

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

ORANGE COUNTY CLEANTECH SYMPOSIUM
"Creation of a Renewable Energy Portfolio Standard"

Thursday, February 18, 2010
8:00 a.m. - 12:18 p.m.

UCF Executive Development Center
36 West Pine Street
Orlando, Florida

Reported by
Leslie Richmond, RPR

ZACCO & ASSOCIATES REPORTING SERVICES
605 East Robinson Street, Suite 430
Orlando, Florida 32801
(407) 425-6789



Orange County Cleantech Symposium
“Creation of a Renewable Energy Portfolio Standard”
Thursday, February 18, 2010



AGENDA

*Special guest speaker at closing of the Symposium —
 Florida Governor Charlie Christ*

- 8AM-8:15AM: Orange County Introduction/Welcome (John Lewis/Kirstie Chadwick)
- 8:15AM-8:45AM: State of the Union for Florida’s RPS policy (Tommy Boroughs)
- 8:45AM-9:15AM: Programs in Action – Benefits of RPS to Florida (Dr. Jim Fenton)
- 9:15AM-9:30AM: Networking Break
- 9:30AM-10AM: Utility Perspective (Jennifer Szaro, Orlando Utilities Commission)
- 10AM-10:30AM: Builder/Developer Perspectives – Panel Discussion

Moderator: Robyn Dowsey, Wharton Smith, Inc.
Panelists:
 - David Bessette, All Solar Florida
 - Kimberly Krutski, Blue-chip Energy
 - Christopher Maingot, Superior Solar
- 10:00AM-10:30AM: Michael Dobson – Where Should FL go from here on RPS?
- 10:30AM-11:00AM: Case Studies of RPS Policy in Other States – Good & Bad (George Cavros)
- 11AM-11:30AM: Open Forum to Share RPS Ideas and Closing Remarks (John Lewis)

Next meeting – April – date to be announced

Special Thanks to Our Sponsors:



Partners:



1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

P R O C E E D I N G S

MS. CHADWICK: First of all, thanks, everybody, for coming today, and for those of you who don't know what's going on, this is Orange County TV, so this is getting recorded and it will be put online as part of Orange County's initiatives here in the Cleantech sector and what not.

My name is Kirstie Chadwick. I am the director of venture development for the entity called the Venture Lab out at UCF, and the Venture Lab is an agency that helps technology start ups here in the Central Florida region with business development and finding capital and things like that, so we're just a group of folks that are here to help those of you that have small technology businesses in Central Florida. And Cleantech is, obviously, a hot sector in the world of venture capital and things like that, and so our specific focus is in that type of sector with that type of a company. But, today, I'm here as a facilitator of this event, but it's actually Orange County who is -- who we should be thanking for putting all of this together today. And I'm going to introduce that gentleman that just ran out the door as our first speaker.

This is John Lewis. John Lewis is the economic development administrator for Orange County. He's here

1 representing Mayor Crotty and this whole series of
2 symposiums and Cleantech studies and what not that have
3 been going on which you'll learn about today if you
4 don't already know what that is, our -- Mayor Crotty's
5 initiative towards trying to promote Cleantech as an
6 economic development initiative here in Central Florida,
7 and John is the gentleman that behind the scenes is
8 doing a lot of the operational economic development
9 activities on behalf of Mayor Crotty. So with that, I'd
10 like to introduce John Lewis to kick us off here this
11 morning.

12 MR. LEWIS: Thank you, Kirstie. I'm told that we
13 need to stand behind the podium today, we can't walk
14 around or it makes it difficult for Orange TV, so I'm
15 going to try to stand still like my father used to tell
16 me 45 years ago.

17 Mayor Crotty would have been here this morning, he
18 had a previous commitment and can't be here. He's been
19 here with us before, and so I think you all know that
20 Mayor Crotty supports these initiatives and he certainly
21 will follow up and look at the videos and the
22 transcripts and we'll talk about what happened today
23 after today.

24 All of this started back in -- on October the 23rd,
25 2008 when Mayor Crotty announced his two-pronged

1 Cleantech initiative. The first one was to come up with
2 a study on Cleantech. What our assets are, what our
3 possibilities are for growing Cleantech, our potential,
4 just the presence of Cleantech in the community at the
5 present time. We didn't have anything like this at the
6 time, although Cleantech was the buzz word in economic
7 development from San Diego to San Jose to Austin to
8 Boston and Dallas. So we felt we really needed to get
9 up to speed on this and get our fair share of Cleantech
10 growth.

11 As you can see, the study has been done, it's been
12 released. We had three Cleantech symposiums last year
13 that all provided input into this study. Many of you
14 participated in that, and already 2,000 copies of the
15 study have been distributed. The purpose today is to
16 start the process of furthering discussions on all of
17 the specific recommendations in the Cleantech study,
18 starting with a renewable energy portfolio standard, the
19 goal that we would like to see implemented in Florida.

20 We've already taken steps, though, to make sure
21 that implementation moves along. A week after this
22 study was released, the Orange County Board of County
23 Commissioners unanimously incorporated all 17
24 recommendations into their legislative priorities.

25 Following up on that, two weeks ago, I sent a

1 personalized letter specifically mentioning RPS and a
2 copy of the Cleantech study to every single state
3 senator and representative. So, hopefully, that will
4 reach some of the places where it needs to be. Sandy
5 Shugard, Dr. Shugard from Valencia, has agreed to chair
6 a green committee, and we're organizing for that and
7 we'll be starting that shortly. You'll be hearing more
8 about that. But the Mayor has also directed our
9 building department to come up with a strategy and a
10 process for enacting comprehensive green building codes
11 and ordinances in Orange County. They've been working
12 on this for a couple of months, having meetings,
13 figuring out how they can do this within the framework
14 of state building codes and so forth, and they're going
15 to be presenting where they are at our next Cleantech
16 symposium, and we'll have another line up of stellar
17 speakers just as we have today.

18 I wanted to -- I looked through the list of people
19 here today, and I wanted to go through the list and try
20 to pick out 10 people who would represent the diversity
21 of this group and realized that that's going to add
22 another 10 minutes and that would take another 10
23 minutes away from our speakers. So I'll encourage
24 everybody to say hello to each other during the breaks
25 and during the networking opportunities here this

1 morning.

2 First, I want to say thank you, especially to our
3 sponsors and our partners, because, without them, we
4 wouldn't be having any of these symposiums, we wouldn't
5 have been able to complete the Cleantech study. And the
6 first organization I'd like to thank is the Florida
7 Solar Energy Center. Dr. Jim Fenton has been a speaker.
8 I think this is the third time he will have spoken at
9 one of the symposiums. So the Florida Solar Energy
10 Center is one of our most important partners.

11 TechAmerica. How many ever heard of TechAmerica?
12 Formerly AEA. I think we've all heard of AEA,
13 technology's largest industry advocacy organization.
14 They assisted us with the registration process and a lot
15 of other things related to the symposiums and the study.

16 The Metro Orlando EDC. They help us identify
17 Cleantech companies, reach out to Cleantech companies,
18 and they developed a section on Cleantech on their
19 website. I encourage you to go look at that. The EDC
20 has a tremendous amount of very substantive information
21 on its website.

22 Mitsubishi Power Systems, one of our largest
23 Cleantech companies in Metro Orlando. We tend to think
24 of Cleantech companies as being emerging companies and
25 start ups. Well, two of our largest employers in

1 Orlando are Cleantech companies, Mitsubishi Power
2 Systems and Siemens Energy. And Mitsubishi has been
3 very helpful in supporting the expenses that are
4 associated with these symposiums.

5 As well as AquaFiber, Cleantech Solutions from
6 Biology, and Tom Bland. They've been very supportive in
7 terms of helping us be able to provide the financial
8 wherewithal to conduct these symposiums.

9 The Institute for Economic Competitiveness at UCF.
10 This actually was a cornerstone -- establishing this was
11 the cornerstone of Mayor Crotty's economic stimulus
12 package in 2002, and it has gone on to achieve great
13 things under the leadership of Dr. Sean Snaith, and
14 they're the ones that completed the Cleantech study. I
15 just saw last night, this is a complete redo of their
16 website, so you may not recognize it.

17 Of course, the UCF Venture Lab and Kirstie
18 Chadwick. They're the ones that are organizing this
19 whole thing, and I think a lot of thanks to Kirstie and
20 Christa Santos and Sean Christensen and everyone that's
21 involved with the Venture Lab. I think they're working
22 with six Cleantech companies right now. There's a
23 tremendous amount of resource on this website, so I
24 encourage you to go visit that when you can.

25 And in a larger context all of UCF, really is our

1 partner, not just the Venture Lab and the Institute for
2 Economic Competitiveness. It's the technology
3 incubator, the expanded programs at UCF Small Business
4 Development Center, and a host of programs, and you can
5 go into UCFopportunity.com and you'll see a whole list
6 of all the programs at UCF that are related to economic
7 development. And as you can tell by the particular
8 screen capture that I took off the UCF website, Orange
9 County and UCF are great partners in economic
10 development.

11 Of course, Orange TV. They have videotaped every
12 one of our symposiums, every presentation, all the
13 discussions, they've integrated in with the Powerpoints
14 from the symposiums, and every one of those symposiums
15 and content is on the UCF Venture Lab website.

16 And Leslie with Zacco & Associates, she's here this
17 morning and she's taking a word for word transcription
18 of the whole symposium. So in addition to full video of
19 all the presentations, you'll have a full word for word
20 document of the entire symposium, as we have with the
21 first three symposiums. So much thanks is due to Orange
22 TV.

23 And, of course, the University of Central Florida
24 and its Downtown Center where we've been having these
25 symposiums, an ideal place and setting for this event.

1 I want to make two announcements of events coming
2 up. One is on March the 2nd where Ford will introduce
3 its first plug in vehicle in Florida, only the second in
4 the United States. So there's the website there. I'll
5 give you a minute to write that down where you can go in
6 and find some more information about it, but from what I
7 understand from the press releases, you'll be able to go
8 out and actually test drive the plug in vehicle if you
9 have a mind to. Looks like an exciting day.

10 Then coming up on April the 14th is the Annual
11 Senior Design Symposium for Renewable and Sustainable
12 Energy. That's where undergraduate students at UCF
13 showcase their research, innovation and creativity in
14 the area of clean energy.

15 I want to -- before we move on to the speakers and
16 the content of the day, I want to mention two handouts
17 that you have in front of you, I think that you've
18 picked up at the front door. One is a status report on
19 energy bills. I asked the legislative people in Orange
20 County if they could do a quick status report for me
21 yesterday on what bills were being prepared, ready to be
22 introduced, and something about them. This is a summary
23 of those bills. I was surprised to read through here
24 and see that there are some things that if we want an
25 RPS we need to support, but there are a few bills that

1 if you want a RPS, you'd better not support them. So a
2 few of those stood out as well.

3 The other thing that was handed out when you came
4 in is a feedback form from today. The results of the
5 feedback form that we had when we released the Cleantech
6 study is also out there and I think you'll find that
7 interesting. There's a lot of detail to it. We only
8 asked one question, rank the 17 recommendations in order
9 of priority. Pick five, which ones you think are most
10 important for consideration at a Cleantech symposium.
11 Out of that one question, I got seven or eight pages of
12 graphs and charts. But the RPS came clearly out as the
13 top idea, the top topic that everyone at our symposiums
14 wanted to talk about today. But there is one question
15 on here about today's symposium. We'd like to know from
16 each of you what you think the three most important
17 actions are that symposium participants can take to
18 achieve the goal of an RPS in Florida. It's not going
19 to be just Orange County or UCF or the Florida Energy
20 Center who's going to make this happen. It's got to be
21 everyone in this room doing something. And then looking
22 forward to a nice Cleantech symposium in April, we don't
23 have a specific date yet, it's going to be on green
24 building codes and ordinances. Here's a couple of
25 questions to kind of just get us thinking about this.

1 So I'd like you to respond to that as you're thinking
2 through the material this morning.

3 And, finally, of course, at the bottom, if your
4 company or organization would like to help sponsor the
5 symposiums, we would deeply appreciate it. So you might
6 think about that and we can add you to the roster of
7 sponsors at the next symposium.

8 As we move ahead today, as I was watching the
9 Olympics last night and Shaun White is his name,
10 fantastic, tried to think of a couple watch words that
11 maybe we can think about as we hear all the
12 presentations today. If we really want to establish an
13 RPS in Florida, seems to me that we ought to be asking
14 ourselves what's reasonable. Is it 20 percent by 2020?
15 15 percent? What's included in an RPS? How do we make
16 it specific to Florida? And how do you answer the
17 question of cost? So there's a couple things that might
18 give you some guidance, and just try to think about
19 these as the presentations are made. Our goal, of
20 course, is to enact an RPS in Florida. There's a --
21 sort of to set the global stage for this symposium, I
22 just want to end my introductory remarks with a quote
23 from an article that is coming out in next month's issue
24 of SFO magazine. That stands for Stocks, Futures and
25 Options magazine. It's just sfo.mag on the Internet.

1 And there is an article coming out in next month's issue
2 titled, Cleantech, How China Sizzles and the U.S.
3 Diddles. There's just a couple of sentences from it.

4 As the United States continues to be polarized
5 around the Cleantech policy, diddling with
6 implementation of things like a federal renewable energy
7 standard, the Chinese have quietly leapt to the
8 leadership position in the industry. In 2006, they
9 passed RPS renewables to comprise 15 percent of their
10 energy mix by 2020. They're going to reach that
11 capacity of 20 percent by 2020. And they'll meet their
12 2020 solar goal by next year. So they're moving
13 forward. This article describes how China wants to be
14 dominant in the Cleantech industry. They want to have a
15 laser-like focus on Cleantech. Watch for this article
16 because I think it does sort of provide the framework
17 within which we have got to get going.

18 So one of the basic underlying questions that we
19 need to ask ourselves today is how do we sizzle in Metro
20 Orlando and not diddle.

21 So with that, I'll just welcome -- this is a record
22 attendance today. I think we're going to end up having
23 about 85 or 90 people. That's the number of people who
24 registered. And we're going to continue these
25 symposiums, and hopefully we hit some home runs.

1 Someone e-mailed me a day or two ago and asked me, how
2 are you going to measure success from the symposium
3 today. And the way I would measure it is if Florida
4 passes an RPS. So I don't want to have egg on my face
5 going through all this, so I don't think anybody else
6 does either. We don't want to diddle in terms of doing
7 what we need to do to be competitive, not just in China
8 but other states. Over half the states in the United
9 States have passed renewable energy goals. When we meet
10 with companies who want to build a PV manufacturing
11 facility here, these days, in the same breath they ask
12 about incentives, they ask what kind of clean energy
13 policies do you have in Florida to support the growth of
14 Cleantech? Do you have an RPS? Well, we're working on
15 that, but meanwhile we're doing this, and we point to
16 all the great resources that support Cleantech in Metro
17 Orlando. But it would sure help in drawing companies to
18 Metro Orlando and Florida if we had an RPS of some type.
19 Over, I think, 30 states, 35 states have mandatory
20 RPS's. Some have voluntary. But I think the bottom
21 line is that they all compromised, they all came up with
22 something. In Dallas, there is something like I-4
23 called Central Expressway, and over the decades, there
24 was talk about renovating it and putting it underground,
25 widening it, elevating it. When we surveyed citizens

1 and did focus groups, the bottom line there was, we
2 don't care what you do with it, just fix it. So I think
3 the message to the legislature is, let's do something.
4 Doing nothing leaves us out of the race.

5 Thanks a lot. Hope you enjoy today. Kirstie?

6 MS. CHADWICK: Okay. I have the honor of
7 introducing the speakers throughout the day, and it's an
8 incredible group of folks that have come together here
9 to help educate all of us on RPS best practices, both
10 here, I guess, in our -- well, we don't have a lot going
11 on yet in our state, but we'll get there, but also at
12 the national level. As a reminder, the speakers do need
13 to stand, not sit, behind the podium here so that the TV
14 cameras can record all of your wonderful faces and also
15 catch your voices on the microphone.

16 So our first speaker for today is Tommy Boroughs,
17 and Tommy is with the law firm, Holland and Knight. And
18 we'll excuse him for his lawyerish background because he
19 also is a wonderful expert on the renewable energy
20 domain as well. Tommy is -- his practice in law is
21 focused on the area of zoning and land use, regulatory
22 matters and -- together with real estate development,
23 acquisition and sales. He also currently serves as the
24 co-chair of the firm's land use team. In addition, Mr.
25 Boroughs served as the Chair of the Florida Energy

1 Commission from 2006 to 2008 and he served on the board
2 of the Orlando Utilities Commission from 2001 through
3 2008. He also chaired the American Public Power
4 Association's Policy Makers Council in 2005 and 2006,
5 and he served as a member of the Board of Directors of
6 that association as well. In December of 2005, former
7 Governor Jeb Bush appointed Mr. Boroughs to the Florida
8 Energy Forum, and in 2007, Florida Governor Charlie
9 Crist appointed Mr. Boroughs to the Governor's Energy
10 and Climate Action Team. Mr. Boroughs was also voted
11 2006 municipal electrical member of the year. So as you
12 can see, in addition to his side job as a lawyer, he's
13 very, very well entrenched with the alternative energy
14 policy. So with that, I'd like to introduce Mr.
15 Boroughs to open our day and give us the broad scope on
16 the state of the union of RPS.

17 MR. BOROUGHS: Technical expert has got to set up
18 the technically challenged for this presentation here.
19 Thank you.

20 Good morning, everybody. It's great to be here. I
21 hope this is one of the last of the cold mornings we're
22 going to have this year. At least, I've got my fingers
23 crossed. Before -- rather, after my presentation, I'll
24 leave plenty of time for questions and comments and
25 discussion if we want to do that.

1 Before I get started with the RPS history and the
2 present status of the RPS policy in Florida, let's make
3 sure we're all on the same page in terms of a definition
4 of renewable portfolio standard. A renewable portfolio
5 standard is a requirement that power generating
6 utilities produce more energy from renewable sources.
7 It generally establishes a minimum level of electricity
8 sales that must come from a renewable generation -- must
9 come from renewable generation by a specific date, like
10 a certain percent by this date, certain percent by
11 another date. Okay. Why do we have one? What are the
12 justifications for having a renewable portfolio
13 standard? First, you know --

14 I'm sorry, I'm still under definition of renewable
15 energy. Did I do something wrong? No. I'm still on
16 the definition for renewable energy now. Sorry. I got
17 ahead of where I am in my outline.

18 But renewable energy means energy produced from a
19 method that uses one or more of the following sources of
20 the following fuels or energy sources: Biomass, solar
21 energy, geothermal energy, wind energy, ocean energy,
22 hydroelectric energy. Basically, renewable energy is
23 energy from a source that continually replenishes
24 itself.

25 Okay. What's the definition of biomass? Let's

1 talk about biomass. Well, Florida -- this is a
2 statutory definition of biomass in Florida. It's very
3 broad as you can see. And it covers not only, you know,
4 everything from agricultural products to agricultural
5 waste, including plant and animal, it also covers such
6 things as municipal solid waste and urban wood waste.
7 Now I get to the reasons for why we have an RPS. One
8 reason is to reduce the carbon emissions in our
9 generation to renewable sources which generate less or
10 emit less carbon. But also renewable energy emits less
11 other pollutants such as sulphur oxide, nitrous oxide
12 and mercury. Also -- and this is one of my favorites --
13 it reduces dependence upon foreign fossil fuel sources.
14 In Florida, that's especially important because in
15 Florida we import 98 percent of the fuel for our energy.
16 Just think of it, folks. 98 percent of the fuel for our
17 energy in Florida is imported. We ship all that money
18 out of our state. Now, why is a -- if I can get to my
19 next one here. it's not shifting here, Kirstie. What
20 am I doing here wrong?

21 MS. CHADWICK: Hit next.

22 MR. BOROUGHS: Okay. That ought to work. Now, why
23 is an RPS especially important to Florida? I told you
24 one reason about we import all of our energy. But
25 Florida has a vast potential for renewable energy.

1 Florida could be literally the Saudi Arabia of biomass.
2 Look at what we've got just from our so called
3 opportunity fuels, just from our waste fuels. We got
4 timber waste, agricultural waste, lawn clippings, land
5 fill waste, animal waste, food processing waste, and we
6 can grow crops. We've got the land, we've got the
7 climate, we've got the rainfall. In addition, we've got
8 good solar, we've got good potential from the
9 Gulfstream. The Gulfstream that whips around Florida
10 off the southeast coast is the fastest moving body of
11 water around the continental United States. And we've
12 got a potential of offshore wind. Notice I don't
13 mention onshore wind because it's basically just shore
14 wind. At least with the technology today and people on
15 the coast just -- in our country, just -- in our state,
16 just don't want to see turbines or windmills, you know,
17 blocking their view of the ocean. The Europeans are a
18 little bit different. They think of things differently.
19 I know a lot of you have been to Europe and you've seen
20 these turbines. Europeans think more of the common
21 good, in a certain sense. Americans, we tend -- and I
22 speak in exaggerations and I'll acknowledge that, but
23 Americans tend to think more of our individual rights.
24 We don't want to be -- we don't want our view of the
25 ocean, you know, to be blocked by a turbine or a

1 windmill. So it's going to be tougher to have anything
2 other than offshore winds. And that's -- I list that as
3 a potential because that's out there. You can do it,
4 you can do it now. It's very expensive to do it with
5 the technology we have now. Eventually, though, we'll
6 probably do better than that.

7 Okay. Now I'm getting ahead of myself. Let's talk
8 for a minute about the history of an RPS policy in
9 Florida. In 2006, the Florida legislature created an
10 entity called the Florida Energy Commission. Okay.
11 There were nine of us appointed by the president of the
12 Florida Senate and the Speaker of the Florida House, and
13 the purpose of the Commission, the purpose of the
14 Commission was to advise the Florida legislature on the
15 future -- on a future energy policy for the state of
16 Florida. I served as chairman. We had -- in addition
17 to the nine commission members, we had four advisory
18 groups. Each of our four advisory groups were chaired
19 by a member of the Commission but they were staffed by
20 as many as 15 or 20 members of the public, members of
21 the public representing all the various vested interest
22 groups that had a vested interest in a Florida renewable
23 policy. You know, utilities, customers, businesses,
24 government, environmentalists, academia. And at the end
25 of that year -- we had hearings all over Florida, not

1 just our full commission, but also the four advisory
2 groups. The end of that year, we came up with a set of
3 recommendations. I've got it here with me. It's about
4 the same size book as that Cleantech study that all of
5 you have there at your -- that you were given when you
6 walked in, that Orange County did, that Cleantech study,
7 that green book. About that size. And that was one
8 volume. Volume 2 is more specific with the actual --
9 the language of the specific legislation we wanted. But
10 we made 85 separate recommendations to the Florida
11 legislature in our December 31, 2007 report that would
12 be the backbone of the beginning of an energy policy for
13 the future of Florida. One of our four advisor groups
14 I've told you about was focused on renewable energy, and
15 we had several recommendations in the renewable energy
16 area. One of them -- well, let's give you an example.
17 We recommended the legislature direct the Public Service
18 Commission to study renewable energy in Florida, to look
19 at all the various sources, and after that study, to
20 recommend a renewable -- come up with a recommendation
21 for a renewable energy policy for the state of Florida.
22 Okay. It was our recommendation No. 40. That was it.
23 Okay. Come up with an RPS for the state of Florida.
24 Well, the 2008 legislature said it did something, the
25 House did nothing. What did the Senate do? This is the

1 bill the Senate passed. Okay. The Senate said, okay,
2 Commission, Public Service Commission, adopt rules for a
3 renewable portfolio standard. Okay. And in doing that,
4 consult with the DEP, Department of Environmental
5 Protection of Florida Energy and Climate Commission, and
6 have a report, have a draft rule for consideration of
7 legislature by February 1, 2009.

8 All right. Let's look at some of the component
9 parts. I keep hitting this thing. I got to redo it
10 here. Let's look at some of the component parts of
11 that. Let me backup just a minute. So the Public
12 Service Commission hired a consulting firm called
13 Navigant Consulting, one of the top consulting firms in
14 the country, to do the study. And I've got some
15 excerpts here of the docket of the -- of a public
16 meeting of the Florida Public Service Commission of
17 December 31, 2008, at which Navigant made the summary.
18 They had already published their report and the staff
19 had already published its recommendations, but these are
20 some excerpts, okay, from the recommendations of
21 Navigant. Okay. Here's what Navigant said.

22 No. 1, under the unfavorable scenario for renewable
23 development, which includes a 1 percent rate cap,
24 renewable energy in Florida could be 5 percent of IOU
25 retail sales by 2020.

1 Well, what do they mean by unfavorable scenario?
2 What they're talking about is -- what they're talking
3 about is they're referring to their -- the price of
4 fossil fuel. Okay. The existence and the amount of any
5 governmental renewable incentives. Such things as the
6 viability of a market for financing renewable energy.
7 And under the most unfavorable scenario, you could only
8 do about 20, 25 percent. Under the mid favorable
9 scenario which had a 2 percent rate cap -- now, the
10 unfavorable scenario had a 5 percent. I'm sorry, that
11 was -- I'm sorry, that's a 1 percent rate cap. The rate
12 cap means -- the 1 percent rate cap means the percentage
13 of total retail electric sales a utility has. For
14 example, if their total retail sales is a hundred
15 million dollars, 1 percent is 1 million. So that's all
16 that company would have to spend in, you know, the
17 following year is 1 million dollars in order to meet the
18 RPS goal. So that's why it's referred to, our first
19 bullet there, as an unfavorable scenario. It only gets
20 to be 5 percent, okay, 2020. You get a 2 percent rate
21 cap and a little better and more expensive fossil fuel
22 cost from governmental renewable portfolio and renewable
23 energy incentives, and a 2 percent rate cap, and you can
24 do 11 percent by 2020. Under the most favorable
25 scenario, which includes a 5 percent rate cap, you could

1 do 25 percent by 2020. Okay. So, all right, here is
2 what they recommend. This is what Navigant recommended
3 and this is what the staff recommended. By January 1,
4 2017, 6 percent. Da da da, da da da, da da da. We
5 don't get to 20 percent to January 1, 2041. Okay. So
6 that's what they recommended. Well, that was on a
7 December 31, 2008 meeting, formal adoption of a
8 recommendation of an RPS in Florida of 20 percent by
9 2041. Wait a minute, says Governor Charlie Crist. He
10 said, what do you mean 20 percent by 2041? Didn't you
11 read my executive order? He issued a set of three
12 executive orders dealing with renewable energy in the
13 summer of 2007. One of his executive orders, he asked
14 the Public Service Commission to prepare a rule
15 providing for -- getting an RPS of 20 percent by 2020.
16 He said, didn't you see where I asked for 20 percent by
17 2020, and you come back with 20 percent by 2040? Now, I
18 don't know this for a fact but I just would speculate,
19 he had some of his minions go talk to the Public Service
20 Commission guys. Do you realize who appoints you? Do
21 you realize who reappoints you? I need it to be 20 by
22 2020. Now, lo and behold, guess what, da da da, January
23 9, 2009, action of Florida Public Service Commission.
24 voila, 20 percent by 2020. Nine days later, wow, man,
25 they get the message. The Governor wants 20 percent by

1 2020, the Governor's going to get 20 percent by 2020.
2 But let's look at the components of the rule, because it
3 really -- it's the components of the rule that make the
4 difference on the ground, make the difference in
5 reality. Here's what they said. This is -- I'm sorry,
6 this is a schedule. I've already hit that. No, that's
7 the schedule. This is the way it works with you.
8 Here's some other components. Okay. Now, here's the
9 concept. IOUs could do one of two things. They could
10 either self build their own renewable energy or they
11 could buy what's called RECs, renewable energy credits.
12 They could buy them from one utility who had more
13 renewable energy than it was required to and it would
14 get so-called REC credits for that. It could sell them.
15 Okay? It could sell them to utilities. But one way or
16 the other, you had to make your RPS standard. Okay.
17 However, there's a rate cap. The rate cap was 2
18 percent. I want to go back to my hundred million dollar
19 analogy. Okay. 2 percent of a hundred million dollars
20 is 2 million dollars. So what that means is, okay, all
21 that one particular utility would have to spend to get
22 -- to make that RPS standard in any one year would be 2
23 million dollars. Now, it provided for a review every --
24 once every three years and it made the standards
25 mandatory. Okay. It's mandatory unless, you know, you

1 hit your 2 percent. In other words, you have to do it.
2 You have to hit your 2 percent. You have to either self
3 build or you have to buy the RECs. And there are
4 penalties. Penalties of up to 50 basis points for
5 unexcused noncompliance, okay, to be assessed the
6 stockholders. In other words, you can't add that to
7 your rate, baby. That's what it's going to cost you.
8 So even though there's a -- what I would call a fairly
9 generous -- some may disagree -- a fairly generous rate
10 cap, there's a heck of a penalty if you don't make it.
11 It comes right out of your shareholders' pocket. Do you
12 know what that does to your stock? Do you know what
13 that does to your bond rating? You're going to make it.

14 All right. Here's some more components. They had
15 a solar and wind carve out. The carve out for solar and
16 wind was at 25 percent of the RPS requirements had to be
17 met with either solar or wind. Okay. And the -- some
18 additional components dealt with cost recovery. In
19 other words, whatever it costs, whatever additional
20 amount of money it costs to do renewable energy, the
21 IOUs, investor owned utilities, who furnish 75 percent
22 of the electricity to customers in the state, the other
23 25 percent are from municipalities and co-ops. You
24 know, they could pass incremental costs on to their
25 customers. Now, the other 25 percent, the munis and the

1 co-ops, their rates, specific rates, are not reviewable
2 by the Public Service Commission, so theoretically they
3 can charge whatever they want to. I say theoretically
4 because it's more theory than real because nobody wants
5 to charge anymore -- I can guaranty you, OUC --
6 Jennifer, are you here? Okay. I guaranty OUC --
7 Jennifer Szaro at OUC, I guaranty OUC doesn't want to
8 have to charge its customers anymore than they have to.
9 They want to do a renewable policy, but they want to try
10 to keep the cost down. But for the most part, getting
11 started is going to cost more. Okay.

12 Now, the theory is that the more you install, the
13 more the price comes down. Like solar is a good 30
14 percent less than it was this time last year. Solar PV
15 is 30 percent less than it was this time last year.
16 Now, it's going to go down. Will it go down at that
17 same rate? I don't know, but it's going to continue to
18 go down. Technologies are increasing by leaps and
19 bounds. I mean, somebody will come up with -- I'm on
20 the advisory board of the Florida Solar Energy
21 Consortium and -- which is a group of all the
22 universities who are trying to coordinate their research
23 and then to commercialize it. I can tell you that
24 somebody comes up with something that will, say,
25 increase the efficiency of a solar PV panel 15 percent,

1 they don't want to invest money in that. That's not
2 enough. That's not enough incremental change, you know,
3 for a technology that's basically in its infancy when
4 you consider what they've looked at. So okay. Let me
5 make sure where I am here.

6 So they made their report to the legislature, and
7 here is the legislative proposal. Senate Bill 1154.
8 The Senate did pass this bill. The House never passed
9 the bill. It never even got out of committee. Not a
10 renewable energy bill. The House did pass an offshore
11 drilling bill. Okay. The Senate didn't take that up.
12 But at any rate, here it is. It was in Senator King's
13 committee, and it was very much considered his baby.
14 Here's the concept. I will allow IOUs to have 20
15 percent of sales by the end of 2020. So it was a 20 by
16 20 portfolio standard, but it wasn't a renewable
17 portfolio standard. It was called a clean portfolio
18 standard, because, okay, up to 25 percent of the
19 percentage goal each year could be in what was called
20 clean energy, which is new nuclear energy, not existing
21 that some of the utilities have, but new nuclear energy,
22 or -- or and IGCC with carbon capture sequestration.
23 IGCC means natural gas combined cycles. So natural gas,
24 you put carbon capture sequestration with it, called
25 CCS, and you can do -- you reach 25 percent of your goal

1 if you did that.

2 Okay. Here's some other components. This is the
3 timing of the goals. So you had 20 percent by 2020. So
4 essentially, even though it's 20 percent by 2020, it
5 means the last day, December 31. That's why you see
6 some of these goals expressed that they say it's 20
7 percent by 2020, but you'll see somebody showing -- it
8 really shows January, '21, 2021, because it's the last
9 day of the year.

10 Okay. The rate cap. The rate cap, same that the
11 Florida Public Service Commission recommended at 2
12 percent. Okay. But let's see how that would work.
13 Okay. I'm sorry, they had it mandatory. Same as the
14 RPS. It was mandatory. It wasn't aspirational for
15 IOUs, it was mandatory. They had to do it. Let's hit
16 the rate cap. Now, here is how the rate cap is set up.
17 Okay. Up to 1 percent of your cost could come from
18 class 1 clean energy resources, which are solar and
19 wind. Class 1, okay. Class 2 was all other clean
20 energy resources. 1 percent could come from class 2.
21 Talking about the rate cap now. That's your total rate
22 cap. No expenses for your clean energy sources, which
23 is new nuclear and the gas with capture and storage can
24 be counted toward your rate cap. So that was what the
25 Senate passed last year. Like I said, the House didn't

1 pass anything. Renewable energy never even got out of
2 committee.

3 Now, this year -- I think you've got a handout of
4 some of the senate bills. Not all the senate bills, but
5 some of the senate bills. This year, Senator Deckert
6 has got the same bill that was passed last year out of
7 Senator King's bill. Senator King has since deceased.
8 That committee is chaired by Senator de la Portilla, and
9 I haven't spoken with him, I don't know exactly where he
10 is. I've got to believe since President Jeff Atwar
11 appointed him and Jeff Atwar would like to see a
12 renewable bill, would like to see a renewable portfolio
13 standard, he would support that. I don't know that, but
14 Senator Deckert has filed the same bill, the exact same
15 bill that was passed last year by the Senate. Senator
16 Constantine has passed another renewable portfolio
17 standard bill that seeks to adopt the rule from the
18 Public Service Commission. So I've already gone over
19 what the Senate passed, already gone over what the
20 Public Service Commission recommended. So those are the
21 two bills that have been prefiled. Senator de la
22 Portilla has filed four what we call shell bills.
23 They're just place holding bills with no detail in it.
24 Senator Mike Bennett has filed an interesting bill which
25 deals with renewable energy but it doesn't have a

1 renewable portfolio standard. A lot of folks are afraid
2 that the House will not pass a renewable portfolio
3 standard, so in order to kickstart, in order to get some
4 renewable power going, it calls -- the senate bill calls
5 for so-called three tranches of renewable power. 310
6 megawatts in 2010, 200 in each of years 2011 and 2012.
7 And it could be either -- it can be anything renewable.
8 Okay. It calls for full cost recovery. Now, the House
9 -- like I said, nothing has been filed in the House
10 dealing with anything remote to a renewable portfolio
11 standard. They have, however, prefiled a bill for the
12 offshore drilling component, you know, to do away with
13 the moratorium on offshore drilling in the Gulf in
14 Florida waters. Now, some people think that's just a
15 lot of speculation. I don't know. Okay. I just don't
16 know. There's a lot of speculation that what the House
17 is going to do is to try to -- because the House passed
18 the offshore drilling last year, is to try to pass a
19 bill that will -- I mean, try to use that as a lever to
20 try to get with the Senate to workout some kind of
21 renewable portfolio, at least some kind of renewable
22 legislation, in addition -- you know, in exchange for
23 the Senate passing offshore drilling. I don't know that
24 -- I can tell you this. I met with Dean Canon last
25 week. Dean Canon is the incoming Speaker of the House.

1 He's not speaker this year, but he's incoming, and he'll
2 be coming there the next year. And, basically, I mean,
3 the offshore drilling is one of his babies. Okay. But
4 what he says, and I was aware of this, what he says is
5 what he wants is a comprehensive energy bill. He wants
6 a comprehensive energy bill. He believes as I do, and I
7 think most of us do who study energy policy. You need
8 all players. You need all the oil and gas, you need all
9 the renewables. You need nuclear, you need all the
10 renewables. You need everything you can do, you need
11 every component you can do. And what I didn't realize
12 was what he said he was willing to do, what he wanted to
13 do was all the revenue that the state would make, would
14 have coming in from the offshore drilling, you know,
15 from the sale or leases or offshore drilling rights,
16 that that would come in to support renewable energy.
17 That's a play that would work with even some
18 environmentalists. George is going to come up here and
19 talk in a minute, and I see Melissa shaking her head.
20 That won't work with everybody, but that will work with
21 a lot of environmentalists. If we have the right kind
22 of offshore drilling bill with the right kind of
23 protection and conditions and all that kind of stuff, I
24 can go along with that as long as it's with an overall
25 -- it's an overall energy bill and it's not just drill,

1 baby, bill. So what's going to happen is anybody's
2 guess.

3 It's very important that Florida have an RPS. Some
4 of the House members last year were quoted as saying, we
5 don't need to do this in Florida because the feds are
6 going to do it. Well, the problem is, if the feds do
7 it, they won't require that renewable energy to be
8 produced in Florida. All FP&L has got to do is just
9 bring those wind credits, those sun credits, and other
10 states don't have to do a thing in Florida if it's a
11 federal RPS. But a state RPS, you know, you have to do
12 -- they would have to generate the renewable energy in
13 Florida. Okay. And what I've said for all along is
14 this, if we do it right in Florida, if we do it right,
15 if we do renewable energy right in Florida, we can do
16 two things. One, we can develop our economy at the same
17 time we keep our environment green. Now, that's the
18 win/win and that's doable. And so that's what I hope we
19 do.

20 Okay. That's all I've got on my presentation. But
21 I am very willing to take any questions you have or any
22 comments you may have. Or any rebuttal, George, or
23 Melissa.

24 Any questions?

25 Well, I'll be around. And, you know, I encourage

1 -- and I will be around for the break. Right now, I
2 plan -- unless some client tells me I need to do
3 something else, I plan to be here the rest of the
4 program, and I will be interested in talking with anyone
5 that would be interested in speaking about --

6 Yes. I'm sorry.

7 UNIDENTIFIED SPEAKER: What is it about the House
8 -- what is it about the House that lost that --

9 MR. LEWIS: Can you come down to the mic?

10 UNIDENTIFIED SPEAKER: Oh, I'm sorry.

11 I'd just like to know, in your opinion, what is it
12 about the House that has the push back on like the
13 Senate? The Senate wants to push the RPS and the House
14 does not. Could you give us a little background on
15 that, or your opinion?

16 MR. BOROUGHS: Well, part of it is speculation.
17 You know, I -- first of all, for any bill to get passed,
18 you need a champion, you know. Whether it's state
19 legislature or Congress, we have to have a champion.
20 Somebody needs to get out there and, guys, we need to
21 get this done. There is no champion in the House. So
22 you start off -- and the champion needs to be able --
23 either needs to be leadership, you know, the leader, or
24 needs to have the ear of the leader, or it just doesn't
25 work and there is no champion. Second, I think the last

1 year, my impression last year was a lot of folks in the
2 House just doesn't understand it. You know, there was a
3 lot of noise. You know, the folks from FAIR were
4 -- organized folks from FAIR were trying to do feed-in
5 tariffs, and the Utilities hated it, so a lot of space
6 in trying to do renewable energy, especially solar,
7 was taken up by these guys who want to do a feed-in
8 tariff, and it sort of took away from -- it helped to
9 poison the well, I'm told. Also, I don't think the
10 Utilities were organized. You know, they talked about
11 organizing it, they talked about supporting something,
12 but they never really did. Okay. They never really did
13 that. And this year, I mean, you know, they really want
14 to do some renewables. The devil is in the details,
15 frankly. I mean, the devil is in the details because
16 here's the problem. You know, if you get -- no matter
17 what an RPS says, when they do renewables, even if it
18 says you can do cost recovery, even though the PSC will
19 allow them to do cost recovery, PSC still has final say
20 on what their rates are, basically what their rate of
21 return is, and they're afraid that they're going to get
22 nipped on their rate of return. I mean, there are a lot
23 of interests here, and the Utilities have a lot of sway
24 with the -- you know, with members of the House.
25 I know I've answered that in a very general way, and

1 maybe some of you have better answers than I do to that.
2 Bottom line, the Senate had some champions and I think
3 -- and the House did not. And the House hopefully will
4 do better this year. I can tell you that Steve
5 Precourt, who chairs the energy committee, you know, is
6 very much in favor of doing something. He won't commit
7 to how much, but he understands what I've explained
8 about an RPS. He understands why we need to do one in
9 Florida. But it's ranking people that will make that
10 decision. You know, he will not make that decision.
11 Okay? Don't quote me to Steve on that, please, but
12 that's the way it works. That's the way it works in our
13 legislature. You know, if you don't play ball with
14 those that appoint you, you don't stay in that position
15 very long.

16 Yes, Melissa.

17 UNIDENTIFIED SPEAKER: Of all the bills on this
18 handout, which one do you think stands a chance of
19 gaining the most support both in the Senate and the
20 House?

21 MR. BOROUGHS: The same one the Senate passed, the
22 same one that Ken introduced, his committee passed last
23 year. I think that's got the best chance in the Senate.
24 I think there's a good chance the House may start with
25 that. I don't know where they'll end up, but basically

1 -- and affordability is the big issue. Affordability is
2 the big issue. But -- and nobody, nobody -- this is a
3 terrible time to be an incumbent in a Florida
4 legislature right now. You know, none of them want to
5 add one penny to any taxpayer's burden or one penny, you
6 know, to any consumer's burden. They don't want to do
7 it. They're afraid to do it. So affordability is a big
8 issue. So that's why I think -- I think the rate cap
9 handles that. That's why you have a rate cap. You're
10 not going to get to 20 percent if you're just in pure
11 renewables. Even a clean portfolio standard, 20, 25,
12 you're probably not going to get there for a 2 percent
13 rate cap. But that covers the affordability.

14 Yes, sir.

15 MR. STRICKLAND: Hi, Tommy. My name is Blaine
16 Strickland. Thank you for your comments this morning.
17 I wonder if you could reflect on maybe the parallel path
18 of, maybe I would call it, the carrot instead of the
19 stick in the sense that there is also a move to create
20 credits for individual homeowners to enhance their own
21 energy consumption through solar energy panels on their
22 house and other things that they can do personally. So
23 this feels like it has to work in concert with maybe a
24 voluntary holistic type approach.

25 MR. BOROUGHS: I didn't -- I was going to get into

1 that, but I knew I had a constrained amount of time, but
2 basically it is a carrot and stick approach. Okay. The
3 stick is the RPS. The carrot is the incentives. There
4 are any number of incentives, and, you know, we got net
5 metering, you can sell it back on the grid, we've got
6 some renewables. I mean, we've got some tax credits
7 that the state coffers ran out of, but they've been
8 replenished by the federal stimulus money that's coming
9 in. So there are any number of ways that you can
10 stimulate by doing incentives, but in a lean year like
11 this, the legislature is not likely to do anything
12 that's going to take away -- that's going to cost them
13 money. That's what they've -- Steve Precourt told me,
14 tell me all you want to about incentives, but don't tell
15 me anything that's going to cost me money. And I think
16 that's where they are. The feds are in a different
17 place. However, you know, what you've got to do, you
18 can't just do a one or two or three year incentive.
19 That's not a big enough incentive for somebody to go
20 ahead, you know, and make a bigger investment. You need
21 to have a longer range incentive. You need to have
22 something to last 15 years at least, 20 years or better
23 so you can put in a whole -- whatever. Okay. And you
24 can finance it out. That's whether you're a homeowner,
25 a business owner or a plant owner.

1 Kirstie's running me off, folks, but I'll be
2 around. Okay.

3 MS. CHADWICK: Thank you. Couple of logistical
4 housekeeping things. If you're going to ask questions,
5 it would be great if you could just go to the
6 microphone, because we need to record the questions as
7 well as the answers for our transcripts as well as for
8 the television camera folks here. And although we're
9 behind here a little bit, I promised we'd have a half
10 hour at the end where we can do an open Q&A time, so we
11 will get you out of here on time if you need to go, so
12 because the dialogues are healthy and productive, we're
13 going to go ahead and try to accommodate questions if we
14 can.

15 Next up, we have Jim Fenton, the tie guy. Although
16 I see a couple of ties that looks a lot like Jim's in
17 the back of the room as well, so this will be a tie
18 contest, I think, at the break.

19 Jim, many of you may already know him, but he's
20 been a consistent attending speaker here. We really
21 appreciate his continued support of what we're doing.
22 Jim is the director of the Florida Solar Energy Center.
23 Is it director or executive director?

24 DR. FENTON: Director.

25 MS. CHADWICK: Big cheese guy. He is -- he leads a

1 staff of 140 folks in the research and development of
2 energy technologies that enhance Florida and the
3 nation's economy in environment and also educates the
4 public, students and practitioners on the results of the
5 research that FSEC conducts. FSEC is the nation's
6 largest and most active state supported renewable energy
7 and energy efficient research institute.

8 In addition to his duties as FSEC director, he
9 leads a 12 member university and industry research team
10 in a 19 million dollar U.S. Department of Energy
11 research program to develop the next generation proton
12 exchange membrane of fuel cell automotive engines. That
13 sounds serious. Dr. Fenton also serves as a professor
14 in UCF's mechanical materials and aerospace engineering
15 department.

16 Prior to joining FSEC, Dr. Fenton spent 20 years as
17 a chemical engineering professor at the University of
18 Connecticut. His research activities are fuel cells,
19 pollution prevention, sustainable energy and in helping
20 FSEC expand its nationally acclaimed research and
21 education programs which focus on hydrogen, alternative
22 fuels, solar energy and building of energy efficiency.

23 With that, I'd like to introduce Jim. Today, he's
24 going to give -- talk a little bit about some of the
25 specific programs that could be implemented in Florida

1 should an RPS pass, and he's got a particular project
2 that he would like to share with you as an example of
3 that.

4 DR. FENTON: Thank you very much. It's nice to be
5 here again today. Tommy set a nice stage for the desire
6 for the State of Florida to have a renewable portfolio
7 standard, and as he's pointed out, the advantage of a
8 renewable portfolio standard is you set a bar, a
9 requirement that the market have so much on a percentage
10 basis of renewable energy. And with that, an industry
11 responds and delivers, hopefully, that goal. Or as we
12 all hope, exceeds that goal. Without a standard such as
13 that, there is no market. That's the key. Without a
14 goal, there is no market. All right. If we establish
15 that goal, we have renewable energy, we've got a cleaner
16 environment, so on and so forth. That, in turn, also
17 generates lots of jobs. And, yes, there is a cost.
18 There's a cost with building any power plant, whether it
19 be a renewable energy one or a nonrenewable energy one.
20 I'd like to focus on some of that today.

21 I've got a map here of the United States. You'll
22 notice, as was pointed out earlier, John Lewis mentioned
23 this, there are 35 states that have chosen to go green,
24 along with the District of Columbia. There are a few
25 checkerboard green states. Those are ones that have

1 actual goals; i.e., no penalty if they don't meet those
2 goals. And you'll notice in every single case, there's
3 a percentage, okay, listed next to the state's name,
4 along with a date at which it plans on achieving that
5 percentage. Now, Tommy Boroughs also shared with you
6 that in most cases states have sort of step-wise goals,
7 so much percent by this year and the next year and so on
8 and so forth. Of these 35 states, most of them may have
9 started out a little bit low. They've all raised their
10 bar. Every single one of them has raised the bar.
11 Almost every five years, they increase that. California
12 is now up to 33 percent by 2020. That's their goal.
13 All right.

14 Now, some of them have carve outs. The little
15 yellow dot there shows you that solar hot water, okay,
16 is indeed a mechanism of meeting the goal. The little
17 FSEC sun symbol there shows that in some cases they
18 actually have solar carve outs associated with those
19 things. The other thing you'll notice is that there is
20 some states that happen to be not green, and you will
21 happen to notice that they tend to exist in the south.
22 Okay. Now, there's a reason for that.

23 I've taken that same map in front of you here and
24 put the retail residential price of electricity on it.
25 Here in Florida, we're paying about 12.3 cents a

1 kilowatt hour now, okay, for the price of electricity.
2 You'll notice that up in Connecticut, which is where I
3 used to be, they're paying 20 cents for electricity. If
4 you can find West Virginia, believe it or not, West
5 Virginia went green. Isn't that shocking? Okay. We
6 haven't done it in Florida, but they've done it in West
7 Virginia. West Virginia over here is at 7 cents. So
8 think about that now. People in Connecticut pay three
9 times the price for electricity as they pay in West
10 Virginia. Now, we pay more than they pay in West
11 Virginia. All right. Now, there is one thing I learned
12 when I moved down here to Florida. To get to the south,
13 you go north. That's obviously not a geography
14 question. But you'll notice that those southern states
15 to our north pay less for electricity than we do.
16 You'll also notice that Hawaii's out there at 23.8 cents
17 since the price of fossil fuels has actually gone down
18 recently. They used to be at 29 cents. And Hawaii gets
19 its fossil fuels by boat. California is up at 15. The
20 Pacific Northwest is around 7 or 8. They've got a lot
21 of cheap hydroelectric. Utah has got a lot of coal.
22 It's 8.6. But it decided to go green, too. So if you
23 look at these things, you can see then that there is
24 part of a reason why the south, okay, is not green. If
25 the attitude is, if it's cheap, it ain't broke, why fix

1 it, well, that's part of the problem. Okay. People in
2 Connecticut are paying a fortune for electricity so
3 they're looking for options. Okay. Alternative energy
4 will always be alternative until it's cheaper. Okay.

5 All right. Well, there's a lot of states where
6 it's cheaper. Okay. We're at 12 and a half. Now, it's
7 interesting that people will tell you that we can't
8 afford climate change. You, the citizens of Florida,
9 already voted for it. Okay. The reason why we're
10 paying 12 cents compared to 10 in the other southern
11 states is that we chose to burn clean natural gas
12 instead of coal. And, yes, in today's market, that's
13 more expensive. So you are paying more for your energy
14 now because we use clean natural gas and a little bit of
15 nuclear and few other things than those states to the
16 north of us that burn coal. Okay.

17 So what we're not aware of is that the price of
18 electricity in the United States varies widely. Various
19 policies, various reasons. All right. And as a result
20 of that, some people are more prone to look for
21 alternatives than others. One other thing you should
22 notice. Of all the states other than Alaska, and we can
23 talk about Alaska too, but all the states other than
24 Alaska, which one that's green -- okay, that's not green
25 is the most expensive. Look carefully at the map. All

1 right? All the states that are green, a lot of them are
2 more expensive, some are cheaper, but the clear one
3 that's the most expensive on here is Florida. So guess
4 what. We're next. We will have an RPS. We will figure
5 out that we need options and alternatives, because the
6 price of electricity out of the wall is going up. And
7 we'll look at those options. The question is when.
8 We'd like it all to be tomorrow.

9 Now, one of the other things that Tommy had pointed
10 out was that when we purchase fossil fuels, you buy
11 something. You consume it and it's gone. The State of
12 Florida spends 60 billion dollars a year on fossil
13 fuels. After we consume them, they're gone. Now, about
14 30 billion of that is for transportation, gasoline. The
15 other 30 billion is for making the electricity that we
16 use today. None of it comes from Florida. All right.
17 Now, does anybody remember what the states budget is?
18 60 billion dollars. So we burn 60 billion dollars.
19 That's what we do. And it's gone. Okay. So we ship
20 money out of the state of Florida. That's the business
21 we're in.

22 Now, there are states that do have coal. So West
23 Virginia, as you notice, had the cheapest electricity
24 around there. Unfortunately, they have black lung
25 disease and various other things that go along with

1 that, but they keep all the money in West Virginia
2 because it's their coal. Likewise with Utah and so on
3 and so forth. You'll notice none of the states in the
4 south keep the money at home. They like cheap prices
5 but they ship all their money out of their boundaries
6 because we don't make it here. As Tommy also pointed
7 out, Florida's the land of biomass and the sun. Take
8 advantage of that.

9 I was asked to also point out, in addition to
10 renewables, there is some interesting opportunities out
11 there for us as we add more renewables into our electric
12 grid because renewables tend to be a function of time of
13 day and so on and so forth. They are not baseload power
14 plants. They are run 24 hours a day, 7 days a week. We
15 have issues associated with incorporating things into
16 the grid. I just wanted to point that out. There are
17 some pictures that came from the Department of Energy.
18 We're looking at solar or wind as sources of energy.
19 We're putting these in through the grid. We are feeding
20 them out to various homes and residences. Some day, we
21 may integrate our car in with our residences and we do a
22 systems analysis over that whole big picture because
23 you'll be using electricity for your transportation.
24 Keep in mind, right now we think of liquid fuels as our
25 mode for transportation. The future will be electricity

1 even in your car.

2 We talk a lot about biomass. I remind you that
3 when you go into biomass, most of you think
4 transportation fuel. We can coal fire, okay, biomass in
5 our existing coal plants if we choose to do that. We
6 just have to say we're going to do it. We already
7 decided we were going to put 10 percent ethanol in
8 gasoline. Just did it. And here we are arguing about
9 an RPS. Well, it's the same thing. 10 percent ethanol
10 in gasoline. Why don't we just do it. It sets the
11 market. We can do the same thing with an RPS. I prefer
12 to think of biomass as baby coal, because that's what it
13 is, it's baby coal. And what do you do with coal?
14 Hopefully, you use it wisely, okay. With biomass,
15 sometimes we get into problems with the fact that we're
16 interested in subsidizing agriculture, which is a good
17 thing, but not an energy policy. There's a lot of
18 things we can do with it. Perhaps more importantly, I
19 remind everybody that in addition to burning fossil
20 fuels, those are our chemical feedstock, it's much
21 better to use them to make something of value, of
22 interest than to burn them. The lowest value anything
23 has is its energy value. If you can take garbage and
24 make something useful out of garbage, it's still better
25 than burning the garbage. If it really is waste, then

1 let's get the energy value out there. Okay. So that's
2 where the future lies.

3 Now, I've got two maps here. One's the world's
4 biggest market for solar energy, and the other one
5 happens to be the country I live in, and then the state
6 I live in. Germany is the world's largest market for
7 solar energy, yet it has half the solar resource of
8 Florida. Now, New Jersey has far more solar rooftops
9 than we do in Florida, and yet its solar resource isn't
10 the same level as Florida's. Okay. A lot of the case,
11 that's policy that we've talked about here today. It's
12 also the fact that people in New Jersey already pay more
13 for electricity than we do. So you've got a lot of
14 issues associated with this. The other thing that I
15 want to point out here is that, quite often, people will
16 say, well, geez, the best solar resource is in the
17 Arizona, New Mexico sort of desert area. That's
18 correct. If that's a hundred, that dark scale there,
19 then we at Florida are at sort of a 75, 85 kind of
20 level. The real key there, though, is free real estate.
21 To collect the sun's rays, you need area. Okay. And
22 where is the free real estate. Well, out in those
23 Arizona, New Mexico deserts, the real estate is free. I
24 can build a large power plant, which is what utilities
25 like to do, and generate energy from that, and hopefully

1 generate it in a cost effective, competitive way. Where
2 is the free real estate in Florida? That's the key.
3 It's not the solar resources, it's the free real estate.
4 The free real estate happens to be on your rooftops.
5 Top of the Wal-Marts, highway right-of-ways, underneath
6 those long transmission lines that we run. The
7 unfortunate thing with that, though, is that it's a
8 distributed generation model. In other words, that --
9 how does the utility make money when the power plant's
10 on your roof. It's just a new model. It's a different
11 way of thinking of things. We're traditionally used to
12 thinking of large scale power plants. Eventually, we
13 will end up with situations where we're taking advantage
14 of all the free real estate. Until then, we've got
15 these policy issues to deal with, we've got economics,
16 so on and so forth. If there's a will, there's a way.
17 So Germany doesn't have free real estate, Germany
18 clearly doesn't have the sun and they chose to go ahead
19 and do it. Okay.

20 Now, recently, Tommy mentioned that there's a
21 possibility that some of the bills, in addition to
22 having an RPS, might have what they call tranches on
23 them. And as he pointed out, 300 megawatts for next
24 year and maybe 200 megawatts each for the following
25 years. And this last year, FP&L put 110 megawatts of

1 solar. So on an installed capacity, Florida went from
2 last to No. 2 behind California in these three
3 installations. Okay. Now, still a very small fraction
4 amount of electricity we have, but it can be done. What
5 I've done here is taken the costs associated with the
6 installations that FP&L has installed. So you'll see
7 here that in the case of the Desoto FPL, that was
8 photovoltaics, and that was 25 megawatts. Turns out
9 that 25 megawatts generated 2 million dollars worth of
10 tax revenues for the local community because the
11 property value that FPL put the solar on was now more
12 valuable. FPL put in three solar projects, a total of
13 110 megawatts. Their target was to charge their utility
14 customers about 31 cents a month more to help pay for
15 that. When you build any new power plant, it costs you
16 more money. You go by a new car, your expenses go up,
17 folks. Okay. So unfortunately you don't get something
18 for nothing. Okay. You do have to make an investment
19 in this. So we are paying a little bit more for those
20 power plants, as we would for any new power plant that
21 FPL might have installed. In this case, okay, now,
22 5,000 total jobs came out of that 110 megawatts. All
23 right. If I extrapolate, and my numbers now in green
24 are based on using the numbers in black and making
25 calculations. Okay. So for FPL's three projects, based

1 on the tax revenues that it might have gotten from the
2 25 megawatts, there would be 9 million dollars worth of
3 tax revenues associated with the 110 megawatts. I
4 realize I'm just doing calculations here. Okay. Now,
5 you'll notice I have a 20 percent solar line there. So
6 magically, if we decided to go ahead and have 20 percent
7 of all electricity coming from solar, based on using the
8 FPL numbers there, you will see that I have 27,000
9 megawatts of power. Substantially, a thousand times
10 more than the solar plant. Okay. Your average cost per
11 month per customer -- this will be spread throughout the
12 state -- will be \$38. You say, that's a lot of money.
13 I don't know. \$38 a month to generate 1.2 million jobs.
14 Maybe that's not too bad. 1.2 million jobs. There's 18
15 million people live in Florida. That's a substantial
16 amount of jobs. You can look at some smaller numbers.
17 10 percent solar, if you'd like. It's 620,000 jobs.
18 Okay. Or if we go with the tranche, which as you see
19 here, there's a 3,300 megawatts I put down there. If we
20 added that in, the cost per month would go up to 42
21 cents on the citizen's electric bill to pay for that.
22 Okay. Now, I'll remind you, because they overcharged
23 you for the price of fossil fuels last year, you are all
24 getting a rebate in your January electric bill. You may
25 not have gotten it yet, but you are. That turns out to

1 be \$4 a month. Okay. Because they overcharged you for
2 the price of fossil fuels last year, you're getting \$4 a
3 month back. Okay. Wait a minute. 42 cents is what
4 we're asking for this tranche, and it generates 13,000
5 jobs. Okay. An RPS is all about jobs, jobs, jobs,
6 jobs. We have to do a better job of selling that.

7 Now, I show you a picture here of how energy
8 generation in Florida brings tourists to Florida. You
9 may have heard that the Orlando Utility Commission, in
10 concert with Orange County, put on top of the Orange
11 County Convention Center 1 megawatt of PV. They paid a
12 little bit more for it. They used some tourist dollars.
13 Why did they do it? Because it attracts conventions to
14 Florida. We generate energy renewably. The Super Bowl
15 was all offset. Okay. It was all renewable energy
16 generated. Okay. Why do you do that? Because you can
17 make money doing that. That's why Orlando did it.
18 Okay. There is an example of energy bringing tourists
19 to Florida versus energy washing up on our shores and
20 scaring the tourists away. Some of this is just
21 marketing.

22 Now, we brought up the fact that the utilities
23 themselves could go ahead and build these large solar
24 power plants. There's tremendous opportunities for you
25 the homeowner to take advantage of putting solar on your

1 rooftops. As an example, if, say, we were going to get
2 to 20 percent solar, and I've just speculated here that
3 we might have -- maybe in that scenario we might have 2
4 percent solar PV on your roofs and 2 percent solar
5 thermal on your roofs. I've given you the jobs here.
6 Substantial amount of jobs. Okay. In the lower left
7 there, 31,000 jobs. Okay. If we have a 2 percent goal
8 of solar PV on your rooftops, and the solar thermal
9 would be 32,000 jobs on top of that. So substantial
10 jobs.

11 I want to point this out. There is a way to get
12 something for nothing. Your goal should be to lower
13 your electric bills. This is a plot of the per capita
14 electricity use per person as a function of time. Okay.
15 Back in the '60's, the United States, Florida and
16 California, were all consuming around 4,000 kilowatt
17 hours per American in the United States. Then we moved
18 up into the '70's and everybody's increase was going up.
19 We were getting bigger houses and so on and so forth.
20 Okay. The Arab oil embargo, after that period of time,
21 California went flat, and the rest of us, albeit not
22 still increasing at the same rate we did before, and if
23 you look way out to the year 2000, and I don't have any
24 data after 2002 yet but we'll start getting that soon,
25 it looks like we're actually dropping back down.

1 Several states are, as well as California's even dipping
2 down a little bit lower into the future here. But you
3 see that there is a gap. To give you a flavor of that
4 gap between California and Florida is 5,000 kilowatt
5 hours per person. At 12 cents, that's \$600 per person.
6 At 18 million people in the state of Florida, that's 10
7 billion dollars because our houses aren't very energy
8 efficient. So California stopped spending money on
9 electricity because they choose to invest in their own
10 homes. And with that energy savings that they're now
11 not spending on electricity, like we are, they used it
12 to purchase solar. Okay.

13 Now, let's talk about the cost of electricity. If
14 you look at this, this is a table then of the four
15 largest states, plus the United States, and you can see
16 the electricity price in cents per kilowatt hours. I
17 told you that in Florida we're not doing things because
18 it's pretty cheap, and you can see that Florida and
19 Texas have cheaper electricity costs. California's at
20 14 and New York's up there at 19. United States on
21 average is about 12.

22 Now, the interesting thing is, I told you that
23 California's homes don't use much electricity. You can
24 see here that the average home in California -- and
25 these are homes, not apartments and so forth, so these

1 are homes -- in California, uses 689 kilowatt hours per
2 month. You can see in Florida we use almost three times
3 as much as that. All right. So it's not the price of
4 electricity. It's not the price of a gallon of gasoline
5 that matters. It's how much did you spend on the stuff.
6 How much gasoline did you buy this year? Most of you
7 don't even know. But you all know the price of a gallon
8 of gasoline. Okay. If the price of a gallon of
9 gasoline costs \$100 a gallon and you use none of it, who
10 cares? Okay. All right. You got to keep in mind, it's
11 what you really spend on the quantity. Now, look at
12 that. Florida spends \$190 a month on electricity.
13 California only spends 97 bucks a month. Now, in
14 California, \$96, they get a tax of \$2 that comes out of
15 that 97 to pay for all the renewables they've been using
16 forever. Okay. So it's not 97 plus 2. The 2 comes out
17 of the 97. But we have zero. And the zero is coming
18 out of 190. Okay. So the real answer is, make your
19 homes all energy efficient, then we'll have no problems
20 subsidizing renewable energy. But we don't have that
21 policy either. We're paying a fortune to put
22 electricity in your house. What you should be doing is
23 investing in making your home more energy efficient.
24 Okay. That's the real key.

25 Now, let's look at these taxes, if you will, on

1 your electric bills. There are 16 states, plus the
2 District of Columbia, that have what are called public
3 benefit funds for renewables. So you can argue it's a
4 tax on your electric bill. Okay. That's what it is.
5 Okay. I have no problems with making energy a sin.
6 Anytime you use it, you are sinning. So let's tax the
7 hell out of it. We've got a sin tax and I will use
8 those resources to help you get over your sinful nature.
9 It's great. What's the problem? And, by the way, we
10 keep all the money in the state of Florida. Okay.
11 Maybe that isn't so bad. It's called wealth
12 accumulation. Something to think about. But these
13 other states, mostly the ones that paid a lot for their
14 electricity prices, as a result of paying a lot for
15 their electricity prices, they made their homes more
16 energy efficient and started looking at other options.
17 We're behind the thing. But we can catch up. Okay.
18 We also hinted about the fact that PV electricity
19 on your roof, okay, can be cheaper than in the wall.
20 Well, okay, back in 2006 on a levelized cost of
21 electricity, that's what I'm showing you here, it was
22 about 30 cents. So you say, that's too expensive.
23 Well, in 2010, it's 15 cents. Okay. In 2015 -- and
24 these are without subsidies. In 2015, it's going to be
25 9 cents. We're already paying 12.3 out of the wall. So

1 in 2015, PV on the roof is cheaper than electricity out
2 of the wall. Will it be Chinese panels or will it be
3 Florida manufactured panels? I'll definitely be putting
4 the people back to work to install them. That's good.
5 We have high manufacturing jobs here. We have to get
6 ahead of the curve.

7 Now, solar hot water heaters. That's the reason
8 the Florida Solar Energy Center was founded 35 years
9 ago. We have a lot of them, at least in numbers. Over
10 139,000 here in the state of Florida. That leads to
11 about 152 megawatts of solar energy. Unfortunately,
12 only 2 percent of the homes in Florida have solar hot
13 water heaters. Okay. There is an up front cost problem
14 here. That's what the issue is. Suppose we had 40
15 percent. Well, if we had 40 percent of all Florida
16 homes with solar hot water heaters, we'd have 32,000 job
17 years generated. We'd be replacing about 2 percent of
18 Florida's electricity with solar hot water heaters. I
19 switched my logics around for you. When anybody talks
20 to you about energy efficiency or improvements on your
21 home, you immediately ask, payback. I don't talk about
22 that anymore. Okay. For sexy products, nobody ever
23 talks to me about payback. Okay. You got to go by a
24 new fancy car, you got to get a granite countertop, you
25 got to buy a plasma television set, nobody asks what the

1 paybacks for those are. Let's be honest. When you're
2 paying for sex, nobody cares. All right. That's the
3 problem. Now, fortunately, PV panels on your roof is
4 sexy now. So people are asking me about them all the
5 time. I will tell you, that's fine, that's great,
6 please make your home more energy efficient, please put
7 a solar hot water heater on there. This really is your
8 money. You'll do better with that. Then go ahead and
9 put PV on your roof. But now when I talk to people
10 about solar hot water heaters, I give you a different
11 story. If you have \$2,300 -- a lot of us don't, but if
12 you have \$2,300, can you get a 20 percent return on your
13 money? Anybody here getting a 20 percent return on your
14 money? Invest it in your own home. You will and you'll
15 keep it all. And, yeah, you'll lower your electric
16 bill, too. That's what you will get, all right, for a
17 \$4,000 solar hot water heater installed on your roof
18 with federal tax credits. Like now, the federal
19 government will give you 30 percent off. Okay. Along
20 with a state rebate, it gets you down to the point where
21 you're getting a 20 percent return on your investment.
22 At the levelized cost of electricity, even without
23 rebates, 10 cents, that's cheaper than what you're
24 paying out of the wall. You should do it even without
25 that. But it's down to 5 cents if you include the

1 rebates.

2 I'll do this rather briefly here because I know I'm
3 running out of time. It's interesting how we do things
4 here in the state of Florida. The recent press releases
5 have just come out. I got quoted in some of them that
6 the Governor has come up with 10 million dollars from
7 the stimulus money to enable us to go ahead and put PV
8 panels on emergency shelters in 90 schools throughout
9 the state of Florida. Yes, we're going to go through
10 that. What's important is that we're putting 90 schools
11 with some PV to help with emergency shelters. All they
12 want to talk about is the fact that it's going to cost
13 10 million dollars. So the headlines always say,
14 Governor to spend 10 million dollars. I hate that
15 because I'm getting everybody calling me up recommending
16 how I can give them money to help spend it versus
17 volunteering to help me actually put the PV on the
18 schools. Okay. But we'll get there.

19 What we've had, some nice things going on in this
20 state, is that we have actually worked with our children
21 in putting some of the renewables out there. And the
22 State, through the Florida Energy Office, has been
23 providing funds to put PV on schools since 2003. And so
24 we've been putting PV on the schools where the school
25 children get involved and learn about that energy. And

1 up until 2009 now, working together with utilities, and
2 the utilities have stepped up to the plate here.
3 They're not the bad guys. Okay. They're in the
4 business of making energy for us. You're in the
5 business of reducing your energy bill. You don't want
6 to spend anything on energy. They're in the business of
7 making energy. Now, in fairness, let them make a profit
8 on renewables. I'm okay with that. That's great. That
9 keeps the money in Florida. That's the goal. Keeps
10 people employed in Florida, keeps the money in Florida.
11 Okay. The utilities have stepped up to the plate. All
12 of them have. All right. We have over 55 now of these
13 installations already in Florida where we have one to
14 six kilowatts of demonstration systems, and we have four
15 of these 10 kilowatt emergency shelters. This is the
16 RFA that was given to the Florida Solar Energy Center to
17 go ahead and put the 90 10 kilowatt systems on top of
18 the schools. So this will be the future. We will have
19 these 10 kilowatt PV grid battery backups at 90 schools.
20 The anticipation is there will be one in every county
21 and then we'll have a few others.

22 Just to point out real quick, just to give you a
23 flavor of this, the average high school in Florida uses
24 a half a million dollars in electricity in a year. A
25 half a million dollars in electricity in a year. So if

1 we could help educate the kids so they cut the electric
2 bill down by 10 percent, I can make every single one of
3 the politicians happy, because we'll go ahead and put PV
4 on every school and the kids will lower everybody's tax
5 bill by saving energy in the school. More than what it
6 will cost to put PV on the rooftop. So if I can't get
7 the politicians to do it, I'm going to get the 10 year
8 olds to do it, and they'll probably do it quicker and
9 better, and then eventually, they'll be elected and
10 become politicians. So the future is a happy one.
11 Okay.

12 Very upbeat. We'll get this done. It has a lot to
13 do with education at all levels. Please get the -- I
14 want to go back. Please get the word out. You'll
15 notice that in a lot of cases, the sun comes from up
16 above. These are my two inspirational slides along with
17 the educational ones.

18 Thank you very much.

19 MS. CHADWICK: For the second time, we're going to
20 go ahead and move into our break. Jim will be around.
21 We're going to have some Q&A sessions towards the end of
22 the seminar for all the speakers. 15 minutes, very
23 prompt. Grab your coffee, grab your breakfast, hit the
24 restrooms. 9:45, we'll be starting.

25 (A break was taken.)

1 MS. CHADWICK: All right. If everybody could have
2 their seat, I'd greatly appreciate it, and I appreciate
3 everybody listening to James, the bell ringer. That was
4 great. Thank you, James. We're just trying to stay on
5 track as best we can with the agenda so folks can get on
6 with their days if they have other things to do.

7 Next up is the perspective from the Utilities,
8 which is a very important aspect of this, because we
9 all, I think, have ideal goals and hopes for energy
10 standards and what not in the states, but at the end of
11 the day, it's the Utilities that ultimately are
12 responsible and involved and potentially bear some of
13 the cost of that sort of an implementation. So, today,
14 I have a good friend as well as an expert from the
15 Utilities side of things that's come in to represent
16 that side of the topic.

17 Jennifer Szaro is currently with the Orlando
18 Utilities Commission. She manages the renewable energy,
19 corporate sustainability and alternative fuel programs
20 for OUC and she resides in the sustainable services
21 business unit of that organization. Prior to coming to
22 OUC, Jennifer was employed as a senior energy analyst
23 for FSEC. She works with Jim. She was there for nearly
24 nine years. She has her bachelor's degree in
25 environmental science from Florida International

1 University, and she received her master's degree in
2 business from UCF, and that's where I met her four or
3 five years ago. With that, I'd like to introduce
4 Jennifer, and she will talk about the Utilities
5 perspective. Thank you, Jennifer.

6 MS. SZARO: All right. They've got a stop watch on
7 me. So we heard a little bit about the resource side of
8 the debate, and we heard a little bit from the policy
9 perspective, and now I really want to talk to you about
10 getting it done. So if we were to get an RPS in
11 Florida, how might we accomplish that as a utility?
12 What would be the benefits to the customer and what
13 would be the barriers or potential risks associated with
14 it? So we're going to talk a little bit about our
15 personal business objectives.

16 I can't speak for every utility out there. OUC,
17 just to give you some background on us, we have about
18 250,000 customers. We are a municipal utility, so we're
19 nonprofit. We can't take advantage of some of the other
20 benefits that maybe some of the investor owned utilities
21 can take advantage of, like tax credits. So when we
22 shape our programs to pursue renewable energy, we keep
23 those factors in mind and we shape our programs
24 accordingly.

25 One of the biggest issues for us is maintaining a

1 balance between sustainabilities, affordability and
2 reliability. Everybody wants their lights to stay on
3 all the time, and we do, too. So that is basically how
4 we got our moniker, if you will. And we have an
5 interesting demographics here in Orlando. Our
6 customers, actually 50 -- over 50 percent of our
7 customers are multi-family, and the average income for
8 our customers is \$35,000. So we don't exactly have the
9 best demographics for promoting some renewable energy
10 programs, but we're learning creative ways to work
11 around that. So you might ask, why would a utility
12 pursue renewable energy? Maybe it's counterintuitive,
13 but, in fact, it's not. We're trying to take a long
14 term view of the world. We see the utility industry is
15 changing and that consumer markets are changing and
16 we've been keeping a really close eye on these different
17 markets and industries and trying to figure out, how do
18 we do the change management to incorporate those
19 technologies into the way we do business.

20 One of the things that really drives us is
21 regulation or impending regulations and policies. We
22 want to make sure, in order to keep the lowest possible
23 rates for our customers, that we choose the right -- the
24 right prices for our customers by choosing the right mix
25 of fuels at that given moment. So it's in a state of

1 constant flux. We never have the exact same portfolio
2 at any given moment of the day, and in our planning, you
3 know, we do long term planning and we'll continue to
4 change our mix as the landscape changes. So we're very
5 focused on making sure that we have carbon offsets or
6 RECs where we need them for our customers. We do
7 generate a lot of coal energy. We have over 50 percent
8 coal right now, but that's something, again, that's in
9 flux and it's changing. As I mentioned, since we are a
10 nonprofit, we can't take advantage of the tax incentives
11 that are out there, so our programs focus on the
12 customer side of the meter for the most part. Something
13 a little bit different than maybe an investor owned
14 utility might pursue. And we are more directly linked
15 to our customers and to our community because we are a
16 city owned utility. So if our customers and
17 commissioners tell us they want renewables, we're going
18 to get it for them, but we want to do it in a way that
19 provides the least cost planning. We don't want to
20 raise the rates of our customers needlessly.

21 That being said, we've been doing our homework, and
22 we have waited and waited for the RPS to come along here
23 in Florida, and it hasn't occurred yet, so we decided,
24 let's stop waiting. Let's just go ahead and set our own
25 goals. So in March of this year we will be announcing

1 our own set of internal renewable energy and
2 conservation goals for OUC.

3 I won't put it down in writing just in case it
4 changes between now and then, however, we're looking at
5 something in the neighborhood of 7 percent by 2013 for
6 our renewable energy goal and just under half a percent
7 for conservation. So we figure it's better to just go
8 ahead, do the math, figure out what we can do for our
9 customers now, and put it out there. If it changes
10 because of regulation, that's fine, but we're able to
11 accomplish this goal that we've set for ourselves
12 without any major rate increases. So I think that's an
13 important point to make is that we think we can achieve
14 7 percent without any additional major rate increases.

15 So what are the technologies that we're
16 particularly looking at? We've decided to focus on two
17 types of renewables. One is biomass and the other is
18 solar. On the biomass side, there are a number of
19 different resources that we are looking at. Landfill
20 gas, which I'll talk more about, has been the least cost
21 option for us, so we're pursuing that whenever possible.
22 Municipal solid waste is also something that we're
23 investigating, but we're also looking at things like
24 biomass residues, like forest residues or paper mill
25 residues. In addition to investigating what we can do

1 with energy crops, specifically, we're taking a close
2 look at algae. We think there's a lot of promise there.
3 Something that can be locally produced very quickly. On
4 the technology side, to convert that energy, we're
5 looking at things like gasification, coal firing of
6 traditional fuels, and anaerobic digestion on really wet
7 fuels. On the solar side, we are looking at the gamut.
8 We are trying to cover photovoltaics, solar hot water,
9 and concentrating solar, and we have projects in all
10 three of those areas in the solar.

11 So starting off with biomass. Some of the benefits
12 that we've found to biomass is that there are options to
13 coal fire in our existing coal boilers. We just
14 finished up a study that showed that we could coal fire
15 up to 10 percent biomass in our boilers pending that we
16 can get the fuel and get some long term contracts. But
17 knowing that we can do it is the first step and we're
18 very excited to have found that out through a study we
19 just completed. It is a carbon neutral fuel and it can
20 contribute to our baseline, which is very important for
21 our customers, and it will offset coal. It does create
22 local jobs in the creation of the feedstock itself and
23 processing, so we think that's a great thing and it is
24 relatively low cost if you compare it to solar.

25 Some of the challenges that we're facing, as Jim

1 mentioned, it is baby coal, meaning that it's a lower
2 BTU value, and it's got a lower density. I mean, you
3 can look at a piece of coal and it's pretty solid and
4 it's going to provide a high BTU content for that piece
5 of coal. But if you put the same amount of wood chips
6 in your hand, obviously, it's less dense and it has a
7 higher moisture content than the coal. You can feel
8 that with your hands. So our boilers have to
9 accommodate that. And there are a number of different
10 things we're looking at to accommodate those challenges.
11 There is also the competing uses for bio feedstock.
12 Obviously, the transportation industry is pursuing bio
13 feedstock and it's also used for things like mulching
14 and sent overseas for heating purposes in Europe. So
15 how cheap can you get it if there are a lot of other
16 competitors going for the feedstock? The other thing we
17 learned with biomass is that the vendors that sell the
18 biomass are not used to doing long term deals. The
19 contracts we're seeing are in the neighborhood of one to
20 three years and they can be seasonally disrupted, so
21 that's a little bit of a challenge from a planning
22 perspective. So we're trying to figure out how to
23 overcome that particular barrier. And then uncertain
24 availability. Again, you are at the mercy of mother
25 nature with bioscopes, so there are some challenges

1 there on uncertain availability if there's a bad year or
2 if something happens in the market to divert that fuel
3 away. So that's a challenge that you have to try to
4 mitigate with long term contracts.

5 Handling challenges can also be difficult. One of
6 the things we're looking at is, if we do 10 percent,
7 that's 90 megawatts of biomass fuel in our boiler. How
8 do we get 90 megawatts worth of fuel to our facilities?
9 It's a real challenge. That's a lot of biomass.
10 Hundreds of trucks a day potentially. On the landfill
11 side, this is something that we've been quite successful
12 with. We've had already in place for several years a 10
13 megawatt landfill gas project at the Orange County
14 landfill. We're getting ready to expand that to 22
15 megawatts, and I will go through those projects in a
16 minute. 24 hours a day that's available to us and it's
17 extremely low cost. It's cheaper than natural gas for
18 us. So anytime we can pursue a resource like that, we
19 absolutely will and we are. It does have a lower BTU
20 value than natural gas and it does often need to be
21 cleaned, so there are some additional costs there to
22 keep from corroding our boilers. And then again, it's
23 location specific. You don't have landfills everywhere,
24 so, therefore, landfill gas is not available everywhere.

25 On the thermal and electric sides for solar, some

1 of the benefits are the fact that you are hedging your
2 pricing. There are no fuel costs. So once it's in
3 place, it's in place for 30 years. It is carbon free
4 and it can be distributed near the user. That does take
5 some changes to our infrastructure, but these are
6 changes that we're working toward and that can be
7 accommodated. Thermal is definitely a low cost option
8 and it's something that we are pursuing with vigor, and
9 they do create local jobs because it does require labor
10 to install and maintain these systems. Some of the
11 challenges is, until we really figure out some of the
12 key factors for integrating these technologies into our
13 grids via smart grid or other methods, they're not
14 typically dispatchable. They are relatively
15 predictable, but not necessarily dispatchable. So we
16 can't always have it exactly when we need it, and that's
17 a bit of a challenge for us. It's not something that
18 comes with any of the other fuels that we're currently
19 using.

20 And on the PV side, it is still pretty expensive
21 compared with what we're using right now. So without a
22 carbon tax or something to increase the cost of our
23 conventional fuels, it's a little bit difficult for us
24 to justify purchasing large amounts of capacity of solar
25 and raising the rates of our customers accordingly. And

1 then, right now, PV -- at least thermal does a little
2 bit on the winter side if you're using your hot water
3 heater, but PV does not have a huge impact to our winter
4 peak, so we still have the challenges of building enough
5 power plants to meet our maximum loads, and that's how
6 we design power plants is, whatever point along the way
7 of the year is your maximum load, that's what we have to
8 build a power plant to accommodate. So that's a little
9 bit of a challenge.

10 So talking about that, what I have done for you is
11 pulled up two of our peak days for the year. This is
12 our summer peak day from last year. This is June 22.
13 And you can see how we met our peak day. We used
14 primarily coal. You can see the three bars that sort of
15 move, but they're about the same thickness. That's
16 because those coal plants, once you ramp them up,
17 they're running 24 hours a day. So mostly coal, with a
18 mix of landfill gas in there, and then at the top,
19 you'll see that we ramp up our natural gas as needed to
20 meet our peak day. This is, again, in the summer. You
21 can see we're peaking right around 4:00 p.m. So that is
22 how we're going to design our power plants to meet that
23 peak of around 4:00 p.m. At the bottom there, we've got
24 a few at our Indian River site that can be mixed with
25 distillate fuels, liquid fuels, or gas fuels.

1 So what happens if you add renewables into the mix?
2 So what I did was I modeled for you 100 megawatts of PV.
3 Right now, we have about 12 megawatts of PV installed on
4 our grid, but just for the purposes of discussion today,
5 I went ahead and modeled what it would look like for 100
6 megawatts of PV on this particular day with an average
7 profile for a PV system. So if we were to add that --
8 is there a way to go backwards?

9 So here's what it was before. I didn't touch the
10 peak. Everything's going to look the same, it's just
11 that some of it's going to be covered differently. And
12 here's where we are now. So you can see that the offset
13 is mostly going to be on the oil and natural gas side
14 for solar. It's going to come in from the shoulder a
15 little earlier in the day because it's going to peak at
16 like 1 o'clock, 2 o'clock. But it will make a
17 contribution of about 25 percent of its rate of
18 capacity. So that means about 35 of those, or, I'm
19 sorry, about 35 of that 100 megawatts will be available
20 to us at our peak period. So when we do our system
21 cleaning and our long term planning, we have to make
22 sure that if we put in a hundred megawatts of solar, we
23 have to derate it to 35 megawatts of solar unless we
24 have some type of storage mechanism because that's what
25 we'll actually get it at. So you sort of have to

1 overbuild solar in your planning process. It's doable.
2 You can see that it's made a significant contribution to
3 our natural gas, but, again, that's about 35 percent of
4 its rated output. So just something to keep in mind.

5 On the biogas side, we can definitely offset
6 natural gas, and I've pointed to that here. And on the
7 biomass coal firing side, there is three ribbons, if you
8 will, of coal can all be coal fired opportunities for
9 us. So those are the kind of things that we're looking
10 at and these are the ways that we have to work to
11 incorporate it into our daily ability to provide you
12 with electricity.

13 Again, I'll do the same thing for wintertime. You
14 can see in the winter we have a little more of a
15 challenge in using solar particularly. Our peak is
16 right around 8 o'clock, and then we have another peak at
17 right around 10 o'clock in the evening. So a little bit
18 different, a little challenging for us to utilize
19 renewables. So in the winter, we're probably going to
20 rely more on biomass fuels. You can see there that the
21 PV contribution is sort of occurring when we need it the
22 least. It still has a contribution, again, it still has
23 value, but the challenge is that it's really offsetting
24 our peak directly in the winter so we would have to make
25 that up with some other opportunities.

1 So what have we done to date? One of the first
2 things I want talk to you about is something that we're
3 working on in a collaborative way. We really believe in
4 community engagement and collaboration at OUC. That's
5 what we're all about. So as a group, with the City of
6 Orlando and Orange County, we applied for funding to
7 figure out, well, what does it take to build a solar
8 infrastructure in Orlando. We received a grant to do
9 that from the U.S. Department of Energy. We're in the
10 middle of developing numerous brainstorming sessions on
11 different topics related to solar, as well as training
12 courses for folks like code officials and people getting
13 into the solar business. We want to educate, we want to
14 learn from the stakeholders in the community and figure
15 out, what do we need to change to make solar easier to
16 implement in our community. So we're about halfway
17 through that grant. And some of the things that we've
18 accomplished to date, again, the 1 megawatt project was
19 mentioned already, so we're excited about that one. We
20 have a solar on schools program. We're working with
21 FSEC on that, and one of the biggest projects on my desk
22 right now is this 10 megawatt PV project. It will be
23 built on OUC's site and we'll have a power purchase
24 agreement because that makes the most sense for OUC is
25 not to own it but to let the investors get the benefit.

1 We will have that built hopefully by the end of 2010,
2 and if you look at our 10 megawatts plus some of the
3 other stuff that we've got with solar on a per capita
4 basis and compare us with FP&L and what they're
5 building, we're tied. So I feel pretty good about that.
6 So sort of a mini muni. We have selected our vendor.
7 That will be announced on March 9. So we're very
8 excited to move forward with this project.

9 We also offer programs for our customers directly.
10 Right now, we have over 300 customers signed up for our
11 solar programs. That's solar hot water and PV, and we
12 decided to go with a different trek. A lot of people
13 were really pushing feed-in tariffs. We looked at that
14 model, and for our market, it didn't make sense. So we
15 went with something that's similar to a feed-in tariff
16 but it's called a production incentive, and it's on the
17 customer side of the meter. So they get the full demand
18 savings, which you don't get on the feed-in tariff, and
19 they get a payment per kilowatt hour. So we used both.
20 We also offered a loan program, because what we heard
21 from our customers is that the upfront costs were a
22 challenge for them. So that's how we addressed it. So
23 we offered 3 cents per kilowatt hour equivalent for
24 solar hot water systems, and we offered 5 cents per
25 kilowatt hour for a PV system. That's on top of net

1 metering. So you get net metering plus 5 cents, and you
2 get 5 cents on everything you produce whether you are
3 using it at your home or feeding it back to OUC.
4 Additionally, there are some costs associated with this
5 program because we have to measure and verify the
6 production of these systems in order to pay you. There
7 are some extra metering costs that have been a challenge
8 for us with this program, so at the moment we're
9 offering a \$250 credit to compensate for that cost of
10 installing the BTU meter. We may be changing this
11 program as the market changes, and we have found if I
12 roll all my costs into this program, it costs me about
13 10 cents a kilowatt hour to get this solar, whereas, the
14 contract we're negotiating right now for our PV project
15 is about 19 cents. So for me, this is the least cost
16 option to pursue solar in my service territory. So for
17 the loan program, these are the current rates we have.
18 You can see they're pretty competitive. We start at 0
19 percent for solar hot water and 2 percent for PV.

20 Some of the biomass projects I mentioned earlier,
21 we have one landfill project completed, and that one's
22 growing, and then we have two additional landfill
23 projects we're working on right now. So anytime we see
24 a landfill, we get very excited and we go after it. So
25 nobody likes trash like me. So right now we're going to

1 be adding another 16 megawatts possibly of landfill gas
2 to our mix of renewable, and we're very excited about
3 that. On one of the projects that -- I don't know if
4 Jim Lentz made it today. Jim, are you here today?

5 UNIDENTIFIED SPEAKER: He's in another meeting.

6 MS. SZARO: Is he? Okay. One of the projects I'm
7 very excited about is this 5 megawatt hybrid solar
8 biomass project. I don't know anyone else who's doing
9 this kind of project around here, and I think it's a
10 great project. It's a cooperative agreement with
11 Harmony, Florida and FSU, and it uses biomass
12 gasification and concentrating solar preheats the water
13 to create steam at a temperature of about 250 degrees,
14 then you use the biomass to get the rest of the way
15 there. It's a very exciting project and OUC's really
16 proud to be part of it.

17 On the MSW side of it -- I told you I love trash --
18 we're also looking at doing something with the City of
19 Orlando and their waste stream. So we're looking at
20 possibly gasifying a portion of their waste stream, and
21 the City is working on that. We would buy the energy
22 output from that project.

23 So on the horizon, we talked about some of the
24 challenges, and I'm not the kind of person that likes to
25 hear no, so when I see a challenge, I'm going to go

1 after it. And some of the things that on the solar
2 side, obviously, the costs are challenging and the fact
3 that we're 50 percent plus multi-family is challenging.
4 I decided to get a little creative on the solar side.
5 Here are two business models that I am working on right
6 now. One of them is a community solar farm where you
7 don't have to have it on your roof to get the benefits
8 of net metering. You don't have to pay up front costs.
9 OUC will go ahead and work with a developer to build a
10 community solar farm somewhere in our territory and you
11 buy a piece of it like a timeshare. So it would be a
12 fixed monthly fee for the life of the contract, and so
13 far, the calculations we've done has shown it's only 2
14 or 3 cents above our current retail rate. And that
15 holds for the life of our program, and our rates
16 probably won't hold for the life of the program. So we
17 see a crossover with today's calculations at about year
18 4 or 5 with this program where you end up being cash
19 flow positive. It does allow for a virtual net
20 metering, which encourages conservation. So if you use
21 less, you save more. If you have shading on your roof,
22 you live in multi-family, you don't have an appropriate
23 site for solar, now you can buy into solar and get all
24 the benefits without having to make the up front
25 investment.

1 On the commercial side, we wanted to do something
2 for our commercial customers as well, so we decided why
3 don't we try to use our buying power and we would do the
4 same kind of thing. We would buy -- we would enter into
5 a large conference agreement with a vendor, but the
6 systems would go on the commercial customer's buildings
7 and we would act as a billing agent. We would bill the
8 customer whatever the PPA developer bills us, plus we
9 would buy that rate down with an incentive, a production
10 incentive, like we do for our other customers, and they
11 would be locked into that fixed monthly rate for 20 plus
12 years. The difference between this and a feed-in
13 tariff, again, is that these customers retain the demand
14 savings from those projects because they're installed on
15 their side of the meter and any net metering. You can't
16 get that from a feed-in tariff. It's a little bit of a
17 different model, and they don't have any up front costs
18 to participate in this program. The six customers we've
19 chosen to pilot this with will all be cash flow positive
20 in year 1 or year 2 with this program.

21 And some things I'm doing on the biomass front. I
22 have two projects I'm currently working on. One, I
23 mentioned, the coal firing opportunities, and within
24 that, we're looking at innovative ways of dealing with
25 the feedstock transportation, such as using rail cars to

1 ship biomass long distances. What we find is a lot of
2 the forestry products are in north Florida. We're in
3 Central Florida. So is it possible to use our coal rail
4 to ship biomass instead of coal. That's something that
5 we're looking at. Then there's a process that is used
6 often in the charcoal industry, which is called
7 torrefaction, and you take that and basically burn the
8 wood a little bit to get some of the moisture out and
9 improve the BTU content. So that's a technology that
10 we're looking at as well.

11 On the algae side, we're getting ready to put in a
12 grant application to look and see if we can use waste
13 water to grow algae, to use carbon dioxide to feed the
14 algae, make it big and happy, and then withdraw the
15 algae from the clean water and crack it to obtain both
16 biofuels and biomass, and then coal fire that biomass
17 with our coal.

18 So those are the types of projects that we think
19 are innovative and maybe we'll overcome some of the
20 barriers that we're experiencing in the utility
21 industry.

22 If you have any questions, here's my contact
23 information, and I am all wrapped up.

24 MS. CHADWICK: We have five minutes or so for Q&A
25 because I believe a speaker is not going to make it,

1 which does actually give us a little bit of breathing
2 room. So if you would like to ask a couple quick
3 questions of Jennifer, I'm going to go double check on
4 the speaker real quick. Feel free, but please go to the
5 mic.

6 All right. Yeah, we do have some time if you'd
7 like. If not, what we'll do is go ahead and move on to
8 our next set of speakers, and then we'll have another
9 time for a little networking break here in a little bit,
10 because some folks were asking if we could have some
11 more networking time, so --

12 UNIDENTIFIED SPEAKER: Jennifer, with your 7
13 percent by 2013 with the 10 megawatt project in mind,
14 where are you guys at right now?

15 MS. SZARO: Okay. Without the 10 megawatt project,
16 we're at 2 percent, so we're going to be increasing by 3
17 and a half times what we have now over the next couple
18 years. With the 10 megawatt, I think that will bump us
19 to like 2.8 percent.

20 UNIDENTIFIED SPEAKER: Okay. So by 2013, you
21 expect to be 7 percent solar?

22 MS. SZARO: We have a separate goal of 15 megawatts
23 by 2013 just for solar, which we are well on our way to
24 meeting.

25 UNIDENTIFIED SPEAKER: Thanks.

1 MS. SZARO: Any other questions? You all are
2 quiet. All right.

3 MR. LEWIS: Jennifer, can I -- Jennifer, I think
4 you mentioned that you are -- it's an internal 7 percent
5 by 2013?

6 MS. SZARO: 7 percent, right.

7 MR. LEWIS: What would OUC have to do to meet a
8 goal of 20 percent by 2020?

9 MS. SZARO: A lot more.

10 MR. LEWIS: Is that feasible? Would that be
11 feasible?

12 MS. SZARO: Well, we're investigating that right
13 now, and, you know, our analysts wanted to get us to
14 this first step first and see what we could --
15 basically, we challenged ourselves to see what we could
16 do without really making a big rate impact, and we found
17 that this is what we can do in the near term without
18 having a rate impact. So can we get to 20 percent by
19 2020? Possibly. I think we can definitely get there
20 from a technology standpoint, but at what cost. That's
21 what we're trying to determine. The challenge to doing
22 any kind of utility planning is that the technologies
23 are changing so fast that you kind of have to go back
24 and revise your forecast like every two days. So it's a
25 little bit challenging to just put your -- you know,

1 your finger on that number and -- but from a technical
2 standpoint, yes, I do think it's feasible. What will it
3 cost us, though.

4 MR. LEWIS: Do you think that 7 percent by 2013
5 ought to be feasible for any utility company?

6 MS. SZARO: I cannot speak for other utilities
7 because every utility has their own set of
8 circumstances, and theirs may not be like ours, and I
9 wouldn't want to do that to another utility just because
10 it's very possible that they're just in a completely
11 different circumstance than we are. I mean, it's
12 possible for us.

13 MR. LEWIS: I was just looking for something that I
14 could go to other utility companies and say, Jennifer
15 said you could do this.

16 MS. SZARO: I'm on to you. I think that it -- you
17 know, there are definitely possibilities to expanding
18 renewables, and, again, we are an energy service
19 company. We provide energy to our customers. We're not
20 going to rule out anything if it makes sense for the
21 customers, and so if in 20 years we're all renewable,
22 we're still an energy service company, we'll just change
23 our fuel mix. And that's a good thing. That's
24 progress.

25 Any other questions?

1 UNIDENTIFIED SPEAKER: I've got one. Jennifer, I
2 applaud OUC for all the partnerships that they do,
3 especially with the public sector. We do that with
4 Orange County as well. One of the things, though, we
5 get internally sometimes is the perspective of how we --
6 because we are in the public sector, that with the
7 fairness of dealing with OUC versus some of the other
8 utilities that are in our environment. How do you all
9 address that? Is that a concern for you? We know it's
10 a concern internally, especially on our operations
11 sides.

12 MS. SZARO: Right. I mean, I -- you know, as the
13 County, I understand that you are served by two
14 different utility companies. I understand that. Well,
15 technically three maybe even. And all we can do is
16 offer our best opportunity to you as our customers, and
17 we can't really pressure or speak to what other
18 utilities offer you. You can take our opportunities or
19 not take our opportunities. But, again, it's really not
20 something that I can control as to what the other
21 utilities are doing. Generally, we do try to
22 collaborate as utilities and find common ground and find
23 ways to work together whenever possible. So if it's
24 possible to work together with a utility on a particular
25 project, we certainly jump at that chance, especially if

1 there are cost savings involved or efficiencies of
2 scale. So, again, I hear what you're saying and, you
3 know, unfortunately, I can't control what other
4 utilities programs are being offered to you.

5 MS. CHADWICK: Thank you, Jennifer.

6 Okay. Our next session is actually a panel, and it
7 is the perspective of the builders, and, Robyn, if you
8 want to come on up. While Robyn is heading up, I'm
9 going to introduce her, and then she, in turn, will
10 introduce the panelists which she graciously brought
11 together for the forum here today.

12 Robyn Dowsey is a member of the facility design and
13 construction department for Wharton Smith and is also a
14 leading accredited professional with specialties in
15 green building design and construction. Robyn currently
16 serves as the vice chair of the board for the Central
17 Florida chapter of the U.S. Green Building Council and
18 is an education course reviewer for the US GBC National.
19 Robyn has more than 16 years of experience in
20 construction planning, management and project delivery.
21 Robyn is very involved in providing support and
22 education to the Central Florida community. She works
23 with the community in helping them to better understand
24 sustainable concepts and delivery methods focused on
25 integrated project delivery and how to maximize, utilize

1 and implement sustainable technologies. And near to my
2 heart is a mother of young children, and is involved
3 with education and in helping school districts implement
4 technologies that aid in reducing their operational
5 budgets while improving the school conditions and
6 overall qualities for students and faculty.

7 I thought it would be interesting to hear the
8 builders' perspective on RPS because so much of our
9 economy here in Florida is based on development, and
10 developers are integral to that, and as much as this --
11 an RPS policy would impact the utilities in a big way,
12 it will most definitely impact the development community
13 as well.

14 So with that, Robyn?

15 MS. DOWSEY: Okay. So I have the pleasure of
16 introducing your panel to you. I'm going to introduce
17 them briefly and then I'm going to give them a couple
18 minutes before I start asking questions to allow them to
19 elaborate a little bit more with regard to what they do
20 here in Central Florida. And after we are done with the
21 questions that we are going to ask, I encourage those in
22 the audience to pose their own questions to the panel.

23 So first, David Bessette. David Bessette is the
24 CEO and president of All Solar Service Company. He was
25 the past president of the Florida Solar Energy

1 Industries Association. He is a CEU instructor and he
2 puts subject matter together for Professional Testing
3 Institute.

4 Chris Maingot is the operations director for
5 Superior Solar. He also sat on the board for the
6 Florida Solar Energy Industries Association and he
7 writes exam questions for the North American Board of
8 Certified Energy Practitioners.

9 Kimberly, I'm going to ruin your name, sorry.
10 Kimberly Krutski has three years experience in
11 environmental engineering. She specializes in
12 photovoltaic system design and she has been project
13 manager for approximately six megawatts of
14 photovoltaics.

15 So have a seat, and, David, could you start us off
16 by elaborating a little bit more on what I started.

17 MR. BESSETTE: I am a small business owner with 30
18 some employees. I've been installing solar water
19 heating thermal systems, pool heating and PV for over 30
20 years in Central Florida. I have been involved with the
21 Solar Industries Association for a decade, presided over
22 the industry for three out of the last seven years, and
23 am uniquely in tune with what's going on in Tallahassee,
24 as best you can. I have a passion for solar. It's been
25 my life. I think that solar can play in the mix with

1 the fuels here in Florida. We are the sunshine state.
2 I really would like to see if we can get some good
3 questions come out here today, but one of the big things
4 for me as a small business owner, whatever policy that
5 we come up with in the state of Florida, I believe, for
6 one, we have to create jobs for Floridians, and since
7 Floridians will be footing the bill to the rate payers
8 or through tax base, I think it's important to keep the
9 jobs here and keep the money within the state, and I
10 really would like to see the RPS, see the state of
11 Florida come up with a RPS prior to the feds coming up
12 with a RPS. The feds do not see any boundaries as far
13 as the state's concerned. I think it would be best for
14 Floridians to have an RPS here in the state. Of course,
15 there is other policies out there, but I'm all about
16 bringing clean renewable energy such as solar to
17 Floridians. It does work and there's many good examples
18 of it, and it is cost effective today.

19 MS. DOWSEY: Thank you. Kimberly?

20 MS. KRUTSKI: Good morning. I work for Blue-Chip
21 Energy. We currently install residential and commercial
22 solar energy systems. We are in negotiations with PPA
23 agreements for local schools and other government
24 entities. Our company is about 30 people. And the RPS
25 is definitely going to increase business, so we're

1 pushing forward for that. Hopefully by April 2nd, we'll
2 have some legislative issues passed and RPS will be in
3 full effect.

4 MS. DOWSEY: Great. Chris?

5 MR. MAINGOT: Hi. I started in this business as an
6 installer a little over 20 years ago. I work for a
7 local contractor here in Orlando. Like Dave, I've been
8 in the FSEIA board for the past three years, and I've
9 been in our legislative chair for the past three years.
10 So I've been involved in all our lobbying efforts in
11 Tallahassee to get legislation such as RPS and other
12 forms of legislation to benefit the industry, to grow
13 the industry here in Florida. We have -- you know, like
14 Dr. Fenton said, we've got a unique opportunity here in
15 Florida. We have, you know, a lot more solar energy
16 than a lot of other states, but we lag the rest of the
17 country or the majority of the rest of the country in
18 solar programs. So we need to start making up for that.
19 And I'm, you know, optimistic about this year's
20 legislative session. I think we are going to see a
21 change in the House leadership, you know, wanting to do
22 some more stuff, and we see some stuff coming out, some
23 bills that are going to be probably coming out of the
24 House and the Senate that are encouraging. I know that
25 they don't want to raise taxes to the constituents of

1 Florida, but we have to find a way to move solar
2 industry forward and to move RPS and other renewables
3 forward. So with that, I'm going to turn it back to
4 Robyn.

5 MS. DOWSEY: Okay. So all of us have touched on
6 jobs and making Central Florida as a community strong.
7 So the first question that I would like to ask the panel
8 is that, how do the goals of a renewable portfolio
9 standard from our level do that? How do they create
10 jobs and how do they infuse our community if we are
11 going ahead and just gently raising the costs here on
12 the individual person?

13 MR. MAINGOT: Well, an RPS is geared mainly towards
14 large utility scale systems, so you will get jobs, but
15 with large utility scale systems, especially in Florida,
16 we really don't have -- the contractors in Florida don't
17 have the solar experience to be doing large utility
18 sales systems yet. We're working towards those ends, so
19 a lot of these, you know, are going to be jobs -- jobs
20 will be created, but a lot of them will be temporary
21 jobs. A lot of jobs are going to be companies coming in
22 from out of state to do these very large projects. We
23 need to see some kind of component for distributed
24 generation in there, and Dr. Fenton touched briefly on
25 it. Unless there's a distributed generation portion to

1 the RPS, we're not going to create permanent jobs and
2 we're not going to grow the industry like we could. So
3 there needs to be some sort of carve out, I believe, for
4 a distributed generation in an RPS that will allow the
5 local contractors to gain the experience necessary to do
6 some of these bigger jobs.

7 MS. DOWSEY: David?

8 MR. BESSETTE: Well, my take on the renewable
9 portfolio standards is that, just like Chris was saying,
10 large solar farms is good, but I also heard that we
11 created 5,000 jobs to do a project or projects with
12 FP&L. Those 5,000 people are probably looking for jobs
13 right now. So although it does create jobs, it creates
14 jobs on large solar farms just for the short term. What
15 I would like to see is put the solar on the rooftops.
16 Let the building owners benefit from it and feed it into
17 the grid which is needed. So we have a lot of rooftops
18 here, and that's what we have a lot of, and they're just
19 sitting up there soaking up the sun. So as far as
20 distributive, I'd like to see onsite generation of solar
21 energy. If those folks are paying -- going to pay the
22 tab, let them benefit from it, whether it be a building
23 owner or commercial building or whether it be a
24 homeowner. The homeowner should have the renewable
25 energy resource on their house. Jennifer and I go back

1 a long ways. I have dealt with Progress Energy, FP&L,
2 and I hear what they're trying to do, and what they
3 would like to do is build large solar farms. But the
4 reality of the situation in my perspective is, put it
5 onsite, get it on the rooftops, and if Floridians are
6 paying for it, then they ought to be able to benefit
7 from it directly. Job growth. That's what I just
8 referred to earlier with job growth. There is job
9 growth and job creation to putting it on homes and
10 buildings. It's a lot more sustainable than just
11 building large solar farms. Now, that's what my biggest
12 -- what I would like to see most is job creation and,
13 you know, I'm being redundant here, but in my experience
14 of 30 years, I can put a lot more people to work if
15 we're doing it on our personal homes and if we're doing
16 it on buildings than we are building solar farms, and
17 there is a more direct affect for those homeowners, more
18 beneficial for homeowners to have it on the roof than it
19 is to pay for programs -- through programs to build
20 solar farms. First of all, you get charged to build a
21 farm, and then what's your benefit. I think we need to
22 get on the customers' side of the meter and deal with it
23 that way. With that, I'll just pass it on.

24 MS. KRUTSKI: I agree with David. The RPS is going
25 to create jobs on a smaller scale at first. It's going

1 to push for more statewide incentives. Get the
2 residential and commercial customers up and running, and
3 then we'll be able to touch on the solar farms and jobs
4 -- the jobs for the solar farms will be people that have
5 been in the industry for 10, 15 years, and that's coming
6 from California or other states that have been set up
7 with an RPS.

8 MS. DOWSEY: Thank you. David mentioned and Dr.
9 Fenton mentioned about putting PV up on top of schools.
10 And David mentioned how we don't have enough qualified
11 people here in Central Florida to go ahead and do PV
12 installations of large magnitudes. How do we -- how
13 will an RPS, if at all, help us educate our youth with
14 regard to these renewable resources and these renewable
15 technologies? Will that added market to Florida
16 actually perpetuate some learning curriculum that will
17 support and allow the industry to grow?

18 MR. MAINGOT: Well, I think, you know, we're
19 talking about distributed generation here, but there's a
20 need for both. There's a need for large scale and small
21 scale. There has to be a balance. And if we have an
22 RPS, and we're already starting to see solar in homes
23 and businesses, not as much as we would like, but, you
24 know -- and there is going to be a natural move to push
25 this into -- especially with the programs that FSEC and

1 with the stimulus dollars we're getting for solar for
2 schools and there's other solar programs through
3 stimulus money, we are starting to see it move into the
4 schools. We're starting to see education in a lot of
5 schools. A school right next to our office, Lyman High
6 School, has a solar system on it. It is part of their
7 curriculum right now. These students learn about the
8 solar system on their school, and as we start to see big
9 farms like the 110 megawatts that FP&L has done and some
10 other projects, it is going to be part of our education
11 system. They are going to have to start learning about
12 solar moving forward. So as we build, it will move into
13 the school system, and it has already started doing
14 that, and the federal government is giving us money to
15 help with that through the stimulus program.

16 MR. BESSETTE: I have had the opportunity to
17 install through the Sunwide for Schools five different
18 school systems that All Solar, my company, has been able
19 to install. I appreciate the efforts and the monies
20 coming down to educate the young folks. I think the
21 young people get it. I just don't think the legislators
22 do. I think it was said that the 10 year olds, it might
23 be easier to talk to the 10 year olds than it is the 50
24 year olds. It's their future. And there was a clip in
25 the Orlando Sentinel I clipped out, and I sent it to my

1 daughter who just had a child, and it showed a doctor
2 holding up the child, and it was crying, mouth wide
3 open, and the nurse said, well, why is it crying so
4 hard? And the doctor said, well, it just found out what
5 its share of the national debt was. You know, well, to
6 move forward -- and I was speaking to others earlier,
7 and I asked a question about the House of
8 Representatives. Why aren't they on board. The fact of
9 the matter is we have no visionaries and we lack
10 leadership. We have to look forward, not to today, and
11 it was said before, every time I hear about solar, they
12 say when is the payback. When is the payback. Well,
13 you've got to look on the back end. If we don't do it,
14 what is the cost going to be then. It's going to be
15 astronomical. Globally, proliferation of solar
16 globally. China, talk about Chinese. They're going to
17 own our marketplace. If we don't bring in and the state
18 does not come up with a strong renewable portfolio
19 standard, we will always buy from other folks.
20 Floridians will always be dependent on foreign oil or
21 foreign manufactured products that we'll eventually wake
22 up and see that we need. So we need to come up with a
23 way. I've talked to people, manufacturers from Sarasota
24 (sic.), from other manufacturers that would love to come
25 to Florida. Everybody talks about this 30,000 foot

1 view. These folks aren't even at 30,000 feet with
2 Florida. They're circling New Jersey and California and
3 those places where they can land to put their plants.
4 They're looking at New Jersey right now. They would
5 love to be in Florida. It's a better distribution for
6 them for the Caribbean and South America. We've got to
7 get outside of the box here. Get to the legislators and
8 let them know. I hear -- like I said, I was a president
9 and I've heard all of the legislative committee meetings
10 and all the different folks, and you've got a meeting
11 here, and you've got a symposium over there, and it's
12 all rhetoric, it's just rhetoric. The problem is is
13 that what we may need to do and what I would like to
14 propose is to do a referendum. Take it out of the
15 legislators' hands, because they don't have the vision,
16 and they think if they put a tax, this might be
17 considered a tax on the citizens, and that would be
18 political suicide. They may not want to do it. So the
19 citizens of Florida need to put -- in my opinion, need
20 to put a referendum together, take it out of legislators
21 and put it on the ballot, because I've heard over and
22 over again, I hear people say every single day, hey,
23 solar's a great idea. I might do it someday. You know,
24 I don't ever hear somebody say, hey, solar's a bad idea,
25 that's the worst thing. It pollutes, it's going to

1 kill, it's -- you know, it's a great idea. We have
2 sunshine, a lot of it here. So I would like to impose
3 to you folks out there to even think about putting a
4 referendum together and show the -- show Tallahassee
5 that we have the vision and we're willing to take the
6 risk. Now, we can all talk -- like I just said, we can
7 all talk about this RPS, and I want to continue to talk
8 about it, but I think we need to go forward and do
9 something that the legislators can't do themselves.

10 MS. KRUTSKI: I agree with Chris and David on how
11 we're going to educate the youth. It's -- you know, the
12 solar energy systems at the schools are going to be part
13 of the curriculum in the future. And like David stated,
14 it's easier to educate a 10 year old than it is a 50
15 year old. Renewable energy just makes sense. It
16 generates savings, no pollution, and I think the youth
17 of America are going to see the greener side of things.

18 MS. DOWSEY: Kimberly, I live -- I get so excited,
19 because I decided to put a solar thermal system on top
20 of my house, solar water system, and I live,
21 unfortunately, in an area that is governed by a co-op.
22 So when I went to them and told them about my bright
23 idea, they pretty much said, well, that's nice, but it's
24 not going to help you any with us. So would an RPS
25 address that with co-ops?

1 MS. KRUTSKI: Co-ops are not required by the RPS
2 right now. They're not an investor owned utility,
3 they're not required to be renewable, so you would have
4 to negotiate a term price with them. Right now, they're
5 buying energy fed into the grids, and most of them do
6 have net metering set up, but half of them do not, and
7 the cost is the cost minus the energy cost minus the
8 fuel cost, which is at 6 cents on average.

9 MS. DOWSEY: So is there anything we can do to
10 address those that do not live -- that do not have an
11 investor owned utility company?

12 MR. BESSETTE: Move.

13 MS. DOWSEY: Okay. That works. Sorry, Lake
14 County.

15 MR. MAINGOT: Well, the legislature would have to
16 direct it, and the legislature did in 7135 direct the
17 co-ops to adopt net metering similar to what the IOUs
18 did, so the legislature has the power to say you guys
19 need to get on board. So that's where it would have to
20 come from, the legislator, for the co-ops. And some of
21 them are progressive like Jennifer and OUC and some of
22 them are not as progressive. But for the most part, I
23 would say the munis and the co-ops have had better
24 programs before the IOUs had programs in place. So for
25 the most part, the munis and the co-ops are kind of

1 leading the way, and OUC is -- I think OUC and JEA
2 probably have the best policies in the state when it
3 comes to solar programs, so --

4 MS. DOWSEY: We talked a little bit about 1154, and
5 when we talk about a renewable portfolio, we talk mostly
6 about solar and talk a little bit more about clean
7 energy and how that plays into an RPS.

8 MR. BESSETTE: It was said earlier that in order --
9 well, let me just backup for a second. I think the mind
10 set is whatever it takes to get off of foreign oil. I
11 think that's what we have to look at. And within that
12 mind set, there's going to be a mix, there's going to be
13 nuclear, there's going to be coal, there's going to be
14 clean coal, there's going to be gas, there's going to be
15 solar, there's going to be wind, there's going to be
16 biomass, there's going to be all of it. So in my
17 opinion, I don't -- I'm not saying that solar is the
18 caveat. It's not the answer to all of it. But I think
19 whatever it takes to get off of the dependence on others
20 and other states for our coal or foreign oil, and I just
21 want to address it in that vein, is that the idea is to
22 bring it on. If we have something clean, it's
23 non-polluting and it's readily available, then I say we
24 should go for it and get everybody in the mix.

25 MR. MAINGOT: What was the question again?

1 Clean technologies is part of the RPS. Yeah, we
2 need a mix, and, in Florida, we do have a good mix. You
3 know, we have biomass is definitely a viable -- probably
4 biomass and solar are probably the two most viable
5 alternatives in Florida. I mean, algae has promise.
6 You know, a lot of people are looking into algae. You
7 know, there's waste heat is another one. I mean, we
8 have -- you know, one of our large fertilizer
9 manufacturers here in Florida produces a lot of waste
10 heat. So, I mean, that's another viable technology.
11 When you say, clean, you know, I -- again, that -- I get
12 a little offended by that sometimes because people like
13 to put nuclear and clean, and nuclear is -- I don't
14 know. I think we have a need for nuclear, but I
15 wouldn't categorize it as clean. So, you know, there
16 are a lot of other technologies that we can use in our
17 RPS in Florida other than solar that, you know, could
18 play major contributions to the RPS, have a major
19 contribution to the RPS.

20 MS. DOWSEY: Without distribution, with just the
21 farms and the utility companies, how do you see that
22 having an affect financially on the construction market
23 and the building market, if at all, here in Central
24 Florida?

25 MR. MAINGOT: Without distributed generation?

1 MS. DOWSEY: Uh-huh. Just as it's being posed
2 right now. Do you see that having a negative or
3 positive or a neutral affect on the building industry
4 and the construction industry here?

5 MR. MAINGOT: I wouldn't say it would be -- I don't
6 think it would be a very positive affect. I think
7 distributed generation would be necessary to be able to
8 -- because most of the builders are going to do small to
9 medium sized commercial systems, residential systems,
10 stuff like that. You know, without programs that take
11 that into account, I don't think that the builders would
12 be -- and the financial -- I mean, you need -- you know,
13 for the financial thing, you need long term contracts,
14 20 to -- you know, 15, 20 years so that you can get,
15 encourage private monies to come in, and, you know, if
16 somebody has a 15 or 20 year contract with a utility,
17 you know, private lending would come into place because
18 they see a secure contract. So, you know, the private
19 bankers and, you know, the money people would come into
20 Florida and create a marketplace basically, because we
21 need the financial people here to create a marketplace.
22 Without them, we're not going to have one. But you need
23 -- for the builders, we need to have that distributed
24 generation as part of the mix. I'm not saying it would
25 be nothing, but if we had an RPS with just strictly

1 large systems, it would be a little bit, but I don't see
2 it affecting the builders in a very positive way.

3 MS. KRUTSKI: I think that it would have a negative
4 affect on it if there was no distributed generation,
5 because, you know, the return of investment would be a
6 little bit longer. It would take years, over 10, 20
7 years, for these residential systems to get back the
8 money they paid for the system and the net metering,
9 plus that OUC offers -- gives a 5 year return of
10 investment. It just makes business sense for these
11 residential customers to buy the system.

12 MS. DOWSEY: So what other financial mechanisms can
13 we put in place to augment or to help the RPS that you
14 see?

15 Don't fight over not answering the question. You
16 have to argue over answering it.

17 MR. BESSETTE: No, I -- well, could you --

18 MS. DOWSEY: Rephrase it?

19 MR. BESSETTE: Yes.

20 MS. DOWSEY: What financial mechanisms need to be
21 put in place to build a sustainable RPS program that
22 will actually function and work?

23 MR. BESSETTE: Well, I think we could do what I
24 would consider a public benefit fund. I think it was
25 brought up earlier. I think if our public benefit fund

1 was tied to that where all the Floridians were paid or
2 pay into it, I think the return on their investment over
3 the long haul -- well, not even the long haul depending
4 on where the utility rates are going, but I think if we
5 did a public benefit fund where everyone paid into it,
6 then everybody could benefit from it. That would spur
7 on the investors to come in to provide the funding
8 that's going to be needed, because behind every good
9 idea, you're going to need to have some type of funding
10 source, but this would be kind of self funding, too.
11 It's -- in my opinion, when you come to funding this,
12 it's almost like the cost recovery fund utilities
13 collect buried within your utility bill where billions
14 are dollars are collected. These monies could be also
15 spent for folks, for Floridians to install the systems
16 on their homes and on their buildings. So I think it
17 could come from a public benefit fund. But, again, you
18 run the risk of calling it a tax. But I like the sin
19 tax. That was a great idea. We could call it a sin
20 tax. So I'm all for that.

21 MS. DOWSEY: We're running out of time, so I want
22 to open questions to the floor for the panel. Does
23 anyone have a question for the panel?

24 UNIDENTIFIED SPEAKER: First of all, let me thank
25 -- I'm an OUC customer, so I want to thank Jennifer for

1 the customers and, of course, Dr. Fenton. We were
2 talking about funding this. There is plenty of money,
3 and I think this is being discussed already, in the
4 pension fund, and at 2.5 gigawatts at today's prices, I
5 believe that would be about 10 billion a year that they
6 would have to invest. That's probably peanuts for some
7 of these pension funds. So I think probably 2.5
8 gigawatts of just PV would probably be justifiable.
9 Although maybe some ears don't want to hear that, but I
10 think -- that's my opinion here.

11 MS. DOWSEY: Any pension fund presidents in the
12 room?

13 No, huh.

14 Any other questions? You can come right up to the
15 podium.

16 UNIDENTIFIED SPEAKER: This is a question that is
17 probably a small piece of the whole program here, but
18 because you are contractors, we always address this
19 internally in our public sector. Putting PV's on roofs,
20 it's very frowned on. Our roofs are -- we have a
21 portfolio that's, you know, 30, 40 years old in some
22 cases. Some new building structures are not there for
23 it. So there is this struggle internally. Do we put PV
24 on roofs or do you not? We have over a million square
25 feet in the county of roof space, and the energy

1 efficiency side of our organization says, put them on
2 the roofs, and the operations side says, no, because you
3 don't want to increase your leak rate, your maintenance
4 and other things. What is your philosophy or approach
5 to putting PV on roofs, builders and owners that say
6 they don't want them on roofs?

7 MS. KRUTSKI: Well, there's new technology right
8 now that is offered on racking systems that don't
9 penetrate roofs, and that's being widely used by some of
10 the schools because they have a lot of concerns about
11 maintenance as well, and we've been using those racking
12 systems.

13 UNIDENTIFIED SPEAKER: Is it findable on the
14 websites?

15 MS. DOWSEY: Yes. Self balancing systems, I think,
16 is what she's talking about. In addition to that, I
17 think that with everything having to do with
18 sustainability, renewable energy as well, not everything
19 is applicable to every situation. So just because we
20 say, put it on roofs, doesn't mean every single solitary
21 roof here in Central Florida needs to have a PV system
22 on it. Some situations it makes sense, and some not so
23 much.

24 MR. BESSETTE: From a contractor's point of view,
25 you have a lot of roof penetrations on your commercial

1 roofs and in your homes. You have air handlers on
2 commercial roofs. There's a lot of penetrations. If
3 you install it properly, you're not going to have a
4 problem. And there is engineering that will meet the
5 Florida building codes and the wind code, so I don't see
6 leaking as a problem. Now, you've heard that leaking --
7 anybody that's a facilities manager, that's what his
8 concern is, but that concern can be easily overcome by
9 getting a warranty or getting a roofer involved,
10 whatever you have to do, seal up that roof properly,
11 give the warranty on it and move on. That's my opinion.

12 MR. MAINGOT: Yeah. I mean, roof spaces are -- you
13 know, a lot of commercial buildings, we have a lot of
14 commercial buildings, you can put, you know, 50, 100 KW
15 systems. We got quite a few commercial buildings we
16 could put PV on. Not every residence is perfectly sited
17 for, you know, large PV, but, I mean, most residences,
18 you can get at least 2 to 5 KW on, and we have a lot of
19 good available. I mean, we're not going to have -- when
20 Navigant did their study, they -- and supported rooftops
21 in their study as part of the PV mix. We won't get
22 there just by available land or usable land. We will
23 not. So we have to use rooftops. So that's -- you
24 know, rooftops are -- I mean, like Dave says, if you got
25 the right contractors involved, it's not an issue. We

1 have -- you know, we have very few problems with roof
2 leaks. I mean, compared to the amount of work we do,
3 it's less than 1 percent of the jobs we do that have
4 roof leaks. Nobody's perfect. You know, we're all
5 human beings so we make mistakes occasionally, but roof
6 leaks are not a big hold back to moving PV forward, I
7 don't think.

8 MS. DOWSEY: Well, Chris, I'm getting the hook, so
9 let me just take a minute to thank the panel for coming.
10 Thank you very much.

11 MR. LEWIS: Is there one or two quick questions
12 that could be answered quickly?

13 MS. DOWSEY: Are there anymore questions we can ask
14 really quickly?

15 Go ahead.

16 UNIDENTIFIED SPEAKER: Just a quick question. How
17 do you -- how do you write this carve out into the RPS
18 of distributed generation?

19 MS. DOWSEY: How do you write this carve out into
20 the RPS?

21 UNIDENTIFIED SPEAKER: For distributed generation.

22 MR. MAINGOT: Well, you just got to get the
23 legislators to cooperate with us. Arizona is a perfect
24 example. 30 percent of their RPS has to be from mid to
25 small size commercial and residential. So they've

1 written it into their RPS where you have to have a
2 certain portion dedicated to distributed generation. So
3 we can borrow from other states that have, you know, put
4 these things -- not every -- I mean, a lot of states
5 don't have it as part of their thing, but it's very easy
6 for us to write it in. You just got to get the
7 legislators to cooperate.

8 UNIDENTIFIED SPEAKER: How does that work with a
9 utility? Does the utility then have to lease someone's
10 rooftop to put up the PV?

11 MR. MAINGOT: No. I mean, you can be working
12 directly with the owners of the building. I mean, you
13 know, there's a utility -- a lot of -- like with OUC,
14 they can't take advantage of the federal tax credits
15 because they're not for profit, so what they do is they
16 enter into a PPA agreement with somebody who can take
17 advantage of it. Some of the other utilities, like the
18 IOUs, can take advantage of it, though, and get the
19 federal tax credit. But in a lot of cases, you know,
20 you'll be doing -- in the state of Florida, PPA's are
21 only legal if you're working with a utility. It is not
22 -- I can't put a system on your roof and sell you the
23 power. That's not legal in Florida. So you have to
24 work with a utility if you do a PPA. So, I mean, there
25 -- you know, there is -- I wish that law would change,

1 and maybe it will going forward, but until that happens,
2 we're not going to see stuff like that.

3 MS. DOWSEY: One last question. Go ahead.

4 UNIDENTIFIED SPEAKER: There seems to be a
5 significant weather damage concern in Florida with the
6 insurance industry.

7 MS. DOWSEY: He's asking about the weather damage
8 concern and insurance liability.

9 UNIDENTIFIED SPEAKER: So if we start putting these
10 units on everybody's homes or everybody's commercial
11 business roofs, will they be insurable, or are the
12 owners going to be at risk? We already have trouble
13 with insurance for homeowners in Florida on hurricane
14 problems.

15 MR. BESSETTE: They are insurable. I can only cite
16 one example. Jeff Curry with Lakeland Electric.
17 Lakeland Electric had 60 to a hundred solar hot water
18 heating systems installed many years ago prior to 2004.
19 The hurricanes -- and that's -- and he's down in
20 Lakeland. So just above Lakeland was -- in 2004, was
21 basically the epicenter of where the three hurricanes
22 crossed over. Just, you know, in Polk County there. He
23 put out a report that he only had one damaged collector.
24 And over the years, I can tell you, I mean, we have
25 nearly 16,000 installations out there, my company does.

1 Very few were damaged through the hurricane. The ones
2 that did sustain any damage at all were the pool heating
3 panels, the plastic panels that fit on your roof.
4 They're a little more difficult to keep from being
5 damaged, but the other ones held up pretty good. And
6 the durability, they use these solar panels in some of
7 the most remote areas of the world. And so they're very
8 durable, they're impact resistant. Will there be
9 damage? Yes. To what extent, I can't tell you at this
10 point in time, but very durable products.

11 UNIDENTIFIED SPEAKER: But you expect it to be
12 insurable?

13 MR. BESSETTE: Yes.

14 MS. CHADWICK: We are going to have to wrap up. We
15 have some positive but unexpected potential of guests
16 showing up. Looks like our Governor might be popping
17 in, believe it or not. So as you are watching me stress
18 out up here, it's all positive, but it's kind of like,
19 oops. So we are going to just kind of trek right along
20 here. Unfortunately, the break I promised is obviously
21 not going to happen because of the unexpected but great
22 speaker who's going to pop in here whenever he's done
23 with another meeting that he's at.

24 So next up, George, come on up. George is going to
25 introduce himself. Thank you.

1 MR. CAVROS: Hi, everyone. Thought it would save a
2 little time. I'll go through my presentation as quickly
3 as I can so we can finish on time and leave some time
4 for questions. My name is George Cavros. I work with
5 Natural Resources Defense Council and Southern Alliance
6 for Clean Energy. Those two organizations, we're
7 heavily engaged in the 15 month rule making process
8 before the Public Service Commission and advocated for a
9 renewable energy policy, not only because of
10 environmental benefits, but also because of the job
11 benefits and the rate tariff protection benefits. I
12 also want to congratulate Orange County on trying to
13 attract clean energy investments to the county. It's a
14 sector of the economy that has immense potential, but
15 before we do that, we need to get the rules and
16 regulations right at the state level. And, you know,
17 quite frankly, Florida is at a crossroads. I mean,
18 we're almost at 12 percent unemployment. Even the
19 Florida Chamber of Commerce has ranked Florida slightly
20 negative for economic development. Some of our
21 traditional economic sectors, like construction, like
22 development, have declined due to situations outside of
23 our control, and legislative leaders are being asked to
24 create new economic answers, but that at the same time,
25 not unduly burden Floridians in the process, and the

1 Cleantech industry provides a real opportunity, unique
2 opportunity, for Florida to kickstart a new economic
3 engine, to create jobs, and also in the process to
4 protect ratepayers as well.

5 This is a graph prepared by the Southern Alliance
6 for Clean Energy, which shows the potential of over
7 50,000 jobs in Florida with a 20 percent renewable
8 energy standard or renewable portfolio standard by 2020.
9 That was based on studies by Navigant Consulting and
10 also the University of Florida. As you can see, it's
11 primarily a biomass and solar opportunity, which are --
12 which Florida is very rich in those resources.

13 A lot of times people ask, you know, what is a
14 green job. And if you look at this graph, half of it is
15 manufacturing and another quarter of it is construction
16 and craft trade. It's almost 75 percent of green jobs
17 have the types -- require the types of skills that our
18 construction industry now has. Many of those folks are
19 unemployed and they could very easily jump into the
20 clean energy economy. They could hit the ground running
21 and be quickly employable.

22 I also wanted to break it down to job potential per
23 megawatt. Recent studies have shown that 1 megawatt of
24 capacity of solar will create anywhere from 15 to 30
25 jobs. 15 is on the lower end. That's generally utility

1 scale solar. 30 is -- tends to be more distributed
2 generation type solar. Also, biomass will create 9
3 direct jobs per megawatt of capacity. And the great
4 thing about biomass and solar is, as it was represented
5 earlier, the money stays in the state. 85 percent of
6 the money spent on producing homegrown biomass stays
7 within a 75 mile radius of the project stimulating local
8 economies, and the same pretty much can be said with
9 solar. It's important to note that 80 cents out of
10 every dollar we spend on energy leaves the state, and
11 what we need to do, as mentioned earlier by Jim, is keep
12 those dollars in the state.

13 Now, there's a whole host of benefits to renewable
14 energy. Job and economic benefits is just one. A rate
15 impact protection for customers is another. And I kind
16 of wanted to touch on that with you, because you often
17 hear that renewable energy is too expensive, and I want
18 to kind of reframe this for you a little bit.

19 First of all, the kilowatt hour cost of biomass is
20 already competitive with base load generation. The
21 problem that biomass developers have in Florida is that
22 the contracts they're offered through power purchase
23 agreements, the avoided cost that they have to meet is
24 simply too low. And you'll hear this all the time from
25 third party providers. They could not do a project at 5

1 cents or 4 cents a kilowatt hour. It's simply too low.
2 I pay 12 cents, my retail rates. There's a lot of room
3 there for negotiation with those biomass developers. I
4 can also let you know that solar is already cost
5 competitive with peaking plants, natural gas combustion
6 of cycle of peaking plants. Those are the plants that
7 the utility will turn on when its utility demand is
8 peaking. In South Florida, it's usually about 1:00 to 4
9 o'clock in the summer days when those air conditioners
10 are humming. Solar is -- it's profile is really well
11 suited for that, and Jennifer pointed that out in her
12 presentation. Also, conventional power has experienced
13 spiking fuel costs in recent years and also increased
14 capital construction costs. We've seen double digit
15 increases in conventional power for the last few years
16 because of that. You know, one of the reasons is that
17 natural gas is a highly volatile fuel source. Natural
18 gas will comprise over 54 percent of our energy mix by
19 2017. And, again, pointing to its high volatility, it
20 was \$10.35 cents per thousand cubic feet in 2005. It's
21 now at about 3 and a half dollars. And while it's good
22 that it's low, that type of volatility isn't necessarily
23 good for customers. Also, capital construction costs of
24 conventional energy is going up due to increases in
25 cement and steel and the things it takes to build

1 conventional power plants. Just to give you an example,
2 nuclear capital construction cost estimates have tripled
3 from 2,500 a kilowatt capacity in 2005 to over 7,500 in
4 2009. And I would like to point, you know, to solar and
5 also biomass. By contrast, renewables have -- their
6 construction costs, or capital costs, are dropping. The
7 price of -- per watt of peak PV solar has dropped from
8 \$27 in 1982 to about \$4 today, and I will have to
9 doublecheck with the solar folks to make sure I'm
10 accurate on that. Sometimes you get different figures
11 for that. Also, there is no fuel component in solar and
12 wind, and, generally, the fuel source for biomass is
13 pretty stable.

14 So renewables -- well, your energy mix is like a
15 stock portfolio. Renewables are your staple investment.
16 The more we can integrate them into our energy mix, the
17 better off everybody will be. You know, basically, you
18 have a trend line going up this way with conventional
19 energy, you have a trend line going down in terms of
20 cost for renewable energy. So we need to start
21 integrating those things as soon as possible.

22 Also, avoided water use with renewable energy. You
23 know, water's the life blood of Florida. Conventional
24 power plants use a lot of water. In fact, in early
25 2008, there was a scare that some of the nuclear

1 reactors in the southeast might have to be shut down
2 because of drought conditions because there simply
3 wasn't enough water for the cooling requirements.

4 Also, grid support. We've heard that our
5 transmission grid is old, it's going to need updating.
6 How do you provide relief to that? One of the things
7 you can do to reduce line losses is place distributed
8 generation in closer proximity to demand. That reduces
9 line loss and also mitigates the need for additional
10 infrastructure construction. And, of course, you've got
11 the avoided CO2 emissions benefits from solar and wind,
12 and biomass is generally CO2 neutral.

13 Before I jump into renewables, I do want to -- I
14 need to touch on efficiency. I know that Jim touched on
15 this as well, but efficiency is your lowest cost
16 resource to any utility. It's a well run program. It's
17 about 2 to 4 cents a kilowatt hour. Generally, newer
18 power is going to cost you about 12 cents a kilowatt
19 hour. Not only that, but it helps maintain your
20 renewable target baseline from increasing. You know, if
21 your demand increases at the same time you're trying to
22 get a percentage of that, of those sales from
23 renewables, you're simply going to be chasing an ever
24 higher baseline. And that's why 17 leading states have
25 made a commitment to capture at least 1 percent of their

1 demand through energy savings. In Florida, we're not
2 doing as well. We've recently finished a energy goal
3 docket at the Public Service Commission. They have
4 taken steps to increase energy savings in Florida, but
5 we still have a long way to go. Historically, Florida's
6 utilities have been capturing about 2/10th's of 1
7 percent. So other states made a commitment to capture
8 about five times more. Also, including energy
9 efficiency does create jobs. Jobs like heating, air
10 conditioner installers, carpenters, roofers. Again,
11 these are the types of people that are currently
12 unemployed and can step in and do this work. The AC
13 Triple E estimates we can create over 19,000 jobs in
14 Florida just from efficiency if we were to achieve 50
15 percent of our demand of energy savings by 2020.

16 Okay. Creating a renewable energy market through
17 an RPS. The overriding goal is two things:
18 Transparency and certainty. Developers need that,
19 otherwise, they won't come to the state, they won't
20 invest. And Tommy touched on some of the major policy
21 design components in the first presentation, but they
22 are targets and timelines. Eligible renewable
23 resources, they're not the same in every state. Do you
24 want to encourage a specific resource, or do you want to
25 encourage distributed generation. The RPS's right now

1 are using a renewable energy credit as a form of
2 compliance and also a premium payment to encourage
3 investment. Many RPS's have an investment cap or,
4 alternatively, a compliance payment, which I'll touch on
5 in a moment. They also have enforcement provisions, and
6 some of them have exemptions from the RPS, and that
7 generally goes to municipal utilities and rural
8 cooperatives. And some of these states are not covered
9 through an RPS.

10 And you may have seen a similar map to this earlier
11 today. There are 29 states in DC and the District of
12 Columbia who have RPS's in place right now, and the
13 targets really vary. Arizona has 15 percent by 2025.
14 North Carolina is only 12 and a half percent by 2021,
15 and they can actually use 25 percent. They can meet 25
16 percent of their RPS through energy efficiency. And
17 Hawaii just recently increased theirs to 40 percent by
18 2030. So there is really a wide diversity of target and
19 timelines.

20 Same with eligible resources. Your most common are
21 going to be wind, solar, biomass, hydro, geothermal.
22 Some of the less common ones you're going to see, for
23 instance, Nevada has tire waste as a renewable resource.
24 North Carolina has swine waste. There are more pigs in
25 North Carolina than there are people. And to them,

1 swine waste is a renewable resource. Same with chicken
2 waste. About half of the states that have an RPS right
3 now also have some kind of set aside. The set aside is
4 sometimes called a carve out, and they have that carve
5 out either generally for solar or also for distributed
6 generation.

7 Okay. Renewable energy credits. The renewable
8 energy credit is the currency of an RPS. It equals one
9 megawatt hour of renewable energy. It represents that
10 that's the value of the attribute for that renewable
11 energy. It also represents an additional payment stream
12 to the renewable energy developer. Right now, renewable
13 energy developers can only get the utility's avoided
14 cost. And by, avoided cost, I mean that's the utility's
15 cost of providing that next incremental megawatt hour of
16 electricity. And, generally, that's a natural gas
17 combined cycle. Plant natural gas is low right now, so
18 basically, it's just, you know, fuel cost. So they need
19 that REC to give them the incentive they need. Also,
20 REC's are usually, let's just say, tracked
21 electronically. They can be bundled or unbundled. By
22 bundled, I mean they can be sold with the contract with
23 the sale of electricity, or they can be unbundled. In
24 other words, you can have two payment streams. A
25 developer can sell the electricity and then he can peel

1 off the REC's and sell them independent in other
2 markets.

3 What you have in other states is you have short
4 term trades and also long term contracting. And you can
5 see which dominates which markets. The problem with
6 short term contracting or short term trade is that you
7 have a variable renewable energy credit value. You
8 know, your REC price might be here one day, might be
9 here another day. That doesn't create that certainty
10 that we had talked about earlier. The same with long
11 term contracting. You can negotiate your own long term
12 contract, but, ultimately, you don't know what that
13 contract price is going to be and others don't know what
14 that contract price is going to be. So it's not very
15 transparent.

16 So what a few utilities are doing, they're going to
17 standard offer contracts. And what those are are
18 basically an open invitation to accept a contract based
19 on certain criteria, and it's usually done at a
20 specified cost per kilowatt hour over a long term. For
21 instance, Arizona Public Service offers a 10 to 15 year
22 contract with REC prices anywhere at 20 cents a kilowatt
23 hour and 18 cents, respectively. And as we get into
24 these types of standard offer contracts, you are
25 starting to approach more of a feed-in tariff type

1 concept. And I just wanted to touch on this because we
2 haven't talked a lot about the feed-in tariff, but it
3 varies by -- with the RPS in a couple ways. The
4 standard regulates the target. A feed-in tariff
5 regulates the price. For instance, Gainesville recently
6 established a feed-in tariff at 32 cents a kilowatt
7 hour. That's the price. The developers know that.
8 That price is good for 20 years. That creates a lot of
9 certainty. But you don't know necessarily how much
10 renewable energy you're going to get. I mean, they have
11 placed a cap on the program, but still the RPS tends to
12 set the target. But you don't always know what the
13 price is going to be and that creates a bit of
14 uncertainty to developers entering that market. Let's
15 see what the trends have been.

16 As you can see from this graph, and this is from
17 Orange Berkeley National Laboratory, that the compliance
18 has been pretty good. It's been up at around 90 percent
19 in the early years. It's important to remember that a
20 lot of these programs are new. Over half of them have
21 been started since 2004. So some of them may have not
22 hit their early target. But generally compliance is
23 good. Some of them are struggling, like Arizona.
24 Arizona has realized that the renewable energy purchases
25 are well below 50 percent, and that's because the

1 specific funding amounts have been insufficient to
2 achieve their target. California, even though they're
3 at 94 percent today, aren't going to make 20 percent by
4 2010, which is what they had originally envisioned, and
5 that's been due to a transmission constraints contract
6 failure and siting challenges. And even Nevada is
7 struggling a little bit. But that's, again, due
8 primarily to transmission constraints between north and
9 south Nevada that have sort of lowered average
10 compliance levels.

11 Let's look at the rate impact, because there has
12 been a lot of discussion on rate impacts. Rate impacts
13 have generally been around 1 percent or below 1 percent
14 in a lot of these states. Again, this is the early
15 years, but the evidence shows that these policies are
16 not bankrupting consumers. And those types of rate
17 impacts are pretty low considering, you know, if you
18 look at it sort of in the context of what we've seen
19 from conventional energy in the last few years.

20 And there was some discussion today about cost
21 caps. This is how some of the other states are doing
22 it. They either place a retail rate cost cap per
23 customer cost cap or they set an alternative compliance
24 payment. For instance, Maryland, Maine and New
25 Hampshire average somewhere between a 25 to 50 megawatt

1 hour compliance payment, so they don't need a cost cap
2 because if direct value goes above that amount, they'll
3 just pay the compliance payment. Those funds go into
4 generally a fund that's dedicated to funding a new
5 renewable energy project. Also, some have retail rate
6 caps. In fact, that's the one that we had in Florida in
7 the Public Service Commission rule at 2 percent. You
8 see some of the states are lower than that. Colorado is
9 1.7. Illinois is 1.4. Maryland is 2.1. Oregon and
10 Washington actually have a 4 percent rate cap. North
11 Carolina has a per customer rate cap. And there, an RPS
12 -- the impact of an RPS can exceed \$10 per year to a
13 residential customer.

14 So the general trends and challenges. Basically,
15 we've seen an increased stringency of RPS purchase
16 targets, like Jim mentioned earlier. California has
17 increased theirs to 33 percent by 2020. Hawaii's
18 increased theirs to 40 percent. Also, a lot of them
19 have expanded the program to include municipal utilities
20 and cooperatives. In some states, they're not covered,
21 but in many other states, now a hundred percent of the
22 utilities in those states are covered. You've also seen
23 a really expanded use of set asides, not only for solar,
24 but also for distributed generation. And, you know,
25 thus far, the RPS motivated capacity additions have been

1 mostly wind. And, in fact, wind last year produced, I
2 think, at least there were contracts for about 10,000
3 megawatts of wind last year in the United States.

4 Now, what will the interaction be with the federal
5 RPS, and, you know, right now, there isn't a federal
6 RPS. There's a possibility that there might be. The
7 American Clean Energy and Security Act of 2009 was
8 passed in the House. It's a 20 percent RPS by 2020, but
9 it allows states to meet 8 percent through energy
10 efficiency. So, in effect, it could be as little as a
11 12 percent RPS. But the important thing to remember is
12 that it will not preempt state efforts. I think it's
13 important for Florida to set its own course and design
14 an RPS design specifically to meet the needs of Florida.

15 So in conclusion, the RPS programs are successful,
16 they're doing well, and they should be -- you know, they
17 should have greater importance as years go forward, but
18 the -- you know, the trick is designing an RPS. It's to
19 meet the challenges of each individual state. So that's
20 kind of the challenge before us. If you have, and if
21 you're inclined to do so, I would encourage you to
22 contact your House of Representatives and ask them to
23 support an RPS this year. And I apologize for my voice.

24 But I did want to leave you with one last thing,
25 and that's kind of the shifting utility paradigm that

1 we're heading into. These are really interesting times.
2 We have about 80 years of history of utility regulation
3 in this country. And the way it's been set up is that
4 the utility was a central source of energy. We paid
5 them for that. Utilities are regulated by the federal
6 government and through the state to state through
7 delegated authority. And, you know, the idea was that
8 we wanted reliable service to customers. We wanted low
9 cost, and actually, you know, it made a lot of sense.
10 You didn't want 10 utility companies setting up in one
11 territory with lines running throughout the city. And
12 we've been able to do that. We've got reliable service,
13 we've gotten power extended to rural areas, and we've
14 gotten generally low rates. But now we're in the 21st
15 century where you have technologies where we can produce
16 electricity and the utilities are buying it, are, in
17 fact, becoming the consumer, so -- which is a little at
18 odds with the utility model, because utilities,
19 obviously, are in the business of selling electricity,
20 and they need those sales to recover the revenue which
21 goes to append their fixed costs and earnings. So stay
22 tuned. It will be kind of real interesting to see how
23 that tension is resolved in the future.

24 Thanks so much.

25 MS. CHADWICK: All right. So what we're going to

1 do, our last speaker did make it. Michael Dobson was
2 having some difficulty with his travels. He came all
3 the way from Tallahassee and he's now here, so he has
4 agreed to limit his comments to 10 minutes or so, and
5 then we are going to just open the floor to Q&A. The
6 Governor stepped out of the building, but he's coming
7 back, so we're just -- if people need to go, we
8 understand, so we'll go ahead and wrap up right around
9 our 11:30 to 11:40 time as promised. Please stay if you
10 can, we'll open the floor for dialogue, and we'll let --
11 all of the folks that have presented here today will be
12 here, so we'll let them address any of your questions
13 jointly at that time. So with that, I'm going to go
14 ahead and, if Michael is here --

15 Okay. So we started out the morning with Tommy
16 talking about the history and the legacy thus far in the
17 legislature with RPS and where it's gone thus far.
18 We've had some dialogue about the prospectives and
19 concerns of some of the entities that will be
20 potentially impacted by RPS, and then George just
21 wrapped up with kind of best practices and things we
22 need to look at that other states have already
23 implemented. So Michael is going to just spend, again,
24 just 10 minutes or so just kind of wrapping up on where
25 do we go from here, what do we do based on what other

1 states are doing, and what we've done thus far.

2 Michael is the President of the Florida Renewable
3 Energy Producers Association. He spends a lot of time
4 up lobbying in the government on issues related to
5 renewable energy, so he's a great resource, as are all
6 the speakers, on just touching base on what's going on
7 at the legislative side of things and where we can take
8 it from here. So with that, Michael?

9 MR. DOBSON: Thank you.

10 Thank you, guys, for being patient, and as she
11 said, I am just going to -- I've got a pretty long
12 presentation here, but I'm going to just pick a couple
13 of slides and go through them and just kind of talk
14 about exactly where do we go from here.

15 As she said, I'm the President of the Florida
16 Renewable Energy Producers Association, and if there is
17 anyone that doesn't know who the organization is, we
18 founded this organization about three years ago, and
19 it's a 501(c)(6) non-profit, and our mission is to make
20 sure that Florida has renewable energy landscape with
21 respect to policies that will allow the industry to
22 flourish. Our members are mainly large scale renewable
23 energy developers. We have biomass members, we have
24 some solar members, and we also have wind developers and
25 wind manufacturers. We also have biofuels producers, as

1 well. And I won't rehash probably some things that
2 Tommy and others have discussed, but I'll touch on just
3 a few things just to kind of T up where we are.

4 And as I'm sure that George and others have
5 mentioned and I'm sure you've seen a variety of maps,
6 you know, Florida and the entire southeast is behind the
7 curve. And the renewable energy portfolio standard is
8 really designed to do several things. And those several
9 things are to increase the amount of renewable energy
10 produced in Florida, promote stable electricity prices,
11 protect the public's health, improve the quality of
12 Florida's environment, and stimulate our economy. And
13 at this point, I'm going to kind of get away from the
14 presentation a little bit and talk about that,
15 stimulating the economy.

16 We have an opportunity currently. We have an
17 unemployment rate that is nearly 12 percent, and as
18 Tommy and others have suggested to you, over the last
19 couple of years, we've tried to get a renewable energy
20 portfolio standard passed in Florida, and we've -- many
21 of us have made the argument that a renewable energy
22 portfolio standard in any state that has been adopted
23 has, in fact, increased renewable energy production.
24 And given where we are currently in our economy, we need
25 (a) the jobs, and we need to send a message to the

1 outside world that Florida is, yes, open for business
2 with respect to renewable energy, and, yes, Florida is a
3 place that respects and we encourage technology and
4 science.

5 Currently, there is more venture capital dollars
6 raised in California per week than there is in Florida
7 per year. And that's for a variety of reasons, and one
8 of the key reasons is because they have been able to
9 position themselves and to market themselves and to,
10 frankly, prove to the world that they are very
11 progressive with respect to technology and renewable
12 energy and a whole host of other things. Not that we
13 want to be California, but we want to be the best
14 Florida that we can be.

15 Now, currently, there are several bills in the
16 Florida legislature regarding renewable energy. As
17 someone, I'm sure, mentioned that there is a bill signed
18 by Senator Nancy Detert, which is the same bill that
19 Senator King filed last year that passed the Senate, and
20 also there's a bill by your local Senator Lee
21 Constantine, and it's a renewable energy portfolio
22 standard bill, but his is a little different in that --
23 actually, it's a lot different in that it doesn't
24 include nuclear. And there's a bill to address the
25 avoided cost issue. I heard George, and I'm sure some

1 others, talked about, and there's a few other bills that
2 are out there as well. On the House side, there is
3 nothing that I can really speak to yet with -- you know,
4 with regard to the Chair of the Energy Committee putting
5 forward. I have had meetings with him and they have
6 assured me that they are (a) looking at an RPS, that
7 there will be an energy bill in the House of
8 Representatives this year. And some pretty high up
9 conversations I've had on the Senate side, if they had
10 their druthers, they would have taken Senator King's
11 bill, which is now Senator Deter's bill, and passed it
12 already out of committee. But what they wanted to do
13 was to, frankly, not embarrass the House, because
14 there's a lot of things that they're going to need to
15 negotiate between the House as the legislative session
16 moves forward. So what they wanted to do is to not just
17 kind of push that down anybody's throat just yet, but
18 they're waiting to find out what the House of
19 Representatives is going to put on the table so that
20 they can start just trying to figure out what they need
21 to do at that point.

22 And I was sharing with someone earlier, the issue
23 of feed-in tariffs is off the table. The Senate has no
24 appetite for it and nor does the Florida House of
25 Representatives. And I think, you know, one of the

1 reasons, probably very similar to the national debate on
2 health care. When we talk about policies that are great
3 for some other country, there is some legislators who
4 for ideological purposes and et cetera, they are
5 apprehensive about embracing those policies. So I'm
6 sure that the supporters of feed-in tariffs will try and
7 find some ways to try to get some of their language in
8 some bills. But I'm just kind of giving a warning shot
9 out there that's kind of where the legislature is
10 thinking right now.

11 And I think I heard someone earlier talking about a
12 public benefits fund, and I would like to call it a
13 clean benefits fund. I, too, think that is a wonderful
14 policy. What it does is it provides a stable source of
15 funding for renewable energy projects. It's a much
16 stable funding source as opposed to the current programs
17 that we have now, like the solar rebate program, which
18 is not sustainable long term because you can't really
19 depend on it from year to year. So a public benefits
20 fund is a great policy, but the problem is, and I think
21 someone mentioned it, it's very difficult to have that
22 discussion without saying you are raising taxes. So we
23 have to figure out how do we do that. Do we try to get
24 the legislature to see the light of the day, or do we
25 take it to the streets? And what I mean by that is, do

1 we make it a ballot initiative? There is enough polls
2 that have been provided to the public over the years
3 that indicate that the public, by and large, would be
4 willing to pay an additional -- I'm not sure what that
5 cap would be, but an additional something per month for
6 renewable energy. And you may be better off taking that
7 fight to the streets. Just a suggestion.

8 And one of the items, a big item, actually, I'll
9 mention because I know my time is extremely limited is
10 that renewable energy environment -- I'm sorry,
11 renewable energy advocates, we're going to need to do a
12 better job than we have in the last couple of years.
13 The complaints that I have heard from the Senate, our
14 supporters in the Senate, and also our supporters in the
15 House is that they don't get a clear message from us.
16 There is confusion. There is noise. They want to help,
17 but they don't know what to do. I've had a meeting with
18 -- I guess I can mention, your Senator Constantine and I
19 have been talking like this for a couple of years. I
20 met with him last week. He says, Michael, you guys need
21 to give me a plan. I'm a senator, I have -- I'm a chair
22 of this committee, I do this, that and the other. I am
23 not the expert, but what I need to do is a plan, so just
24 point me in a direction. But what happens is that as
25 advocates, we have not been consistent and concise in

1 terms of providing that plan, and over the last six
2 months -- and I see Chris there, he can attest, I've
3 been out on meetings throughout the state holding
4 various meetings trying to get the various stakeholders
5 to at least come together with some principals which we
6 can all agree on to go to the legislature and work
7 together. If we can do that, we do have friends on both
8 sides of the House, democrats and republicans in the
9 Senate and in the House. If we can do that, they're
10 ready to help, you know. So I'll encourage that, and
11 before my time is completely up, I would also suggest to
12 you in the audience, this will require your help as
13 well. We ask you to be engaged. The renewable energy
14 community has not been one that's been successful with
15 respect to lobbying and organization and et cetera. So
16 we ask you to get involved, reach out to your friends,
17 please join us on Twitter. It's Florida Green Energy at
18 Twitter. Follow us on Twitter, and we encourage you to
19 reach out and get engaged and let the legislators know
20 that it's not just myself and George and Chris and Dr.
21 Fenton and others that are interested in this. They
22 need to know that there are folks that are in their
23 legislative districts that think these policies are
24 important.

25 So I can say a whole bunch more, but I will pause

1 at this point and, if there is any questions, I'll be
2 glad to entertain them.

3 MR. LEWIS: Well, let's start to draw to a
4 conclusion by taking a couple of questions, one or two
5 questions, for Mr. Dobson. Are there some?

6 Can you come down to the mic, please?

7 UNIDENTIFIED SPEAKER: Good morning. You seem to
8 be in better form or composure than you were when I saw
9 you in October after the RPS fiasco. At any rate, I
10 think I have a plan. It would satisfy most parties
11 involved.

12 Steve Precourt has said that from the legislative
13 perspective, offshore drilling is the priority. That
14 and nuclear. So it seems to me, pass the offshore
15 drilling initiative legislature, take the licensing fees
16 from that, and -- which are going to be long term and
17 dependable, put them into a public benefits program that
18 you can call -- call whatever you want, feed-in tariff
19 or whatever, that all the utilities can now -- I don't
20 want to say match 50 percent, but match at some level,
21 then we would have a sustainable, long term fund for
22 renewable portfolios.

23 MR. DOBSON: Well, actually that's really not a bad
24 plan. It's very interesting. I'll just -- what I'll
25 share with you is Florida Renewable Energy Producers

1 Association, we have not taken a stand with respect to
2 the offshore oil drilling because, at the end of the
3 day, when we look at it, we say, well, does this impact
4 the ability of a biomass developer to get his project
5 done on Progress Energy's grid. Well, no, it doesn't,
6 you know. So that's more of a environmental fight than
7 it is a renewable energy development fight. As
8 renewable energy developers, we are really business
9 guys. When you've got to raise 200 million dollars to
10 build a project, you know, you're really a business guy.
11 But what I'll share with you is that my concern is that
12 I don't want the offshore oil drilling to be pitted
13 against renewable energy. That's the problem. And the
14 same goes to nuclear. I don't -- we think that those
15 things should be dealt with on their own, and if there
16 is some benefit to the renewable energy community, such
17 as that plan that you just mentioned, I think that would
18 be wonderful, but we don't want that to impede the
19 progress we're trying to make.

20 MR. LEWIS: That is a good place to kind of bring
21 your thoughts together and take the feedback form that
22 you picked up on the way in, and even if it's not well
23 worded, if you can just jot down three things that
24 people in this room, people in this symposium could do
25 to help insure that RPS passes this year. Should it be

1 something like the plan that was just suggested? Should
2 we work with the EDO's? If it's jobs, jobs, jobs, then
3 chambers and economic development commissions and so
4 forth might be the root to meet the legislators. Is it
5 a referendum? There were a lot of ideas today, but,
6 one, two, three, what do you think that everyone in this
7 room could do? That would be very helpful to us in
8 bringing everyone's thoughts together to take things to
9 the next step. There was also a couple of questions on
10 the feedback form to get us started in planning for our
11 next Cleantech symposium in April on green building
12 codes and ordinances. So the feedback forms are very
13 helpful to us, if you could kindly take a few minutes to
14 drop it off on your way out.

15 Kirstie?

16 MS. CHADWICK: Our Governor will be here somewhere
17 in the next 20 to 25 minutes, but we agreed and told you
18 we'd be done at 11:30. We got pretty fairly close given
19 the late start. What I think we're going to do is, if
20 you need to go, please do. All the folks that were
21 speakers have all agreed to hang out, and I think we're
22 going to open the floor for questions, and if you can
23 stay, great. If you have questions, now is the time to
24 do it. I'm just going to ask all of the speakers,
25 Robyn, if you could just come -- if you're still here

1 and represent the builders panel so that we don't have
2 too many folks. Just come on up towards the front.
3 We'll just do this informally, but if you need to go, we
4 completely understand. We just want to hold the floor
5 open a little bit just in case the Governor is able to
6 pop in here in the next 20 or 30 minutes. But it's
7 completely up to you. So with that, I will formally
8 adjourn things, and, informally, we'll hang out and do
9 the Q&A while we're waiting to see what happens. Okay?

10 MR. LEWIS: Does everyone want to stay where they
11 are, except for people that have to leave and have other
12 things they need to be at? I need to be someplace
13 myself at noon for a couple hours, but I'm going to walk
14 in late.

15 Maybe one thing that we can -- that someone would
16 want to address is I'm curious of the organization that
17 you represent, what are you doing to insure that a RPS
18 passes this year? What is your action plan? Anybody
19 want to address that? Because is that a work item for
20 any organization here? Think about that as the panel
21 comes up, and they may be able to instigate a few more
22 questions.

23 MR. BOROUGHS: Let me make a comment. I think
24 Michael hit the nail on the head when he said, look, if
25 you're interested in RPS, talk to your local

1 legislators. They are more receptive to members that
2 vote for them, okay, because the members that vote for
3 them have citizens that vote for them, have neighbors
4 that vote for them. They represent you. In many ways,
5 they're much more influential than highly paid
6 lobbyists. Tell them it's important. Tell them why
7 it's important. That's the best thing to do. If we can
8 get people to do that all over the state, we'll win,
9 okay? But if we don't, it's not going to go anywhere,
10 because we've got basically, for the most part, a House
11 that's kind of reluctant to go very far. But we can do
12 it if we'll all get out there and talk to our own House
13 members.

14 MR. LEWIS: I want to recognize Stacy Schmidt who
15 came in a little while ago. She's someone who you would
16 all like to meet, I'm sure. She is the manager of the
17 -- or the director of the Economic Gardening Institute
18 at UCF that you have been reading about in the papers.
19 So you might want -- the website is growfl.com?

20 MS. SCHMIDT: That's correct, yes. And I would be
21 happy to answer any questions you might have about the
22 growfl program and how we're working in Florida to help
23 second stage companies grow.

24 MR. LEWIS: Okay. I think the panel would be good
25 at taking it from here and either making some wrap up

1 comments or asking some questions of people who are
2 remaining.

3 UNIDENTIFIED SPEAKER: Maybe not a question but
4 more of an observation. There has been a lot of talk
5 about a referendum. I think that's an exceptional idea,
6 except that I think here in Florida we are in the
7 Plasticine and our legislature is all Neanderthals, and
8 I've been working with the Amendment 4 Referendum and
9 the business lobby is prepared to spend a gazillion
10 dollars to try to defeat that, and I'm not so sure that
11 the same thing wouldn't happen on a renewable energy
12 standard. All that would have to happen is the tea
13 partyists and the faux news people, you know, figure out
14 some reason why it's not a good idea, and we would be
15 toast and spend a whole lot of money and get nowhere.

16 MR. LEWIS: Is that a reason not to, Michael?

17 MR. DOBSON: Well, what I would say and I've always
18 said is that there's more of us than them. You know,
19 we've just got to get organized. I mean, that's really
20 it. The problem is there is so many -- gosh, so many
21 different renewable energy kind of policies and ideas
22 out there, and what happens is that we go to the
23 legislature and everybody's, you know, coming there with
24 these 10 or 20 ideas, you know, and it's confusing to
25 those guys. You know, so there is -- again, there is --

1 we got the numbers, but we just got to decide on what it
2 is we want to aim at.

3 MR. LEWIS: Who initiates the referendum?

4 MR. DOBSON: I don't know. George and I will have
5 to talk about that.

6 MS. BALDWIN: Hi, this is Melissa Baldwin. I'm
7 with the Florida Conservation Alliance Institute, and we
8 work on federal climate and energy policy. I have two
9 questions. The first question is, what do you think is
10 the best policy, both on the state and the federal
11 level, that we can take to increase distributed
12 generation?

13 MR. CAVROS: You know, I'll take a shot at that.
14 You know, the one thing you need to do to increase
15 distributed generation is you need to have certainties
16 and you need to have transparency, and that's actually
17 been one of the criticisms of the renewable portfolio
18 standard in the past is that only the big players can
19 play. There is really kind of what they call high
20 transaction costs, which means, you know, you need a
21 team of lawyers to negotiate these contracts, and that
22 tends to dissuade smaller developers from participating.
23 And, additionally, you know, contract negotiation, it's
24 a very sort of resource intensive process. If you have,
25 you know, like I talked about earlier in my

1 presentation, sort of open contracts that anyone can
2 take advantage of if they need certain criteria, like a
3 standard offer contract or even in components within --
4 perhaps a carve out for distributed generation. I think
5 the way you implement that is you offer standard offer
6 contracts to folks or you incorporate a feed-in tariff
7 for smaller generators. Maybe, you know, 20 megawatts
8 or less. In fact, the California Public Utilities
9 Commission is trying to incorporate the feed-in tariffs
10 for smaller systems of 20 megawatts and under. They're
11 having proceedings in that right now, because the
12 smaller systems just simply aren't getting built with
13 these RPS's. So that's certainly one way to go about
14 it.

15 MR. BOROUGHS: Most of my Florida Energy Commission
16 had a recommendation that dealt with it directly in
17 Florida. A person or a company cannot sell, cannot set
18 up a generating unit and sell energy to anybody and any
19 other utilities district without being considered a
20 utility, you know, and regulated by the PSC, and so once
21 you set up business in somebody else's territory, you
22 know, you are going to have that issue, so -- and we
23 know all of the IOU's especially oppose that. So our
24 recommendation was to limit it to 5 megawatts, because
25 we thought maybe that might be bite size. But if you do

1 that, then you take away a barrier. You know, it's not
2 necessarily -- you know, one of the things that
3 government needs to do is not just incentarize, it's to
4 remove barriers. That's a barrier. We need to remove
5 that barrier. And the legislation in 2008 took some
6 steps. We do net metering. Even the munis and co-ops
7 do net metering. But that still doesn't go as far as
8 allowing an entity to come in, okay, I'm ABC Company, I
9 come into your place of business, I -- you know, I set
10 up some kind of, you know, renewable generation
11 operation, I sell you my power, and then I sell back
12 what you don't need, you know, on the grid or to
13 somebody else. That's one way you get distributed
14 generation, and distributed generation, once again,
15 remember, you don't have to transmit it. You hear all
16 this wind talk, wind energy talk nationally with all
17 these wind tunnels coming up in the middle of the
18 country. The problem with that is you got to transport
19 it all the way to the centers where you need it. This
20 is one of the problems that California is having now,
21 because they've got -- a lot of the solar power they buy
22 or the solar concentrating power that they buy is from
23 Arizona. You got to transmit it in. Transmission is
24 very expensive. Okay. Takes a long time. It's very
25 expensive. You got some losses. We need to encourage

1 all the distributed generation we can.

2 MS. BALDWIN: That sounds like a common sense
3 policy to me. Are there any law makers who are
4 championing that idea, or is it in a bill? Has it been
5 proposed?

6 MR. BOROUGHS: None that I know of.

7 MS. BALDWIN: Why not?

8 MR. BOROUGHS: I don't think anybody wants to take
9 that on. I mean, I -- that's what I don't think. I
10 mean, we're having problems right now getting champions
11 for renewable energy. That's just another -- that's
12 another rock in somebody's pack, you know, to try to
13 carry. So I just don't see any will. I think we've got
14 to take other steps before we get -- it is common sense
15 and I agree with you, okay, now on the other hand, and
16 one reason why you might want to keep it small is when
17 the IOU's say, look, we spent a lot of money, we have a
18 statutory duty, we have a mandate to serve. So if
19 you're in our territory, we've got to serve you. That
20 means we got to have the grid there and everything else.
21 So we have to consider the whole picture. We can't
22 throw the baby out the bath water. George mentioned now
23 we've got that competition between the producer and the
24 user we didn't have back 80 years ago when we started
25 this system, but there are ways to work through it, and

1 that's one of the ways we can work through it.

2 MS. SZARO: And I want to add a couple of other
3 ideas to the mix. One of the things that happened this
4 year that has slightly disrupted our progress is a
5 change in legislation regarding property taxes in
6 tangible tax for solar. So it originally had an
7 exemption, and now that's being reconsidered, sort of
8 pulled back and pulled off the table. So that adds to
9 the cost of installing a system over the life of the
10 system, not just in the first year. So that right there
11 is a barrier that we had overcome previously and is now
12 back on the table.

13 And then the other thing I would want to mention is
14 permitting requirements. They are all over the board in
15 the state of Florida, and, you know, we are trying to
16 work with our code officials and unlock all inspectors
17 in our service territory, and just in our service
18 territory, we deal with four code jurisdictions, and
19 none of them do it the same. And they want to learn and
20 they are willing to learn, but at the state level, if we
21 were to try to standardize solar permitting, I think
22 there would be a huge benefit to both utilities trying
23 to implement these programs and the customers trying to
24 participate.

25 MS. BALDWIN: I have one more question, and that

1 is, it has to do with federal energy and climate policy,
2 and I think one of you mentioned the idea of putting a
3 price on carbon. What are the benefits of having a
4 price on carbon in terms of having more certainty in the
5 marketplace and how would that affect Florida's ability
6 to draw more clean energy businesses to our state and to
7 our country?

8 MR. DOBSON: I think it's a good idea, but
9 politically it's difficult because -- well, I'm sure you
10 hear the rhetoric, capping tax and all that. I think
11 that citizens are going to have to show politicians how
12 much they value clean air, lower emissions, and until
13 that happens, the -- I guess the two parties -- we only
14 have a two party system for the most part, they're going
15 to use this as kind of a political football and it's
16 going to be a way to either get elected or get defeated.
17 And that's what's happening now. But, again, we've got
18 to get engaged and let them know that we care about it.

19 MR. CAVROS: Thanks. I just wanted to add to that,
20 because we really didn't go to the subject of, you know,
21 capping CO2 emissions. People respond to price signals.
22 I have found, you know, that they don't respond really
23 to anything else except price signals. That's it. They
24 don't respond to legacy arguments, they don't respond to
25 saving the planet, they respond to price signals. And

1 to suggest that this is some sort of tax, you know, call
2 it what you will, but as a society, we always put a
3 price on things that are not good for the greater
4 community. You know, alcohol, cigarettes, you know, you
5 name it. To some extent, you know, we regulate those
6 activities, and we ought to be doing the same with CO2
7 emissions, especially living in Florida. We have 1,200
8 miles of coastline and we're on the front lines of
9 climate change, and certainly, as a state and as a
10 nation, we need to lead in that effort to reduce CO2
11 emissions. It's not going to be easy, but I think the
12 countries that step out in front of it will be the ones
13 that do better in the long time, over the long haul in
14 the world's marketplace. So I think they can all work
15 together, I think, in energy efficiency, I think in RPS,
16 and I think some sort of regulation on carbon. It's
17 really a three legged stool, because also -- a cap on
18 carbon also goes beyond the electricity industry. It
19 goes to the greater economy as a whole. Then, you know,
20 we start to be more competitive on other industries as
21 well.

22 DR. FENTON: I just want to add, another comment
23 here is that we're stuck in this sort of situation.
24 We've heard taxes are bad words. The future, a future
25 we want, requires an investment. Otherwise, you end up

1 with a future of which you've made no investment, and
2 you'll get what you get. Okay? So the question is, are
3 we willing to invest in the future and come together
4 collectively to determine what that future should be.
5 And it's difficult, because right now nobody wants to
6 spend money. So I think we're going to be in a
7 stalemate of not coming up with a future that we want.
8 So I think individually we have to make it known that we
9 want a clean, sustainable future and that we're willing
10 to make an investment, albeit not a real expensive one,
11 but more than a penny a month. Okay. And the poll that
12 came out, by the way, that was passed, it had an 83
13 percent, you know, approval of this was a dollar a month
14 of an investment. That's the poll that came out three
15 years ago said a dollar a month. You notice on the
16 public benefit numbers that I had put up there,
17 California is typically on the \$2 a month, and I tried
18 to explain to you that their electric bill total a month
19 is about half of what we pay. So, you know, we're
20 looking at the notices. The rebate you got was \$4 a
21 month because the price of fossil fuels went down. All
22 right. So I think the citizens are willing to do it.
23 We just have to collectively realize it's an investment
24 in the future. And there's a lot to be said for the
25 jobs that come out of all this, whether it be cap and

1 trade or renewables or efficiencies, which are the
2 lowest cost things to go do. There's a lot of
3 employment to be done, and I would rather have that
4 employment be my neighbor next door rather than somebody
5 outside the state.

6 UNIDENTIFIED SPEAKER: Thank you. Good morning
7 again. I want to make a comment, a take off of Mr.
8 Cavros's presentation where he believes that Florida is
9 at a crossroads, and I agree, maybe for a different
10 reason. It has to do with the nuclear equation. Every
11 year, the PSC requires utilities to provide a 10 year
12 plan for baseline, I think, electricity, how they're
13 going to generate it, and in this year's plan released
14 in November or December of '09, it calls for the years
15 2016 to 2018 going from 13 percent nuclear to roughly
16 about 25 percent nuclear. I, frankly, don't think
17 that's going to happen in light of the fact that the PSC
18 just shot FPL and FPE down for rate increases. So I
19 just can't see these plants coming online to provide
20 those kind of numbers. So don't know where the
21 electricity generation is going to come from at that
22 timeframe, but it seems we're sitting in a unique
23 position for a renewable portfolio standard this year as
24 a transition year just looking at those numbers alone
25 and saying, hey, we have to have a plan in place.

1 Whether it's renewable or nuclear really doesn't matter.
2 We're talking about electricity in general.

3 MR. DOBSON: Amen.

4 MS. SZARO: I will say, just as an aside, I first
5 want to congratulate those who are doing such an
6 excellent job in conservation and demand site market.
7 So well done. But that does make it a little bit more
8 challenging to integrate new renewables and new power
9 into the grid when you already have a 30 percent reserve
10 margin. So I think that's one of the factors, and I
11 hear what you're saying about nuclear, and, you know, I
12 think you are on track with that. So where will it come
13 from? I think as we start doing more with integrated
14 resource planning, incorporating solar and other
15 renewables into the mix, we'll be ready at 2020 with the
16 right mix at that time.

17 MR. ALLER: Thank you. It's been a great set of
18 presentations today. My name is Michael Aller. I'm
19 with Rollins College, and a lot of my questions have
20 actually been touched on in one way or another, but I do
21 have a couple questions. One is we are in a very kind
22 of resource constrained time, both in this state, in the
23 country, in the local economy. And yet as Dr. Fenton
24 was just saying, we do need to find ways to make
25 investments in these areas. Dr. Fenton talked a lot

1 about energy efficiency. What are some ways that we can
2 try and get -- kind of push energy efficiency, because
3 that is the most cost effective way, but how can we get
4 that message across to the people who need to know?
5 What are some specific, you know, policy things that we
6 can do to get energy efficiency pushed forward, first of
7 all, and then second of all, given the importance of
8 setting prices, you know, setting a price to kind of
9 follow on behavior, given the problems that cap and
10 trade has had and others, what are some things that we
11 as a state can do that we could try and, you know -- or
12 at a local level that we can try and push these things
13 forward?

14 DR. FENTON: I think I can handle the first one
15 here. A little tougher time with the second one. As
16 George has pointed out and several others have pointed
17 out, efficiency is the low hanging fruit. The problem
18 that we often have is this up front cost to pay for
19 insulation, better windows, so on and so forth. I
20 remind everybody that you get a 30 year mortgage usually
21 when you buy a piece of property, and so if we come up
22 with some policies where there is some ways to have us
23 finance these things, often with paybacks of 5 years, 10
24 years, and so forth, we get one stop financing, one stop
25 shopping to go ahead and make the improvements, we put

1 in some policies that require us to actually measure,
2 you know, home energy ratings, so you actually know, you
3 know, how well my house is behaving, what the most cost
4 effective improvements are that can be made. The role
5 of government here may be to insure the low cost
6 financing and the availability of it to the citizens.
7 Typically, we can get about 30 percent energy savings at
8 a cost effective mechanism. So that just means I need
9 financing. And I remind everybody that if you have a
10 payback that's less than 30 years, when you have a 30
11 year mortgage, you put money in your pocket the first
12 month, okay? So a lot of this is just an issue of
13 finding financing and a creative will. And I think that
14 could do that. Then if we choose then to use the
15 savings that we as a collective group use and put that,
16 say, into some public benefit fund of some sort, you
17 could then pay for the renewables that are perhaps not
18 quite as cost effective.

19 MR. CAVROS: I just wanted to add just one thing to
20 that. There will be legislation, I suspect, this year.
21 They will be promoting renewable and energy efficient
22 finance districts which will give local municipalities
23 the statutory authority they need to go ahead and set up
24 districts and float bonds to lend money to folks and to
25 implement energy efficiency measures or renewable energy

1 on their home so that there will be no up front cost for
2 that, and the payment will be over 20 years at a very
3 low interest rate. So I think that's kind of one common
4 sense policy that all of us can support.

5 MR. BOROUGHS: One way to encourage energy
6 efficiency is to have an energy efficiency standard just
7 like a renewable portfolio standard. One thing my
8 Florida Energy Commission recommended was to set that
9 up. And I realize in the current political environment
10 that's a tough sell, but I think if you do that, if you
11 structure that, you could get it. One of the problems,
12 as Jim has indicated, you know, is the initial cost.
13 But if you set it up, you work at it, you get the
14 utilities working with the customers, okay, because the
15 low hanging fruit is the kilowatt you don't use. I
16 stole that. Jim Fenton used that line, but the cheapest
17 kilowatt is the one you don't have to produce, and
18 that's energy efficiency and conservation, and we need
19 to encourage both of those. So you are right on.

20 UNIDENTIFIED SPEAKER: The RPS bill now doesn't
21 have an energy efficiency -- sorry. Nevermind.

22 MR. DOBSON: Can you repeat that, please?

23 UNIDENTIFIED SPEAKER: The question is that the
24 current renewable portfolio standard bill is not
25 believed to include an energy efficiency standard.

1 MR. BOROUGHS: Right, it does not.

2 MR. DOBSON: That doesn't mean we can't do some
3 work and try and include some language that would
4 address that at a later date.

5 MS. CALLIE: Cookie Callie. I just want to say
6 that the government does have a program in place, an
7 energy efficient mortgage program, that does rely on
8 codes and qualifications that will preapprove someone,
9 say, who is approved for \$100,000, they can add on the
10 cost of the improvements and they will be qualified for
11 that, because it recognizes that they won't be spending
12 their income for energy in the future. So it is in
13 place. It's very misunderstood and not well known at
14 all, but it's really important. It's a really important
15 program.

16 UNIDENTIFIED SPEAKER: I just want your opinion on
17 two things. One is quality control and the other one is
18 storage. I know FSEC, I guess, does a lot of things in
19 storage. Correct me, I guess, if I'm wrong. But maybe
20 you can comment on flywheels perhaps or other storage
21 anyway. And the other one, as far as quality is
22 concerned, insuring what should be the policy. So
23 insure that the systems that are put in place, you know,
24 are performance based, you know, do provide what they're
25 saying. So what's your opinion?

1 MS. SZARO: I'm going to start backwards and then
2 hand the mic over. On the performance standards, while
3 that definitely comes from code officials and making
4 sure systems are permitted properly, but in our case, we
5 from the solar perspective wanted to insure that the
6 systems that we were spending money on were going to
7 work for the long term, which is why we take the extra
8 steps we don't have to do, some of the extra steps that
9 we do, but we do it because we want to make sure the
10 systems are going to be there. So, for instance, we
11 established a performance incentive program instead of
12 an upfront rebate for our programs. Yes, it's a little
13 more complicated, and, yes, it's a little more involved,
14 but we feel that it's the best way to insure that we are
15 getting our money's worth and that the customers are
16 getting their money's worth. So programs like that that
17 measure per kilowatt hour or per kilowatt hour saved
18 will insure that the performance of those measures last
19 longer and that the folks that are spending the money
20 are really getting their money's worth. And I would
21 encourage measurement and verification for all of these
22 types of programs. I think that's key to making them
23 last in the long term.

24 DR. FENTON: I agree. It's all about performance.
25 Okay. Yes, all our high school students can pass high

1 school, but can they perform? Okay? And we can argue
2 about FACT tests, but measuring performance is key. So
3 we have to set up performance standards on things, and
4 the programs that OUC mentioned meet a lot of the needs.
5 Keep in mind, OUC is the utility of the people. Okay?
6 So that makes sense that they do some of those things
7 and I would encourage the others to continue to do that
8 as well. Regarding long term renewables, as we move
9 higher up to higher percentages in the 10's and 20's,
10 which is where we all want to go, it's a question of
11 when we do have this problem, as Jennifer pointed out,
12 with peaking and energy storage, and so energy storage
13 will play a major role. This will help out the grids
14 and so forth. Our opportunities here in Florida are
15 limited, are gravity challenged. We can't pump water up
16 a hill in storage like a lot of places can. We can't
17 pump air underground. So it probably will be chemical
18 energy storage probably in the form of flow batteries,
19 okay, flywheels in the future, super capacitors and
20 things like this. You know, there's research activities
21 going on in that, but we haven't quite gotten to that
22 saturation point. Hopefully, we'll get there where we
23 will do peak shaving and be able to soften out some of
24 the peaks that Jennifer had pointed out earlier.

25 MS. CHADWICK: Okay. The Governor is here, so

1 we're going to move the microphone back. We appreciate
2 you guys punting and filling the time, and, hopefully,
3 there was some good Q&A while we were tracking the
4 Governor down.

5 MR. LEWIS: Everyone, Governor Charlie Crist.

6 GOVERNOR CRIST: Hi, how are you?

7 MR. LEWIS: This is the good governor that's been
8 working with Orange County to help us come up with our
9 Cleantech initiative and renewable energy and bringing
10 all those good Cleantech companies to Florida, and I
11 understand we've got to speak at the podium, but we know
12 that our agenda matches yours, and we're thrilled that
13 you stopped by to see us today.

14 GOVERNOR CRIST: I'm honored to be here. Thank you
15 very much. I want to tell you how encouraged I am by
16 exactly what you are doing. I know that Senator
17 Constantine has been a very active participant in
18 developing clean energy, clean technology, and making
19 Florida a cleaner and better place to live, and it has
20 been one of the most passionate drivers of our
21 administration. I can tell you that. And Tom knows
22 that because we've had the chance to work together on a
23 lot of different issues, but I can't help but notice
24 your tie there with the sun on it, and it reminds me of
25 a story. When I first got elected governor during the

1 course of the campaign four years ago, we talked a lot
2 about trying to increase solar energy in Florida. And I
3 don't know if that's what you're involved in, probably
4 is due to the tie, but I remember a number of people
5 said, well, Governor -- after I got sworn in -- you
6 know, we really don't have enough sunshine in Florida to
7 develop solar energy. And I thought, Florida, sunshine
8 state. That really doesn't jive. And, at the time,
9 Florida in 2006, was dead last in the amount of solar
10 energy production we were putting forward. Last out of
11 50 states. Well, I'm proud to tell you that today
12 Florida is No. 2 in the country in solar energy
13 production. And, frankly, Florida Power and Light has
14 done a tremendous amount in order to advance that down
15 the field, and I'm very grateful to them for it. We
16 have now the largest solar array panel in North America
17 in Florida, where it ought to be, the sunshine state,
18 and I'm very, very pleased that that has happened. But
19 whether it's solar energy or other types of clean
20 energy, I think these things are awfully important for a
21 place, especially like the sunshine state. I mean, it's
22 the most beautiful state in America. I'm terribly
23 biased as your governor, and I had better be. But I
24 believe it to be true as well, and I think that anything
25 that we can do in any area to -- I mean, look what we've

1 done with rail. You know, you talk about being able to
2 move safely between Tampa and Orlando with this bullet
3 train that now the administration has committed to us,
4 1.25 billions dollars worth of commitment, as a down
5 payment, I should add, people will be able to get
6 between these two incredible communities safely,
7 quickly, and it will be clean. And that's very exciting
8 to me as well. And whether people believe in climate
9 change or not is almost irrelevant. What is relevant is
10 that all the things that you would want to do to address
11 it are good for Florida. And they're good for Florida
12 economically, not just environmentally, because Florida
13 is a special place where the economy and the environment
14 are inextricably linked. You know, we have this sort of
15 big industry called tourism. Over 80 million people a
16 year come to this state, and I'm convinced they don't
17 come here because she's ugly but because she's rather
18 beautiful. And, you know, protecting her and protecting
19 God's work and being good stewards I think is one of the
20 greatest responsibilities that we all have. And it's
21 good for our economy, too, in another way. Because of
22 the new industries that get developed as a result of it.
23 So there is no down side. Zero. You know, if done
24 right and done smart. And so I just had the opportunity
25 to find out that you were here and wanted to come by and

1 thank you for what you're doing. Mayor Crotty I know is
2 committed to it and Mayor Dyer as well. And, you know,
3 Orlando is really on fire. It's unbelievable what's
4 going on here. With Nemours and the Medical City, I
5 call it Medical Plant, out there, it's so big, but so
6 many exciting things. The new arena, all of the
7 projects that are occurring and employing people, and in
8 this economy, that's critically important. So what you
9 are doing to develop new areas of potential employment
10 for more people is one of the most laudable things
11 anybody can be about right now. It is with great
12 purpose that I am sure you continue to push forward.
13 And I want to thank you for it on behalf of the almost
14 20 million people that live in our state. God bless
15 you. Thank you.

16 MR. LEWIS: Thank you so much for all you do for
17 Florida and Central Florida. We appreciate it.

18 GOVERNOR CRIST: I want to keep doing it, so if
19 you'll let me, that will be great, too.

20 MR. LEWIS: Thanks for stopping by. We're
21 adjourned.

22 (Symposium concluded at 12:18 p.m.)

23

24

25

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

CERTIFICATE OF REPORTER

STATE OF FLORIDA
COUNTY OF ORANGE

I, Leslie Richmond, Registered Professional Reporter, certify that I was authorized to and did stenographically report the foregoing symposium, and that the foregoing transcript, including 158 pages, is a true and complete record of my stenographic notes.

Dated this 1st day of March, 2010.

Leslie Richmond, RPR and
Notary Public

A		
ABC 141:8	30:22 39:8 45:9 46:19	ago 3:16 4:25 13:1 56:9
ability 72:11 134:4	48:21 65:25 104:16	62:3 88:6 108:18
144:5	additional 25:18,19	126:18 137:15 142:24
able 6:5 7:7 9:7 33:22	65:14 68:21 75:22	146:15 156:1
65:10 91:6 92:3 93:18	115:9 118:11 131:4,5	agree 91:24 96:10
100:7 124:12 128:8	additionally 75:4	132:6 142:15 147:9
136:5,21 154:23	139:23	153:24
157:1,5	additions 122:25	agreed 5:5 125:4
absolutely 68:19	address 83:9 96:25	135:17,21
AC 116:12	97:10 98:21 103:18	agreement 73:24 76:10
academia 19:24	125:12 128:24 136:16	78:5 107:16
accept 119:18	136:19 152:4 157:10	agreements 87:23
acclaimed 39:20	addressed 74:22	112:23
accommodate 38:13	adds 143:8	agricultural 17:4,4
67:9,10 70:8	adjourn 136:8	18:4
accommodated 69:7	adjourned 158:21	agriculture 46:16
accomplish 62:11	administration 155:21	ahead 11:8 16:17 19:7
65:11	157:3	37:20 38:13 48:18
accomplished 73:18	administrator 2:25	50:6 51:23 56:6 57:8
account 100:11	adopt 21:2 29:17 97:17	58:7 59:17 60:3,20
accredited 84:14	adopted 127:22	64:24 65:8 71:5 77:9
accumulation 55:12	adoption 23:7	80:7 89:11 92:11
accurate 114:10	advance 156:14	106:15 108:3 125:8
achieve 7:12 10:18	advantage 40:7 45:8	125:14 149:25 150:23
65:13 116:14 121:2	48:13 51:25 62:19,21	aid 85:4
achieving 41:4	64:10 107:14,17,18	aim 139:2
acknowledge 18:22	140:2	ain't 42:25
acquisition 14:23	advise 19:14	air 105:1 113:9 116:9
act 78:7 123:7	advisor 20:13	144:12 154:17
action 15:10 23:23	advisory 19:17,18 20:1	Alaska 43:22,23,24
136:18	26:20	albeit 52:21 146:10
actions 10:17	advocacy 6:13	alcohol 145:4
active 39:6 155:17	advocated 110:8	algae 66:2 79:11,13,14
activities 3:9 39:18	advocates 131:11,25	79:15 99:5,6
145:6 154:20	AEA 6:12,12	Aller 148:17,18
actual 20:8 41:1	aerospace 39:14	Alliance 110:5 111:5
add 5:21 11:6 25:6	affect 91:17 99:22	139:7
36:5 45:11 71:1,7	100:3,6 101:4 144:5	allow 27:14 34:19
143:2 144:19 145:22	afford 43:8	77:19 85:18 90:4
150:19 152:9 157:5	affordability 36:1,1,7	92:17 126:21
added 50:20 92:15	36:13 63:1	allowing 141:8
adding 76:1	afraid 30:1 34:21 36:7	allows 123:9
addition 8:18 14:24	agency 2:10	alternative 15:13 39:21
15:12 18:7 19:16	agenda 61:5 155:12	43:3,4 61:19 121:23
	agent 78:7	alternatively 117:4
		alternatives 43:21 44:5
		99:5
		Amen 148:3
		Amendment 138:8
		America 95:6 96:17
		156:16,22
		American 15:3 52:17
		86:7 123:7
		Americans 18:21,23
		amount 6:20 7:23 22:4
		25:20 37:1 49:4 50:16
		52:6 67:5 106:2 122:2
		127:9 156:9,14
		amounts 69:24 121:1
		anaerobic 66:6
		analogy 24:19
		analysis 45:22
		analyst 61:22
		analysts 81:13
		animal 17:5 18:5
		announced 3:25 74:7
		announcements 9:1
		announcing 64:25
		Annual 9:10
		answer 11:16 54:18
		98:18 137:21
		answered 34:25 106:12
		answering 101:15,16
		answers 35:1 38:7
		110:24
		anticipation 59:20
		anybody 13:5 44:17
		56:19 57:13 105:7
		136:18 140:18 142:8
		158:11
		anybody's 32:1 129:17
		anymore 26:5,8 56:22
		106:13
		anytime 55:6 68:18
		75:23
		anyway 152:21
		apartments 53:25
		apologize 123:23
		append 124:21
		appetite 129:24

<p>applaud 83:2 applicable 104:19 application 79:12 applied 73:6 appoint 35:14 appointed 15:7,9 19:11 29:11 appoints 23:20 appreciate 11:5 38:21 61:2,2 93:19 155:1 158:17 apprehensive 130:5 approach 36:24 37:2 104:4 119:25 appropriate 77:22 approval 146:13 approved 152:9 approximately 86:13 April 9:10 10:22 88:1 135:11 AquaFiber 7:5 Arab 52:20 Arabia 18:1 area 9:14 14:21 20:16 47:17,21 96:21 156:25 areas 66:10 109:7 124:13 148:25 158:9 arena 158:6 argue 55:3 101:16 154:1 arguing 46:8 argument 127:21 arguments 144:24 Arizona 47:17,23 106:23 117:13 119:21 120:23,24 141:23 array 156:16 article 11:23 12:1,13 12:15 aside 118:3,3 148:4 asides 122:23 asked 9:19 10:8 13:1 23:13,16 45:9 94:7 110:23</p>	<p>asking 11:13 51:4 57:4 80:10 85:18 108:7 138:1 asks 56:25 aspect 61:8 aspirational 28:14 assessed 25:5 assets 4:2 assisted 6:14 associated 7:4 41:18 45:15 47:14 49:5 50:3 62:13 75:4 Associates 1:23 8:16 association 15:6 86:1,6 86:21 126:3,16 134:1 Association's 15:4 assured 129:6 astronomical 94:15 attendance 12:22 attending 38:20 attest 132:2 attitude 42:25 attract 110:13 attracts 51:13 attribute 118:10 Atwar 29:10,11 audience 85:22 132:12 augment 101:13 Austin 4:7 authority 124:7 150:23 authorized 159:4 automotive 39:12 availability 67:24 68:1 150:6 available 68:16,24 71:19 98:23 105:19 105:22 average 50:10 53:21,24 59:23 63:7 71:6 97:8 121:9,25 avoided 112:23 114:22 115:11 118:13,14 128:25 aware 31:4 43:17 awfully 156:20</p>	<p>a.m 1:16</p> <hr/> <p style="text-align: center;">B</p> <hr/> <p>babies 31:3 baby 25:7 27:13 32:1 46:12,13 67:1 142:22 bachelor's 61:24 back 3:24 23:17 24:18 33:12 37:5 38:17 51:3 52:15,25 55:20 56:4 60:14 75:3 81:23 89:3 90:25 94:13 101:7 106:6 125:7 141:11 142:24 143:8,12 155:1 backbone 20:12 background 14:18 33:14 62:17 backup 21:11 98:9 backups 59:19 backwards 71:8 153:1 bad 50:14 55:11 59:3 68:1 95:24 133:23 145:24 balance 63:1 92:21 balancing 104:15 Baldwin 139:6,6 142:2 142:7 143:25 ball 35:13 ballot 95:21 131:1 bankers 100:19 bankrpting 121:16 bar 40:8 41:10,10 barrier 67:23 141:1,4,5 143:11 barriers 62:13 79:20 141:4 bars 70:14 base 87:8 112:20 126:6 based 49:24,25 50:7 85:9 111:9 119:18 125:25 152:24 baseline 66:20 115:20 115:24 147:12 baseload 45:13</p>	<p>basic 12:18 basically 16:22 18:13 27:3 31:2 34:20 35:25 37:2 63:3 79:7 81:15 100:20 108:21 114:17 118:18 119:18 122:14 137:10 basis 25:4 40:10 74:4 bath 142:22 batteries 154:18 battery 59:19 bear 61:12 beautiful 156:22 157:18 becoming 124:17 beginning 20:12 behalf 3:9 158:13 behaving 150:3 behavior 149:9 behold 23:22 beings 106:5 believe 29:10 42:4 73:3 79:25 87:5 90:3 103:5 109:17 156:24 157:8 believed 151:25 believes 31:6 147:8 bell 61:3 beneficial 91:18 benefit 55:3 73:25 88:12 90:16,22 91:6 91:21 101:24,25 102:5,6,17 134:16 143:22 146:16 150:16 benefits 62:12,20 66:11 69:1 77:7,24 110:10 110:11,11 112:13,14 115:11 130:12,13,19 133:17 144:3 Bennett 29:24 Berkeley 120:17 Bessette 85:23,23 86:17 90:8 93:16 97:12 98:8 101:17,19 101:23 104:24 108:15 109:13</p>
---	---	--	---

<p>best 14:9 35:23 47:16 61:5 63:9 83:16 86:24 87:13 98:2 125:21 128:13 137:7 139:10 153:14</p> <p>better 10:1 19:6 22:21 35:1,4 37:22 46:21,24 51:6 57:8 60:9 65:7 84:23 95:5 97:23 114:17 131:6,12 133:8 145:13 149:19 155:19 156:23</p> <p>beyond 145:18</p> <p>biased 156:23</p> <p>big 36:1,2,7 37:19 38:25 45:22 79:14 81:16 85:11 87:3 93:8 106:6 131:8 139:18 157:15 158:5</p> <p>bigger 37:20 52:19 90:6</p> <p>biggest 47:4 62:25 73:21 91:11</p> <p>bill 21:1 27:7,8,9,10,11 29:6,7,12,14,15,17,24 30:4,11,19 31:5,6,22 31:25 32:1 33:17 50:21,24 55:4 57:16 59:5 60:2,5 78:7 87:7 102:13 128:17,18,20 128:22,24 129:7,11 129:11 142:4 146:18 151:20,24</p> <p>billing 78:7</p> <p>billion 44:12,14,15,18 44:18 53:7 103:5</p> <p>billions 102:13 157:4</p> <p>bills 9:19,21,23,25 29:4 29:4,5,21,22,23 35:17 48:21 52:13 55:1 78:8 88:23 128:15 129:1 130:8</p> <p>bio 67:11,12</p> <p>biofuels 79:16 126:25</p> <p>biogas 72:5</p>	<p>Biology 7:6</p> <p>biomass 16:20,25 17:1 17:2 18:1 45:7 46:2,3 46:4,12,14 65:17,18 65:24 66:11,12,15 67:17,18 68:7,9 72:7 72:20 75:20 76:8,11 76:14 78:21 79:1,4,16 79:16 98:16 99:3,4 111:11 112:2,4,6,19 112:21 113:3 114:5 114:12 115:12 117:21 126:23 134:4</p> <p>bioscopes 67:25</p> <p>bit 18:18 38:9 39:24 41:9 43:14 49:19 51:12 53:2 62:7,8,14 64:13 67:21 69:17,23 70:2,9 72:17 78:16 79:8 80:1,9 81:25 85:19 86:16 98:4,6 101:1,6 112:18 120:13 121:7 127:14 136:5 148:7</p> <p>bite 140:25</p> <p>black 44:24 49:24</p> <p>Blaine 36:15</p> <p>Bland 7:6</p> <p>bless 158:14</p> <p>blocked 18:25</p> <p>blocking 18:17</p> <p>blood 114:23</p> <p>Blue-Chip 87:20</p> <p>board 4:22 15:1,5 26:20 84:16 86:5,7 88:8 94:8 97:19 143:14</p> <p>boat 42:19</p> <p>body 18:10</p> <p>boiler 68:7</p> <p>boilers 66:13,15 67:8 68:22</p> <p>bond 25:13</p> <p>bonds 150:24</p> <p>book 20:4,7</p>	<p>Boroughs 14:16,25 15:7,9,10,15,17 17:22 33:16 35:21 36:25 41:5 136:23 140:15 142:6,8 151:5 152:1</p> <p>borrow 107:3</p> <p>Boston 4:8</p> <p>bottom 11:3 13:20 14:1 35:2 70:23</p> <p>boundaries 45:5 87:12</p> <p>bounds 26:19</p> <p>Bowl 51:14</p> <p>box 95:7</p> <p>brainstorming 73:10</p> <p>break 33:1 38:18 60:20 60:25 80:9 109:20 111:22</p> <p>breakfast 60:23</p> <p>breaks 5:24</p> <p>breath 13:11</p> <p>breathing 80:1</p> <p>briefly 58:2 85:17 89:24</p> <p>bright 96:22</p> <p>bring 32:9 94:17 98:22 134:20</p> <p>bringing 51:18 87:16 135:8 155:9</p> <p>brings 51:8</p> <p>broad 15:15 17:3</p> <p>broke 42:25</p> <p>brought 51:22 84:10 101:25</p> <p>BTU 67:2,4 68:19 75:10 79:9</p> <p>bucks 54:13</p> <p>budget 44:17</p> <p>budgets 85:5</p> <p>build 13:10 24:10 25:3 47:24 49:15 51:23 70:8 73:7 77:9 91:3 91:19,20 93:12 101:21 113:25 134:10</p> <p>builders 84:7 85:8 100:8,11,23 101:2</p>	<p>104:5 136:1</p> <p>building 5:9,10,14 10:24 39:22 40:18 70:4 74:5 84:15,17 90:16,22,23 91:11,16 99:23 100:3 103:22 105:5 107:12 125:6 135:11</p> <p>buildings 78:6 91:10 91:16 102:16 105:13 105:14,15</p> <p>built 73:23 74:1 140:12</p> <p>bullet 22:19 157:2</p> <p>bump 80:18</p> <p>bunch 132:25</p> <p>bundled 118:21,22</p> <p>burden 36:5,6 110:25</p> <p>buried 102:13</p> <p>burn 43:11,16 44:18 46:22 79:7</p> <p>burning 46:19,25</p> <p>Bush 15:7</p> <p>business 2:12 8:3 37:25 44:20 59:4,5,6 61:21 62:2,15 63:19 73:13 77:5 86:17 87:4,25 88:5 101:10 108:11 124:19 128:1 134:8 134:10 138:9 140:21 141:9</p> <p>businesses 2:15 19:23 92:23 144:6</p> <p>buy 24:11,12 25:3 44:10 54:6 56:25 76:21 77:11,23 78:4,9 94:19 101:11 141:21 141:22 149:21</p> <p>buying 78:3 97:5 124:16</p> <p>buzz 4:6</p> <hr/> <p style="text-align: center;">C</p> <hr/> <p>C 2:1</p> <p>calculations 49:25 50:4 77:13,17</p>
--	---	--	--

<p>California 41:11 42:19 49:2 52:16,21 53:4,8 53:24 54:1,13,14 92:6 95:2 121:2 122:16 128:6,13 140:8 141:20 146:17</p> <p>California's 53:1,19,23</p> <p>call 25:8 29:22 36:18 48:22 102:19 130:12 133:18,18 139:19 145:1 158:5</p> <p>called 2:9 13:23 18:2 19:10 21:12 24:11 27:17,19,24 55:2,11 74:16 79:6 118:4 157:15</p> <p>Callie 152:5,5</p> <p>calling 58:15 102:18</p> <p>calls 30:4,4,8 147:14</p> <p>camera 38:8</p> <p>cameras 14:14</p> <p>campaign 156:1</p> <p>Canon 30:24,25</p> <p>cap 21:23 22:9,11,12 22:12,21,23,25 24:17 24:17 25:10 28:10,10 28:16,16,21,22,24 36:8,9,13 117:3 120:11 121:22,23 122:1,10,11 131:5 145:17 146:25 149:9</p> <p>capacitors 154:19</p> <p>capacity 12:11 49:1 69:24 71:18 111:24 112:3 114:3 122:25</p> <p>capita 52:13 74:3</p> <p>capital 2:12,16 113:14 113:23 114:2,6 128:5</p> <p>capping 144:10,21</p> <p>caps 121:21 122:6</p> <p>caption 27:22</p> <p>capture 8:8 27:24 28:23 115:25 116:7</p> <p>capturing 116:6</p> <p>car 45:21 46:1 49:16</p>	<p>56:24</p> <p>carbon 17:8,10 27:22 27:24 64:5 66:19 69:3 69:22 79:13 144:3,4 145:16,18</p> <p>care 14:2 130:2 144:18</p> <p>carefully 43:25</p> <p>cares 54:10 57:2</p> <p>Caribbean 95:6</p> <p>Carolina 117:14,24,25 122:11</p> <p>carpenters 116:10</p> <p>carrot 36:18 37:2,3</p> <p>carry 142:13</p> <p>cars 78:25</p> <p>carve 25:15,15 41:14 41:18 90:3 106:17,19 118:4,4 140:4</p> <p>case 41:2 47:10 49:7,21 65:3 136:5 153:4</p> <p>cases 41:6,17 60:15 103:22 107:19</p> <p>cash 77:18 78:19</p> <p>catch 14:15 55:17</p> <p>categorize 99:15</p> <p>caveat 98:18</p> <p>Cavros 110:1,4 139:13 144:19 150:19</p> <p>Cavros's 147:8</p> <p>CCS 27:25</p> <p>cell 39:12</p> <p>cells 39:18</p> <p>cement 113:25</p> <p>Center 1:17 6:7,10 8:4 8:24 10:20 38:22 51:11 56:8 59:16</p> <p>centers 141:19</p> <p>central 2:11,15 3:6 8:23 13:23 79:3 84:16 84:22 85:20 86:20 89:6 92:11 99:23 104:21 124:4 158:17</p> <p>cents 41:25 42:3,7,16 42:18 43:10 49:14 50:21 51:3 53:5,16</p>	<p>55:22,23,25 57:23,25 74:23,24 75:1,2,13,15 77:14 97:8 112:9 113:1,1,2,20 115:17 115:18 119:22,23 120:6</p> <p>century 124:15</p> <p>CEO 85:24</p> <p>certain 16:10,10 18:21 107:2 119:19 140:2</p> <p>certainly 3:20 83:25 140:13 145:9</p> <p>certainties 139:15</p> <p>certainty 116:18 119:9 120:9 144:4</p> <p>CERTIFICATE 159:1</p> <p>Certified 86:8</p> <p>certify 159:4</p> <p>cetera 130:4 132:15</p> <p>CEU 86:1</p> <p>Chadwick 2:2,8 7:18 14:6 17:21 38:3,25 60:19 61:1 79:24 84:5 109:14 124:25 135:16 154:25</p> <p>chair 5:5 14:25 84:16 88:9 129:4 131:21</p> <p>chaired 15:3 19:18 29:8</p> <p>chairman 19:16</p> <p>chairs 35:5</p> <p>challenge 67:21 68:3,9 69:17 70:9 72:15,23 74:22 75:7 76:25 81:21 123:20</p> <p>challenged 15:18 81:15 154:15</p> <p>challenges 66:25 67:10 67:25 68:5 69:11 70:4 76:24 121:6 122:14 123:19</p> <p>challenging 72:18 77:2 77:3 81:25 148:8</p> <p>Chamber 110:19</p> <p>chambers 135:3</p>	<p>champion 33:18,19,21 33:22,25</p> <p>championing 142:4</p> <p>champions 35:2 142:10</p> <p>chance 35:18,23,24 83:25 155:22</p> <p>change 27:2 43:8 63:18 64:4 73:15 82:22 88:21 107:25 143:5 145:9 157:9</p> <p>changes 64:4 65:4,9 69:5,6 75:11</p> <p>changing 63:15,15 64:9 75:10 81:23</p> <p>chapter 84:17</p> <p>charcoal 79:6</p> <p>charge 26:3,5,8 49:13</p> <p>charged 91:20</p> <p>Charlie 15:8 23:9 155:5</p> <p>charts 10:12</p> <p>chasing 115:23</p> <p>cheap 42:21,25 45:4 53:18 67:15</p> <p>cheaper 43:4,6 44:2 53:19 55:19 56:1 57:23 68:17</p> <p>cheapest 44:23 151:16</p> <p>check 80:3</p> <p>checkerboard 40:25</p> <p>cheese 38:25</p> <p>chemical 39:17 46:20 154:17</p> <p>chicken 118:1</p> <p>child 94:1,2</p> <p>children 58:20,25 85:2</p> <p>China 12:2,13 13:7 94:16</p> <p>Chinese 12:7 56:2 94:16</p> <p>chips 67:5</p> <p>choose 46:5 53:9 63:23 150:14</p> <p>choosing 63:24</p> <p>chose 43:11 48:18</p>
---	---	--	---

<p>chosen 40:23 78:19 Chris 86:4 88:4 90:9 96:10 106:8 132:2,20 Christa 7:20 Christensen 7:20 cigarettes 145:4 circling 95:2 circumstance 82:11 circumstances 82:8 cite 108:15 citizens 13:25 43:8 95:17,19 137:3 144:11 146:22 150:6 citizen's 50:21 city 64:16 73:5 76:18 76:21 124:11 158:4 class 28:18,19,19,20 clean 9:14 13:12 27:17 27:20 28:18,19,22 36:11 43:11,14 79:15 87:16 98:6,14,22 99:1 99:11,13,15 110:6,13 111:6,20 123:7 130:13 144:6,12 146:9 155:18,18 156:19 157:7 cleaned 68:21 cleaner 40:15 155:19 cleaning 71:21 Cleantech 1:9 2:6,15 3:2,5 4:1,2,3,4,6,9,12 4:17 5:2,15 6:5,17,17 6:18,23,24 7:1,5,14 7:22 10:5,10,22 12:2 12:5,14,15 13:14,16 20:4,6 111:1 135:11 155:9,10 clear 44:2 131:15 clearly 10:12 48:18 client 33:2 climate 15:10 18:7 21:5 43:8 139:8 144:1 145:9 157:8 clip 93:24 clipped 93:25</p>	<p>clippings 18:4 close 63:16 66:1 135:18 closer 115:8 coal 42:21 43:12,16 44:22 45:2 46:4,5,12 46:13,13 64:7,8 66:5 66:13,13,14,21 67:1,3 67:5,7 70:14,16,17 72:7,8,8 78:23 79:3,4 79:16,17 98:13,14,20 coast 18:10,15 coastline 145:8 code 73:12 105:5 143:16,18 153:3 codes 5:10,14 10:24 105:5 135:12 152:8 coffee 60:23 coffers 37:7 cold 15:21 collaborate 83:22 collaboration 73:4 collaborative 73:3 collect 47:21 102:13 collected 102:14 collective 150:15 collectively 146:4,23 collector 108:23 College 148:19 Colorado 122:8 Columbia 40:24 55:2 117:12 combined 27:23 118:17 combustion 113:5 come 4:1 5:9 14:8 16:8 16:9 20:20,23 23:17 26:19 28:17,20 31:16 31:18 33:9 58:5,6 61:15 64:22 71:14 84:8 87:3,5,11 94:18 94:22,24 97:20 100:15,17,19 102:7 102:11,17 103:14 109:24 116:19 132:5 133:6 135:25 136:2 141:8,9 146:3,25</p>	<p>147:21 148:12 149:21 155:8 157:16,17,25 comes 25:11 26:13,24 44:16 54:14,16 60:15 69:18 98:3 136:21 153:3 coming 2:3 9:1,10 11:23 12:1 31:2,14 37:8 50:7 54:17 61:21 87:11 88:22,23 89:21 92:5 93:20 106:9 125:6 138:23 141:17 146:7 147:19 comment 136:23 145:22 147:7 152:20 comments 15:24 32:22 36:16 125:4 138:1 Commerce 110:19 commercial 78:1,2,6 87:21 90:23 92:2 100:9 104:25 105:2 105:13,14,15 106:25 108:10 commercialize 26:23 commission 15:1,2 19:10,13,14,17,19 20:1,18 21:2,2,5,12 21:16 23:14,20,23 26:2 28:11 29:18,20 51:9 61:18 110:8 116:3 122:7 140:9,15 151:8 commissioners 4:23 64:17 commissions 135:3 commit 35:6 commitment 3:18 115:25 116:7 157:4 committed 157:3 158:2 committee 5:6 27:9,13 29:2,8 35:5,22 95:9 129:4,12 131:22 common 18:20 83:22 117:20,22 142:2,14 151:3</p>	<p>communities 157:6 community 4:4 49:10 64:15 73:4,14,16 77:6 77:10 84:22,23 85:12 89:6,10 132:14 134:16 145:4 companies 6:17,17,23 6:24,24 7:1,22 13:10 13:17 82:14 83:14 89:21 99:21 124:10 137:23 155:10 company 2:18 11:4 22:16 82:5,19,22 85:24 87:24 93:18 97:11 108:25 140:17 141:8 compare 66:24 74:4 compared 43:10 69:21 106:2 compensate 75:9 competing 67:11 competition 142:23 competitive 13:7 48:1 75:18 112:20 113:5 145:20 Competitiveness 7:9 8:2 competitors 67:16 complaints 131:13 complete 6:5 7:15 159:5 completed 7:14 66:19 75:21 completely 82:10 132:11 136:4,7 compliance 117:2,4 120:17,22 121:10,23 122:1,3 complicated 153:13 component 21:8,10 30:12 31:11 89:23 114:11 components 24:2,3,8 25:14,18 28:2 116:21 140:3</p>
--	--	--	---

<p>composure 133:8 comprehensive 5:10 31:5,6 comprise 12:9 113:18 compromised 13:21 concentrating 66:9 76:12 141:22 concept 24:9 27:14 120:1 concepts 84:24 concern 83:9,10 105:8 105:8 108:5,8 134:11 concerned 87:13 152:22 concerns 104:10 125:19 concert 36:23 51:10 concise 131:25 concluded 158:22 conclusion 123:15 133:4 conditioner 116:10 conditioners 113:9 conditions 31:23 85:5 115:2 conduct 7:8 conducts 39:5 conference 78:5 confusing 138:24 confusion 131:16 congratulate 110:12 148:5 Congress 33:19 Connecticut 39:18 42:2 42:8 43:2 conservation 65:2,7 77:20 139:7 148:6 151:18 consider 27:4 101:24 142:21 consideration 10:10 21:6 considered 27:13 95:17 140:19 considering 121:17</p>	<p>consistent 38:20 131:25 Consortium 26:21 constant 64:1 Constantine 29:16 128:21 131:18 155:17 constituents 88:25 constrained 37:1 148:22 constraints 121:5,8 construction 84:13,15 84:20 99:22 100:4 110:21 111:15,18 113:14,23 114:2,6 115:10 consult 21:4 consulting 21:12,13,13 111:9 consume 44:11,13 consumer 63:15 124:17 consumers 121:16 consumer's 36:6 consuming 52:16 consumption 36:21 contact 79:22 123:22 content 8:15 9:16 67:4 67:7 79:9 contest 38:18 context 7:25 121:18 continental 18:11 continually 16:23 continue 12:24 26:17 64:3 96:7 154:7 158:12 continued 38:21 continues 12:4 contract 75:14 77:12 100:16,18 118:22 119:12,13,14,18,22 121:5 139:23 140:3 contracting 119:4,6,11 contractor 88:7 contractors 89:16 90:5 103:18 105:25 contractor's 104:24</p>	<p>contracts 66:16 67:19 68:4 100:13 112:22 119:17,24 123:2 139:21 140:1,6 contrast 114:5 contribute 66:20 contribution 71:17 72:2,21,22 99:19 contributions 99:18 control 83:20 84:3 110:23 152:17 Convention 51:11 conventional 69:23 113:12,15,24 114:1 114:18,23 121:19 conventions 51:13 conversations 129:9 convert 66:4 convinced 157:16 Cookie 152:5 cooling 115:3 cooperate 106:23 107:7 cooperative 76:10 cooperatives 117:8 122:20 coordinate 26:22 copies 4:14 copy 5:2 cornerstone 7:10,11 corporate 61:19 correct 47:18 137:20 152:19 corroding 68:22 cost 11:17 22:22 25:7 25:18 26:10,11 28:17 30:8 34:18,19 37:12 37:15 40:17,18 48:1 50:10,20 53:13 55:20 56:13 57:22 58:12 60:6 61:13 64:19 65:20 66:24 68:17 69:7,22 75:9,15 81:20 82:3 84:1 87:18 94:14 97:7,7,7,8 102:12 112:19,23 113:4</p>	<p>114:2,20 115:15,18 118:14,14,15,18 119:20 121:20,22,23 122:1 124:9 128:25 143:9 147:2 149:3,18 150:3,5,8,18 151:1,12 152:10 costs 25:19,20,24 49:5 49:15 53:19 54:9 68:21 69:2 74:21 75:4 75:7,12,12 77:2,8 78:17 89:11 113:13 113:14,23 114:6,6 124:21 139:20 Council 15:4 84:17 110:5 counted 28:24 counterintuitive 63:12 countertop 56:24 countries 145:12 country 18:15 21:14 47:5 88:17,17 124:3 130:3 141:18 144:7 148:23 156:12 county 1:9 2:4,20,25 4:22,22 5:11 8:9 9:20 10:19 20:6 51:10,11 59:20 68:13 73:6 83:4 83:13 97:14 103:25 108:22 110:12,13 155:8 159:2 County's 2:6 couple 5:12 10:24 11:10,17 12:3 38:3,16 80:2,17 85:17 120:3 126:12 127:19 131:12 131:19 133:4 135:9 136:13 143:2 148:21 course 7:17 8:11,23 11:3,20 84:18 87:14 103:1 115:10 123:13 156:1 courses 73:12 cover 66:8 covered 71:11 117:8</p>
---	--	---	---

<p>122:20,22 covers 17:3,5 36:13 co-chair 14:24 co-op 96:21 co-ops 25:23 26:1 96:25 97:1,17,20,23 97:25 141:6 CO2 115:11,12 144:21 145:6,10 crack 79:15 craft 111:16 create 36:19 66:21 69:9 76:13 87:6 89:9 90:1 90:13 91:25 100:20 100:21 110:24 111:3 111:24 112:2 116:9 116:13 119:9 created 19:9 89:20 90:11 creates 90:13 120:8,13 Creating 116:16 creation 1:10 66:22 91:9,12 creative 63:10 77:4 150:13 creativity 9:13 credit 75:9 107:19 117:1 118:8 119:7 credits 24:11,14 32:9,9 36:20 37:6 57:18 62:21 107:14 118:7 Crist 15:9 23:9 155:5,6 155:14 158:18 criteria 119:19 140:2 critically 158:8 criticisms 139:17 crops 18:6 66:1 crossed 15:23 108:22 crossover 77:17 crossroads 110:17 147:9 Crotty 3:1,9,17,20,25 158:1 Crotty's 3:4 7:11 crying 94:2,3</p>	<p>cubic 113:20 curious 136:16 currency 118:8 current 75:17 77:14 130:16 151:9,24 currently 14:23 61:17 69:18 78:22 84:15 87:21 116:11 127:16 127:24 128:5,15 curriculum 92:16 93:7 96:13 Curry 108:16 curve 56:6 127:7 customer 50:11 62:12 64:12 74:17 78:8 102:25 121:23 122:11 122:13 customers 19:23 25:22 25:25 26:8 49:14 62:18 63:6,7,8,23,24 64:6,15,16,20 65:9 66:21 69:25 74:9,10 74:21 78:2,10,13,18 82:19,21 83:16 91:22 92:2 101:11 103:1 112:15 113:23 124:8 143:23 151:14 153:15 customer's 78:6 cut 60:1 cycle 113:6 118:17 cycles 27:23</p> <hr/> <p style="text-align: center;">D</p> <p>D 2:1 da 23:4,4,4,4,4,4,4,4 23:22,22,22 daily 72:11 Dallas 4:8 13:22 damage 108:5,7 109:2 109:9 damaged 108:23 109:1 109:5 dark 47:18 data 52:24 date 10:23 16:9,10,11</p>	<p>41:4 73:1,18 152:4 Dated 159:7 daughter 94:1 Dave 88:7 105:24 David 85:23,23 86:15 90:7 91:24 92:8,10 96:10,13 day 9:9,16 13:1 14:7 15:15 28:5,9 45:13,14 45:20 61:11 64:2 68:10,16 70:12,13,17 70:20 71:6,15 95:22 119:8,9 130:24 134:3 159:7 days 13:11 23:24 45:14 61:6 70:11 81:24 113:9 DC 117:11 de 29:8,21 dead 156:9 deal 48:15 91:22 143:18 dealing 23:12 30:10 78:24 83:7 deals 29:25 67:18 dealt 25:18 91:1 134:15 140:16 Dean 30:24,25 debate 62:8 130:1 debt 94:5 decade 86:21 decades 13:23 deceased 29:7 December 15:6 20:11 21:17 23:7 28:5 147:14 decide 139:1 decided 42:22 46:7 50:6 64:23 65:16 74:12 77:4 78:2 96:19 decision 35:10,10 Deckert 29:5,14 declined 110:22 dedicated 107:2 122:4 deeply 11:5</p>	<p>defeat 138:10 defeated 144:16 Defense 110:5 definitely 56:3 69:7 72:5 81:19 82:17 85:12 87:25 99:3 153:3 definition 16:3,14,16 16:25 17:2 degree 61:24 62:1 degrees 76:13 delegated 124:7 delivers 40:11 delivery 84:20,24,25 demand 74:17 78:13 113:7 115:8,21 116:1 116:15 148:6 democrats 132:8 demographics 63:5,9 demonstration 59:14 dense 67:6 density 67:2 DEP 21:4 department 5:9 21:4 39:10,15 45:17 73:9 84:13 depend 130:19 dependable 133:17 dependence 17:13 98:19 dependent 94:20 depending 102:3 derate 71:23 describes 12:13 desert 47:17 deserts 47:23 design 9:11 70:6,22 84:12,15 86:12 116:21 123:13,14 designed 127:8 designing 123:18 desire 40:5 desk 73:21 Desoto 49:7 detail 10:7 29:23</p>
---	---	---	--

<p>details 34:14,15 determine 81:21 146:4 Detert 128:18 Deter's 129:11 develop 32:16 39:11 156:7 158:9 developed 6:18 157:22 developer 77:9 78:8 118:12,25 134:4 developers 85:10 112:21 113:3 116:18 118:13 120:7,14 126:23,24 134:8 139:22 developing 73:10 155:18 development 1:17 2:9 2:12,25 3:6,8 4:7 8:4 8:7,10 14:22 21:23 39:1 85:9,12 110:20 110:22 134:7 135:3 devil 34:14,15 dialogue 125:10,18 dialogues 38:12 diddle 12:20 13:6 Diddles 12:3 diddling 12:5 Diego 4:7 difference 24:4,4 78:12 different 18:18 37:16 48:10 57:10 63:16 64:13 65:19 67:9 72:18 73:11 74:12 78:17 82:11 83:14 93:17 95:10 114:10 128:22,23 138:21 147:9 155:23 differently 18:18 71:11 difficult 3:14 68:5 69:23 109:4 130:21 144:9 146:5 difficulty 125:2 digestion 66:6 digit 113:14 dioxide 79:13</p>	<p>dipping 53:1 direct 20:17 91:17 97:16,16 112:3 122:2 directed 5:8 direction 131:24 directly 64:14 72:24 74:9 91:7 107:12 140:16 director 2:8 38:22,23 38:23,24 39:8 86:4 137:17 Directors 15:5 disagree 25:9 discussed 103:3 127:2 discussion 15:25 71:4 121:12,20 130:22 discussions 4:16 8:13 disease 44:25 dispatchable 69:14,15 disrupted 67:20 143:4 dissuade 139:22 distances 79:1 distillate 70:25 distributed 4:15 48:8 69:4 89:23,25 90:4 92:19 99:25 100:7,23 101:4 106:18,21 107:2 112:1 115:7 116:25 118:5 122:24 139:11,15 140:4 141:13,14 142:1 distribution 95:5 99:20 distributive 90:20 district 40:24 55:2 117:11 140:19 districts 85:3 132:23 150:22,24 diversity 5:20 117:18 divert 68:2 doable 32:18 72:1 Dobson 125:1 126:9 133:5,23 138:17 139:4 144:8 148:3 151:22 152:2 docket 21:15 116:3</p>	<p>doctor 94:1,4 document 8:20 doing 3:8 10:21 13:6 13:15 14:4 17:20 21:3 35:6 37:10 38:21 50:4 51:17 53:17 54:22 64:21 67:18 76:8,18 78:21 81:21 83:21 89:17 91:15,15 93:13 107:20 116:2 119:16 121:21 123:16 126:1 136:17 145:6 148:5 148:13 155:16 158:1 158:9,18 dollar 24:18 39:10 112:10 146:13,15 dollars 22:15,17 24:19 24:20,23 44:12,18,18 49:9 50:2 51:12 53:7 58:6,13,14 59:24,25 93:1 102:14 112:12 113:21 128:5 134:9 138:10 157:4 domain 14:20 dominant 12:14 dominates 119:5 door 2:23 9:18 147:4 dot 41:15 double 80:3 113:14 doublecheck 114:9 Downtown 8:24 Dowsey 84:12 85:15 87:19 88:4 89:5 90:7 92:8 96:18 97:9,13 98:4 99:20 100:1 101:12,18,20 102:21 103:11 104:15 106:8 106:13,19 108:3,7 Dr 5:5 6:7 7:13 38:24 39:13,16 40:4 88:14 89:24 92:8 103:1 132:20 145:22 148:23 148:25 149:14 153:24 draft 21:6 draw 133:3 144:6</p>	<p>drawing 13:17 drill 31:25 drilling 27:11 30:12,13 30:18,23 31:3,14,15 31:22 133:13,15 134:2,12 drive 9:8 drivers 155:20 drives 63:20 drop 135:14 dropped 114:7 dropping 52:25 114:6 drought 115:2 druthers 129:10 due 8:21 110:22 113:24 121:5,7 156:4 durability 109:6 durable 109:8,10 duties 39:8 duty 142:18 Dyer 158:2</p> <hr/> <p style="text-align: center;">E</p> <hr/> <p>E 2:1,1 116:13 ear 33:24 earlier 40:22 71:15 75:20 91:8 94:6 98:8 101:25 112:5,11 117:10 119:10 122:16 129:22 130:11 139:25 154:24 early 114:24 120:19,22 121:14 earnings 124:21 ears 103:9 easier 73:15 93:23 96:14 easily 105:8 111:19 East 1:24 easy 107:5 145:11 economic 2:24 3:6,8 4:6 7:9,11 8:2,6,9 110:20,21,24 111:2 112:14 135:3 137:17 economically 157:12</p>
---	---	--	--

<p>economics 48:15 economies 112:8 economy 32:16 39:3 85:9 110:14 111:20 127:12,15,24 145:19 148:23 157:13,21 158:8 EDC 6:16,19 EDO's 135:2 educate 14:9 60:1 73:13 92:13 93:20 96:11,14 educates 39:3 education 39:21 60:13 84:18,22 85:3 93:4,10 educational 60:17 effect 88:3 123:10 effective 48:1 87:18 149:3 150:4,8,18 efficiencies 84:1 147:1 efficiency 26:25 39:22 56:20 104:1 115:14 115:15 116:9,14 117:16 123:10 145:15 149:1,2,6,17 150:25 151:6,6,18,21,25 efficient 39:7 53:8 54:19,23 55:16 57:6 150:21 152:7 effort 145:10 efforts 88:10 93:19 123:12 egg 13:4 eight 10:11 either 13:6 24:10 25:2 25:17 30:7 33:23 54:21 118:5 121:22 137:25 144:16 elaborate 85:19 elaborating 86:16 elected 60:9 144:16 155:25 electric 22:13 45:11 50:21,24 52:13 55:1,4 57:15 60:1 68:25</p>	<p>108:16,17 146:18 electrical 15:11 electricity 16:7 25:22 41:24 42:1,3,9,15 43:2,18 44:6,15,23 45:23,25 47:13 49:4 50:7 52:14 53:9,11,13 53:16,19,23 54:4,12 54:22 55:14,15,18,21 56:1,18 57:22 59:24 59:25 72:12 118:16 118:23,25 124:16,19 127:10 145:18 147:12 147:21 148:2 electronically 118:21 elevating 13:25 eligible 116:22 117:20 else's 140:21 embargo 52:20 embarrass 129:13 embracing 130:5 emergency 58:8,11 59:15 emerging 6:24 emissions 17:8 115:11 144:12,21 145:7,11 emit 17:10 emits 17:10 employable 111:21 employed 59:10 61:22 employees 86:18 employers 6:25 employing 158:7 employment 147:3,4 158:9 enable 58:7 enact 11:20 euacting 5:10 encourage 5:23 6:19 7:24 32:25 85:21 100:15 116:24,25 117:2 123:21 128:3 132:10,18 141:25 151:5,19 153:21 154:7</p>	<p>encouraged 155:15 encourages 77:20 encouraging 88:24 ends 89:18 energy 1:10 4:18 6:7,9 7:2 9:12,14,19 10:19 12:6,10 13:9,12 14:19 14:25 15:8,9,13 16:6 16:15,16,18,18,20,21 16:21,21,21,22,22,23 17:10,15,17,24,25 19:10,15 20:12,14,15 20:18,21 21:5,24 22:6 22:23 23:12 24:10,11 24:13 25:20 26:20 27:10,20,20,21 28:18 28:20,22 29:1,25 31:5 31:6,7,16,25 32:7,12 32:15 34:6 35:5 36:21 36:21 38:22 39:2,6,7 39:10,19,22,22 40:10 40:15,19,19 43:3,13 45:17,18 46:17,23 47:1,4,7,25 51:7,14 51:15,18,19 53:7,10 54:19,20,23 55:5,16 56:8,11,20 57:6 58:22 58:25 59:4,5,6,7,16 60:5 61:9,18,22 62:22 63:9,12 64:7 65:1,6 66:1,4 73:9 76:21 82:18,19,22 85:25 86:6,8 87:16,21,22 88:15 90:21,25 91:1 96:12,15 97:5,7 98:7 103:25 104:18 110:6 110:9,13 111:6,8,20 112:10,14,17 113:18 113:24 114:14,16,19 114:20,22 116:1,2,4,8 116:15,16 117:1,16 118:7,8,9,11,12,13 119:7 120:10,24 121:19 122:5 123:7,9 124:4 126:3,5,16,20</p>	<p>126:23 127:7,9,19,21 127:23 128:2,12,16 128:21 129:4,7 130:15 131:6,10,11 132:13,17 133:25 134:7,8,13,16 138:11 138:21 139:8 140:15 140:18 141:16 142:11 144:1,6 145:15 149:1 149:2,6 150:2,7,21,25 150:25 151:5,6,8,18 151:21,25 152:7,12 154:12,12,18 155:9 155:18 156:2,7,10,12 156:19,20 Energy's 134:5 enforcement 117:5 engaged 110:7 132:13 132:19 144:18 engagement 73:4 engine 111:3 engineering 39:14,17 86:11 105:4 engines 39:12 enhance 36:20 39:2 enjoy 14:5 enter 78:4 107:16 entering 120:14 entertain 133:2 entire 8:20 127:6 entities 87:24 125:19 entity 2:9 19:10 141:8 entrenched 15:13 environment 32:17 39:3 40:16 83:8 127:12 131:10 151:9 157:13 environmental 21:4 61:25 86:11 110:10 134:6 environmentalists 19:24 31:18,21 environmentally 157:12 envisioned 121:4</p>
---	---	---	--

<p>epicenter 108:21 equals 118:8 equation 147:10 equivalent 74:23 especially 6:2 17:14,23 34:6 83:3,10,25 89:15 92:25 140:23 145:7 156:21 essentially 28:4 establish 11:12 40:14 established 120:6 153:11 establishes 16:7 establishing 7:10 estate 14:22 47:20,22 47:23 48:2,3,4,14,17 estimates 114:2 116:13 et 130:4 132:15 ethanol 46:7,9 Europe 18:19 67:14 Europeans 18:17,20 evening 72:17 event 2:19 8:25 events 9:1 eventually 19:5 48:12 60:9 94:21 everybody 2:2 5:24 15:20 31:20 46:19 58:15 61:1,3 63:2 94:25 98:24 102:6 114:17 149:20 150:9 everybody's 52:18 60:4 108:10,10 138:23 everyone's 135:8 Everything's 71:10 evidence 121:15 exact 29:14 64:1 exactly 29:9 63:8 69:16 126:14 155:16 exaggerations 18:22 exam 86:7 example 20:16 22:14 40:2 51:18 52:1 106:24 108:16 114:1 examples 87:17</p>	<p>exceed 122:12 exceeds 40:12 excellent 148:6 exceptional 138:5 excerpts 21:15,20 exchange 30:22 39:12 excited 66:18 73:19 74:8 75:24 76:2,7 96:18 exciting 9:9 76:15 157:7 158:6 excuse 14:18 executive 1:17 23:11 23:12,13 38:23 exemption 143:7 exemptions 117:6 exist 41:21 existence 22:4 existing 27:20 46:5 66:13 expand 39:20 68:14 expanded 8:3 122:19 122:23 expanding 82:17 expect 80:21 109:11 expenses 7:3 28:22 49:16 expensive 19:4 22:21 43:13,25 44:2,3 55:22 69:20 112:17 141:24 141:25 146:10 experience 84:19 86:10 89:17 90:5 91:13 experienced 113:12 experiencing 79:20 expert 14:19 15:17 61:14 131:23 explain 146:18 explained 35:7 expressed 28:6 Expressway 13:23 extended 124:13 extent 109:9 145:5 extra 75:7 153:7,8 extrapolate 49:23</p>	<p>extremely 68:17 131:9 eye 63:16 e-mailed 13:1</p> <hr/> <p style="text-align: center;">F</p> <hr/> <p>face 13:4 faces 14:14 facilitator 2:19 facilities 68:8 105:7 facility 13:11 84:12 facing 66:25 fact 23:18 46:15 47:12 51:22 55:18 58:12 63:13 69:1 77:2 94:8 114:24 122:6 123:1 124:17 127:23 140:8 147:17 154:2 factors 62:23 69:12 148:10 faculty 85:6 failure 121:6 fair 4:9 34:3,4 fairly 25:8,9 135:18 fairness 59:7 83:7 fancy 56:24 fantastic 11:10 far 47:8 77:13 87:12 90:19 122:25 125:16 125:17 126:1 137:11 141:7 152:21 farm 77:6,10 91:21 farms 90:10,14 91:3,11 91:16,20 92:3,4 93:9 99:21 fast 81:23 fastest 18:10 father 3:15 faux 138:13 favor 35:6 favorable 22:8,24 favorites 17:12 feasible 81:10,11 82:2 82:5 February 1:15 21:7 fed 97:5</p>	<p>federal 12:6 32:11 37:8 57:18,18 93:14 107:14,19 123:4,5 124:5 139:8,10 144:1 feds 32:5,6 37:16 87:11 87:12 fee 77:12 feed 79:13 90:16 feedback 10:4,5 134:21 135:10,12 feeding 45:19 75:3 feedstock 46:20 66:22 67:11,13,16 78:25 feed-in 34:4,7 74:13,15 74:18 78:12,16 119:25 120:2,4,6 129:23 130:6 133:18 140:6,9 feel 67:7 74:5 80:4 153:14 feels 36:23 fees 133:15 feet 95:1 103:25 113:20 felt 4:8 Fenton 6:7 38:15,24 39:13,16 40:4 88:14 89:24 92:9 103:1 132:21 145:22 148:23 148:25 149:14 151:16 153:24 fertilizer 99:8 fiasco 133:9 field 156:15 fight 101:15 131:7 134:6,7 figure 44:4 63:17 65:7 65:8 67:22 69:11 73:7 73:14 129:20 130:23 138:13 figures 114:10 figuring 5:13 filed 29:14,22,24 30:9 128:19 fill 18:5 filling 155:2</p>
---	--	---	---

<p>final 34:19 finally 11:3 finance 37:24 149:23 150:22 financial 7:7 100:12,13 100:21 101:12,20 financially 99:22 financing 22:6 149:24 150:6,9,13 find 9:6 10:6 42:4 79:1 83:22,22 89:1 129:18 130:7 148:24 157:25 findable 104:13 finding 2:12 150:13 fine 57:5 65:10 finger 82:1 fingers 15:22 finish 110:3 finished 66:14 116:2 fire 46:4 66:13,14 79:16 158:3 fired 72:8 firing 66:5 72:7 78:23 firm 14:17 21:12 firms 21:13 firm's 14:24 first 2:2,23 4:1 6:2,6 8:21 9:3 14:16 16:13 22:18 33:17 66:17 73:1 81:14,14 85:23 89:7 91:20,25 102:24 112:19 116:21 139:9 143:10 148:4 149:6 149:14 150:11 155:25 fit 109:3 five 10:9 41:11 62:3 79:24 93:17 116:8 fix 14:2 42:25 fixed 77:12 78:11 124:21 flat 52:21 flavor 53:3 59:23 float 150:24 floor 102:22 125:5,10 135:22 136:4</p>	<p>Florida 1:18,24 2:11,15 3:6 4:19 6:6,9 8:23 9:3 10:18,19 11:13,16 11:20 13:3,13,18 14:25 15:7,8 16:2 17:1,2,14,15,17,23,25 18:1,9 19:9,9,10,12 19:12,14,16,22,25 20:10,13,18,21,23 21:5,16,24 23:8,23 26:20 28:11 30:14 32:3,5,8,10,13,14,15 35:9 36:3 38:22 39:2 39:25 40:6 41:25 42:6 42:12 43:8 44:3,12,16 44:20 47:8,9,19 48:2 49:1 50:15 51:8,8,14 51:19 52:15 53:4,6,17 53:18 54:2,12 55:10 56:3,8,10,12,15 58:4 58:9,22 59:9,10,10,13 59:16,23 61:25 62:11 64:23 76:11 79:2,3 84:17,22 85:9,20,25 86:6,20 87:1,5,11 88:13,15 89:1,6,15,16 92:11,15 94:25 95:2,5 95:19 99:2,5,9,17,24 100:20 104:21 105:5 107:20,23 108:5,13 110:17,19,19 111:2,7 111:10,12 112:21 113:8 114:23 116:1,4 116:14 122:6 123:13 123:14 126:2,15,20 127:6,10,20 128:1,2,6 128:14,16 129:24 132:17 133:25 137:22 138:6 139:7 140:15 140:17 143:15 145:7 147:8 151:8 154:14 155:10,19 156:2,6,7,9 156:12,13,17 157:11 157:11,12 158:17,17 159:2</p>	<p>Florida's 45:7 47:10 56:18 116:5 127:12 144:5 Floridians 87:6,7,14,17 91:5 94:20 102:1,15 110:25 flourish 126:22 flow 77:19 78:19 154:18 flux 64:1,9 flywheels 152:20 154:19 focus 2:17 12:15 14:1 39:21 40:20 64:11 65:16 focused 14:21 20:14 64:5 84:24 folks 2:13 14:8 17:16 30:1 34:1,3,4 38:1,8 39:1 49:17 61:5 73:12 80:10 90:21 93:20 94:19 95:1,10 96:3 102:15 111:18 114:9 125:11 132:22 135:20 136:2 140:6 150:24 153:19 follow 3:21 132:18 149:9 following 4:25 16:19 16:20 22:17 48:24 food 18:5 foot 94:25 football 144:15 footing 87:7 Ford 9:2 forecast 81:24 foregoing 159:5,5 foreign 17:13 94:20,21 98:10,20 forest 65:24 forestry 79:2 forever 54:16 form 10:4,5 117:1 133:8 134:21 135:10 154:18</p>	<p>formal 23:7 formally 136:7 former 15:6 Formerly 6:12 forms 88:12 135:12 forth 5:14 40:16 41:8 45:3,13 48:16 52:19 53:25 135:4 149:19 149:24 154:14 fortunately 57:3 fortune 43:2 54:21 forum 15:8 84:11 forward 10:22 12:13 74:8 88:1 89:2,3 93:12 94:6,10 96:8 106:6 108:1 123:17 129:5,16 149:6,13 156:10 158:12 fossil 17:13 22:4,21 42:17,19 44:10,12 46:19 50:23 51:2 146:21 found 66:12,18 75:11 81:16 94:4 144:22 founded 56:8 126:18 four 19:17,18 20:1,13 29:22 53:14 59:14 62:2 143:18 156:1 FPE 147:18 FPL 49:7,11,12,21 50:8 147:18 FPL's 49:25 FP&L 32:8 48:25 49:6 74:4 90:12 91:1 93:9 fraction 49:3 framework 5:13 12:16 frankly 34:15 110:17 128:10 129:13 147:16 156:13 free 47:20,22,23 48:2,3 48:4,14,17 69:3 80:4 friend 61:14 friends 132:7,16 front 9:17,18 41:23 56:13 77:8,24 78:17</p>
---	--	--	--

<p>78:21 136:2 145:8,12 149:18 151:1 frowned 103:20 fruit 149:17 151:15 FSEC 39:5,5,8,16,20 41:17 61:23 73:21 92:25 152:18 FSEIA 88:8 FSU 76:11 fuel 17:13,15,16 22:4 22:21 39:12,18 46:4 61:19 66:16,19 68:2,7 68:8 69:2 82:23 97:8 113:13,17 114:11,12 118:18 fuels 16:20 18:3,3 39:22 42:17,19 44:10 44:13 45:24 46:20 50:23 51:2 63:25 66:6 66:7 69:18,23 70:25 70:25,25 72:20 87:1 146:21 full 8:18,19 20:1 30:8 74:17 88:3 function 45:12 52:14 101:22 fund 101:24,25 102:5 102:12,17 103:4,11 122:4 130:12,13,20 133:21 150:16 funding 73:6 102:7,9 102:10,11 103:2 121:1 122:4 130:15 130:16 funds 55:3 58:23 103:7 122:3 furnish 25:21 furthering 4:16 future 19:15,15 20:13 45:25 47:2 53:2 59:18 60:10 93:24 96:13 124:23 145:24,24 146:1,3,4,7,9,24 152:12 154:19 Futures 11:24</p>	<p style="text-align: center;">G</p> <p>G 2:1 gain 90:5 Gainesville 120:5 gaining 35:19 gallon 54:4,7,8,9 gamet 66:7 gap 53:3,4 garbage 46:23,24,25 Gardening 137:17 gas 27:23,23 28:23 31:8 43:11,14 65:20 68:13 68:17,20,24 70:18,19 70:25 71:13 72:3,6 76:1 98:14 113:5,17 113:18 118:16,17 gasification 66:5 76:12 gasifying 76:20 gasoline 44:14 46:8,10 54:4,6,8,9 gazillion 138:9 GBC 84:18 geared 89:13 geez 47:16 general 34:25 122:14 148:2 generally 16:7 83:21 111:25 114:12 115:12 115:17 117:7 118:5 118:16 120:22 121:13 122:4 124:14 generate 17:9 32:12 47:25 48:1 50:13 51:14 64:7 147:13 generated 49:9 51:16 56:17 generates 40:17 51:4 96:16 generating 16:5 140:18 generation 16:8,9 17:9 39:11 48:8 51:8 89:24 89:25 90:4,20 92:19 99:25 100:7,24 101:4 106:18,21 107:2 112:2,20 115:8</p>	<p>116:25 118:6 122:24 139:12,15 140:4 141:10,14,14 142:1 147:21 generators 140:7 generous 25:9,9 gentleman 2:22 3:7 gently 89:11 geography 42:13 George 31:18 32:22 109:24,24 110:4 125:20 127:4 128:25 132:20 139:4 142:22 149:16 geothermal 16:21 117:21 Germany 47:6 48:17 48:17 getting 2:4 19:7 23:15 26:10 50:24 51:2 52:19,24 57:13,21 58:15 62:10 68:14 73:12 79:11 93:1 105:9,9 106:8 140:12 142:10 153:15,16,20 gigawatts 103:4,8 give 9:5 11:18 15:15 20:16 33:14 39:24 53:3 57:10,19 58:16 59:22 62:17 80:1 85:17 105:11 114:1 118:19 131:21 150:22 given 20:5 52:5 59:16 63:25 64:2 127:24 135:18 149:7,9 gives 101:9 giving 93:14 130:8 glad 133:2 global 11:21 globally 94:15,16 go 5:19 6:19 7:24 8:5 9:5,7 23:19 24:18 26:16,16,18 31:24 37:19 38:5,11,13 40:23 42:13,22 44:25</p>	<p>46:3 48:18 49:16,16 50:6,18,20 51:23 56:23 57:8 58:7,9 59:17 60:3,14,20 64:24 65:7 68:15 71:8 74:12 75:24 76:25 77:9 78:6 80:3,4,7 81:23 82:14 90:25 92:11 96:8 98:24 106:15 108:3 110:2 116:5 122:3 123:17 125:7,8,13,25 126:13 126:14 132:6 135:20 136:3 137:9,11 138:22 140:13 141:7 144:20 147:2 149:25 150:23 154:10 goal 4:19 10:18 11:19 12:12 22:18 27:19,25 40:11,12,14,15 41:12 41:16 52:7,12 59:9 65:6,11 80:22 81:8 116:2,17 goals 13:9 28:3,6 41:1 41:2,6 61:9 64:25 65:2 89:8 God 158:14 God's 157:19 goes 117:7 122:2 124:21 134:14 145:18 145:19 going 2:4,22 3:3,15 5:14,21 10:18,20,23 12:10,17,22,24 13:2,5 14:10 15:22 19:1 24:1 25:7,13 26:11,16,17 30:4,17 31:18 32:1,6 34:21 36:10,12,25 37:12,12,15 38:4,13 39:24 44:6 46:6,7 52:1,18 55:24 58:9,12 58:19 60:7,19,21 62:14 64:17 67:4,16 70:22 71:10,11,13,14 71:15 72:19 75:25</p>
---	--	--	--

<p>76:25 79:25 80:3,16 82:20 84:9 85:16,17 85:21 86:9,23 87:25 88:20,23 89:3,11,19 89:21 90:1,2,21 91:24 91:25 92:24 93:10,11 94:14,14,16 95:25 96:11,12,17,24 98:12 98:12,13,13,14,14,15 98:15,16 100:8,22 102:4,8,9 105:3,19 108:1,2,12 109:14,19 109:21,22,24 113:24 114:18,19 115:5,18 115:23 117:21,22 119:13,14,16 120:10 120:13 121:3 124:25 125:5,13,23 126:6,11 126:12 127:13 129:14 129:19 131:11 133:16 135:19,22,24 136:13 137:9 140:22 144:11 144:14,16 145:11 146:6 147:13,15,17 147:21 153:1,6,10 154:21 155:1 158:4</p> <p>good 15:20 18:8,8,21 26:13 35:24 46:16 56:4 61:14 74:5 82:23 87:2,17,20 90:10 99:2 102:8 105:19 109:5 113:21,23 120:8,18 120:23 133:7 134:20 137:24 138:14 144:8 145:3 147:6 155:3,7 155:10 157:11,11,19 157:21</p> <p>gosh 138:20</p> <p>gotten 50:1,25 124:13 124:14 154:21</p> <p>governed 96:21</p> <p>government 19:24 57:19 87:23 93:14 124:6 126:4 141:3 150:5 152:6</p>	<p>governmental 22:5,22</p> <p>governor 15:7,8 23:9 23:25 58:6,14 109:16 125:6 135:16 136:5 154:25 155:4,5,6,7,14 155:25 156:5,23 158:18</p> <p>Governor's 15:9 24:1</p> <p>grab 60:23,23</p> <p>graciously 84:10</p> <p>granite 56:24</p> <p>grant 73:8,17 79:12</p> <p>graph 111:5,14 120:16</p> <p>graphs 10:12</p> <p>grateful 156:15</p> <p>gravity 154:15</p> <p>great 7:12 8:9 13:16 15:20 38:5 55:9 57:5 59:8 61:4 66:23 76:10 88:4 95:23 96:1 102:19 109:21 112:3 126:5 130:2,20 135:23 148:17 158:11 158:19</p> <p>greater 123:17 145:3 145:19</p> <p>greatest 157:20</p> <p>greatly 61:2</p> <p>green 5:6,10 10:23 20:7 32:17 40:23,25 41:20 42:5,22,24 43:24,24 44:1 49:23 84:15,17 111:14,16 132:17 135:11</p> <p>greener 96:17</p> <p>grid 37:5 45:12,16,19 59:19 69:13 71:4 90:17 115:4,5 134:5 141:12 142:20 148:9</p> <p>grids 69:13 97:5 154:13</p> <p>ground 24:4 83:22 111:20</p> <p>group 2:13 5:21 14:8 26:21 73:5 150:15</p>	<p>groups 14:1 19:18,18 19:22 20:2,13</p> <p>grow 18:6 79:13 88:12 90:2 92:17 137:23</p> <p>growfl 137:22</p> <p>growfl.com 137:19</p> <p>growing 4:3 75:22</p> <p>growth 4:10 13:13 91:7 91:8,9</p> <p>guaranty 26:5,6,7</p> <p>guess 14:10 23:22 32:2 44:3 131:18 144:13 152:18,19</p> <p>guests 109:15</p> <p>guidance 11:18</p> <p>Gulf 30:13</p> <p>Gulfstream 18:9,9</p> <p>guy 38:15,25 134:10</p> <p>guys 23:20 33:20 34:7 59:3 80:14 97:18 126:10 131:20 134:9 138:25 155:2</p> <hr/> <p style="text-align: center;">H</p> <hr/> <p>half 13:8 38:9 43:6 47:7 59:24,25 65:6 80:17 97:6 111:14 113:21 117:14 118:2 120:20 146:19</p> <p>halfway 73:16</p> <p>Hampshire 121:25</p> <p>hand 67:6 142:15 153:2</p> <p>handed 10:3</p> <p>handle 149:14</p> <p>handlers 105:1</p> <p>handles 36:9</p> <p>Handling 68:5</p> <p>handout 29:3 35:18</p> <p>handouts 9:16</p> <p>hands 67:8 95:15</p> <p>hang 135:21 136:8</p> <p>hanging 149:17 151:15</p> <p>happen 10:20 32:1 41:20,21 109:21</p>	<p>138:11,12 147:17</p> <p>happened 3:22 143:3 156:18</p> <p>happening 144:17</p> <p>happens 47:5 48:4 68:2 71:1 108:1 131:24 136:9 138:22 144:13</p> <p>happy 60:3,10 79:14 137:21</p> <p>hard 94:4</p> <p>Harmony 76:11</p> <p>hate 58:14</p> <p>hated 34:5</p> <p>haul 102:3,3 145:13</p> <p>Hawaii 42:18 117:17</p> <p>Hawaii's 42:16 122:17</p> <p>head 31:19 136:24</p> <p>heading 84:8 124:1</p> <p>headlines 58:13</p> <p>health 127:11 130:2</p> <p>healthy 38:12</p> <p>hear 11:11 76:25 80:9 84:2 85:7 91:2 94:11 95:8,22,24 103:9 112:17,24 141:15 144:10 148:11</p> <p>heard 6:11,12 51:9 62:7,8 74:20 90:10 95:9,21 105:6 115:4 128:25 130:11 131:13 145:24</p> <p>hearing 5:7</p> <p>hearings 19:25</p> <p>heart 85:2</p> <p>heat 99:7,10</p> <p>heater 57:7,17 70:3</p> <p>heaters 56:7,13,16,18 57:10</p> <p>heating 67:14 86:19,19 108:18 109:2 116:9</p> <p>heavily 110:7</p> <p>heck 25:10</p> <p>hedging 69:1</p> <p>held 109:5</p> <p>hell 55:7</p>
---	--	---	---

<p>hello 5:24 help 2:14 6:16 11:4 13:17 14:9 49:14 55:8 58:11,16,17 60:1 92:13 93:15 96:24 101:13 131:16 132:10 132:12 134:25 137:22 154:13 155:8,23 helped 34:8 helpful 7:3 135:7,13 helping 7:7 39:19 84:23 85:3 helps 2:11 115:19 hey 95:22,24 147:25 he'll 31:1 Hi 36:15 88:5 110:1 139:6 155:6 high 56:5 59:23 67:4 93:5 113:19 129:8 139:19 153:25,25 higher 67:7 115:24 154:9,9 highly 113:17 137:5 highway 48:5 hill 154:16 hinted 55:18 hired 21:12 Historically 116:5 history 16:1 19:8 124:2 125:16 hit 12:25 17:21 24:6 25:1,2 28:15 60:23 111:20 120:22 136:24 hitting 21:9 hold 77:16 106:6 136:4 holding 29:23 94:2 132:3 holds 77:15 holistic 36:24 Holland 14:17 home 12:25 45:4 53:24 54:23 56:21 57:6,14 75:3 150:2 151:1 homegrown 112:6 homeowner 37:24</p>	<p>51:25 90:24,24 homeowners 36:20 91:17,18 108:13 homes 45:20 53:10,23 53:25 54:1,19 55:15 56:12,16 91:9,15 92:22 102:16 105:1 108:10 homework 64:21 honest 57:1 honor 14:6 honored 155:14 hook 106:8 hope 14:5 15:21 32:18 40:12 hopefully 5:3 12:25 35:3 40:11 46:14 47:25 74:1 88:1 154:22 155:2 hopes 61:9 horizon 76:23 host 8:4 112:13 128:12 hot 2:16 41:15 56:7,12 56:16,18 57:7,10,17 66:8 70:2 74:11,24 75:19 108:17 hour 38:10 42:1 74:19 74:23,25 75:13 112:19 113:1 115:17 115:19 118:9,15 119:20,23 120:7 122:1 153:17,17 hours 45:14 52:17 53:5 53:16 54:1 68:16 70:17 136:13 house 19:12 20:25 27:8 27:10 28:25 30:2,8,9 30:16,17,25 32:4 33:7 33:8,12,13,21 34:2,24 35:3,3,20,24 36:22 54:22 88:21,24 90:25 94:7 96:20 123:8,22 129:2,7,13,15,18,24 131:15 132:8,9 137:10,12 150:3</p>	<p>housekeeping 38:4 houses 52:19 53:7 huge 70:3 143:22 huh 103:13 human 106:5 humming 113:10 hundred 22:14 24:18 24:19 47:18 71:22 108:17 122:21 Hundreds 68:10 hurricane 108:13 109:1 hurricanes 108:19,21 hybrid 76:7 hydro 117:21 hydroelectric 16:22 42:21 hydrogen 39:21</p> <hr/> <p style="text-align: center;">I</p> <hr/> <p>idea 10:13 95:23,24 96:1,23 98:21 102:9 102:19 124:7 138:5 138:14 142:4 144:2,8 ideal 8:25 61:9 ideological 130:4 ideas 135:5 138:21,24 143:3 identify 6:16 IGCC 27:22,23 Illinois 122:9 immediately 56:21 immense 110:14 impact 70:3 81:16,18 85:11,12 109:8 112:15 121:11 122:12 134:3 impacted 125:20 impacts 121:12,12,17 impede 134:18 impending 63:21 implement 73:16 85:1 85:3 140:5 143:23 150:25 implementation 4:21</p>	<p>12:6 61:13 implemented 4:19 39:25 125:23 import 17:15,24 importance 123:17 149:7 important 6:10 10:10 10:16 17:14,23 32:3 58:10 61:8 65:13 66:20 87:8 112:9 120:19 123:11,13 132:24 137:6,7 152:14,14 156:20 158:8 importantly 46:18 imported 17:17 impose 96:2 impression 34:1 improve 79:9 127:11 improvements 56:20 149:25 150:4 152:10 improving 85:5 incentarize 141:3 incentive 37:18,19,21 74:16 78:9,10 118:19 153:11 incentives 13:12 22:5 22:23 37:3,4,10,14 64:10 92:1 inclined 123:21 include 57:25 122:19 128:24 151:25 152:3 included 11:15 includes 21:23 22:25 including 17:5 116:8 159:5 income 63:7 152:12 incoming 30:25 31:1 incorporate 63:18 72:11 140:6,9 incorporated 4:23 incorporating 45:15 148:14 increase 26:25 41:11 52:18 69:22 87:25</p>
--	--	--	--

<p>104:3 116:4 127:9 139:11,14 156:2 increased 113:13 117:17 122:15,17,18 127:23 increases 65:12,14 113:15,24 115:21 147:18 increasing 26:18 52:22 80:16 115:20 incredible 14:8 157:6 incremental 25:24 27:2 118:15 incubator 8:3 incumbent 36:3 independent 119:1 Indian 70:24 indicate 131:3 indicated 151:12 individual 18:23 36:20 89:12 123:19 individually 146:8 industries 63:17 86:1,6 86:21 145:20 157:22 industry 6:13 12:8,14 39:9 40:10 63:14 67:12 79:6,21 86:22 88:12,13 89:2 90:2 92:5,17 100:3,4 108:6 111:1,18 126:21 145:18 157:15 inextricably 157:14 infancy 27:3 influential 137:5 informally 136:3,8 information 6:20 9:6 79:23 infrastructure 69:5 73:8 115:10 infuse 89:10 initial 151:12 initiates 139:3 initiative 3:5,6 4:1 131:1 133:15 155:9 initiatives 2:6 3:20</p>	<p>innovation 9:13 innovative 78:24 79:19 input 4:13 inspectors 143:16 inspirational 60:16 install 26:12 56:4 69:10 87:21 93:17,19 102:15 105:3 installations 49:3,6 59:13 92:12 108:25 installed 49:1,6,21 57:17 71:3 78:14 108:18 installer 88:6 installers 116:10 installing 75:10 86:18 143:9 instance 117:23 119:21 120:5 121:24 153:10 instigate 136:21 institute 7:9 8:1 39:7 86:3 137:17 139:7 instructor 86:1 insufficient 121:1 insulation 149:19 insurable 108:11,15 109:12 insurance 108:6,8,13 insure 134:25 136:17 150:5 152:23 153:5 153:14,18 insuring 152:22 integral 85:10 integrate 45:21 114:16 148:8 integrated 8:13 84:25 148:13 integrating 69:12 114:21 intensive 139:24 interaction 123:4 interest 19:21,22 46:22 151:3 interested 33:4,5 46:16 132:21 136:25</p>	<p>interesting 10:7 29:24 43:7 45:10 53:22 58:3 63:5 85:7 124:1,22 133:24 interests 34:23 internal 65:1 81:4 internally 83:5,10 103:19,23 International 61:25 Internet 11:25 introduce 2:22 3:10 9:2 15:14 39:23 62:3 84:9 84:10 85:16 109:25 introduced 9:22 35:22 introducing 14:7 85:16 introductory 11:22 invest 27:1 53:9 57:14 103:6 116:20 146:3 investigating 65:23,25 81:12 investing 54:23 investment 37:20 49:18 57:21 77:25 101:5,10 102:2 114:15 117:3,3 145:25 146:1,10,14 146:23 investments 110:13 148:25 investor 25:21 62:20 64:13 97:2,11 investors 73:25 102:7 invitation 119:18 involved 7:21 58:25 61:12 84:1,21 85:2 86:20 88:10 105:9,25 132:16 133:11 153:13 156:3 IOU 21:24 IOUs 24:9 25:21 27:14 28:15 97:17,24 107:18 IOU's 140:23 142:17 irrelevant 157:9 issue 11:23 12:1 36:1,2 36:8 56:14 105:25</p>	<p>128:25 129:22 140:22 150:12 issued 23:11 issues 45:15 47:14 48:15 62:25 88:2 126:4 155:23 item 131:8 136:19 items 131:8 I-4 13:22 i.e 41:1</p> <hr/> <p style="text-align: center;">J</p> <hr/> <p>James 61:3,4 January 23:3,5,22 28:8 50:24 JEA 98:1 Jeb 15:7 Jeff 29:10,11 108:16 Jennifer 26:6,7 61:17 61:22 62:4,5 80:3,12 81:3,3 82:14 83:1 84:5 90:25 97:21 102:25 113:11 154:11 154:24 Jersey 47:8,12 95:2,4 Jim 6:7 38:15,19,22 39:23 60:20 61:23 66:25 76:4,4 112:11 115:14 122:16 151:12 151:16 Jim's 38:16 jive 156:8 job 15:12 51:6 56:16 91:7,8,8,9,12 110:10 111:14,22 112:14 131:12 148:6 jobs 40:17 49:22 50:13 50:14,16,17 51:5,5,5 51:5,6 52:5,6,7,9,10 56:5 66:22 69:9 87:6 87:9 89:6,10,14,19,19 89:21,21 90:1,6,11,12 90:13,14 91:25 92:3,4 106:3 111:3,7,16,25 112:3 116:9,9,13</p>
--	---	--	---

<p>127:25 135:2,2,2 146:25 John 2:24,24 3:7,10 40:22 join 132:17 joining 39:16 jointly 125:13 Jose 4:7 jot 134:23 jump 83:25 111:19 115:13 June 70:12 jurisdictions 143:18 justifiable 103:8 justifications 16:12 justify 69:24</p> <hr/> <p style="text-align: center;">K</p> <p>keep 21:9 26:10 32:17 45:1,4,24 54:10 55:10 57:15 62:22 63:22 68:22 72:4 87:8,9 109:4 112:11 142:16 154:5 158:18 keeping 63:16 keeps 59:9,9,10 Ken 35:22 key 40:13 47:20 48:2 54:24 69:12 128:8 153:22 154:2 kick 3:10 kickstart 30:3 111:2 kids 60:1,4 kill 96:1 kilowatt 42:1 52:16 53:4,16 54:1 59:15,17 59:19 74:19,23,25 75:13 112:19 113:1 114:3 115:17,18 119:20,22 120:6 151:15,17 153:17,17 kilowatts 59:14 Kimberly 86:9,10 87:19 96:18 kind 10:25 13:12 30:20</p>	<p>30:21 31:21,22,23 47:19 72:9 76:9,24 78:4 81:22,23 89:23 97:25 102:10 109:18 109:19 112:15,18 118:3 123:20,25 124:22 125:21,24 126:13 127:3,13 129:17 130:8,9 134:20 137:11 138:21 139:19 141:10 144:15 147:20 148:21 149:2 149:8 151:3 kindly 135:13 King 29:7 128:19 King's 27:12 29:7 129:10 Kirstie 2:8 3:12 7:17 7:19 14:5 17:19 135:15 Kirstie's 38:1 knew 37:1 Knight 14:17 know 2:3 3:4,19 10:15 16:13 17:3 18:16,19 18:25 19:23 22:16 23:18 24:25 25:12,12 25:24 26:17 27:2 29:9 29:13 30:12,15,16,22 30:23 31:14 32:11,25 33:11,17,18,23 34:2,3 34:10,13,16,24,25 35:5,10,13,25 36:4,6 37:4,17,20 38:19 50:13 54:7,7 58:2 64:3 76:3,8 81:13,25 82:17 83:9,12 84:3 88:13,15,19,21,24 89:19 91:13 92:18,24 94:5 95:8,23 96:1,11 99:3,6,7,8,11,14,15 99:17 100:10,12,14 100:15,17,18,19 101:5 103:21 105:13 105:14,17,24 106:1,4</p>	<p>107:3,13,19,25 108:22 110:16 111:13 113:4,16 114:4,17,23 115:14,20 118:18 119:8,12,13 120:7,9 120:12 121:17 122:24 123:5,16,18 124:7,9 126:17 127:6 129:3 129:25 131:9,17 132:10,19,22 134:6 134:10 138:13,18,23 138:24,25 139:4,13 139:14,20,23,25 140:7,20,22,23 141:1 141:2,9,10,12 142:6 142:12 143:15 144:18 144:20,22 145:1,4,4,5 145:19 146:13,19 147:20 148:11 149:4 149:5,8,11 150:2,2,3 151:12 152:18,23,24 154:20 155:11,16 156:3,6 157:1,14,18 157:23 158:1,2 knowing 66:17 known 146:8 152:13 knows 155:21 Krutski 86:10 87:20 91:24 96:10 97:1 101:3 104:7 KW 105:14,18</p> <hr/> <p style="text-align: center;">L</p> <p>la 29:8,21 Lab 2:10,10 7:17,21 8:1,15 labor 69:9 Laboratory 120:17 lack 94:9 lag 88:16 Lake 97:13 Lakeland 108:16,17,20 108:20 land 14:21,24 18:4,6 45:7 95:3 105:22,22</p>	<p>landfill 65:19 68:10,13 68:14,24 70:18 75:21 75:22,24 76:1 landfills 68:23 landscape 64:4 126:20 language 20:9 130:7 152:3 large 47:24 48:12 51:23 69:24 78:5 89:14,15,17,22 90:10 90:14 91:3,11 92:12 92:20 99:8 101:1 105:17 126:22 131:3 larger 7:25 largest 6:13,22,25 39:6 47:6 53:15 156:16 laser-like 12:15 late 135:19 136:14 laudable 158:10 law 14:17,20 107:25 142:3 lawn 18:4 lawyer 15:12 lawyerish 14:18 lawyers 139:21 lead 145:10 leader 33:23,24 leaders 110:23 leadership 7:13 12:8 33:23 88:21 94:10 leading 84:14 98:1 115:24 leads 38:25 39:9 56:10 leak 104:3 leaking 105:6,6 leaks 106:2,4,6 lean 37:10 leaps 26:18 leapt 12:7 learn 3:3 58:25 73:14 93:7 143:19,20 learned 42:11 67:17 learning 63:10 92:16 93:11 lease 107:9</p>
--	--	---	---

<p>leases 31:15 leave 15:24 110:3 123:24 136:11 leaves 14:4 112:10 Lee 128:20 left 52:6 legacy 125:16 144:24 legal 107:21,23 legged 145:17 legislation 20:9 30:22 88:11,12 141:5 143:5 150:20 legislative 4:24 9:19 27:7 88:2,9,20 95:9 110:23 126:7 129:15 132:23 133:12 legislator 97:20 legislators 93:21 95:7 95:15,20 96:9 106:23 107:7 130:3 132:19 135:4 137:1 legislature 14:3 19:9 19:14 20:11,17,24 21:7 27:6 33:19 35:13 36:4 37:11 97:15,16 97:18 125:17 128:16 130:9,24 132:6 133:15 138:7,23 lend 150:24 lending 100:17 Lentz 76:4 Leslie 1:19 8:16 159:4 159:10 letter 5:1 let's 14:3 16:2,25 19:7 20:16 21:8,10 24:2 28:12,15 47:1 53:13 54:25 55:6 57:1 64:24 64:24 118:20 120:14 121:11 133:3 level 14:12 16:7 47:10 47:20 89:9 110:16 133:20 139:11 143:20 149:12 levelized 55:20 57:22</p>	<p>levels 60:13 121:10 lever 30:19 Lewis 2:24,24 3:10,12 33:9 40:22 81:3,7,10 82:4,13 106:11 133:3 134:20 136:10 137:14 137:24 138:16 139:3 155:5,7 158:16,20 liability 108:8 licensing 133:15 lies 47:2 life 77:12,15,16 86:25 114:23 143:9 light 130:24 147:17 156:13 lights 63:2 likes 75:25 76:24 Likewise 45:2 limit 125:4 140:24 limited 131:9 154:15 line 5:16 13:21 14:1 35:2 50:5 114:18,19 115:7,9 151:16 lines 48:6 124:11 145:8 linked 64:14 157:14 liquid 45:24 70:25 list 5:18,19 8:5 19:2 listed 41:3 listening 61:3 literally 18:1 little 18:18 22:21 33:14 38:9 39:24 41:9,14,16 43:14 49:19 51:12 53:2 62:7,8,14 64:13 67:21 69:23 70:1,8 71:15 72:14,17,18 77:4 78:16 79:8 80:1 80:9,9 81:25 85:19 86:16 88:6 98:4,6 99:12 101:1,6 109:4 110:2 112:18 121:7 123:10 124:17 127:14 128:22 136:5 137:15 148:7 149:15 153:12 153:13</p>	<p>live 47:5,6 50:15 77:22 96:18,20 97:10 155:19 158:14 living 145:7 lo 23:22 load 70:7 112:20 loads 70:5 loan 74:20 75:17 lobby 138:9 lobbying 88:10 126:4 132:15 lobbyists 137:6 local 49:10 66:22 69:9 87:23 88:7 90:5 112:7 128:20 136:25 148:23 149:12 150:22 locally 66:3 location 68:23 locked 78:11 logics 56:19 logistical 38:3 long 31:24 35:15 48:6 63:13 64:3 66:16 67:18 68:4 71:21 79:1 91:1 100:13 102:3,3 116:5 119:4,10,11,20 126:11 130:18 133:16 133:21 141:24 145:13 145:13 153:7,23 154:8 longer 37:21 101:6 153:19 look 3:21 6:19 18:2 20:18 21:8,10 24:2 42:23 43:20,25 44:7 50:16 52:23 53:14 54:11,25 66:2 67:3 71:5,10 74:2 79:12 94:10,13 98:11 111:14 121:11,18 125:22 134:3 136:24 142:17 156:25 looked 5:18 27:4 74:13 looking 10:21 43:3 45:18 55:16 65:4,16</p>	<p>65:19,23 66:5,7 67:10 68:6 72:9 76:18,19 78:24 79:5,10 82:13 90:12 95:4 99:6 129:6 146:20 147:24 looks 9:9 38:16 52:25 109:16 loss 115:9 losses 115:7 141:25 lost 33:8 lot 3:8 6:14 7:19 10:7 14:5,10 18:19 30:1,15 30:16 31:21 34:1,3,5 34:22,23 38:16 42:20 42:21 43:5 44:1 46:2 46:17 47:10,13 50:12 55:13,14 56:9 57:11 60:12,15 64:7 66:2 67:15 68:9 74:12 79:1 81:9 88:15,16 89:19 89:20,21 90:17,18 91:10,14 93:4 96:2 99:6,9,16 104:10,25 105:2,13,13,18 107:4 107:13,19 111:13 113:2 114:24 120:2,8 120:20 121:12,14 122:18 124:9 126:3 128:23 129:14 135:5 138:4,15 141:21 142:17 146:24 147:2 148:19,25 150:12 152:18 154:4,16 155:23 156:1 lots 40:17 love 76:17 94:24 95:5 low 41:9 66:24 68:17 69:7 112:24 113:1,22 118:17 121:17 124:8 124:14 149:17 150:5 151:3,15 lower 52:6,12 53:2 57:15 60:4 67:1,2 68:19 111:25 122:8 144:12</p>
---	--	---	---

<p>lowered 121:9 lowest 46:22 63:22 115:15 147:2 lung 44:24 Lyman 93:5</p> <hr/> <p style="text-align: center;">M</p> <p>magazine 11:24,25 magically 50:6 magnitudes 92:12 Maine 121:24 Maingot 86:4 88:5 89:13 92:18 97:15 98:25 99:25 100:5 105:12 106:22 107:11 maintain 69:10 115:19 maintaining 62:25 maintenance 104:3,11 major 65:12,14 99:18 99:18 116:20 154:13 majority 88:17 makers 15:4 142:3 making 44:15 49:24 54:23 55:5 59:4,7 64:5 81:16 88:18 89:6 110:7 137:25 153:3 153:22 155:18 man 23:24 management 63:18 84:20 manager 86:13 105:7 137:16 manages 61:18 mandate 142:18 mandatory 13:19 24:25,25 28:13,14,15 manufactured 56:3 94:21 manufacturers 94:23 94:24 99:9 126:25 manufacturing 13:10 56:5 111:15 map 40:21 41:23 43:25 117:10 maps 47:3 127:5</p>	<p>March 9:2 64:25 74:7 159:7 margin 148:10 market 22:6 40:9,13,14 43:12 46:11 47:4,6 68:2 74:14 75:11 92:15 99:22,23 116:16 120:14 128:9 148:6 marketing 51:21 marketplace 94:17 100:20,21 144:5 145:14 markets 63:15,17 119:2,5 Maryland 121:24 122:9 master's 62:1 match 133:20,20 matches 155:12 material 11:2 materials 39:14 math 65:8 matter 34:16 86:2 94:9 148:1 matters 14:22 54:5 maximize 84:25 maximum 70:5,7 Mayor 3:1,4,9,17,20,25 5:8 7:11 158:1,2 mean 22:1 23:10 26:19 30:19 31:2 34:13,15 34:22 37:6 67:2 82:11 83:12 99:5,7,10 100:12 104:20 105:12 105:17,19,24 106:2 107:4,11,12,24 108:24 110:17 118:14 118:22 120:10 130:25 138:19 142:9,10 152:2 156:21,25 meaning 67:1 means 16:18 22:12,12 24:20 27:23 28:5 71:18 139:20 142:20</p>	<p>150:8 measure 13:2,3 75:5 150:1 153:17 measurement 153:21 measures 150:25 153:18 measuring 154:2 mechanical 39:14 mechanism 41:16 71:24 150:8 mechanisms 101:12,20 Medical 158:4,5 medium 100:9 meet 12:11 13:9 22:17 41:1 70:5,20,22 81:7 105:4 112:23 117:15 123:9,14,19 135:4 137:16 154:4 meeting 21:16 23:7 41:16 76:5 80:24 95:10 109:23 131:17 meetings 5:12 95:9 129:5 132:3,4 megawatt 51:11 68:13 73:18,22 76:7 80:13 80:15,18 111:23,23 112:3 118:9,15 121:25 megawatts 30:6 48:23 48:24,25 49:8,9,13,22 50:2,3,9,19 56:11 68:7,8,15 71:2,3,6,19 71:22,23 74:2 76:1 80:22 86:13 93:9 123:3 140:7,10,24 Melissa 31:19 32:23 35:16 139:6 member 15:5,11 19:19 39:9 84:12 members 19:17,20,20 32:4 34:24 126:22,23 126:24 137:1,2,13 membrane 39:12 mention 9:16 18:13 131:9,18 143:13</p>	<p>mentioned 40:22 48:20 64:9 67:1 73:19 75:20 78:23 81:4 92:8,9,10 112:11 122:16 127:5 128:17 130:21 134:17 142:22 144:2 154:4 mentioning 5:1 mercury 17:12 mercy 67:24 message 14:3 23:25 127:25 131:15 149:4 met 25:17 30:24 62:2 70:13 131:20 meter 64:12 74:17 75:10 78:15 91:22 metering 37:5 75:1,1,7 77:8,20 78:15 97:6,17 101:8 141:6,7 method 16:19 methods 69:13 84:24 Metro 6:16,23 12:19 13:16,18 Mexico 47:17,23 mic 33:9 80:5 133:6 153:2 Michael 125:1,14,23 126:2,8 131:20 136:24 138:16 148:18 microphone 14:15 38:6 155:1 mid 22:8 106:24 middle 73:10 141:17 Mike 29:24 mile 112:7 miles 145:8 mill 65:24 million 22:15,15,17 24:18,19,20,23 39:10 49:9 50:2,13,14,15 53:6 58:6,13,14 59:24 59:25 103:24 134:9 157:15 158:14 mind 9:9 45:24 54:10 62:23 72:4 80:13 98:9 98:12 154:5</p>
---	---	--	--

<p>mini 74:6 minimum 16:7 minions 23:19 minus 97:7,7 minute 9:5 19:8 21:11 23:9 31:19 51:3 68:16 106:9 minutes 5:22,23 60:22 79:24 85:18 125:4,24 135:13,17 136:6 mission 126:19 mistakes 106:5 misunderstood 152:13 mitigate 68:4 mitigates 115:9 Mitsubishi 6:22 7:1,2 mix 12:10 63:24 64:4 70:18 71:1 76:2 82:23 86:25 98:12,24 99:2,2 100:24 105:21 113:18 114:14,16 143:3 148:15,16 mixed 70:24 mode 45:25 model 48:8,10 74:14 78:17 124:18 modeled 71:2,5 models 77:5 moisture 67:7 79:8 moment 63:25 64:2 75:8 117:5 money 17:17 25:20 27:1 37:8,13,15 44:20 45:1,4,5 48:9 49:16 50:12 51:17 53:8 55:10 57:8,13,14 58:7 58:16 59:9,10 87:9 93:3,14 100:19 101:8 103:2 112:5,6 138:15 142:17 146:6 150:11 150:24 153:6,19 money's 153:15,16,20 monies 93:19 100:15 102:14 moniker 63:4</p>	<p>month 49:14 50:11,13 50:20 51:1,3 54:2,12 54:13 110:7 131:5 146:11,13,15,17,18 146:21 150:12 monthly 77:12 78:11 months 5:12 132:2 month's 11:23 12:1 moratorium 30:13 morning 3:11,17 6:1 8:17 11:2 15:20 36:16 87:20 125:15 133:7 147:6 mornings 15:21 mortgage 149:20 150:11 152:7 mother 67:24 85:2 motivated 122:25 mouth 94:2 move 9:15 11:8 36:19 60:20 70:15 74:8 80:7 89:1,2 92:24 93:3,12 94:6 97:12 105:11 154:8 155:1 157:2 moved 42:12 52:17 moves 4:21 129:16 moving 12:12 18:10 93:12 106:6 MSW 76:17 mulching 67:13 multi-family 63:7 77:3 77:22 muni 74:6 municipal 15:11 17:6 62:18 65:22 117:7 122:19 municipalities 25:23 150:22 munis 25:25 97:23,25 141:6</p> <hr/> <p style="text-align: center;">N</p> <hr/> <p>N 2:1 nail 136:24 name 2:8 11:9 36:15</p>	<p>41:3 86:9 110:4 145:5 148:18 Nancy 128:18 nation 145:10 national 14:12 84:18 94:5 120:17 130:1 nationally 39:20 141:16 nation's 39:3,5 natural 27:23,23 43:11 43:14 68:17,20 70:19 71:13 72:3,6 92:24 110:5 113:5,17,17 118:16,17 nature 55:8 67:25 Navigant 21:13,17,21 21:21 23:2 105:20 111:9 Neanderthals 138:7 near 69:4 81:17 85:1 nearly 61:23 108:25 127:17 necessarily 69:15 113:22 120:9 141:2 necessary 90:5 100:7 need 3:13 9:25 12:19 13:7 14:12 23:21 31:7 31:8,8,9,9,10,10 32:5 33:2,18,20 35:8 37:20 37:21 38:6,11 44:5 47:21 64:6 68:20 69:16 72:21 73:15 88:18 89:23 91:21 92:20,20 94:22,22 95:13,19,19 96:8 97:19 99:2,14 100:12 100:13,21,22,23 101:20 102:9 110:15 112:11 114:20 115:5 115:9,14 116:18 118:18,19 122:1 124:20 125:7,22 127:24,25 129:14,20 131:11,20,23 132:22 135:20 136:3,12,12</p>	<p>139:14,15,16,20 140:2 141:4,12,19,25 145:10 148:24 149:4 150:8,23 151:18 needed 4:8 70:19 90:17 102:8 needlessly 64:20 needs 5:4 33:20,22,23 33:24 90:3 104:21 123:14 141:3 154:4 negative 100:2 101:3 110:20 negotiate 97:4 119:11 129:15 139:21 negotiating 75:14 negotiation 113:3 139:23 negotiations 87:22 neighbor 147:4 neighborhood 65:5 67:19 neighbors 137:3 Nemours 158:4 net 37:4 74:25 75:1 77:8,19 78:15 97:6,17 101:8 141:6,7 networking 5:25 80:9 80:11 neutral 66:19 100:3 115:12 Nevada 117:23 121:6,9 never 27:8,9 29:1 34:12 34:12 64:1 Nevermind 151:21 new 27:20,21 28:23 47:8,12,17,23 48:10 49:15,16,20 53:20 56:24 95:2,4 103:22 104:7 110:24 111:2 120:20 121:24 122:4 148:8,8 157:22 158:6 158:9 newer 115:17 news 138:13 nice 10:22 40:4,5 58:19</p>
--	---	--	---

<p>96:23 night 7:15 11:9 nine 19:11,17 23:24 61:24 nipped 34:22 nitrous 17:11 Nobody's 106:4 noise 34:3 131:16 noncompliance 25:5 nonprofit 62:19 64:10 nonrenewable 40:19 non-polluting 98:23 non-profit 126:19 noon 136:13 north 42:13,15 43:16 79:2 86:7 117:14,24 117:25 121:8 122:10 156:16 Northwest 42:20 Notary 159:11 note 112:9 notes 159:6 notice 18:12 40:22 41:2 41:19,21 42:2,14,16 43:22 44:23 45:3 50:5 60:15 146:15 155:23 notices 146:20 November 147:14 nuclear 27:20,21 28:23 31:9 43:15 98:13 99:13,13,14 114:2,25 128:24 133:14 134:14 147:10,15,16 148:1 148:11 number 12:23 37:4,9 65:18 67:9 82:1 156:4 numbers 49:23,24 50:8 50:16 56:9 139:1 146:16 147:20,24 numerous 73:10 nurse 94:3</p> <hr/> <p style="text-align: center;">O</p> <hr/> <p>O 2:1 objectives 62:15</p>	<p>observation 138:4 obtain 79:15 obviously 2:16 42:13 67:6,12 77:2 109:20 124:19 occasionally 106:5 occurred 64:23 occurring 72:21 158:7 ocean 16:21 18:17,25 October 3:24 133:9 odds 124:18 offended 99:12 offer 74:9 83:16,18 119:17,24 140:3,5,5 offered 74:20,23,24 84:4 104:8 112:22 offering 75:9 offers 101:9 119:21 office 58:22 93:5 officials 73:12 143:16 153:3 offset 51:15 66:21 71:12 72:5 offsets 64:5 offsetting 72:23 offshore 18:12 19:2 27:10 30:12,13,18,23 31:3,14,15,22 133:13 133:14 134:2,12 Oh 33:10 oil 31:8 52:20 71:13 94:20 98:10,20 134:2 134:12 okay 14:6 16:11,25 17:22 19:7,10 20:22 20:23 21:1,1,3,20,21 22:4,20 23:1,5 24:8 24:15,16,19,20,25 25:5,17 26:6,11 27:4 27:11,18 28:2,10,12 28:13,17,19 30:8,15 31:3 32:13,20 34:12 35:11 37:2,23 38:2 41:3,15,22 42:1,5,24 43:1,3,4,6,9,16,24</p>	<p>44:19 46:4,14 47:1,10 47:21 48:19 49:3,17 49:18,21,25 50:4,10 50:18,22 51:1,3,5,15 51:16,18 52:6,7,14,20 53:12 54:8,10,16,18 54:24 55:4,5,10,17,19 55:20,23 56:13,22,23 57:19 58:18 59:3,8,11 60:11 76:6 80:15,20 84:6 85:15 89:5 97:13 116:16 118:7 125:15 136:9 137:2,9,24 141:8,24 142:15 146:2,11 150:12 151:14 153:25 154:1 154:5,19,25 old 96:14,15 103:21 115:5 olds 60:8 93:22,23,24 Olympics 11:9 once 24:24 69:2 70:16 140:20 141:14 ones 7:14,18 10:9 40:25 55:13 60:17 109:1,5 117:22 145:12 one's 47:3 75:21 online 2:5 147:19 onshore 18:13 onsite 90:20 91:5 oops 109:19 open 15:15 38:10 94:3 102:22 119:18 125:5 125:10 128:1 135:22 136:5 140:1 operation 141:11 operational 3:8 85:4 operations 83:10 86:4 104:2 opinion 33:11,15 95:19 98:17 102:11 103:10 105:11 152:16,25 opportunities 5:25 45:10 51:24 72:8,25 78:23 83:18,19</p>	<p>154:14 opportunity 18:3 83:16 88:14 93:16 111:1,2 111:11 127:16 157:24 oppose 140:23 opposed 130:16 optimistic 88:19 option 65:21 69:7 75:16 options 11:25 43:3 44:5 44:7 55:16 66:12 Orange 1:9 2:4,5,20,25 3:14 4:22 5:11 8:8,11 8:21 9:19 10:19 20:6 51:10,10 68:13 73:6 83:4 110:12 120:17 155:8 159:2 order 10:8 22:17 23:11 30:3,3 63:22 75:6 98:8 156:14 orders 23:12,13 ordinances 5:11 10:24 135:12 Oregon 122:9 organization 6:6,13 11:4 61:21 104:1 126:17,18 132:15 136:16,20 organizations 110:6 organized 34:4,10 138:19 organizing 5:6 7:18 34:11 originally 121:4 143:6 Orlando 1:18,24 6:16 6:23 7:1 12:20 13:17 13:18 15:2 51:9,17 61:17 63:5 73:6,8 76:19 88:7 93:25 157:2 158:3 OUC 26:5,6,7,7 61:20 61:22 62:16 65:2 73:4 73:24 75:3 77:9 81:7 83:2,7 97:21 98:1,1 101:9 102:25 107:13</p>
--	--	--	--

<p>154:4,5 OUC's 73:23 76:15 ought 11:13 17:22 82:5 91:6 145:6 156:17 outline 16:17 output 72:4 76:22 outs 41:14,18 outside 95:7 110:22 128:1 147:5 overall 31:24,25 85:6 overbuild 72:1 overcharged 50:22 51:1 overcome 67:23 79:19 105:8 143:11 overriding 116:17 overseas 67:14 owned 25:21 62:20 64:13,16 97:2,11 owner 37:25,25 86:17 87:4 90:23 owners 90:16 104:5 107:12 108:12 oxide 17:11,11 o'clock 71:16,16 72:16 72:17 113:9</p> <hr/> <p style="text-align: center;">P</p> <p>P 2:1 Pacific 42:20 pack 142:12 package 7:12 page 16:3 pages 10:11 159:5 paid 51:11 55:13 101:8 102:1,5 124:4 137:5 panel 26:25 84:6 85:16 85:22 89:7 102:22,23 106:9 136:1,20 137:24 156:16 panelists 84:10 panels 36:21 56:2,3 57:3 58:8 109:3,3,6 paper 65:24 papers 137:18</p>	<p>paradigm 123:25 parallel 36:17 part 2:5 26:10 33:16 42:24 43:1 64:12 76:16 93:6,10 96:12 97:22,25 99:1 100:24 105:21 107:5 137:10 144:14 participant 155:17 participants 10:17 participate 78:18 143:24 participated 4:14 participating 139:22 particular 8:7 24:21 40:1 67:23 71:6 83:24 particularly 65:16 72:15 parties 133:10 144:13 partner 8:1 partners 6:3,10 8:9 partnerships 83:2 parts 21:9,10 party 112:25 144:14 partyists 138:13 pass 25:24 27:8,10 29:1 30:2,18 40:1 91:23 133:14 153:25 passed 12:9 13:9 21:1 27:8 28:25 29:6,15,16 29:19 30:17 33:17 35:21,22 88:2 123:8 127:20 128:19 129:11 146:12 passes 13:4 134:25 136:18 passing 30:23 passion 86:24 passionate 155:20 path 36:17 patient 126:10 pause 132:25 pay 42:8,9,10,10,15 47:12 49:14 50:21 54:15 75:6 77:8 90:21</p>	<p>91:19 102:2 113:2 122:3 131:4 146:19 149:18 150:17 payback 56:21,23 94:12,12 150:10 paybacks 57:1 149:23 payers 87:7 paying 41:25 42:3 43:2 43:10,13 49:19 54:21 55:14,25 57:2,24 90:21 91:6 payment 74:19 117:2,4 118:11,24 121:24 122:1,3 151:2 157:5 peak 70:4,11,12,13,20 70:23 71:10,15,20 72:15,16,24 114:7 154:23 peaking 154:12 peaks 154:24 peanuts 103:6 peeking 70:21 113:5,6 113:8 peel 118:25 penalties 25:4,4 penalty 25:10 41:1 pending 66:15 penetrate 104:9 penetrations 104:25 105:2 penny 36:5,5 146:11 pension 103:4,7,11 people 5:18,20 9:19 12:23,23 18:14 30:14 35:9 42:8 43:1,7,20 47:12,15 50:15 53:6 56:4 57:4,9 59:10 73:12 74:12 87:24 90:12 91:14 92:4,11 93:21 94:23 95:22 99:6,12 100:19,21 111:13 116:11 117:25 125:7 134:24,24 136:11 137:8 138:1 138:13 144:21 149:4</p>	<p>154:5 156:4 157:5,8 157:15 158:7,10,14 percent 11:14,15 12:9 12:11 16:10,10 17:15 17:16 21:23,24 22:8,9 22:10,11,12,15,20,20 22:23,24,25 23:1,4,5 23:8,10,15,16,17,24 23:25 24:1,18,19 25:1 25:2,16,21,23,25 26:14,15,25 27:15,18 27:25 28:3,4,7,12,17 28:20 36:10,12 41:7 41:12 46:7,9 50:5,6 50:17 52:2,4,4,7 56:12,15,15,17 57:12 57:13,19,21 60:2 63:6 64:7 65:5,6,14 66:15 68:6 71:17 72:3 75:19 75:19 77:3 80:13,16 80:19,21 81:4,6,8,18 82:4 106:3,24 110:18 111:7,16 112:5 113:18 115:25 116:7 116:15 117:13,14,15 117:16,17 120:18,25 121:3,3,13,13 122:7 122:10,17,18,21 123:8,9,11 127:17 133:20 146:13 147:15 147:16 148:9 150:7 percentage 22:12 27:19 40:9 41:3,5 115:22 percentages 154:9 perfect 106:4,23 perfectly 105:16 perform 154:1 performance 152:24 153:2,11,18,24 154:2 154:3 period 52:20 71:20 permanent 90:1 permitted 153:4 permitting 143:14,21 perpetuate 92:16</p>
--	---	--	---

<p>person 52:14 53:5,5 76:24 89:12 140:17</p> <p>personal 62:15 91:15</p> <p>personalized 5:1</p> <p>personally 36:22</p> <p>perspective 61:7 62:5,9 67:22 83:5 84:7 85:8 91:4 133:13 153:5</p> <p>philosophy 104:4</p> <p>photovoltaic 86:12</p> <p>photovoltaics 49:8 66:8 86:14</p> <p>pick 5:20 10:9 126:12</p> <p>picked 9:18 134:22</p> <p>picture 45:22 51:7 142:21</p> <p>pictures 45:17</p> <p>piece 67:3,4 77:11 103:17 149:21</p> <p>pigs 117:24</p> <p>pilot 78:19</p> <p>Pine 1:17</p> <p>pitted 134:12</p> <p>place 8:25 29:23 37:17 68:12 69:3,3 97:24 100:17 101:13,21 115:7 117:12 121:22 128:3 134:20 141:9 147:25 152:6,13,23 155:19 156:21 157:13</p> <p>placed 120:11</p> <p>places 5:4 95:3 154:16</p> <p>plan 33:2,3 131:21,23 132:1 133:10,24 134:17 135:1 136:18 147:12,13,25</p> <p>planet 144:25</p> <p>planning 64:2,3,19 67:21 71:21 72:1 81:22 84:20 135:10 148:14</p> <p>plans 41:4</p> <p>plant 17:5 37:25 40:18 47:24 49:15,20 50:10 70:8 118:17 158:5</p>	<p>plants 45:14 46:5 48:12 49:20 51:24 70:5,6,16 70:22 95:3 113:5,6,6 114:1,24 147:19</p> <p>plant's 48:9</p> <p>plasma 56:25</p> <p>plastic 109:3</p> <p>Plasticine 138:7</p> <p>plate 59:2,11</p> <p>play 31:17 35:13 86:25 99:18 139:19 154:13</p> <p>players 31:8 139:18</p> <p>plays 98:7</p> <p>please 35:11 57:6,6 60:13,14 80:4 125:9 132:17 133:6 135:20 151:22</p> <p>pleased 156:18</p> <p>pleasure 85:15</p> <p>plenty 15:24 103:2</p> <p>plot 52:13</p> <p>plug 9:3,8</p> <p>plus 53:15 54:16 55:1 74:2 75:1 77:3 78:8 78:11 101:9</p> <p>pocket 25:11 150:11</p> <p>podium 3:13 14:13 103:15 155:11</p> <p>point 13:15 45:9,16 47:15 52:11 57:20 59:22 65:13 70:6 104:24 109:10 114:4 127:13 129:21 131:24 133:1 154:22</p> <p>pointed 40:7,22 44:9 45:6 48:23 72:6 113:11 149:16,16 154:11,24</p> <p>pointing 113:19</p> <p>points 25:4</p> <p>poison 34:9</p> <p>polarized 12:4</p> <p>policies 13:13 43:19 63:21 87:15 98:2 121:15 126:21 130:2</p>	<p>130:5 132:23 138:21 149:22 150:1</p> <p>policy 12:5 15:4,14 16:2 19:8,15,23 20:12 20:21 26:9 31:7 46:17 47:11 48:15 54:21 62:8 85:11 87:4 110:9 116:20 130:14,20 139:8,10 142:3 144:1 149:5 151:4 152:22</p> <p>political 95:18 144:15 151:9</p> <p>politically 144:9</p> <p>politicians 60:3,7,10 144:11</p> <p>Polk 108:22</p> <p>poll 146:11,14</p> <p>polls 131:1</p> <p>pollutants 17:11</p> <p>pollutes 95:25</p> <p>pollution 39:19 96:16</p> <p>pool 86:19 109:2</p> <p>pop 109:22 136:6</p> <p>popping 109:16</p> <p>portfolio 1:10 4:18 16:4,4,12 21:3 22:22 27:16,17,17 29:12,16 30:1,2,10,21 36:11 40:6,8 64:1 89:8 90:9 94:18 98:5 103:21 111:8 114:15 127:7 127:20,22 128:21 139:17 147:23 151:7 151:24</p> <p>portfolios 133:22</p> <p>Portilla 29:8,22</p> <p>portion 76:20 89:25 107:2</p> <p>pose 85:22</p> <p>posed 100:1</p> <p>position 12:8 35:14 128:9 147:23</p> <p>positive 77:19 78:19 100:3,6 101:2 109:15 109:18</p>	<p>possibilities 4:3 82:17</p> <p>possibility 48:21 123:6</p> <p>possible 63:22 65:21 79:3 82:10,12 83:23 83:24 114:21</p> <p>possibly 76:1,20 81:19</p> <p>potential 4:3 17:25 18:8,12 19:3 62:13 109:15 110:14 111:6 111:22 158:9</p> <p>potentially 61:12 68:10 125:20</p> <p>power 6:22 7:1 15:3 16:5 30:4,5 40:18 45:13 47:24 48:9,12 49:15,20,20 50:9 51:24 70:5,6,8,22 73:23 78:3 97:18 107:23 112:22 113:12 113:15 114:1,24 115:18 124:13 141:11 141:21,22 148:8 156:13</p> <p>Powerpoints 8:13</p> <p>PPA 78:8 87:22 107:16 107:24</p> <p>PPA's 107:20</p> <p>practice 14:20</p> <p>practices 14:9 125:21</p> <p>practitioners 39:4 86:8</p> <p>preapprove 152:8</p> <p>Precourt 35:5 37:13 133:12</p> <p>predictable 69:15</p> <p>preempt 123:12</p> <p>prefer 46:11</p> <p>prefiled 29:21 30:11</p> <p>preheats 76:12</p> <p>premium 117:2</p> <p>prepare 23:14</p> <p>prepared 9:21 111:5 138:9</p> <p>presence 4:4</p> <p>present 4:5 16:2</p> <p>presentation 8:12</p>
--	---	--	--

<p>15:18,23 32:20 110:2 113:12 116:21 126:12 127:14 140:1 147:8 presentations 8:19 11:12,19 148:18 presented 125:11 presenting 5:15 presided 86:21 president 19:11 29:10 85:24,25 95:8 126:2 126:15 presidents 103:11 press 9:7 58:4 pressure 83:17 pretty 53:18 67:3 69:20 74:5 75:18 96:23 109:5 112:8 114:13 120:18 121:17 126:11 129:8 135:18 prevention 39:19 previous 3:18 previously 143:11 price 22:3 26:13 41:24 42:1,9,17 43:17 44:6 50:23 51:2 53:16 54:3 54:4,7,8 97:4 114:7 119:8,13,14 120:5,7,8 120:13 144:3,4,21,23 144:25 145:3 146:21 149:8 prices 45:4 55:14,15 63:24 103:4 119:22 127:10 149:8 pricing 69:2 primarily 70:14 111:11 121:8 principals 132:5 prior 39:16 61:21 87:11 108:18 priorities 4:24 priority 10:9 133:13 private 100:15,17,18 probably 19:6 36:12 60:8 72:19 77:16 88:23 90:12 98:2 99:3</p>	<p>99:4 103:6,7,8,17 127:1 130:1 154:17 154:18 156:3 problem 32:6 34:16 43:1 55:9 56:13 57:3 95:12 105:4,6 112:21 119:5 130:20 134:13 138:20 141:18 149:17 154:11 problems 46:15 54:19 55:5 106:1 108:14 141:20 142:10 149:9 151:11 proceedings 140:11 process 4:16 5:10 6:14 72:1 79:5 110:7,25 111:3 139:24 processing 18:5 66:23 produce 16:6 75:2 124:15 151:17 produced 16:18 32:8 66:3 123:1 127:10 producer 142:23 producers 126:3,16,25 133:25 produces 99:9 producing 112:6 production 74:16 75:6 78:9 127:23 156:10 156:13 productive 38:12 products 17:4 56:22 79:2 94:21 109:10 professional 84:14 86:2 159:4 professor 39:13,17 profile 71:7 113:10 profit 59:7 107:15 program 33:4 39:11 73:20 74:20 75:5,8,11 75:12,17 77:15,16,18 78:18,20 93:15 101:21 103:17 115:16 120:11 122:19 130:17 133:17 137:22 152:6</p>	<p>152:7,15 153:11 programs 8:3,4,6 39:21 39:25 61:19 62:22,23 63:10 64:11 74:9,11 84:4 88:18 91:19,19 92:25 93:2 97:24,24 98:3 100:10 120:20 123:15 130:16 143:23 153:12,16,22 154:4 progress 82:24 91:1 134:5,19 143:4 progressive 97:21,22 128:11 project 40:1 68:13 73:18,22 74:8 75:14 75:21 76:8,9,10,15,22 80:13,15 83:25 84:20 84:25 86:12 90:11 112:7,25 122:5 134:4 134:10 projects 49:12,25 66:9 68:15 73:21 75:20,23 76:3,6 78:14,22 79:18 89:22 90:11 93:10 130:15 158:7 proliferation 94:15 promise 66:2 99:5 promised 38:9 109:20 125:9 promote 3:5 127:10 promoting 63:9 150:21 prompt 60:23 prone 43:20 properly 105:3,10 153:4 property 49:11 143:5 149:21 proposal 27:7 propose 95:14 proposed 142:5 prospectives 125:18 protect 111:4 127:11 protecting 157:18,18 protection 21:5 31:23 110:11 112:15</p>	<p>proton 39:11 proud 76:16 156:11 prove 128:10 provide 7:7 12:16 67:4 72:11 82:19 102:7 115:6 147:11,19 152:24 provided 4:13 24:23 131:2 providers 112:25 provides 64:19 111:1 130:14 providing 23:15 58:23 84:21 118:15 132:1 provisions 117:5 proximity 115:8 PSC 34:18,19 140:20 147:11,17 public 15:3 19:20,21 20:17 21:2,11,15,16 23:14,19,23 26:2 28:11 29:18,20 39:4 55:2 83:3,6 101:24,25 102:5,17 103:19 110:8 116:3 119:21 122:7 130:12,19 131:2,3 133:17 140:8 146:16 150:16 159:11 public's 127:11 published 21:18,19 pulled 70:11 143:8,8 pump 154:15,17 punting 155:2 purchase 44:10 53:12 73:23 112:22 122:15 purchases 120:24 purchasing 69:24 pure 36:10 purpose 4:15 19:13,13 158:12 purposes 67:14 71:4 130:4 pursue 62:22 63:12 64:14 68:18 75:16 pursuing 65:21 67:12</p>
---	---	--	--

<p>69:8 push 33:12,13 92:1,24 129:17 149:2,12 158:12 pushed 149:6 pushing 74:13 88:1 put 2:5 27:24 37:23 41:24 46:7 48:25 49:11,12 50:19 51:10 54:21 57:6,9 58:7,17 58:23 59:17 60:3,6 65:3,9 67:5 71:22 79:11 81:25 90:15 91:4,14 95:3,16,19,20 95:21 96:19 99:13 101:13,21 103:23 104:1,20 105:14,16 107:3,10,22 108:23 129:19 133:17 145:2 146:16 149:25 150:11 150:15 152:23 puts 86:2 putting 2:21 13:24 45:19 51:25 56:3 58:10,21,24 91:9 92:9 96:3 103:19 104:5 108:9 129:4 144:2 156:10 PV 13:10 26:14,25 51:11 52:4,8 55:18 56:1 57:3,9 58:7,11 58:17,23,24 59:19 60:3,6 69:20 70:1,3 71:2,3,6,7 72:21 73:22 74:11,25 75:14 75:19 86:19 92:9,11 103:8,23 104:5,21 105:16,17,21 106:6 107:10 114:7 PV's 103:19 p.m 1:16 70:21,23 158:22</p> <hr/> <p style="text-align: center;">Q</p> <p>qualifications 152:8</p>	<p>qualified 92:10 152:10 qualities 85:6 quality 127:11 152:17 152:21 quantity 54:11 quarter 111:15 question 10:8,11,14 11:17 42:14 44:7 89:7 94:7 98:25 101:15 102:23 103:16 106:16 108:3 138:3 139:9 143:25 146:2 151:23 154:10 questions 10:25 12:18 15:24 32:21,24 38:4,6 38:13 79:22 80:3 81:1 82:25 85:18,21,22 86:7 87:3 102:22 103:14 106:11,13 110:4 125:12 133:1,4 133:5 135:9,22,23 136:22 137:21 138:1 139:9 148:19,21 quick 9:20 59:22 80:2 80:4 106:11,16 quicker 60:8 quickly 66:3 106:12,14 110:2 111:21 157:7 quiet 81:2 quietly 12:7 quite 47:15 68:11 105:15 110:17 150:18 154:21 quote 11:22 35:11 quoted 32:4 58:5 Q&A 38:10 60:21 79:24 125:5 136:9 155:3</p> <hr/> <p style="text-align: center;">R</p> <p>R 2:1 race 14:4 racking 104:8,11 radius 112:7 rail 78:25 79:3 157:1</p>	<p>rainfall 18:7 raise 64:20 88:25 134:9 raised 41:9,10 128:6 raising 69:25 89:11 130:22 ramp 70:16,19 ran 2:22 37:7 range 37:21 rank 10:8 ranked 110:19 ranking 35:9 rate 21:23 22:9,11,11 22:12,20,23,25 24:17 24:17 25:7,9 26:17 27:12 28:10,10,16,16 28:21,21,24 34:20,22 36:8,9,13 52:22 65:12 65:14 71:17 77:14 78:9,11 81:16,18 87:7 104:3 110:11 112:14 121:11,12,12,16,22 122:5,10,11 127:17 133:9 147:18 151:3 rated 72:4 ratepayers 111:4 rates 26:1,1 34:20 63:23 64:20 69:25 75:17 77:15 102:4 113:2 124:14 rating 25:13 ratings 150:2 rays 47:21 reach 5:4 6:17 12:10 27:25 132:16,19 reactors 115:1 read 9:23 23:11 readily 98:23 reading 137:18 ready 9:21 68:14 79:11 132:10 148:15 real 14:22 26:4 47:20 47:20,22,23 48:2,3,4 48:14,17 54:18,24 59:22 68:9 80:4 111:1 124:22 146:10</p>	<p>reality 24:5 91:4 realize 23:20,21 31:11 50:4 146:23 151:9 realized 5:21 120:24 really 4:8 7:25 11:12 24:3 28:8 34:12,12,13 38:20 46:25 54:11 57:7 62:9 63:16,20 66:6 69:11 72:23 73:3 74:13 76:15 81:16 83:17,19 87:2,10 89:16 106:14 113:10 117:13,18 122:23 124:1 127:8 129:3 130:18 133:23 134:8 134:10 138:19 139:19 144:20,22 145:17 148:1 152:14,14 153:20 156:6,8 158:3 reappoints 23:21 reason 17:8,24 41:22 42:24 43:9 56:7 138:14,16 142:16 147:10 reasonable 11:14 reasons 17:7 43:19 113:16 128:7,8 130:1 rebate 50:24 57:20 130:17 146:20 153:12 rebates 57:23 58:1 rebuttal 32:22 REC 24:14 118:19 119:8,22 received 62:1 73:8 receptive 137:1 recognize 7:16 137:14 recognizes 152:11 recommend 20:20 23:2 recommendation 20:20 20:22 23:8 140:16,24 recommendations 4:17 4:24 10:8 20:3,10,15 21:19,20 recommended 20:17 23:2,3,6 28:11 29:20</p>
--	--	---	---

<p>151:8 recommending 58:15 reconsidered 143:7 record 12:21 14:14 38:6 159:6 recorded 2:5 recover 124:20 recovery 25:18 30:8 34:18,19 102:12 RECs 24:11 25:3 64:6 REC's 118:20 119:1 redo 7:15 21:9 reduce 17:8 115:7 145:10 reduces 17:13 115:8 reducing 59:5 85:4 redundant 91:13 referendum 95:14,20 96:4 135:5 138:5,8 139:3 referred 22:18 91:8 referring 22:3 reflect 36:17 reframe 112:18 regard 85:19 92:14 129:4 regarding 128:16 143:5 154:8 region 2:12 registered 12:24 159:4 registration 6:14 regulate 145:5 regulated 124:5 140:20 regulates 120:4,5 regulation 63:21 65:10 124:2 145:16 regulations 63:21 110:16 regulatory 14:21 rehash 127:1 related 6:15 8:6 73:11 126:4 relatively 66:24 69:14 released 4:12,22 10:5 147:13</p>	<p>releases 9:7 58:4 relevant 157:9 reliability 63:2 reliable 124:8,12 relief 115:6 reluctant 137:11 rely 72:20 152:7 remaining 138:2 remarks 11:22 remember 44:17 120:19 123:11 141:15 156:4 remind 46:2,19 50:22 149:20 150:9 reminder 14:12 reminds 155:24 remote 30:10 109:7 remove 141:4,4 renewable 1:10 4:18 9:11 12:6 13:9 14:19 16:4,4,6,8,9,12,14,16 16:18,22 17:9,10,25 19:22 20:14,15,18,20 20:21 21:3,22,24 22:5 22:6,22,22 23:12 24:10,11,13 25:20 26:9 27:10,16 29:1,12 29:12,16,25 30:1,2,4 30:5,7,10,21,21 31:16 32:7,12,15 34:6 39:6 40:6,8,10,15,19 51:15 54:20 61:18 62:22 63:9,12 65:1,6 76:2 82:21 87:16 89:8 90:8 90:24 92:14,14 94:18 96:15 97:3 98:5 104:18 110:9 111:7,8 112:13,17 114:20,22 115:20 116:16,22 117:1,23 118:1,7,7,9 118:10,12,12 119:7 120:10,24 122:5 126:2,5,16,20,22 127:7,9,19,21,23 128:2,11,16,21</p>	<p>130:15 131:6,10,11 132:13 133:22,25 134:7,8,13,16 138:11 138:21 139:17 141:10 142:11 147:23 148:1 150:21,25 151:7,24 155:9 renewables 12:9 31:9 31:10 34:14,17 36:11 37:6 45:10,11,12 54:15 55:3 58:21 59:8 64:17 65:17 71:1 72:19 82:18 89:2 114:5,14,15 115:13 115:23 147:1 148:8 148:15 150:17 154:8 renewably 51:14 renovating 13:24 repeat 151:22 Rephrase 101:18 replacing 56:17 replenished 37:8 replenishes 16:23 report 9:18,20 20:11 21:6,18 27:6 108:23 159:5 Reported 1:19 Reporter 159:1,4 REPORTING 1:23 represent 5:20 61:15 136:1,17 137:4 representative 5:3 Representatives 94:8 123:22 129:8,19,25 represented 112:4 representing 3:1 19:21 represents 118:9,11 republicans 132:8 require 32:7 69:9 111:17 132:12 150:1 required 24:13 97:1,3 requirement 16:5 40:9 requirements 25:16 115:3 143:14 requires 145:25 147:11</p>	<p>research 9:13 26:22 39:1,5,7,9,11,18,20 154:20 reserve 148:9 residence 105:16 residences 45:20,21 105:17 residential 41:24 87:21 92:2 100:9 101:7,11 106:25 122:13 resides 61:20 residues 65:24,24,25 resistant 109:8 resolved 124:23 resource 7:23 47:7,9,16 62:7 68:18 90:25 115:16 116:24 117:23 118:1 126:5 139:24 148:14,22 resources 13:16 28:18 28:20 48:3 55:8 65:19 92:14 110:5 111:12 116:23 117:20 respect 126:21 128:2 128:11 132:15 134:1 respectively 119:23 respects 128:3 respond 11:1 144:21 144:22,24,24,25 responds 40:11 responsibilities 157:20 responsible 61:12 rest 33:3 52:21 76:14 88:16,17 restrooms 60:24 result 43:19 55:14 157:22 results 10:4 39:4 retail 21:25 22:13,14 41:24 77:14 113:2 121:22 122:5 retain 78:13 return 34:21,22 57:12 57:13,21 101:5,9 102:2</p>
--	--	--	--

<p>revenue 31:13 124:20 revenues 49:10 50:1,3 review 24:23 reviewable 26:1 reviewer 84:18 revise 81:24 RFA 59:16 rhetoric 95:12,12 144:10 ribbons 72:7 rich 111:12 Richmond 1:19 159:4 159:10 right 7:22 21:8 23:1 25:11,14 31:21,22 32:14,14,15 33:1 36:4 40:14 41:13 42:11 43:5,19 44:1,16 45:24 49:23 54:3,10 57:2,16 59:12 61:1 62:6 63:23 63:24,24 64:8 69:21 70:1,21 71:3 72:16,17 73:22 74:10 75:14,23 75:25 77:5 80:6,14 81:2,6,12 83:12 90:13 93:5,7 95:4 97:2,4 100:2 103:14 104:7 105:25 109:19 110:16 116:25 117:12 118:2 118:12,17 123:5 124:25 125:8 130:10 140:11 142:10 143:10 146:5,22 148:16 151:19 152:1 157:24 158:11 rights 18:23 31:15 right-of-ways 48:5 ringer 61:3 risk 96:6 102:18 108:12 risks 62:13 River 70:24 Robinson 1:24 Robyn 84:7,8,12,15,19 84:21 85:14 89:4</p>	<p>135:25 rock 142:12 role 150:4 154:13 roll 75:12 Rollins 148:19 roof 48:10 55:19 56:1 57:3,9,17 77:7,21 91:18 103:25 104:21 104:25 105:10,12 106:1,4,5 107:22 109:3 roofer 105:9 roofers 116:10 roofs 52:4,5 103:19,20 103:24 104:2,5,6,9,20 105:1,2 108:11 rooftop 60:6 107:10 rooftops 47:8 48:4 52:1 52:8 90:15,17 91:5 105:20,23,24 room 10:21 38:17 80:2 103:12 113:2 134:24 135:7 root 135:4 roster 11:6 roughly 147:15 RPR 1:19 159:10 RPS 5:1 9:25 10:1,12 10:18 11:13,15,20 12:9 13:4,14,18 14:9 15:16 16:1,2 17:7,23 19:8 20:23 22:18 23:8 23:15 24:16,22 25:16 28:14 32:3,11,11 33:13 34:17 35:8 37:3 40:1 44:4 46:9,11 48:22 51:5 62:10 64:22 85:8,11 87:10 87:11,12,14,24 88:2 88:11 89:2,13 90:1,4 91:24 92:7,13,22 96:7 96:24 97:1 98:7 99:1 99:17,18,19 100:25 101:13,21 106:17,20 106:24 107:1 116:17</p>	<p>117:6,9,16 118:2,8 120:3,11 122:11,12 122:15,25 123:5,6,8 123:11,14,15,18,23 125:17,20 129:6 133:9 134:25 136:17 136:25 145:15 151:20 RPS's 13:20 116:25 117:3,12 140:13 ruin 86:9 rule 21:6 23:14 24:2,3 29:17 82:20 110:7 122:7 rules 21:2 110:15 run 45:14 48:6 102:18 115:16 running 38:1 58:3 70:17 92:2 102:21 111:20 124:11 runs 12:25 rural 117:7 124:13</p> <hr/> <p style="text-align: center;">S</p> <p>S 2:1 safely 157:2,6 sale 31:15 118:23 sales 14:23 16:8 21:25 22:13,14 27:15 89:18 115:22 124:20 San 4:7,7 Sandy 5:4 Santos 7:20 Sarasota 94:23 sat 86:5 satisfy 133:10 saturation 154:22 Saudi 18:1 save 77:21 110:1 saved 153:17 saving 60:5 144:25 savings 53:10 74:18 78:14 84:1 96:16 116:1,4,15 150:7,15 saw 7:15 133:8 saying 32:4 84:2 90:9</p>	<p>98:17 100:24 130:22 147:25 148:11,24 152:25 says 23:9 31:4,4 34:17 34:18 104:1,2 105:24 131:20 scale 47:18 48:12 84:2 89:14,15 91:25 92:20 92:21 112:1 126:22 scare 114:25 scaring 51:20 scenario 21:22 22:1,7,9 22:10,19,25 52:3 scenes 3:7 schedule 24:6,7 Schmidt 137:14,20 school 58:24 59:23 60:4,5 85:3,5 93:5,6,8 93:13,18 153:25 154:1 schools 58:8,10,18,23 58:24 59:18,19 73:20 87:23 92:9 93:2,4,5 93:17 96:12 104:10 science 61:25 128:4 scope 15:15 screen 8:8 seal 105:10 Sean 7:13,20 seasonally 67:20 seat 61:2 86:15 second 9:3 33:25 60:19 98:9 137:23 149:7,15 section 6:18 sector 2:6,16,18 83:3,6 103:19 110:14 sectors 110:21 secure 100:18 Security 123:7 see 4:11,19 8:5 9:24 15:12 17:3 18:16 23:16 28:5,7,12 29:11 29:12 31:19 38:16 42:23 49:6 50:8,18 53:3,15,18,24 54:2</p>
--	--	---	---

<p>63:14 70:13,14,19,21 71:12 72:2,14,20 75:18,23 76:25 77:17 79:12 81:14,15 87:2 87:10,10,12 88:20,22 89:23 90:15,20 91:12 92:22 93:3,4,8 94:22 96:17 99:21 100:2,18 101:1,14 105:5 108:2 111:10 117:22 119:5 120:15,16 122:8 124:22 130:24 132:2 136:9 142:13 147:19 155:13 seeing 67:19 seeks 29:17 seen 18:19 113:14 117:10 121:18 122:15 122:22 127:5 selected 74:6 self 24:10 25:2 102:10 104:15 sell 24:14,15 37:5 67:17 107:22 118:25 119:1 140:17,18 141:11,11 151:10 selling 51:6 124:19 seminar 60:22 senate 19:12 20:25 21:1,1 27:7,8,11 28:25 29:4,4,5,15,19 30:4,20,23 33:13,13 35:2,19,21,23 88:24 128:19 129:9,23 131:13,14 132:9 senator 5:3 27:12 29:5 29:7,7,8,14,15,21,24 128:18,19,20 129:10 129:11 131:18,21 155:16 send 127:25 senior 9:11 61:22 sense 18:21 36:19 73:24 74:14 82:20 96:15 101:10 104:22</p>	<p>124:9 142:2,14 151:4 154:6 sent 4:25 67:14 93:25 sentences 12:3 Sentinel 93:25 separate 20:10 80:22 sequestration 27:22,24 series 3:1 serious 39:13 serve 142:18,19 served 14:25 15:1,5 19:16 83:13 serves 14:23 39:13 84:16 service 20:17 21:2,12 21:16 23:14,19,23 26:2 28:11 29:18,20 75:16 82:18,22 85:24 110:8 116:3 119:21 122:7 124:8,12 143:17,17 services 1:23 61:20 session 84:6 88:20 129:15 sessions 60:21 73:10 set 11:21 15:17 20:2 23:11 28:16 40:5,8 56:25 64:24 65:1,11 80:8 82:7 92:6 97:6 98:10,12 118:3,3 120:12 121:23 122:23 123:13 124:3 140:17 140:21 141:9 148:17 150:23 151:8,13 154:3 sets 46:10 setting 8:25 124:10 149:8,8 seven 10:11 86:22 sex 57:2 sexy 56:22 57:4 SFO 11:24 sfo.mag 11:25 shading 77:21 shaking 31:19</p>	<p>shape 62:22,23 share 4:9 40:2 94:5 133:25 134:11 shared 41:5 shareholders 25:11 sharing 129:22 Shaun 11:9 shaving 154:23 shell 29:22 shelters 58:8,11 59:15 shifting 17:19 123:25 ship 17:17 44:19 45:5 79:1,4 shocking 42:5 shopping 149:25 shore 18:13 shores 51:19 short 90:14 119:3,6,6 shortly 5:7 shot 130:8 139:13 147:18 shoulder 71:14 show 51:7 96:4,4 144:11 showcase 9:13 showed 66:14 94:1 showing 28:7 55:21 109:16 shown 77:13 111:23 shows 28:8 41:15,17 111:6 121:15 Shugard 5:5,5 shut 115:1 sic 94:24 side 15:12 61:15,16 62:7 64:12 65:18 66:4 66:7 68:11 69:20 70:2 71:13 72:5,7 74:17 76:17 77:2,4 78:1,15 79:11 91:22 96:17 104:1,2 126:7 129:2,9 157:23 sides 68:25 83:11 132:8 Siemens 7:2 signals 144:21,23,25</p>	<p>signed 74:10 128:17 significant 72:2 108:5 similar 74:15 97:17 117:10 130:1 simply 112:24 113:1 115:2,23 140:12 sin 55:5,7 102:18,19 sinful 55:8 single 5:2 41:2,10 60:2 95:22 104:20 sinning 55:6 sir 36:14 sit 14:13 site 70:24 73:23 77:23 148:6 sited 105:16 siting 121:6 sitting 90:19 147:22 situation 91:4 104:19 145:23 situations 48:13 104:22 110:22 six 7:22 59:14 78:18 86:13 132:1 size 20:4,7 106:25 140:25 sized 100:9 sizzle 12:19 Sizzles 12:2 skills 111:17 slides 60:16 126:13 slightly 110:19 143:4 small 2:14 8:3 49:3 86:17 87:4 92:20 100:8 103:17 106:25 142:16 smaller 50:16 91:25 139:22 140:7,10,12 smart 69:13 157:24 Smith 84:13 Snaith 7:13 soaking 90:19 society 145:2 soften 154:23 solar 6:7,9 12:12 16:20</p>
--	---	---	---

<p>18:8 25:15,15,17 26:13,14,20,25 28:18 34:6 36:21 38:22 39:22 41:15,18 45:18 47:4,7,7,8,9,16 48:3 49:1,11,12 50:5,7,10 50:17 51:23,25 52:2,4 52:4,8,8 53:12 56:7,8 56:11,12,16,18 57:7 57:10,17 59:16 65:18 66:7,8,9,10,24 68:25 69:24 71:14,22,23 72:1,15 73:7,11,13,15 73:20 74:3,11,11,24 75:13,16,19 76:7,12 77:1,4,6,10,23,23 80:21,23 85:24,25 86:5,6,18,21,24,25 87:16,22 88:15,18 89:1,17 90:10,14,15 90:20 91:3,11,16,20 92:3,4,22 93:1,2,6,8 93:12,18 94:11,15 96:12,19,20 98:3,6,15 98:17 99:4,17 108:17 109:6 111:11,24 112:1,2,4,9 113:4,10 114:4,7,9,11 115:11 117:21 118:5 122:23 126:24 130:17 141:21 141:22 143:6,21 148:14 153:5 156:2,7 156:9,12,16,19 solar's 95:23,24 sold 118:22 solid 17:6 65:22 67:3 solitary 104:20 Solutions 7:5 somebody 26:19,24 28:7 33:20 37:19 95:24 100:16 107:16 140:21 141:13 147:4 somebody's 142:12 someday 95:23 someone's 107:9</p>	<p>someplace 136:12 soon 52:24 114:21 sorry 16:14,16 22:10 22:11 24:5 28:13 33:6 33:10 71:19 86:9 97:13 131:10 151:21 sort 11:21 12:16 34:8 41:6 47:17,19 61:13 70:14 71:25 72:21 74:6 90:3 121:9,18 139:24 140:1 143:7 145:1,16,23 150:16 157:14 sounds 39:13 142:2 source 16:23 102:10 113:17 114:12 124:4 130:14,16 sources 16:6,19,20 17:9 17:13 20:19 28:22 45:18 south 41:21 42:12,24 45:4 95:6 113:8 121:9 southeast 18:10 115:1 127:6 southern 42:14 43:10 110:5 111:5 so-called 24:14 30:5 space 34:5 103:25 spaces 105:12 speak 18:22 62:16 82:6 83:17 129:3 155:11 speaker 2:23 6:7 14:16 19:12 30:25 31:1 33:7 33:10 35:17 38:20 76:5 79:25 80:4,12,20 80:25 83:1 102:24 103:16 104:13 106:16 106:21 107:8 108:4,9 109:11,22 125:1 133:7 138:3 147:6 151:20,23 152:16 speakers 5:17,23 9:15 14:7,12 60:22 80:8 126:6 135:21,24 speaking 33:5 94:6</p>	<p>special 157:13 specializes 86:11 specialties 84:14 specific 2:17 4:17 10:23 11:16 16:9 20:8 20:9 26:1 39:25 68:23 116:24 121:1 149:5 specifically 5:1 66:1 123:14 specified 119:20 speculate 23:18 speculated 52:2 speculation 30:15,16 33:16 speed 4:9 spend 22:16 24:21 54:5 54:11 58:14,16 59:6 112:10 125:23 138:9 138:15 146:6 spending 53:8,11 152:11 153:6,19 spends 44:12 54:12,13 126:3 spent 39:16 102:15 112:6 142:17 spiking 113:13 spoken 6:8 29:9 sponsor 11:4 sponsors 6:3 11:7 spread 50:11 spur 102:6 square 103:24 stable 114:13 127:10 130:14,16 Stacy 137:14 staff 21:18 23:3 39:1 staffed 19:19 stage 11:21 40:5 137:23 stakeholders 73:14 132:4 stalemate 146:7 stand 3:13,15 14:13 134:1 standard 1:10 4:18</p>	<p>12:7 16:4,5,13 21:3 24:16,22 27:16,17,18 29:13,17 30:1,3,11 36:11 40:7,8,12 89:9 94:19 111:8,8 119:17 119:24 120:4 127:7 127:20,22 128:22 138:12 139:18 140:3 140:5 147:23 151:6,7 151:24,25 standardize 143:21 standards 24:24 61:10 90:9 153:2 154:3 standpoint 81:20 82:2 stands 11:24 35:18 staple 114:15 start 2:11 4:16 6:25 33:22 35:24 52:24 75:18 85:18 86:15 88:18 93:8,11 108:9 114:20 129:20 133:3 135:19 145:20 148:13 153:1 started 3:24 16:1 26:11 41:9 55:16 86:16 88:5 93:13 120:21 125:15 135:10 142:24 starting 4:18 5:7 60:24 66:11 92:22 93:3,4 119:25 state 5:2,14 14:11 15:16 17:18 18:15 19:15 20:21,23 25:22 31:13 32:11 33:18 37:7 39:6 40:6 44:11 44:20 47:5 50:12 53:6 55:10 56:10 57:20 58:4,9,20,22 63:25 87:1,5,9,10,14 89:22 94:17 98:2 107:20 110:16 112:5,10,12 116:19,23 123:12,19 124:6,6 127:22 132:3 137:8 139:10 143:15 143:20 144:6 145:9</p>
--	--	---	---

<p>147:5 148:22 149:11 156:8,17,21,22 157:16 158:14 159:2 stated 96:13 states 9:4 12:4 13:8,8,9 13:19,19 18:11 32:10 40:21,23,25 41:6,8,20 42:14 43:5,11,15,18 43:22,23 44:1,17,22 45:3 52:15,17 53:1,15 53:15,20 55:1,13 61:10 88:16 92:6 98:20 107:3,4 115:24 116:7 117:8,11 118:2 119:3 121:14,21 122:8,20,21,22 123:3 123:9 125:22 126:1 156:11 statewide 92:1 state's 41:3 87:13 status 9:18,20 16:2 statutory 17:2 142:18 150:23 stay 35:14 61:4 63:2 124:21 125:9 135:23 136:10 stays 112:5,6 steam 76:13 steel 113:25 stellar 5:16 stenographic 159:6 stenographically 159:4 step 66:17 81:14 116:12 135:9 145:12 stepped 59:2,11 125:6 steps 4:20 116:4 141:6 142:14 153:8,8 step-wise 41:6 Steve 35:4,11 37:13 133:12 stewards 157:19 stick 36:19 37:2,3 stimulate 37:10 127:12 stimulating 112:7 127:15</p>	<p>stimulus 7:11 37:8 58:7 93:1,3,15 stock 25:12 114:15 stockholders 25:6 Stocks 11:24 stole 151:16 stood 10:2 stool 145:17 stop 62:6 64:24 149:24 149:24 stopped 53:8 155:13 stopping 158:20 storage 28:23 71:24 152:18,19,20 154:12 154:12,16,18 story 57:11 155:25 strategy 5:9 stream 76:19,20 118:11 streams 118:24 Street 1:17,24 streets 130:25 131:7 stress 109:17 Strickland 36:15,16 strictly 100:25 stringency 122:15 strong 89:6 94:18 structure 151:11 structures 103:22 struggle 103:23 struggling 120:23 121:7 stuck 145:23 students 9:12 39:4 85:6 93:7 153:25 studies 3:2 111:9,23 study 4:2,11,13,15,17 4:22 5:2 6:5,15 7:14 10:6 20:4,6,18,19 21:14 31:7 66:14,18 105:20,21 stuff 31:23 54:5 74:3 88:22,22 100:10 108:2 subject 86:2 144:20 subsidies 55:24</p>	<p>subsidizing 46:16 54:20 substantial 50:15 52:6 52:9 Substantially 50:9 substantive 6:20 success 13:2 successful 68:11 123:15 132:14 suggest 132:11 145:1 suggested 127:18 135:1 suggestion 131:7 suicide 95:18 Suite 1:24 suited 113:11 sulphur 17:11 summary 9:22 21:17 summer 23:13 70:12 70:20 113:9 sun 32:9 41:17 45:7 48:18 60:15 90:19 155:24 sunshine 87:1 96:2 156:6,7,17,21 Sunwide 93:17 sun's 47:21 super 51:14 154:19 Superior 86:5 support 9:25 10:1 13:13,16 29:13 31:16 35:19 38:21 84:21 92:17 115:4 123:23 151:4 supported 39:6 105:20 supporters 130:6 131:14,14 supporting 7:3 34:11 supportive 7:6 supports 3:20 Suppose 56:14 sure 4:20 13:17 16:3 27:5 63:22 64:5 71:22 114:9 126:20 127:4,5 128:17,25 130:6 131:4 137:16 138:10</p>	<p>144:9 153:4,9 158:12 surprised 9:23 surveyed 13:25 suspect 150:20 sustain 109:2 sustainabilities 63:1 sustainability 61:19 104:18 sustainable 9:11 39:19 61:20 84:24 85:1 91:10 101:21 130:18 133:21 146:9 sway 34:23 swine 117:24 118:1 switched 56:19 sworn 156:5 symbol 41:17 symposium 1:9 5:16 8:18,20 9:11 10:10,15 10:17,22 11:7,21 13:2 95:11 134:24 135:11 158:22 159:5 symposiums 3:2 4:12 6:4,9,15 7:4,8 8:12,14 8:14,21,25 10:13 11:5 12:25 system 71:7,20 74:25 86:12 93:6,8,11,13 96:19,20 101:8,11 104:21 107:22 142:25 143:9,10 144:14 systems 6:22 7:2 45:22 59:14,17 69:10 74:24 75:6 78:6 86:19 87:22 89:14,15,18 93:18 96:12 100:9,9 101:1,7 102:15 104:8,12,15 105:15 108:18 140:10 140:12 152:23 153:4 153:6,10 Szaro 26:7 61:17 62:6 76:6 80:15,22 81:1,6 81:9,12 82:6,16 83:12 143:2 148:4 153:1</p>
--	---	---	--

T			
T 127:3	tangible 143:6	temperature 76:13	32:10 41:19 42:11
tab 90:22	target 49:13 115:20 117:18 120:4,12,22 121:2	temporary 89:20	43:21 46:9,11,17
table 53:14 129:19,23 143:8,12	targets 116:22 117:13 122:16	tend 6:23 18:21,23 41:21 45:12	47:14 48:7 53:22
take 5:22 10:17 27:11 32:21 37:12 45:7 46:23 51:25 62:19,21 63:13 64:10 69:4 73:7 79:7 83:18,19 90:8 95:14,20 96:5 100:10 101:6 106:9 107:14 107:16,18 126:7 130:25 133:15 134:21 135:8,13 139:11,13 140:2 141:1 142:8,14 147:7 153:7	tariff 34:8 74:15,18 78:13,16 110:11 119:25 120:2,4,6 133:18 140:6	tends 112:1 120:11 139:22	55:17 66:23 67:16 72:13 78:4 82:23 95:25 100:13 107:5 112:4 123:11,24 136:15 137:7 138:11 139:14 143:13 150:19 151:7
taken 4:20 34:7 41:23 49:5 60:25 116:4 129:10 134:1	tariffs 34:5 74:13 129:23 130:6 140:9	tension 124:23	things 2:13,17 6:15 7:13 9:24 11:17 12:6 17:6 18:18 22:5 24:9 32:16 36:22 38:4 41:19 42:23 43:15 44:9,25 45:15 46:18 48:11 53:17 58:3,19 61:6,15 63:20 65:23 66:5 67:10,13 68:6 72:9 73:2,17 77:1 78:21 83:4 87:3 96:17 104:4 107:4 113:25 114:21 115:6 116:17 125:21 126:7 127:1,3 127:8,9 128:12 129:14 134:15,23 135:8 136:8,12 141:2 143:3 145:3 147:2 149:5,10,12,23 152:17,18 154:3,6,20 156:20 157:10 158:6 158:10
takes 98:10,19 113:25 141:24	tax 37:6 49:10 50:1,3 54:14 55:4,6,7 57:18 60:4 62:21 64:10 69:22 87:8 95:16,17 102:18,19,20 107:14 107:19 143:6 144:10 145:1	term 63:14 64:3 66:16 67:18 68:4 71:21 81:17 90:14 97:4 100:13 119:4,4,6,6,11 119:11,20 130:18 133:16,21 153:7,23 154:8	think 3:19 6:8,12,23 7:19,21 9:17 10:6,9 10:16 11:6,10,11,18 12:16,22 13:5,19,20 14:2 17:16 18:18,20 18:23 29:3 30:14 31:7 33:25 34:9 35:2,18,23 35:24 36:8,8 37:15 38:18 42:8 45:24 46:3 46:12 55:12 61:9 65:12,13 66:2,23 76:9 79:18 80:18 81:3,19 82:2,4,16 86:25 87:8
talk 3:22 10:14 13:24 17:1 19:7 23:19 31:19 39:24 43:23 46:2 53:13 56:21 57:9 58:12 62:4,9,14 65:20 73:2 93:23 94:16 96:6 96:7,7 98:5,5,6 126:13 127:14 130:2 136:25 137:12 138:4 139:5 141:16,16 157:1	taxes 54:25 88:25 130:22 143:5 145:24	terms 7:7 13:6 16:3 114:19 132:1 144:4	
talked 34:10,11 47:11 76:23 94:23 98:4 119:10 120:2 129:1 139:25 148:25 156:1	taxpayer's 36:5	terrific 36:3	
talking 22:2,2 28:21 33:4 70:10 92:19 103:2 104:16 125:16 130:11 131:19 148:2	tea 138:12	terribly 156:22	
talks 56:19,23 94:25	team 14:24 15:10 39:9 139:21	territory 75:16 77:10 124:11 140:21 142:19 143:17,18	
Tallahassee 86:23 88:11 96:4 125:3	TechAmerica 6:11,11	test 9:8	
Tampa 157:2	technical 15:17 82:1	Testing 86:2	
	technically 15:18 83:15	tests 154:2	
	technologies 26:18 39:2 63:19 65:15 69:12 81:22 85:1,4 92:15 99:1,16 124:15	Texas 53:19	
	technology 2:11,14 8:2 18:14 19:5 27:3 66:4 79:9 81:20 99:10 104:7 128:3,11 155:18	thank 3:12 6:2,6 15:19 36:16 38:3 40:4 60:18 61:4 62:5 84:5 87:19 92:8 102:24,25 106:9 106:10 109:25 126:9 126:10 147:6 148:17 155:14 158:1,13,15 158:16	
	technology's 6:13	thanking 2:21	
	television 38:8 56:25	thanks 2:2 7:19 8:21 14:5 80:25 124:24 144:19 158:20	
	tell 3:15 8:7 26:23 30:24 35:4 37:14,14 43:7 57:5 64:17 108:24 109:9 137:6,6 155:15,21 156:11	theirs 82:8 117:17 122:17,18	
	tells 33:2	theoretically 26:2,3	
		theory 26:4,12	
		thermal 52:5,8 68:25 69:7 70:1 86:19 96:19	
		thickness 70:15	
		thing 7:19 10:3 21:9	

<p>87:13 88:20 91:21 92:18 93:20,21,22 95:16 96:3,8,16 98:1 98:9,11,18 99:14 100:6,6,11 101:3,23 101:24,25 102:2,4,16 103:3,7,10 104:15,17 106:7 123:2,12 129:25 130:11,13,20 132:23 133:10 134:14 134:17 135:6,19,21 136:20,23 137:24 138:5,6 139:9 140:4 142:8,9,13 143:21 144:2,8,10 145:11,14 145:15,15,16 146:6,8 146:22 147:12,16 148:10,12,13 149:14 150:13 151:3,10 153:22 156:20,24 157:19</p> <p>thinking 10:25 11:1 48:11,12 130:10</p> <p>third 6:8 112:25</p> <p>thought 85:7 110:1 140:25 156:7</p> <p>thoughts 134:21 135:8</p> <p>thousand 50:9 113:20</p> <p>three 4:12 8:21 10:16 23:11 24:24 30:5 37:18 42:8 49:2,12,25 54:2 66:10 67:20 70:14 72:7 83:15 86:10,22 88:8,9 108:21 126:18 134:23 135:6 145:17 146:14</p> <p>thrilled 155:12</p> <p>throat 129:17</p> <p>throw 142:22</p> <p>Thursday 1:15</p> <p>tie 38:15,17 155:24 156:4</p> <p>tied 74:5 102:1</p> <p>ties 38:16</p> <p>timber 18:4</p>	<p>time 4:5,6 6:8 15:24 26:14,15 32:17 36:3 37:1 38:10,11 45:12 52:14,20 57:5 58:3 60:19 63:3 80:6,9,11 94:11 102:21 109:10 110:2,3,3,24 112:24 115:21 125:9,13 126:3 131:9 132:11 135:23 141:24 145:13 148:16,22 149:15 155:2 156:8</p> <p>timeframe 147:22</p> <p>timelines 116:22 117:19</p> <p>times 42:9 50:9 54:2 80:17 111:13 116:8 124:1</p> <p>timeshare 77:11</p> <p>timing 28:3</p> <p>tire 117:23</p> <p>titled 12:2</p> <p>toast 138:15</p> <p>today 2:3,19,21 3:3,13 3:22,23 4:15 5:17,19 10:4,14 11:8,12 12:19 12:22 13:3 14:5,16 18:14 39:23 40:5,20 44:16 47:11 61:13 71:4 76:4,4 84:11 87:3,18 94:10 114:8 117:11 121:3,20 125:11 135:5 148:18 155:13 156:11</p> <p>today's 10:15 43:12 77:17 103:4</p> <p>told 3:12 17:23 20:14 34:9 37:13 53:17,22 76:17 96:22 135:17</p> <p>Tom 7:6 155:21</p> <p>Tommy 14:16,17,20 36:15 40:5 41:5 44:9 45:6 48:20 116:20 125:15 127:2,18</p> <p>tomorrow 44:8</p>	<p>top 10:13,13 21:13 48:5 51:10 52:9 59:17 70:18 74:25 92:9 96:19</p> <p>topic 10:13 61:16</p> <p>topics 73:11</p> <p>torrefaction 79:7</p> <p>total 22:13,14 28:21 49:12,22 146:18</p> <p>touch 71:9 92:3 112:16 115:14 117:4 120:1 127:2</p> <p>touched 89:5,24 115:14 116:20 148:20</p> <p>touching 126:6</p> <p>tough 151:10</p> <p>tougher 19:1 149:15</p> <p>tourism 157:15</p> <p>tourist 51:12</p> <p>tourists 51:8,18,20</p> <p>track 61:5 148:12</p> <p>tracked 118:20</p> <p>tracking 155:3</p> <p>trade 111:16 119:6 147:1 149:10</p> <p>trades 119:4</p> <p>traditional 66:6 110:21</p> <p>traditionally 48:11</p> <p>train 157:3</p> <p>training 73:11</p> <p>tranche 50:18 51:4</p> <p>tranches 30:5 48:22</p> <p>transaction 139:20</p> <p>transcript 159:5</p> <p>transcription 8:17</p> <p>transcripts 3:22 38:7</p> <p>transition 147:24</p> <p>transmission 48:6 115:5 121:5,8 141:23</p> <p>transmit 141:15,23</p> <p>transparency 116:18 139:16</p> <p>transparent 119:15</p> <p>transport 141:18</p> <p>transportation 44:14</p>	<p>45:23,25 46:4 67:12 78:25</p> <p>trash 75:25 76:17</p> <p>travels 125:2</p> <p>trek 74:12 109:19</p> <p>tremendous 6:20 7:23 51:24 156:14</p> <p>trend 114:18,19</p> <p>trends 120:15 122:14</p> <p>trick 123:18</p> <p>tried 11:10 127:19 146:17</p> <p>Triple 116:13</p> <p>tripled 114:2</p> <p>trouble 108:12</p> <p>trucks 68:10</p> <p>true 156:24 159:5</p> <p>try 3:15 5:19 11:18 26:9 30:17,18,19,20 38:13 68:3 78:3 83:21 130:6,7,23 138:10 142:12 143:21 149:2 149:11,12 152:3</p> <p>trying 3:5 26:22 34:4,6 61:4 63:13,17 66:8 67:22 81:21 91:2 110:12 115:21 129:20 132:4 134:19 140:9 143:15,22,23 156:2</p> <p>tune 86:23</p> <p>tuned 124:22</p> <p>tunnels 141:17</p> <p>turbine 18:25</p> <p>turbines 18:16,20</p> <p>turn 40:16 84:9 89:3 113:7</p> <p>turns 49:8 50:25</p> <p>TV 2:4 3:14 8:11,22 14:13</p> <p>Twitter 132:17,18,18</p> <p>two 4:25 6:25 9:1,16 13:1 24:9 29:21 32:16 37:18 47:3 60:16 65:16 70:11 75:22 77:5 78:22 81:24</p>
---	---	---	---

<p>83:13 99:4 106:11 110:6 116:17 118:24 133:4 135:6 139:8 144:13,14 152:17 157:6 two-pronged 3:25 type 2:18,18 13:18 36:24 71:24 102:9 112:2 113:22 119:25 types 65:17 79:18 111:17,17 116:11 119:24 121:16 153:22 156:19 typically 69:14 146:17 150:7</p>	<p>127:17 unexcused 25:5 unexpected 109:15,21 unfavorable 21:22 22:1,7,10,19 unfortunate 48:7 unfortunately 44:24 49:17 56:11 84:3 96:21 109:20 UNIDENTIFIED 33:7 33:10 35:17 76:5 80:12,20,25 83:1 102:24 103:16 104:13 106:16,21 107:8 108:4,9 109:11 133:7 138:3 147:6 151:20 151:23 152:16</p>	<p>151:15 useful 46:24 user 69:4 142:24 uses 16:19 54:1 59:23 67:11 76:11 usually 113:8 118:20 119:19 149:20 Utah 42:21 45:2 utilities 15:2 16:6 19:23 24:15 25:21 27:21 34:5,10,23 47:24 51:22 59:1,2,11 61:7,11,15,18 62:4,20 82:6 83:8,18,21,22 84:4 85:11 102:12 107:17 116:6 117:7 119:16 122:19,22 124:5,16,18 133:19 140:8,19 143:22 147:11 151:14 utility 22:13 24:12,21 48:9 49:13 51:9 62:11 62:16,18 63:11,14 64:14,16 79:20 81:22 82:5,7,9,14 83:14,24 89:14,15,17 97:2,11 99:21 100:16 102:4 102:13 107:9,9,13,21 107:24 111:25 113:7 113:7 115:16 123:25 124:2,4,10,18 140:20 154:5 utility's 118:13,14 utilize 72:18 84:25 U.S 12:2 39:10 73:9 84:17</p>	<p>varies 43:18 120:3 variety 127:5 128:7 various 19:21 20:19 43:18,19 44:25 45:20 132:4,4 vary 117:13 vast 17:25 vehicle 9:3,8 vein 98:21 vendor 74:6 78:5 vendors 67:17 venture 2:9,9,10,16 7:17,21 8:1,15 128:5 verification 153:21 verify 75:5 versus 51:19 58:16 83:7 vested 19:21,22 viability 22:6 viable 99:3,4,10 vice 84:16 video 8:18 videos 3:21 videotaped 8:11 view 18:17,24 63:14 95:1 104:24 vigor 69:8 Virginia 42:4,5,7,7,10 42:11 44:23 45:1 virtual 77:19 vision 95:15 96:5 visionaries 94:9 visit 7:24 voice 123:23 voices 14:15 voila 23:24 volatile 113:17 volatility 113:19,22 volume 20:8,8 voluntary 13:20 36:24 volunteering 58:17 vote 137:2,2,3,4 voted 15:10 43:9</p>
U			
<p>UCF 1:17 2:10 7:9,17 7:25 8:3,6,8,9,15 9:12 10:19 62:2 137:18 UCFopportunity.com 8:5 UCF's 39:14 ugly 157:17 Uh-huh 100:1 ultimately 61:11 119:12 unanimously 4:23 unbelievable 158:3 unbundled 118:21,23 uncertain 67:23 68:1 uncertainty 120:14 undergraduate 9:12 underground 13:24 154:17 underlying 12:18 underneath 48:5 understand 9:7 34:2 83:13,14 84:23 125:8 136:4 155:11 understands 35:7,8 unduly 110:25 unemployed 111:19 116:12 unemployment 110:18</p>	<p>union 15:16 unique 88:14 111:1 147:22 uniquely 86:23 unit 61:21 140:18 United 9:4 12:4 13:8 18:11 40:21 43:18 52:15,17 53:15,20 123:3 units 108:10 universities 26:22 university 8:23 39:9,17 62:1 111:10 unlock 143:16 upbeat 60:12 updating 115:5 upfront 74:21 153:12 ups 2:11 6:25 urban 17:6 usable 105:22 use 14:21,24 30:19 43:14 44:16 46:14,21 52:14 53:23 54:2,9 55:6,7 76:14 77:20 78:3 79:3,12,13 99:16 105:23 109:6 114:22 114:24 117:15 122:23 144:15 150:14,15</p>	<p>Valencia 5:5 valuable 49:12 value 46:21,22,23 47:1 49:11 67:2 68:20 72:23 118:10 119:7 122:2 144:12 variable 119:7</p>	<p style="text-align: center;">V</p>
W			

<p>Wait 23:9 51:3 waited 64:22,22 waiting 64:24 129:18 136:9 wake 94:21 walk 3:13 136:13 walked 20:6 wall 44:6 55:19,25 56:2 57:24 Wal-Mart's 48:5 want 6:2 9:1,15,16,24 10:1 11:12,22 12:14 13:4,6,10 15:25 18:16 18:24,24 24:18 26:3,7 26:9,9 27:1 34:7,13 36:4,6 37:14 47:15 52:11 58:12 59:5 60:14 62:9 63:22 64:17,18,19 73:2,13 73:13 82:9 84:8 88:25 95:18 96:7 98:21 102:21,25 103:9 104:3,6 110:12 112:17 115:13 116:24 116:24 123:24 124:10 128:13,13 131:16 133:18,20 134:12,18 136:4,10,16,19 137:14,19 139:2 142:16 143:2,13,19 145:22,25 146:7,9 147:7 148:5 152:5,16 153:9 154:10 155:15 157:10 158:13,18 wanted 5:18,19 10:14 20:9 31:12 45:16 78:1 81:13 111:22 112:16 120:1 124:8,8 129:12 129:16 144:19 150:19 153:5 157:25 wanting 88:21 wants 12:13 23:25 26:4 31:5,5 33:13 63:2 142:8 146:5 warning 130:8</p>	<p>warranty 105:9,11 washing 51:19 Washington 122:10 wasn't 27:16 28:14 115:3 waste 17:5,6,6 18:3,4,4 18:5,5,5 46:25 65:22 76:19,20 79:12 99:7,9 117:23,24 118:1,2 watch 11:10 12:15 62:6 watching 11:8 109:17 water 18:11 41:15 56:7 56:13,16,18 57:7,10 57:17 66:8 70:2 74:11 74:24 75:19 76:12 79:13,15 86:18 96:20 108:17 114:22,24 115:3 142:22 154:15 waters 30:14 water's 114:23 watt 114:7 way 13:3 24:7,15 34:25 35:12,12 48:1,11,16 52:11,23 55:9 63:19 64:18 70:6 71:8 73:3 76:14 80:23 85:11 89:1 91:23 94:23 98:1 101:2 114:18 116:5 124:3 125:3 134:22 135:14 140:5,13 141:13,19 144:16 146:12 148:20 149:3 151:5 153:14 157:21 ways 37:9 63:10 72:10 78:24 83:23 91:1 120:3 130:7 137:4 142:25 143:1 148:24 149:1,22 wealth 55:11 weather 108:5,7 website 6:19,21 7:16,23 8:8,15 9:4 137:19 websites 104:14 week 4:21 30:25 45:14 128:6 131:20</p>	<p>weeks 4:25 welcome 12:21 went 42:5 49:1 52:21 71:5 74:15 96:22 146:21 West 1:17 42:4,4,6,7,9 42:10 44:22 45:1 wet 66:6 we'll 3:22 5:7,16 14:11 14:18 19:5 44:7 52:24 54:19 58:18 59:21 60:3,12,24 64:3 71:25 73:23 79:19 80:7,8 82:22 88:1 92:3 94:21 125:8,10,10,12 136:3 136:8 137:8,12 148:15 154:22 we're 2:13 5:6 12:22,24 13:14,15 15:21 16:3 38:8,12,21 41:25 43:6 43:9,17 44:4,21 45:18 45:19 46:6,15 48:11 48:13 51:4 52:25 53:17 54:21 55:17,25 58:9,10 60:19,21 61:4 62:14,18 63:10,13 64:4,17 65:4,10,15,21 65:22,23 66:1,4,17,25 67:10,19,22 68:6,14 69:6,18,21 70:21,22 72:9,19 73:2,5,9,16 73:19,20 74:5,7 75:8 75:14,23,25 76:2,18 76:19 77:3 78:24 79:2 79:5,10,11,20 80:16 80:16 81:12,21 82:19 82:21,22 87:25 89:18 90:1,2 91:15,15 92:18 92:22 93:1,4 96:5,11 100:22 102:21 105:19 106:4 108:2 110:6,18 116:1 124:1,14,25 125:7 131:11 134:19 135:19,21 136:9 137:22 142:10 145:8</p>	<p>145:23 146:6,9,19 147:22 148:2 155:1 155:12 158:20 we've 4:20 6:12 8:24 18:2,6,6,7,7,8,11 37:5 37:6 40:15 47:11 48:14,15 55:7 58:19 58:24 63:16 64:21 65:11,16 66:12 68:11 68:12 70:23 73:17 74:3 77:13 78:18 88:14 95:6 104:11 113:14 115:4 116:2 121:18 122:15 124:12 124:12,13,13 125:18 126:1 127:19,20 137:10 138:19 142:13 142:19,23 144:17 145:24 155:11,22 156:25 Wharton 84:13 wherewithal 7:8 whips 18:9 White 11:9 wide 94:2 117:18 widely 43:18 104:9 widening 13:25 willing 31:12 32:21 96:5 131:4 143:20 146:3,9,22 win 137:8 wind 16:21 18:12,13,14 25:15,16,17 28:19 32:9 45:18 98:15 105:5 114:12 115:11 117:21 123:1,1,3 126:24,25 141:16,16 141:17 windmill 19:1 windmills 18:16 windows 149:19 winds 19:2 winter 70:2,3 72:14,19 72:24 wintertime 72:13</p>
--	---	---	---

<p>win/win 32:18 wisely 46:14 wish 107:25 withdraw 79:14 wonder 36:17 wonderful 14:14,19 130:13 134:18 wood 17:6 67:5 79:8 word 4:6 8:17,17,19,19 60:14 worded 134:23 words 11:10 25:1,6,19 48:8 118:24 145:24 work 17:22 28:12 31:17,20,20 33:25 36:23 56:4 63:10 72:10 77:9 83:23,24 87:17,20 88:6 91:14 101:22 106:2 107:8 107:24 110:4 116:12 132:6 135:2 136:19 139:8 142:25 143:1 143:16 145:14 151:13 152:3 153:7 155:22 157:19 worked 58:20 working 5:11 7:21 13:14 59:1 69:6 73:3 73:20 75:23 76:21 77:5 78:22 89:18 107:11,21 137:22 138:8 151:14 155:8 workout 30:20 works 24:7 35:12,12 61:23 84:22 97:13 world 2:16 63:14 109:7 128:1,10 world's 47:3,6 145:14 worst 95:25 worth 49:9 50:2 68:8 153:15,16,20 157:4 wouldn't 6:4,4 82:9 99:15 100:5 138:11 wow 23:24 wrap 109:14 125:8</p>	<p>137:25 wrapped 79:23 125:21 wrapping 125:24 write 9:5 106:17,19 107:6 writes 86:7 writing 65:3 written 107:1 wrong 16:15 17:20 152:19</p> <hr/> <p style="text-align: center;">Y</p> <hr/> <p>yeah 57:15 80:6 99:1 105:12 year 4:12 12:12 15:11 15:22 19:25 20:2 22:17 24:22 26:14,15 27:19 28:9,25 29:3,5 29:6,15 30:18 31:1,2 32:4 34:1,1,13 35:4 35:23 37:10,18 41:7,7 44:12 48:24,25 50:23 51:2 52:23 54:6 59:24 59:25 60:7 64:25 68:1 70:7,11,12 77:17 78:20,20 93:22,23,24 96:14,15 100:16 101:9 103:5 119:21 122:12 123:1,3,23 128:7,19 129:8 130:19,19 134:25 136:18 143:4,10 147:11,11,23,24 149:20 150:11,20 157:16 years 3:16 24:24 30:6 37:22,22 39:16 41:11 48:25 56:8,17 61:24 62:3 67:20 68:12 69:3 78:12 80:18 82:21 84:19 86:10,20,22 88:6,8,9 91:14 92:5 100:14 101:6,7 103:21 108:18,24 113:13,15 120:8,19</p>	<p>121:15,19 123:17 124:2 126:18 127:19 131:2,12,19 142:24 146:15 147:14 149:23 149:24 150:10 151:2 156:1 year's 88:19 147:13 yellow 41:15 yesterday 9:21 York's 53:20 young 85:2 93:20,21 youth 92:13 96:11,16</p> <hr/> <p style="text-align: center;">Z</p> <hr/> <p>Zacco 1:23 8:16 zero 54:17,17 157:23 zoning 14:21</p> <hr/> <p style="text-align: center;">S</p> <hr/> <p>\$10 122:12 \$10.35 113:20 \$100 54:9 \$100,000 152:9 \$190 54:12 \$2 54:14 146:17 \$2,300 57:11,12 \$250 75:9 \$27 114:8 \$35,000 63:8 \$38 50:12,13 \$4 51:1,2 114:8 146:20 \$4,000 57:17 \$600 53:5 \$96 54:14</p> <hr/> <p style="text-align: center;">0</p> <hr/> <p>0 75:18 09 147:14</p> <hr/> <p style="text-align: center;">1</p> <hr/> <p>1 21:7,22,23 22:11,12 22:15,15,17 23:3,5 28:17,18,19,20 51:11 71:16 73:18 78:20 106:3 111:23 115:25 116:6 121:13,13</p>	<p>1st 159:7 1,200 145:7 1.2 50:13,14 1.25 157:4 1.4 122:9 1.7 122:9 1:00 113:8 10 5:20,22,22 43:10 46:7,9 50:17 53:6 57:23 58:6,13,14 59:15,17,19 60:2,7 66:15 68:6,12 72:17 73:22 74:2 75:13 80:13,15,18 92:5 93:22,23 96:14 101:6 103:5 119:21 124:10 125:4,24 138:24 147:11 149:23 10's 154:9 10,000 123:2 100 71:2,5,19 105:14 11 22:24 11:30 125:9 135:18 11:40 125:9 110 48:25 49:13,22 50:3 93:9 1154 27:7 98:4 12 39:9 43:6,10 53:5,21 71:3 110:18 113:2 115:18 117:14 123:11 127:17 12.3 41:25 55:25 12:18 1:16 158:22 13 147:15 13,000 51:4 139,000 56:10 14 53:20 14th 9:10 140 39:1 15 11:15 12:9 19:20 26:25 37:22 42:19 55:23 60:22 80:22 92:5 100:14,16 110:7 111:24,25 117:13 119:21</p>
--	--	---	---

152 56:11	2002 7:12 52:24	250 76:13	57:25 74:24 75:1,2
158 159:5	2003 58:23	250,000 62:18	76:7 77:18 101:9
16 55:1 76:1 84:19	2004 108:18,20 120:21	27,000 50:8	105:18 112:25 140:24
16,000 108:25	2005 15:4,6 113:20	29 42:18 117:11	149:23
17 4:23 10:8 115:24	114:3		5,000 49:22 53:4 90:11
18 1:15 50:14 53:6	2006 12:8 15:1,4,11	<u>3</u>	90:12
119:23	19:9 55:20 156:9	3 74:23 77:14 80:16	50 25:4 63:6,6 64:7
19 39:10 53:20 75:15	2007 15:8 20:11 23:13	113:21	77:3 93:23 96:14
19,000 116:13	2008 3:25 15:1,3 20:24	3,300 50:19	105:14 116:14 120:25
190 54:18	21:17 23:7 114:25	30 13:19 26:13,15	121:25 133:20 156:11
1982 114:8	141:5	44:14,15 55:22 57:19	50,000 111:7
<u>2</u>	2009 21:7 23:23 59:1	69:3 86:17,19 87:24	501(c)(6) 126:19
2 20:8 22:9,20,23 24:17	114:4 123:7	91:14 103:21 106:24	54 113:18
24:19,20,22 25:1,2	2010 1:15 30:6 55:23	111:24 112:1 136:6	55 59:12
28:11,19,20 36:12	74:1 121:4 159:7	148:9 149:20 150:7	<u>6</u>
49:2,9 52:3,4,7 54:16	2011 30:6	150:10,10	6 23:4 97:8
54:16 56:12,17 71:16	2012 30:6	30,000 94:25 95:1	60 44:12,18,18 108:17
75:19 77:13 78:20	2013 65:5 80:13,20,23	300 48:23 74:10	60's 52:15
80:16 105:18 115:17	81:5 82:4	31 20:11 21:17 23:7	605 1:24
122:7 156:12	2015 55:23,24 56:1	28:5 49:14	620,000 50:17
2nd 9:2 88:1	2016 147:15	31,000 52:7	689 54:1
2,000 4:14	2017 23:4 113:19	310 30:5	<u>7</u>
2,500 114:3	2018 147:15	32 120:6	7 42:7,20 45:14 65:5,14
2.1 122:9	2020 11:14 12:10,11,12	32,000 52:9 56:16	80:12,21 81:4,6 82:4
2.5 103:4,7	21:25 22:20,24 23:1	32801 1:24	7,500 114:3
2.8 80:19	23:15,17,22,24 24:1,1	33 41:12 122:17	70's 52:18
2/10th's 116:6	27:15 28:3,4,7 41:12	35 13:19 40:23 41:8	7135 97:16
20 11:14 12:11 19:20	81:8,19 111:8 116:15	56:8 71:19,23 72:3	75 25:21 47:19 111:16
22:8 23:5,8,10,15,16	122:17 123:8 148:15	350 71:18	112:7
23:17,21,24,25 24:1	2021 28:8 117:14	36 1:17	<u>8</u>
27:14,15,16 28:3,4,6	2025 117:13	<u>4</u>	8 42:20 72:16 123:9
36:10,11 37:22 39:16	2030 117:18	4 77:18 113:1,8 115:17	8.6 42:22
42:3 50:5,6 52:2	2040 23:17	122:10 138:8	8:00 1:16
57:12,13,21 78:11	2041 23:5,9,10	4,000 52:16	80 112:9 124:2 142:24
81:8,18 82:21 88:6	21 28:8	4:00 70:21,23	157:15
100:14,14,16 101:6	21st 124:14	40 20:22 56:14,15	83 146:12
111:7 119:22 120:8	22 68:14 70:12	103:21 117:17 122:18	85 12:23 20:10 47:19
121:3 123:8 135:17	23rd 3:24	407 1:25	112:5
136:6 138:24 140:7	23.8 42:16	42 50:20 51:3	<u>9</u>
140:10 151:2 158:14	24 45:14 68:16 70:17	425-6789 1:25	9 23:23 50:2 55:25 74:7
20's 154:9	25 22:8 23:1 25:16,23	430 1:24	112:2
200 30:6 48:24 134:9	25:25 27:18,25 36:11	45 3:16	9:45 60:24
2000 52:23	49:8,9 50:2 71:17	<u>5</u>	
2001 15:2	117:15,15 121:25	5 21:24 22:10,20,25	
	135:17 147:16		

<p>90 12:23 58:8,10 59:17 59:19 68:7,8 120:18 94 121:3 97 54:13,15,16,17 98 17:15,16</p>			
--	--	--	--