officer of RadioShack Corporation, and I appreciate the opportunity to appear before you on behalf of both RadioShack and the Consumer Electronics Retailers Coalition, which we call CERC, in order to discuss the digital television transition and consumer education.

With a long retail history, 7,000 stores in the United States, and with \$4.8 billion in sales in 2004, RadioShack prides itself on its close connection with customers. In fact, our brand position is: "If you've got questions, we've got answers." And we take that promise very seriously.

In the analog-to-digital transition, we definitely share, we believe, in the responsibility to minimize the impact of the transition on consumers. RadioShack also is a founding member of CERC and actually presently serves as its chairman. And CERC's members are committed to helping our customers learn about their digital TV options. But we also believe that in order for retailers to provide the desired level of education, a hard date for the transitions of completion must be set.

As we move into the digital era, retailers must respond to the varying wants and needs of their customers. For many customers, exclusion will be a new TV or a service or device. But many customers will also enter the new era wanting to preserve at least one legacy of analog television; and there are challenges, problems, and opportunities presented by these varying needs.

Consumers of video products in 2005 definitely face many more purchasing decisions now than they did only a decade ago. Customers must choose now from a wide array of display technologies, screen formats, tuner options, and whether to receive their broadcast over the air, by cable, or by satellite. Such progress provides our customers with options to meet specific needs and wants at a price that they can afford. But it also requires us to provide increased customer guidance, a difficult but, we believe, an important mission.

CERC and its members and the Consumer Electronics Association and the FCC, as mentioned, developed a two-sided card entitled "Buying a Digital Television", explaining consumers' new options. We are cooperating with FCC to make this tip sheet widely available, featuring the tip sheet on our websites and offering it in our stores. The Consumer Electronics Association and the FCC are working on printing more tip sheets for further distribution nationwide.

In addition, we all train our associates to help customers arrive at solutions that fit their needs. In fact, we pride ourselves in our training, which we are constantly updating to meet changing technology and societal needs, such as, in fact, bilingual training of our associates.

Now, while we only sell televisions sized 27 inches and under, now that is, RadioShack trains our sales associates to sell the accessories that link television products sold by us or others, like converters and antennas. Retailers serve our customers best by

ascertaining their specific needs and wants in an interactive, detailed dialog.

The transition date is a huge uncertainty that we and our sales associates and our customers face. Some now are suggesting a warning label on all analog-only televisions, but such a label could even further confuse and even mislead our customers.

Here are things we have to consider.

First, right now, the actual cutoff date is—for analog broadcasting, is a matter of pure speculation, making it difficult to advise customers or to know which products to carry.

Second, an analog TV may serve some customers well today. While digital TVs are decreasing in size and price, many analog sets still cost less, even with the added cost of a future converter box.

And third, even with a hard date, a display with only an analog tuner, or no tuner at all, could still be a good purchase for some consumers, because it would still work with cable and satellite boxes, PBRs, and other devices.

RadioShack and CERC believe a warning label about the discontinuation of analog broadcasting might, in fact, be very appropriate only once a clear and reliable date has been set. A hard date for the transition would provide customers more clarity about their choices, whether seeking new digital products or seeking to continue use of their legacy products.

Retailers and manufacturers are working to ease the transition to digital television. By July 1, 2007, every television receiver of 13 inches or over and every VCR or other device will have a dual tuner.

Now for users of legacy analog televisions, a box that simply converts a digital signal to an analog signal is necessary. These converter boxes will allow analog televisions to display digital broadcasts, receive all multiplex channels transmitted by digital TV stations, work with remote control, closed captioning, broadcast flag, VCRs, and DBRs. In many circumstances, both the reception and number of channel choices for the analog viewer will be an improvement over their current analog reception. With a hard transition date and the desire of tens of millions to continue use of their analog TVs, we believe the price for a simple converter box could drop as low as Motorola's stated price of \$67.

RadioShack, in fact, is currently working on its own prototype converter box in this price range. However, without a hard transition date, it is unclear when and where the product will be needed and at what price it will be offered.

In conclusion, I will tell you that retailers will be best ready, willing, and able to address our customers' needs with the creation of a date certain for the transition whether they seek a digital television or services or a converter box for their legacy equipment.

Thank you for allowing me to express my opinion.

[The prepared statement of Leonard H. Roberts follows:]

PREPARED STATEMENT OF LEONARD H. ROBERTS, CHAIRMAN & CHIEF EXECUTIVE OFFICER, RADIOSHACK CORPORATION

Good Afternoon. My name is Leonard Roberts. I am the Chairman and Chief Executive Officer of RadioShack Corporation. I appreciate the opportunity to appear before you on behalf of RadioShack and the Consumer Electronics Retailers Coali-

tion (CERC) to discuss the transition to digital television, and in particular the important issue of consumer education.<sup>1</sup>

#### INFORMATION AND BACKGROUND

RadioShack is one of the largest retailers of consumer electronics equipment in the United States, with sales of \$4.8 billion in 2004. RadioShack sells a wide variety of consumer electronics products and services, including cellular telephones and service, computers, radios, televisions and satellite radio and television services. In addition, RadioShack is a primary resource to consumers for devices and accessories that assist in household connectivity and networking, many of which are manufactured and branded under the RadioShack name. With approximately 7,000 company-owned and dealer stores nationwide, RadioShack is unique in its reach to consumer electronics consumers—94% of the U.S. population lives or works within five minutes of a RadioShack store. Having been successful in this business for a very long time, we understand that business must continually change to meet the needs of consumers.

#### ROLE IN CONSUMER EDUCATION

As a retailer, RadioShack prides itself on its close connection with customers, evident in our motto, “You’ve got questions. We’ve got answers.”<sup>®</sup> In the analog-to-digital transition, retailers are the closest connection to the consumer. For this reason, we share in the responsibility to minimize the impact of the transition on the consumer. RadioShack, like other retailers, will increasingly participate in the new market for digital displays and integrated digital televisions. Indeed, in addition to HD ready and integrated digital sets sized 27” and below, and our new digital Cinego projector, RadioShack also sells a variety of cables, connectors, digital tuners and other devices for satellite, cable and over-the-air use.<sup>2</sup>

RadioShack is also very focused on assisting the millions of over-the-air consumers who initially may not replace one or more of their analog televisions with a digital product. These consumers will either be reliant on the availability of digital-to-analog over-the-air converter boxes or will need to subscribe to a cable or satellite service.

RadioShack is a founding member of the Consumer Electronics Retailers Coalition (CERC), and presently serves as its chairman. CERC’s members are committed to helping our customers learn about the DTV transition, and the options and benefits that it will afford them. We are rising to meet the challenges, problems and opportunities posed by the transition. However, we also believe that, in order for retailers to provide the desired level of education and guidance to our customers, Congress, or to the extent possible the Federal Communications Commission, must set a hard date by which the transition will be complete. Should Congress additionally decide that a subsidy is necessary in order to facilitate the purchase of a converter box, other device or service to preserve television viewing, RadioShack and other retailers will also be ready to respond to that demand.

As we move into the digital era, retailers must respond to the varying wants and needs of their customers. Many customers will enter this new television era with one foot in the digital world, while one foot remains in the analog era. Some customers will wish to purchase a new digital device and retailers must be able to provide products that suit these customers’ needs. Some of these same customers, as well as others, will enter the new era intending to preserve the use of at least one legacy analog television. Retailers must respond to that need as well. I focus the remainder of my testimony on the challenges, problems and opportunities presented by these varying needs.

#### THE CHALLENGES

The first challenge is to help customers understand what is going on, how it will affect them, and how to use new choices to their advantage. A consumer of video products in the year 2005 faces many more purchasing decisions than he or she did only a decade ago. A customer must consider:

<sup>1</sup>CERC’s corporate members are Best Buy, Circuit City, RadioShack, Target, Tweeter, and Wal-Mart. Its association members are the North American Retail Dealers Association (NARDA), the National Retail Federation (NRF), and the Retail Industry Leaders Association (RILA).

<sup>2</sup>The new Cinego, retailing in the \$1,300 range, is a combined DVD player, sound system, and projector. It will produce images of 27” to 140” and can be connected to a digital tuner for television viewing.

- **Transmission and Display formats**—High Definition; Enhanced Definition; Standard Definition—digital (progressive); Standard Definition—interlaced (digital or analog).<sup>3</sup>
- **Program and screen formats**—Widescreen aspect ratio (16x9) or “traditional” aspect ratio (4x3).
- **Signal acquisition**—Antenna; cable; satellite; and now “wireless,” and “broadband” variations.
- **Tuning, authorization, and payment**—In the receiver; in a “set-top box” or PVR or other device; or through a “CableCARD”-enabled set that allows purchase of HDTV channels without a set-top box.
- **Types of displays**—“Traditional” and “slim” cathode ray tube (direct view and rear-projection); LCD panel; plasma panel; LCD rear-projection; DLP rear-projection; LCOS rear-projection; and DLP and other projectors.
- **Types of storage devices**—VCRs; DVRs (removable media); PVRs (non-removable media) and variations (PCs, game players, hand-held devices).
- **Types of interfaces between devices**—composite analog; component analog (SD); component analog (HD); DVI/HDMI; Firewire; USB; wireless variations; and associated forms of copy protection which triggers only for certain programming.

This wide array of features and facilities represent progress and we would not want to do without them. They allow customers to find something that fits their needs at what are becoming increasingly reasonable prices. But the availability of such a wide array of features requires retailers and manufacturers to provide increased customer guidance and that is a difficult but important mission for us.

CERC and its members have been pleased to enter into a private and public sector partnership with the Consumer Electronics Association (CEA, of which RadioShack is also a member) and the FCC. Together, CEA, CERC and FCC staff developed a 2-sided card entitled “Buying a Digital Television,” containing concise definitions and summaries of new options. RadioShack and other CERC members feature the “tip sheet” on their websites, as do CEA and CERC on their own sites.<sup>4</sup> To further show support for the Commission’s effort, the card includes the logos of the FCC, CEA, and CERC. Both CEA and CERC agreed to cooperate with the FCC in making this “tip sheet” available to sales associates of any interested retailer (whether or not a CERC member) and to interested customers.<sup>5</sup> Additional steps we have taken thus far include:

- **Electronic distribution.** RadioShack instructed each of its 7,000 stores to post a side-by-side copy of the “tip sheet,” and to make copies available to interested customers. Other CERC members have also distributed the tip sheet electronically to their stores. RadioShack also printed and distributed at its own cost a “tear sheet” pad of the tip sheet to each of its stores.
- **Printing in retailer magazines.** The North American Retail Dealers Association (NARDA), a board level member of CERC with 1,000 members, published a front-page article that ended in a full page rendering of the “tip sheet.” We understand that a CEA affiliate, Professional Audio-Video Retailer’s Association, has made a similar magazine publication.
- **Distribution to stores.** CEA and the FCC are working on printing “tip sheets.” CERC members who have not distributed them electronically have committed to receiving these printouts in bulk, delivering them to their individual stores nationwide and making them available to sales associates and customers alike.

The retailers’ main obligation, of course, is to train our associates to guide customers through the choices they face, and to help them arrive at a solution that fits their needs. We pride ourselves on our training, which we are constantly revising and updating to meet changing technology. For RadioShack, in areas with a large Hispanic presence, the bilingual training of our sales associates is critical to our success and with stores within five minutes of where all Americans live or work, this is a core part of our training process.

With many conveniently located stores of compact square footage, RadioShack markets televisions sized 27” and under and the accessories and interfaces that link television products into up-to-date home networks. Because of our focus on improv-

<sup>3</sup>Transmission may be in one signal format but display in another.

<sup>4</sup>The link to this card (in side-by-side format) on RadioShack’s product web site adjoins the product description of all of our DTV-capable displays: [http://www.radioshack.com/images/re-bates/DTV\\_Tip\\_Sheet.pdf](http://www.radioshack.com/images/re-bates/DTV_Tip_Sheet.pdf).

<sup>5</sup>In addition to these steps, the FCC has implemented consumer education efforts through its [www.dtv.gov](http://www.dtv.gov) website and its toll free consumer call center. See Federal Communications Commission’s Media Bureau Staff Report Concerning Over-The-Air Broadcast Television Viewers, MB Docket 04-210, February 28, 2005, at ¶22 (OTA Report).

ing interconnectivity in the average consumer's household, we must train our sales associates not only on our own products, but on the workings of other products and technologies as well. The goal is to better serve our customers. Consumer electronics retailers serve our customers best by trying to "qualify" the customer—ascertain his or her needs and wants, home room size and space, viewing and recording practices, potential for a home network, and budget. We then proceed through a series of questions. What is your programming preference? How do you want to receive it—off air, cable, satellite, Internet? Do you want the option of moving programming throughout the house? What devices do you already have? How many of those would you like to keep? How important is sound; do you want all your products linked to a home theater receiver and speakers? Do you know about HDTV? Will you want to record HDTV? The sales associate then identifies the combination of display formats and features, signal acquisition choices, and home network options that give the consumer what he or she needs. Today, unless the consumer has already firmly decided upon a specific purchase—and with the aid of Internet research, many have—retailers can not serve the consumer by offering products on an isolated basis. Retailers must determine how all of the devices will fit together and to do this the retailer has to consider the whole picture.

#### THE PROBLEMS

The uncertainty currently surrounding the transition date is the most significant hurdle that we and our sales associates face when working with customers interested in video products. Some have suggested that we should simply start putting a "warning label" on all analog-only television products. But in the present circumstance, we believe that such a label could only further confuse, and even mislead, our customers. Here are the things we have to consider:

- First, the present laws and regulations make the actual cutoff date for analog broadcasting in any specific local market a matter of pure speculation, dependent on market developments, regulatory definitions, and legal judgments, as to each locality, that have not yet occurred. Today, for any particular locality, it could be equally valid to project a cutoff date of one year, five years, or ten. Retailers cannot responsibly advise customers or be expected to know which products to carry on this basis.
- Second, an analog television may well serve a customer who can not make a significant investment in a television set today. Until smaller digital sets match the low prices of the smaller analog televisions, the total cost to the consumer to purchase certain analog sets is still less, even with the additional cost of a future converter box that would be added once the transition occurs. With the introduction of digital sets 27" and below, these price points will begin to change.
- Third, even *after* the date is known, a display with only an analog tuner—or even with no tuner at all—could *still* be an attractive purchase for some consumers. Such products would still work with commonly used analog interfaces from cable boxes, satellite boxes, personal video recorders, DVD players, game players, and analog VCRs.

RadioShack's and CERC's view—which we believe our vendors and our retail colleagues generally share—is that it would be appropriate to consider an advisory label about the discontinuation of analog broadcasting, *only after a clear and reliable date has been set, and the circumstances under which converter devices will be available are known.*

With a hard date for the transition, retailers would be able provide customers more clarity about their choices.<sup>6</sup> This is true for consumers seeking new digital products, as well as those seeking to continue use of their legacy products. Many consumers will likely purchase digital televisions, some will subscribe to cable or satellite for the first time and for many households, the digital-to-analog over-the-air converter box will be the desired option. With the predictability of a hard date, retailers would be better able to educate consumers and provide certainty as to which consumer electronics products best fit their needs.

#### THE OPPORTUNITIES

Retailers and manufacturers are working on products that should ease the transition to the digital television. Here are four developments that should assist consumers in understanding their choices of digital televisions or devices:

<sup>6</sup>See the Media Bureau's OTA Report confirming that a near-term date certain would provide a clearer, more effective message to consumers. OTA Report at ¶37.

- First, starting on July 1, 2005, all large-screen sets (36" and over) that have analog, NTSC tuners will also have digital broadcast tuners. The transition to this requirement via a 50% phase-in has been expensive and difficult for our vendors, but a clear 100% obligation will help us explain this product category to consumers: any large-screen display with an analog tuner will have a digital tuner as well.
- Second, for intermediate size receivers of 25" to 36", CERC and CEA have petitioned the Commission to move the effective date of the 100% rule *up* by four months, from July 1, 2006, to March 1, 2006—less than a year from today.<sup>7</sup> Having digital tuners in television receivers in this size category should greatly increase the number of homes that can receive digital broadcasts.
- Third, by July 1, 2007, *every* television receiver of 13" or over, and *every* VCR or other device with an analog tuner will have a digital tuner as well. These devices will have the capability of permitting a display that is already in the home to receive digital television.
- Finally, there is the advent of the **CableCARD**<sup>TM</sup>—a “plug and play” device which allows consumers to select and pay for a cable operator’s scrambled digital programming *without* the need to rent a set-top box. About 70% of homes are attached to cable, although not every receiver in every home is actually connected to cable. A CableCARD receiver in such a home might be used initially as a primary viewing platform, and subsequently in another room where it can operate either using the cable or its off-air tuner. Either way, it brings that home into the digital fold. And RadioShack in particular is looking forward to offering multi-purpose products, such as game players, PVRs, computers, etc., that will also function as cable navigation devices. The CableCARD sets—which will all have digital off-air tuners—provide an economical portal to bring less expensive, mid-size sets into the digital age, whether via cable or antenna.<sup>8</sup>

Likewise, for the consumer who wishes or needs to continue the use of a legacy analog-only television, RadioShack and other retailers intend to provide a simple converter box that converts a high definition signal to an analog signal.<sup>9</sup> However, the current statutory provisions guiding the transition timeframe do not provide enough information to manufacturers and retailers as to when they should have converter boxes available in the marketplace. Without a date certain for the transition’s completion, it is unclear when and where the product will be needed and at what price it will be offered. RadioShack believes that market forces will play an instrumental role in minimizing both inconvenience and cost to the consumer, but only if the market is provided necessary certainty as to when the conversion will occur.

Currently, there are only a few converter boxes that simply convert a digital over-the-air signal to NTSC analog signal. Most converter boxes available to consumers today provide more capabilities than are needed for an analog television set that does not receive cable or satellite programming. With significant consumer demand, RadioShack as a manufacturer and retailer anticipates the need for a converter box that simply converts an ATSC terrestrial digital broadcasting signal to an analog NTSC signal. Such a box would employ a tuner without including all interfaces (such as component video for an HDTV display, digital audio outputs, or HDMI outputs, etc.). The box would merely change the ATSC signal to NTSC analog and provide a NTSC ch. 3/4 RF (F-connector) or composite video/audio output to the tele-

<sup>7</sup>Otherwise, this category would be subject to a 50% rule starting July 1, 2005. Such a rule, in the large screen category, has caused marketplace disruptions, confused consumers, and initially has driven supply of products *without* digital tuners *up* and demand for products *with* digital tuners *down*—contrary to the direction that, as a policy matter, all, including CERC, would like to see. See CEA/CERC Petition for Rulemaking, In the Matter of Digital Television Tuner Requirements, ET Docket No. 05-24, November 5, 2004.

<sup>8</sup>In the large screen category, the cable industry has been reluctant to promote CableCARDS, because it can not yet offer video on demand and other interactive services, and possibly because its own set-top boxes do not rely on them. But help should be on the way in these areas as well: the consumer electronics and cable industries are negotiating a “Phase II” plug and play framework, which would bring interactive services into market-driven products. An FCC regulation is also due to take effect on July 1, 2006, that would require cable operators to rely on the same “security interface” (today, a CableCARD) made available for use by competitors. CERC has long supported this requirement as essential to a level playing field for devices in the digital age. CEA and CERC have urged the Commission not to relax this requirement in any way. See Ex Parte filing by CEA/CERC in the FCC proceeding, CS Docket No. 97-80, March 1, 2005.

<sup>9</sup>According to statistics cited in the FCC’s OTA Report, there could be as many as 73 million OTA, mostly analog televisions in the market today. OTA Report at fn. 15.

vision.<sup>10</sup> These converter boxes will allow analog televisions to display digital broadcasts, but not in full digital quality. As noted by FCC staff recently, converter boxes will likely receive all multiplexed channels transmitted by DTV stations, work with remote control, closed captioning, a PSIP-based programming guide, the broadcast flag, VCRs and DVRs, and meet all safety and Energy Star requirements.<sup>11</sup> It is also noteworthy that in many circumstances, both the reception and number of channel choices for the analog viewer will be an improvement over their current analog reception.

If the transition occurs on a specific date, RadioShack anticipates that given the desire to continue the use of tens of millions of analog televisions, the price for a simple digital-to-analog converter box with minimum capabilities could drop as low as Motorola's stated price of \$67 or even LG's price of \$50.<sup>12</sup> RadioShack is currently working on its own prototype converter box which will be in this price range assuming adequate demand, and which could also be packaged with an antenna as necessary.<sup>13</sup>

As a final note, RadioShack would like to emphasize to the Committee its readiness and ability—and that of our CERC members—to address all consumer needs as the transition approaches. RadioShack will provide accessibility and education to consumers, whether they seek to purchase a digital television or other digital device, or need assistance in purchasing a converter box and/or antenna for their legacy equipment. In the event that a subsidy is provided to certain households, RadioShack believes its consumer presence and accessibility—and that of other retailers throughout communities in the U.S., would ease burdens associated with the implementation of the subsidy.

Thank you for the opportunity to share my views with the Subcommittee.

Mr. UPTON. Excuse me. Thank you all for being here, and we are going to proceed now to questions from members on the panel, not to take more than 5 minutes.

Mr. Roberts, and to all of you, I think it is no secret. I am on record as supporting a hard date. I know my chairman, Mr. Chairman Barton, is very much in support of a hard date. And this committee, at least I would like to think, will proceed at some point a little bit later this year with legislation to define that hard date. It is part of that legislation—I, too, support your idea that we are going to need a label for the analog sets that are in our retail stores across the country, and I would agree with you, from what I heard, that we can not do that label, whatever it will say, until we actually have the date certain established. And you indicated in your testimony that that is something that you support. I would like to ask the other three members of the panel if they also support a label on current analog sets so that the consumer, when they go into RadioShack or Best Buy, wherever they might go, Sears, they are going to know that they are going to need some type of equipment to transfer to digital as of whatever that certain date is.

Mr. ROBERTS. Could I—

Mr. UPTON. Yes, go ahead.

<sup>10</sup>In addition to the need for this minimum-capability box, it is important to note that there will likely be a range of converter boxes available in the market with a range of capabilities. For example, there are already a number of consumers who have purchased HDTV monitors and who receive television signals only over-the-air. Unless they choose to subscribe to an MVPD when the transition occurs, they too will need to purchase a digital over-the-air converter box for their HDTV monitors.

<sup>11</sup>OTA Report at ¶ 18.

<sup>12</sup>Testimony of Carl J. McGrath, Motorola, Inc., before the Subcommittee on Telecommunications and the Internet, House Energy & Commerce Committee, July 21, 2004; Testimony of Dr. Jong Kim, LG Electronics, Inc. before the Subcommittee on Telecommunications and the Internet, House Energy & Commerce Committee, February 17, 2005.

<sup>13</sup>Over-the-air viewers currently rely on UHF/VHF antennas to receive an analog signal. OTA digital viewers will be able to rely on existing UHF antennas to receive a digital signal. RadioShack believes that in certain circumstances, consumers who today do not receive a clear analog picture, may also need additional equipment—an amplifier or an outdoor antenna—to receive the digital signal. The placement of broadcast transmitting antennas may also affect consumers' antenna needs to some extent.

Mr. ROBERTS. Could I just qualify? I mean, if that label was—

Mr. UPTON. I know you didn't like me to say Sears or Best Buy.

Mr. ROBERTS. Oh, no. Well—

Mr. UPTON. RadioShack is first.

Mr. ROBERTS. You know, if that label has to say in 4 years, you know, this analog TV may not be operative, then I have a problem. If you are talking about a shorter timeframe than—

Mr. UPTON. Yes. Well, I am. I want the date on that label as well.

Mr. ROBERTS. Yes.

Mr. UPTON. And we will define that. I understand we will probably not write the language, but I think we will dictate to the FCC in terms of what we would like it to encompass. They will obviously have to have a comment period, but I would want that date, that established date on the label.

Mr. Arland.

Mr. ARLAND. Yes, I would like to take out ads with the date. I think that would be great. Yes, one of the misconceptions, though, is that after that date that this product is no good. It was 51 years ago that RCA introduced the first color TV. We have two of them in our headquarters that still operate just fine, and with the addition of a set-top box, they will keep operating.

Mr. UPTON. That is right. That is exactly right.

Mr. ARLAND. So consumers will still be using their analog televisions to watch satellite programming, to watch cable, to play DVDs, to play VHS tapes, maybe Internet video, who knows. So we would support a lengthy discussion about a label so long as it does have the date certain, which is, I think, what we are all asking for.

Mr. UPTON. Well, and part of that is, and Mr. Barton has confessed this already, that he bought himself an analog set in December, and he had a \$300 gift certificate, and I will bet that he wishes that he bought that digital \$300 set that is now on the right.

Chairman BARTON. I didn't see that one.

Mr. UPTON. Yes. All right. I am going to yield my time to my chairman, Mr. Barton.

Chairman BARTON. There are good days and bad days.

Mr. UPTON. He told me that we would be able to and that is with the condition that we are going to get sports now under the authority in the Telecommunications Subcommittee, is that right?

Chairman BARTON. It is a subject under advisement.

I apologize for interrupting. I have a Washington Post reporter I have been trying to meet with for 2 weeks waiting down in the annex to interview me and a plane to catch and another subcommittee hearing going on.

So my basic question to this panel is that is it technically possible, if we do a hard date of December 31, 2006 for the digital transition, to actually come up with the technology in a cost-effective fashion to take care of those analog homes that literally will go dark if we make that transition at that date? That is my question. I will start with my friend from RadioShack, Mr. Roberts.

Mr. ROBERTS. Thank you, Mr. Chairman.

We can make that date. We need 12 months from the time that legislation is effective and the public is notified, we can make a date in 12 months, so that would put us—if you want—

Chairman BARTON. If we pass a bill some time this year—  
Mr. ROBERTS. That is right. We can get it by December 2006.  
Chairman BARTON. Okay.

Mr. Arland.

Mr. ARLAND. Yes. Mr. Barton, I am from RCA, and we are showing today a standard definition digital television on the right, an analog television on the left that will be out this September at under \$300, so—

Chairman BARTON. That is great.

Mr. ARLAND. [continuing] we are ready. I am also showing a converter box that could ship as soon as we have a firm date, as soon as this September or October, at \$125. You know, if you order 5 million of them, the price will go down.

Chairman BARTON. How about 20 million?

Mr. ARLAND. Well, 20 million would be the same way. I would prefer to sell this product through Len's stores and the other members of his group and other retailers. I think, you know, we have an opportunity to educate people about what is going to happen. So as soon as you are ready, believe me, we are ready.

Chairman BARTON. Okay.

Mr. Mirabal.

Mr. MIRABAL. Yes, thank you, Mr. Chairman.

Today, I testified that possibly the most difficult problem in the transition is going to be to address the needs of the Latino community. Because of language issues, economic issues, and for many Latino families, they have an average of three television sets. And for them, TVs are not junk. We believe that any hard date that you select is going to have to anticipate that it is going to take the government, in our experience, a while to produce an adequate campaign in Spanish, a campaign that uses non-traditional media means: Spanish-language newspapers at the local level and Spanish-language television. And to engage those companies that are, in fact, selling televisions, like RadioShack, as part of that campaign. There should be a label on any TV sold today that says you may need additional equipment if you want to use this after the transition. I don't think we need to have a firm transition date to put that label on those sets for all Americans, but particularly for Latinos who have specific problems and who are going to have a much more difficult time in dealing with the transition.

Chairman BARTON. But once we, if we do this hard date legislation and we put the labeling in Spanish universally, the individuals, the groups that you represent, do you think that they will be able to communicate that and we will be able to get people to make arrangements?

Mr. MIRABAL. In my testimony, we offered to help as much as possible. We support the transition. We believe that there is a way of reaching those individuals who need to be reached and the way they need to be reached to do this the right way. We hope that Congress makes sure that government works with our organizations and others out there to get this done, because we believe that it is going to improve the television service for all Americans, including the community that we represent.

Chairman BARTON. Right.

Mrs. DeSalles. Just push that button. There you go.

Ms. DESALLES. As I testified earlier, our concern is not necessarily with the date but with the development of a comprehensive public education system, at least 1 year in advance so that people can prepare for the transition, particularly older people who probably have more of these sets that would go dark without adequate knowledge. It is vital that they know exactly what is going to happen on the transition date. So it is the educational system that needs to be addressed. If the committee sets a firm date, I strongly urge that that be a part of allowing at least a year for that. Whether or not that could be developed by that time, I don't know, but AARP stands firm in our commitment to assist in trying to get the word out.

Chairman BARTON. Well, I am AARP eligible. You know. I am 55. In some ways, philosophically, yes. And my mother is 80, and she is one of those that is going to make me do it. She won't—

Ms. DESALLES. Absolutely.

Chairman BARTON. [continuing] go to RadioShack and buy the box, but she will make sure that her son—

Ms. DESALLES. Exactly.

Chairman BARTON. [continuing] gets down there to do it.

Ms. DESALLES. Now, you mentioned you were AARP eligible, but you didn't say whether or not you were a member.

Chairman BARTON. I am not going to—

Ms. DESALLES. I am going to have to approve you.

Chairman BARTON. I shouldn't have said that. I am not currently a member.

Mr. UPTON. We know you well enough that we sort of figured that out.

Chairman BARTON. Well, I apologize for interrupting. I appreciate you, Mr. Chairman, letting me interrupt.

Thank you all for appearing. This is a very serious issue, and what I pick up is, on the equipment side, that sooner is better, and on the consumer side, whatever we decide to do, give you enough notice that you can educate your constituencies to what needs to be done.

Ms. DESALLES. Absolutely.

Chairman BARTON. Thank you, Mr. Chairman.

Mr. UPTON. Mr. Gonzalez.

Mr. GONZALEZ. Thank you very much.

And I know a date certain, a hard date, whether it really brings all of the different stakeholders together in order to accomplish what Congress has been trying to accomplish for a number of years is really questionable, and I don't know about whether a year or so—but I think it has to be carefully weighed. And I think Mr. Mirabal's testimony about how this impacts the lower economic rung families is really important, especially in my District and then of course, the language consideration.

What I don't understand is how we got here, but we are here, and not to rush anything, like, they say, rush to make a mistake, because I am not really sure how we are going to accomplish this. The manufacturers weren't in any hurry to make sure that most of the sets that are out there today at any of the retailers were digital. That didn't happen. About the only ones that came into compliance were the broadcasters that spent the money to actually be

able to broadcast it, but then we have got problems with that, because now they are telling the cable companies not to carry the signal. They are not going to pay for it and so on. So I just don't see that this movement is going in that direction. How we got to where we are is really a mystery.

We were able to do something else with something—with another item that American families hold sacred, and that is the automobile. Do you remember when we switched over from leaded to unleaded? How in the world did we do that? My understanding, after talking to Mr. Dingell, was that there was a heck of a lot of cooperation among all stakeholders so that at the end of the process you didn't have stakeholders—or not stakeholders, you had consumers holding the bag. In this process, I guarantee you, you will have the consumer holding the bag. And so I think we have to be very, very careful. And if we set this particular date out there—I guess the real question is—I don't have questions for AARP or my friend Manny or anything, but it really goes to the retailers and to the manufacturers. What were you all thinking? Why did it take so long? I mean, we are bragging about this—and I am grateful for it, but why so long? And I know I wasn't here when they started saying, “Well, we are going to start with a certain size set and mandate this,” and then there was something else about 85 percent, which I have no idea how you ever get a fix on that 85 percent number. But what was going out there in the industry that you all didn't find persuasive enough for you all to voluntarily move a lot quicker than where we are today?

Mr. ROBERTS. Let me, and I think that is a great question, by the way. As a retailer, we respond to consumer needs. That is No. 1. And our sweet spot, and again, you know, I represent CERC with the entire industry, but I want to speak on behalf of RadioShack. We are in every neighborhood in America, and you know, we pride ourselves in the fact that when it came down to the computer, RadioShack was the one that educated the public on what a computer did; or calculators and the CB radio and every kind of new technology. But right now, the analog TV is a value. I mean, our sweet spot, right now, you know, for much of the Latino community, too, is from \$70 to \$300. I commend Thomson, by the way, for finally developing a digital TV that looks like it is going to be under \$300. That is not our sweet spot. That is not what people could afford. So what people could afford, in our stores, are TVs that are analog TVs that are in the \$80, \$90, \$110, \$150 market. And the digital was out of their range. As that price gets down, I think it is going to happen, as dual tuners become mandated, I believe the price is going to go down. And all of that helps out. But until that time, the reason why we haven't pushed it is because the consumer can't and has not been able to afford it.

Now we have a situation now with the analog TVs they have. Perhaps if we do this right, we can get these converters down to \$70 to \$80 and they can afford it, or maybe with some government help. But, where we are is because it is really a price point, the value. And again, these TVs still work with satellite. They work with, you know, cable. They work with DVDs. They work with VCRs. There is real value in these products, even as analogs.

Mr. GONZALEZ. Mr. Arland.

Mr. ARLAND. Well, I am going to ask Mr. Passarelli to bring up a couple charts, because I think it might be helpful to put some history on this. You know, when I was here 4 years ago, I brought the circuit boards from our first set-top box, because Fred had a great question: why is this so expensive? It was \$550. And so now we have got it down to \$125. If we can get a date, I think if we have a date, then, you know, retailers will be interested in this kind of product, because today, there isn't much market for this product. There is no compelling reason for consumers to buy it.

[Chart.]

If I go back in history a little bit and I look at, with this chart, the green bars on this chart show you analog television sets. And Mr. Markey made this point this morning that if you look in 2004, 23 million analog televisions were sold. That is true. But the blue bars represent the growing impact of digital television. And digital last year was 7.3 million. And look what happens in 2005. We are going to sell twice as many digital sets as we do analog.

I will come back to the same point Len just made. Why are we selling 23 million analog sets? Half of those are televisions smaller than that one. They are 19 and 20-inch sets. They sell for under \$175. It is simple mathematics. On the one hand, we are pricing to get that set-top box inside the television. The cheapest we can do it today is 300 bucks. And that is in this fall.

[Chart.]

So the transition is going to shift. There is going to be a change. And this is the chart that CEA has been using to show what is going to happen in the out-years. And everything in green represents opportunity for our industry in digital and the blue is the analog that is going to fall off to almost nothing, especially as the tuner mandate kicks in. So I guess my answer is A: it is expensive, as Len said; B: it is getting cheaper; C: there are many cogs in this transition. It is not just the price of TV sets. It is having enough broadcasters on the air who are sending signals that people actually want to see. Today, we have 200 broadcasters still not on the air, 7 years after this transition supposedly started. I hope they will be on the air by the time they are supposed to, July 1 of this year. I am sure they will be.

Mr. GONZALEZ. Thank you very much.

My time is up.

Mr. UPTON. Mr. Terry.

Mr. TERRY. Thank you, Mr. Chairman.

Mrs. DeSalles, in helping through the transition, first of all I want to thank AARP for stepping up and helping with the transition, helping with the education process, absolutely a necessary component. So I thank you and AARP for that.

As a policy, though, I lean more toward means testing on who we help with the set-top box. I disagree with the philosophy that every person who receives their TV from over-the-air as opposed to through cable or satellite should receive a government-purchased set-top box. I need to go back and read your testimony, but just to clarify for me again, where would AARP be on means testing only providing set-top boxes for low-income seniors?

Ms. DESALLES. AARP does not have a policy on that position. We do believe, though, that the government has imposed this transi-

tion on the consumers, thereby it—forcing them to incur costs, so we would—we feel that government should use some of the money that is recouped through spectrum to subsidize some of the charges, but we don't have a set position on who should get a subsidy or exactly what that subsidy—what form that subsidy should take.

Mr. TERRY. All right.

Mr. Mirabal?

Mr. MIRABAL. Yes. Most of the sets, as Len has already pointed out, which are going to require these converters, are sets that have been purchased by many individuals who can't afford digital TVs. They can't afford expensive TVs to begin with. Having them required to submit to means tests is not the answer to this. We are opposed to that. What this becomes for individuals is a tax. If they have to pay for it themselves, it is a tax. And it is a tax that the government ended up creating on them. And I think that that is the way it is going to be seen. So you are talking about a means test for a population which probably mostly will all qualify for it. Going through that exercise, I think, is unnecessary. What the government needs to do is seriously consider using the portion of that revenue that is gained through spectrum sales and using that to help those individuals who have no choice but to purchase analog all of these years who aren't going to throw those televisions away because they last 15 years. And whether the date is set a year, or 2, 3, 4, or 5 years, those TVs will still be in the home. And they will primarily be used to get most of their information.

Mr. TERRY. So your position would be that every consumer should get a set-top box paid for by the government? I will say—

Mr. MIRABAL. I think there is a limit.

Mr. TERRY. I disagree with you, and I don't think watching television is a constitutional right.

Mr. MIRABAL. Well, I think there may be a limit.

Mr. TERRY. By the way, the conversion—

Mr. MIRABAL. [continuing] that—yes.

Mr. TERRY. [continuing] from leaded gasoline to go through catalytic converters, which added several hundred dollars to a car, you didn't see the government writing checks to every new car purchaser, either.

Mr. MIRABAL. No, cars cost a lot more money.

Mr. TERRY. I also want to say this is publicly owned spectrum, free over the air, so you know, if we are going to spend more money than the spectrum is worth to converter boxes, then I think we need to rethink either the transition or whether there should be free, over-the-air television anymore.

Mr. MIRABAL. Well, that is—

Mr. TERRY. Now let us go to warnings.

I don't see any way possibly to do a logical warning without a specific hard date. We seem to have, again, maybe consumer groups that disagree with my position, but Mr. Arland and Mr. Roberts, does it have to—the warning to me can only be effective if you have a hard date. Can you have a warning without a hard date?

Mr. ROBERTS. What does that warning say? This product may not work 1 day and the government may legislate against it. Your

analog signal may end. I just don't think that is actually, I don't think that is, again, valuable for consumers who really can't afford a digital product.

Mr. TERRY. Well, I think it puts a scare into the consumers, too, and may confuse the situation.

Mr. Arland?

Mr. ARLAND. I think it would be a mistake to advance the digital transition through fear and anxiety. You know, our industry is interested in promoting our products, not throwing negative labels on things. And I think there are some positive things to use to promote better picture quality, multi-casting reception. You know, there are a number of things that can be done, but if the objective is to advise people of when a functionality is not going to work, they have to know when that is.

Mr. TERRY. I agree that I think we have an obligation, if there is a date certain.

Mr. Chairman, are we going to have a second round of questions?

Mr. UPTON. Let me go to Mr. Wynn and Mr. Bass and then I will come back to you. Yes, we can have a second round.

Mr. UPTON. Mr. Wynn.

Mr. WYNN. Thank you, Mr. Chairman. I do have a couple of questions, because I think I disagree, respectfully, with my colleague. You are in the business of selling TVs to people now and for some indefinite period that are analog that are going to ultimately require a converter box. Why can't you tell them that?

Mr. ROBERTS. First of all, when? By the way, we do educate the consumer in terms of—

Mr. WYNN. Let me—

Mr. ROBERTS. Yes.

Mr. WYNN. I am fine with the concept of a date certain. I am probably going to support it, although possibly not. But my point is why can't you tell—how definitive is that? Why can't you tell the consumer that you are selling—particularly the middle class consumer who may not get the benefit of the sliding scale, that you may have to get a converter box, because the government is contemplating changes in regulations that will require a converter box? I am very concerned that we are selling a product today that we know, with a reasonable degree of certainty, within at least the next 3 years, is going to require a converter box. Why can't you tell them that?

Mr. ROBERTS. Well, I mean—somebody just handed me—we hand this—you know, we have the tip sheet.

Mr. WYNN. In the short answer, you can.

Mr. ROBERTS. We can and we do, yeah.

Mr. WYNN. Okay. That is good enough.

Mr. ROBERTS. Okay.

Mr. WYNN. Okay. Now I would like to ask Ms. DeSalles a question. Do you believe, assuming my colleagues have—there is some sort of means test, do you believe that the subsidy should go for every TV in the house for those people who are eligible?

Ms. DESALLES. No, I don't think that we would support that, because households can, as my colleague has said, households could have three or four different televisions, particularly in low-income

households where that may very well be the only source of entertainment in the house.

Mr. WYNN. So your view would be that they would then be responsible for—

Ms. DESALLES. Well—

Mr. WYNN. They would only get one and they would have to buy the others?

Ms. DESALLES. For at least one, yes. We would, we could support a government subsidy of that nature.

Mr. WYNN. Of one but not any more?

Ms. DESALLES. No, I am not really saying absolutely one and absolutely not any more, but—

Mr. WYNN. You have got a poor family. They have got a couple of kids. They have two TVs, three TVs. Through no fault of their own, they bought an analog TV this year, because there was no notice on it, and now they are confronted. They fall under the means testing. Should they get one subsidized converter box, or should they get converter boxes for all of their TVs?

Ms. DESALLES. As I said in my earlier testimony, television has gone beyond merely entertainment, particularly for older people. It is a connection to the outside world, and the news and—

Mr. WYNN. One or more? Should they get one or more?

Ms. DESALLES. We don't have a position developed—

Mr. WYNN. Okay. That is fine.

Ms. DESALLES. [continuing] on that. But I will—

Mr. WYNN. I will accept that answer.

Ms. DESALLES. [continuing] say we could support one.

Mr. WYNN. Okay. Let us see.

If you—let me go back to you, sir, Mr.—

Mr. ARLAND. Arland.

Mr. WYNN. [continuing] Arland, yes. You have just said you have a color TV with a life span of over 50 years.

Mr. ARLAND. Yes.

Mr. WYNN. Why do you need a date certain—

Mr. ARLAND. Well, I think we need to start—

Mr. WYNN. [continuing] to issue a warning?

Mr. ARLAND. It is an excellent question for two reasons. One, within 28 months, this is not going to be an issue, because every television that is sold as a television will have to have the tuner anyway.

Mr. WYNN. Right.

Mr. ARLAND. By July 1—

Mr. WYNN. But right now, you are selling like hot cakes analog TVs.

Mr. ARLAND. We are selling like hot cakes digital televisions as well, but yes.

Mr. WYNN. Okay.

Mr. ARLAND. And the reason that it is cheaper, and the reason that they are selling so well is because the ones that are selling are the small screen sets in which incorporating this is still a very expensive venture. We are going to be able to make it affordable in 27 inch, but most—

Mr. WYNN. Below \$300?

Mr. ARLAND. \$300.

Mr. WYNN. Below \$300?

Mr. ARLAND. Below \$300. Under \$300.

Mr. WYNN. How much? \$250? \$200?

Mr. ARLAND. I have competitors in the room, and I would prefer not to tell them what—

Mr. WYNN. Fine. My question still remains. You are selling analog TVs to some substantial degree. Why can't you give people a notice?

Mr. ARLAND. What is the notice supposed to say, sir? 80 to 90 percent of consumers take their television home and hook it to cable or satellite to which this issue becomes a non-issue, so what am I supposed to tell them?

Mr. WYNN. That the government is contemplating regulations that would require a converter box on their television within the next 3 years or that within less than 3 years all new televisions will be digital and the television you are about to buy is not digital and you will have to have a converter box.

Mr. ARLAND. I think in order for this to be effective, we shouldn't be scaring consumers. We should be providing them with accurate information and a certain date.

Mr. WYNN. Is there an assumption that that information is somehow "scary" or is it just useful information?

Mr. ARLAND. I—it scares me. I—you know, my—the product that we sell a lot of, you are going to say, "Don't buy this because it might not work in 3 years."?

Mr. WYNN. I didn't say don't say—don't buy it. Just say, you know, be aware that you may have to buy an additional device to make it work in 2 years.

Mr. ARLAND. Well, the reality is that it is exactly what most consumers already do. They take it home and they connect it to another device to watch TV. So we support the idea—

Mr. WYNN. For those consumers who don't, is there a reason why you couldn't tell them that—

Mr. ARLAND. Yes, there is a reason, because we don't have a date to put on the notice, sir, and that is—I mean, it is very simple to us. We are happy to do that. As soon as we know when analog broadcasting will be turned off, we will start.

Mr. WYNN. But in the meantime, you will continue to sell TVs to unsuspecting consumers—

Mr. ARLAND. Well, you know, let me use my own household as an example. My daughter has a TV in her room that she only watches tapes on. We have another TV that people only play video games on. They don't even use terrestrial reception. So you know, you are asking us to do a lot of what-ifs. And we have been. Len and I have been at this transition now for almost a decade. Others in this room have been at it for longer than that. As soon as we know some of the facts here, and as soon as a date is certain, I think a label may be appropriate. But until then, I am not sure what you want us to tell people.

Mr. WYNN. I see.

Okay. Those are all of the questions I have, Mr. Chairman. Thank you.

Mr. UPTON. Mr. Bass.

Mr. BASS. Thank you, Mr. Chairman. And I want to compliment Mr. Wynn for his line of questions, because I think he is hitting the nub of this thing right on the head.

It is a complex issue, but it may be a lot of prestidigitation over nothing because on the one hand, you really have had a hard date, with an exception, which may or may not be met. I remember attending a hearing similar to this one I think 2 or 3 years ago in which another major retailer was testifying and said that he was troubled by the idea that every single analog TV that he had on the shelf had the potential to be obsolete or unusable in 3 years and yet was unwilling to do anything at that time to even provide a warning, notification, message, or anything or even go—and now here we are, just a few months away from the conversion date, and we are still moving—we are moving forward, and there is a good example of it. That is, as I understand it, a digital—I mean an analog TV with a converter in it, one of those boxes inside it.

Mr. ARLAND. Exactly.

Mr. BASS. Otherwise, it is identical to the one next to it.

Mr. ARLAND. Yes, sir.

Mr. BASS. So what you are asking us to do is to come up with a hard date, which we already came up with, but you want a hard date with no exceptions at all. And then you are saying that you are going to solve the problem, but you really haven't demonstrated the willingness to do it to date. Yes.

Mr. ROBERTS. Something—I deal with—and my company deals with is the everyday situation of consumers in our stores, and I understand the line of questioning and I understand what you are trying to get to, but the reality of it is that, first of all, I can say retail may have a vested interest in keep selling—up-sell to the consumer from an analog to the digital, a higher price, more gross margin, whatever it may be. But the facts are that, you know, up until hopefully, again, leaders like Thomson can bring the digital TV down to \$300, there are folks that just can't afford that, and so we are left with the situation saying it is not a question of—you know, if there was a hard date, then we would tell them, "By the way, in a year or 2 years from now, this product will need a converter or it will not work." That is simple. But without a hard date there, there are folks that you can deprive of having a television signal. They can't afford \$500 or \$600 or \$700 for a digital product today. There are no converters out there at this price of \$125 because no one is going to manufacture it and no one is going to sell it until there is a hard date.

Mr. BASS. Mr. Arland, how many of those units do you have to make in order to have the price at \$125?

Mr. ARLAND. It is in the tens of thousands that we are planning on.

Mr. BASS. And how many analog TVs are set up on broadcast now, nationwide, do you know?

Mr. ARLAND. The number I heard this morning from another witness was, like, 20 million.

Mr. BASS. So you are giving us a price for 10,000 when you have a potential demand of 20 million?

Mr. ARLAND. I have no customer yet who will buy it, sir. And that is part of what I am asking for. You know, my—Len's company—

Mr. BASS. If we set a hard date—

Mr. ARLAND. If you set—okay.

Mr. BASS. If we set a hard date and let us say  $\frac{3}{4}$  of those televisions had to buy them, don't you think it would be—you would be talking \$25 instead of \$125?

Mr. ARLAND. I don't know if it is \$25.

Mr. BASS. You guys would be fighting like cocks with all of the other manufacturers—

Mr. ARLAND. Sure.

Mr. BASS. [continuing] to get the lowest price. And Mr. Roberts here would be nickeling and diming you to get the lowest possible—you would be down to \$25 in no time, don't you think, if you had to make 15 million of them?

Mr. ARLAND. If I had to make 15 million of them, absolutely.

Mr. BASS. Don't you think you are going to have to if we set a hard date?

Mr. ARLAND. I hope so.

Mr. BASS. Okay. I guess I have said enough. I don't want to be too mean to Mr. Roberts, because I am going to ask him to sign a little note to the manager of my local RadioShack store.

I yield back, Mr. Chairman.

Mr. ARLAND. Mr. Chairman, I just want to make one point, though, along those lines, and that is I am reminded of the Dorito commercial. You know. "Go ahead and crunch: we'll make more." It is exactly the situation here. We will make as many as we need to. And you are right. The more that we make, the cheaper they are going to get.

Mr. UPTON. Mr. Inslee.

Mr. INSLEE. Sorry I was late to the meeting, but listening to what you described as a dilemma in what to say to consumers in this amorphous period, does that—does this whole situation argue for an earlier hard date as opposed to a later one for all concerned? That is a question to the whole panel, I guess.

Ms. DESALLES. Well, we would be concerned with an earlier date, because of the need for an effective transition period for public education. We believe that you need a minimum of a year in order to get the materials ready, the PSA announcements. I mentioned earlier that we felt there should be a comprehensive outreach effort toward educating consumers, and it would take a year to get the information prepared, ready, and out, distributed via PSAs, articles, for example, AARP magazine information or website information. It takes time to educate.

If I may relate a personal experience about the need for consumer education. As it happens just a month or so ago, I purchased a large screen HDTV, and before I went out to buy that television in looking at some of the ads, I thought, "Well, good grief these televisions are awfully expensive," whereas here is a big screen set—I was looking for 34 inches, and I thought, "Here is one 32 inches that is only several hundred dollars," you know, without really considering that this was something that is going to be obsolete. So I have had my old TV for 20 years, so I am not one of those

that runs out and purchases gadgets that often. And a little investigation told me that what I really wanted was the quality of HDTV. So I went to the store and thought, because I am a cable subscriber, that I was buying something that I could hook into the cable box and have high definition. Wrong. I still needed a box to make that conversion. I am not an expert on technology, but neither do I consider myself an uneducated person. I didn't know and the salesman never explained to me what was required with that purchase.

So I am saying that a lot of detailed information in an easily readable form needs to be given to consumers. I have not seen the tip sheet, but just from this end of the table looking at it, I think it would be difficult for many, particularly older people, to comprehend.

Mr. ROBERTS. If I may, and I agree with you. We referred to the tip sheet. This is really the tip of the iceberg. I mean, if there was a hard date set, we would unleash some of the greatest power in this country in terms of educating the consumer, and that is the retailers. We would unleash a marketing educational program, but right now, we have nothing to market—to educate with, other than, something that may happen. And many retailers have tried that. But, you know, we are marketers. We, ourselves, spend, you know, hundreds of millions of dollars on marketing, and I guarantee you we find that our responsibility to educate the consumer and target various Latino community and seniors in particular, because those are markets that we cater to. But, I think you—all of our competitors, all of our retailers, you find an unbelievable power unleashed in terms of the educational program. That is what a hard date also would unleash.

Mr. INSLEE. Sort of following up on Mr. Wynn's questions, what percentage of people coming in to buy an analog TV today know that there is some potential that in the fairly recent future—or near future there could be a cessation of that broadcast? What percentage? Any idea? Is there any objective evidence on that?

Mr. ROBERTS. I don't, and I would be just guessing. I think it is a confusing area, so I would say that the percentage of people who really understand what is going on is small. We make an attempt to explain that to folks. But again, we are at a price point. It is company specific. If Best Buy or Circuit City were up here, they may have some other response. We are a price point that folks are looking for something within the \$70 to \$250 price range. And today, they can't buy a digital alternative. They are only left with buying an analog alternative.

Mr. INSLEE. So shouldn't we be a little concerned that maybe 70 or 80 percent of the people buying this product don't know that in several years this could be useless as far as broadcast situation, or at least without an upgrade?

Mr. ROBERTS. Well, it is not useless. Again, you know, you can hook it up to cable or satellite—

Mr. INSLEE. No, no, no. For broadcast-only purposes.

Mr. ROBERTS. For broadcast—

Mr. INSLEE. 30 percent of the TVs in my State are broadcast-only. That is it. That is all they have got. So I mean, it is not an insignificant number of people.

Mr. MIRABAL. I do have information about studies about awareness. And A.C. Neilson's most recent efforts on this show that less than 5 percent of the public is aware of the transition.

Mr. INSLEE. That there is any potential transition, you mean?

Mr. MIRABAL. That is correct. They are unaware, completely, obviously, unaware when they go in to buy a TV.

Mr. INSLEE. Those are mostly Congressional staffers then.

Mr. MIRABAL. Mostly. And I should disclose that I do not have an HDTV.

Mr. INSLEE. Okay. Got you. Well, let me just suggest one thing we should consider, though, and that is mandating all of the celebrity criminal trials that are broadcast should be put on analog and then have an early cessation date.

Mr. UPTON. Yes.

Ms. Blackburn.

Ms. BLACKBURN. Thank you, Mr. Chairman. And thank you to each and every one of you.

Mr. Roberts, I am over here hiding from you, you know.

Let us see. I have got a—I want to commend you for being here and for talking with us. You know, I think it was 1993 was the first year that I saw a demonstration on HDTV. And it was fascinating. So you know, Mr. Mirabal, you just said you don't—that you have studies that show that only 5 percent of the American public is aware that there is a transition taking place. I wish you would share those with us, because I think that the percentage actually would be much higher. So I would like to see the data—

Mr. MIRABAL. Certainly.

Ms. BLACKBURN. [continuing] that you are drawing that from. I think that many people are aware something is going to take place. They are just not aware of the specifics.

And Mr. Roberts, very quickly, I am a retail marketer in my real life. And I have run a marketing business for years working with malls and shopping centers and retailers and have done a good bit of work with properties that would carry your stores. And I commend you all, as with most retailers, the salespeople in our electronic stores seem to be very knowledgeable. They are young. They are aggressive. They like being able to make that sale and encourage people to, as someone just said, up-sell. Do you have a list of best practices ready to go that if you were given a hard date you would take this list of best practices with your employees to go through your employee training to deliver consumer awareness and say, "Here is point A to 10—1 to 10 on a sheet and begin making consumers aware." Do you have point of purchase information that you are going to put on appliances in your store that will say, "This unit is analog." "This is high definition." "This is digital." "This is the transition date." Are you all equipped to turn that on a dime as soon as you are given a hard date and are you prepared with CERC and ARM and other groups in the retail industry to share that information and develop a comprehensive program?

Mr. ROBERTS. Sure. In fact, I responded that we probably need a year, and that is mainly in terms of production of the converter box.

Ms. BLACKBURN. The information, the education.

Mr. ROBERTS. But the information, the educational program, you know, with a hard date, we could mobilize—

Ms. BLACKBURN. How quickly?

Mr. ROBERTS. Within weeks.

Ms. BLACKBURN. Within weeks?

Mr. ROBERTS. Within weeks, we will have a program developed—

Ms. BLACKBURN. Excellent.

Mr. ROBERTS. [continuing] in terms of training programs, modulars, putting people through it. And we do this all of the time.

Ms. BLACKBURN. Okay.

Mr. ROBERTS. This is, when new technologies come out or there is a big consumer trend, we can do it within weeks.

Ms. BLACKBURN. Thank you. I—that is exactly the answer I had expected to receive from you all.

Ms. DeSalles, I have just a couple of questions for you, please, ma'am, if I could.

Ms. DESALLES. Sure.

Ms. BLACKBURN. You have talked about you feel like there—that a comprehensive strategy is needed and that it will take a year for you all to move through this with PSAs and articles and the website and the magazine. You know, my husband is AARP eligible, and I am 52, so I get mail from you, and neither one of us belong to AARP, though. So you know, full disclosure there, since the chairman was talking about being AARP eligible. I went to your website, and in your search engine I typed in these phrases: HDTV, digital television, DTV. Nothing comes up.

Ms. DESALLES. No, I—

Ms. BLACKBURN. Nothing comes up. So—no, please, ma'am, let me finish—

Ms. DESALLES. Yes.

Ms. BLACKBURN. [continuing] my question. So if to you it is important that we participate, that we do a comprehensive strategy, when do you all plan to begin putting information on your website? You know that this is going to happen. You know that it is something that we are going to be working toward. You have just talked about going out and purchasing a TV that had been replacing a TV that was 20 years old. So did that not behoove you to begin thinking in terms of you bear some responsibility to start talking with your members about this?

Ms. DESALLES. When I mentioned that we feel that it would take a year to develop a comprehensive public education program—

Ms. BLACKBURN. Why is there nothing there now?

Ms. DESALLES. I did not mean we at AARP. I had said earlier in my testimony that we would be very willing to work with the FCC or any other Federal agency to develop—

Ms. BLACKBURN. Do you feel like your members are aware that this is taking place?

Ms. DESALLES. No, I do not.

Ms. BLACKBURN. You do not. And you all have chosen to not address this with them.

Ms. DESALLES. It has not been put on our website so far. Yes, you are right.

Ms. BLACKBURN. Okay. When do you plan to start addressing it with them?

Ms. DESALLES. I can't give you a date.

Ms. BLACKBURN. So then you are not willing to participate?

Ms. DESALLES. That is—no, I am not saying that at all.

Ms. BLACKBURN. Okay.

Ms. DESALLES. We are more than willing to participate in this effort.

Ms. BLACKBURN. Okay. Okay.

Ms. DESALLES. I am saying I can't give you—

Ms. BLACKBURN. Well, we know the technology is there. The technology has been there for years, and the transition has been talked about for about 10 years. So you know, I will continue to check your website. My—I would hope that you all would be working with us on this to help deliver the information that is so incredibly necessary for this.

Mr. Thomson, quickly to finish up with you, and I am sure I am running close to out of time, how quickly can you turn around your manufacturing on the box? How quickly?

Mr. ARLAND. I think we could do it in about 8 weeks. We have designed this product. We are ready to go, ready to pull the trigger.

Ms. BLACKBURN. Within 8 weeks. Okay. I will ask to interrupt you there. I am over time.

Thank you, Mr. Chairman.

Mr. UPTON. Well, just before I yield to Mr. Terry for a second question, the gentlelady makes a very good point, and I just want to follow up with a quick question, and that is as we look to get America using digital, I think it is very important that a date be set. And because with the establishment of a hard date, I mean, I look at members in this committee, I look at consumers in stores across the country. Life is pretty busy. And not until we know the date are we really going to get America to focus on raising that number up from above the less than 5 percent that was indicated earlier. So I would ask each of you, just very quickly, do you concur with me that the hard date will then set the process? You can send the orders to the manufacturers to begin to build those boxes and ultimately get the price considerably down from where it is today and America will move forward as they enter the stores across the country and figure out what they are going to do with their 30-year-old sets let alone the sets that they have bought to watch the Super Bowl this last Christmas. Do you agree with me, Mr. Roberts?

Mr. ROBERTS. I absolutely agree with that.

Mr. UPTON. Mr. Arland?

Mr. ARLAND. I agree.

Mr. UPTON. Mr. Mirabal?

Mr. MIRABAL. I agree a hard date is needed, si.

Mr. UPTON. Mucho gusto.

Ms. DESALLES. Yes, since it would add to the education of our members, we could support a firm date.

Mr. UPTON. Okay.

Mr. Terry.

Mr. TERRY. Thank you. I appreciate the time for a second panel—Ms. DeSalles actually set up my next question, unknowingly.

Ms. DESALLES. Oh, I am so sorry I did that.

Mr. TERRY. No, no. Actually, it is a good question, so—or a good set.

I have said that the best thing we can do for the consumers is make this transition, or at least the product, as simple to use, and you hit on one of my issues, and that is the plug-and-play ready. Most consumers have had plug-and-play cable-ready sets. You were very helpful with—in supporting our bill—my bill requiring plug-and-play sets to be manufactured, and the FCC then did what we had hoped they were going to do by rule and regulation, in essence, taking most everything in our bill and doing that. Since then, since I felt like I have a little bit of ownership with the plug-and-play sets, whenever I am in Nebraska Furniture Mart or Best Buy or—I don't think I have seen one in RadioShack yet, I look for those. And what I find is one or two plug-and-play or ready sets, and they are usually several hundred dollars more than the next HDTV set of the same.

So I have two questions. What do you feel—or do you have a feel for the penetration yet of the plug-and-play, and are there difficulties out there? Are the cable companies not cooperating with the digital card that needs to be inserted in there for it to make it plug-and-play? Why are we having a difficult time getting the plug-and-plays out there for the consumers so we can make it simple for them?

Mr. ROBERTS. Here comes another chart.

Mr. ARLAND. I have got another chart.

[Chart.]

Mr. ROBERTS. It is like Ross Perot.

Mr. TERRY. Yes, I was thinking the same thing. The Ross Perot of the consumer electronics.

Mr. ARLAND. For those that aren't familiar with the back of high-end television that has—that is cable-ready—digital cable-ready, this is called the cable card, and this slides into the back of the TV. It is the security mechanism so that the cable operator can sell high-definition and other high-value content. And it is a new feature that started to be added last August to television sets. So it doesn't surprise me, Congressman, that you haven't seen much of it. The module itself actually looks like this. The idea is to eliminate the problem that you have had to bring home a cable-ready set and get this little card from your cable operator and plug it in and watch HDTV. And the issues have been one that the cable operators don't make a whole lot of money on this particular product. So they are more motivated to sell the consumer a set-top box. We have had issues with these things not working properly in certain markets. We have had issues with markets like Chicago running out of cards from major operators, which to me is unthinkable. And yet our industry, the consumer electronics industry, has made an enormous investment of time. The Congress is quite interested in this. The Commission set standards. It is a top tier product that hopefully some day will be in a smaller screen size that Len's stores might carry as well. So believe it or not, the No. 1 thing that

consumers ask when they walk in to buy a new TV is, "Is it cable-ready?" And—not, "Is it high-definition?" Not, "Is it analog?" Whatever. That, you know, they are sort of trained to that idea, because that goes back to analog cable back in the 1980's and before. So the industry is beginning to ship these products. We have had some issues with not all of the cable systems properly working and not being able to find the cards. This morning, the Consumer Electronics Association announced that 1 million said sets, digital cable-ready sets, had shipped in 2004, and we are expecting that to triple this year to 3 million.

Mr. TERRY. All right.

One of the discussions that we had with plug-and-play is that the current plug-and-play are one-way—

Mr. ARLAND. Yes.

Mr. TERRY. [continuing] and the next generation hopefully will be two-way. Where are we in that process?

Mr. ARLAND. Those are difficult, long discussions. They have been going on for over a year. It is sort of like the peace conference because you have Hollywood on this side and the TV makers and, you know, the cable operators, and the satellite companies. These are difficult things to do. And it has not gone as quickly as we had hoped. And frankly, one of the issues is that we believe cable should be held to the same standard for their own set-top boxes to use this removable card so that they are as motivated as we are to make sure that it works.

Mr. TERRY. All right. One other question in my 22 seconds.

In Omaha I have an issue with what I can't go through in HD hearing without mentioning this, it is expected of me now, channel 3 withholds their HD signal from cable and saying just get it over the air, and they—so I quit saying this at every hearing. They said, "We will come out and put one out on your house so you can get our HD signal." And I said, "How much does that cost?" They said, "Don't worry about it. We will do it for free." And I said, "No, we have got rules. How much does it cost?" And he said, "About \$300." And I said, "No, then you can't come to my house and put on an antenna." Is that a \$300 antenna?

Mr. ARLAND. Actually—

Mr. TERRY. Or on the windowsill over here?

Mr. ARLAND. [continuing] we will pull back the curtain, not to be a Wizard of Oz on you here—

Mr. TERRY. I remember this show.

Mr. ARLAND. This is an RCA antenna, \$14.95.

Mr. TERRY. Now this is the standard digital set. Is there a difference then? Why would the manager of Gingham TV say it is going to be a \$250 or \$300 antenna that is necessary when—

Mr. ARLAND. It depends.

Mr. TERRY. [continuing] a \$19 one works?

Mr. ARLAND. Well, it depends on where you live.

Mr. TERRY. And I live about 30 miles away from the tower.

Mr. ARLAND. Okay. So if you are 30 miles away from the transmitting tower, this is physics, you really should have an outside antenna, and in which case it is a Yagi, one of those big things from the 1950's mounted on your house. You know. I have one in my attic, and I use it to pick up things that are 60 miles away,

but I can also use one of these for things that are closer. So it really is a function of where you are.

Mr. TERRY. Okay.

Mr. ARLAND. And the Antennaweb.org website that I mentioned earlier gives advice to consumers so when they go to RadioShack or Circuit City or Best Buy or Wal-Mart, you know, they can make an informed decision. And in some cases, yes, a large antenna might be necessary, but I think this demonstrates pretty easily that even in a steel encased building where I couldn't even get outdoors, we can do it with a \$15 antenna.

Mr. TERRY. Thank you.

Mr. UPTON. And again, the point would be if you already have an antenna that works, you don't need to get a new antenna.

Mr. ARLAND. Yes. Mr. Chairman, that brings up—

Mr. UPTON. It is with the existing antenna.

Mr. ARLAND. That is a great point. And I have a friend in Ellwood, Indiana who bought a house and Ellwood is a remote part of the Hoosier State, maybe not as remote as Nebraska. I am not sure.

Mr. UPTON. It is pretty remote. I don't know. I have no clue where it is.

Mr. ARLAND. Yes. It is south of South Bend.

Mr. UPTON. I know where Omaha is.

Mr. ARLAND. So he has a house with an antenna that he has never used. The previous owner had it. He wanted to go digital. He brought home an HDTV monitor. He bought a set-top box from me. I gave him a pretty good price. He is a friend of mine. And he plugged it into that 25-year old antenna, and bingo, he can pick up Indianapolis HDTV. I think he is 64 miles away from the city. So you are right. If you have got an analog antenna—

Mr. UPTON. That will reach across Lake Michigan then. Good.

Mr. Bass, do you have further questions?

Well, thank you. Thank you all for your testimony. It is very important. We are going to be moving on this, and we intend certainly—Mr.—I am sorry. Mr. Gonzalez, do you have additional questions? I am sorry.

We intend to be moving and certainly on a bipartisan basis. And you are helping us with the understanding of this very complex issue. We are immensely grateful for that. So thank you. God bless.

[Whereupon, at 3:56 p.m., the subcommittee was adjourned.]

[Additional material submitted for the record follows:]

THOMSON INC.  
INDIANAPOLIS, INDIANA 46290  
April 11, 2005

The Honorable FRED UPTON  
Chairman  
Subcommittee on Telecommunications and the Internet  
2183 Rayburn House Office Building  
Washington, D.C. 20515

DEAR CHAIRMAN UPTON: I'm pleased to respond to your inquiry, on behalf of Representative Stearns, for more information following my testimony on March 10, 2005, before the Subcommittee on Telecommunications and the Internet. My answers appear below your numbered questions:

*Question 1.* How much of a financial investment in R&D was involved in developing this SDTV product?

Answer: Beginning with the move to digital television in 1996, Thomson and successor digital TV company TTE Corporation have invested millions of dollars to develop, manufacture, and sell a wide range of digital TV products designed to meet emerging demand for high-definition TV goods. We anticipated the maturing of the digital TV marketplace and began work more than two years ago to meet the requirements of the Federal Communications Commission's tuner-decoder mandate. Each successive generation of digital TV product benefits from performance and cost improvements, which is a normal cycle in consumer electronics. TTE Corporation, the developer and manufacturer of RCA televisions since the middle of 2004, has embarked on a multi-year, \$7 million initiative to drive affordable digital TV production. The 27-inch and 32-inch SDTV product line is the first fruit of that initiative, which was started as TTE's effort to comply with the tuner-decoder mandate. The benefits of this investment, which involve integration of a new chipset and reduced cost for components, will also stretch beyond the SDTV product line into products capable of high-definition display. We anticipate being able to afford more affordable High-Definition TV products, as well, that utilize the same digital module "electronic heart" that receives and decodes terrestrial digital TV signals.

*Question 2.* Will this TV work in various geographical locations and environments?

Answer: Yes, the new SDTV products are designed to receive and decode terrestrially-broadcast signals that emanate from TV broadcast transmission towers throughout the United States. Reception is, of course, directly tied to a robust transmission from the local broadcaster. Both are needed for effective reception, decoding, and display of digital TV (unless the consumer is connected to a multichannel video provider such as cable or satellite).

*Question 3.* Do you think that other consumer electronics manufacturers will or should follow Thomson's lead and introduce similar low-cost DTV products into the marketplace?

Answer: At least one other TV manufacturer has already publicly announced a similar product range of Standard Definition Digital TV products in slightly larger screen sizes than those announced by TTE Corporation. We expect increasingly affordable digital reception functionality to become commonplace in more screen sizes, particularly as the effect of the tuner-decoder mandate reaches smaller screen sizes.

*Question 4.* Do you envision a time when these DTV's will be as affordable as analog sets are today? If so, when?

Answer: Analog television prices benefit from more than 50 years of cost reductions. The very first widely available all-electronic color TV cost the equivalent of \$6,000 in today's money. Today, a color TV with the same screen size can be purchased for less than \$175. The same "cost curve" will come into play with digital TV as well, although the electronics required for digital TV reception and audio and video decoding are significantly more expensive than their analog counterparts. The fall 2005 availability of an RCA 27-inch SDTV with digital electronics for less than \$300 is evidence that digital TV products are making great strides in affordability.

Thank you again for the opportunity to present Thomson and TTE's views on this important topic. If there is any additional information I can provide to you, please do not hesitate to contact me.

Sincerely yours,

DAVID H. ARLAND

cc: The Honorable Cliff Stearns  
The Honorable Edward J. Markey  
The Honorable Joe Barton  
The Honorable John D. Dingell

