
Hearing date: June 22, 2001

Referred to: David Garman

Testimony given by you before the Committee appears on the attached typewritten print. Please indicate corrections, if any, in RED, and return the original within 1 week of receipt.

PLEASE NOTE: Only technical, grammatical, stenographic, and typographical corrections will be accepted.

If supplemental material has been requested for the record by the Committee, it should be of photographic quality for reproduction. Please indicate clearly, by page and line, where material is referenced. A copy of this information should also be sent directly to the Member requesting the material. Please supply a data disc of material and prepared statement if possible.

Thank you.

Joe Patterson,
Publications Office
Ph. 225-0430
HEARING ON NATIONAL ENERGY POLICY:

CONSERVATION AND ENERGY EFFICIENCY

Friday, June 22, 2001

House of Representatives,
Committee on Energy and Commerce,
Subcommittee on Energy and Air Quality,
Washington, D.C.

The subcommittee met, pursuant to call, at 9:33 a.m., in Room 2123, Rayburn House Office Building, Hon. Joe Barton [chairman of the subcommittee] presiding.

Present: Representatives Barton, Burr, Whitfield, Bryant, Walden, Tauzin, ex officio, Boucher, Markey, Barrett, and Dingell, ex officio.

Staff Present: Jason Bentley, Counsel; Joe Stanko, Counsel; Sean Cunningham, Counsel; Peter Kielty, Legislative Clerk, Andy Black, Policy Coordinator; Sue Sheridan, Minority Counsel; and Erick Kessler, Professional Staff Member.
STATEMENT OF THE HONORABLE DAVID GARMAN

Mr. GARMAN. Thank you, Mr. Chairman, and members of the committee. I will try to take less than 7 minutes, if possible.

It is very important and notable that you are starting out your first hearing on this very important subject of energy efficiency. Energy efficiency is, of course, a critical component of the administration's National Energy Policy. As has been pointed out, of the 105 recommendations contained in the policy, more than 20 directly or indirectly address energy efficiency and another 16, the point of reference to renewable energy.

By implementing these recommendations, our Nation will continue the trend that has begun on decreasing energy use per dollar of GDP while improving our standard of living and protecting the environment.

My office is responsible for DOE's research, development, demonstration and deployment of advanced energy technologies and practices. We are quickly working to implement the recommendations contained in the President's National Energy Policy.

For example, the policy calls for a review of current
funding and historic performance of the Department of
Energy’s Office of Energy Efficiency and Renewable Energy
Programs. Within 12 days after I was sworn in, we were
conducting public meetings at various locations across the
Nation in an effort to receive public comments on the
objectives of our energy efficiency programs, the objectives
of our future programs, program implementation, whether or
not our programs were achieving their intended objectives,
and new ideas for public-private partnerships.

With the benefit of public comment, we are now proceeding
with a top-to-bottom strategic review of all of our 31
programs to assess their performance and potential to be
complete by September 1st.

Our review will complement a National Academy of
Sciences’ review that is also under way, studying some of our
energy efficiency programs, and that review is expected to be
released in mid-July. Based on these reviews, we will be in
a position to propose appropriate levels of funding for our
programs in the future, as well as to continue to engage the
Congress as it concerns spending levels for fiscal year 2002.

It is our aim to promote a diverse portfolio of activities
that are performance-based and modeled on public-private
partnerships.

Let me cite just a couple of examples of what we have
accomplished so far to illustrate why I am enthusiastic about
our capacity to fulfill many of the recommendations contained
in the President's National Energy Policy document.

In the transportation sector in our government, the
investment in our government/industry partnership for new
generation of vehicles is paying off. Hybrid electric drive
options will be offered by each of the three automakers in
the 2003-2004 time frame: Dodge Durango in 2003, Ford Escape
in 2003, Chevrolet Silverado in 2004, and Ford Explorer in
late 2004.

In general, these configurations of hybrid vehicles will
deliver equal or better performance while also improving fuel
economy between 15 and 35 percent.

In our industrial programs, through cost-shared R&D on
precompetitive technologies, the Department has helped
develop over 140 technologies that are now in the
marketplace. For example, a new oxygen-fueled combustion
process in the glass industry averages energy savings of 15
percent on larger furnaces and can achieve savings of up to
45 percent in smaller furnaces, all while reducing
particulate emissions; in the buildings arena, the
introduction of new technology to increase energy efficiency
that can have significant economic and environmental
benefits.

Two examples of reduced energy use that EERE has played a
role in include low emissivity windows that now comprise 40
percent of the market and reduce heat loss from the windows
by one-third. Also, energy-efficient refrigerators, as has
been pointed out this morning, use a quarter of the energy
needed by refrigerators as recently as 1974.

I want to stress that nearly our entire portfolio of
energy R&D is based on public-private partnerships. We
believe that working with the private sector stimulates
private investments and leverages Federal dollars. These
partnerships also help ensure that we develop technologies
that the private industry will carry forward into the
marketplace.

Finally, Mr. Chairman, in the letter asking us to
testify, you asked that we identify any statutory changes
that might further promote energy efficiency. We find that
at very first blush, we have significant existing authority
to carry out programs under the provisions of the National
Act, the National Energy Conservation Act, the Energy
Security Act, and many other provisions of law.

Prior to the completion of our strategic reviews, which
will be complete September 1st, we are not yet in a position
to identify other legislative initiatives beyond those
included in the National Energy Policy that the
administration is prepared to recommend at this time.

However, we will look forward to working with the Congress
and this committee as you move forward in these areas.

Mr. Chairman, I believe that the National Energy Policy recognizes the critical role that energy efficiency plays in a balanced energy policy. Thank you for the opportunity to testify today, and I look forward to any questions the panel may have. Thank you.

Mr. BARTON. Thank you, Mr. Harmon.

[The statement of Mr. Harmon follows:]

******** INSERT 1-1 ********
Statement of David K. Garman  
Assistant Secretary for  
Energy Efficiency and Renewable Energy  
U. S. Department of Energy

before the  
Subcommittee on Energy and Air Quality  
Committee on Energy and Commerce  
U. S. House of Representatives

June 22, 2001

Chairman Barton and members of the Subcommittee, it is a pleasure for me to be here today to discuss the Administration's National Energy Policy and its relationship to the Department of Energy's Energy Efficiency programs. Mr. Chairman, the National Energy Policy, which was issued on May 16, 2001, by the National Energy Policy Development Group, is a balanced, comprehensive long-term approach highlighting the promise of technology in meeting our energy, environmental and economic challenges. The National Energy Policy promotes energy efficiency and improved energy conservation as a national priority. Of the 105 recommendations in the Policy, more than 20 directly or indirectly address energy efficiency in residences, commercial establishments, industrial sites, electrical power plants, and transportation. By implementing these actions, this nation will continue our trend of decreasing energy use per dollar of GDP, while improving our standard of living and protecting the environment.

Mr. Chairman, I am pleased to report the Office of Energy Efficiency and Renewable Energy will continue to build on our successful technology research, development, demonstration and deployment (RDD&D) activities to meet the recommendations of the National Energy Policy.
EERE is poised to play a major role in this nation’s energy future. The Office funds research, development, demonstration and deployment of affordable, advanced energy technologies and practices. This effort is organized around five energy sectors — (1) buildings, (2) industry, (3) transportation, (4) power generation and delivery, and (5) federal government facilities — which are incorporated into 31 programs. Let me cite only a few examples of what we’ve accomplished so far to illustrate why I am so enthusiastic about EERE’s capacity to fulfill many of the recommendations of the National Energy Policy.

In the transportation sector, the investment in our government/industry Partnership for a New Generation of Vehicles (PNGV) is paying off: Hybrid-electric drive options will be offered by each of the three automakers in the 2003-2004 timeframe: Dodge Durango in 2003, Ford Escape in 2003, Chevrolet Silverado in 2004, and Ford Explorer in late 2004. In general, these configurations will deliver equal or better performance while also improving fuel economy by between 15 to 35 percent. To the individual consumer, this could mean roughly a twenty percent reduction in fuel use, which allow a fifth fewer trips to the gas station and reduced fuel costs.

In our industrial programs, through cost-shared R&D on pre-competitive technologies, the Department has helped develop over 140 technologies which are currently in the marketplace. These technologies provide environmental and general productivity improvements, as well as reducing farm and factory energy bills. For example, a new oxygen-fueled combustion process in the glass industry averages energy savings of 15% on larger furnaces and can achieve savings of up to 45% in smaller furnaces while reducing NOx and particulate emissions.
In the buildings arena, the introduction of new technology to increase energy efficiency can have significant economic and environmental benefits. Two examples of reduced energy use are: Low emissivity windows which reduce heat loss from windows by one-third and now comprise 40% of the windows market; and energy use in refrigerators has gone from over 1800 kilowatt hours per year for a typical unit sold in 1974 to a new standard of 476 kilowatt hours for a typical unit sold after July 1, 2001, reducing refrigerator energy use by roughly three-quarters.

And, finally, we have also had successes in our Federal Energy Management program. In FY 1999, the Government reached its Energy Policy Act of 1992 FY2000 goal of 20% decreased energy consumption per gross square foot since FY1985 - a year early. In FY 1999 constant dollars, the Federal government's utility bill in FY 1985 for facilities was $5.6 billion dollars. In FY 1999, the bill was $3.41 billion dollars - $2.2 billion less in constant dollars.

I want to stress that nearly our entire portfolio of energy efficiency programs is based on public/private partnerships. We believe that working with the private sector stimulates private investments and leverages scarce federal dollars. These partnerships also help ensure that we develop technologies that private industry will carry forward to the marketplace.

Mr. Chairman, the Department has already begun to implement some of the recommendations from the National Energy Policy report. The Policy calls for a review of current funding and historic performance of the Department of Energy's Office of Energy Efficiency and Renewable
Energy programs. I am pleased that Secretary Abraham asked me to begin the review process. My office has undertaken the reviews by using a two-pronged approach: (1) A period of public comments; and (2) an internal programmatic review. We scheduled seven meetings across the country throughout the month of June to receive public comments on the NEP as it relates to EERE programs. Six of the meetings have been completed. We've asked the public to provide their views on (1) the objectives of the current energy efficiency and renewable energy research, development, demonstration and deployment programs, (2) suggested potential objectives for future programs, (3) implementation of current and future programs, (4) whether these federal programs are achieving intended objectives, and (5) and ideas for public/private partnerships.

When public input concludes on June 29, we will begin reviewing all EERE programs to determine their performance and potential in terms of delivering benefits to the public. We have committed to reevaluating those programs that have not made progress toward national energy goals. Likewise, we will redouble our efforts in those programs that have shown, and continue to show, good performance and potential in contributing to national energy goals. We have set the ambitious goal of completing the formal program review by September 1 at which point we will provide recommendations to the Secretary. I fully expect, that when the review is complete, we will have a diverse portfolio of activities -- from basic research to deployment projects -- that is performance-based. This is consistent with the national need to develop a balanced energy technology R&D portfolio that delivers short-term, intermediate, and long-term energy benefits. Further, this review will complement the National Academy of Sciences study of our programs which is expected to be released in mid-July.
Mr. Chairman, we are leading by example. President Bush, on May 3, 2001, issued a directive to Federal agencies, echoing the NEP recommendation that Federal managers take appropriate actions to conserve energy at their facilities to the maximum extent possible. These Federal actions, which were to begin immediately, are expected to reduce peak load and serve as examples of energy conservation for the rest of the country. They may even help reduce the extent of electricity shortages this summer in susceptible areas including California, the Northeast and the Northwest. Secretary Abraham has asked EERE's Federal Energy Management Program (FEMP) to work with federal agencies to implement the President's directive. This week we transmitted to the Vice President for his review, the consolidated report of Federal Agencies outlining the Federal Government's efforts to save electricity and reduce peak load in response to the President's directive.

The National Energy Policy report recommended that the President increase funding the Weatherization Assistance Program by $1.2 billion over 10 years. In concert with this recommendation, the President requested an additional $120 million in the FY 2002 budget submission for this purpose. This funding increase will enable States to weatherize 123,000 low-income homes. This represents an increase of 48,000 additional low-income homes as compared to FY 2001, thereby providing assistance to low-income citizens whose energy costs represent a disproportionate share of their income.

Mr. Chairman, I know that the Subcommittee is considering statutory changes that might further
promote energy efficiency. We find, at first blush, that we have significant existing authority to carry out our programs under the provisions of the Energy Policy Act of 1992, the Energy Policy and Conservation Act, the National Energy Conservation Act, the Energy Security Act, the National Appliance Energy Conservation Policy Act, the Federal Energy Management Improvement Act, and the Department of Energy Organization Act, among others. Moreover, Executive Orders provide us with additional authority and guidance. Prior to completion of our strategic reviews, we cannot identify other legislative initiatives beyond those included in the National Energy Policy that the Administration is prepared to recommend.

Mr. Chairman, we believe that the National Energy Policy recognizes the critical role that energy efficiency plays in a balanced energy policy. Thank you for the opportunity to testify today and I will be happy to respond to any questions you may have.
Mr. BARTON. And we now hear from Mr. Hoover.

STATEMENT OF FREDERICK H. HOOVER, JR.

Mr. HOOVER. Mr. Chairman, members of the subcommittee,
my name is Frederick Hoover, Jr., and I am pleased to testify
today to discuss the views of the National Association of
State Energy Officials on energy efficiency programs. I am
the Director of the Maryland Energy Administration. I am
also an officer of NASEO, which represents 49 of the State
ergy offices, as well as the territory of the District of
Columbia.
NASEO’s overall objective is to support balanced national
ergy policies and to provide State perspectives on energy
issues. NASEO members operate energy programs in all sectors
of the economy and all types of energy resources. The State
energy officials are also generally the governor’s energy
advisors.
I want to congratulate Assistant Secretary Garman on his
appointment. He has been open to State views, and we look
forward to working with him in the future. We also applaud
the subcommittee for holding this hearing today on energy
efficiency.
In short, energy efficiency is a critical component of a
responsible National Energy Policy. It is certainly not the only component of a balanced policy, but it is both undervalued and underfunded.

Energy efficiency cannot be seen as one individual program or policy. It works most effectively when implemented through a combination of public-private partnerships, government encouragement and programs, deployment and research, development and demonstration.

One of the many roles that State energy offices play is to promote energy efficiency activities through all these vehicles. Our offices push for the passage of energy legislation at the State level, such as electric restructing with public benefit programs, building code upgrades, State tax credits for energy efficiency, and the promotion of transportation efficiency programs such as telecommuting and ride-sharing.

Many in Washington, D.C., see energy efficiency as a series of stark choices in contrast. We do not view it in this manner. For example, some on Capitol Hill and in the administration believe that the only Federal Government role is to promote R&D. We believe this is not correct. NASEO strongly supports aggressive R&D programs at the Federal and State level, but R&D alone is not sufficient.

A sensible energy policy is built upon encouraging deployment of new technologies, especially in the energy
efficiency area. I would cite as an example the Energy Star program, a partnership with States between the Department of Energy and the Environmental Protection Agency to promote energy-efficient appliances.

Our State energy officials have their fingers on the pulse of the actions that businesses and homeowners are taking. We know what sells to the public. R&D without deployment is a waste. We conduct both applied and long-term R&D at the State level in concert with our business partners.

Feedback is critical to directing that work so that it is relevant. Often, our Federal R&D programs lack that necessary feedback loop to the energy offices and the industries to provide practical advice on the direction of this research and its practical application.

The recent action by the House Subcommittee on Interior of the Committee on Appropriations, and approved by the full committee on June 13, to increase funding for Federal energy efficiency programs to $940 million in fiscal year 2002 is a very positive step. The Subcommittee on Interior should be applauded for its leadership and bipartisan cooperation in recognizing the significance of our energy problems.

Of greatest importance was the proposed increase in the State energy program from $38 million to $62 million and the weatherization assistance program from $153 million to $249 million. In general, most of the energy efficiency R&D
programs unfortunately remain closed to fiscal year 2001 levels.
The review of these programs being conducted by the Department of Energy is described by Assistant Secretary Garman as a positive development. This review is intended to focus on measures of success in the presence of public-private partnerships. Our State energy offices have been participating in these meetings. We stand ready to assist the new administration during this review process.
The State energy offices are in a unique position to get us precisely this type of review which our governors and legislatures call on us to undertake on a regular basis. We look forward to providing useful input. Progress has been made in recent years, and we look forward to continuing to work with the agency in this area.

We do feel that there are a number of areas that require specific legislative attention beyond the budget and appropriation issues. Residential tax credits for new and existing building energy efficiency is a critical piece of legislation. The school sector is one area where we have a serious energy problem.

The efforts on the part of Representative Udall and the gentleman from New York, Mr. Boehlert, who had the foresight to introduce such legislation which will provide funding for energy efficiency and improvements at schools is a positive
development. This legislation is basically included in both Senator Mikulski and Chairman Bingaman's comprehensive bills. It should be included in any bill this subcommittee moves forward.

    In the transportation sector, the President's proposal for hybrid and fuel cell vehicles and Senator Hatch's Clear Air Act legislation are very positive developments. We cannot fully address our energy problems without dealing with the transportation sector.

    I would also like to congratulate the efforts by the gentleman from Louisiana, Chairman Tauzin, and the gentleman from North Carolina, Mr. Burr, to remove the weatherization match requirement that was taken yesterday.

    NASEO is pleased to have had the opportunity to testify today. We look forward to working with the subcommittee in the future on this very important issue. Thank you.

    [The statement of Mr. Hoover follows:]

******** INSERT 1-2 ********
Mr. BARTON. Thank you.
The Chair would recognize himself for 5 minutes for questions, and I don't expect to take 5 minutes.

Mr. Garman, how long have you actually been in the Department of Energy this year?

Mr. GARMAN. I was sworn on May 31st.

Mr. BARTON. So you have been there less than a month.

Mr. GARMAN. Yes, sir.

Mr. BARTON. Okay. Have you, in your mind, had adequate time to assimilate some of the programs that are under your jurisdiction? Do you feel like you have got a good working knowledge based on that?

Mr. GARMAN. I have an initial working knowledge, yes, sir.

Mr. BARTON. Okay. Of the people that are directly under your control, are any of them people that you brought with you, or are they pretty much people that were there?

Mr. GARMAN. No, sir, I brought no one with me.

Mr. BARTON. Do you expect to have some assistants that are of your choosing at some point in the near future?

Mr. GARMAN. Yes, sir, I do.

Mr. BARTON. Okay. So, so far, you have been in the Department less than a month, and you have the career staff that is in that part of the Department that you are in charge of?
Mr. GARMAN. That is correct. And I would add that it is truly an excellent and exceptional career staff. We are fortunate in that regard.

Mr. BARTON. We would expect you to say that in their presence. And I am sure it is a true statement, so I am not being facetious about that.

When I was Chairman of the Subcommittee on Oversight and Investigations of this committee, I did numerous hearings on the efficiency of the Department of Energy and the programs under that department. It was like throwing darts at a dart board. Wherever you hit, you found a problem. It was just—without exception, the programs were not well run, were not cost effective, were very wasteful of taxpayer dollars.

So I am very interested, as you settle in, in your personal analysis of these conservation programs that you are in charge of, because my experience has been, at the surface, they may appear to be performing ably, but in fact, if you look beneath the surface, there are problems. I am not talking about corruption problems, I am just talking about, do they—does the program deliver what it is supposed to deliver in terms of the expectation of the country and the Congress.

So I would encourage you to really stress in your programmatic reviews that we expect these things to deliver. We expect these programs to deliver.
Now, having given you that lecture, which is just that
everybody is going to be--the first time you get elected a
Congressman, everybody is nice to you, they smile at you,
they laugh at jokes that they've heard 1,000 times like they
have never heard them. I mean it is amazing, okay?

But be a real manager. Work underneath.

Do you feel, is there one particular program under your
review that you, on initial review, you think is really
performing well?

Mr. GARMAN. Part of it could be my previous position,
sir, since I come from the South, I have a certain affinity
for automobiles, transportation technology. Yeah, you can
picture my home where I grew up is one that had cars in the
back on blocks. That is where I come from.

The time that I have been able to spend with the
transportation technologies, with the development of hybrid
vehicles, fuel cells, and looking at some of these other
technologies, I find that they are truly exciting.

I also see a great deal of promise in the area of
bioproducts, biofuels, opportunities to provide renewable
resources on the farm and turn them into products that can
benefit the Nation from an energy standpoint and from an
economic standpoint.

Those are two things that have jumped out at me.

Mr. BARTON. I will ask you a question I asked the
management of General Motors in Detroit this past Monday. Do you see a point in the future where the fuel cell will become so well developed and so efficient that it is economically competitive or preferred over the internal combustion engine, regardless of the cost of gasoline?

Mr. GARMAN. You have put your finger on a very strong technological challenge. We calculate for a fuel cell to be economically competitive with an internal combustion engine, it is going to have to come down to the level of about $50 a kilowatt.

Right now, the catalyst component of the fuel cell itself costs $57 or $60 for that unit of energy. When you add the compressor pumps, the graphite stack and all the other components that make a fuel cell, yes, we have some significant technological challenges before we have a cost-effective, efficient fuel cell vehicle.

Having said that, though, hybrid technologies, gasoline-electric-drive hybrid technologies present an excellent bridge technology that can get us--that can score some efficiency gains along that pathway.

Mr. BARTON. My time has expired, so I want to just make one final comment and recognize Mr. Boucher.

When I asked the GM executive that question, my impression was that they have given all their thought to how fuel cells are going to compete in a higher oil price market,
their assumption is that as the price of oil escalates, fuel

cells become more competitive because they can bring the fuel
cell cost down and the oil cost is going to go up.

    I may have misinterpreted his reaction, but my
interpretation of his reaction was, they haven't given any
thought to what happens when OPEC says, oh, fuel cells are
becoming pretty efficient. We had better lower the price of
oil so that internal combustion engines are still
competitive. We better pump more.

    If your only asset is hundreds of billions of barrels of
oil reserves, and the Western economy moves to fuel cells and
says, the heck with the internal combustion engine, then you
don't have an asset. So all these projections that oil
prices are going to $50, $60, $70, $80 a barrel, that is only
if we don't develop an alternative.

    If we really develop an alternative, those prices are
going to go down to stay competitive. I don't think that at
least the GM people had thought about that. We need to think
about that if we are going to put all of our eggs into fuel
cell technology, because the people that are providing the
oil are not crazy people. They are going to eventually say,
we have got to lower our price to stay competitive.

The gentleman from Virginia is recognized for 5 minutes
for questions.

    Mr. BOUCHER. Well, thank you very much, Mr. Chairman.
And, Mr. Garman, I also want to congratulate you on your
appointment and thank you very much for being here today and
say that we look forward to working with you as we develop
the energy conservation and efficiency portions of our
national energy strategy legislation.

Let me direct your attention to a provision in the report
of the administration’s Energy Task Force, recently released,
which recommends--and I will simply quote this; that will
save you actually having to open it up. You are probably
familiar with this direction, in any event. The
recommendation is that "the President direct the Secretary of
Energy to establish a national priority for improving energy
efficiency."

I would like for you, if you would this morning, to give
us a sense of how that direction is going to be translated
into concrete recommendations. Give us a status report, if
you would, on your work in developing the recommendations
stemming from that direction.

Here is where you may want to take a note or two. In
particular, I would appreciate your indicating how the
Department of Energy would propose to have energy efficiency
improvements in the following areas. And I will be very
precise about the areas that I would like for you to address.

First of all, how soon do you intend to update the
existing standards for a residential dishwasher and for
refrigerators, residential dishwashers and refrigerators?

Secondly, how soon do you expect to complete the ongoing proceedings, which I think have been under way for a matter of years, extending well back into the last administration, relating to electricity distribution transformer efficiency?

Then, third, will the administration support new efficiency standards for the following: commercial refrigerators, exit signs, traffic lights, icemakers, and commercial unit heaters?

The reason I have selected these precise latter topics is because we are getting recommendations from other witnesses who will appear this morning that in our legislation we include these precise items with directions that energy efficiency improvement standards be established. So anticipating those recommendations, I would like to get your view on those subjects.

I will yield the balance of my time to you for that.

Mr. GARMAN. One of the things that we are working to do--and I will be candid with you, looking at that particular recommendation that you cited, making energy efficiency a national priority, gives us something of an open field.

What the Secretary has directed, the Deputy Secretary, the number two official in the Department, us to do is to take this document and to translate it into implementation actions. We were in a meeting yesterday in his office going