

VERBATIM PROCEEDINGS

CONNECTICUT ENERGY ADVISORY BOARD
PUBLIC HEARING
ON
CONNECTICUT 2007 ENERGY PLAN

JANUARY 10, 2007

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1 . . .Verbatim proceedings of the
2 Connecticut Energy Advisory Board Public Hearing on the
3 2007 Connecticut Energy Plan, held January 10, 2007 at
4 3:05 p.m. at the Legislative Office Building, 300 Capitol
5 Avenue, Hartford, Connecticut . . .

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10 CHAIRMAN DONALD DOWNES: Good afternoon
11 ladies and gentlemen. This is the hearing on the matter
12 of the Energy Plan for Connecticut produced by the
13 Connecticut Energy Advisory Board. My name is Don Downes,
14 I am the Chairman of CEAB as well as the Chairman of the
15 Public Utility Control Authority.

16 With me today on the panel are several CEAB
17 members. To my right and to your left our distinguished
18 Consumer Counsel Mary Healey, who is also the Secretary of
19 CEAB. To my left and your right Undersecretary John
20 Mengacci of the Office of Policy and Management, and last
21 and certainly not least, the appointee of the President
22 Pro Tem, our distinguished friend Attorney Jim Sandler.

23 I have a signup sheet here and perhaps I
24 will hold onto it for the moment. As we move forward I

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1 plan to try and recognize people in the order in which
2 they have appeared on the signup sheet, so anybody who
3 would like to speak and has not yet signed up on the
4 sheet, I'll leave the sheet down here and perhaps you can
5 also be guardian of the sheet, okay. That would work
6 well.

7 We also have with us our distinguished
8 friend and colleague Bill Leahy, who is the head of the
9 Institute for Sustainable Energy, both a contractor and a
10 friend and ally of CEAB's. What I thought we would do is
11 begin with a short presentation that I'll ask Bill to walk
12 us through, a few slides that kind of outline the general
13 proposition of the Energy Plan for Connecticut. And then
14 following that we'll start taking speakers.

15 Those who wish to speak will please come to
16 the witness table in the front. Please be advised that
17 the proceedings today are being taped by Connecticut
18 Television Network, so it's important that as people speak
19 they use the microphones so that the sound track can be
20 picked up and matched up well and viewers will be able to
21 understand the points you make and the responses. Members
22 are also encouraged to use the microphones.

23 Once you've finished if you'd please turn
24 them off, we avoid feedback and problems with sound track.

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1 So on that basis, I think our housekeeping is pretty well
2 done and with that I'll turn it over to our good friend
3 and ally Bill Leahy, and perhaps you'll just walk us
4 through the slides Bill.

5 MR. BILL LEAHY: Thank you Chairman Downes.
6 What we have here is a -- we're reviewing the Connecticut
7 -- is that too loud? We're reviewing the Connecticut
8 Energy Plan. We have a slide presentation that will take
9 you through the basics of that plan. The Connecticut
10 Energy Advisory as you probably know has been around for
11 many years, however, in 2002 the Legislature formalized
12 the Connecticut Energy Advisory and created its current
13 makeup.

14 And with that responsibility asked it to
15 develop a State Energy Plan, which they would submit to
16 the General Assembly at the beginning of the session each
17 year. So first of all, the members of the Connecticut
18 Energy Advisory as they currently sit, Chairman Downes
19 you've met, Mary Healey you've met, Ralph Carpenter,
20 Commissioner from Department of Transportation, John
21 Mengacci you've met from the Department of Office of
22 Policy and Management, Gina McCarthy, Commissioner for
23 DEP, Marie O'Brien, who is the Governor's appointment and
24 Philip Prelli from the Department of Agriculture, Jim

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1 Sandler you've met and Carl Schiessel, who is the
2 appointee from the Speaker of the House.

3 The Plan for Energy in Connecticut is built
4 on a number of other initiatives that have been under way
5 in recent years, so it doesn't sit in isolation but in
6 fact coordinates many of the plans that were developed as
7 a result of either legislative actions or actions of the
8 Governor. The first of which is the 2005 Climate Action
9 Plan, which was adopted by the Legislature in 2005, which
10 has 38 recommendations for how we can mitigate the impacts
11 of climate many of which deal with energy both in the
12 power generation, in the transportation and in the heating
13 and cooling industry.

14 There's also a Conservation Plan of
15 Development for 2005/2010, which talks in many ways about
16 preserving natural resources, sustainable development, and
17 components of that plan can be found within the annual
18 plan of the Connecticut Energy Advisory Board. About a
19 little over a year ago the Connecticut Low Income Energy
20 Advisory Board was formed. It is chaired by the Office of
21 Policy and Management and that Board has been doing a
22 great job of bringing together the people who are involved
23 in low income energy assistance and trying to make those
24 programs work in a more effective way so that people from

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1 the low income sector can deal with rising costs and
2 access benefits that they're entitled to.

3 And finally in the summer of 2005 we had
4 the Act for Energy Independence, which laid the groundwork
5 for many of the initiatives that you'll find in the
6 Connecticut Energy Plan and also in many of the dockets of
7 the DPUC. In addition, over the last year or so we've
8 seen some additional bills passed dealing with
9 transportation improvements to Connecticut, which are
10 adding not only more highway but also mass transit
11 opportunities in both bus and train promoting the idea of
12 transportation nodes.

13 There's also an RFP that's been provided by
14 the Department of Public Utility that is looking for long
15 term resources for meeting our electric needs and finally,
16 the transition improvements that we've been looking for in
17 Connecticut for some time. And Phase II of the
18 transmission piece from Middletown to Norwalk is well
19 under way designed to be in place by the end of 2009,
20 which will help to solve some of our problems with moving
21 less expensive power down into the southwest corner of the
22 State.

23 So the Plan is built on many of these
24 initiatives that are already taking place but there are

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1 two overriding goals that the Connecticut Energy Advisory
2 adopted last year and continues to support this year with
3 the initiatives that are outlined in the Plan and one is
4 that we need to focus on the peak demand for electricity
5 in the state. If you looked at the profile of how
6 Connecticut uses electricity, it's been growing almost out
7 of control. Two years ago it jumped from about 6400
8 megawatts to about a little over 7000 megawatts.

9 This summer that just passed it jumped from
10 that peak we had prior to that of 7000 to 7400 megawatts.
11 It would have been 7700 if it weren't for the demand
12 response programs that were put in place over the last
13 year. So the potential for the peak growing at seven
14 percent annually would be something that would be very
15 difficult for the State to manage and we're starting to
16 put things in place like the Demand Response Program,
17 Energy Conservation, Distributed Generation and so on,
18 things that are recommended in the State Plan that are
19 addressing these issues.

20 The second goal has actually been around as
21 long as I've been around and that is reducing the
22 dependence on fossil fuel in Connecticut. When I first
23 got into this business it was reducing the use of foreign
24 oil, that was back in the 70's, and then it became just

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1 reducing oil. And now we have not only foreign oil but we
2 have foreign natural gas and foreign everything else. So
3 now we're really concerned with the climate change
4 aspects, the dependence on fossil fuels, the impacts of
5 fossil fuels especially those that are purchased from
6 outside of the United States.

7 So it's an overall reduction of use of
8 fossil fuel by 10 percent which also has an effect on
9 electric prices because by reducing demand for fossil fuel
10 it makes fuel available for power plant use which lowers
11 the price of electricity by keeping that price down. So
12 these are the two overriding goals. The CEAB has a list
13 of strategies that are within this document and the
14 document is set up in a way that it addresses the major
15 fuel types. It looks at electricity, natural gas,
16 petroleum products, it looks at renewable energy and it
17 looks at energy. In addition to that there are some other
18 areas that it covers.

19 What the CEAB did this year in its plan is
20 first looked at each of those fuels to see what it takes
21 to maintain a reliable supply, how do we maintain that
22 reliability, how do we make certain that that supply is
23 there in the future? The second item is we look at the
24 diversity, are we using too much of one fuel and as a

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1 result are we subject to price fluctuations in that fuel
2 that could be mitigated by being less dependent on one
3 fuel and use a variety of fuels? And are there fuels that
4 we're not using, for example bio-fuels, that would help
5 mitigate that situation as well?

6 The next thing they looked at is the cost
7 effectiveness of the various options. The first item that
8 came up as the most cost effective supply option is energy
9 efficiency. Recent studies in the New England area have
10 shown that energy efficiency costs about 40 percent of
11 what the next supply option will cost, whether that be a
12 transmission option or a generator option. Energy
13 efficiency is by far the most efficient thing we can do to
14 make more supply available by taking away some of the
15 waste that's produced today.

16 So you'll see in the Plan significant
17 recommendations for increasing the amount of energy
18 efficiency that's done in Connecticut and making those
19 programs even bigger and more robust than they already
20 are. The next is the problem of the peak demand. Because
21 the federal government is looking very closely and ISO-New
22 England is developing a market that says that areas that
23 do not have enough capacity to meet their needs, you have
24 to have the ability to import less expensive power into

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1 those areas. If you don't have that they've created
2 what's called federally mandated congestion costs.

3 Because we don't have enough transmission
4 in place right now to move inexpensive power to southwest
5 Connecticut we have to run less efficient units in
6 southwest Connecticut and as a result that drives the
7 price higher. There are penalties associated with that.
8 So we need to do things like reducing demand and building
9 generation in areas where there's a restriction because
10 that will reduce these charges.

11 Another way of doing that and another way
12 of maintaining our supply is promoting distributed
13 resources which include everything from demand response
14 programs where when the supply gets thin we have people
15 under contract to stop using as much power as they're
16 using to the actual installation of generators on customer
17 sites, especially when it's very efficient, what's called
18 combined heat and power.

19 So this year the DPUC has gone through a
20 series of dockets that have put in place incentives and
21 loans to promote the use of distributed resources and
22 those things are working very effectively as I understand
23 Chairman Downes.

24 CHAIRMAN DOWNES: Yes, in fact we're up to

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1 -- and who's the first person to violate the rule, right?
2 Okay moving right along, to date as of today we are just
3 over 200 megawatts now as a result of this program.

4 MR. LEAHY: That's great. That's a great
5 initiative.

6 CHAIRMAN DOWNES: Yup, we're about nine
7 months out and we're 200 megawatts up.

8 MR. LEAHY: Another program that's working
9 very well is our promotion of renewable resources.
10 Connecticut is at pretty much the end of everybody's
11 pipeline. We don't have oil wells, we don't have gas
12 wells. The thing we can do within the State of
13 Connecticut besides conserve energy is to use renewal
14 sources like solar, like geothermal, some limited
15 application of wind technology but resources that are
16 renewable within the State.

17 And of course, biofuels are another that's
18 being looked at. So renewal energy makes up part of the
19 Plan. In addition, we use a significant amount of energy
20 and a lot of the air quality problems we have are result
21 of transportation. We use very little mass transit as a
22 state with the exception of the corridors where we run
23 trains down in southwest Connecticut, some bus routes and
24 so on. We are highly dependent on using automobiles. We

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1 have recommendations in here that recommend the use of
2 more mass transit and more efficient transportation.

3 The last two areas of the Plan deal not
4 with fuels but deal with impacts and the first one is what
5 is happening with the impact of rising energy costs on low
6 income households. So there's a section devoted on what
7 can be done to make their facilities more efficient, to
8 make aid more available to help them deal with rising
9 costs, and those are addressed in a special section
10 promoting activities and policies to mitigate the impact
11 on low income.

12 And the second deals with sustainable
13 development. There's a lot of talk about the fact that we
14 have sprawl in the suburbs. We are losing a lot of our
15 farm communities to subdivisions and as a result we're
16 stretching our infrastructure further and further away
17 from the urban units having to build more generation,
18 having to build more wires, poles, pipelines to meet these
19 needs. Not as sustainable to behavior and again, there's
20 an area in the plan devoted to saving energy as a result
21 of sustainable development as opposed to just unlimited
22 development.

23 That's it, so that's our summary and now
24 you're off and running.

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1 CHAIRMAN DOWNES: Thank you sir. Is there
2 anybody present who wants to ask a specific question about
3 the plan that Bill just outlined here? Otherwise, we'll
4 move to speakers -- okay. If I may I'll take back the
5 speaker's list. Is there anybody present who would like
6 to speak who is not yet on the list? Okay, thank you.

7 Okay let's see, the first person that I
8 have on the list is Mr. David Bauer. Good afternoon sir.

9 MR. DAVID BAUER: Thank you sir, thank you
10 for this opportunity to speak before you. Just to
11 identify myself, I am a member of the Common Council of
12 the City of Middletown and a member of the Eastern
13 Connecticut Resource Recovery Authority also. But today I
14 actually come here to speak for myself as someone who's
15 interested in conserving energy and a fan of CTN.

16 I could probably spend a lot of time and
17 try to say this gently but let me give it to you somewhat
18 unvarnished. I went to your website, did my best to read
19 the draft Plan and I've got to say that in its present
20 form for me it was pretty much unreadable. The links, the
21 cross-references, the acronyms just build up too much and
22 I just couldn't make my way through it. I got a heck of a
23 lot more out of watching the proceedings.

24 With that said, I have a couple of very

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1 simple suggestions. The first is that I would wish that
2 you might in your goal where you say you want to reduce
3 peak energy by 10 percent, I think it would be a better
4 goal to try to reduce the base load by 10 percent as your
5 reduction goal. The other thing that I would like to
6 suggest as a very immediate goal is if you would deal with
7 energy storage today, 2007, start doing it now.

8 And the reason I feel these two things are
9 interconnected is that I'm concerned that nobody has asked
10 a question and that question is, we have our current
11 transmission grid. Has anybody tried to come up with a
12 solution that would make that infrastructure work for the
13 state? Can we do things like get people to get their
14 electricity off hours and some type of balancing through
15 the grid? If we did things like this and conservation we
16 could reduce the pressure in our electric grid.

17 It would probably get the Feds, ISO,
18 everybody off our backs and the interesting thing I
19 believe is it would save the money for every user of
20 electricity because ultimately everything that we don't
21 build is something that in the future cannot possibly be a
22 stranded cost. And if they build it we get charged for
23 it, so I would ask you to be more aggressive in trying to
24 find solutions that make what we have -- you know, our

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1 current energy situation.

2 And I have one last suggestion that's a
3 whole lot more provocative. And I really like my history,
4 I like my State history, and I would ask if you would
5 legally check on the possibility of going out and staking
6 some claims. You rightfully say we don't have any oil
7 wells, gas wells, we're at the end of the line for
8 everything, but I know that in the U.S. territorial waters
9 south of Long Island there are some fairly good wind sites
10 and whoever gets there first -- I would say check the
11 legal possibility of going out there and staking a claim.

12 And I would say there is -- from my
13 television watching you have an obvious ally because we
14 have an Attorney General who loves to be before the camera
15 and this would certainly give him an awful lot of face
16 time. So that's my provocative suggestion for you. Thank
17 you very much.

18 CHAIRMAN DOWNES: Thank you sir. Before
19 you leave sir we'll maybe do a little colloquy. Members
20 of the panel, would you like to pursue this? Mr. Bauer,
21 let me just explore this with you for a minute because I'm
22 kind of intrigued by your comments.

23 The logic behind moving primarily to try
24 and cut peaks, cut peak demand kind of works like this.

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1 If you think about it there's a certain base load demand
2 that exists 24 hours a day all the time. You think about
3 facilities like airports and correctional facilities and
4 custodial facilities, and we have so many of these that
5 consume power on a 24 hour day, seven day a week nonstop
6 kind of a basis. And so obviously you need to build
7 enough facilities, going to your point about the
8 transmission system and so forth, you obviously have to
9 build enough facilities in order to cover that base load
10 demand if you will.

11 As a general proposition on a daily basis,
12 if you plot demand you see a bell curve and so our logic
13 behind trying to cut the peak is that you have to keep
14 building more and more and more and more facilities as you
15 go forward and you have to build enough so that you can
16 cover even that very, very highest peak that you may only
17 hit for a few hours a year. And so we find ourselves in
18 some cases, in the most extreme case for example, in a
19 situation where we have to build a several hundred million
20 dollar power plant in order to cover that 10 or 20 or 50
21 or 100 hours of the very, very top of the peak every year.

22 So if we were able to chop off that, let's
23 say 100 hours, then you wouldn't need that power plant.
24 And of course you also wouldn't need the associated

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1 transmission and so forth necessary to carry the power
2 once you've actually made it. So that's kind of our logic
3 behind of the idea of trying to cut peaks. So I just
4 wanted to try to pursue this with you because I'm very
5 interested in your point about trying to cut base loads.

6 MR. BAUER: Sure.

7 CHAIRMAN DOWNES: So talk to me a little
8 more about what those things --

9 MR. BAUER: Because even at peak I would
10 suspect the base load is still there.

11 CHAIRMAN DOWNES: You bet.

12 MR. BAUER: And the reason that I asked if
13 you focus on it is because everything you say about the
14 peak is absolutely correct but the type of solutions that
15 you would engage in to be cutting the base load, number
16 one. Some of your other goals are to reduce the cost of
17 energy and I really believe that there's a much more
18 direct correlation to reducing the cost to everybody when
19 the base load is reduced.

20 And I think the reason I'd ask you to focus
21 on that, no matter what you say about the peak load it has
22 to be addressed but I think if your focus was on the base
23 load you might be coming up with different solutions. I
24 know in the City of Middletown we're currently building a

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1 high school and we are going to integrate a 200 kilowatt
2 fuel cell. And in some unused space at Pratt & Whitney,
3 also in Middletown, they are going to install I believe 20
4 of their new one megawatt fuel cells. And that's going to
5 go into our local power grid.

6 And I'm kind of heartened by seeing things
7 like that and if we put attention to the base load and
8 there are incentives to attack the base load that way
9 along with the other point that I made just as strongly,
10 that I think we should not wait for the perfect energy
11 storage and start storing energy right now so that we make
12 the best out of our solar and what wind power we can get.
13 Those types of solutions, I believe, not only save money
14 but I think will still allow for solutions that I hope are
15 less costly than some of the ones I see being addressed.

16 Because once again, just in Middletown we
17 have -- the Siting Council has approved but we're not
18 building, a 620 megawatt natural gas turbine generating
19 plant that's simply going to go to charge that 345 KV
20 line. We also have an NRG Plant right on the Connecticut
21 River that has I believe some type of plans to get more
22 heavily involved in the turbine business for this also.
23 And I'm watching Broadwater and I don't like those
24 solutions.

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1 That's my personal opinion. And I'd rather
2 see us take a much more direct control of our energy needs
3 and I think we focus on it better when we talk about the
4 base load rather than the peak load.

5 CHAIRMAN DOWNES: We're currently pursuing
6 reductions in base load through essentially two basic
7 kinds of strategies. One of them is energy efficiency so
8 -- and that of course goes to the idea of just cutting the
9 base load consumption as such. The other is customer side
10 DG, where that DG is used to supply standing load as
11 opposed to emergency only generation.

12 Are there other things we should also
13 pursue in this category?

14 MR. BAUER: No, I don't have anything to
15 offer as far as that goes. I know if anything what I
16 would hope to see dispersed as much as possible is the
17 conservation because I think that reduces base load itself
18 and I'm a big fan of that.

19 As far as our municipality, just to try to
20 keep within our budget we're doing all types of things.
21 We're trying to be much more careful about what we light
22 and what we don't light, streetlights and so forth and
23 public lighting. In our public buildings we're becoming
24 very sensitive to trying to use the most efficient

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1 appliances and bulbs and everything that can be done. I
2 remember -- I did actually read this thing and I saw that
3 you were able to get a half million dollar savings through
4 the State facilities and if in some small percentage every
5 municipality could replicate that, that's the type of
6 thing.

7 And I would hope that through really
8 practical and easy to read suggestions and documents that
9 we can get the word out at every level.

10 CHAIRMAN DOWNES: We take your point that
11 it is a little bit complicated. This is a fairly
12 complicated area of discipline and we tend to lapse into
13 the language that we're used to, so we're mindful of your
14 suggestion and we'll try --

15 MR. BAUER: Well, at least include a
16 glossary then.

17 CHAIRMAN DOWNES: Thank you sir.

18 MR. BAUER: Thank you so much.

19 CHAIRMAN DOWNES: Any other questions from
20 the panel? Thank you sir, we appreciate your thoughtful
21 comments.

22 Let's see, next person on the list is Mr.
23 Harry Cullinane, Clover Corp.

24 MR. HARRY CULLINANE: Good afternoon and

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1 thanks for the opportunity.

2 CHAIRMAN DOWNES: Good afternoon sir.

3 MR. CULLINANE: I'm Harry Cullinane from --
4 I'm with Clover Company, which is a family-owned company
5 in East Hartford. We're a distributor and representative
6 for heating and air conditioning equipment with a very
7 strong background in gas air conditioning equipment and
8 we've been doing it for 30 years.

9 And I'm sure we won't have enough time
10 today to describe how gas air conditioning works but in
11 the last year or so we've made presentations, appearances
12 and correspondence to the various Boards on talking about
13 gas air conditioning and the benefits that it has to offer
14 primarily from the view point on what it does for demand.
15 Obviously, an air conditioner that works on gas and not
16 that much on electricity uses a lot, lot less electricity
17 than an electric chiller does and because of that reduces
18 the demand charges.

19 And that was one of the proposals on why
20 gas air conditioning could be considered and was in the
21 DPUC dockets. And it does reduce demand and it has
22 produced that in the last year. The point I'd like to
23 make today though is that it does do that. It also, with
24 the new electric rates that are in effect, reduces the

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1 operating cost of gas chillers significantly. Just
2 yesterday we did an analysis for a 400 ton air
3 conditioning system over in western Connecticut in a
4 factory that's about working on one and a half hour
5 shifts. And the operating costs on a 400 ton electric
6 chiller on that CL&P rates, 57, large user, is in the
7 neighborhood of \$60,000 a year to run that chiller for
8 that process.

9 A gas chiller, which a gas engine chiller,
10 has the opportunity also to offer recapturing heat.
11 Besides producing air conditioning it recaptures heat to
12 make hot water to be used for process. As long as that
13 water is being used the operating cost for that chiller
14 was \$5000 a year. That's a savings of over \$50,000 a
15 year. And when you hear companies today say that they're
16 moving out of the state because the energy costs are too
17 much, one solution may be to point towards gas air
18 conditioning.

19 I'm not necessarily missing the point that
20 I'd like to make comments about the Energy Plan but I'd
21 like to also give a little introduction to why we're
22 talking about gas air conditioning and where it comes
23 from. Operating costs are as much in a feature as the
24 demand value that gas air conditioning offers. And as had

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1 been pointed out because of the dockets it does have a
2 higher first cost, so that's why -- and there are no
3 manufacturers of gas air conditioning equipment who are in
4 the Carrier, Trane, York size or category.

5 Nor -- and I'll be very frank, before I
6 started the company I worked as the Director of commercial
7 marketing, industrial marketing for the Connecticut
8 Natural Gas Company and before that I was an engineer for
9 the American Gas Association, so I have a gas background.
10 There are no gas companies in Connecticut today. They're
11 owned by electric companies. And when you are the orphan
12 to the corporation many things are directed towards what
13 the prime function of that company is, and that's
14 electricity.

15 So that's why things are that way and
16 that's why every program that comes out, even a pilot
17 program to offer gas air conditioning and offer rebates
18 for gas air conditioning, is countered by a proposal to
19 offer more rebates for electric chillers that happen to be
20 20 years old. That's what we're also facing, okay. So
21 very frankly and very honestly that's just my one
22 individual attitude based upon a lot of experience in the
23 air conditioning field.

24 The important point is the operating costs

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1 and I really don't want to lose sight of that. Some of
2 the suggestions that I could make, if you go to the Energy
3 Plan -- and I should make this as original comments so
4 that it's all there, is that in various sections there's
5 reference to -- you know, on page 5 one of the items that
6 could be added is that the Energy Plan could support the
7 DPUC docket for gas air conditioning and support CL&P's
8 proposal to make the pilot program a year longer to give
9 the opportunity for gas air conditioning.

10 And as they've said in there it takes
11 awhile to sell air conditioning on large complexes. And
12 also, to increase the incentives for the same reason that
13 the proposal is being made by CL&P that the incentives be
14 increased to support electric chillers that are 20 years
15 old. I also think that on pages 6 and 7, where in section
16 three where there's support for Governor Rell's initiative
17 to reduce electrical consumption in State buildings, is
18 something that really needs attention.

19 I really feel, and I'm not familiar with
20 statutes and the various rules and regulations, that at
21 one time there was a statute that required any building
22 receiving State funding, and that includes housing, would
23 have a lifecycle cost analysis made to consider at least
24 two systems, HVAC systems. I was told very bluntly that

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1 that does not cite gas air conditioning systems. However,
2 the Architect and Engineer Procedure Manual does say if
3 the study is done it considers gas air conditioning.

4 If gas air conditioning systems are
5 considered in a lifecycle analysis with the rebates that
6 exist today they will be very, very, economical. Not only
7 would the customer be receiving benefits the State will
8 too because of the benefits of demand. And that's
9 something that could be added to the Energy Plan. In
10 every case and what came out of the Energy Efficiency Act,
11 is more the term distributed resources not distributed
12 generation.

13 Distributed generation is a distributed
14 resource like many other features are too and I think more
15 concentration should be placed upon distributed resources.
16 And when we talk about distributed generation and when we
17 talk about cooling and heating power, I think as much
18 emphasis could be placed upon gas air conditioning too.
19 If those types of categories can receive that type of
20 emphasis then gas air conditioning can, at least as far as
21 I can see.

22 And there's a very minor point I had made
23 on page 18. It talks about natural gas air conditioning
24 on page 18 and steam-driven air conditioning. We actually

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1 are selling equipment in the State of Connecticut that are
2 also fired by propane so I don't think it should be
3 limited to natural gas. It could be natural gas and
4 propane. And the reference to steam-driven air
5 conditioning, steam-driven air conditioning which is
6 absorption air conditioning is probably the most
7 inefficient type of air conditioning system around.

8 I think the reference may have been to
9 engine-driven gas air conditioning and it's just a point
10 on that. And on page 20, item two, I really think we
11 should be talking about where it says encourage consumers
12 to utilize lifecycle cost analysis, I think it should be
13 consumers and State agencies to do that for what it's
14 worth. The last point I want to make is to explain a
15 little bit more about gas air conditioning and about a
16 gas-fired heat pump.

17 And if you were to try and understand a
18 gas-fired heat pump operating like a gas engine it's even
19 more complicated. But item two on page 28 under the
20 natural gas demand recommendations say develop and fund a
21 broad array of conservation and efficiency programs
22 comparable to those offered to electric customers. For
23 example, incentive programs to pay the incremental cost
24 when consumers purchase energy star rated natural gas

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1 appliances.

2 A gas-fired heat pump has been in existence
3 and over 1300 of them are in use in Europe made by a
4 company out of Evansville, Indiana and Milan, Italy and
5 there's two of them installed in South Glastonbury in a
6 house I went in last summer. The reason I mention the
7 gas-fired heat pump is because it makes heating and it
8 makes cooling. It's a heat pump. On the heating side of
9 it, and I know engineers will cringe at this, it operates
10 at 126 percent efficiency. There's nothing more than 100
11 percent efficiency, I realize that, but if you had a heat
12 pump in your house, a gas-fired heat pump in your house
13 and you purchased 100 BTU's from any of the gas companies
14 and went through the meter, you would have 126 BTU's
15 heating your house.

16 That's how the heat pump works and its
17 worked that way for three years. So who's going to do
18 something about it? Clover Company is not. We're out
19 there selling it and we're going to keep on doing it and
20 we've enjoyed doing it for 30 years. I'm a family
21 business and have gone along and gotten involved in it but
22 it has an awful lot to offer. You take every house today
23 that -- an average house would have a heating furnace in
24 it that's 75, 80 percent efficient if it were to have a

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1 heat pump which costs a lot of money. If it were to have
2 a heat pump in it it would reduce its energy use by 58 to
3 68 percent. I don't think there's much doubt about that.
4 I'm not trying to play the numbers game and I don't mind
5 pointing that out to any engineer that questions it. I
6 happen to have an engineering degree also.

7 That could be made a very strong part of
8 the natural gas demand recommendations. I realize
9 unfortunately today there's only one manufacturer of gas-
10 fired heat pumps so I realize the complications that
11 produces, what this weighs to encourage development of it.
12 And I've pointed this to the Connecticut Energy Management
13 Board also. It has a higher first cost. And the last
14 item on that page 25, it says promote natural gas
15 efficiency education. What has to be done not only in the
16 State of Connecticut probably in the whole United States,
17 is education against air conditioning.

18 The gas-fired heat pump also is available
19 as a geothermal water source heat pump, which means that
20 it's a renewal energy type of pump. I don't really have
21 much more to say. I've covered a lot of details and a lot
22 of technical stuff in a very short time with some
23 recommendations to fit in with the Energy Plan and I
24 recognize there's other directions for it to go too. And

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1 that's my presentation for now.

2 CHAIRMAN DOWNES: Thank you sir, we
3 appreciate it.

4 MR. CULLINANE: Okay.

5 CHAIRMAN DOWNES: Questions from the panel?

6 MS. MARY HEALEY: I had a question on the
7 cost of a gas-fired heat pump for a typical residential
8 user. You said it has paybacks because of the super
9 efficiency but what is the initial up front cost and over
10 what period of time would you know or guess would the
11 payback be?

12 MR. CULLINANE: A gas-fired heat pump would
13 cost a contractor today about \$13,000, a five ton unit.
14 It's only made in one particular model, that's \$13,000 if
15 you were to put in a gas furnace, an air conditioning coil
16 and an air conditioning condenser unit outside the house
17 that has the rating of 13. So it's going to cost
18 approximately \$3000 for that same equipment so there's a
19 difference of \$10,000.

20 Now, there's an operating cost savings on
21 both the air conditioning side of it and the heating side
22 of it and in a house that has five tons for cooling in it,
23 it would probably see savings of \$1200 a year in operating
24 costs which gives you a seven year payback. If you were

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1 to add rebates to that then you decide how much of a
2 rebate do you give to bring it down to what kind of
3 payback.

4 CHAIRMAN DOWNES: Are there any other
5 questions? Thank you Mr. Cullinane, we appreciate your
6 wise comments.

7 MR. CULLINANE: Thank you for the
8 opportunity and I really might also say thanks to the
9 Board for dedicating the time for all of this. Thank you.

10 CHAIRMAN DOWNES: Thank you sir. Next
11 person on my list is Mr. Robert Fromer. Good afternoon
12 sir.

13 MR. ROBERT FROMER: Good afternoon Mr.
14 Downes and the other members -- excuse me?

15 CHAIRMAN DOWNES: Please proceed at your
16 convenience sir.

17 MR. FROMER: Okay, I have my testimony in
18 writing, which I've given to the members here, but I
19 wanted to also make sure it got to the other members so
20 who would I give that to?

21 CHAIRMAN DOWNES: We'll make sure that
22 through our staff we get every member a copy.

23 MR. FROMER: Okay, very good. I wanted to
24 address before I get into my own presentation a comment

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1 just made by the gentleman before me about the kind of
2 analysis that's used, the lifecycle cost analysis. To me
3 that's the wrong kind of analysis that needs to occur for
4 your Board to examine in terms of making decisions. A
5 better analysis that's more predictive of the problems we
6 have in terms of peak oil and the remaining oil globally
7 is lifecycle net energy analysis.

8 That's far more important because the globe
9 right now has estimated something in the neighborhood of
10 between one to two trillion barrels of oil and there's 160
11 countries with straws sucking it out and we use 40 percent
12 of the world's fossil fuels. And so how do you stretch
13 out the time to depletion, which is estimated to be within
14 the next 30 years? You need to have analytical tools to
15 use to make wise decisions and looking at cost and dollar
16 bills, the government could always print more money, which
17 it does, but it can't create more oil. And until you
18 start looking at analysis that uses lifecycle net energy
19 you're really making poor decisions and I'll get a little
20 more into that.

21 But anyway, first of all last year when I
22 put in my comments and a number of other people put in
23 their comments and then after the final 2006 Energy Plan
24 was crafted, I didn't notice those comments of the public

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1 interjected into that final plan. And so one starts to
2 wonder if this is not an act of futility in terms of
3 having the public come before this Board and making
4 comments and whether those comments are going to be
5 effectively incorporated into the plan and I hope this
6 year they are.

7 Anyway, the Plan last year cost the State
8 \$60,000 and you got a \$60,000 plan. This year I suspect
9 with inflation it's probably in the neighborhood of \$70-
10 80,000 and so you have an \$80,000 plan. The thing is, you
11 don't have a roadmap. You don't have a strategic long
12 range plan to implement what's being proposed in this
13 Plan. Not only that but the Plan is devoid of the
14 considerations required by State statute. Section 16a-7a
15 requires that the Plan show consistency with the State's
16 Plan of Conservation and Development.

17 The State's Plan is mentioned but it
18 doesn't show how it's consistent. And so that's a major
19 failing of this plan. Then you have plans of other
20 agencies. You have the Conservation Management Plan of
21 ECMB, you have the Solid Waste Management Plan, so forth
22 and so on and many other agencies, and this plan doesn't
23 look at whether it's overlapping, overriding, inconsistent
24 with any of the others or even duplicative of any other

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1 plans that are in existence. So that's a major failing of
2 this Plan also.

3 Anyway, I think and I've proposed and I
4 continue to propose that all the State agencies involved
5 in energy policies, planning and program should be
6 integrated into a single agency called the Department of
7 Energy. I've tried to get Legislators to introduce that
8 bill and I will continue to pursue it because this State
9 needs an integrated approach to planning and policies and
10 programs. But anyway, in order to do planning there's one
11 thing that has to be identified and established and that's
12 missing.

13 What is the -- and since everything is
14 based on energy, what is the minimal acceptable standard
15 of living and quality of life to be used as the
16 underpinning, the foundation for the amount of energy
17 you're going to expend? What's acceptable? No one is
18 looking at that and I put that in my comments. The
19 European union, and I can send that to anyone who is
20 interested, has looked at quality of life and standards of
21 living and has made certain suggestions on what that
22 should contain. But I think this Board should adopt a
23 recommendation to the Legislature, what is the minimal
24 acceptable quality of life and standard of living for

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1 every one of the citizens of this State as the baseline
2 for all your energy planning because you don't have a
3 reference point for how much energy is acceptable to be
4 expended for each person.

5 Now take a look at this number. In the
6 Plan it states that the State uses 600 trillion BTUs, and
7 so its been suggested or recommended in the Plan as a goal
8 a 10 percent reduction. Well 10 percent is 60 trillion
9 BTUs. Excuse me, how are you going to accomplish this and
10 how much energy is it going to take you to do that?

11 That's the net energy issue. Then let's take a look at
12 something more fundamental. Connecticut has a population
13 of 3.5 million people plus or minus. That could be
14 attributed to the census. We're not even talking about
15 illegals in the state, which are unaccountable.

16 The population of the world according to
17 the U.N. is 6.5 billion, 2000 times greater than the
18 population of Connecticut. There is approximately one to
19 two trillion barrels of oil remaining so how much of that
20 oil can be mathematically allocated to the residents of
21 Connecticut? Not very much percentage-wise. Put that
22 into perspective. And so here's this formula that needs
23 to be looked at as the base of the entire planning
24 process. Total energy consumption is the product of two

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1 numbers, per capita consumption times population.

2 If you don't reduce both numbers you are
3 going no place. You will not solve your problem you will
4 just maybe lower the rate of growth of consumption but it
5 will continue to grow. This Energy Plan fundamentally
6 looks at electricity and electricity represents 25 percent
7 of the energy demand in the State. What about the other
8 75 percent? It doesn't really focus on that. It focuses
9 predominately on electricity. We are obsessed with
10 looking on how we reduce the electric demand. What about
11 reducing the other demand? That is not given the kind of
12 attention that's necessary in this Plan.

13 I wanted to bring up this issue of climate
14 change because this has been mentioned in the Plan and
15 it's part of the Energy Independence Act, the greenhouse
16 gas effect and so forth and so on. You don't have in this
17 State enough money, enough resources, enough energy and
18 enough people to essentially take an aircraft carrier,
19 turn it 90 degrees on a dime, which is what you're being
20 asked to do with respect to greenhouse gases, it isn't
21 going to happen. And it's unrealistic to think that
22 you're going to make a significant impact on reducing
23 greenhouse gases when it's really uncertain as to how much
24 humans contribute to the net effect, okay.

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1 Just the fact that the earth wobbles around
2 the sun and its trajectory causes some of the climate
3 change effects, that's totally uncontrollable. I wanted
4 to get into some other areas. One is, building new power
5 plants is not going to solve the State's solution. It's
6 not going to be the State solution and here's the reason.
7 Again, you have to look at the lifecycle net energy that
8 goes into the planning, the design, the construction, the
9 operation and maintenance of that power plant.

10 It may be and it most likely is that so-
11 called energy source is really an energy sink. While
12 you're producing electricity it's taking almost as much
13 energy to design, to plan, to operate and maintain that
14 power plant. So if you think you're getting a net gain in
15 effect you may be getting a net loss. And that analysis
16 has to be looked at and this State does not look at that
17 kind of analysis. Looking at renewables as a solution is
18 fraudulent, misleading, mistaken, misrepresenting what
19 effect renewables will have on this State.

20 Let's take a look at how much money has
21 been spent so far to produce renewable energy. Apparently
22 from my source of information the Connecticut Energy Fund
23 has spent about \$17 million to generate two megawatts of
24 electricity using solar. Well that's gross. The net

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1 energy produced is like one megawatt when you look at
2 lifecycle net analysis. So \$17 million to produce one
3 megawatt, the Plan is to produce 100 megawatts. Well,
4 when you're talking about thousands of megawatts, 100
5 megawatts is insignificant. It will do nothing of any
6 extent over the long term.

7 A better approach, a far better approach is
8 conservation, which this State for some reason doesn't
9 really want to develop in terms of a plan. Is there a
10 master plan of conservation? No. So I think the State's
11 motto needs to become welcome to Connecticut, a state
12 where energy waste is our most important and prolific
13 product because that's exactly what's occurring. Energy
14 efficiency, it takes energy to get energy efficiency. How
15 much? So if you're going to look at energy efficiency,
16 you're going to look at fuel cells, fuel cells require
17 energy.

18 It takes energy to get to the hydrocarbons
19 you need, it takes energy to build the units, to build the
20 factories. What's the net energy gain? Well, it's not a
21 gain it's a loss. So while people are looking at that as
22 a solution it's really not a solution unless you want to
23 go up in a spacecraft for NASA where it's useful. One
24 thing that's completely missed, which will become

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1 essential in this state in the future, is agricultural
2 security. Here's a potential solution to consider. The
3 State, it focuses on growth economics which is the wrong
4 model.

5 It needs to evolve and transition to what's
6 called steady state economics and I've given you
7 literature on it to attune you to the new model of
8 economics that needs to occur. But just a look at where
9 they're building subdivisions and commercial buildings,
10 the building footprint that's going up in all the towns on
11 a piece of land. You have a building on a lot of land.
12 My suggestion is that every town should have an
13 agricultural floating zone. That means whatever parcel of
14 land is open space, does not have building footprint,
15 should be zoned to be agricultural.

16 So in the future when the food supply dries
17 up in the Midwest because they don't have the aquifer
18 water they need, it's already zoned in every town that
19 people will be able to produce crops where there's now
20 grass or where there's trees. So if you had this
21 agricultural floating zone you've already laid the
22 groundwork to grow the future supply of food for the
23 State. Okay, well I've said enough as the State's premier
24 critic.

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1 CHAIRMAN DOWNES: Are you the undisputed
2 holder of that title?

3 MR. FROMER: I hope so.

4 CHAIRMAN DOWNES: Any questions from the
5 panel for Mr. Fromer?

6 MR. JOHN MENGACCI: Oh, I thought you were
7 going to ask us to vote on that.

8 CHAIRMAN DOWNES: I think we're in trouble
9 already.

10 MS. HEALEY: I have a question. Is there
11 anything good you liked in the Plan?

12 MR. FROMER: Well, that's a nice question
13 and Mary, sometimes I have to wear a double hat called
14 diplomacy. And this is --

15 CHAIRMAN DOWNES: I think that's about all
16 the answer you're going to get.

17 MR. FROMER: -- and yes, it's a good what I
18 would say baseline to start from to create what I consider
19 a long range strategic master plan. It has the
20 underpinnings, it has a lot of the information necessary
21 to create what I think needs to have a lot more money
22 funded into creating this long range plan. So from that
23 standpoint putting on my diplomatic hat I say yes, it has
24 -- everything always has some kind of benefit. Even me.

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1 MS. HEALEY: Thank you.

2 CHAIRMAN DOWNES: Further questions from
3 the panel?

4 MR. MENGACCI: Yeah, just one quick
5 question about a number -- a part of your testimony
6 alluded to the handout that you -- at least I received and
7 I think some of the other Board members received on the
8 steady state economy and there's some pretty radical
9 concepts in here.

10 And quite honestly it makes for fascinating
11 reading, but is anybody doing any of these things? I
12 mean, talking about transferable licenses and depletion
13 quotas and maximum and minimum income levels. Is any of
14 this taking root anywhere or are these just sort of theory
15 or concepts that people can read about?

16 MR. FROMER: Well, these are theory
17 concepts but this is not a new approach. Professor --

18 MR. MENGACCI: Yeah, I'm not suggesting it
19 is I'm just wondering if anybody --

20 MR. FROMER: Nothing in the United States
21 that I know of but if there's any state that's moving in
22 that direction without officially tabbing it as the steady
23 state economy it's the State of California, but Europe
24 employs that approach. A lot of Europe, Germany and some

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1 of the other countries employ exactly that kind of
2 approach and it's being looked at by a lot more countries
3 around the world right now.

4 The person who developed this concept is a
5 professor of economics at Louisiana State University and
6 -- a Professor Herman E. Daily, and he's written a
7 textbook about it that you could explore it even further.
8 And a copy of the book is in the East Hartford Public
9 Library. But this State and this country is going to --
10 either it's going to do it voluntarily or it's going to be
11 forced into that kind of new economic model to get away
12 from this growth concept.

13 MR. MENGACCI: Well, there's tremendous
14 political challenges in this.

15 MR. FROMER: Oh, I'm sure.

16 MR. MENGACCI: As you're well aware, yeah.

17 MR. FROMER: I love political challenges.

18 MR. MENGACCI: And I'm not saying -- yeah.

19 CHAIRMAN DOWNES: We've noticed.

20 MR. MENGACCI: We're well aware of that. I
21 was just curious if any of these concepts had taken root
22 anywhere else yet, so they're still in the exploratory --

23 MR. FROMER: Yeah, and if you go to -- if
24 you type into Google that document appears in a website of

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1 negative population growth. If you type in negative
2 population growth in Google, it will poop up with that
3 information.

4 MR. MENGACCI: No, there's a bibliography
5 attached to --

6 MR. FROMER: Okay, yeah right. Yeah.

7 MR. MENGACCI: -- it's extensive so that
8 will probably keep us busy for awhile.

9 MR. FROMER: Well, I'm just planting seeds
10 just getting you to think about something -- a different
11 approach.

12 MR. MENGACCI: Yeah, thank you.

13 MR. FROMER: You're welcome.

14 CHAIRMAN DOWNES: Further questions for our
15 friend Mr. Fromer? Thank you sir, we appreciate your
16 testimony.

17 Okay let's see, next person on my list is
18 Mr. Paul Michaud representing Connecticut Clean Energy
19 Fund. And you have audio visual aids on top of it.

20 MR. PAUL MICHAUD: I do, I want you to look
21 at that and not me.

22 CHAIRMAN DOWNES: Please proceed at your
23 convenience.

24 MR. MICHAUD: Thank you. Well good

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1 afternoon and thank you for taking the time to take
2 comments today. Before I begin I just want to inform you
3 that the Clean Energy Fund will be submitting detailed
4 written comments. The purpose of our comments today is to
5 provide you with more of a broad highlights of some of our
6 comments and recommendations.

7 Our comments are really focused obviously
8 as you might expect on renewal energy and we focus on
9 Section 4 of the Plan, page 34. And I'm just basically
10 going to go through the Plan and hit some of the high
11 points that we feel some big picture issues that we want
12 to bring to your attention. I want to start off on page
13 34 in the overview section of renewable energy. In this
14 section the Plan lists several of the benefits of
15 renewable energy which include capacity, diversity,
16 economic development, eliminate air emissions, enhance
17 energy security, reduce reliance and foreign sources of
18 fossil fuels.

19 Those are all true, we agree with those
20 benefits but we would recommend that the CEAB add another
21 important benefit to the Plan, which is -- additional
22 benefit which would be the fact that studies show that
23 renewable energy can help stabilize gas and electric
24 prices in the state. And there are studies out there

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1 which show this and the Clean Energy Fund is actually --
2 right now we've hired a team of consultants who are
3 analyzing that specific to Connecticut, which we will be
4 reporting -- we'll make public when we get that
5 information.

6 And there are essentially three basic ways
7 that renewable energy can help reduce prices in the state.
8 The first is by suppressing electric prices in the ISO-New
9 England bid process. The second is by reducing the demand
10 for natural gas, thus suppressing natural gas prices under
11 an economic model. And the third is by giving -- you know
12 at the customer level, giving customers the ability to
13 hedge against volatile fossil fuel prices because if you
14 can buy into renewable energy that doesn't use fossil fuel
15 as a source of energy then you can essentially lock into
16 20 year prices and hedge against rising and volatile
17 fossil fuel prices.

18 So under that section we would recommend
19 that that additional benefit be included here. Moving
20 down to the second section under renewable energy supply
21 site issues, in this section the Plan kinds of begins with
22 -- it's almost a conclusory statement. It says there are
23 inadequate quantities of renewal energy to significantly
24 impact energy reliability costs or security in Connecticut

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1 and then it lists several issues as to why that's true.
2 And although the Clean Energy Fund does agree with most of
3 these issues as being barriers to renewal energy
4 development it's our opinion that that characterization
5 maybe taken in a vacuum may be true.

6 But if you look at it in the big picture
7 and the results of the programs that I'll be showing you
8 pretty soon it will show -- I think it will show that
9 yeah, it took a few years to get this renewable energy
10 development train moving but once it has begun moving it
11 carries a lot of weight under its own momentum, and I
12 think that's where we are now. And I think a picture
13 tells 1000 words, so I'd like to just kind of show you
14 what I mean by showing you this. This kind of shows --
15 and this is in regard to commercial and industrial
16 projects.

17 This excludes Project 100. This is onsite
18 DG projects from inception and in 2001 was the beginning,
19 we started. And if you look at this chart it shows that
20 2001 through what we're showing in 2007, we're on a huge
21 up-curve in the curve here. You'll see that we kind of
22 came along steadily here but now in 2007 we're expecting
23 upwards of 60 megawatts of onsite DG renewable. And this
24 has all been approved and in our pipeline and actually

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1 upwards of 9000 KW of capacity in 60 projects. So if you
2 look at this -- I mean, it really does show that we are at
3 the beginning of a pretty steep ramp up and now that the
4 train is moving we're expecting this to escalate even more
5 in future years now that we've got these programs going.

6 It just took awhile to get there but we
7 think we're there right now. And just to give you some
8 statistics, total onsite renewable DG projects and good
9 connected renewable generation projects completed or
10 already approved for funding by the Connecticut Clean
11 Energy Fund equal approximately 42 projects and 74
12 megawatts of generating capacity. And this is enough
13 energy to power 66,000 homes or remove air pollution from
14 60,000 automobiles from our roads. And we have another 36
15 megawatts worth of projects in our pipeline and once these
16 projects get approved and get constructed, they would
17 produce enough energy to power an additional 32,100 homes.

18 And these aren't just -- you know, these
19 are actual projects that have come through our doors that
20 we've already funded, we've approved or are about to
21 submit to our Board for approval. These aren't forecasts,
22 these are real projects. Another example as to why I
23 think we're on the steep ramp up of renewable development
24 in Connecticut is our residential program. If you look at

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1 this -- the program basically started in 2004, the end of
2 2004, and if you look you'll see another unmistakable
3 steep ramp up in our projects. We're now in 2007, we're
4 expecting 180 projects and close to 800 KW in install
5 capacity.

6 Again, it's not flat, it's steeping up.
7 And if I give you some statistics on our residential
8 program, we have 92 residential solar systems installed in
9 homes now. We have another 87 solar systems that have
10 received funding and are basically backlogged but they've
11 received our funding and approval. And this represents
12 815 KW total renewal energy capacity and there's enough
13 production from these systems collectively it will
14 generate about a million kilowatt hours per year, which is
15 enough to fully power 119 average Connecticut homes each
16 year.

17 And what's interesting about this program
18 is if you look, 2004 no industry, 2007 we have a big solar
19 PV installer industry. And what has happened, it's gotten
20 so large that we actually got called upstairs along with
21 the Department of Consumer Protection to help formulate a
22 licensing scheme for solar installers. There was never an
23 industry before, licensing was not an issue, now it is.
24 So there is going to be some proposed legislation coming

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1 out kind of creating a licensing scheme for the PV
2 installers because it has become a factor in the state
3 now, so.

4 And lastly in that regard Project 100,
5 which is the project which brings in -- you know, it's the
6 great connected type projects that bring in the megawatts.
7 What's interesting in this project, in round two which we
8 just completed, we've submitted a competitive RFP and
9 we're now completed and this was a competitive RFP, Clean
10 Energy Fund received 31 renewal proposals from private
11 developers and totaling 323 megawatts of install capacity.
12 And what's interesting, it was a pretty diverse rate of
13 projects and they're all in-state.

14 They included large solar, biomass, fuel
15 cells and even a large wind project. So that last point
16 kind of goes to -- if you look on page 34, the supply side
17 issues, No. 3, it says current state incentive programs
18 and tax exemptions that offer sufficient funding to
19 attract greater interest in renewable energy developers.
20 I think -- we think the incentive levels as evidenced by
21 Project 100 and our other renewable projects, our
22 incentive levels are about right. We are ramping up quite
23 rapidly.

24 I don't have any comments in regards to tax

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1 exemptions but we think the -- we are attracting private
2 development into the state now as evidenced by those
3 projects. Just moving through the Plan under renewal
4 supply side recommendations, which I think begins the
5 bottom of page 34, under recommendation number one, when
6 we promote regional standardization of renewable energy
7 definitions and renewable portfolio standards, the RPS, we
8 agree with that we just think it's worth noting that a
9 collaborative has been formed to do that very thing.

10 We actually a few weeks ago attended a
11 meeting in Massachusetts. It was a collaborative on RPS
12 to share information, examine opportunities for regional
13 cooperation in implementing renewal portfolio standards in
14 the northeast and mid-Atlantic region and I can tell you
15 representatives from Connecticut were there, District of
16 Columbia, Delaware, Massachusetts, Maryland, Maine, New
17 Jersey, New York, Pennsylvania and Rhode Island. It's an
18 ongoing collaborative, I think the next meeting is in
19 Albany, so I just want to bring to your attention if you
20 didn't already know, that there is such a collaborative
21 that has been formed and is proceeding forward.

22 Going down to recommendation number five on
23 supply side recommendations, we fully support raising the
24 net metering limit to one megawatt. We supported that

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1 last year. What we would recommend in this area is that
2 under the current statute the net metering reconciliation
3 is, I believe monthly, we would recommend that it be
4 changed to an annual reconciliation so that renewables
5 with seasonal production efficiency such as solar can
6 maximize the benefits under net metering. I believe there
7 are approximately 13 states that have switched over to the
8 annual reconciliation.

9 For example, like solar generates excess in
10 the summer months but may under generate in the winter
11 months. So if you reconcile it monthly they won't
12 maximize their benefits under that program, so. And I
13 think the last area where we wanted to make comments today
14 was under the renewable energy demand side issues. Issue
15 number two, here it says renewable energy pricing is
16 either too high to invite widespread consumer
17 participation in the clean power choice program or the
18 program market needs to further penetrate the electric
19 consumer population to move consumers to renewable energy.

20 Our first comment here is, I think what the
21 plan meant by clean power choice program was the
22 Connecticut Clean Energy Options program. I think that's
23 what you meant there so we would just recommend that that
24 change. And I guess here we would comment that it all

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1 depends on what your definition of widespread consumer
2 participation is but we believe the Connecticut Clean
3 Energy Options program has shown -- has been a success.
4 It has beat all goals that were set by the DPUC under this
5 program. I think as of today over 11,000 customers have
6 voluntarily signed up for the Connecticut Clean Energy
7 Options program and this is equivalent to over 80,000
8 megawatts of demand annually.

9 And in addition, 34 Connecticut communities
10 have committed to the smart power, 20 percent by 2010,
11 clean energy campaign, with 17 of those towns qualifying
12 as official Connecticut clean energy communities. So I
13 think we are getting a very robust response from
14 consumers, a voluntary response. I guess I would conclude
15 and we'll explain more in our comments. And I think we've
16 explained this in filings with the DPUC.

17 But under the Connecticut Clean Energy
18 Options program, again, we're working up a modeling
19 proposal that would allow customers under the Connecticut
20 Clean Energy Options program to participate in such a way
21 where they could actually hedge their electric bills under
22 this program against fossil fuels and we've hired a
23 nationally recognized consultant team to look at that.
24 And we're also working with the National Renewable Energy

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1 Laboratory and the Lawrence Berkley National Laboratory,
2 so we're all working together to come up with a model that
3 we hope to propose in that regard.

4 That completes my comments today, I'm
5 available for questions.

6 CHAIRMAN DOWNES: I was very interested in
7 your graphs and what they both showed was a dramatic
8 increase in the development and use of renewables over the
9 course of the last several years.

10 MR. MICHAUD: Yes.

11 CHAIRMAN DOWNES: On the theory that having
12 one is good and therefore having even more is still
13 better, I guess I wanted to ask you a couple of related
14 and ally questions.

15 One is, do you sense that we are -- that we
16 still have substantially more potential for the use of
17 renewables and secondly, the other question is I
18 understood you to say a little bit earlier that the
19 response on some of the programs based on the incentives
20 and so forth seems to demonstrate that the incentive
21 levels are at approximately the right point give or take a
22 little bit perhaps. But moving away from just pure money
23 are there other things we can do to expand the penetration
24 and the development of renewables?

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1 MR. MICHAUD: To answer your first
2 question, yes, absolutely there's more we can do. Our
3 programs are constrained by our budget so we take our
4 budget and we develop our programs according to that and
5 once they're oversubscribed they're oversubscribed. So
6 yes, absolutely. And again, if we were able to get our
7 funding restored for example there's a lot more we could
8 do, so yes.

9 And as far as what more can we do, for
10 example the -- we believe this concept of renewable energy
11 helping to stabilize prices in Connecticut to be true.
12 Our experts are telling us absolutely -- it's absolutely
13 true. And there are different ways of doing that.
14 There's through recs, there's through direct energy
15 purchases for example energy that may have to come in from
16 out-of-state like wind energy for example is something we
17 even looked at.

18 I mean, we went as far as looking at how
19 can we help to improve the transmission lines to get
20 cheaper wind, you know, as a concept because in a way
21 you're promoting renewables by doing that and that's just
22 one of many concepts we're looking at. But we think that
23 this hedge model might be key to help finding a way for
24 renewables to help contribute to the price issues we have

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1 in this state.

2 And that may take a lot of money and I
3 don't -- we don't have that amount yet. We're looking at
4 the models and we're going to have to figure it out once
5 we get the results from the studies. But that's an area
6 where I think we are driving to.

7 CHAIRMAN DOWNES: And a quick follow-up on
8 your point about transmission. Our friends in Canada,
9 particularly in the Maritime and Atlantic Provinces, have
10 recently made a number of statements about their intention
11 to develop very substantial new supplies of both wind and
12 hydro driven renewable generation facilities. In your
13 view is there some value in pursuing that to the extent
14 that those would require transmission updates?

15 And I understand you've hired a consultant,
16 I'd like to offer you the friendly suggestion that we are
17 interested in this same strategy and we would be very
18 interested in the results of your consultant's studies but
19 I wonder if you would just comment on the Canadian
20 situation and what you think the potential there might
21 conceivably be?

22 MR. MICHAUD: Sure, and we're familiar with
23 that and we've discussed that internally. Whether we can
24 fund renewables out-of-state is an issue that's beyond the

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1 Clean Energy Fund. We're the good soldiers of the
2 Legislature and we will follow the statute. Right now we
3 can't do that but if that were to change we'd be more --
4 if that statute were changed, and again, it's not our
5 place to -- that's beyond the Fund but that is an area
6 where we'd love to work on.

7 CHAIRMAN DOWNES: You might conceivably
8 have some allies on that. Further questions from the
9 panel?

10 MR. MENGACCI: Not a question just a
11 request. Hi Paul, how are you?

12 MR. MICHAUD: Good John.

13 MR. MENGACCI: Thanks for being here today.
14 I was wondering if you might be able to supply the charts
15 that you presented today to Bill with not just the graphic
16 presentation but perhaps an accompanying narrative?

17 MR. MICHAUD: Yes.

18 MR. MENGACCI: Because in looking briefly
19 through the plan that clearly speaks towards progress
20 towards our goals and it also may fit possibly into the
21 section where we talk about the development of a demand
22 side or supply cluster, energy cluster in Connecticut.

23 So I think that's some very important
24 information, I think it should probably appear somewhere

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1 in the plan and if you could provide that to Bill at least
2 personally, I would like to see it fit in here somewhere
3 because -- especially the one with respect to the
4 residential PV program and the fact that an industry is
5 really starting to take root and I'd like to be able to
6 show those numbers and explain.

7 That's a very powerful graph I think and it
8 certainly, I think, contributes to the progress towards
9 our goals.

10 MR. MICHAUD: Okay. Yeah, we will include
11 that in our written comments.

12 MR. MENGACCI: Okay, thank you.

13 CHAIRMAN DOWNES: Further questions or
14 comments for Mr. Michaud?

15 MR. MENGACCI: Staying on the one with --
16 you said you're meeting with Consumer Protection to begin
17 to lay out a licensing structure for the residential PV
18 installers?

19 MR. MICHAUD: Yes.

20 MR. MENGACCI: Or was it broader than that?

21 MR. MICHAUD: Residential and commercial.

22 MR. MENGACCI: Residential and commercial,
23 okay.

24 MR. MICHAUD: Yeah.

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1 MR. MENGACCI: So just for PV installation?

2 MR. MICHAUD: Yeah, that's what triggered
3 -- what is happening is there's so many installations
4 going in now and at the town inspection level they're like
5 what's this? They're not familiar with all these PV
6 systems so they're not sure how to handle it.

7 The Department of Consumer Protection is
8 not sure how these installers should be licensed. It's
9 very specific to PV installations. The issue was whether
10 you just want electricians kind of doing this or because
11 the industry has grown to the point where -- you know, we
12 have specialized people who do this now so that's what
13 kind of triggered that. But to answer your question,
14 yeah, what we're working on is residential and commercial.

15 Some of the big commercial PV installers
16 are the most kind of weary right now of the statutory
17 scheme here now. I mean, the complaint has been that
18 Connecticut statutes, their licensing statutes kind of are
19 keeping them out of the state and they've got projects
20 they need to do here and so they want to make sure they
21 comply and not be subject to fines. So that's what kind
22 of triggered all of this.

23 MR. MENGACCI: In the late 90's Governor
24 Rowland began an initiative and I've worked on it and a

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1 number of other folks at OPM as well, called the high
2 efficiency program. And the idea at that time was to
3 streamline the licensing process here in Connecticut just
4 generally.

5 But at the time we worked with CURE,
6 Connecticut United for Research Excellence, to look at the
7 barriers that biotech and life science companies were
8 having so that we could specifically address those issues
9 to get these businesses licensed more quickly. That has
10 since evolved and is being maintained in a program called
11 Smart Start, which is located out of the Connecticut
12 Economic Resource Center.

13 So I guess as you move forward with this, I
14 know it's focused just on residential and commercial PV,
15 you may want to touch base with them to see for example
16 what other industries may be requiring the same licenses
17 and to what degree it might be broadened. I'm not trying
18 to give you more work but just trying to make you aware of
19 something that's out there and has been out there and has
20 actually been very, very successful over the years.

21 MR. MICHAUD: Okay.

22 MR. MENGACCI: I just wanted to make you
23 aware of that initiative and that it's over at CERC and at
24 some point you may want to touch base with Beth Wallace

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1 and she could bring you up to speed on all of this. And I
2 know CERC and having worked with them and having built
3 this process over the years, I know that they would be
4 very happy to assist in whatever way they could.

5 MR. MICHAUD: Okay, thank you for your
6 advice. I will follow through on that.

7 MR. MENGACCI: Okay, thank you.

8 CHAIRMAN DOWNES: Further comments or
9 questions for Mr. Michaud? Thank you sir, we appreciate
10 your wise observations.

11 MR. MICHAUD: Okay, thank you for your
12 time.

13 CHAIRMAN DOWNES: Before we move to the
14 next speaker I should point out that we've just been
15 joined by our distinguished friend and member Carl
16 Schiessel, the appointee of the Speaker of the House.
17 Thank you for coming and joining us.

18 Okay, next person on the speaker's list is
19 Mr. Henry Link representing Enviro Energy Connections.
20 Good afternoon sir, please proceed at your convenience.

21 MR. HENRY LINK: Hello, I'm Henry Link with
22 Enviro Energy Connections out of Hartford and I think the
23 Plan is fairly reasonable but I have a few recommendations
24 for it anyway to help improve it.

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1 Starting on page 3, line number 8, there's
2 goals of what the Plan should produce and although
3 certainly cost is a big factor I think I feel that
4 something that was missing for not being mentioned is I
5 feel the goal of the Plan is to produce the most reliable
6 electricity not necessarily the least cost as the highest
7 priority of the Plan.

8 And skipping ahead to page 35, item number
9 two, for emphasis I feel that the Energy Advisory Board
10 should strongly encourage the DPUC to decrease the clean
11 energy options rate. Several people have mentioned clean
12 energy options but they don't mention that right now it's
13 presently a surcharge to the regular electric rates. And
14 I think this should be readdressed because there's no fuel
15 costs and no increasing fuel costs that caused the
16 electric rates to go up so drastically. So I feel that
17 it's time to revise the clean energy option rates to
18 something lesser than it presently is.

19 On page 4, the 2006 summer peak was around
20 7700 megawatts and with the demand response that we had it
21 decreased about 300 but on page -- let's see, on page 17
22 it indicates that the Connecticut generating capacity is
23 only about 6700 megawatts, so that still leaves a deficit
24 of about 700 megawatts which on a good day if Connecticut

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1 has all its generators going which isn't always the case,
2 we still have to import about 700 megawatts. And I feel
3 that we should at least comment in the plan -- you know,
4 specify this as a deficit to the electrical situation so
5 that people will realize this.

6 And in line with this, I feel that we
7 should allow the distribution companies to be able to
8 generate electricity again. I don't know how much to
9 allow them but I feel that the distribution -- electrical
10 and distribution companies should be allowed to generate
11 their own power again and help us out with the situation.
12 On page 5, item number one and also on page 22, I feel
13 that all providers of electricity should be required to
14 have a time of use rate for electricity.

15 My impression right now is that not all the
16 providers do have this rate and I feel that they all
17 should offer this to all levels of customers. And in line
18 with the rate issue I feel that we should develop a rate
19 to encourage conservation. We should have rates that
20 increase with increased usage. This is a lot of times
21 where if you want to reduce demand you increase the rate
22 for that excess use and so I feel that the DPUC should
23 develop a rate that would be increased for increased
24 usage. I don't know how many steps it should have but I

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1 think in general something like that should be developed.

2 On page 8, item number two, I think that
3 Project 100, I think it's coming along right now and I
4 feel that it should be expanded to something like Project
5 300 over time. Project 100, if it gets to 100, shouldn't
6 be stopped there. I say we should go to at least Project
7 300. Page 15, I think that the -- it's not clear although
8 it may already be happening, but I feel that the Energy
9 Advisory Board and the DPUC should like ISO, which was
10 mentioned, should encourage all natural gas facilities to
11 be required to be dual-fuel.

12 And I know it's strongly encouraged for new
13 generation, I feel that we should try to encourage all the
14 ones, it's roughly half of the generators out of the 14, I
15 think about eight, should try to encourage strongly to get
16 all the existing ones to be generators of dual fuel. On
17 page 19, it should strongly encourage more combined heat
18 and power and we have that. And with the RFP's, we can
19 get different types of generators but I feel we should
20 strongly encourage more combined heating and power.

21 Page 23 and 24, I generally support the
22 comments and recommendations that are in the plan for
23 energy efficiency and demand management. I think they are
24 very good but for item number 23 -- page 23, number seven

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1 and page 44, number two, I feel that the building code,
2 the basic building code should be strengthened to increase
3 energy efficiency. So all buildings should be high
4 performance buildings not just the ones that are State-
5 funded right now.

6 There's a big emphasis to get State-funded
7 buildings, State agency buildings and hopefully this year
8 schools will be required to be high performance buildings
9 but -- and there's talk about defining a school building
10 to have 20 percent more energy efficiency than the code
11 but that just means there's a deficit in the code and the
12 basic code should be built up so that everything in the
13 state is built as energy efficient as possible.

14 And then in line with this there's a list
15 of supporting organizations at the end of each item and I
16 feel that a group called the Connecticut Green Building
17 Council should be added to the supporting organizations to
18 help implement some of these recommendations regarding high
19 performance buildings. And that's a local organization
20 headquartered in Rocky Hill. Page 29, number two, and
21 page 32, item number one, we should strongly urge
22 development of an energy efficiency fund for natural gas
23 and also for oil.

24 That's in the Plan and I just wanted to

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1 emphasize that that should be -- I very strongly support
2 that and hopefully that will get implemented this year
3 with the Legislative issues. Page number 33, also for
4 adding to the supporting organizations at the end should
5 be Connecticut Transit, New Ride and also Rideshare.
6 These groups are helping to help the transportation aspect
7 of the Energy Plan. Page 34, I feel that the Connecticut
8 Clean Energy Fund should be required to invest not only in
9 solar photo Altaic and their other items but the office
10 should be required to invest in solar thermal products,
11 which are very cost effective and should be encouraged in
12 a much stronger level.

13 Page 44, item number five, the Plan should
14 itemize -- I think this may be just an oversight but it
15 should expand the carpool and transit programs also not
16 just the van pool programs. Page 45, it should add to
17 supporting organizations at the end of the chapter. It
18 should be the Connecticut Green Building Council, again,
19 Connecticut Transit, New Ride and also Rideshare. And in
20 the Appendix, page 3 of the Appendix, figure one, it
21 mentions other sources of energy are listed in the figure
22 and it seems to me it doesn't define these sources.

23 It just shows on the graph what they're
24 listed. I feel that it should at least define what you

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1 mean by other sources because it really is a significant
2 portion of the energy capability and I estimate it's about
3 20 percent of the total energy sources. So I would like
4 you to define what exactly is involved with the other
5 sources. And page 5 of the Appendix, Table 1, should
6 specify how much energy is imported at the summer peak
7 also.

8 And in general, those are my comments and I
9 think the Board and its people that have been involved
10 with the Energy Plan this year did pretty well but it
11 could be improved.

12 CHAIRMAN DOWNES: Thank you sir, we
13 appreciate your comments. Questions from the panel for
14 our friend Mr. Link? Very fine, thank you for your wise
15 comments. We appreciate your testimony sir.

16 And next we have our good friend all of us
17 have dealt with for some time who wears a variety of
18 different hats, today appearing as the representative of
19 Environmental Energy Solutions, Mr. Joel Gordes.

20 I should also like point out for the record
21 that among other things, former Representative Gordes is
22 currently sitting as one of the Co-Chairs of the Speaker's
23 Task Force for the purpose of looking at electric and
24 energy issues and looking for solutions on that, so. But,

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1 I wasn't sure exactly what hat you were wearing today Mr.
2 Gordes, so.

3 MR. JOEL GORDES: I am going to make that
4 perfectly clear Mr. Chairman.

5 CHAIRMAN DOWNES: In that case --

6 MR. GORDES: In fact, the whole beginning
7 paragraph says what I -- the different hats I sometimes
8 wear and I want to make it crystal clear that I am
9 representing none of them today, I am representing myself.
10 This way we do avoid conflicts of interest but I may get
11 into one and I will identify that at the proper time.
12 It's a pleasure to be here today and see so many friendly
13 smiling faces and I hope by the time I leave that they are
14 still friendly and smiling, one never knows.

15 I'd like to start off by going through a
16 couple of strategic or actually three strategic issues,
17 the 30,000 foot level as opposed to the 18 inch level.
18 The first one is the progress on overarching goals that
19 were set in 2006 and I quote the CEAB Plan itself where it
20 points out that you are continuing your goal for a 10
21 percent reduction of peak electric and 10 percent
22 reduction in fossil fuel. And again, this is absolutely a
23 wonderful goal and a wonderful thing for us all to strive
24 for.

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1 Then on pages 8 and 11, it is pointed out
2 however this past year we actually had an increase in the
3 peak, quite a sizable increase, up to 7700 megawatts, and
4 implied that the fuel consumption also went up in spite of
5 prices, which is very interesting because we've been
6 having actually warmer winters too but maybe people are
7 driving more because of that and there's always offsetting
8 things. We've had a couple of increases in mass transit
9 costs; we should look at the effect of that although I
10 believe ridership was actually well up this year.

11 So it sort of implies to me we didn't make
12 maybe the goal last year but we don't know what the exact
13 goal for last year was because we haven't been looking at
14 this in what I would call a more granular or incremental
15 manner. The problem, I think I have brought out in
16 previous years, is that when I wrote some of this same
17 sort of stuff as legislation, and I think Mr. Schiessel
18 there will totally agree, we would write it up -- oh,
19 we're going to do 10 percent by -- this was 1990 by the
20 way, this is going way back in ancient history. We will
21 reduce energy use in State buildings 15 percent by 1995,
22 30 percent by year 2000, and 50 percent by 2005.

23 We didn't say -- except in one instance, we
24 didn't say next year we're going to have a one percent

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1 decrease and we're going to have a 1.5 decrease the year
2 after. Therefore, it was a NIMTO situation, which of
3 course means not in my term of office because I was long
4 out of there by the time the responsibility to have
5 anything done was going to happen. I think we need to
6 recess to reassess how we set our goals and again, a lot
7 of what you have on your plate is not going to show the
8 progress in that first year.

9 Things like the EIA and the Distributive
10 Generation programs, even what Attorney Michaud was
11 talking about and we may get that but I don't want to hog
12 all your time, maybe -- here's where I get to my conflict
13 of interest so this is a foot stomper and stuff and I do
14 this in front of a crowd and it's not a direct conflict of
15 interest but it may be perceived as one because I do wear
16 a hat as you know with the Energy Conservation Board as a
17 consultant.

18 That being said, maybe -- and this report
19 goes to the Legislature?

20 CHAIRMAN DOWNES: Yes sir.

21 MR. GORDES: I suggest the one page report
22 to the Legislature with the annual short term goal of put
23 the money back in the funds. The more you have in the
24 report the more the fuse is what your short term goal

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1 should be. We did not get that legislation last year. If
2 you are to meet any of your other goals that is your
3 keystone, so I'll leave that there.

4 Point number two, organizational best
5 practices to accomplish the goals. I use this diagram
6 that you may see there from a 2002 study done by the
7 Legislative Program Review and Investigation Committee,
8 showing that there were -- and I added one by the way. I
9 cheated, I added the little one in the lower right-hand
10 corner that says LIEAAB, we'll get to that. But the
11 report in 2002 said that there were 13 entities involved
12 in Energy Policy in the State of Connecticut.

13 The 14th is the low income -- Lower Income
14 Energy Advisory -- a Low Income Energy Assistance Advisory
15 Board, so that makes 14. And then I just saw a Proposed
16 Bill, I think it was 896, by Representative Backer,
17 perform yet -- here it is, I'm sorry, 384 -- no, 5296.
18 5296, I'm sorry, An Act Establishing a Public Utility
19 Procurement Authority, so that would make it 15. What I
20 am suggesting in general terms is let's again reassess the
21 reassess, form a long term type of, either call it a Blue
22 Ribbon Commission as my friend Mr. Fromer does, or a study
23 group, and say what is the best practice among other
24 states as far as how they handle their energy policy.

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1 I've had interactions with other states,
2 New York at length when I was wearing another hat, and I
3 do believe that they have a very viable setup. Unlike Mr.
4 Fromer I don't say throw it all into one big large entity.
5 It might do away with some of your jobs for one thing and
6 I would never do that. I think you do need to have a
7 separate regulatory function from one that is a policy
8 program and line function so you're all safe with me. And
9 of course, somebody to take the counterview as the
10 consumer counsel.

11 CHAIRMAN DOWNES: I can assure you your
12 testimony is going to be included in this report word-for-
13 word.

14 MR. GORDES: Ha, ha, well part of it is --
15 let's look at the reasons why on that. Number one,
16 regulatory is a totally different function in certain ways
17 even though I think that the -- in 1989 I put in language
18 to almost force the DPUC to pay attention to 16a-35k, not
19 being under the 16a section rather than section 16. I had
20 some problems with what was looked at and what wasn't.

21 But basically having at least two energy
22 entities creates a tension, a check and balance if you
23 would have it, and I think that's important in government.
24 And look what happened not too many years ago when you had

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1 one person in charge of shall we say several development
2 agencies and there were no checks and balances and I don't
3 think we want to see that repeated again. There is a
4 place and a need for some diversity too.

5 So I'd say do the study group and then
6 again, NYSERDA, having worked with them, they have been in
7 operation since 1975. They have a track record, they have
8 competence, they know how to run programs, they do a
9 certain amount of policy, they do certain things in a
10 different way than Connecticut. They're not perfect but
11 they do a great job. Energy security, I have harped on
12 this for three years -- I'm harping on it for my third
13 year actually right now.

14 CHAIRMAN DOWNES: Thank you for clarifying.

15 MR. GORDES: Yes.

16 MR. MENGACCI: The harping gets confused
17 from year to year.

18 MR. GORDES: Well you know, actually I can
19 drag out the letter here again if you really want. I
20 think I did this one year already so I'm wearing --

21 CHAIRMAN DOWNES: We're blaming you for
22 this.

23 MR. GORDES: Did I do this last year or the
24 year before? And this was the letter, yes, from Mr.

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1 Sandler from 1979 -- or to Mr. Sandler from 1979, but I'll
2 spare you the text.

3 Energy security, it is mentioned and is
4 scattered throughout the Plan but it is not defined. I
5 have taken the time to make a little bit of a definition.
6 Part of it of course we think of in the more generic sense
7 of -- oh, we are dependent on oil and we are and at the
8 rate we're going we're going to become more dependent on
9 oil mainly because there's a chart at the back of your --
10 a bunch of charts actually at the back of your copies of
11 the testimony. And you will find if you really look at it
12 carefully at this point in time our dependence upon middle
13 East oil is actually quite low, somewhere around 12 or 13
14 percent of our total. Most people don't recognize that.

15 The dependency however is listed at this
16 point like Canada is our number one supplier. Mexico is
17 our number two supplier. Do you want to build that 700
18 mile fence and there are repercussions, there are
19 unintended consequences, what's called blowback. So we
20 have to think about such things. Saudi Arabia is down
21 there at three, Venezuela, another friendly place,
22 Nigeria, Iraq. Not to be as scary as my friend Mr. Fromer
23 but you could have a massive, massive cutoff with a
24 perfect storm of conditions so it's something to think

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1 about -- energy security. That is only one meaning of
2 energy security.

3 The other meanings have to do with
4 protecting our critical infrastructure and this means our
5 oil depots, our gas depots, things like that. I look at
6 something like the Broadwater plant and I see that as not
7 just a coastal type of energy security problem. Some of
8 the people in the audience, primarily gas people, might
9 remember that 1989, December 24th, Christmas Eve, the gas
10 companies ran a full page ad telling people to curtail
11 their use of gas. A week later, December 31st, New Year's
12 Eve, they ran another full page ad.

13 If I were Osama Bin Gordes, I would wait
14 for those same conditions when the temperatures were 13
15 degrees below zero for several days on end and then blow
16 the Broadwater plant, probably go after Everett,
17 Massachusetts and another location where the lines
18 converge just south of Boston preferably during an ice
19 storm. It's not just a coastal type of thing. The other
20 point is we have to start thinking about other types of
21 threats including what is called cyber terrorism and cyber
22 war and being able to take down your electric grid from
23 anywhere in the world.

24 And when some of the people figure that the

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1 72 virgins may not be waiting and want to find other
2 methods when the ability and the capability come together
3 with the intent, we could be in some deep problems. So I
4 say start trying to assign some responsibility to someone
5 for energy security and maybe that's the Siting Council,
6 maybe it's the State Energy Office, maybe it's Homeland
7 Security, but we are not actually paying enough attention.
8 In line with that let me point out something.

9 We're making sort of an embryonic step in
10 that direction with the Energy Independence Act promoting
11 distributive generation, which to me helps you in your
12 security. However, there are distinct differences between
13 distributive generation and decentralization. Let me
14 briefly explain. With distributive generation you have a
15 number of small generation units placed close to the point
16 of use, fuel diverse and such. That's the beginning but it
17 is not the end. Think of it this way and I do have an
18 example in the written testimony.

19 The example that is used is one that shows
20 that when you have redundancy, small -- multiple units,
21 which is what distributive generation does, it doesn't
22 give you the safety you need. There was the case of an
23 airline accident and in this case the hydraulic lines in
24 an airplane are redundant. They have two sets of

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1 hydraulic lines. However, in the case that was cited the
2 hydraulic lines ran together the length of the airplane.
3 When the door flew off the airplane and collapsed the
4 floor both of the lines went. They were redundant but not
5 decentralized.

6 That is just one difference and it's
7 important to realize and there's a whole bunch, there's
8 about eight different characteristics of decentralization
9 in this testimony. It's important to realize that we have
10 to go the whole way and just building more transmission
11 doesn't do it unless we have the ability within that
12 system to be able to isolate into micro grids, mini grids,
13 all sorts of things to make ourselves resilient we are
14 going to be very, very vulnerable in the future. And
15 there are certain things I could say, certain predictions
16 I've made in the past that have really come quite to
17 fruition.

18 There's a lot more I could say. You know,
19 at some point I should say so I will be giving more
20 extensive remarks line-by-line to Mr. Leahy for the
21 report. I heard several things today which leads to
22 certain questions I've had. Connecticut is starting to do
23 certain things in renewable energy but it is taking a long
24 time. Questions I would ask is, Connecticut has two

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1 megawatts total of anything actually up and running. It
2 has been seven years and I think we need to ensure that
3 more success is assured. And yes, what Attorney Michaud
4 showed was a very impressive uptick in the charts,
5 however, why did it take until 2004 to even get a PV
6 program is one question that should be answered.

7 All the other states that I know were doing
8 it for many years before that and it took a long time.
9 There are reasons but I haven't heard the questions asked.
10 We need to have, again, an energy type of structure that I
11 talked about before. We have to have authority to be able
12 to do things, responsibility and accountability. So in
13 closing, let me just say that if you do form that sort of
14 a panel, again, getting back to the organizational
15 problem, please make sure it's not made up of energy nerds
16 like myself or overly unbalanced with members of the legal
17 profession.

18 Let us try to get what is called experts in
19 organizational management because that's where I think we
20 need to go. I'd be glad to answer any questions you have.

21 CHAIRMAN DOWNES: Thank you for your very
22 thoughtful comments sir. Please proceed.

23 MR. JIM SANDLER: Joel, I'm not asking you
24 to put on the hat for the Energy Conservation Management

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1 Board but similar to the remarks made for the Clean Energy
2 Fund, how would you assess the recent success for
3 conservation advancement and what are the obstacles?

4 MR. GORDES: How would I assess the success
5 of it and what are the obstacles? It's the fastest,
6 cheapest, easiest thing to do. I'd say that's the
7 success. It's something everybody can do, change a light,
8 change the world is the way that it is promoted in certain
9 programs and it's very true.

10 For instance, I have my bill in my
11 briefcase from the last couple of times around. It's 200
12 -- let's see, my lowest one was 229, a more recent one was
13 242 kilowatt hours a month and that's running a full
14 office fulltime out of the house. That equates to between
15 \$40 and \$50 a month, okay. It can be done. I think the
16 other aspect on the barriers, right now I think it is
17 again a conflict of interest to a certain extent,
18 returning the funds to the two funds and you can do more.

19 The other thing is getting the message
20 across to the American people on the nature of the threats
21 in the world around us and that changing a light bulb is
22 no longer just an action that is -- I forget how Vice
23 President Cheney said it, it's a nice thing to do morally
24 or something to that effect. It has to do with your

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1 national security and the charts that I've supplied you,
2 which the home audience for CTN can't see, show that the
3 world's reserves of oil -- and we still use oil in
4 Connecticut. Not as much as we used to but the whole idea
5 of the conservation ethic, which takes in transportation
6 too, the world's reserve, 70 percent, are in the middle
7 East.

8 That area is not going to quiet down. So
9 I'd say recognition. It's not just the environment it's
10 other aspects as well. Same for climate change. Kofi
11 Annan had a OP ED piece that went through a number of the
12 newspapers saying it's not just an environmental aspect
13 it's an economic thing. Poor Carl over there has heard me
14 for years talking about the effects of climate change on
15 his insurance industry and how Allstate just pulled out of
16 Delaware and they cited climate change. It's the first
17 time a major insurer has pulled out of new policies in a
18 state and cited climate change.

19 Their landmark and it's something that we
20 need to be aware of. So there are all sorts of
21 implications for our energy use.

22 MR. SANDLER: I was looking for something
23 more along the lines of time of day rates and --

24 MR. GORDES: Oh, oh of doing things -- I'm

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1 sorry, I'm getting into the more strategic day-to-day
2 rather than the tactical. We could do of course time of
3 use rates, we could do as Henry Link said what we call an
4 inverted block rate structure.

5 Remember you used to have a block rate
6 structure at the DPUC when the more you bought the cheaper
7 it got and that's why electric heat looked so good and --
8 you know, we did every low income housing development and
9 every senior citizen housing development on it and there
10 was only one person screaming, so -- but it's like sure,
11 we could do a number of interesting things. We could
12 start doing demand at the residential level.

13 There's all sorts of things we could look
14 into. There was one proposal to charge a certain fee for
15 the square footage of the house but that can be
16 misleading. That's not necessarily a good way to do it
17 and I just don't think it's going to catch on with people.
18 I think we have to do a lot of public awareness and a lot
19 of education and get to those kids who will nag the
20 parents just as the stop smoking campaigns did.

21 So -- I'm not getting maybe to what you
22 want to hear but there's a lot of things that can be done.

23 CHAIRMAN DOWNES: Further questions or
24 comments?

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1 MR. GORDES: Well let me say one thing too.
2 There is in the new -- I love this one and actually the
3 new Legislation, the one that just came out, I love this
4 and I'm going to quit my job with the ECMB and I am going
5 to retire to the Islands on this. And that is, it has an
6 incentive for a \$100 grant. It's as a grant. That's
7 important that it's worded as a grant if you buy an energy
8 star air conditioner.

9 It's down from -- originally it was a \$500
10 grant and now it's -- then it went to \$150 and now it's
11 down to \$100 so it's not quite as sweet and it just means
12 they're going to have to buy a bigger truck, but you can
13 buy an energy star air conditioner for \$75. So if I go
14 out there and just buy and buy air conditioners and give
15 them away to people then I can retire on the differential.

16 CHAIRMAN DOWNES: Are you looking for
17 partners in this venture?

18 MR. GORDES: Gladly. Are you good at
19 lifting?

20 CHAIRMAN DOWNES: I suspect if you had a
21 sign-up sheet you'd fill that up pretty quick. Further
22 comments or questions for Joel?

23 MR. MENGACCI: When we drafted that
24 particular section we were hoping that would accelerate

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1 your retirement to the Islands, that's why we put it in
2 there.

3 CHAIRMAN DOWNES: I'm thinking about going
4 back to \$150 Joel.

5 MR. GORDES: If you'll put it up to \$150
6 I'll definitely do that, and of course the Island I had in
7 mind is already sunk so what can I say.

8 CHAIRMAN DOWNES: And in any event Allstate
9 isn't writing insurance there anymore, so. Okay, further
10 comments or questions for our friend Mr. Gordes?

11 MS. HEALEY: Just one Joel and you don't
12 have to belabor this one but another assessment kind of
13 question. Conservation being how it is the best deal in
14 town benefits \$1 invested, \$4 returned, a cheap rate for
15 the environment. With the electric rates as they are now
16 with the recent procurement what -- do you see that as an
17 impact on the public's awareness of the benefits of
18 conservation and their ability to react to it -- the price
19 signal in other words?

20 MR. GORDES: You mean the price signals of
21 --

22 MS. HEALEY: Of the electric rates now and
23 --

24 MR. GORDES: Oh, the rates going up?

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1 MS. HEALEY: -- and hopefully some change
2 in behavior?

3 MR. GORDES: There's of course a certain
4 point that when people hit that point there are going to
5 be changes in behavior like it was somewhere over \$3 per
6 gallon that you started seeing SUV sales going down. But
7 electricity is a commodity, now it's a commodity that you
8 can only do so much for and it depends upon certain things
9 too like whether you own or rent, things like that.

10 Everybody can do some degree of energy
11 efficiency. But it's like -- a very good friend of mine
12 with whom I had a conversation about a week ago, I said to
13 him -- and he works in energy and he was complaining about
14 his electric bill. And I said well, have you put compact
15 fluorescents in all your lights? He said no, my wife
16 hates them, they blink and this and that and the other
17 thing. And I said well, when's the last time you tried
18 it? He said oh, it was 10 years ago.

19 And the point here is we're still not
20 getting the word out to people. There's a whole new
21 generation of compact florescent lighting that doesn't
22 have the flicker, it doesn't have the 60 cycle hum as
23 much, it doesn't have a lot of different types of
24 drawbacks that we had back then, so.

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1 CHAIRMAN DOWNES: Although we're kind of
2 seeing this one step forward, one step back kind of a
3 routine too your point on CFLs and so forth of course is
4 obviously well taken. On the other side though we have
5 these kind of sneaky, subtle kinds of changes going on in
6 some other places. People are just amazed when I point
7 out -- those who have gone out and bought, you know, a
8 large screen television any time recently.

9 You click the clicker and the picture goes
10 off and it's still drawing 40 or 50 watts. If you have a
11 computer at home that has a cable modem or a DSL modem or
12 some similar thing and you let the modem run, another 40
13 or 50 watts just drawing 24 hours all the time. Even
14 things that look like they have almost no effect like the
15 clock on the front of the microwave.

16 Here's another classic one and you never
17 think about it but that's still drawing watts on a regular
18 basis, so.

19 MR. GORDES: That's absolutely true.
20 Actually a fellow named Allan Meyer from Lawrence Berkley
21 Lab has done extensive work on what we call phantom loads
22 because you really don't -- they're so small and stuff and
23 you really don't think they're there but it's a matter of
24 -- in our house we do have a couple of places where we do

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1 disconnect them through a strip switch and basically it
2 kills the phantom load.

3 I'm not as good at that as I should be but
4 they do add up, you're right, 24 hours a day, 30 days a
5 month, there's some affect yeah.

6 CHAIRMAN DOWNES: And with a million and a
7 half households that are drawing an extra 100 watts a day
8 --

9 MR. GORDES: Sure.

10 CHAIRMAN DOWNES: -- it doesn't take long
11 to realize you're talking about serious numbers of
12 megawatts just from things like the little clocks on the
13 front of the microwave.

14 MR. GORDES: It's amazing, yes it is sir.

15 CHAIRMAN DOWNES: Okay, anything further
16 for our friend Mr. Gordes?

17 MR. MENGACCI: Thank you Joel.

18 MR. GORDES: Thank you all.

19 CHAIRMAN DOWNES: Thank you so much.

20 MR. GORDES: See you next year.

21 CHAIRMAN DOWNES: Your testimony
22 demonstrates your expertise, we appreciate it. Okay, that
23 concludes the speaker's list that I had. I want to give
24 an opportunity -- there's a lot of horsepower in the room

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1 -- hold on one second sir.

2 There's a lot of horsepower in the room so
3 can I entice anybody else who would like to speak before I
4 go to round two? Would you like to -- please approach sir
5 and be kind enough to identify yourself and proceed at
6 your convenience. Good afternoon sir.

7 MR. DAVID JACKSON: Thank you. I am David
8 Jackson. I am on the Sierra Club but I would like to
9 speak as a resident of West Hartford. I really don't have
10 any questions but just a takeoff on the last comments.
11 There is a book called the Bottomless Well. It's written
12 by two thermodynamic engineers from Maryland and it gets
13 into just what you were talking about.

14 And basically what it says, even though you
15 have energy star appliances like the television, a broad
16 screen flat television, it uses three times as much energy
17 as the old 24 inch TVs. And they're saying this is going
18 to continue as more and more electronic devices get
19 invented and put into use, that it's going to drive our
20 energy use up. So that's something that we're facing and
21 that's probably one of the reasons we have a continuous
22 demand. Then today I happened to be online and there's a
23 new book out by -- I can't remember the guy's name, it's a
24 French name and he's from the UK and you can only get this

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1 book on Amazon.Canada rather than .com.

2 And it's called Heat: What Al Gore Did Not
3 Tell You About Global Warming. And it gets into the
4 situation -- and this is a little summary I got if you
5 want to buy the thing. And it says that global warming
6 and energy is the only situation where we're trying to
7 make political changes and it's not for greater abundance
8 it's rather for austerity and sacrifice, which makes it an
9 extremely hard sell. And this little note just happened
10 to say for an area of transportation that we need to
11 deliver -- we need to replace private vehicles with
12 delivery vehicles meaning vans.

13 Like grocery stores, you have the groceries
14 delivered to your house instead of getting in the car.
15 Taking big box stores that are out in the country
16 somewhere, you close them down and make them warehouses
17 and vans go there to pick up stuff for distribution and
18 what this does -- I don't know where he gets the number
19 from but he says for every van you remove three private
20 vehicles from the road which is a big savings. I just
21 point these two books out for you because I think some of
22 you in the room might be interested in reading one or more
23 of these books.

24 But The Bottomless Well is really

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1 discouraging when you read this thing. That's all I have
2 to say.

3 CHAIRMAN DOWNES: Well, that certainly wets
4 our appetite. Any questions or comments for our friend
5 Mr. Jackson? Thank you very much sir.

6 MR. JACKSON: You're welcome.

7 CHAIRMAN DOWNES: We appreciate your
8 observations. Okay, anybody else that would like to speak
9 for the first time? Okay and Mr. Fromer, you seem to be
10 anxious to speak for the second time, so.

11 MR. FROMER: Yes, I just want to bring up
12 some of the things I had forgotten. That jogged my
13 memory.

14 CHAIRMAN DOWNES: We're very pleased by
15 that.

16 MR. FROMER: I'm sure, I'm sure. I have a
17 good sense of humor. First of all I wanted to address
18 some of the comments that were made by Mr. Sandler and
19 yourself about the electronics staying on, Mr. Sandler
20 asking about conservation. It comes to what I've been
21 saying all along and I have to reiterate the State has no
22 master plan of conservation. These are all good ideas but
23 until you have a roadmap and a strategic plan of how
24 you're going to address these issues this is just

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1 conversation, it's nice, but it has to be put into
2 implementation.

3 And so this Board should recommend the
4 creation of the strategic master plan of how you go from
5 Point A to Point B. If you're really going to get serious
6 about conserving energy or reducing the energy demand
7 you've got to have a plan in place that shows how you're
8 going to manage, control and accomplish what you're trying
9 to do. Otherwise, it's just an exercise in literature.
10 One of the things that my friend Mr. Gordes brought up and
11 I'm in agreement with him, which is strange because you
12 have two Jews and we usually create three synagogues --

13 CHAIRMAN DOWNES: Oh good, we needed to add
14 religion to this discussion.

15 MR. FROMER: Anyway, this country gets most
16 of its oil like Mr. Gordes said from Mexico and Canada and
17 Venezuela and all those oil fields are in the depletion
18 mode. They've all achieved peak production. This week
19 one of the reports came out over the internet that I ran
20 is also in a depletion mode and they expected their oil to
21 be depleted in about 10 years but that report is a little
22 vague and that's because Iran has not expended very much
23 investment money into looking for new sources.

24 But here's something. Here's a

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1 conservation issue that no one addresses and I've brought
2 it up and I'm trying to get legislation. How many of you
3 are familiar with the State's demolition code? The State
4 demolition code, and I've tested this and I sent a copy of
5 the court case involving this to Mr. Sandler, Attorney
6 Sandler, the State demolition code is a ministerial act.
7 Anyone who has a license for demolition can appear before
8 any Town's Building Official and obtain a permit to
9 demolish any building in the state.

10 No consideration is required for feasible
11 and prudent alternatives. So any building can be
12 demolished. All that person has to do that is licensed by
13 the State to demolish is show up at the Building
14 Official's office, fill out the application and that
15 building will be demolished. Planning & Zoning
16 Commissions, the Town Council, have no authority to stop
17 it. Now built into the demolition code is a 90 day
18 waiting period but that just says there's a time delay
19 from where it occurs.

20 So this Board should recommend changing the
21 demolition code so that buildings are not just demolished
22 because some developer wants to put up a high rise or some
23 other ugly looking structure. Feasible and prudent
24 alternatives should be looked at, rehabilitation, reuse,

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1 if you're going to take it down look at deconstruction and
2 recycling of the building materials but no consideration
3 is given to doing that. And so an awful lot of our
4 structures throughout the state are just being demolished.

5 Wholesale, in some cases -- in the case in
6 New London where I used to live and fought the big battle
7 with Kilo, the entire naval facility of brick buildings,
8 concrete, brick, steel buildings built with millions of
9 dollars of federal funds were demolished. Perfectly
10 usable buildings and there was no way to stop it, no way.
11 And I think you need to and should look at that.

12 In terms of the Connecticut Clean Energy
13 Fund, their philosophy and approach is we have supply, we
14 have demand and technology will fill the gap. Well guess
15 what, technology is materials and requires energy to make
16 that technology. That is not the solution, conservation
17 is. Here's another land use issue. Mr. Gordes, I have to
18 compliment him. Years ago -- and I know he finds that
19 difficult to deal with, he got passed when he was a
20 Legislator, Section 8-25 of Connecticut General Statutes
21 with respect to subdivisions.

22 And it required that the Planning
23 Commission consider, that was the magic word, consider
24 orienting buildings in a subdivision and that word

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1 consider is incorporated into subdivision regulations and
2 that's what towns do. If someone comes in with a plan
3 they consider it and ignore it. They don't locate -- they
4 don't orient the buildings facing due south within plus or
5 minus 15 degrees.

6 So -- and some towns like the town where I
7 live in in Windsor, you come in with a subdivision plan,
8 it's not followed up with a site plan, so even they may
9 have a solar access plan showing on paper that these
10 buildings are oriented properly it's not enforceable
11 because the Building Official doesn't have to ensure
12 because there's no site plan review, that that building is
13 oriented in that direction to face due south.

14 Now, in some towns it is and I'm trying to
15 get legislation introduced this year which will correct
16 that problem by requiring every lot, whether subdivision
17 or non-subdivision, to require site plan review. So
18 that's one approach that should be addressed by your Board
19 in the Energy Plan that all buildings in a subdivision, in
20 fact all private homes should be oriented within the south
21 facing direction within plus or minus 15 degrees. The
22 other thing is how are you going to get conservation?
23 Well, it's very simple. It's marketing. This state
24 doesn't market it.

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1 If you want people to comply, you want
2 people to engage in conservation, you've got to market it.
3 If you don't put money into marketing it's going to be a
4 nice conversation piece but that's about it. And one
5 final point, cars. A lot of people buy these Prius's
6 saying -- oh wow, I'm getting 60 miles to the gallon.
7 Well, I have a 1990 Toyota Camry, pay no taxes on it,
8 okay, it gets 20 miles to the gallon, okay. I will run it
9 into the ground. It's got 200,000 miles on it.

10 Am I using more energy than the guy who's
11 getting 60 miles to the gallon? No. Why? Take a look at
12 all the energy that went into building that car and then
13 take a look at all the energy that goes into replacing
14 parts, to maintain it, to operate it and look at the
15 energy you're going to save by going from 20 to 60 miles a
16 gallon over the life of that car, which is usually about
17 100,000 miles. It's miniscule compared to the total
18 energy and the greenhouse gases produced at every step of
19 the process to make that car globally, not just in
20 Connecticut, globally.

21 The greenhouse gas is produced at every
22 step of the process. So the gas saving is miniscule.
23 What's the solution? Mass transit. That means you've got
24 to get rid of subdivisions. Well, subdivision in land use

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1 planning is a legal right, there's no constitutional
2 right. A person has a right to the use of their property
3 under the federal and state constitution but no one has
4 the right to the most luxurious use of that property, the
5 most beneficial use of that property. You have the right
6 to the reasonable use of that property.

7 Subdivision is a legal right it's not a
8 constitutional right and the sooner this state is aware of
9 that kind of approach the better it's going to be in
10 encouraging the municipalities, the large municipalities
11 like Hartford and New Haven, to grow and to get rid of
12 suburbia all together. Put a stop on suburbia. Zoning as
13 is done in Europe, a green zone around metropolitan and
14 municipal areas, which is point to point to
15 transportation.

16 Nobody can build in those areas, it's a
17 green belt used for food, for open space, whatever have
18 you. But does this State have the will to do that? No,
19 that's the problem. Thank you.

20 MR. FROMER: Thank you sir. Questions or
21 comments for Mr. Fromer? An opportunity to rebut Mr.
22 Gordes?

23 MR. FROMER: No, he wouldn't dare.

24 MR. GORDES: Your honor, I rest.

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1 CHAIRMAN DOWNES: Thank you sir. Last
2 call, I'll offer one more opportunity for anybody present
3 who would like to address the group. In that case, I'd
4 like to thank everybody who appeared today. We obviously
5 learned a great deal and we appreciate the thoughtful and
6 wise advice we received from everybody here.

7 There -- now let's see, we had our first
8 hearing last night I believe, we had this one today and I
9 think we have one more coming tomorrow. Very fine.

10 MS. HEALEY: Where?

11 MR. MENGACCI: In Norwich.

12 CHAIRMAN DOWNES: Yes, I was just going to
13 say it's going to be at -- and I believe it's at the Town
14 -- no, it's Three Rivers Community College in Norwich.
15 And it will be an evening event, 6:00 p.m. I'm sorry, Mr.
16 Leahy.

17 MR. LEAHY: I just wanted to mention that
18 written comments are accepted through the 22nd, so anyone
19 who wants to add to their testimony or add new testimony
20 they have until the 22nd.

21 CHAIRMAN DOWNES: And thank you for
22 pointing that out. I'd also like to invite -- we had
23 several speakers who were kind enough to walk through and
24 cite particular pages and lines and references and

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1 changes, to the extent that if those could be committed to
2 paper those would make our lives considerably easier and
3 we'd very much appreciate that as well.

4 Okay, Mr. Link.

5 MR. LINK: Just for people just watching
6 this and don't know much about the energy in general, the
7 Energy Plan, which you can comment on, is ctenergy.org for
8 the 2007 draft Energy Plan. Again, it's ctenergy.org for
9 those people who can make some direct comments to the Plan
10 as opposed to energy in general.

11 CHAIRMAN DOWNES: Very fine, thank you for
12 pointing that out Mr. Link. And with that ladies and
13 gentlemen, thank you so much for your time and attention
14 and this hearing is closed.

15 (Whereupon, the hearing was adjourned at
16 5:30 p.m.)

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