DOCKETED		
Docket Number:	16-IEPR-02	
Project Title:	Natural Gas	
TN #:	213526	
Document Title:	Transcript of 08/26/16 Joint Agency Workshop on Aliso Canyon Action Plan for Local Energy Reliability in Winter 2016/17	
Description:	N/A	
Filer:	Cody Goldthrite	
Organization:	California Energy Commission	
Submitter Role:	Commission Staff	
Submission Date:	9/8/2016 8:37:41 AM	
Docketed Date:	9/8/2016	

THE CALIFORNIA ENERGY COMMISSION AND CALIFORNIA PUBLIC UTILITIES COMMISSION

In the Matter of:)
)
Aliso Canyon Action Plan) Docket No. 16-IEPR-02
for Local Energy Reliability in)
Winter 2016/17 Joint Agency,)
Integrated Energy Policy Report)
Workshop)
)

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

AUDITORIUM

21865 COPLEY DRIVE
DIAMOND BAR, CALIFORNIA

FRIDAY, AUGUST 26, 2016

10:00 A.M.

Reported by:

Mason Booker

JOINT AGENCY PARTICIPANTS

California Energy Commission

Robert B. Weisenmiller, Chair

Karen Douglas, Lead Commissioner

Andrew McAllister, Commissioner

Governor Brown's Office

Cliff Rechtschaffen, Governor Brown's Office

California Public Utilities Commission (CPUC)

Michael Picker, President

Catherine Sandoval, Commissioner

South Coast Air Quality Management District

Laki Tisopulos

Los Angeles Department of Water and Power

Michael Webster

California Independent System Operator

Thomas Doughty

Mark Rothleder

California Air Resources Board

Michael Gibbs, Assistant Executive Officer

JOINT AGENCY PARTICIPANTS

Division of Oil, Gas, and Geothermal Resources

Ken Harris

Public Adviser

Alana Matthews

PRESENTERS

Staff Presentation

Rob Oglesby, California Energy Commission

Catherine Elder, Aspen Environmental

Mark Rothleder, California Independent System Operator

Edward Randolph, California Public Utilities Commission

Kenneth Silver, Los Angeles Department of Water and Power

Third-Party Assessment Presentation

Anatoly Zlotnik, Los Alamos National Laboratory

Gas Supply and Delivery Representatives

Roger Schwecke, Southern California Gas Company and San Diego Gas and Electric

Evelyn Kahl, Alkatar and Kahl, Customer Coalition

Norman Pederson, Southern California Generation Coalition and Customer Coalition

Chris Tokas (via telephone), Office of Statewide Health Planning and Development

Key Stakeholder Representatives

Issam Najm, Porter Ranch Community Neighborhood Council

David Meyer, United States Department of Energy

Timothy O'Connor, Environmental Defense Fund

Steven Schiller (via telephone), Lawrence Berkeley National Laboratory

Melanie Frye, Western Electricity Coordinating Council

Jessica Duboff, Los Angeles Area Chamber of Commerce

PUBLIC COMMENT

Lauren Faber O'Connor, Deputy Chief Sustainability Officer, Mayor Garcetti's Office

Gil Hurtado, City of Southgate Council Member

Steve Tye, City of Diamond Bar

Jorge Marquez, City of Covina Mayor Pro Tem

John Stout, Peak Reliability

Tom Williams, Citizens Coalition for a Safe Community

Harvey Eder, Public Solar Power Coalition

Chanel Frampton, Greater Los Angeles African American Chamber of Commerce

Patricia Lacara, Save Porter Ranch

Loraine Linquist

Walker Foley, Food and Water Watch

Elena Semper

Matt Pakucko, Save Porter Ranch

Helen Attai

Jane Fowler

PUBLIC COMMENT

Mark Morris

Gary Passmore, Congress of California Seniors

Peter Wiersma, Osceola Consulting

Kristina Zitkovich

Jasmine Borrego, TELACU Residential Management

John Howland, Central City Association

Tracy Hernandez, L.A. County Business Federation

Ted Green

Elizabeth Hawley, Valley Industry and Commerce Association

Tracy Stanhoff, American Indian Chamber of Commerce of California

Wayne Brown, South Orange County Economic Coalition

Whit Peterson, Irvine Chamber of Commerce

Alexandra Nagy, Food and Water Watch

Phyllis Dixon, Black Business Association

Ken Phillips, The Valley Economic Alliance

Heather Stratman, Association of California Cities, Orange County

Patricia Renteria, Southeast Rio Vista YMCA

Samuel Robles, Weingart East Los Angeles YMCA

Desi Gamez, Weingart East Los Angeles YMCA

Bryan Starr, Orange County Business Council

Aki Leung, Center for Asian Americans United for Self Empowerment

Kirby Van Amburgh, Kheir Center

PUBLIC COMMENT

Sarah Rascon, Los Angeles Area Chamber of Commerce

Laura Lechtenberg, United Way of Greater Los Angeles

Nancy Starczyk

Gene Kim, Imprenta Communications Group

Ranji George

Jason Hector

Anthony Duarte, Regional Chamber of Commerce of San Gabriel Valley

Jaime Garcia, Hospital Association of Southern California

vii		
<u>AGENDA</u>		
<u>Page</u>		
Setting the Stage - Introductions 1		
Welcome and Introductions 6		
Purpose of the Reliability Action Plan 9		
Staff Presentation 14		
Rob Oglesby, California Energy Commission Catherine Elder, Aspen Environmental Mark Rothleder, California Independent System Operator Edward Randolph, California Public Utilities Commission Kenneth Silver, Los Angeles Department of Water and Power		
Third-Party Assessment Presentation 85		
Anatoly Zlotnik, Los Alamos National Laboratory		
Gas Supply and Delivery Representatives 103		
Roger Schwecke, Southern California Gas Company and San Diego Gas and Electric Evelyn Kahl, Alkatar and Kahl, Customer Coalition Norman Pederson, Southern California Generation Coalition and Customer Coalition Chris Tokas (via telephone), Office of Statewide Health Planning and Development		
Key Stakeholder Representatives 151		
Issam Najm, Porter Ranch Community Neighborhood Council David Meyer, United States Department of Energy Timothy O'Connor, Environmental Defense Fund Steven Schiller (via telephone), Lawrence Berkeley National Laboratory Melanie Frye, Western Electricity Coordinating Council Jessica Duboff, Los Angeles Area Chamber of Commerce		

	viii
<u>AGENDA</u>	
	<u>Page</u>
Elected Officials Input on Reliability Action Plan	180
Public Comments	190
Closing Comments	251
Adjourn	256

PROCEEDINGS

10:04 A.M.

SACRAMENTO, CALIFORNIA, FRIDAY, AUGUST 26, 2016

CHAIR WEISENMILLER: I'd like to thank everyone for their being here today. A few brief comments.

First, I was going to, for context, point out, today's meeting is part of a very comprehensive program the governor put in place to respond to Aliso Canyon. Cliff will certainly give -- fill in some of the broader context. But for this part what we're really looking at is just the issues of reliability, and an action plan we have developed to really respond to mitigate those risks, although obviously we can't eliminate risk totally.

So I'd like to first start out by thanking the South Coast for their hospitality. A great facility. Really a good opportunity for us to use this. And again, really appreciate all of your hospitality on this.

Certainly want to thank the staff for arranging this, putting all this workshop together, particularly my Chief of Staff, Kevin Barker. But obviously, Heather and her IEPR team have been really critical in organizing this. Again, I'd like to thank the public for their participation. Getting the perspective of all the stakeholders is certainly going to be very helpful.

I think in terms of -- let me introduce my 1 2 colleagues on the dais. I guess what I'll do, since Michael 3 will do some additional comments, is I'll just walk down this side and let you walk down that side. Does that make 4 5 sense? 6 PRESIDENT PICKER: All right. 7 CHAIR WEISENMILLER: So, Cliff Rechtschaffen from 8 the Governor's Office there. Karen Douglas, Energy 9 Commission. She is Chair of the IEPR this time. Andrew 10 McAllister, who is another Energy Commissioner. Laki from 11 the South Coast. And Ken Harris from DOGGR, certainly 12 really front and center on these issues, on many of the 13 Aliso Canyon issues. Michael Picker? 14 15 PRESIDENT PICKER: Thanks. I'm just going to be 16 real brief, but let me start with introductions. 17 Michael Gibbs from the Air Resources Board. 18 Doughty from the California Independent System Operator. 19 Mr. Webster, Michael Webster, we have a lot of Michaels here 20 today, from the Los Angeles Department of Water and Power. 21 And my colleague from the Public Utilities Commission, Catherine Sandoval. 22 2.3 We've had one previous meeting to talk about 24 issues at Aliso Canyon and how to mitigate the after effects 25 of the leak, especially reliability to the electric system.

And that was mostly in the context of this summer. And we knew at that time and said several times that we had a problem this summer, this winter, next summer. And so I don't want to speak too optimistically because we're not actually through this summer. Classically, there are heat events in Southern California all the way through September.

I will say that the challenges in the summer tend to be around meeting peak electricity demands and gas for peakers. Winter tends to be really different. So those are some of the issues we'll talk about today.

I think that there the challenge is serving millions of individual home customers, as well as the electric industry, and as well as trying to make sure that the oil refineries have the gas fuels they need to keep transportation working here in Southern California.

The 18 measures that we adopted this summer were not exactly easy to put in place. And I want to thank a lot of people for their participation. It took a lot of work to get those measures in place. They were critical to avoiding the potential for outages this summer. I think we actually were somewhat lucky early in the summer. Because if the June heat storm, which was very early by most planning objectives, had continued we could very well have faced the worst case. I think we should not plan for luck, although it's always good to have it.

I just want to point out that two of my colleagues worked very hard, Commission Sandoval on implementing energy efficiency programs that could be adopted quickly to reduce household use, particularly low-income household use of electricity and gas. Commission Florio also fast-tracked a proceeding on demand response that allows purchase of those resources to help meet electrical needs.

I have to say that one of the critical measures is something that none of us ever really thinks about unless we're deep in these industries, and that's the operational flow orders by which people order and dispatch gas to meet those needs. That's a very difficult one and involves the work of not just the CPUC and the Independent System

Operator, but also LADWP who is one of the major users, a variety of other gas users in Southern California, including the SCAPA which is a consortium of small gas users for local public utilities. Everybody had to adapt to this very quickly. And I think it was one of the essential ways that we actually did not approach those critical limits that could have put us into a voltage collapse.

I want to remind people why we're nervous about this. A voltage collapse that came as a result of the failure of the Imperial Irrigation District's dispatch system shut down Tijuana and San Diego. The economic losses to San Diego alone from an electric outage was over \$130

million for just 13 hours.

So this has been a significant accomplishment.

And it didn't come without a lot of work and some money, and

I hate to say it again, but some luck.

I've got to thank the people of Southern

California especially, because they did a lot to avoid using electricity during those heat storms, particularly that early June heat storm. And also the Mayor of Los Angeles who actually was one of our key messengers trying to help people understand that their individual choices make a big difference in how the electric system operates and how we ensure that we avoid those kinds of catastrophic collapses that we saw in San Diego.

I've got to say that we're now facing a whole different set of challenges around winter. And we have ten proposed measures that we plan to put into place. We'll hear about them today. We'll hear about why we think they're necessary. We'll hear a little bit of how they're going to work, but we'll also probably take other ideas.

As was in the case of the last hearing we had, we actually adopted additional measures after public comment.

One of them is fairly untested. And again, I have to thank the mayor for starting to step up to this message that we can also, as individuals, curtail our gas use, just as we do electrical use. You can be careful as to when you use

```
natural gas, and that will also help us to avoid the
 2
   potential challenges that come from a system that was
    dependent on Aliso Canyon, but where Aliso Canyon is not
 3
   available.
 4
 5
              I guess you just can't go very far wrong if you
 6
   depend on the hard work, ingenuity, and the goodwill of
 7
   Californians. But I will say that it doesn't hurt to pray
 8
    for a little luck on top of that, just don't count on it.
 9
    Thank you.
10
              CHAIR WEISENMILLER:
                                   Thanks.
11
              Let's go on.
12
              MS. RAITT: I had a few housekeeping remarks, if
13
   you'd like me to jump in with those. Okay.
              CHAIR WEISENMILLER: Sure.
14
15
              MS. RAITT:
                          Thank you.
16
              I'm Heather Raitt from the Energy Commission.
17
    the Program Manager for the Integrated Energy Policy Report,
18
    which this proceeding is part of today.
              And I just wanted folks to be aware that we are
19
20
   being broadcast through our WebEx conferencing system, and
21
   that it is being recorded. And we'll post an audio
    recording on the Energy Commission's website early next
22
2.3
   week. And there will also be a written transcript recorded
24
   and posted in about a month.
25
              Also, please be aware that the workshop is being
```

live streamed so that remote participants can view the speakers and presentations.

And I wanted to thank our presenters for being here, and to please limit your remarks to the time allotted. And I'll be reminding folks of our time restrictions today.

And I wanted to let people know that at the end of the day there will be an opportunity for public comment, and we're limiting comments to three minutes. And if you're attending in person, please see the Public Adviser at the entrance to the auditorium to sign up to make comments.

And for participants on WebEx, please use the chat function to tell our WebEx coordinator that you'd like to make comments.

And remote participants viewing the meeting via livestream will not be able to make verbal comments. Those participating remotely must use WebEx or the phone to comment verbally.

And written comments are welcome, and they are due on September 9th.

And then if you'd like, I'd just make a few comments about the scope of the workshop.

So the purpose of the workshop is to discuss electric energy reliability in the Los Angeles Basin for this winter. The staffs of the Energy Commission, CPUC, California ISO and LADWP will present the draft Aliso Canyon

Action Plan to Preserve Gas and Electric Reliability for the Los Angeles Basin Winter --2 UNIDENTIFIED MALE: (Via telephone.) 3 Is anyone 4 else on this phone call? 5 MS. RAITT: -- Winter 2016 and 2017. UNIDENTIFIED MALE: (Via telephone.) Yeah. 6 7 Apparently they're having issues with the audio at that 8 location, so we're just --9 MS. RAITT: Okay. 10 CHAIR WEISENMILLER: We hear you very well. 11 MS. RAITT: So the action plan includes Staff 12 recommendations for near-term mitigation measures to improve 13 energy reliability in the area for the coming winter. Discussion of the role of gas storage facilities 14 15 and natural gas infrastructure in the state's long-term greenhouse gas reduction strategies is not a topic of this 16 17 workshop. Those issues and long-term solutions for energy reliability of the Aliso Canyon storage facility as not 18 19 available long term will be addressed at workshops in 2017. 20 Also, the safety of the natural gas storage wells 21 is outside the scope of today's discussion. The Department of Conservation Division of Oil and Gas and Geothermal 22 2.3 Resources is developing a comprehensive safety review of the wells within the Aliso Canyon storage field. The Division 24 25 anticipates holding a public meeting on its findings in the

near future. 2 So to recap, the topic of today is gas and electric reliability in the Los Angeles Basin for Winter 3 2016 to 2017. Thank you. 4 5 Oh, and so next is Cliff, I believe, Cliff Ro from the Governor's Office. 6 MR. RECHTSCHAFFEN: Thank you. Thank you, 8 Heather. And Heather started outlining some of what I was 9 going to say. I'm Cliff Rechtschaffen from Governor Brown's 10 11 Office. I want to thank the South Coast, as well. And I want to point out that the folks on the dais represent the 12 13 breadth of agencies who have been working together 14 collaboratively on the Aliso Canyon situation since the leak 15 first started. 16 And the Governor has been focused laser-like on 17 the problem since it first happened, setting things in 18 motion with an emergency declaration. We have benefitted, as Chair Picker said, from tremendous collaboration with the 19 20 L.A. Mayor's Office, with the other Southern California 21 utilities, as well as the Los Angeles Department of Water 22 and Power, and all the agencies you see on the dais. 2.3 I'd like to situate what we're doing, as Heather

was starting to, in the broader context. We're here to

focus on a Winter Action Plan and Risk Assessment that looks

24

25

at how we can meet electricity and gas needs for the winter, given the operational constraints the Aliso Canyon facility is operating under for all customers, all classes of customers, residential, commercial and industrial, and also discuss the mitigation measures, conservation approaches, and other efforts we collectively can take to minimize any risks that exist. This is separate from the Summer Action Plan. As you've heard, we detailed and implemented something like 20 measures.

2.3

You'll hear later how successful they've been, the cost savings and the energy savings and so forth were -- you'll hear this refrain from all of us, we're not out of the woods yet for the summer. The summer still exists through October 15th. But through good luck and a lot of good planning, the implementation of those mitigation measures, we've successfully managed any risks we've had for the summer.

Now again, this is part of a broader suite of measures underway. The DOGGR, which supervisors the safety of Aliso Canyon, issued emergency regulations governing the operations there earlier in the year. They've had hearings on permanent regulations that will increase the safety of wells at the facility. There was a recent hearing, and they're in the process of finalizing those regulations.

There's a comprehensive safety review that's being

implemented at the facility. Every well at the facility is undergoing a battery of six safety tests developed in consultation with our National Labs. And every well has to either pass those tests or be plugged and isolated from the rest of the facility.

At an appropriate time we anticipate that SoCal Gas will request permission to start reinjection of gas in the facility. That will trigger a review by DOGGR, a public hearing at which DOGGR will consider the evidence, decide whether or not to authorize that. The Public Utilities Commission will have to concur in any determination before injections can resume.

That's on the safety side.

In addition, there are ongoing investigations of what happened and why. Those are proceeding, including a root cause analysis to figure out the underlying causes of the accident.

Separately, the Public Utilities Commission by statute is tasked with making a decision about the long-term viability of Aliso Canyon. That process will take place over the next year. The PUC is already starting to do that ahead of the statutory schedule.

And then in addition to that, there is a study mandated by the legislature. The governor actually initiated this in the first place. The legislature ratified

this request. There's a study being done by the California Council of Science and Technology, which is an umbrella group that brings experts from around the state to look at the long-term viability of not just Aliso Canyon, but all natural gas facilities and natural gas infrastructure in meeting the state's energy and climate goals.

So that's -- those are additional things that are happening.

This report was prepared by four agencies, the California Independent System Operator, the Energy Commission, the Public Utilities Commission, and the Los Angeles Department of Water and Power. And as you'll hear, there were actually three separate analyses that were conducted.

For the first time, a natural gas balance analysis was conducted, and that looks at the balance between gas supply and demand under a range of scenarios.

Secondly, something called hydraulic modeling was carried out by SoCal Gas. That's a sophisticated look at what happens at very peak demand periods to the gas throughout SoCal Gas's infrastructure. And that was reviewed independently by two outside consultants. And you'll hear from them later today, and their report is available to the public.

And then third, the electricity grid operators,

the ISO and LADWP, did an analysis of what kinds of curtailments might we face from electricity, given the range of scenarios that we're going to encounter in the winter.

And as you'll hear from our panelists, there are risks that continue to exist due to very cold weather, accident, unforeseen outages. But again, if we follow Michael Picker's directive and we're lucky, assuming favorable conditions, we should be able to get through the winter without curtailments. But the margin of safety will be thin. And Aliso Canyon provides a very important margin of safety. And if there are very, very cold days or unforeseen contingencies, the analysis show that it could be necessary to utilize Aliso Canyon.

2.3

Again, as with the summer, the suite of mitigation measures and conservation efforts will be critical to minimizing any risks and making sure that we get through the winter without curtailment or disruption to any customers.

So with that, we look forward to a full day of testimony.

I also want to reiterate the point that Heather made that this is a public dialogue. The comments are due by September 9th. The Summer Action Plan was specifically changed and improved. Mitigation measures were added in response to very valuable public comment. So we certainly welcome that, both oral comment here today and written

comments later on. 2 Thank you. CHAIR WEISENMILLER: I guess we need a couple 3 minute break on the A/V issues. 4 5 (WebEx is tested.) (Colloquy) 6 7 MS. RAITT: All right. Thank you. Sorry for the 8 delay. 9 So we have our first panel, which is a Staff presentation. We have Rob Oglesby from the California 10 11 Energy Commission, Edward Randolph from the California Public Utilities Commission, Mark Rothleder from the 12 California Independent System Operator, Kenneth Silver from 13 the Los Angeles Department of Water and Power, and Catherine 14 Elder from Aspen Environmental. 15 16 MR. OGLESBY: Thank you. My name is Rob Oglesby. 17 I'm representing the Energy Commission. And I wanted to preface the presentation because we had some folks that 18 19 weren't able to hear the introduction that were on WebEx, 20 that we're here today to talk about Aliso Canyon winter 21 reliability. There are some other proceedings that will be 22 coming up to talk about the safety review and reinjection 2.3 and future use of the facility and, indeed, longer views of 24 natural gas. 25 We have a panel here that is broadly

representative of state and local agencies who have been involved with this. The panel that I'm kicking is the panel to describe what we studies as we've looked towards winter reliability. And it follows an earlier effort that was done to look at summer reliability. So with that as a preface, let me dive into the first slide.

We've had amazing coordination between agencies and the energy sector in analyzing the challenges that have been faced since the Aliso Canyon began leaking and then was put out of service. Agencies that have contributed to this report, and there have been other inputs that we've had included, the Department of Oil and Gas and Geothermal resources, or DOGGR, the California Public Utilities

Committee, the Energy Commission, of course, the California Independent Systems Operator, and the Los Angeles Department of Water and Power.

Next slide.

So after continuing work on the -- we have quite a bit of echo here. Shall I hold for just a moment while the --

CHAIR WEISENMILLER: Hold for a moment. I mean, the good news is we wanted to have a hearing down here. The bad news -- and we have a great A/V system. The bad news is we're having some issues.

(WebEx is tested.)

(Colloquy)

MR. OGLESBY: So let me begin with an apology for the technical difficulties, particularly for those that are turned in remotely. It continues to be a challenge to always have the systems working perfectly when you're employing a lot of technology. Let me pick it up where I left off.

I just talked about the amount of collaboration that was going on between agencies and other participants in the energy sector to do an assessment that builds on an earlier assessment we did for summer reliability. This builds on it for winter reliability.

And the assessment shows that risk for this winter is lower than it was estimated for the summer. Gas from Aliso Canyon continues to be a key took to handle that risk, more of a hedge. We have 15 billion cubic feet still in the Aliso Canyon and available for withdrawal.

Even if the proceedings that are scheduled for the future -- that would be scheduled for the future to consider the reinjection of gas into Aliso determine that gas can be injected in October and November, there will still be more than a normal degree of risk of curtailments. And it's anticipated that abilities to withdraw would not be the same as they were before the incident, and any restrictions on operating.

CAISO and LADWP system appear able to rely on generation sources outside the SoCal Gas service area to replace lost input, and this basically relates to imports of electricity, so long as no other transmission or generation outages occur.

And, of course, we've talked about the weather.

And uncertainty remains about what the weather holds for us

and the performance of key equipment that we rely on.

The reports identified ten mitigation measures that will help, in addition to the ones that we've implemented previously, and those include gas conservation, and perhaps using some of the 15 billion cubic feet that are still held at Aliso, if needed.

So where are we now?

2.3

Summer is not over. In fact, we still have some three digit forecasts in this region in the coming week, and significant risk remains. We have 15 billion cubic feet remaining in the Aliso field. The safety review of the Aliso facility, of the wells at the Aliso facility, is continuing. And it's unknown when SoCal Gas will apply to begin to seek to begin making injections. And even if that is granted, the cleared wells may produce less due to influx of liquids as they ramp up in some differences and constraints in how they would perform.

SoCal Gas must retain enough wells to withdraw 420

million cubic feet per day through the summer. We're going to keep on with the 21 mitigation measures that were implemented for the summer. And as Cliff Rechtschaffen noted, we made it through the heat waves in June and July, in part because of the good planning and the implementation of the mitigation measures, but also with a little bit of luck since some of the heat episodes were not as severe as forecast.

Now DOGGR is overseeing the -- next slide. DOGGR is overseeing the comprehensive safety review. And the goal is to ensure that no other wells at Aliso could cause another major leak. The design of the safety review was developed in cooperation with independent technical experts with National Labs. Gas may be injected into Aliso only after all 114 wells have passed the comprehensive test or have been isolated. And what's unknown at this point is when the reviews will be completed, or if or when how many wells will be cleared to operate, and the ultimate production capacity of the wells.

Next slide.

So in compliance with the governor's proclamation, reliability studies were performed by the CPUC, Energy Commission, CAISO, and LADWP. And this one focused on the winter of 2016-2017. We have three new reports that were just released and we're receiving comments, and they are the

focus of today's activity and they include a technical assessment, an independent review of hydraulic analysis, and the action plan.

I'm going to hand off to Katie now who will go into more detail, so take it way, Katie.

MS. ELDER: Okay. Good morning. Whereas you may remember that when we talked about the summer, we had a graphic that showed a map with a number of power plants marked on it, and we really focused on the Los Angeles

Basin. As we think about the winter, we're really focused much more broadly across the entire SoCal Gas system. So whereas we had talked about the 17 gas-fired power plants located within the basin, and then representing about 9,800 megawatts for the summer, we're talking about 48 plants spread all across the SoCal Gas and San Diego Gas electric system. And they generate a total or are capable of generating a total of about 20,000 megawatts.

You're going to see in the analysis as it unfolds that now instead of really focusing inside the L.A. Basin, we're talking about impacts across the entire SoCal Gas system. And what are the maximum capabilities of the system to serve demand without having Aliso Canyon operating the way it used to?

A key finding -- next slide. Thanks.

The key finding of our analysis is that gas

reliability is still threatened, but electricity challenges seem to be fewer than they were for the summer. So it's sort of we have better news than we had for the summer.

A couple things about winter to keep in mind are that demand flips in the winter so that 60 percent of the gas demand in the winter is consumed by core customers. It was just the opposite for summer where electric generators consumed 60 percent of the demand in the summer, but that flips for winter. So core customers are now going to be the majority of demand on the system.

It's still the case, though, that if we have to curtail gas service to somebody, it's going to first to non-core customers. We always protect the core. And that secondly, within that non-core class, the generators are going to be the first to go off the system when there's not enough gas.

We've done an analysis, looking at a winter peak day. It has a one-in-ten probability for the demand numbers that you're going to see for non-core customers. Later one when Mark talks about the hydraulic analysis, that was a one-in-ten demand for all customers on the system.

Now the other piece of good news and the reason why we think there are few electricity challenges for the winter than there were in the summer is that electricity demand is lower in the winter, and so those units that we

have available don't have to work as hard. And that also means that there's more flexibility to shift generation around, not only within the basin, within the SoCal Gas service area, but to shift generation to resources that are located outside the SoCal Gas service area.

Next slide.

And I should emphasize here, I guess, that while, yes, I'm with Aspen Environmental Group, my work here is done under contract to the Energy Commission.

So with my colleagues at the Energy Commission, we prepared a gas balance. We did that analysis independently of SoCal Gas. In part, we wanted to address concerns that we didn't have any analysis that was independent of SoCal, so this is what we put together to help try to address that.

A gas balance is only a first-cut comparison of supply to demand to see how much excess exists or may not exist. You still have to do a hydraulic analysis to look at the kinds of issues that we're looking at here on the system. And you're going to hear more about the hydraulic analysis later.

So the gas balance is really complimentary to that, and we start with that. At one point, in fact, you're going to see some results that come from the hydraulic analysis that you could never see in the gas balance, so that's really important. The gas balance is just a first

cut. It's a place to begin.

Another key difference between it and the hydraulic is that the hydraulic is only going to look at a single peak day. We looked across the whole system -- whole season, I should say, because part of what we wanted to look at were what kind of inventory levels were achievable should injections be able to start by X date. And we did several different scenarios of when X might occur or if it would occur.

We wanted to keep track of the inventory, both at Aliso and to see what our capabilities were at the other fields, because part of what we wanted to look at was not just what would happen on a peak day, but what would happen as we went through December, January and February. We recognized, also, in doing this kind of analysis that on a peak day you tend to look at your maximum capabilities. What happens if I have to pull out all the stops? But you don't do that every day, and you don't plan to do that every day. And so the gas balance approach is much more of a sort of how the system would work over a period of days and months, instead of just looking at that one particular day.

We assumed -- made slightly different assumptions that SoCal Gas did in the hydraulic analysis. We have a slightly different number on the receipt point capability, and a little bit different number on the storage. We used

3.225 for the receipt points versus flowing supply available at the receipt points, the maximum that would be available from the receipt points, and 1.64 from BCF per day from non-Aliso related storage, those other three storage fields.

In daily analysis we had four inventory scenarios for conditions at Aliso Canyon. We had a no-Aliso Canyon, no reinjection at all. And then we looked at reinjections beginning in September and October. Our worst case was also beginning in October, but at a smaller inventory level and a smaller -- I'm sorry, a smaller injection level, and continuing into November with a smaller injection level than we had in scenario three.

We have withdrawal assumptions in there that were based on very preliminary estimates from SoCal Gas as to what the field might be able to do. We don't know of those are actually valid or not because they were prepared before SoCal Gas was able to do any flow testing. And so, you know, this analysis should be looked at as a sketch rather than a formal, kind of final findings. Again, it's a first cut, not the final answer.

If we are able to resume some injections in October -- next slide -- if some injections were able to resume in October, then it looks like, in the cases, even with the cases where we start to reinject a little bit of gas in October, continuing into November, that we'd really

be still barely okay on a winter peak day. And so it's an indication that even if you can get a little bit of gas in, it doesn't eliminate all danger.

We estimated that if there was no Aliso Canyon at all, besides the 15 BCF that's there now, that even on a winter -- that on a winter peak day we would probably be short at least 300 MMCF per day, and that's without taking into account an issue that was discovered or uncovered, I should say, in the hydraulic analysis, that we end up seeing up a conflict between using Line 225 and pulling gas from Honor Rancho. And folks will talk more about that later.

But the bottom line is that if you took these scenarios and you began to perform hydraulic analysis using them, you would get bigger curtailments than what I'm showing here. So we want to emphasize that.

gas or we simulated the injection of some gas at Aliso
Canyon and we were able to achieve inventory levels of
either 36 or 25, the 48 number that you see there was a case
that assumed beginning September 1st, which is clearly not
feasible at this point. But part of the analysis shows that
even then, SoCal Gas would have to depart from the kinds of
injection and withdrawal profiles that it used to commonly
use because of the lower inventory at Aliso.

In other words, it would not be operations as

normal for them. And we wouldn't have enough gas at Aliso Canyon in any of these scenarios to be able to withdraw what they used to plan on withdrawing from Aliso Canyon on an average day, so that's a key takeaway.

We find that even on these winter peak days in a couple of the withdrawal scenarios where we are able to, quote unquote, "serve all demand," that the reserve margins would be very tight. And as I said before, my expectation would be that if you ran hydraulic analysis on those scenarios you would get much bigger gas curtailments than what we've talked about in the report.

And with that, I'm going to turn to Mark Rothleder.

MR. ROTHLEDER: Thank you, Katie. My name is Mark Rothleder. I'm the Vice President of Market Quality and Renewable Integration at the California ISO. And I've been working on this gas assessment associated with Aliso Canyon, both for the summer, and then also the winter.

So the input to the electric analysis, the assessment, whether there's an electric reliability risk, we first had to complete the gas analysis. And the completing of the gas analysis entailed really getting an assessment through the hydraulic analysis, what the risk is of being able to serve the expected peak gas demand for the winter would be.

So the hydraulic analysis is an analysis that really models the intra-hour or intra-day dynamics of moving gas through the system. Gas moves at about 20 to 30 miles per hour. And the pressures that need to be maintained on it, there's minimum-maximum gas pressures that need to be maintained. And if you don't maintain those gas pressures you jeopardize the reliability of the gas system itself. So the gas balance that Katie just described is not sufficient to fully analyze all the operating pressures intra-day, but the hydraulic analysis does do that.

2.3

The hydraulic analysis that was performed by SoCal Gas assumes no Aliso Canyon availability at all, so we're kind of taking a worst-case scenario. And what that identified, one of the operational things that it identified is that if you have high utilization on part of the gas system, specifically Wheeler Ridge import point, there's interplay between that and the ability to withdraw from Honor Rancho. And so while by a name play Honor Rancho is available for 1 BCF of withdraw, if you have high utilization on the Wheeler Ridge line, you basically cannot simultaneously withdraw from Honor Rancho the 1 BCF, about 150 million cubic feet less than what you otherwise would be able to do.

The bottom line is that with Aliso Canyon the hydraulic analysis kind of confirmed, also what the gas

balance did, and that is you cannot meet the one-in-ten-day peak demand design day of 5.2 billion cubic feet of takeout.

2.3

What the hydraulic analysis indicated is that if you assume 100 percent utilization, and what I mean by utilization, it says you can find enough supply to get into the pipeline system and you're fully utilizing the remaining gas storage facilities, 100 percent utilization means that you're fully utilizing all that transfer capability and withdrawal capability from the other storage facilities. At no time really has it really operated at 100 utilization. So it's kind of a theoretical but unrealistic point of operation.

Nonetheless, but if you assume 100 percent utilization, the maximum that the hydraulic analysis indicated that could be served is about 4.7 billion cubic feet. So the bottom line is that we are in a situation where there is a risk of not being able to meet those peak demands of gas demand without Aliso Canyon.

If you further look at -- assume certain analogies or certain unavailability of some of the pipeline systems, that 4.7 billion cubic feet goes down to as low as 4.5 billion cubic feet, still at an assumed 100 percent utilization. If you assume something more realistic in terms of utilization of the pipeline system based on historical observations, and we assumed 85 percent, you get

down to about 4.2 billion cubic feet of demand that can be served at that point.

One point to make is, is that the operational flow order, one of those mitigation measures, is one of the measures that speaks to and kind of incentivizes the high utilization. It sends a signal ahead of time, a day ahead and in real time to have high utilization. So that was an important mitigation item that helps keep these utilizations high and not leave it to real time or storage, other storage facilities.

So the bottom line is, is that if you take the difference between the 5.2 and what the servable demand is, you quickly can quantify what the risk is or the amount of risk that you can't serve. Now that doesn't mean that there's going to be lights out or there's going to be that the gas can't be served. But what it does mean is that the non-core customers, and specifically electric generation who has to take any curtailments, those resources are going to be potentially curtailed gas by that potential quantity.

So you can see here that it ranges from about 500 million cubic feet to almost a billion cubic feet of potential quantity of risk of gas curtailment to the electric system. And that really sets up the balance stream analysis that we performed in asking the question: What is the electric system able to handle in terms of gas

curtailments?

Next slide please.

So now we're on the electric side. So now we've got -- we've quantified what the risk is in terms of the amount of gas curtailment or what can be served, including generation. Just to set the stage here, in the winter the electric system demands are much less. So as Katie indicated, rather than being 60 percent of the gas demand, the electric generation in the winter is only 20 percent of the gas demand. And to put it in quantities, in the summer we're approaching about 2 billion cubic feet of demand of gas over the day in the electric system. In the summer that's closer to about 1 billion cubic feet left to just natural economic forces, how you'd run the system in a least-cost method.

So about 1 billion cubic feet would be the normal electric demand for electric generation on a normal or on a peak winter day, a cold winter day. However, we can operate lower. And what the analysis that we performed is how low can we go? How low can we run our generation and still maintain electric reliability?

And what do I mean about electric reliability?

Well, there are certain things that we have to do

under our obligations to maintain reliability standards.

First off, we have to meet supply and demand. So whatever

the electric supply is over the system, both LADWP as a balancing area and California ISO have a responsibility of balancing that demand. And we have resources both that are gas resources inside the SoCal Gas system, and we have resources outside the system. So we need to look at the whole set of resources that we can do that with.

2.3

We have to be contingency secure. And what that means is that we have to prepared for any individual line or any generator that may trip. We have to be ready to handle that contingency. It's called N-1 contingency secure.

We also have to maintain sufficient operating reserves so that if there is a loss of the largest resource, we can resupply that within effectively 30 minutes -- or 10 minutes, I'm sorry, to maintain electric reliability.

And so our analysis looked at all those things.

And what we determined is, is that, roughly speaking, we can get down to a minimum generation level and still maintain those performance measures at about 100 million cubic feet of use on the electric generation system. So what that says is if we came out of the day ahead or if we expected, by economic, least cost, that we were going to have 1 billion cubic feet of use, theoretically before we have a reliability issue, we can take that down as low as about 100 million cubic feet. So we have about 900 million cubic feet of headroom to absorb any gas curtailments that may come our

way from the inability to meet that one-in-ten day on the gas system.

So the last piece of the analysis is really, and this is important, is when does that gas curtailment occur, or when do we prepare for that gas curtailment to occur?

And what we find is that while there should be sufficient supply to resupply, if we're planning on using 1 billion cubic feet on electric generation and we end have curtail, theoretically there is enough supply elsewhere, non-gas supply elsewhere in the winter to find. However, if we leave that only to real time, in other words, intra-hour, only a couple hours before it happens, some of those supplies are no longer available.

And that kind of leads us back to one of the mitigation measures that we have to take, and that is on these cold days, on these high gas demand days we will have to take extra measures to probably limit the amount of gas burned on the electric generation system. And that is going to be a more costly operation than what would normally have been done. But we have to take those measures a day ahead, one day ahead, so that we ensure that we don't get into a position that we get into real time and then we can't find enough supply to resupply. So that's a proactive measure that we would take.

The bottom line is, is that what the analysis

indicates is that so long as the amount of gas supply that can be served, overall gas supply is greater than about 4.1 to 4.2 billion cubic feet per day, we should be in a position with proactive measures to be able to withstand the amount of gas supply that could be served to the electric generation system. So there is a risk to gas curtailments to the electric generation. I think we're all aware of that and understand that.

2.3

However, different from the winter -- or different from the summer, the winter, it looks like those will not manifest themselves as long as there's sufficient supply coming into the gas system above 4.2 BCF. As long as that's occurring we should be able to withstand that without having to interrupt electric supply -- or electric demand.

Now, there is a risk still, and it's not a zero risk, but there is still a risk that if gas supplies, for whatever reason, if the utilization is low or if there's outages on the gas system that further constrain the gas supply, or in the case of winter we've had situations where there's freeze off of wells outside of -- in New Mexico and Mexico or in Texas where the gas supply can't get into the system, it's just not there, and there's a risk of having gas supplies being below 4.1 billion cubic feet for the day, then there is a risk that could jeopardize electric reliability. And that's where the insurance measure of

Aliso Canyon withdrawals would start to kick in to mitigate that measure -- mitigate that risk.

Next slide please.

2.3

For the winter assessment, we engaged an independent Review Team to review the hydraulic modeling analysis that SoCal Gas performed, and also kind of do an overview of the findings from both the summer assessment and the winter assessment. The team was put together based on recommendations from the Department of Energy, with experts from the Los Alamos National Labs. And then we also engaged an expert who has both operational planning and management experience of gas systems unrelated to California or SoCal Gas system to partner with the Los Alamos team. So you've got a strong team of both gas modeling experts and operational and planning experts.

Overall, their assessment have found that the modeling was largely consistent with industry practices from the perspective of how the hydraulic modeling was used and how the tools, in terms of maintaining pressures on the system, were modeled in the system. They did find that the statistical analysis that led to the quantification of the number of days of risk, they did feel as though there was some potential overestimation as it related to unplanned outage days. And their -- it was -- they felt as though those unplanned outage days were already captured within

some of the scenarios already. And so they felt that there was some overestimation of the days of risk associated with those.

1.3

However, they also determined or they found that there was an understatement of the potential impact relative to high-impact but low-probability events. And that's because of the combination of potential planned and unplanned outages that could have occurred but weren't quantified in the summer assessment.

Otherwise, they largely concur with the findings of both the summer and winter assessment in terms of that there is a risk of gas curtailments, and those risk are real.

They also reviewed and provided some recommendations with regard to the action plans, and made some statements and findings with regard to how effective the action plan was in mitigating the risk for this summer, and some recommendations going to into future assessment, if necessary.

The report was released at the same time with all the other assessment. And they are here today and will be speaking to you this afternoon with more details about their assessment and findings.

 this winter.

2.3

MR. RANDOLPH: Thank you, Mark.

I'm Edward Randolph, the Director of the Energy
Division at the California Public Utility Commission. The
action plan that was released earlier this week proposes ten
new mitigation measures to help reduce the risks that have
been identified in the plan.

To start, it's worth noting that the measures that were identified in the Summer Action Plan, those 20 measures, most of those will continue. And either they continue as we keep working on those, or the fruit so of those measures as we adopted them will continue. And I'll talk a little bit more about that a few slides down.

And then for the ten mitigation measures we proposed in the action plan so far, similar to the Summer Action Plan, they're heavily focused on a combination of reducing or shifting demand for natural gas in the system, or better coordination and operation of the system to help better utilize that capacity in the system that the studies have shown sometimes is not effectively utilized.

So of the plans, the first and one that may be the most challenging for the Energy Division for the next few months is develop and deploy a Gas Demand Response Program.

It's worth noting that in preparation for this report our colleagues at the Energy Commission did an analysis of Gas

Demand Response Programs across the country and found that while some other jurisdictions are researching the concept of it, there is no best practices that we found that we could follow or other good ideas. So once again, we may be on the forefront of developing gas demand response. And we've already begun working on these programs. And we'll work with SoCal Gas and stakeholders to propose some ideas, taking advantage of the smart meters in the near future.

And then shifting to a develop and deploy gas cold-weather messaging. We've been doing, through taskforce, messaging on conserving gas and conserving electricity as it relates to the summer. The practice will be a little bit different in the winter, so we'll shift to that.

Operational challenges, operational changes, extend the non-core balancing rules that went into place for this summer. Those potentially are set to expire in a few months. They were part of a settlement agreement. We found those to be very effective in helping manage the system this summer, and would like to extend those at least into the winter, if not beyond. Additionally, add rules to better balance the core customers and SoCal's obligations on how they manage and bring gas into the system for the core customers. And then create a gas burn operation ceiling for electric generators so that they have caps on what they can

burn on a given day that will help better predict and manage the system.

2.3

And then reduce gas maintenance downtime. SoCal Gas has been very good so far and very diligent in working through the maintenance projects they have as fast as they can. However, with the capacity constrains continuing, it's important that SoCal Gas be very transparent about the operations they do have, and work with the stakeholders and be very public about the timelines and when they finish.

The next two are increasing supply, a combination of focusing on asking the instate gas producers to work with them to produce more gas from their wells. That was a comment on the summer assessments, that it didn't account for the full potential of the gas producers within California. We're going to look to see where we can to get more production out of them to help the system.

And the next one is to look at ways to buy gas from the LNG facility in Baja, California. This is owned by Sempra, the parent company to SoCal Gas. And the key issues there, we'll be working through affiliate transaction rules, not to waive the rules but to make sure any transactions are compliant with the rules. And these rules are heavily focused on making sure that any transactions with an affiliate still remain at the ratepayers' best interest, meaning that there at cost and prices that still benefit

ratepayers relative to a transaction with a non-affiliate.

And they're heavily focused on transparency so people can understand and have faith in those transactions.

2.3

And then use of gas from Aliso Canyon. We did develop protocols for when gas could be withdrawn or should be withdrawn from Aliso Canyon this summer. Those were aimed at assuring that it's only withdrawn when needed. And that reserve capacity would be there on a critical day. The protocols as they worked for summer need to be updated for winter since the conditions will be different for winter.

And then finally, work with the refineries to monitor and manage the natural gas use at the refineries since they are one of the large non-core customers.

Slide 15, and I will share this slide with my colleague from LADWP, Ken Silver, as I've said before, the Summer Action Plan items remain underway. Some key ones that are worth mentioning here include continuing safety review of the system. One of the action items for this summer was to coordinate with SoCal Gas and the Safety and Enforcement Division at the PUC to make some determinations of what planned maintenance programs could potentially be delayed without increased risk of safety to the system, and so that we didn't create increased capacity risk. We need to continue to work on that and monitor through that.

The ISO made market change rules that increased

the gas-electric coordination. Those will continue and be continued to develop.

2.3

And then skipping to the last two bullets before I hand it over to Ken to -- or Mr. Silver to talk about the LADWP issues, continuing monitoring of the gas and electricity prices to look for any risk of market manipulation.

And then as of today, I think as we've already noted, there's 15 BCF in the field today which can still be used to offset risks this summer. And then we may need to potentially put more gas in the field if the safety inspections can be cleared to help mitigate for the winter.

MR. SILVER: Thank you. I'm Kenneth Silver. I'm the Director of Power Supply Operations for Los Angeles

Department of Water and Power.

So some of the things that we've been doing in Los Angeles and that will be continuing on is we're continuing to operate off of economic dispatch, that is not using the least cost portfolio, but the improved reliability portfolio. We've also continued to not make block energy sales. And also, we've discontinued our physical gas hedging which allows us to more closely balance our supply and demand.

We've also been spending the summer working on recommissioning our units that have dual-fuel capability.

And we'll be continuing to complete that task and continue to have those units -- we're working with AQMD to continue to have those units available for the rest of the winter.

We've also rolled out some new energy efficiency and demand response programs. These are for residential and commercial customers. These were programs that were in the works already, but we've been able to accelerate them.

Starting in April and continuing through this summer we'll be adding new programs to serve to reduce our demand.

We also have a new program called Summer Shift where some of our large customers have been incentivized to move their usage away from the peak demand hours, and that helps eliminate that peak gas generation requirement. We've got over 40 megawatts, and possibly up to 100 megawatts in that Summer Shift Program.

We're also accelerating our efforts on energy -electricity storage. We've advanced a pilot battery project
by over a year, hoping to have that in service early next
year or late in the spring of next year.

We've also been continuing to work to increase our solar, both on utility scale. We've brought on over 300 megawatts of utility photovoltaic this year. And in addition, we continue to be adding over 400 customers on our residential solar program.

So next slide please.

So it's important, as was noted, that summer is not over. We often see the highest loads of the year in September, and even into October. 2016 has been, actually, a very mild summer. There's been no long duration heat waves. And we've also had — even on those high load days, the system has held together very well. We haven't had any equipment outage or transmission outages that might increase the gas demand.

The entire balancing rules that were put into place have been working very well. And that's one of the key factors that has been able to eliminate the need for any kind of electric curtailment.

We did have a very high load day in June, June 20th. That was actually, for the City of Los Angeles, that was our highest June load ever. But because of the programs in place, as I mentioned, and some good luck and good system conditions, there was not any issues. We used our demand response program, along with the increased energy efficiency to help mitigate that.

Also to note is the weather on that day turned out to not be as hot as was expected, which always makes things a little bit better. If that had been -- if the heat had been what we expected or even worse, continued into a long-term heat wave that begins to stress the equipment, things may have turned out different. The Gas Company did have

Aliso Canyon prepared to use for withdrawal, but that was not needed.

2.3

And, you know, also just to note that the system held up very well. We had -- earlier this month we had a very significant fire that took out some transmission lines in Southern California. Fortunately, that was not a high load day and most of those lines were able to be restored. But that could have potentially been a day where we would have to rely on additional gas, if it was available.

And with that, I think back to Mark.

MR. ROTHLEDER: Thank you. So just to kind of drill a little bit more into and illustrate how this summer has been different from previous summers, I thought I would give you a graph and explain what the difference is here.

So what you're looking at here is for the ISO this is a measure of the difference between what we expect out of the day-ahead market to burn on gas on generation in the SoCal Gas system, minus the actual gas burned on those same resources in real time. So anytime you see positive, that indicates that we basically under forecasted or under predicted a day ahead what the gas burn was going to be. And if you recall from the summer assessment, one of the key risk measures was if you had a differential of as burned from what you expected to actual gas burned of over 150 million cubic feet when the gas demand was greater than 3.2

billion cubic feet, that was a risk factor.

2.3

And so the blue line indicates what happened in 2015. And so you can see in the summer of 2015 there were about eight or nine spikes that were above 150 million cubic feet of differential, which those days, if those days were to repeat -- had repeated this year, they would have driven us into the condition that was one of the risk factors.

The orange line is what happened this year. And you can see here that starting at June, through the coordination and the planning, the improved forecasting, and including the measures to reduce the reliance of real time dispatch, we basically have a situation where the amount of differential, the real time gas burn, is either less or near equal to the day-ahead expected gas burn. And that basically reduces the burden and reduces the risk on the gas system.

So the table below indicates June, July and August of last year there was about 188 to 225 maximum differential in 2015. The maximum differential we had for electric generation in the ISO system was 93 this year. That illustrates the effectiveness in reducing the risk of having a high differential that would translate into a gas risk.

Was there a question? Okay.

So we're continuing to monitor this. This is something that we monitor every day. And we use this to

indicate if we saw a large differential we'd try to go figure out why that is, what happened, and how to avoid it going forward.

With that, I think I'm going to hand it off to Ed Randolph to go through some of the other quantifications of how the measures for this year played out, including the effectiveness of conservation and demand response.

MR. RANDOLPH: Thanks, Mark.

So the next slide, slide 19 -- we're a little out of -- we're going to flip out of order just for a second for the sake of flow -- shows demand response and Flex Alert on one of the -- or two of the peak days they were called.

This is the July heat event. And between demand response and the Flex Alerts we saw, you know, well over, on that first day, 1,000 megawatts of savings between the two.

Numbers were substantially similar or a little bit higher for the July -- or for the June 20 heat event, as well.

There's a little bit more demand response that showed up on that day, but it was also a little bit hotter so there's a little more potential that day.

And it's worth noting, this is looking at the demand response that we see under PUC jurisdictional entities. I know on the June 20th day, LADWP had 55 megawatts of demand response to add to this.

Next slide.

2.3

This slide, which is a little busy, and I'm just going to focus on the very last column here, is a summary of where we stand right now with the mitigation measures focused on conservation and load shifting. And what's important for looking at the winter is, as I said, most of these programs, the efforts will continue into winter. And at a minimum, the savings we're getting through these programs will be there to help with winter, as well.

thermal, our Rooftop Solar Thermal Program, more specific on the Los Angeles Region to get more rooftop solar thermal which would reduce gas demand. Our estimates by the end of this year will be 86.6 million BTU per day of savings through that program. On the Demand Response Program, the additional efforts that were put into place through a ruling of Commissioner Florio, approved by the Commission earlier this year should, by the end of this year, add an additional 40 megawatts of demand response. The Low-Income Program expansions which were proposed by Commissioner Sandoval and adopted earlier this year by the Commission will result in 50 megawatts -- or, I'm sorry, 500 kilowatts of electric savings, and 160 MMBTU per day of gas savings.

And I should note that that's a conservative estimate. That is based on the June Report of Savings. We hadn't gotten the July Report of Savings. And the program

was just ramping up in June, so we expect to see a little bit more from that, beyond those numbers.

And then efforts to reprioritize existing energy efficiency. This was taking programs that were already in place and looking for places where we could move installation, especially on industrial projects, quicker so that they were in place by the end of this year versus sometime next year. That will result in a little over 1,900 MMBTU of gas savings. There's some electrical savings in there, a couple hundred kilowatts of additional savings there, as well.

And then acceleration of deployment of electric storage. This is put down there as acceleration of deployment of electric storage because all the procurement that's happened here ultimately will count towards the procurement mandates of the utilities. But most of this is actually new contracts, new PPAs that the utilities have signed in the last few months. And the grand total of that, between So Cal Edison and San Diego Gas and Electric, between what's been approved at the Commission and what's proposed for approval of the Commission is an additional 119 megawatts of storage that should be online by the end of this year, and a few projects by July -- or, sorry, January 31st of next year.

And then finally, Flex Alerts. The two times they

were called this year we saw that they resulted in 490 megawatts of savings, and 540 megawatts of savings. Those programs would continue forward, as well.

Next slide.

2.3

And then, not to dwell on this too much, we did create an advisory committee made of SoCal Gas, some local governments and the local POUs, to develop conservation marketing plans. That continues and will shift into the winter with winter messaging.

And then I think it's back to you, Rob.

MR. OGLESBY: All right. So thanks for bearing with us. I'm going to wrap it up. We've got a couple more slides just to talk about.

First, next steps. The safety review and testing -- let's get to that slide, the next one, there we go. One before that. Thanks. I just wasn't up.

Safety review and testing continue and must be completed before a public hearing occurs to decide if injections can resume, and injections at Aliso Canyon. We are going to continue to implement mitigation measures, certain measures of prior action by the CPUC or FERC, as we've discussed. And some require further development or investigation, also in the previous slides.

We're going to decide in late winter if an action plan for next summer is needed, and if so, begin to develop,

and let's hope for the best there. And we're going to continue longer-term reliability assessments that we're required to do.

Next slide.

2.3

And finally, takeaway message. The assessment shows the risk for this winter is lower than it was estimated for the summer. The gas from the canyon that we have, the 15 billion cubic feet continues to be a tool to mitigate risk. And even if we can reinject some gas in October and/or November, we still have more risk than we would normally have that curtailments could occur.

Fortunately, CAISO and LADWP system appear to able to rely on generation sources outside the Southern

California Gas service area to replace lost output, as long as there aren't transmission or generation outages that occur that would impair that. And, of course, we have uncertain weather and equipment on an ongoing basis. You can't predict what's around the corner. And finally, we've developed the ten mitigation measures, including gas conservation and using some of the 15 billion cubic feet at Aliso as a hedge, and that will help.

And that closes our formal presentation.

CHAIR WEISENMILLER: Great. Thanks. Let me just start with a few questions, and then we'll cross the dais on questions.

The first one is, obviously, Ed, I thought I one of the more interesting things you mentioned was the demand response for gas, and the lack of much national experience. And again, we're sort of shifting from demand response, energy efficiency, a lot of things which we're pretty familiar with on the electric system to the gas system.

And so I at least wanted to throw out a couple things to get your reaction. One of them, I think we talked about before but just so we get it on the record with folks, is at one point the PUC did a 2020 Program. I think it was a McKenzie suggestion. It got a lot of PR at the time. And, you know, obviously there were issues with that.

And the other question, just to tee up with you, is as we look at some of the demand response parts, whether we can pull in some of our experts from UC or, you know, whether DGS can be a pilot on some of the things that we might do for core customers on a business side.

So how do we really move that along, or what do we need to do to move along the gas DR part?

MR. RANDOLPH: On the first question, yes, the 2020 Program, as it was called, there was some extensive after-the-fact analysis. And from a cost effectiveness standpoint it was not at all cost effective and didn't lead to too much savings. The problem with how that program was designed is since -- what it said was if you reduced your

gas usage by 20 percent over the course of a month, you get a 20 percent reduction in your bill, or 20 percent rebate. The difficulty there was usage is so weather dependent that over the two yeas that it was in place, most of the savings reduction in gas came from the simple fact that it was two very mild winter years.

And if you look at what we're trying to mitigate for here, reduction over the course of the month isn't really what we want. We want reduction on specific days. So there is potential, however, because back then we didn't have smart gas meters. We now have smart gas meters, so there is potential to work with the utilities to develop programs where we target a similar type of program on that particular day, where we give a notice a day ahead saying it's a peak day, we will give you some sort of financial incentive for reducing your usage on that day. And we now have the ability to monitor usage, not only a daily basis, but potentially on an hourly basis. And we do have electric demand response programs that look very similar to that.

CHAIR WEISENMILLER: Okay. So basically the real challenge, it's really been great to have the citizens of L.A. generally helping this summer, and so we need to do that in the winter. So part of it, again, is how to design a program that really reaches out to homeowners, residential customers or small businesses to really help on those peak

stress days on the gas system?

2.3

MR. RANDOLPH: Yes.

PRESIDENT PICKER: I'm just going to point out that one of the areas where we got significant response was from the Flex Your Power. And I think that that's a very targeted message that actually gets deployed on specific days or periods where there's demand.

And I have to say that the fact that the mayor of the City of Los Angeles spoke out for L.A. strongly and used all his resources to kind of underline and reiterate that message was really helpful.

So given the fact that this is such a new and untested program, and that we saw that the price signals that we depended on in the 2020 Program were really not getting us the results we want, we may find that ultimately, in this winter, those are the easiest to deploy, get the most response, and probably help us to prefigure what works elsewhere.

So that, and I think the operating flow order rules, the gas balancing rules will probably help with the larger customers. And again, we're talking about two different universes of people. One is, you know, larger commercial industrial customers, and the other are millions of California homeowners who are really important because they use a lot of the natural gas that comes into the basin.

CHAIR WEISENMILLER: That's good. I'm going to -I've got a couple of other issues I wanted to tee up,
maintenance, and some of the equity issues.

2.3

But before we do that I wanted to see if anyone else had questions or comments on the Gas Demand Response Program?

MR. DOUGHTY: I wanted to offer a thought. I'm

Tom Doughty with the California Independent System Operator.

You know, we talked about the good fortune that we've had so far this summer, planned outages being less impactful than they might have otherwise been, transmission line outages not being as significant, and fires, although many in California are being impacted by fires right now, and our hearts go out to them, fires have not been that impactful to the electric system. When you combine that will weather, as mentioned earlier, we've had really a fortunate summer.

But the consumer has been a partner in this effort. A 500 megawatt reduction in power consumption during peak periods is equivalent to turning off a very large gas-fired plant. So I think a certain level of thanks goes out to those millions of individuals who stepped up, and those businesses, and reduced consumption.

As you know, Chair Weisenmiller and President Picker, our message around Flex Alerts is quite simple,

adjust your electric air conditioning to 78 degrees and turn off unnecessary lights. When we get into the gas Flex Alert model it's a little more complicated because consumers may not be as, maybe informed about how to adjust their hot water temperatures for example. So there's an educational element that I think we need to embark on. And Ed and others are spending time on that now to get their hands around what message and what actions could specifically be requested of our partners in this journey.

So just an observation, and a thanks to those who have contributed.

COMMISSIONER MCALLISTER: So thanks for that presentation. That was very good. I'm Andrew McAllister, and oversee the energy efficiency efforts at the Energy Commission, and that includes demand response. And I guess on the electric side, demand response and energy efficiency are starting to overlap in important ways, given the timing issues. And now we're kind of -- it sounds like we're starting to see some roughly similar issues on the gas system.

So I want to just ask, well, point out that, you know, if you're in a house and you're making an investment into equipment, you know, there's the behavior side of things which is relatively low cost and relatively, I think, responsive. Flex Alerts do that well. And similar

programs, you know, on solar thermal, on HVAC stuff, you know, furnaces for those that have them down in this neck of the woods, which may not be everybody, when you're making an investment, how do you view an opportunity like that to also engage with more direct demand response and include controls and sort of layer on, you know, while you're doing energy efficiency, layer on demand response and kind of move the market in that way? I think it could be very powerful. And I'm kind of wondering in the near term how that might fit in the PUC's programs?

MR. RANDOLPH: The specific example I can give you there is the increased focus on the smart thermostats. And one of the demand response programs that was developed this summer that will play out into this summer, and it was funded both through demand response and energy efficiency funds, was significant rebates on smart thermostats that for now are set up, can be set up where the electric utility on an event day can increase the temperature a few degrees to reduce your air conditioning load. At the same time those devices could be used in the winter time to decrease your temperature a few degrees to reduce your heating load. As those become -- as those rebates there, that's clearly something into the house permanently. It's out there.

In terms of other examples or other places out there, I think that's a conversation we need to continue to

have.

MR. RECHTSCHAFFEN: And just to follow up on the point, are there other changes to the demand response program on the electric side you're looking at since the projected savings are relatively a modest 40 megawatts so far? I'm just wondering what your thoughts are on that?

MR. RANDOLPH: Well, that's the marginal savings over what was already in place or programs that are already in place. So that was what resulted from the decisions that came out of the Commission there. As you can see, on the event days, you know, we had, you know, well over 500 megawatts of savings on the actual event days from programs that are in place.

CHAIR WEISENMILLER: Just following up on Cliff's question, I just wanted to make sure that LADWP had an opportunity to also comment on how to further fine tune the demand response programs?

MR. SILVER: As far as the Demand Response

Program, we're continuing to look at all opportunities for
that for both commercial and residential. And we were able
to add 15 megawatts already this year which, you know, may
not be significant in an hour, but across days, day after
day, it is significant.

Our big effort has been on our energy efficiency.
We've actually rolled out, as I mentioned earlier, some new

programs, both residential and commercial air conditioning system, programmable thermostats. We're just getting ready to launch a LED Lighting Program where we'll be going door to door, giving out LED lights, as well as working with the large stores at point of sale. And also a commercial direct-install program, as we call it, where we go into businesses, define opportunities where they can save energy, and then work with them and assist them on the installation to help the immediately savings and help reduce the cost or eliminate the cost to them.

So I don't have any specific numbers, but these are all programs that have launched or will be launching this year and should have a significant impact.

CHAIR WEISENMILLER: Well, I think, you know, the challenge of Aliso Canyon has resulted in what I have to say is an unprecedented level of cooperation on the planning studies and the operational studies. And I guess I'd like to nudge people to think about also on the energy efficiency demand response side, if we can do a better degree of integration between LADWP's efforts, Edison's efforts, SoCal Gas's efforts to really keep moving the needle. And certainly lessons learned from either program, sharing those back and forth would be great.

COMMISSIONER MCALLISTER: Chairman Weisenmiller, I want to just add a quick point.

I'm wondering, so I know that each portfolio in both the publicly-owned utilities and the PUC-overseen utilities, investor-run utilities, they do have certain criteria they impose on the portfolio to sort of govern investments in different programs; right? So typically we kind of refer to that as cost effectiveness.

I guess I'm hoping that if those kinds of barriers pop up, you know, when you're really directing towards a particular place, particular types of load at a particular time, those benefits are very broad. I mean, we're trying to avoid major costly issues; right? And so sort of in some sense the typical cost effectiveness approaches, you know, the alternatives are very costly. So typical cost effectiveness approaches for energy efficiency demand response may not appropriately apply here.

So I guess we want to just make sure that if those flags do come up, that we can talk through them also in an integrated kind of joint way to get a solution that really works for the overall direction we're trying to go.

COMMISSIONER DOUGLAS: And just to follow up briefly on Commissioner McAllister's comment, I wanted to ask if there has been some effort to kind of locationally target some of these programs, you know, not only towards Southern California or the area affected by the Aliso Canyon

issue, but even within that area, if there's been some area to specifically identify locations that might be more beneficial from a reliability standpoint to invest in storage, for example, or demand response?

2.3

MR. RANDOLPH: The answer to that is there is has been. After the summer assessment came up and we started moving forward with those items, there was quite a bit of conversation between PUC staff and the ISO to determine the areas where things would be most effective. And as it turned out as we got into it the best way to develop most of these programs was to have a fairly broad area. You know, things that were closer to particular power plants might have had more benefit than things that were further away.

But from a program development standpoint, we either left it as focused within the entirety of the L.A.

Basin or some of it, all of Southern California, since depending upon what the measure is, that measure helped mitigate the risk, even though it was further away.

COMMISSIONER SANDOVAL: Thank you very much. It's been very helpful.

On the demand response, you were mentioning what was on the side was the incremental work that we've done to make demand response even more effective. But one of the things that I have read that was quite effective with demand response was the Air Conditioning Cycling Program.

Do any of you have any information about how many megawatts we're able to get through the Air Conditioning

Cycling Program? This might be helpful to looking at, you know, our future efforts, where should we really be targeting in terms of big-ticket items.

measures, one of the things that you mentioned, Mr.

Randolph, was programmable thermostats. Are there other gas measures that have been identified that could similarly be more high yield in terms of what they might be able to result in on the gas side?

And then along with that, when you talk about gas

MR. RANDOLPH: I can answer the second question. I'm going to have to flip through to find the data on the Air Conditioning Cycling Program.

On the second one, to date, no. The two seemingly low hanging fruit ideas that have come up so far are -- I hesitate to all it a 2020 Program, so many people coil up when you say that, but a peak-day program to reduce gas usage on peak days, and using smart thermostats are the two programs that we've so far seen, but we're just beginning the conversation to try to figure out what could happen, what we could do, what we could deploy quickly by this winter that would have meaningful impact.

And let me find the other data and I'll get back to you on that.

COMMISSIONER SANDOVAL: Thank you. So I think this would be an important area for research. We don't have a lot of time for this winter, so we've got to get our experts together to think quickly. But also as we continue to deploy programs it's important to identify, really, what's going to be effective. When we talk about cost effectiveness tests, we also have to think about that in the context of really overall costs that we're avoiding for the system, especially costs relative to actually having to engage in curtailment.

And then last, I just wanted to follow up on the point about wildfires and other types of scenarios. It was mentioned several times that the question is: Will this be enough, assuming that we don't have contingencies? But of course, our planning, both our state planning, as well as the FERC standards, require us to plan for contingencies, and particularly contingencies, including a transmission line outage which is, sadly, quite foreseeable with fires. So often with the Santa Ana Winds just really start in the fall.

So I was wondering if any of you could speak a little bit more about, you know, how transmission risks really affects our analysis, and what does that really mean in terms of our contingencies, any other thoughts? A question. And also, that it depends on which transmission

line. But are there -- could you just do a little bit more to help us appreciate the risks and how that factors into what can we/should we be doing to build a cushion for a transmission line risk?

2.3

MR. ROTHLEDER: This is Mark Rothleder from the ISO.

I think you point to something that has to be continued for the balance of the summer, that we're still heavily in that risk mode. There are lines that are critical, especially some of the north-to-south paths that transfer energy from Northern California to Southern California. Some of the import lines from the east are very critical. And then there are lines that we know are susceptible to using and needing very localized generation that's in the L.A. Basin, and we also know that those are critical.

And so the summer assessment considered those in the risk assessment for kind of the normal and minus one contingencies. If you get beyond that and fires are unique in being able to take out more than just a single line, they can take out groups of lines, that's where these high impact, maybe low probability, hard to predict evens really could still play out. And they're not going to play out in a time frame that we have a lot of time to react. They could very well occur in time frames that we have very

little response times, not day ahead but more in real times.

2.3

And that's where we really have to continue an awareness that we are still very susceptible of needing and potentially, in emergency conditions, having to curtail gas generation and potentially withdraw from Aliso Canyon. And if those measures are not sufficient we are still susceptible and have risk of having to interrupt load. We don't want to do that. It's the very last resort of things we want to do. But we will try to keep everybody informed as much as we can in the time frames that we know about it.

But those types of events could manifest as having to call Flex Alerts in very short order, or call for some measures for consumers to reduce their consumption. And we're doing that and we're reserving those call-outs to be effective, and that's why we use them very sparingly. But when we call them out it's because we really need those responses.

COMMISSIONER SANDOVAL: And just one quick follow-up suggestion. I'm sorry, one quick follow-up suggestion, that I'm sure we've done a lot of great interagency coordination, but this is also an opportunity to make sure that we're fully coordinating with Cal Fire, as well as with the U.S. Forest Service, so that they know which areas those lines are. And it's something that I know we do very close coordination when there are fires. Often to actually

```
protect more danger you turn off a transmission line.
 2
   just helping to really have that full coordination in
 3
   advance will be great.
 4
              MR. ROTHLEDER: Yeah. And that's a very good
 5
   point. And as you guys had pointed out, we do have that
   coordination. We have a display in our control room, as
 6
 7
   others do, that we can see the fires in kind of live frame,
 8
   where they are relative to the lines, which way they're
 9
   burning. And we're constantly in communication with Cal
10
    Fire. And to the extent that they can do things to give us
11
    advance notice if we have to take a line out of service, we
    can do it in a controlled manner. But also to let us know
12
13
    that things are moving fast and we have to do things in a
14
   quicker time frame. So, yeah, that coordination is
15
   critical.
16
              MR. SILVER: If I could -- Ken Silver. If I could
17
   add one other thing?
18
              CHAIR WEISENMILLER:
                                   Sure.
19
              MR. SILVER: One of the things that we've been
20
    doing, as I mentioned, changing our dispatch to somewhat
21
   position ourselves to be better able to handle those loss of
    transmission lines.
22
23
              The other thing we've been doing, along with the
24
    ISO, is we've been working with the Peak Reliability, whose
25
   the western entity that oversees the entire grid.
                                                        And
```

we've been working with them and they've been working on their methodology for determining system limits where we've 2 3 looked for opportunities to, under emergency conditions, maximize the limits that we can -- the flows that we can put 4 5 on these lines, at the same time not jeopardizing overall reliability. So there's been a lot of efforts on that 6 7 aspect to maximize the flow capabilities under emergency 8 conditions. 9 MR. TISOPULOS: Thank you, Mr. Chairman. 10 Tisopulos with South Coast Air Quality Management District. 11 Thank you very much for your presentations. They are very informative. It's an issue near and dear to millions of 12 13 Southern Californians. Some of them are here in the 14 audience. I have a couple of questions. 15 The summer reliability study, under some of the more conservative scenarios was predicting up to 14 days of 16 17 curtailment. We're very fortunate, the weather cooperated 18 thus far, you know, we've not experienced that. Is there an 19 analogous estimate with the winter assessment? 20 MR. ROTHLEDER: No, there is not. For one, we 21 didn't see the point at which -- we thought we could manage 22 the gas curtailments, and so we didn't see the need to

But the other thing is that what we find is that
the -- it's very difficult to come to a statistical or come

quantify what that electric risk may be.

23

to a simple number of what the number of days of risk is. And I think, and you'll hear from the Independent Review Team, that maybe quantifying it in number of days is really not the best way of doing it. Maybe it's really a better quantification of the probability of an analogy and really showing the distribution of the probability. I know it doesn't reinstate as much as number of days. But the problem of doing number of days, like you've had so far, is like you could go through a portion of the summer or all summer, not have an event, but it doesn't mean that you don't have the risk. And so maybe the quantification is more around the probability of the risk instead of the number of days. So I think that's what we're kind of reassessing, of how to quantify and communicate that in a meaningful way. And so we did not take the same approach that did in the summer assessment. MR. TISOPULOS: Okay. Very good. Thank you. One thing that wasn't clear in my mind, there are multiple scenarios that are analyzing here as part of the studies, with or without Aliso Canyon and with or without injections. One thing that wasn't clear in my mind was right now I understand the capacity, the storage volume is

at 15 billion cubic feet at the Aliso storage area.

there a technological, technical, or even regulatory

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

2.3

24

25

impediment to withdraw additional gas in the event there's a 2 risk for curtailment from the storage facility without 3 injection? MR. RANDOLPH: Yes. You can withdraw without 4 5 injection. The problem is with the 15 billion cubic feet in there, as you withdraw that, that means there's less there. 6 7 So if you have multiple event days that require you withdrawing, at some point you're going to have an event day 8 9 in which there's no gas to withdraw. 10 The other physical issue is as you withdraw gas 11 from Aliso Canyon, the pressure -- as the volume goes down 12 the pressure goes down, and your ability to withdraw gas 13 goes down to some extent so that you may not be able to, 14 even if there's some gas there, you may not be able to get 15 enough out of the field in the hour you need it because the pressure is too low. 16 17 MR. TISOPULOS: All right. Thank you. 18 CHAIR WEISENMILLER: Okay. So I'm starting to 19 transition. 20 One observation I was going to make is that at 21 least President Picker and I are pretty familiar when we 22 went with Cliff, the San Onofre situation where, you know, 23 it was always what can we do for the summer and with Edison 24 saying, well, it's going to come back. And so, you know, I 25 think the second summer we started saying, okay, what can we

do beyond this summer, because we're not sure if it's going to come back.

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

2.3

24

25

So I guess what I'm -- as people come up with the action plans, probably keep in mind if some of the things that we're looking for, for the winter, if we can't get them done until, you know, June, well, then god bless, you know, there's some probability we're going to need them next winter, so let's line up the next winter's stuff too.

But I wanted to transition some to maintenance and just say, obviously, for this summer, one of the challenges has been summer is when the gas system does its maintenance. And in addition, certainly as Ed knows, there's an awful lot of safety stuff that has to occur as part of the gas system that we've been trying to dance around. And as we go into winter we have whatever deferred maintenance on the gas system. And certainly Line 3300 is a subset of that. But that's also when the electrosystem, gas and transmission, typically does its maintenance. And so the good news is the loads are lower. But if we get to the day where we want to move, you know, a lot of power into the basin, we need to make sure that the transmission and generation maintenance has occurred and we're not discovering at that point that we have an issue. So we need to be thinking somewhat about electric transmission and generation maintenance coordination so that if we need that out-of-basin stuff,

it's there. But we also need to figure out, you know, having presumably deferred some of the gas maintenance from the summer, what's going to break on us for this winter.

2.3

So it seemed like with Mark and Ed it's a good time to tee up the question of how much -- what is our action plan to deal with some of these maintenance safety issues?

MR. ROTHLEDER: Yeah. I think you make a very good point. And one of the mitigation measures that addresses that is the increased level of coordination. And part of that is the information flow and the shared information between the Gas Company and the electric balancing areas, ISO and LADWP, where we are sharing information in advance about potential outages that are coming up. And where necessary, where it creates an inordinate amount of risk, how do we kind of work around that, defer work on the electric system or, if it's possible, defer or reschedule work on the gas system, if possible?

So those coordination, those sharing of information are very critical in allowing us to discover those things and address those things before they become an issue in real time. So it is one of the key measures and I think it played out well over the summer. And I think, as you point out, as the electric system goes into the shoulder

periods, we're going to start taking our maintenance outages. And so the need for us to communicate to the Gas 2 3 Company which ones are critical, which ones are sensitive to 4 having to have generation on, that will become even more 5 important. 6 CHAIR WEISENMILLER: Ed, do you want to talk about the gas part of the picture, AB 3300 (phonetic)? 7 8 MR. RANDOLPH: Yeah. I think Mark has hit on most 9 of it. 10 The issue that you brought up that's worth 11 thinking about and coordinating is not only making sure you aren't doing maintenance on a gas line that's critically 12 13 needed because an electric plant is down. But something I 14 don't think we've thought about is also looking at if a gas 15 plant is down, is that the opportunity to do some maintenance on the gas side, as well? And you know, look 16 17 where we deferred maintenance that maybe, you know, the fall 18 normally wouldn't be the time to do it, but that would be 19 some time to go in there and so the inspection and the 20 maintenance. 21 PRESIDENT PICKER: Line 3000 from the topic at the 22 California Border was actually one of those very significant 23 backbone lines. And so you've already detailed that if the outages, if it persists, could result in the loss of 200

million cubic feet of gas capacity and gas availability.

24

25

So I'm just wondering if there's anybody here who 1 2 can give us a snapshot of where we are in terms of the 3 further investigation of challenges there, and maybe some timeline as to when it might be corrected? 4 5 I know that's a different branch at the CPUC. 6 just --MR. RANDOLPH: I think the best people to answer 7 that here today would be SoCal Gas. 8 9 PRESIDENT PICKER: Okay. Well, I'll come back to that then. 10 11 CHAIR WEISENMILLER: Anyone else on this general 12 topic of maintenance, before we transition? 13 There's one last area that I wanted to raise, and 14 obviously everyone is free to raise other issues, but at 15 least anything else on this sort of maintenance question? 16 Okay. 17 Well, again, so the other issue I wanted to raise 18 generally, and again I'm certainly not trying to limit 19 issues but at least raise stuff, give people a chance to dig 20 into that and then keep moving on, was, and I'll credit 21 Marcy Edwards for raising this issue, is that, you know, so 22 far the consequences of Aliso Canyon, obviously, have been, 2.3 you know, it's really hit hard the homeowners in Porter Ranch. But also as we've come up with our risk assessment 24 25 and then action plan, a lot of the actions have been on the

electric generators, and certainly resulting in higher cost for them in the way they're operating, both LADWP, certainly Edison.

And so as we go into winter one of the questions is how do we make sure the action plan here doesn't continue to have them bear the brunt of the burden, but to reach out more generally to non-core customers? And again, looking for suggestions from the panel on how to tee those issues up, you know, or certainly that's been part of what we've been trying to do, like looking at core procurement.

But again, how do we move off from the whole burden being on the electric generator ratepayers?

MS. ELDER: One of the mitigation measures that's on the list for winter is to actually look at whether or not we can do something to bring the core demand into better balance. So, so far the tighter balancing rules have only affected non-core. But one of the questions is or one of the ways that maybe we can spread that burden is to look at tighter balancing rules for the core, as well.

CHAIR WEISENMILLER: That's part of it. I think the other part is, again, if we get to -- well, I mean, the reality is non-core customers are going to get curtailed, you know, if we need to curtail someone. But again, how do we get them to step forward more in taking some of the balancing risk?

MR. RANDOLPH: One other thing that's already in play, so it's not mentioned in the action plan, is the curtailment rules themselves are scheduled to be altered some starting in, I believe it's November 1 is the start date. And so while the electric generators would be the first to be curtailed at that point, it's not total curtailment. It's a partial curtailment. And then it works down through the refineries, but allowing them to identify critical load versus total load, which ultimately would probably result in some of the smaller non-core customers beyond that getting curtailed. So that does, you know, move curtailment through more customers, and not just the electric generators.

The other places that are teed up some in the action plan, and we continue to explore, that I can think about are continued focus on energy efficiency on the large industrial customers. And so that's not, you know, a curtailment at that point, but that is helping them reduce their overall load and giving them financial incentives to do it.

And while the conversations we've had about demand response already were focused on the core customers, it's even more of a stretch to understand what demand response would be for non-core customers, but we should explore that and look at those options. And that is actually laid out in

the action plan.

PRESIDENT PICKER: So one of the large classes of non-core customers are the oil refineries. And so maybe people could give me a sense of what the issues are for curtailing them. You know, with, for example, core customers like residential, at some point curtailment results in shutting off the pilot light, and that means you need to have a massive program to go back and turn the pilot lights on.

What are the similar kinds of issues in terms of the refineries? And then if anybody feels prepared to discuss it, what does it mean to actually curtail them but to then make sure that they're not gaming the market to actually reap benefits from scarcity above and beyond the impacts of the curtailment?

MS. ELDER: Well, the gaming the market part, we think that we at least tried to address with one of the mitigation measures which is to watch how much gas they're burning, and to also watch for gasoline price manipulation. And I think the action plan actually calls for asking the Attorney General to help with that monitoring.

On June, I think it was June 17th, although I must admit that some of the dates are running together in my little brain, the Energy Commission had a workshop and had some of the refinery representatives come talk about what

the impacts, physical impacts were that they would experience. And my recollection is one of the things that they said was that they needed more than just a couple of hours of notice, that the more notice that they get the better capability they have to shut down, sort of ramp down operations incrementally at the refineries.

We also know that they're talking, and we don't know what the outcome of these talks are going to be, but they're talking about trying to identify what their critical load level is so they could curtail down to that critical load and not below that. But I think today we don't know yet what the critical load number is going to be.

PRESIDENT PICKER: So critical load means that they use natural gas to heat various oil and petroleum fractions to be able to force them to break down in their catalytic crackers, and that as they do that, as they ramp down they have to pay attention to how pressures actually ease off in the vessels? So that's what I'm trying to get a picture of is you're saying that it's not so much overall curtailment, it's actually the short-term curtailment of the short notice of curtailment that seems to be a safety issue there?

MS. ELDER: That was my recollection of the gist of their comments.

CHAIR WEISENMILLER: Yeah. I was going to say the

way I understood it, it refines a very complicated chemical.

So if tomorrow you just, bam, curtailed electricity or curtailed gas, there are certainly really health and safety issues there.

Now on the other hand, if you can -- what we're pushing them to try to do is identify, given notice, we tell you something's coming. You know, what's the minimum amount you need? And, you know, and again, it's a complicated situation, but we really need to provide some degree of noticing and, you know, going down to some minimum level. So again, I think that Ed said the idea is you do some degree on the electric generation. Then you move over there, they go down to quote unquote the "essential level" and, you know, you do other non-core. And then you go back to electric generation.

So it's very important to understand, you know, how much notice do they need? What's the essential level? And part of, I think their story is it depends. You know, it depends upon, you know, how the refinery is operating that day. But again, you know, if you just knocked off a refinery then it could easily take a couple -- I know there's health and safety, but it could be a couple of weeks at least to bring it back. And certainly there are implications on the gas lien market if you do that.

So it's a pretty complicated area. And as you

indicated, and as certainly Staff and all of us are concerned, if you knock it off the next thing you're going to see is a price spike. And so, you know, the question is how much gain -- you know, again, it's really complicated engineering issue here, but just trying to make sure we're not exposing ourselves to gaming in that area, or at the same time having electric generation bear all the costs of curtailments or electric generation or repairs.

MR. TISOPULOS: Mr. Chairman, you hit the nail on the head. The refineries are quite complex facilities. And probably operator refinery is a very well balanced refinery. But the moment there is a disruption, either power-wise or natural gas supply-wise, and you create the disruption and that facility goes down, it creates such an imbalance in the entire system that often, in addition to the price spikes that you were referring to, many of them result in flaring. And there are environmental impacts associated with flaring. And so to the extent we can, we can't to avoid those scenarios. And I understand we are not living in a perfect world. But there are many -- the list of implications is pretty long.

CHAIR WEISENMILLER: I think we're going to dig into this issue some more on the panel of gas supply and delivery representatives. But, you know, again, I think what we're trying to do is have people on notice. There are

some complicated tradeoffs here we need to drill into. 2 COMMISSIONER MCALLISTER: Yeah. I want to just second what Ed Randolph said about industry more broadly. 3 You know, it starts to sound like sort of 4 5 traditional load management, you know, and not the high-tech version that we're thinking about with demand response. But 6 all the industrial facilities, you know, that use gas for 7 process heat have a minimum requirement. And they have some 8 9 level they don't want to go below. You know, if they're manufacturing glass bottles or something, they don't want 10 11 the glass to freeze inside the molds. 12 So I think that actually is a core part of SB 350, 13 as well, is reaching out to the industrial sector and trying 14 to figure out what those opportunities look like. So maybe 15 we put that on a little bit of a fast track to, you know, basically take what's needed, which is a custom approach to 16 17 the industrial sector. Each facility really is different. 18 So maybe we can talk about how we accomplish that. 19 My other question was about balancing and you 20 already got it, so I don't need to ask it. 21 CHAIR WEISENMILLER: Yeah. You know, I'm afraid

CHAIR WEISENMILLER: Yeah. You know, I'm afraid for non-core the basic message is we know what you want, but the question is going to be, what do you need, you know?

Other areas, certainly. Go ahead.

22

23

24

25

PRESIDENT PICKER: So I looked at the modeling

that tried to tease out issues of reinjection. And I noticed that the assumptions really were that if reinjection was going to take place it would take place in September or October. It looks to me like it would be useful to just see if there's any opportunity, if reinjection ever is approved, to see what we can do in November. I just didn't see the modeling.

2.3

I'm just curious to know if there's anything that people did but didn't choose to put in the report because at the time it looked like it was an outlier?

MS. ELDER: We did in the scenarios where we had reinjection, we did have it extend into November.

One of the things that came out about that is that if you are injecting at Aliso Canyon in November, that's an increase in demand on the gas system right when core customer loads are beginning to increase. And so in our scenarios we would actually project, just with the simple gas balance, that that could be a problem. And we saw places where the reserve margin was so tight or where we actually would have projected, with normal operations of the other storage fields, we would have projected a curtailment in November. And so we went into the model and said, okay, can I tweak the withdrawal in November at some other storage field to make up for the fact that I'm really injecting gas at Aliso Canyon? And you would, in fact, see that kind of

tradeoff, at least in the simple scenarios that we did.

PRESIDENT PICKER: So in effect, if we don't approve and have available capacity to reinject by November, then we're really looking at not reinjecting until next year, next fall?

MS. ELDER: As demand increases on the system it will get harder and harder for SoCal to find extra gas that they can inject, yeah. That's not to say that there aren't days in November or December, or even January historically, where you can go find a really warm day that they ended up with excess gas in the system, and on that particular day they injected. But as a routine matter, no, you wouldn't expect to see that.

MR. WEBSTER: So in the presentation you mentioned that this hydraulic analysis was really a first cut because we had to estimate how much withdrawal capability we have.

Then we're in the process of really finding out what that is.

So the first question, and you may not be able to address it, it may be agenda-up for a future panel, when do we think we know what the withdrawal capability really is per well after testing?

But really the fundamental question after that is: Would the results and recommendations change at all based on knowing that information, or do you feel like the analysis

really covers variances in the withdrawal capability?

MS. ELDER: Well, the hydraulic analysis that SoCal did, first off, shows you that on a one-in-ten peak day, if we don't have the ability to pull more gas out of Aliso Canyon because we reinjected, we got that volume, that inventory higher, then we're going to have a problem.

The gas balance analysis backs that up by also essentially showing you independently that there are days and scenarios over the course of the winter where if we don't have more gas at Aliso Canyon, that we can withdraw. Because we injected it that we're going to run into problems.

What I don't know, and SoCal Gas is probably the only person or folks that could speak to this, is what the actual withdrawal number will turn out to be. I suspect that they're going to tell you that it's too soon to say exactly what they'll be.

What we used on the modeling were numbers that were developed by looking at the history, 15 years of history, so that we could create kind of an average, normal profile for what SoCal Gas would have done on average. And then we tweaked that within boundaries, looking at minimum and maximum capabilities. So we tried not to exceed those mins and maxes. And so in that we tried to more ballpark what the winter might look like.

But it's within those limits -- I mean, I should say, outside those limits would be pretty speculative at this point.

So the bottom line, the way I understand it, is that the study that you've done has bounded it enough so the mitigation measures would stand, regardless of the actual numbers that could be developed and presented at a later time?

MS. ELDER: Yeah. And what I should emphasize is that the mitigation measures that are developed here do not depend on the gas balance. I mean, essentially what the gas balance is, is a way of showing you, without looking at the hydraulics, that we'd still have a problem. So if we didn't have the hydraulic analysis that SoCal Gas did we'd still be sitting here telling you there's a problem, just with the simple gas balance analysis. SoCal Gas then goes and puts a more refined color on that.

CHAIR WEISENMILLER: Yeah. But again, I think part of the messaging is these are all the mitigation measures we could think of. Certainly, if people have good ideas, we want to hear them.

MR. TISOPULOS: So let's, hypothetically speaking, let's assume we are facing a curtailment scenario, so we've got to shed some load from the non-core facilities. And let's assume that we are losing a few power plants, so

several hundred megawatts worth of power plants. If I understood the presentations correctly, we'll be relying on importing that additional power from elsewhere outside this region. And clearly that capability exists.

My question is: I recall from a few years back, there was some puddle neck in the north-south transmission lines in sending the electrons through, you know, down to the southland; do those issues persist, did we fix them, or do we have alternate routes that we can get that additional power, or is there a limitation to the extent of power that we can import?

MR. ROTHLEDER: So there's two major north-to-south path limitations. One is Path 26, and it really kind of separates Northern California from Southern California.

And it's normal full capability is about 4,000 megawatts of transfer capability. The other one is Path 15. And Path 15, at least in the north to south direction, is not so much a limiting factor. It's actually more a limiting factor in the south to north direction.

So the one we get concerned about is Path 26. And that, we assumed the full capability. But if it is D rated because of some work, one of the three lines are out of service, it goes down from 4,000 to I think about 2,000 very quickly. So that is a factor. And there are times when those lines do need to be maintained.

And that comes back to the coordination of if we know about that and we can separate that from other work going on in the gas system, or we can separate from a cold day coming up, we would try to do that. If we can't avoid that it will put more pressure on us to do more advanced or proactive measures to reduce the gas burn a day ahead on the electric generation and avoid going into the real time and having to do a larger shuffling or curtailments that would have to force supply/resupply in real time. That's where the resupply gets to be more challenging because you may not find it, or you may get into those bottlenecks.

So we have a mechanism to put constraints on the system right now that would force a day ahead to shift off from the use of the electric generation in the southern system or the SoCal Gas system. And we would use that if we knew we were going into a risk period.

CHAIR WEISENMILLER: I'm going to have to -- we're running about 15 minutes late, so I'm going to have to cut off the conversation now.

Basically, we're going to come back from lunch at one o'clock, so 45 minutes for lunch to get us back more on track.

So again, thanks for people's attention this morning.

MS. RAITT: Chair, could I just make one

announcement please? 2 CHAIR WEISENMILLER: Sure, please. MS. RAITT: So we understand that the WebEx 3 4 participants and the phone participants haven't had audio 5 for much of the morning, and we apologize for that. But my understanding, it is working now. And we will have a 6 7 complete video recording available after the workshop. 8 And so I just wanted to ask, folks that have 9 switched to livestream, if you could now switch to WebEx if 10 you wanted to make public comments during the public comment 11 period. And we will be opening lines to check to see if 12 folks on the phone do want to make comments. So if you are on the phone, please stay on the line. And if you're on the 13 14 WebEx, please use the chat function to let us know you'd 15 like to make comments. So thank you. 16 CHAIR WEISENMILLER: Thank you. Actually, 17 obviously, we really appreciate South Coast helping us 18 trying to debug this. You know, often when we're out on the 19 road like this we're sort of -- I remember being at UCI in 20 August where the AV system wasn't working, and there was 21 nobody there on campus in August, so it was really a 22 nightmare. So thanks. Hopefully we'll get things 2.3 straightened out after lunch. 24 (Off the record at 12:16 p.m.) 25 (On the record at 1:03 p.m.)

1 MS. RAITT: So we're resuming. And our first panel is the third-party assessment presentation. And we 2 have Anatoly Zlotnik. And a change to our meeting schedule, 3 Scott Backhaus is actually not able to join us today. But 4 5 we have Anatoly from the Los Alamos National Laboratory. Thanks. 6 7 MR. ZLOTNIK: All right. Thank you. I guess, 8 could we bring up the slides? Okay. All right. 9 (Colloquy) 10 MR. ZLOTNIK: So this was done together with Rod 11 Walker of Walker and Associates, and Scott Backhaus, also from Los Alamos National Laboratory. So a quick overview of 12 13 what this project is. 14 So Aliso Canyon leak requires a significant change 15 to how SoCal Gas operates the system, and also how the 16 electric system is operated in California. So the Action 17 Plan Team, CEC, CPUC, CAISO, LADWP need to evaluate the 18 impact, so that some transient pipeline expertise was 19 required for that. So an independent review of SoCal Gas 20 analysis was sought. So our goal is to examine Action Plan 21 Team, the report, the measures, and SoCal Gas's approach to 22 modeling, and to make functional recommendations moving 2.3 forward. 24 So the way that the team was formed was the Energy

Commission contacted DOE for support. DOE recommended Los

25

Alamos as technical experts. And Walker and Associates

Consultancy was contacted for industry, operational and
planning experience. And our review was coordinated with
the Action Plan Team.

So our process was to review hydraulic modeling analysis by SoCal Gas engineers onsite in Los Angeles. We also reviewed the risk analysis. And we participated in follow-up discussion about the winter analysis. Now we did have nondisclosure agreements which did not limit or impede our review.

So a bit more about our qualifications. So Rod Walker, he has many years of industry experience, so 15 years in operations engineering and management at Atlanta Gas Lights. He was also the Director of Due Diligence Advisory and Utility Risk Assessment at Black and Veatch. Now he works for Westway Terminals where he's responsible for quite a bit of operational aspects.

So Scott Backhaus, he's the Program Manager at Los Alamos for Department of Energy Office of Electricity and DHS Critical Infrastructure Programs. He leads the National Infrastructure Simulation and Analysis Center work at the lab. He has a PhD in physics from University of California at Berkeley.

I work in the Applied Mathematics Group at the
Theoretical Division at the lab on Department of Energy

Office of Electricity advance grid modeling research programs, focusing recently on optimal control of gas pipeline dynamics. So that involves understanding the physics, engineering, operations, economics, human factors of pipeline systems. I'm also a principal investigator for the lab's work on the Advanced Research Project Agency for Energy Project GECCO (phonetic) on gas-electric system optimization. I have a PhD in electrical and systems engineering from Washington University.

So quickly, some key observations about the message that the Review Team would like to convey is that risk comes from low likelihood but high impact events. So an entire year with no incidents does not mean that there is zero risk of an incident. Now again, the absence of incidents is not evidence of meeting criteria for a well-designed system.

Second, the SoCal Gas system is operating with a major infrastructure component offline. This component is integral to the way that the system is designed. So it's no longer able to provide service under the design conditions. And this is really an unprecedented situation without a standard solution in industry practice.

Now as a result the Southern California gas and electric systems have less safety margin than the intended design. So there's a higher than normal risk of significant

service interruptions. And measures to mitigate these issues are needed to provide standard safety factors.

So now a brief review of what is hydraulic

rules.

modeling? What is the risk analysis that needs to be done?

So the purpose of hydraulic analysis in general is gas system planning. So given a set of conditions we want to say, what are the pressures and flows under time dependent customer offtakes? So the key considerations are physics, engineering, and compressor stations. There are constraints on pipeline pressures and compressor operation, the utilization of pipelines or storages for providing supplies, and also a varying demand of customers versus steady supply, which is both operational and part of tariff

So there's also the important factor of how gas control personnel operate the system. So these are highly trained and experienced operators that operate the system in real time. So the controls in the pipeline system that can be modeled are valves, regulators, compressors, and storage fields. And in addition to understanding the engineering here, we need to take into account how the human operators of these systems behave.

So without the Aliso Canyon facility, the large supply to the L.A. Basin from storage fields is no longer available. So the controllers at SoCal Gas have to rely on

other means to control the system, and more careful 2 operation. Okay. So the software that is used by SoCal Gas comes 3 This is the Synergi Unsteady-State 4 from DNVGL. 5 module which is a state-of-the-art pipeline simulation tool. 6 So given the set of conditions, offtake profiles and 7 compressor and regulator operating set points, it will predict what the pressures and flows are throughout the 8 9 system. So the requirements for a planning engineer using 10 11 this software is to understand the components and constraints of the specific system in high detail, and 12 13 understand the human factors of gas control, that is how 14 they make decisions about setting compressor and regulator 15 set points, where and when to make curtailments, that the 16 system is operated in real time using limited predictive 17 information, and then also to understand that the simulation 18 is different from reality. So the key object that's simulated is the design 19 20 So this is a low likelihood but worst case scenario. 21 We hear the term one in ten years. So this is .03 percent 22 likelihood. And systems are designed for reliable 23 operations under those design day conditions, so 99.97 24 percent of the time.

So what they do, given those design day

25

conditions, is go through an iterative analysis. So the planning engineer, using the software, by hand adjusts the system control points in the way that they would be adjusted by the operators of the system. So they emulate what the gas control department would do with the information and tools available to them. And what they can do is adjust the offtake profiles modeled to emulate curtailment until an acceptable situation is achieved. So acceptable simulation means that pressures are above the minimum and below the maximum, and that system line pack or the total mass of the gas in the system is recovered at the end of the day to prepare for the next day. And this is industry best practice.

So the limitations is that the iteration procedure yields a likely outcome for a scenario, but it's labor intensive. And you can't perform the analysis on a large number of scenarios. There could be, as in the figure, an excavation accident, some air quality standards violated, maintenance, pigging, many different scenarios, and it's impractical to simulate everything. So this is one of the justifications for looking at the worst case design day.

So other factors are there's uncertain supply.

You don't know where gas is being shipped into the system.

There's uncertain demand. There might not be advance information of certain electric generator activity.

Now another factor is planned and unplanned outages. So system capacity changes with planned maintenance. And there could actually be inspections of system failures that create unplanned outages.

So now risk analysis. So the usual risk analysis is done for design or planning for pipeline construction. In this case it's a little different because this major infrastructure component of the system is offline. So the usual industry practice had to be modified. So hydraulic modeling was used to designate criteria for system risk with likely curtailment and classified conditions that could lead to lower gas availability, so pipeline or storage outages. So you assign scenarios to each set of conditions, and then it's possible, based on historical data, to try and compute the probability of each scenario, with the caveat that the system is now different from the condition it was in when the historical data was measured. Okay.

So essentially what SoCal Gas did for the summer assessment was look at supply shortfalls, and then planned and unplanned outages to attempt to assess the risk of these things occurring and the impact that it would have on their system operations. So let's take a look at what they did.

So first, the hydraulic analysis, there was -- so again, the design and planning for the SoCal Gas system previously assumed the availability of Aliso Canyon. So the

Action Plan Team chose a scenario to represent a high system load. And in particular, September 9th of 2015 had the highest electric generation demand. So in the hydraulic modeling the offtakes and supplies corresponding to that day were used as conditions on that system. So this was chosen as a sort of design day proxy with 3.2 BCF.

2.3

And the procedure that the SoCal Gas engineers did found that curtailment was likely in the model if there was a 250 million cubic foot shortfall in flowing supplies. So that's less supply coming into the system than is being used. Now that was adjusted based on the human factors, which I just described, to 150 million cubic feet because the operators in reality deal with a different situation than what you can represent in a model. And you want to give them that safety factor. Okay.

So the outage factors that were then modeled were pipeline, storage, pipeline and storage outages, both planned and unplanned. So there were several scenarios.

So these four scenarios, the first, just to look at what happens if there's a supply shortfall but the system operates at 100 percent utilization with no other outages, other than Aliso Canyon, then there was also the possibility of storage and pipeline outages, and then both storage and pipeline at the same time in the context of planned outages. So unplanned outages were -- the risk of those was additive

in the analysis. So the result of SoCal Gas's assessment was that there would be two days in the summer with high load and some supply shortfall, and about five or more days in the summer of larger curtailments greater than 400 million cubic feet.

2.3

Now to distill those two figures, so the two days in the summer of minor curtailment, that looks very similar to the event on June 18 to 20. Now the potential curtailments seem to have been prevented by the mitigation measures. Now the issue that the Review Team found was that the risk due to planned and unplanned outages might have been overestimated.

So some more observations on this. So the key point that -- we found that some low -- so the analysis appeared to overestimate the likelihood of low-impact events and underestimate the impact -- there's an error on the slide. So we underestimated the impact of low-likelihood events. No, there's no error. Sorry. Let me say that explicitly. So it appears to overestimate the likelihood of low-impact events and underestimate the impact of low-likelihood events. So the 400 million cubic feet outage curtailment, this could be classified as a low-impact event.

Now the analysis was done in March and April, before the mitigation measures were put in place. One of the key mitigation measures was the deferral of planned

maintenance. Without the deferral of planned maintenance, those five days of potential curtailments could have been likely; right? So the methodology started with SoCal Gas's information on how planned outages would occur, and that was changed.

So some key points is that the risk is complicated to quantify because there are many possible scenarios. And historical data gives a limited insight because the condition of the system are now different than previously. So the Action Plan Team needed to modify the standard curtailment analysis done in other industry studies to assess risk.

Now key predictors of risk were found to be the load level and imbalance, and outages. So the load level and imbalance appear to have been mitigated by the demand response. The outages, I would suggest to look into this and see how planned outages are being managed.

The major risk that was not identified in the report was the combination of planned and unplanned outages, which is really the large kind of major risk which the system needs to be designed to account for, but which is something that can't be observed, the effects of which can't be observed, possibly, for several years; right? So kind of thinking, what's the likelihood of an earthquake; right? It's that kind of risk.

So in the winter assessment they used the design day that was used to plan system construction, but then took away the Aliso Canyon facility. So the design day load is 5.2 BCF, and the engineers iteration procedure showed that curtailment is very likely.

There's also location and time considerations. So if there's a large load that can't be supplied the controllers might have to decide whether to send the gas to San Diego or the L.A. Basin. So the spatial and time factors of the load are an important component. The key takeaway is that one number can't quantify everything; right? So the load level can't quantify everything.

The other point is that the line pack was decreasing throughout the day. So shipping additional gas for the next day when line pressures and line pack are decreasing throughout the whole day is problematic, because that can't continue for several days in a row. So gas controls policy is to return line pack to what it was at the beginning of the day, particularly in the Los Angeles Basin.

So the maximum capacity estimate done by iteratively lowering the offtake profiles in the model was found to be 4.7 BCF. So what that is is an estimate of the maximum system utilization, given all operational factors and capabilities of commercially available software with complete 100 percent system utilization, so everything

online and working to complete capacity, which is typically not the case.

2.3

There is also a tradeoff in operation of pipelines and storages. So the flow being brought in from Wheeler Ridge, if the line is at high pressure then gas can't be withdraw from the Honor Rancho storage. And this is kind of a fine control point that needs to be tuned to get the maximum supply through into the nearby city gate.

So as you can see in the bottom figure, the blue line shows that line pack in the is model is recovered in the Los Angeles Basin. Okay.

So again, observations. One number cannot reflect all the complexities. The geographic distribution of customers determines the ability to service them. And so you have to look at conditions specific to Los Angeles Basin and San Diego. So this maximum load level estimate is intended to be a reasonable conservative estimate of system utilization under the expected high load conditions.

Because the analysis is conservative the number of curtailments may be lower than predicted by risk. But it's not clear how planned outages or unplanned outages may effect that.

So the key views of the Review Team on this is that conservative operations prevent high-impact events, because you want a safety factor when considering maximum

capacity. And mitigation measures are the key to reliability. So balancing coordination and conservation, that's all necessary. And I think the key to not seeing the undesirable events over the summer which were possible was the effect of implementation of such measures, particularly to improve balancing and coordination.

2.3

So these findings are very similar to what's written in the report. But the key point is that the methods appear to be adequate for estimating the availability of gas and assessing potential for curtailment. The Aliso Canyon facility is an integral part of the system as it was designed, without which it cannot function at the maximal design utilization and handle potential shortages of gas. And there are certain factors beyond SoCal Gas control and being able to bring gas into the system.

So the method that was used by SoCal Gas to assess capacity under transient conditions reflects the full utilization of the available software and appropriately accounts for operational factors.

Now the statistical risk analysis should be evaluated for potential changes. I believe that was done for the winter assessment, particularly with the combinatorial factors related to impacts of unplanned outages. Given that there's a unique situation in the L.A. Basin, it may be prudent to go beyond using industry

practice of using a single design day to assess risk. 2 So key recommendations would be tighten balancing 3 rules to more closely align with standards for pipeline systems that don't rely on storage facilities, and to defer 4 5 maintenance when possible so that planned storages -planned pipeline and storage outages don't occur 6 7 simultaneously, especially during any times of peak demand, 8 and the continuation of mitigation measures. 9 So that concludes the presentation. 10 CHAIR WEISENMILLER: Very good. Thanks. 11 that was very good to have that sort of outside perspective. 12 Just a couple of questions. 13 The first is -- I'm just trying to make sure I 14 understood your presentation. One was that it appeared that 15 your conclusion is that the risk assessment that was done 16 identified the major risk or major components of risk, i.e. 17 load mismatch and outages; is that correct? 18 MR. ZLOTNIK: Yes. 19 CHAIR WEISENMILLER: And then the second -- your 20 second conclusion was that the mitigation measures, 21 generally by addressing those reduce the risk? 22 MR. ZLOTNIK: Yes, I believe so. 23 Okay. Then the next one was CHAIR WEISENMILLER: 24 that -- again, just trying to untangle some of my own 25 mind -- is that to the extent you're doing a risk assessment

```
based upon a say one-in-ten-year event, then on average you
   would not expect to see that event, although it will occur
 2
 3
   at some point in that time period?
              MR. ZLOTNIK: That's right.
 4
 5
              CHAIR WEISENMILLER: Now the interesting thing
 6
   was, that I was trying to understand a little bit more, was
 7
   you suggested we think more about multiple design days. And
   so do you have any specifics on, you know, how do we enhance
 8
 9
   this sort of analysis in terms of shifting focus from that
    single event or single design criteria to more multiple
10
11
   criteria?
              MR. ZLOTNIK: Well, if there's going to be a
12
13
    significant planned outage, then the system model could be
14
   adjusted.
15
              CHAIR WEISENMILLER: Okay. So basically, start
16
    looking at that significant outage?
17
              MR. ZLOTNIK: Yes.
18
              CHAIR WEISENMILLER: And could you describe a
   little bit more what you were thinking of in terms of load
19
20
   probability but high-impact events?
21
              MR. ZLOTNIK: So if there is that planned outage,
    and also an unplanned outage.
22
23
              CHAIR WEISENMILLER:
                                  Okay.
24
              MR. ZLOTNIK: Okay. So let's say that another
25
   storage field is out --
```

CHAIR WEISENMILLER: Right.

MR. ZLOTNIK: -- and there is an unplanned pipeline outage, because maybe an inspection showed that some work needed to be done, this would be a low-likelihood event, but there's significant risk. It's hard to quantify, difficult to quantify the short-term value of planning for this.

But again, this goes back to the safety factor, okay? So we should not be planning on maximum utilization of the system. We should be planning on having a margin, okay?

CHAIR WEISENMILLER: And it seemed like one of the things we need to worry about is if there's any systemic risk among, you know, storage fields, among -- you know, anyway, it goes so that the risk factors are not independent, but interdependent. But that would be another potential risk problem?

MR. ZLOTNIK: So regarding --

CHAIR WEISENMILLER: I mean, most risk assessment, you assume the events are all independent. And the question is: Are there any correlation among the events that enhance the probabilities of those occurring simultaneously?

MR. ZLOTNIK: That's a good question. So that's part of the issues that we found with the risk analysis. So essentially, some of the planned maintenance, particularly

```
with respect to pipelines and storages, the assumptions
   there were that these are statistically independent. But I
 2
   think that SoCal Gas has procedures for deciding for
 3
   planning this maintenance, which could be taken into account
 4
 5
   when understanding the effect on the system; right?
 6
              CHAIR WEISENMILLER: No, that's good. Essentially
 7
   being clear on thinking through where the plan -- the
   interaction between planning and operations, and planning
 8
 9
    criteria and operations?
10
              MR. ZLOTNIK: I think so.
11
              CHAIR WEISENMILLER: Yeah.
12
              MR. ZLOTNIK: So this is somewhat beyond the scope
13
   of our review, because what we looked at what was, given the
14
    assumptions that SoCal Gas made, was the methodology, was
15
   the thought process appropriate, and we found that it was.
16
   But those assumptions, I think, or their methodology for
17
    looking at the effects of planned and unplanned outages
   could be examined.
18
19
              CHAIR WEISENMILLER: Anyone else?
              Go ahead, Mike.
20
21
              MR. WEBSTER: So you mentioned safety margins, and
    I wanted to explore that a bit more.
22
23
              What is the industry standard for safety margins
   when you're designing a system? And what is the modeled
24
25
   safety margin in the analysis that you did? I want to kind
```

of get a feel for the difference between those two.

2.3

MR. ZLOTNIK: So good question. We didn't do any analysis for this study, so we reviewed methodology. And I'm not an expert on industry safety standards. So this would be more along the lines of Rod Walker's expertise.

I do know that in the winter assessment there was a table that showed what the historical utilization of the system was. And it looked to me like it was 3 BCF, where the maximum rated capacity was 3.8. So I would guess that's an appropriate safety margin.

MR. WEBSTER: All right. Thank you.

CHAIR WEISENMILLER: Anyone else? Okay.

Certainly, thanks again for your help on this. We appreciate really getting that independent assessment.

MR. ZLOTNIK: Thank you.

MS. RAITT: Thank you. Our next panel, I'd like to ask the panelists to please come forward and take your seats at the table, it's Gas Supply and Delivery Representatives. We have Roger Schwecke from the Southern California Gas Company, Evelyn Kahl from Customer Coalition, Norman Pederson from Customer Coalition, and not here in person, but Chris Tokas from the Office of Statewide Health Planning and Development will be presenting over the phone lines for us. Unfortunately, we won't be able to ask Chris Tokas questions over the phone lines, but just be able to

have a one way, hearing him give us his presentation.

MR. SCHWECKE: Good afternoon. I'm Roger
Schwecke, Vice President of Gas Transmission and Storage for
Southern California Gas Company and San Diego Gas and
Electric. So thank you for giving me the opportunity to
speak today about some of our thoughts, and to reflect on
the information that was provided through the three reports
that were put together.

As you know, we provided the technical support, as we talked about a lot today, for the technical assessment.

We've provided information to the National Labs as they were going through their review of the process and support their efforts. So that was our role. We did not participate in the Action Plan, in the mass balance, and I'll talk more about that later.

Next slide please.

So one, it seems that the summer has gone very well. And why has it gone well? I think the close coordination between the CAISO, LADWP, other energy providers, and ourselves has allowed for that open communication that provides people the opportunity to plan and work well together.

We basically have had some occurrences. Even though the summer has been fairly mild, we've had strains on our system that we've had to manage. We've had two

curtailment watches that we had to work through. We actually had one localized curtailment down in San Diego. 2 3 Those were all able to be managed because of that coordination within the ability of electric, of CAISO and 4 5 LADWP, to continue to provide electric service, but it's not that we didn't have issues this summer so far. 6 7 And the summer is not over. It is only August. 8 mean, if you think of it -- you would think of it as 9 probably October based on the weather out there today, for those that know Diamond Bar, but it's not over. So we still 10 11 have some time left that we have to figure out to maintain 12 the momentum that we've gained working together. 13 So the mitigation measures have helped. You know, 14 we have gone and promoted energy conservation. I think 15 there were some discussions earlier today about the efforts. I think it was Ed Randolph talked about the demand response 16 17 and how the Flex Alert. We have been supporting those 18 efforts. And it's good to see that those efforts actually 19 have, you know, given some results in reduction of electric 20 demand on the system. And we'll continue to do that for the 21 remaining part of the summer. And as we saw in the Action 22 Plan, we will be continuing to do that into the winter. 2.3 as I mentioned, it's not over. 24 But someone also mentioned the fire that we had

recently, the Blue Cut Fire. That was a clear example that

25

when an incident like that, and I think, Tom, it was you that basically brought that up, that that can create a system -- a strain on the system. Because when that line had to be taken out of service that immediately increased demand in the L.A. Basin. Fortunately enough, we didn't have the hot weather at the time. It wasn't a high demand and we were able to meet that demand very easily.

1.3

So, you know, we're here to talk about the winter. Summer has been going good, but we're really here to talk about the winter and the winter assessment. And the peaks from natural gas during the winter are significantly higher than what they are in the summer. I mean, residential load is the driver for wintertime loads.

When people ask, well, you have a winter in California, well, we don't necessarily have a winter of what they would think on the East Coast. But when you have 5.3 million customers and they all basically turn on their space heater, demand peaks suddenly. And it peaks twice a day. It peaks in the morning when everyone gets up in the morning and turns on their furnace and takes their showers, and it peaks in the afternoon when they come home from work to again turn on their heaters, take their showers, whatever they do in the afternoon, cook their food.

And the information that was shown today, without Aliso Canyon the ability to meet that demand is reduced.

It's a resource. It's a critical resource that's been on our system since the '70s that we've used in many different ways, from daily peaking to seasonal load. Without it, then you have the possibility of natural gas curtailments. It could effect, you know, electric generation customers, hospitals, refineries, manufacturers. I mean, those are all the quote "non-core customers" that it could effect.

Next slide please.

with regards to the technical report. It does show that without Aliso Canyon we cannot meet the one-in-ten design criteria for a cold day of 5.2 BCF. Others have already talked about that today. But it also looks at it that that's only 4.7 BCF. People still look at that at that's a large demand. And when you look at the electric generation customers, if they take a lot of demand off the system, maybe you can meet that. But then if you look at limited capacity, like the Line 3000, I think it was talked about, and reducing that capacity, you again take it down to probably one of the 4.5 BCF level.

What is consuming for me is the assumptions that were made, because the tool that was used is a capacity planning tool. And when you plan for capacity you have planned that the supply is available. So when you have 100 percent utilization of the receipt points, is that a

realistic assumption? For capacity planning, yes, it is, and it says you have enough capacity. But what happens is that you still have to have supply behind it, and that is a critical issue.

But as you reduce supply or you reduce pipeline outages, after you get to that 4.5 BCF, it's on a one-to-one basis. So if I lost 100 million a day of pipeline capacity, that 4.5 BCF would drop down to 4.4, and it would continually drop because you lost like -- if you lost a pipeline of 500 million cubic feet a day, that number would drop down to 4 BCF. And 4 BCF is not a large number from a demand standpoint on our system.

Next slide please.

So that's the technical report. And it showed that Aliso Canyon is needed and confirms that without Aliso Canyon we have the risk of curtailments.

We looked at the Action Plan. It says the same basic message, that Aliso Canyon is needed to meet the design criteria. And without it you run the risk of natural gas curtailments greater than what you would if you had it. I think there are some things that concerned us in the Action Plan.

And there's a statement in the Action Plan, and maybe it's not -- maybe it's just taken out of context, but that core customers are not at risk, the residential and

small commercial customers are not at risk, whereas the technical assessment contradicts that and says they could be at risk. Because the one thing about the Action Plan, it used the mass balance, which is a daily number. And the hydraulic modeling that is done, as mentioned by the Labs, is really a true assessment of the system and how it operates within the day from an hour-to-hour basis how the system runs. So as I mentioned, when you have different peaks during the day, storage not only provides the daily number, which was the mass balance number, but provides that daily swing.

So could you have the possibility? In extreme circumstances Aliso Canyon is used to meet those local demand needs on an hourly basis. Without Aliso Canyon you run that risk that you're not able to meet those hourly swings. And it really is that the Action Plan could be conceived to providing a little over-optimistic assessment of the winter reliability picture because it doesn't include those hourly swings. And that's what the hydraulic modeling does and has shown in both the technical assessment, and also the confirmation by the National Labs that that technical assessment was correct.

So, you know, some other things that were in there. I want to show you, SoCal Gas is acting quickly and as safely as possible to restore Line 3000. We're providing

all the resources and all the mas that are needed. It's the process of going through and repairing the line for the items that we found, and it takes time to do that. We're working as fast as possible. We have some difficulties in getting permits from, you know, the land agencies, but we are working as quickly as possible to bring it on because we know the critical nature of having that line back in service.

We have posted the information, and we continue to post the updates as we get them. We are currently showing that Line 3000 is to be determined because we did do some in-line pig runs, and we're waiting to get the results back from those. So when those come back we may have a different assessment. We just don't know until they come in.

So the other point, and there's been a lot of discussion about core usage and the advanced meters that we have, an advanced meter network that was designed and built for the gas meters doesn't have and wasn't designed for the capability to have, let's call it real time reads, that is how much gas is the core customer burning right now? The information is provided after the fact. It's a day late for the information provided. It looks nice. You pull it up on your system. You look at your gas. You see, actually, yesterday's data. That information, because again, we're talking about 5.3 million customers, and to transfer that

data on a real time basis, it wasn't set up to do that, so we don't have that capability.

So when you look at the possibility of using that to change a day-of forecast, pick the meter consumption up, you know, today at ten o'clock to change your six o'clock forecast, that capability is not available today. And it was never designed for that. It was designed to reduce, you know, the metering needs of the individuals, to provide customers with some information about their consumption, and it's done exactly what it's been designed to do. Changing it and thinking that it could do something else, we have to be very careful as we look forward, whether it's through demand response, whether it's for any of the core gas balancing, we have to really recognize what the real capabilities are.

I'd also like to, I think, correct a statement that was made in the Action Plan that core customers aren't balancing like non-core customers. Core customers, and that would be our Gas Acquisition Group, and our Gas Acquisition Group, people need to recognize, is completely separated from our operations side. There is a wall that prevents communication from a system operator and our gas procurement group. There's a third group that actually does the forecasting that they have to balance, too. But for them, they do have to balance daily, just like non-core customers.

They are also allocated cost for storage to assist them in balancing. Now that is unlike non-core customers.

Non-core customers, besides the balancing, are not allocated to any other storage costs like the core customers are.

Core customers are allocated almost half the storage cost.

They use that to balance their loads, and they always have used that capability, not only seasonal loads but actual daily loads.

There's a lot of discussion about demand response. I think as we move forward in looking at that we need to be cognizant of the fact and where will it provide incremental reliability benefits? The system that we're currently operating on the gas system is a priority system and a cost allocation system that's been in place for many years. And that reliability and priority system and the design of the system allows for non-core customers to be curtailed. And for that, non-core customers are receiving rates at a fraction of the core customers.

So when you look at the cost of providing a demand response incentive to a non-core customer to reduce load, they already receive an incentive. So we just have to be aware of that. To pay them again for a service that they've already been given that provides for curtailment is something that we have to recognize.

When you look at the residential customers, is

there opportunities? That's something that we'll need to investigate. Can you have demand response for the residential customers? I wouldn't want, and maybe this is my prayer, I wouldn't want to be asking a residential customer to reduce their demand, turn off their hot water, for the benefit of providing an industrial customer. We should have a lower priority to be able to continue to use gas. But that maybe looks at the demand design of the system and a whole revamp of how the gas system is planned.

Next slide please.

Just as a reminder, you know, 90 percent of the gas comes in from out of state to California. We're at the end of the pipeline. We're subject to what happens upstream. And for that, we're subject to the interstate pipelines, any outage on the interstate pipelines. We're subject to the producers in how much gas they can deliver.

And there's recent history. In 2011 there was, you know, the polar vortex. A lot of supplies were being pulled off into the Midwest and into the East. And there was actually areas in New Mexico and Texas that were curtailing residential customers. And there was 50,000 customers in New Mexico that were curtailed, and it took them days and weeks to get those customers back on.

But that just shows us being at the end of the line, we're subject to everything that happens upstream in

availability supplies. So while the capacity may be there, it still is the issue of supplies.

Next slide please.

Historically we've used Aliso Canyon during the winter, you know, almost 84 percent of the winter days.

It's not every day or all day long, necessarily, but it's during those cycling capabilities. And I think it was mentioned earlier by Katie, she was seeming to reference that if we started injections we wouldn't be able to inject in November. We'd be able to inject in November. Maybe it's not all day, but it will be parts of days. But if you have only a mild winter day, you could still inject.

You can also have the ability to withdraw out of other fields to inject in Aliso Canyon, to level out the storage fields and the capabilities. Or you can actually go out and if, you know, our Gas Acquisition Group has the capacity of knowing, they can go out and buy that baseload capacity knowing they're able to put the gas in the ground, so you can plan for it.

So I think we'll be able to inject. And actually, their injection capacity and withdrawal capacity will continue to increase as you go farther and farther into the winter as more and more wells become available through approval by DOGGR and certified for injection.

So I just wanted to clarify that it's not a yes or

no, it doesn't stop November 1st and stop November 1st. It will be a day-to-day decision. The drive will be to inject gas as much as possible during that period of time.

Next slide.

I know these charts are hard to see. But what I wanted to show by this is that issue that we're subject to the upstream. There's two periods here, one in December of 2003 which I'll start with -- 2013. This shows that during the middle of the graph we had a peak demand of a little over 5 BCF. That was December of 2013, not that long ago.

But the key point I wanted to bring out is the red portion of that bar. That red portion of the bar is the amount of gas that was delivered from the storage fields. And if you look at that number you can see that number if well in excess, it's actually in excess of 3 BCF. When you take a look that one day in December the highest peak where we were over 5 BCF, we were getting receipts in the system of less than 2 BCF, and storage was providing 3 BCF. You look across the days and we were well in excess of 2 BCF. And actually during that period of time we were in a curtailment. And we were still continuing to have those demands scenarios. So it's recent history.

The one that I put on the upper left-hand corner, that's not a peak day. That day is only a demand of about 3.8 BCF. But on that day, because of the well freeze-offs

and the lack of supply and supply being pulled elsewhere, storage was delivering 75 percent of volumes being delivered on that day of a 3.6 BCF day. That's not that high a day. So that just represents that if people in other areas of the country need the gas and pull on the gas, what storage has allowed us to continue to operate and really act and have had energy independence from their actions. And that's what storage provides.

So it's not just the peak day, it's not just the high demand day, it could occur any day. And if wells are freezing off or there's high demand in the Midwest, there's a pipeline outage on the interstates, supply is a big issue. We've shown that capacity could be not sufficient, but supply is just as big an issue.

With that, I just want to give you kind of the update of -- next slide please.

You know, we are working diligently to bring Aliso back on. We recognize that both the summer and winter assessments have said that that is a critical mitigation factor, to bring Aliso back on injection. We're working with DOGGR and their approval through the Order 1109 to maintain assurance that we're meeting the requirements that they have laid out, also the requirements that were established in SB 380 that were signed by the governor earlier this year that applies to the inspections at Aliso

Canyon.

Right now we're sitting at about 18 wells that have been fully inspected or are back in service. In a sense, they're ready for service. We are using and would use those wells if we needed to do withdrawals from Aliso Canyon. So we'll use the inspected wells first if we need it for energy reliability, based on the withdrawal protocol that was established.

Our goal is still to restore full operations to Aliso Canyon and be ready late summer, and to start injecting gas as soon as possible to be prepared for the winter demand on our system. So the coordination will continue with the agencies throughout the summer. But we're working as quickly as we can to bring the field back on.

I want to mention that some of that, there's -- next slide please.

Not only are we doing the well inspections and we're testing the well casing integrity, we're doing other things at the field to kind of give us those early indicators, if there could be a problem. A lot of talk has been about tubing flow only. That creates an annual space that we can measures departures on, that can see if there's an early indicator or potential problem. That casing itself has already been tested, the full reservoir pressure, which it will never see. So you have a full tested casing that is

```
not going to be used and utilized for flow, but it allows
   for that measuring of that departure. If there's an early
 2
    indicator, that's the first barrier that will show a
 3
   potential issue. So that's one.
 4
 5
              We're also doing daily infrared scanning. We
 6
   basically have done the pressure monitoring that I mentioned
 7
    on a real time basis. We've also implemented a community
   notification website that people can basically go on and get
 8
 9
   notifications if we have any issues of reportable releases
10
    from that standpoint.
11
              So with that, I think I've talked long enough.
12
    I'll answer any questions you have.
13
              CHAIR WEISENMILLER: Thanks. Let's go through the
14
   panel, and then we'll swing back to questions for each of
15
   you.
16
             MS. KAHL: Good afternoon. I'm Evelyn Kahl, and
17
    I'm an attorney with Alcantar and Kahl. I work with large,
18
    industrial non-core customers and their suppliers who rely
19
   on the SoCal Gas system for its transportation service. I
20
    also work with electric customers in the L.A. Basin, too.
21
   Again, some of the same businesses are both large gas and
22
    large electric consumers.
23
              I wanted to start today by recognizing the very
24
   effective collaboration that has occurred in implementing
25
   the Summer Reliability Action Plan. I think it's a model of
```

success. And I'm really pleased to see the way those of you on the dais, customers, SoCal Gas, other utilities and suppliers have worked together to make this summer work.

My primary objective today, though, is to talk with you about the role that non-core industrial customers have played in supporting reliability this summer, and will continue to play as time goes on.

customers are supporting reliability. The first is an area of support for electric reliability, really. So as a result of a curtailment settlement reached with SoCal Gas and customers last spring, non-core customers are curtailed after -- or before core customers, of course, they always have been. Core customers have the highest priority. But they're also curtailed before electric generators that are needed to provide reliability in the basin.

So both of those purposes are served, electric relationship and core gas reliability, by the non-core support in their lower priority. And at this point, up to 100 percent of non-core industrial load would be curtailed before we got into the electric load that is required to meet electric system reliability.

In addition, as a result of the balancing settlement that was negotiated last spring, these customers are living under very restrictive balancing conditions. And

so both the curtailment restrictions and the balancing restrictions come at a cost and greater risk to non-core customers, and that is how they're contributing.

So I'd like to talk a little bit about the balancing agreement, even though it may be too far in the weeds for you. So before the balancing agreement, customers generally balanced ten percent monthly, so they had to match their deliveries into the system with their usage within ten percent monthly. As a result of the settlement they have set the stage for SoCal Gas asking them to balance daily, not monthly, on a five percent basis. So their flexibility on the system has been restricted substantially. And violations of the orders, the operational flow orders by any of these customers, could result in a penalty. Penalties range from \$0.25 a dekatherm up to 20 times the cost of natural gas.

And customers have seen the effects of the settlement this summer. There have been -- 56 percent of the summer days they've experienced some form of operational flow order. There have been 32 days of low OFOs at 5 percent, and there have been 18 days of high OFOs, two days where both they had high and low OFOs. And while the customers are very motivated to avoid the penalties, there are conditions under which they simply can't balance.

It's easier to understand this from the

perspective, perhaps, of an electric generator. An electric generator's actual usage can vary substantially from its forecast usage or scheduled, depending on how they're dispatched by the system operator. So if the ISO dispatches a generator midday through the gas stay and it's unexpected, suddenly they're widely out of balance with their gas balance and they may not be able to get into balance by the end of the day.

2.3

The same can be true with industrial customers.

Their actual usage may vary materially from their forecast and scheduled usage when they have production upsets or their production schedules change for other reasons.

And so recognizing that these customers have limits and they're not fully able to manage their balances at all times, they have experienced negative impacts from the curtailment settlement and the balancing settlement. They have greater risk and greater cost. They've gone up a very steep learning curve in a very short time. And some customers have incurred OFO penalties this summer.

Other suppliers have observed that there have been price fluctuations related to these new rules. And all of the customers have experienced the frustration and administrative burden of the rules.

The winter plan proposes to extend these restricted balancing rules. And while we don't have

objection to that, what we'd like to propose is if you're going to extend the rules to support the core gas load and the electric load, that you provide some form of mitigation for these customers from unnecessary penalties.

2.3

SoCal Gas in its customer forum, I think it was in May, outlined a mechanism whereby these customers could trade their daily imbalances resulting from OFOs if they were offsetting. So if one customer over delivered by ten percent on a day and another undelivered by ten percent, they could trade those balances with no impact on the system. So although those opportunities may be limited, doing these trades would allow customers to mitigate the impacts of unexpected changes in usage.

The trading system would benefit all customers.

Non-core industrial customers, obviously, would benefit.

Electric generators would benefit. California natural gas producers would benefit. They are subject to the same OFO restrictions as customers are and they should also be permitted to balance within the system. And finally, if the Action Plan proposal for tighter core balancing is implemented, trading would also benefit the core.

So we propose that the Winter Action Plan be modified to include a trading mechanism for daily imbalances under the more restricted balancing procedures. And the details of that proposal have been outlined in a motion put

together by Customer Coalition and filed with the Commission 2 on May 17th. 3 So with that change, we encourage you to move forward as quickly as possible with the plan. Thank you. 4 5 MR. PEDERSON: Thank you, Chair Weisenmiller. My 6 name is Norman Pederson. I represent the Southern 7 California Generation Coalition. Today I am presenting to you for the Southern California Generation Coalition on 8 behalf of the Customer Coalition. And the Customer 9 10 Coalition was the group that filed the motion that Evie just 11 mentioned. It was actually filed August 17, just last week. 12 And it raises a point that Evie mentioned about trading 13 daily and balances. 14 It also mentions a point that is we believe 15 absolutely essential if we're going to get through this 16 winter. And it was a fourth measure that Ed Randolph 17 mentioned this morning. It's the fourth measure in the 18 Joint Agencies Action Plan. It's the measure for this 19 winter for the core to balance to burn as is required of the 20 non-core. It's essential for the core to balance its supply 21 with burn as parallel to the non-core because the winter looks a lot different than the summertime. 22 23 Next slide please. 24 Now you all know this. We've talked about it

earlier today. We've talked about it before today. During

25

the summer the non-core load is dominant. This chart shows how the core, which is blue, and dispatchable EG, on an average day during the summer are, you know, pretty much the same. And on a peak day during the summer they're pretty much the same.

Next slide please.

This shows that on a winter day, on an average winter day the core, which is in blue, is way higher than dispatchable EG. And on a peak day, as you see on the right, the blue bar is much higher than the red bar, which is dispatchable EG.

Now how does the core balance? And Mr. Schwecke got into this some. Currently the Gas Acquisition

Department balances supply it acquires over the course of a gas day. And a gas day, by the way, starts at 7:00 a.m.

Pacific and runs to 7:00 a.m. the next day. The Gas

Acquisition Department balances supply to a forecast that the Gas Acquisition Department gets from, interestingly enough, Mr. Schwecke it gets from another department, it's the Regulatory Affairs Department. They get the forecast at 5:00 a.m. The Gas Acquisition Department gets the forecast at 5:00 a.m. The gas day starts at 7:00 a.m. And so during the gas day they have to just balance to the forecast.

Contrast that to the non-core situation, the EGs, refiners. For the non-core we have to balance our supply

within a given tolerance, which happens to be plus or minus 5 percent, and it's been plus or minus 5 percent, I think Evie mentioned, 60 percent of the days in June and 58 percent of the days in July. Our daily balancing settlement became effective on June 1. And so since then, basically 58 to 60 percent of the days we've had to balance, we the noncore have had to balance within plus or minus 5 percent of our supply, plus or minus five percent of our burn.

And I'd like to just pause for a moment because Mr. Schwecke made a comment that I'll get more into later about what automated metering infrastructure, on which we've all paid a billion dollars to install, he talked about that, and talked about when you find out, you know, what the results are for the daily burn through the AMI infrastructure for the core.

Well, when do we find out about what our burn is?
We find out about it the day after our metered burn is
completed. There is an asymmetry between the gas day and
the burn day. The burn day actually runs on SoCal Gas's
system from midnight one day to midnight 24 hours later.
When do we find out what our burn was? We find out about it
sometime in the middle of the night. Most non-core
customers do have real time meters which SoCal Gas has
access to. But that information is aggregated by SoCal Gas
and then posted on an envoy so an EG, like DWP or Pasadena,

will see it sometime in the early morning hours. And it's all done electronically. People don't do it. They aren't sitting up late at night doing this at SoCal Gas.

Now let's shift back to the core and how they do in meeting their forecasted burn, and how good their forecasts are.

Next slide please.

This slide shows you the percent deviation between the core forecast, that forecast that comes in at 5:00 a.m. for a gas day that starts at 7:00. And by the way, the Gas Acquisition Department has to balance the supply that comes in during that day with that forecast for that gas day. It's not for the measurement of billing day, the 24 hours, midnight to midnight. The core has to balance against its supply coming in from 7:00 a.m. to 7:00 a.m. the next day against the forecast for the burn for 7:00 a.m. to 7:00 a.m. Well, okay, let's see how they do.

This slide shows you a comparison, the deviation between the core forecasted burn for a gas day and what's called the estimated core actual burn. Now you might think, estimated core actual, that sounds like kind of an oxymoron. Well, it might be an oxymoron but it's not moronic.

SoCal Gas can, after the fact, calculate the core daily burn by simply taking total supply coming into the system which they know, by taking the non-core daily

deliveries and burn, and by looking at, there's another group called the Core Transfer Agencies that provide gas to core and to primarily non-core customers that have a very steady load. So they can take total supply, they can subtract supply brought in on behalf of the non-core customers and the customers served by the core transport agencies, and the residual will go somewhere, its core burn. If it goes into storage, they know about that.

So they can come up with quite exact estimated core actual figures, which they have provided to us in response to data requests. But what this shows you, if you compare the daily burns for the core to these forecasts, you can see by how those blue lines go way down the percentage figures or way above the percentage -- by the way they go way below the zero line into percentages up to 20 percent, 30 percent, 40 percent on the negative side, up towards 30 percent on the positive side, the supply brought in for the core doesn't match the forecast quite frequently.

Next slide please.

Even more importantly, what is the frequency of the deviation between core supply and the core supply that is brought in and estimated actual usage? Now SoCal Gas will not provide us with the actual volumes brought in for core customers, but they will provide us and they have provided us with percentage deviations.

And this slide shows you that if you look at the first set of bars, the blue representing the core during the summer and the red representing the core during the winter, that looking at the first blue bar, 85 percent of the time during the winter -- during the summer and 78 percent, that's the second bar, the first red bar, 78 percent of the time the core is out of balance with a forecast by plus or minus 5 percent.

Moving to the second set of bars, the core is out of balance. Summer was out of balance 10 percent with its forecast by 70 percent in the summer, a little less, 60 percent in the winter.

The next one I really want to focus on. This is where the core is out of balance by plus or minus 25 percent, in comparison to a forecast that they got before the start of the flow day at 7:00 a.m. During the summer it was out of balance by 35 percent, that's the blue bar in the third set of bars, 20 percent in the winter. I'd like to focus on that primarily 20 percent of the winter and see what the impact could be for this winter.

Next slide please.

This slide is about that 20 percent of the time the core burn could be plus or minus, this actually focuses on the minus side, or core supply. You see on the right the blue bar for an average day, and it represents, well, with

the purplish part, the core being out of balance within a tolerance of five percent. And the rest of that blue bar is at 20 percent that represents the 25 percent the core would be out of balance on an average day.

Let's look at peak, because there's been a lot of discussion about peak day and we've been worried about the peak day, because that is a design standard for the SoCal Gas system. Let's look at the peak one-in-ten day. You see the purple bar, well, the purple band at the bottom of the first bar, that represents a five percent imbalance. All the rest of it is that extra 25 percent that gives you a total core being out of balance 25 percent, comparing its supply to its burn.

The little red bar over the side of each is the non-core five percent. Well, now what's the implication of curtailment during the winter of this slide?

Please go to the next slide.

The first set of bars shows a situation where the core, as the non-core, brings in supply within five percent -- a five percent tolerance of its burn. Everybody is within five percent. The first -- the tallest bar is the core. The little red part at the top represents the five percent tolerance. The next bar, which is the little, you know, white, short bar is the non-core, non-EG usage. And then the shorter bar is the EG usage.

Let's move over to the second set of bars. If you take a look at the tall bar, well, the first red part, that's the five percent that is within the five percent tolerance that we've been living with since June 1. But then you see a purple part. That purple part represents the amount by which the core would be out of balance that extra 25 percent during those days when it's out of balance by 25 percent.

And then you come over to see what happens with EG, which is the far right bar, the shorter bar, and the non-EG, and you see yellow. The way you make up for the excess imbalance for the core, by having the core be out of balance, not the allowed give percent that's on our daily balancing rules but by 25 percent, which we've seen happens, the way you make up for that is by curtailment.

Now under the current curtailment rules, and I'd like to give just a little bit of a twist on what Evie was saying, actually the way SoCal Gas curtailment rules work that will take effect November 1 is, first of all, for an EG, if you have a curtailment situation, if an EG is not up and running you say don't run. Stay offline. Step two is you can curtail up to 60 percent of EG load. Then you move to the industrials. It's only after the industrials, including refineries, are exhausted that you move to the last 40 percent of EG. But you need something to keep

stability to the system.

1.3

This yellow bar, obviously it's a little bigger than 60 percent. And why do we have a bar different than what you would think, a 60 percent bar? Because those are going to be the rules as of November 1. It's because we took the figures that we use for this from Tables 1 and 2 of the technical report which SoCal Gas prepared, and in Table 2 in the technical report there was -- Table 2 shows that you could curtail down -- you could curtail EGs down to 96 MMCFD and still have them maintaining electric reliability, at least in the sense of not having to shed load. That was 100 that I think we were talking about this morning, just rounded off.

So we've made a worst-case assumption. Let's assume you took EGs all the way down to the 96 MMCFD. And guess what? If you had the core out of balance by 25 percent, then you would move into curtailing the next -- the step forth entities which are the industrials, which includes refineries as a second tier.

Pardon? Pardon?

UNIDENTIFIED MALE: (Off mike.) (Inaudible.)

MR. PEDERSON: Step one is actually the ones who

23 are not running yet.

So the bottom line is we are very concerned that
for this winter we have adoption of a rule that requires the

core to balance to burn. Now Mr. Schwecke said we've installed, yeah, it was a billion dollars of a metering infrastructure system. It wasn't designed to do this. What the AMI system does, it gives you a database. It's just like the NSA, they've got a database of phone numbers. And once you've got a database, then you move the next step to querying the database.

And what they are not doing -- yes, they can query the database to identify the burn for individual core customers. What we would like them to do is query that database to see what the daily aggregated burn would be each day for the core. Would they get that information after the end of the burn day? You bet. But so do we, so do the non-core customers, so we'd be on a par.

And furthermore, we think they'd be even better off. Because the way it works is they have data coming every six hours from the automated meters to units that then transmit the information onto the back office at SoCal Gas. By 8:00 in the evening they could have, if they had the proper querying of the database, information one the full burn during the first 12 hours of a midnight—to—midnight measurement day. And they could use that information, they'd get it at 8:00 p.m., for the first half of the day to adjust their nomination at 9:00 p.m. in the last cycle for making nominations during a gas day to move gas in and out

of storage which they still have a lot of.

So we think AMI can help. And we think that AMI, with the proper querying and the proper programming would enable the core to be treated on a par with the non-core. And furthermore, you'd have the backup because we do have them doing the estimated actual core usage which is the calculations backed out, as I described to you. So that's a measure. That's a measure we think that would certainly help for this winter and prevent curtailments.

And, Chairman Weisenmiller, you raise a question that we are very interested in, and that is how do we cut the cost of what is being borne -- that's being borne by the electric generators? This would certainly help to cut that cost.

And thank you for your attention. I'm looking forward to your questions.

MS. RAITT: Great. Thank you. So our next speaker is Chris Tokas from the Office of Statewide Health Planning and Development. And he'll be speaking remotely, but we won't have an opportunity to ask him questions.

MR. TOKAS: Good afternoon. This is Chris Tokas with the Office Statewide Health Planning and Development. I hope you can hear me, because I cannot get a good feedback of basically how I'm coming through. My apologies for not being there in person. But the friendly skies, as well as

Southwest, apparently decided that they were not going to make this trip possible for me today, but thank god for technology. So I'm able to reach you from the beautiful Sacramento today.

First, as I said earlier, I'm Chris Tokas with the Office of Statewide Health Planning and Development. And a few words of who we are and what we do.

oshpd is the agency that deals with the enforcement of the Seismic Safety Act, or otherwise known as the Alfred Alquist Hospital Facility Seismic Safety Act, which it requires that hospitals must be constructed to ensure the safety of patients and staff in the event of an earthquake. And therefore, to ensure that hospitals are reasonably capable of remaining operational and providing services to the public after a seismic event.

OSHPD is responsible for the enforcement of the Seismic Safety Act which preempts the local building jurisdictions for plan review and construction, and well as observation of hospitals and skilled nursing facilities. So essentially, we're a building department.

The functions of the Office include review and approval of plans, as well as specifications for the alteration and the issuance for new hospital construction and skilled nursing facilities, as well as the observations of their construction to ensure compliance with the

provisions of the California Building Code, which is otherwise known as Title 24.

In addition, the Office is authorized to develop building standards as necessary to carry out the provisions of the facility Seismic Safety Act.

Unlike any other building which has maximum energy requirements, hospitals have minimum energy requirements.

And as you're going to hear in my presentations to you, the primary and the most fundamental, as well as basic reasons, is patient safety, infection control, and everything else that goes into patient safety.

What OSHPD did in order to address the energy issues that California is facing today, last spring we created, under the auspices of the Hospital Building Safety Board, which is the equity board for our organization, a committee. And then name of the Committee is the Energy Management Consideration Committee. The marching orders for the committee, as well as the goals of the committee are as follows.

First, develop innovative strategies and solutions in partnership with the healthcare industry to identify and deploy energy management projects at California hospitals, while maintaining health and safety standards.

Second, evaluate statutory and regulatory code to identify opportunities where OSHPD has existing authority

and flexibility to approve innovative strategies and pilot projects that would result in energy savings in hospitals.

2.3

The third goal is to evaluate existing

(indiscernible) compliance projects because the code in some

cases does not allow the proper path to reach there. And

industry best practices for potential expansion to other

hospitals and health facilities.

And fourth, consider future amendments to the statute itself, as well as the regulatory building code requirements that will achieve energy savings and maintain facility health and safety.

When it comes down to gas loads, in the hospital environment they are used for boilers, for domestic water, and year-round air conditioning when it comes down to heating during the winter times. Both of these are critical to infection control. There is a multitude of national standards that deal with energy requirements when it comes down to hospitals.

In the auspices of -- I shouldn't say the auspices, I should say under the marching orders of the Energy Management Conservation Committee, we thought that it would be, again, an excellent resource for us to incorporate the staff of the California Energy Commission, which they have been invited in our meetings. They have participated in our meetings. They have made the meetings successful.

And their purpose there is to assist us with evaluating energy savings projects for efficiency and cost effectiveness.

Meanwhile, we did post the names of the California Energy Commission Staff, as well as their contact information on our website, so that various hospitals or hospital engineers can actually contact them directly in order to find what available solutions they can utilize for energy conservation.

This summer, in anticipation of possible extreme heat conditions in Southern California and the possibility of inadequate supply of natural gas in Southern California, which would probably lead into brownouts of blackouts for electrical power, we created a location on our website and we were seeking suggestions and recommendations from various hospitals which, again, they would come up with possible solutions to immediately reduce natural gas consumptions, which in turn they could be available to other hospitals in the state of California that they can be utilized and immediately be taken advantage of.

The committee is meeting in this coming September.

And the agenda for this meeting in September is for

hospitals to present energy-conserving other methods of

compliance that we have received in the course of the last

two or three years so that other facilities, hospital

facilities in this case, take advantage to them. And also for us to provide any energy conservation ideas that were received on our website, as I mentioned earlier, as well as any products that the California Energy Commission has reviewed and reported which they may assist hospitals with lowering their energy consumption in this case.

In the meanwhile, we're working actively with the California Energy Commission in order to draft energy regulations with regards to what is commonly referred to as Part 6 of the California Building Code that deals with regulations when it comes down to lighting, that deals with regulations that comes down to the building envelop in order for us to increase energy savings.

So that pretty much gives you a pretty good view of what's happening on this side as far as energy conservation. (Coughs.) Parson me.

And also, while we're doing all that, we are encouraging the facilities, these are the hospital facilities for the state of California, to find solutions in alternate of supplemental power with regards to solar, photovoltaic micro grids or other fuel cells.

As I said earlier, that gives you a pretty good idea of how we're trying to address the California hospital side of the building environment.

And with that, I will pass the mic back to the

chair. Thank you.

CHAIR WEISENMILLER: Thank you. Yeah, actually, Soy (phonetic) he's not here today.

For background for everyone, after our last assessment I sent letters to a number of state and federal agencies to encourage them to do energy efficiency preferred technologies, and to start moving on it. The good news is you can tell, as Diana Duly (phonetic) is really moving forward on the health side. The bad news is, as you can see, there's not a lot of others that we could bring down today to talk about their progress to date. But again, certainly all of my letters are in the docket file, so I won't exercise naming names. But anyway, it's at least good to have gotten some response. And, frankly, hospitals are a very major energy of use -- major energy users. So getting their cooperation is certainly good news, Soy.

So anyway, with that, some progress on at least that part of the public agencies.

Switching to questions, I guess the first one for Roger is when do you really anticipate at this point filing an application on the reinjection questions with, obviously, DOGGR and PUC?

MR. SCHWECKE: Well, again, you know, we say late summer. In California someone may say that's December; right? But I think what we have to do, we have to juggle

the issue of having the number of wells approved, along with the withdrawal capability that has been required by us of the Commission to maintain the 420 million cubic feet a day withdrawal capacity. So we have to juggle that.

And the way we're maintaining today is the possibility to use that have only passed phase one of inspection if we need it for energy reliability. Those wells have to be plugged and isolated. But we have to get enough of the inspected wells to reach that level, difficult at this point in time by the sheer number of wells we have. So that is really the limiting factor of when we can ask for injection authority, with that 420 in place. As we get towards the end of the summer does that 420 change? I guess that's a conversation the Commission will have in that.

Also, the wells have the tubing flow-only configuration. And the capacity of those wells are less. We still have a lot of fluids in the wells that we have to clean up. Because every time you're doing an inspection you're actually filling the well full of fluids. And with low reservoir pressure, it's hard to clean the well up or remove the liquids to get the ultimate capacity out of those wells.

CHAIR WEISENMILLER: Again, I'm just trying to get a little more. In late summer, I mean, do you expect -- I mean, it comes back to President Picker's comment, I was

trying to figure out timing. 2 Would you expect September 1-ish? Would you 3 suspect October 1-ish? I mean --4 MR. SCHWECKE: Yeah. I would say it's going to be 5 later in September, or closer to the October 1st date. 6 CHAIR WEISENMILLER: Okay. The next question --7 well, let me first say, does anyone here have questions on that issue? Okay. 8 9 One of the issues that came up that Los Alamos raised was this Wheeler Ridge-Honor Ranch issue. What's 10 11 your sense on what's going on there? MR. SCHWECKE: Well --12 13 CHAIR WEISENMILLER: I mean, you must have had to 14 deal with it for years. I guess it's part of the question. 15 MR. SCHWECKE: Yeah. The issue has been there all 16 the time since, you know, Wheeler Ridge was put into 17 service, along with Honor Rancho. I mean, they feed into 18 the same line. The amount of capacity of that line to 19 receive gas, that's always been the case. When we looked at 20 prior planning you didn't have to maximize the receipt 21 points because you had Aliso Canyon. 22 So it didn't maybe come to the forefront that 2.3 there is that limitation, but it has always been there. we use, you know, a certain amount of supplies that come 24 25 into the system which could be at other points, and then

```
fill in with the storage capabilities. So if you only
   assumed you're getting 2.5 BCF of supply, you didn't have to
 2
 3
   maximize Wheeler Ridge's capacity. So that limitation has
 4
   always been there.
 5
              By the way, the model was done and having to
 6
   maximize the utilization of Wheeler Ridge at its full
 7
    capacity, then it showed in the model run how that
 8
    limitation actually is impacted.
 9
              CHAIR WEISENMILLER: Okay.
              MR. PEDERSON: Chairman Weisenmiller --
10
11
              CHAIR WEISENMILLER: Sure.
12
              MR. PEDERSON: -- from our standpoint there's
13
    something more involved here. We certainly understand the
14
   point that if you fully load the Wheeler Ridge
15
    interconnection point, which is on SoCal Gas Line 225, and
    you have a fully loaded Line 225 going past Honor Rancho,
16
17
   which also feeds into Line 225, that you might have a
18
    reduction of 1,000 MMCFD withdrawal capacity by 125. I
19
    think that was a figure that was in the technical report.
20
              But there's something else going on. If you move
21
    seven pages later in the report there is something about the
22
   hydraulic modeling that results in an even further
    diminution in the withdrawal capacity at Wheeler Ridge,
23
   beyond the 125.
24
25
              And I see Mr. Schwecke is frowning a little bit.
```

But we have a data request that we sent yesterday to SoCal Gas on that second feature, which we do not understand.

MR. SCHWECKE: Yeah. And the amount of capacity reduction was 1.5 million a day. It went from the BCF to the 850, and that's what was used in the report. I don't recall seeing any further reduction in the analysis.

MR. SCHWECKE: We'll find out.

CHAIR WEISENMILLER: In terms of which -- in terms of how much -- and again, you have to go through the process on the wells. You have to go through the regulatory process. You then have to, you know, start reinjection at a relatively late time, what is your range of best-worst case for how much gas might be in storage at Aliso, say January 1st?

MR. SCHWECKE: You know, that's a very good question. You know, it will obviously depend on the number of wells we have in service, their ability to inject gas, how the weather patterns play out in Southern California and whether you have supply. But I could easily see us, if we're able to inject 250 million cubic feet a day, you know, for, you know, 60 days, let's say you say October and November, 60 days or 90 days to get to January 1st, then you're talking, you know, somewhere around 25 to 30 BCF, plus the 15 in the ground.

CHAIR WEISENMILLER: Certainly, if you want to

think about it some more and submit something in writing later, that would be good.

One other question I was going to ask you, which Norman can probably answer with an adjustment, Norman did a lot of the percentage variation on core. Obviously, I was very interested in the magnitude. You know, we have this magic 150 or whatever. And so I was going to ask Roger to provide the variation on core, but to do it more -- if you could just switch your chart to provide a table that goes through -- not on percentages, but magnitudes.

MR. SCHWECKE: Okay.

MR. PEDERSON: Therein lies a real problem. We have had a number of go-arounds with SoCal Gas about providing volume information to us, as opposed to percentage deviations. And they say that, well, that's commercially sensitive information, and so they claim it's confidential and they decline to provide it to us. And so we have gotten numbers from them in terms of deviations, percentage deviations. And then we've been able to compare -- we've been able to analyze those, as you've seen in these tables. But we do not have the volume numbers for those reasons.

But I might say, I think the Commission could get them.

CHAIR WEISENMILLER: No, I was going to say, I think the question, at some point we know there's -- you

know, the magnitude of the variation is what we're concerned

```
about. And the question I'm trying to figure out is,
   though, a way through aggregation that Roger could provide
 2
 3
    information to us that connects, without going day by day, I
   guess is what I'm saying, but something that gives us a
 4
 5
    sense of the magnitude of the quantities.
 6
              MR. SCHWECKE: And we can look at providing those.
 7
    I think we can work with maybe Ed Randolph's group to
   provide that information and see what would be the best way
 8
 9
   to present it and provide the information. I mean, when you
    look at the core customers, a one degree change, just for
10
11
   magnitude, a one degree change from a forecast to actual is
12
    100 million cubic feet a day. It's a big change. So I
13
   haven't seen, you know, a weather forecast be, you know,
14
   within one degree in quite some time, but that's the
15
   magnitude.
16
              But we can look at providing the information on an
17
   historical basis.
18
              CHAIR WEISENMILLER: Yeah. But again, that
   magnitude of variation is troubling for the winter. And so
19
20
   part of it is trying to figure out ways to mitigate the risk
21
    of that magnitude of variation.
22
              MR. SCHWECKE: And that's why the core has the
2.3
   utilization of storage to balance their loads.
                                                    I don't know
   where Mr. Pederson got the information. But we'll look at
24
25
   providing something along those same lines.
```

CHAIR WEISENMILLER: But again, you know, not to be argumentative, but part of that, the core has storage rights in all the facilities. One of the facilities it can't use those rights is Aliso Canyon. So, you know, you have the other storage fields you can use, you know, to mitigate that somewhat, but there's a big chunk there. Which is, again, why I'm sort of trying to figure out how worried should I be and what are some of the mitigation measures we can come up with in that core variation? MR. SCHWECKE: Yeah. And I think we have to, on a going forward basis, you know, since we don't necessarily allocate field by field storage capacity, you know, how much is the storage capacity that is available, whether it's the just the other three fields or whether it's the other three fields plus Aliso? And then how much can core utilize? They'll have to then look at purchase supplies to make up the difference. I mean, that's plain and simple. But, you know, as Mr. Pederson was mentioning about this after the fact, doing an after-the-fact requirement to balance doesn't change that forecast issue. Because no matter, if I have a forecast error on a given day, and then I say I have to balance to the meter consumption the next day that I get it, it didn't change the reliability issue on that day of demand. It doesn't,

because it's all done after the fact.

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

COMMISSIONER SANDOVAL: Thank you. So I just wanted to follow up on that, Mr. Schwecke.

So why do you find that the core tends to be off so much more? For non-core you've got -- there's, for the most part, sophisticated industrial customers and other customers who also have people who are really focused on energy management. You know, the core, most of the core being residential, right, it's your average householder who is the energy manager. So, you know, why does the core tend to be off as much?

And just thinking about what are some of the range of solutions that we should be looking at? I'm thinking about both, you know, how do we harness the smart meters? What are some of the efficiency and demand response things we should be doing, as well as just simple messaging, where it's projected to be cold, messages like don't use your dishwasher today, you know, don't use the clothes washing or the dryer if it's a gas dryer, so minimizing use of hot water.

Even in L.A., sometimes people still use outdoor watering during the winter. But when you water outdoors, even though it's cold watering, the water plant that got the water to you is still using electricity.

So there are things that we could be doing with the messages to also help the residential customers really

figure out how to better manage when we're in a situation where things might be tight.

MR. SCHWECKE: So I don't know if I would say that core is off any more than non-core customers. Mr. Pederson put up what, you know, was the core difference. I think it would be maybe enlightening if we looked at some of the non-core customers and see their differences, as well, to see how those customers may have been missing their forecast, as well, just to put it in perspective.

But I agree with you. Looking forward as to like the demand response or other activities we could do on the conservation side to look at how we can provide and change that message and change that can assist in, you know, helping to reduce demand during the wintertime period.

COMMISSIONER SANDOVAL: And then --

MR. PEDERSON: You can get the answer to that fairly easily, Commissioner Sandoval. We have been balancing, and you can tell by whether or not we were paying in penalties. And when we don't pay penalties we adjust our burn throughout the day.

You know, it used to be, you know, back in the good old days when we had Aliso, you know, you could have the person responsible for your gas nominations for the gas day come in at the beginning of the day, maybe make a couple of intraday one-cycle switches from the previous days

nomination, and the phrase was set it and forget it. But now they are working through the day, each intraday cycle.

And each intraday cycle is more and more difficult from the previous one because each later intraday cycle is less liquid and more expensive to participate in.

Now with the core, they are just balancing to this forecast. And so in our view, they can still go back to the good old days of set it and forget it. They have the five o'clock forecast. Maybe on intraday one they make some adjustments because they had made a timely nomination the day before, maybe an evening nomination the day before, they might make an adjustment. Intraday one is the most liquid of the markets. And whatever form, as long as their flow during that 7:00 a.m. to 7:00 a.m. gas day meets the forecast for that very same 7:00 a.m. to 7:00 a.m. day, they're done.

MR. RECHTSCHAFFEN: Cathy, excuse me for a second.

COMMISSIONER SANDOVAL: Yes.

MR. RECHTSCHAFFEN: So, Mr. Schwecke, can I just ask you to just to follow up on this line of discussion, if there's anything else you would want to respond about why the core customers shouldn't be subject to the same balancing rules that non-core are. And are there other programs more -- you know, we talked a little bit about demand response programs. But are there other programs that

can be put in place for those core customers so that they have the incentive, so that it's easy to come into a balancing rule?

Because it does seem like there's a pretty strong case that Mr. Pederson made that there's a lot of days where the core is out of balance. We don't know the magnitude. We'll hopefully get that from you. But the Action Plan has proposed these balancing rules. And I just want to make sure we fully understand why it can't or shouldn't be done.

MR. SCHWECKE: So just to clarify, core balances daily during OFOs, just like non-core customers. The only difference that Mr. Pederson is talking about is that core has to balance to a forecast because we don't have measured consumption on a real time basis or very near the same day. That's the only difference. They still have to balance the same for OFOs. That's not what the discussion is. The discussion is about using a forecast.

I'd also like to clarify that every single large non-core customer has the ability, and most of them, I believe, has taken it, to get a signal off our meter on a real time basis to know exactly how much gas they're burning at that moment in time. And I don't think I know of a power plant that doesn't know how much gas they're burning as they're operating.

So but we'll all, you know, have discussions on

```
looking at -- you know, it's hard to think off the top of my
 2
   head on other demand response issues, energy conservation.
    So I don't know if that --
 3
 4
             MR. RECHTSCHAFFEN: It seems like a way to create
 5
   the financial incentives aligned with where we want to go.
   The non-core folks have the -- you know, they've incurred
 6
   penalties. And so these are other financial incentives to
 7
   get us more closely in balance. So it would be very helpful
 8
 9
    to look at that and see what else you can come up with.
10
              MR. SCHWECKE: Okay. And we can take it back and
11
    see if we can come up with some other items.
12
              CHAIR WEISENMILLER: Okay. Tom, one last
13
   question?
             MR. DOUGHTY: Yes, sir.
14
15
             Roger, we went a lot of time in the electric
16
   business around automated meter infrastructure. I'm just
17
   wondering, is the design of your system, you mentioned it's
18
   not suited, it's not designed for this kind of data
19
   transfer, is that a technology issue or a product design
20
    issue? What makes that non-real time data unavailable?
21
             MR. SCHWECKE: So I don't know exactly. We'll
   have to get back to that when we provide that written
22
23
   comment. It's my understanding is that we only take the
    data, chunks of data, just the sheer volume of data that has
24
25
   to be transferred at a given time, and it has to be spread
```

```
out over the day, over, you know, six-hour periods, and to
   then aggregate that data when it's not all available.
 2
 3
   we can give more explanation. As we work through looking at
 4
   that mitigation measure, then we can look at what the
 5
   technology capabilities are to see what can we do and what
 6
   can't be done.
 7
              CHAIR WEISENMILLER: Okay. Great.
                                                  I think we're
 8
   obviously eating at the break again. But I think the basic
 9
   message, Roger, is that we really have to deal with ways of
10
   mitigating this, and we really would prefer that to be ways
11
    that are focused on demand response, energy efficiency,
   preferred technologies for core customers going forward.
12
13
              So we're going to take a short break. Looking at
14
    this, let's say three o'clock.
15
         (Off the record at 2:53 p.m.)
16
         (On the record at 3:03 p.m.)
17
              MS. RAITT: So our first speaker for the Key Stake
18
   Representatives is Issam Najim from the Porter Ranch
19
   Neighborhood.
20
                         Thank you very much for the opportunity
              MR. NAJM:
21
    to speak here today, Mr. Chairman, Panel Members. My name
22
    is Issam Najm and I am the Board President of the Porter
23
   Ranch Neighborhood Council. And I'm speaking today on
   behalf of the Neighborhood Council.
24
                                         I'm also an
25
   environmental engineer who relished in the review of the
```

documents and the analysis conducted here. However, I will make sure that that engineer does not participate in this conversation.

I want to start by saying that we have immersed ourselves today in a lot of numbers and a lot of analysis and a lot of statistical work on risk and uncertainty. But I want to make sure that we do not forget the human element in the equation and in the situation that brought us into this.

To that end, I'd like to remind you that regardless of the testing that's being done in the field, if the reservoir is refilled, there has been no change in the configuration of the well connections to the field. So any similar accident like this would put us into the same four month run-from-home situation that we just cannot afford to be exposed to again.

Now I very much appreciate all the work that's been done and the coordination effort to improve the efficiency between the supply and demand from the PUC to the ISO to the LADWP, and all the other parties involved. It's been spectacular and it's proved to be quite effective, certainly in the summer.

Now I am sure that everyone agrees that the availability of a greater supply and a higher storage volume results in a lower risk. It's a simple conclusion. It sure

let's everyone sleep better at night. And I realize that this isn't a-typical operation for SoCal Gas and all the users on the system. So this is all new to everybody, and I appreciate that.

Now I have listened to the representative from the Gas Company talking about the potential curtailment. I am sure I can come up with a scenario where the system would go through significant curtailment problems, even with Aliso Canyon. So it is not a difficult thing to get to, either. The important thing is to take a look at the plan that you have developed and assess the validity of the analysis that's done in there, and you have done that. But even with all the piling of one uncertainty over another, the worst projected day appears to have a low level of shortage that be easily supplied by the current volume that's in Aliso Canyon in that last resort situation.

So our community urges you to recognize that the analysis conducted by all the smart people in this room, while it makes engineers a little uncomfortable, the system, even in its current configuration, can supply the gas demand of the L.A. Basin. And that seems to be the conclusion of your report, as well.

An observation that I had is that the current question that's being asked seems to be: What is the risk to operate the system without Aliso Canyon? And I realize

you need to limit the question to this for the coming seasons. But I submit to you that the next question should 2 How should the question be configured in order to 3 operate safely and reliably without Aliso Canyon, and for 4 5 that matter, any other urban storage facility, which I 6 realize is a discussion you're going to have in the 2017 7 workshop, and so we'll leave it at that. 8 And finally, I'd like to urge the Governor's 9 Office to ensure that the Greenhouse Gas Mitigation Fund resulting from the settlement with SoCal Gas comes back to 10 11 the community, and the entire San Fernando Valley in the form of steep subsidies to rooftop solar systems that will 12 13 go exactly towards the goal of reducing the power demand, and therefore the gas demand in the L.A. Basin. It is a 14 15 win-win outcome to this situation that we are in. 16 And I thank you for the time. 17 MS. RAITT: Excuse me. Thank you. 18 The next speaker is David Meyer from the U.S. 19 Department of Energy. And since we are running a little 20 behind, we're going to go ahead and run the five-minute 21 timer. Thanks. 22 Okay. Well, thank you. I am David MR. MEYER: 23 Meyer representing the U.S. Department of Energy. And thank

The Department has consistently maintained a keen

you for the opportunity to participate in this discussion.

24

25

interest in matters related to energy reliability, including policy development, the design and conduct of tabletop exercises, resource and contingency planning, assistance to others in responding to emergencies, and forensic analysis of major reliability events. But I also wanted to mention the great work done on these topics by experts from our National Labs. And I know they've been active participants in the collective response to the current challenge. And I'm sure they will continue to be of service to you and to the nation.

The Department is now co-leading the administration's Interagency Task Force on Natural Gas Storage Safety which was established last April. And the Task Force has commissioned several technical analyses related to underground storage. And it's now working on a synthesis report that will present the key findings from those analyses, and also recommendations based on the findings from those analyses. We expect to release this report this fall, but as yet I can't give you a specific date for that release.

I am most familiar with one of the technical studies, which is a risk analysis of the nation's more than 400 underground natural gas storage facilities. This study is based entirely on publicly available data. So it's results are not as specific as we might wish. But however,

it will enable us to identify the storage sites where it appears that service disruptions for a month or more could potentially induce electricity reliability problems in the affected communities.

Based on this study we expect to develop recommendations to improve the quality and availability of data pertinent to all natural gas storage sites and wells that serve them. We also expect to have recommendations about planning and analyses needed in the electricity sector to be prepared for potential abrupt loss of substantial quantities of gas-fired generation capacity.

But perhaps the most important of these recommendations will focus on the need for sustained and focused coordination between the gas and electricity industries going forward to address their joint concerns about energy reliability.

The kind of work that you folks have been doing, you've been doing it in an imaginative, responsive way to the problems immediately in front of you. But there are many of these lessons that have broader implications for these two industries going forward.

Thank you. I look forward to questions.

Good afternoon. My name is Tim O'Connor. I'm an attorney for the Environmental Defense Fund here in California. EDF really appreciates the opportunity to come

and testify before you today.

Like many of you, we've been quite busy over the last several months dealing with a range of issues that relate to Aliso Canyon and relate to the issues that we've been talking about today. Since the last workshop we've participated in the DOGGR rulemaking, hiring independent experts to evaluate the rule making proposals, to evaluate the Aliso Canyon public reports, to weigh in on the efficacy of the proposed emergency and permanent rule makings for preventing a situation like this from occurring again.

We've participated at the Public Utilities

Commission, filing comments at the demand response auction

mechanism. We've been working at FERC to recently submit

reports and comments on the CAISO rule proposals. And we've

been working with CAISO, as well.

In the legislature, we've been supporting and hope to get SB 380 and SB 887 passed this year, which are two important pieces of legislation.

And from this vantage point the Environmental Defense Fund, I think, has a unique perspective to offer some insights on both the Action Plan and on the analysis that went into it. And I must say that it is quite an improvement over the one that we saw from the summer in both the readability and the transparency. And the use of independent external experts to evaluate the analysis I

think is a marked improvement, and we thank you for that.

But there are four areas where I would like to focus your attention for improvement on the Action Plan.

And first is that the Action Plan does not require any reporting on weatherization programs, in particular those implemented by Southern California Gas Company, and the program subscription rates, and the amounts of the gas saved from those programs. While the report does discuss new demand response programs, it doesn't require the most basic of gas burn reduction efforts, things that will allow for us to compare one utility's performance against another utility's performance.

And why is this important? Well, I think the data reported by Southern California Edison in May of this year is a very clear example. When you look at their program performance for energy efficiency, which includes HVAC in homes and businesses, things that have direct results in gas reductions, we see that while they're authorized to spend \$72 million, they only spent \$51 million, a 71 percent program usage rate. Whereas 87,389 houses were authorized to be retrofitted, only 54,000 actually approached a 62 percent subscription rate for this program.

How do we compare one utility versus another utility if we don't have that basic reporting data? And that's something which I think is lacking in this report.

And we think that some public information could very much help.

Second, while we have had this summer reliability issue, you know, because of the Aliso Canyon well failure the Air Resources Board has been developing regulations that would require reporting and monitoring of leaks from facilities, like the Aliso Canyon facility. And we see that when you find leaks and you find them early you can actually help to prevent larger instances from occurring.

PG&E is a very clear example of where they found some small leaks in the MacDonald Island facility earlier this year. And after looking at those leaks and then inspecting their wells, they found eight wells leaking and shut that facility down. And we think that they might have prevented something bigger from arising.

Oh, unfortunately, some utilities in California are opposing common-sense regulations on leak detection and repair at natural gas storage facilities like Aliso Canyon, like the Playa del Rey facility. And those utilities, I think, are standing in the way of progress for us to be able to find leaks and to prevent major catastrophic incidences that can result in reliability issues, as we saw from Aliso Canyon.

Southern California Gas Company actually asked for delayed implementation of these regulations, asked for leaks

of larger size to be able to be leaked before they were fixed, asked for longer inspection times. This is not the mark of progress in this area, and something where we think the reliability report can say completion of these commonsense rules at storage facilities can help to achieve longer term reliability in this sector going forward.

And, of course, while I know that the reliability analysis is looking at short term, and I'll conclude in just one second, is looking at short-term, the long-term nature of this is quite important, both in the environmental side and the reliability side.

We'll be providing a lot of comments, of course, as the workshop happens and we look at how we change the energy system in California to adapt and give more resiliency. But one thing we have not talked about is what happens when we do import electricity into Southern California to make up for that in-basin generation? And a lot of that is coming from coal plants outside of the state. We haven't looked at the environmental dis-benefit of a lot of this, outside of just the basin. And I think we need to be having a more holistic approach going forward, and not just looking at the near-term issues.

Thank you.

MR. SCHILLER: Hi. This is Steve Schiller from
Lawrence Berkeley National Lab. I thank you for the

opportunity to speak today remotely. And I know you're tight on time, so I'll talk fast and go through my comments in five minutes. And since I actually can't hear your timer, I will set my own here.

So I wanted to start off with some specific comments on actions that can be taken to quickly reduce energy consumption, both electricity and natural gas. It's hard to ramp up equipment installation type actions quickly. How that goes will depend on the efficiency and DR infrastructure in place at the PUC, the Gas Company, Edison, and the POUs, and the ability to cut through various administrative requirements.

But in summation, although we can take advantage of hardware investments that include controls, I believe behavior-based programs and not new equipment-based programs would be most effective for immediate action this winter.

And as noted in the Winter Action Plan, messaging and behavior-based programs can be very effective if done well.

There's a history of such action in California such as during the so-called energy crisis, and more recently with the drought, and, of course, the Flex Alerts mentioned by Mr. Randolph earlier today.

While I believe it is correct, as indicated in the Winter Action Plan, that there have been no core natural gas behavior programs, there is a great deal of experience with

electricity DR residential programs. And with AMI smart meters in the Gas Companies territory the infrastructure and expertise is in place which can support DR. It is my understanding that as part of the Gas Company's AMI decision they are required to set up such behavior-based programs.

With regards to low-income and disadvantaged communities, recognizing that these communities are the ones typically most effected by outages, energy price spikes and pollution, personally I would say this is very important to focus efforts to support these communities during this time. And the state can help them not waste energy for their own and the system's benefit.

However, one should recognize that there's often the suppressed demand for energy services in low-income homes. Thus, many low-income community upgrades with an efficiency focus can result in more efficiency use of energy, but not necessarily in a reduction of energy consumption due to what's known as the rebound effect. And I can talk about that more, as necessary. Also, for low-income communities, and while it's nice to include everyone, I'm not sure how effective DR programs can be with such consumers who already have a level of suppressed demand.

And here are some specific recommendations for such behavior-based DR programs. These are based on efforts throughout the world, including some documented by my LBL

Colleague Alan Meier in his book, Saving Electricity in a Hurry. First, you have to know where the gas and the electricity is going. And for the DR, you need to have this segregated data. Well, what I've seen is the agency and Gas Company reports provide the winter date with 60 percent of consumption going to core, much more disaggregated data are needed to target actions, and that's certainly available with AMI.

You need to provide for a public real time display of gas use and system capacity. For example, the natural gas system equivalent to daily curve showing consumption as it grows closer to the lower capacity. This is so that people can see the crisis. This has been shown to be very effective. And you can think of the daily graphics of the ISO electricity demand capacity load curves, which were actually developed by LBL, that we also saw during the energy crisis. It told people very visually what was happening and encouraged and supported action.

You have to tell people six things with these types of programs. One, tell them their solutions. Tell them how they can be part of the solution. Give them specific actions they can take. Tell them how long it will take. Tell them how they're doing. And reinforce positive actions.

That marketing has to support efficiency and DR in

social norms, normalize the desired behavior. With that normalization, find ways to make efficiency visible. EE is not not sexy, it's just not visible. Think of how people showed their participation in addressing the drought with dirty cars and brown lawns, sort of a badge of courage, badge of honor. In making savings visible, think of those who have a certain percentage of being able -- to save a percentage, being able to put a sticker on their front door for all to see, saying I did the normal thing, I did my part.

And the long-term opportunity is there, too, with AB 802 and AB 758 programs for disclosure could help.

It's also very important and helpful for messaging to have someone clearly in charge to make the pitch and to be seen as a leader. Such again, as the governor did the water crisis. And it's good to do this thinking about what the potential is. In my very quick calculations, on the back of an envelope here, based on the information I've seen, today says that you could maybe get there with the core alone which is 10 to 20 percent reductions. And while these levels are perhaps difficult to achieve and sustain, they're not beyond the levels that we've seen in other crises. And these behavior-based programs can do that.

I lastly want to strongly emphasize that, you know, you look at this as an opportunity, as well as a

challenge. Never waste a crisis is a favorite expression of many folks. And you can use this opportunity to build the support for a structure for long term, not just short-term benefits, whether that be for members of disadvantaged communities in the Porter community, but also the system for getting upgrades to natural gas and an electricity infrastructure that becomes more reliable with imbedded DR infrastructure.

And lastly, I just want to quickly say that on this point, as implied earlier today, the avoided cost and the PUC's cost effectiveness protocols may very well become an issue that needs to be reviewed and adjusted with this long-term picture in mind, as well as the short term, as lower natural gas prices are being projected. LBL has done some work on this topic, specifically for natural gas in a low-cost environment.

So with that I want to say thank you, and turn it back to the Chair.

MS. RAITT: Thanks. Next is Melanie Frye from the Western Electricity Coordinating Council.

MS. FRYE: Great. Thank you, Heather.

As Heather said, I'm Melanie Frye. And I'm here today on behalf of Jim Robb, our CEO, who was unfortunately unavailable to attend. He was here at your April workshop and very much appreciated being part of that.

So my position is I'm the Vice President for Reliability Planning and Performance Analysis. And part of WECC's role, for those of you who may not be familiar, is we're the regional entity responsible for assuring the reliability of the electric system in the Western Interconnection. We focus on the bulk electric system, not the transmission -- or excuse me, the distribution system. And we also don't have any jurisdiction over the natural gas system.

2.3

However, the Aliso Canyon situation has really brought to light the challenges and the interdependence between the two industries. So we have a team that has worked very closely with the entities involved. And we very much applaud the Energy Commission, the Public Utilities Commission, California ISO, LADWP, and SoCal Gas for all of the work that they've put into analyzing and understanding the situation.

We're also very pleased with the level of communication and the remarkable level of coordination that has gone amongst these industries and the entities involved throughout the summer of this year.

WECC, in its role as the regional entity, focuses on assuring the long-term reliability of the system. And part of that role is to understand the long-term risks to reliability. This situation has certainly raised our

awareness, along with NERC, the North American Electric Reliability Corporation, and has caused us to think more fully about the interdependencies between these two industries.

Today I'd like to offer our perspective on the coordination that has been involved this summer. We've been allowed to be involved in numerous daily and weekly calls between these industries and are very pleased with the coordination that has gone on, not only between the operating entities, but also peak reliability who has responsibility for the overall assessment of the situation.

When we spoke here in April we talked about the coordination and the role that WECC could offer. We participated with NERC, as well as Peak Reliability, in pulling in a broader group of entities, balancing authorities in the area. And as we heard today from the ISO and LADWP, there are times when support is required from their neighbors, and that has been a critical component of this. And WECC working with Peak Reliability will continue to support the overall coordination amongst those entities.

As we move into the fall and winter months we all know that the risks to reliability continue to exist, but they are changing, and we've heard a lot about that today.

WECC's view is that it is critical that the Aliso Canyon continue to remain available for both gas and electric

reliability in its current form with the 15 BCF that is available today. And we applaud the work that's underway to update the availability rules that will allow the usage of that gas.

2.3

We're also encouraged by the mitigation plans that we've heard about today and the action plans that are in place, really encouraging coordination at very high levels within these organizations. We would certainly encourage continued detailed coordination at the operational level as these entities need to work on a day-to-day basis to make sure that both the gas and electric system remain reliable.

We were also very encouraged that LADWP has proceeded and has continued to work toward dual fuel capability within the L.A. Basin. As we have learned through this, there is a limit to the amount of imports that can be handled and that the system can support. And there are times when internal generation is important to maintain the reliability of the electric system. So we're very encouraged by what we're hearing with that.

Beyond the winter season, as I mentioned earlier,
WECC continues to believe it's important for the electric
reliability organization to continue to study the
interdependence between these two industries. We've engaged
in some conversations with some of our stakeholders,
including the Department of Energy and the Western

```
Interconnection Energy body, to consider taking on a broader
   study to understand the interdependence of the two
 2
 3
    industries. And we'll continue to work through our
   stakeholder processes to get more information and
 4
 5
    involvement on that.
              So I'd like to conclude by saying that WECC will
 6
 7
   continue to remain focused on the reliability of the
   interconnection. And we'll do all that we can to support
 8
 9
   the entities that we work with, focused on the bulk electric
10
    system reliability.
11
              Thank you again for the opportunity to be here.
12
             MS. RAITT: Great.
                                  Thank you.
              Next is Jessica Duboff from Los Angeles Area
13
   Chamber of Commerce.
14
15
             MS. DUBOFF: Good afternoon. My name is Jessica
16
    Duboff. I'm the Vice President of Public Policy at the Los
17
   Angeles Area Chamber of Commerce. The Chamber is the oldest
18
    and largest business organization in the region,
19
   representing over 1,650 businesses of all sizes.
20
    you'll hear from individually later, but I'm here to speak
21
    to the broader concerns of the business community, and to
22
    represent those that don't have the ability to be here
23
   today. Thank you for this opportunity.
24
              Natural gas is a core economic input for the Los
25
   Angeles economy. It is a commodity necessary to everyday
```

operations, just like water and electricity. Many of our economies core businesses and industries depend on a top rate, often 24 hours a day, 7 days a week. Even a small disruption in service could have significant impact on business operations, employment and earnings. Minor disruptions could mean that someone isn't able to go to work and collect a vital paycheck. For example, the cooks and housekeepers that would have to stay home if a hotel has no heat and has no customers.

Businesses that could face an impact this winter include hospitals, universities, refineries, manufacturers, train operators, airports, hotels, theme parks, and movie studios. Many of these facilities would be left without other options or the ability to switch to alternative sources.

Unlike electricity, many of these critical facilities cannot simply replace their natural gas use with another energy source, nor can they quickly replace costly heating equipment critical to operations. The thin operating margin site in the report exacerbate existing anxieties L.A. businesses already feel when it comes to existing energy supplies. We don't like to cut it close when it comes to such a critical commodity. That's why the business community wants the Aliso Canyon storage facility back online as soon as possible.

We are glad that all the agencies represented today are working together to address our regional energy concerns, but we don't want to have to continue emergency planning for energy needs on a three- to six-month basis. This is not prudent planning, and not how any business operates.

2.3

He business community wants to ensure there's a safe, reliable baseline supply of gas and electricity for our regional economy in the short and long term. These are good reports and planning documents before you today. But as we all know, even the best laid plans. The assessment finds a shortfall of 0.3 to 0.5 BCF. And while that may not sound like much, it is enough gas to fuel hundreds of thousands of homes. The ten-year standard formula that determines energy reliability cannot be met without Aliso. The report assumes no other transmission or storage facility outages, and 100 percent utilization of the existing system. And how often in life does everything run that smoothly?

Assumptions are just that, assumptions. Southern California never got the El Nino downpours this past winter that had been predicted for months. We cannot place all our chips on the assumption that we will have another mild seasons.

We also need to consider that cold weather from other regions connected to the Western Grid could impact our

system. In a worst case scenario, homes and small businesses may not be at a direct and immediately risk. But per SoCal Gas's curtailment rules, should the level of curtailment required exceed the electric generation at use not necessary to maintain electric grid reliability, other non-core customers are to be curtailed more electric generation load is shed. These customers are not just major employers, but provide services that everyone depends on, such as refineries, hospitals and airports. The impacts could be huge.

The business community will continue to do our part to responsibly conserve energy, as we promised at the Summer Reliability hearing back in April. We've made it through summer thus far without outages, but we are not done. September and October had some of the hottest days of the year in 2015, and those months are ahead of us. Summer also saw two curtailment watches, which we made it through based on temporary measures we don't want to permanently rely on.

The two messages I bring from the business community in addressing the need for energy reliability are safety and urgency. We urge every organization represented here today to work together to safely expedite the restoration of all or parts of Aliso Canyon so that electrical and natural gas reliability is better protected

```
while the process continues on the inspection and
   certification of every well, and the capping of those that
 2
 3
   could post a risk.
              Thank you to all the agencies that have been
 4
 5
   dedicated to working on the issue, as well as to the rest of
 6
   the panelists up here today. This is truly an issue that
 7
   requires our entire community to come together. We must all
   collectively pursue a path that is both safe and
 8
 9
   expeditious, and work to avoid curtailments that will stall
10
    our economy and threaten our quality of life. Thank you.
11
              CHAIR WEISENMILLER: Thank you. I particularly
12
    want to thank Department of Energy and FERC for being here.
13
    Their partnership with us has been really critical. And
14
    also, obviously, WECC and Peak.
15
              I don't have any questions. Does anyone else on
16
   the dais?
17
              MR. RECHTSCHAFFEN: I was just going to ask Ms.
18
    Duboff, apart from getting Aliso Canyon back up, back
    operating safely, do you have any other concrete
19
20
    recommendations, beyond what's been suggested so far in the
21
   Action Plan or otherwise?
22
              MS. DUBOFF: That's the main thing we're here to
23
    support today. But also, you know, just doing everything we
24
   can to ensure that we have security and reliability in our
25
    system, so whether that's a deprecation of supply or
```

securing what we already have. 2 MR. DOUGHTY: Ms. Duboff, I mentioned earlier how 3 much we appreciate the participation by consumers in our demand programs. I know that they get tiring over time; 4 5 right? Consumers want to return to their business, in the case of your constituents. 6 7 Any suggestions on how we can work best with your sector in enabling and creating the greatest level of 8 9 response to demand response programs? 10 MS. DUBOFF: I mean, I think connecting with us 11 from the very beginning so that we can help create those 12 plans, instead of just coming to us when plans are made --13 MR. DOUGHTY: Sure. 14 MS. DUBOFF: -- and asking us to implement them. 15 You know, the people I deal with do this stuff all the time. And I think they have a lot of ideas on how to lower demand 16 17 and increase efficiency, and we'd like to just be part of 18 the process. 19 MR. DOUGHTY: Fair enough. Thank you. 20 MS. DUBOFF: Thank you. 21 COMMISSIONER SANDOVAL: Yeah, so following up on 22 that, I think that is something that we can, and indeed I 2.3 would believe that we have directed SoCal Gas and Southern

California Edison to do. I would hope LADWP is also talking

to its customers to help figure out, what are some of the

24

25

175

```
programs you can participate in. Because I know when we've
   looked at, whether it's shifting demand in a variety of
 2
 3
    contexts, whether it's about energy or water, one of the
   themes that's come up again over and over for a lot of
 4
 5
   customers is the need for notice. Especially if you have a
   commercial or industrial process, you can't change the
 6
   process on a dime. And that there's also a need for
 7
   staffing.
 8
 9
              So even though, you know, we think about the
   possibility without a DR, like the Air Conditioning Cycling
10
11
    Program, that's something where you send a signal, the
    response is very quick. For a lot of things, there needs to
12
   be more notice. So having better understanding about how
13
14
   much notice that is and where people think that they could
15
   shift would be very useful.
16
              So we certainly encourage the utilities to please
```

So we certainly encourage the utilities to please reach out and coordinate, you know, both with the commercial and industrial customers, as well as representatives of residential customers on this.

17

18

19

20

21

22

2.3

MS. DUBOFF: And I will say, both SoCal Gas and DWP have been working very closely with the business community to get the message out to the businesses that we deal with.

COMMISSIONER SANDOVAL: Great. And I think, as I said, it goes beyond messages about design.

So one question that I had, you know, and this also gets to the suggestion that Mr. Najm made about the potential of solar. But let me ask the question to Mr. Meyer, and it may be that we need some help from people who know the local system here.

2.3

One of the things that we've observed with the electric side is that peak electric use has been shifting later and later into the afternoon and early evening. So in Southern California overall we see peak is from 4:00 to 9:00 p.m. And indeed, when we have had some demand response calls it is really focused on reducing electric use during that time period from 4:00 to 9:00 when solar is no longer producing.

So have we seen similarly on the gas side a similar shift to the late afternoon? Certainly when we talk about the non-core, it's going to be that same time when -- or excuse me, when we talk about the core it's going to be that same time when people come home and start cooking and using water and heating their homes, et cetera. So really, when we think about strategies do we need to think the same time dimension in terms of a peak time, late afternoon, and therefore the question of what resources can we bring on in the late afternoon or evening, you know, or should we just be thinking about -- you know, because right now where we are with solar, we're not able to really get much production

in after four o'clock. So that's a question. Do we have a time dimension here we need to factor in?

CHAIR WEISENMILLER: Yeah. The bad news is we probably need to start getting the AMI data from SoCal Gas on the core use and see what the time periods look like, is what my guess is SoCal Gas would probably say. But anyway, it's something which I think as that data becomes available the PUC and the Energy Commission should probably be digging into that issue. That's a very good one.

COMMISSIONER SANDOVAL: So I was wondering if Mr. Meyer had any comment on the from the DOE?

MR. MEYER: Well, this relates, I think, to what we call grid modernization around DOE. The huge transformation that's occurring in the electricity sector with the penetration of a lot of new technologies. And California, with the strong support of the agencies up here, is very much involved in that and leading, I would say. And our laboratories are working closely with you on trying to think through what this new system is going to look like and how the different parts of it are going to support each other and function in a constructive way.

The particular problem that you're concerned about here, that is demand response late in the afternoon, I'm going to have to go back and talk to some of my colleagues about that because it's a connection between the Aliso

Canyon event and the response to it and this emerging DER, distribution energy resource, network that I frankly hadn't taken into account. But I see the connection there, yeah.

2.3

COMMISSIONER DOUGLAS: Just a question for Tim

O'Connor. You know, I know that EDF has been very involved,

not only in California but around the country, on looking

for ways to promote demand response and other program

approaches to achieve some of the goals that we've been

talking about today.

And I was wondering if you're aware of program models outside of California that might be helpful in the area of demand response for natural gas, for example, or other models that you think might be helpful for us to look at?

MR. O'CONNOR: When I appeared before you earlier this year we talked a lot about changing market structures to reward and incent the development of clean energy that can provide a number of services, such as fast ramping capabilities, time of use deliveries, and DR, you know, definitely being one of them. And since then we've had a lot of developments here in California with the demand response auction mechanism, with the developments at the ISO with the flexible ramping product, that I think California is really leading the way in many of these sort of market development areas.

Through that work, you know, unfortunately it means we're sort of setting the game here for how to do it, and we haven't seen many examples of gas demand response programs. That doesn't mean that they don't exist, it just doesn't mean that they have been highlighted and promoted as much. And so with new FERC rule makings on these particular issues, and especially in how they rule on the ISO, the work specifically coming out of Aliso, I think that we're going to see a lot of that happening now.

So all I can say is that when we look at the energy market rules, rewarding the volume of delivery and not rewarding the premiere services that gas can provide for the time and letting that compete on a transparent basis against other clean energy resources, I think that's where we have had a shortcoming where we've gotten into this system, and that's where we need to change the rules.

COMMISSIONER DOUGLAS: All right. Thanks.

CHAIR WEISENMILLER: Well, again, thanks all of you for being here.

I think it's time we transition over to -- we're starting the public comment with public officials.

MS. RAITT: And let me just take a moment to say we do have a large number of folks interested in commenting today, so we were going to reduce the public comment time to two minutes per person.

CHAIR WEISENMILLER: Right. Well, again, the public officials will have the five. In terms of the rest of the public we're just -- you know, 30-plus, so it's going to have to go down to two minutes.

But please, Lauren Faber O'Connor, would you start out, from the Mayor's Office?

MS. O'CONNOR: Good afternoon. My name is Lauren Faber O'Connor. I'm the Deputy Chief Sustainability Officer for Mayor Eric Garcetti of Los Angeles. I thank you for the opportunity to provide comments on this behalf.

The Mayor and his team have been very focused on this situation since it began last year. And the experience, as you can imagine, has been really multifaceted. You know, we've been dealing with addressing the environmental and health hazards, the dislocation and well-being of people, and now questions over the reliability of basic services, like energy availability.

And so I first want to thank the four agencies responsible for this workshop, as well as Governor Brown's team for all the hard work and analysis and collaboration that everyone has been doing to try to minimize the impact of this situation as much as possible.

And I also want to share our appreciation for securing third-party review of the analysis. We think that was a really helpful and important element to this process.

And finally, I would like to -- I'd be remiss if I didn't recognize Marcy Edwards and Mike Webster and the whole LADWP team for quick action in the face of these really unprecedented circumstances. The experience has made all of the relevant agencies one team. And DWP with the rest has really rolled up their sleeves to be a problem solver.

So as soon as it became available -- or became clear that the Aliso Canyon leak was going to have long-term consequences on the L.A. energy system, we immediately began to look at all of the programs that are being developed, as well as new ones, how we could expedite them to have a meaningful impact over the new few seasons. And many of you on the dais have talked about the importance of public outreach and education and about the value of behavioral change as one of these factors.

And so Mayor Garcetti, as you have also recognized and we appreciate that, has been out asking Angelinos to conserve energy, has been in the community talking about Aliso Canyon and what Angelinos can do to help everyone through this uncertain time. We've been working alongside the SoCal Gas Energy Conservation Campaign.

But we've also, through the City of Los Angeles, have launched Save Energy L.A. And that's a campaign to help engage residents of Southern California in tangible

actions to reduce energy. This is a bilingual campaign that includes not just the Mayor's personal engagement, but, of course, a website and media buys on bus shelters, bus tails, on our DASH buses, print ads, radio, social media. And in doing this we're not just asking Angelinos to do their part to save energy, but we are providing those tools and incentives to help them through it, and that's a key part of what we're talking about today.

You heard DWP earlier this morning talk through some of the key new programs. And I hope that they provide really good examples and encourage others to undertake similar proactive steps in the name of its customers. And recall, you know, these are -- the LED Light Bulb Giveaway, going door to door to people's homes. We expect that this program will save enough energy to power almost 17,000 households for a year. The AC Optimization Program which is putting Nest thermostats in people's homes now. And also we talked a few times about the Summer Shift Program where DWP is paying its large commercial and industrial customers to reduce energy during peak times.

But also there's an expansion of DWP's Community
Partnerships Program which there are four grants out right
now for \$90,000 each for community groups to come forward
and do their sort of public outreach and education campaigns
focused on energy efficiency, not just campaigns but really

going into the community and teaching them what the opportunities are around energy efficiency.

And there are other longstanding programs, looking at refrigerator exchanges, pool pumps and other things that, again, are proactive, are going into people's homes, are going into buildings. And I think that these are things that we need to make sure everyone is thinking about.

But while we're asking residents to do this and businesses to do this, the Mayor looked at us and said, "We have to do the same." And we have a history of reducing energy in our buildings, seven percent just last year. And we do this, and I think that the state does this, as well, but we do this through regular energy audits, through capital improvements.

We have a budget of \$3.5 million dollars a year for capital improvements focused on energy and water conservation, but also over the last couple of years through benchmarking data. Our General Services Department has real time monthly spike reports of all the buildings, city buildings, so that we can go in and see if there's sort of unexpected deviations from the normal, given what we know about seasons and weather. So we have a five percent municipal energy reduction target that the Mayor announced for August through October that he's asked the city to undertake, and we're doing that. We're in the middle of it

now.

But we're also moving ahead, I want to mention really quickly, and I know my time is out, two really exciting pilots which are grid-resilient fire stations, so pairing rooftop solar and backup storage systems at two fire stations in L.A., one of them being in Porter Ranch. And we are moving ahead to study how we bend the curve down on natural gas dependence and up on renewable energy deployment. We're doing that now through the IRP process and through other venues. And we would really welcome partnership with all of you on that. We are trying to make the best of the situation at hand. It is allowing us, we hope, to do things that we want to do anyway but do them faster, possible at higher cost. And these are things that we have to think about.

But I'm encouraging others to think as proactively as possible about these programs, looking at what are the natural gas analogous programs to Summer Shift, to the appliance swap outs, looking at hot water heaters, retrofits, things like that.

And I want to say that the protocol for any Aliso Canyon withdrawals must be clear and transparent, and take safety at the heart of this protocol.

So we thank you for all your collaboration and the collaboration with all the stakeholders here, and we look

```
forward to it continuing. Thank you very much.
 2
              MR. RECHTSCHAFFEN: Lauren, just before you leave,
   since you mentioned you're trying to bend the curve in the
 3
   IRP process --
 4
 5
             MS. O'CONNOR: Yeah.
 6
             MR. RECHTSCHAFFEN: -- I encourage you, if you
 7
   haven't for the city, to somehow get involved in the
 8
   California Council on Science and Technology study that's
 9
   underway that's doing the same thing on a statewide basis,
   to look at how to transition away from long-term reliance on
10
11
   natural gas infrastructure --
12
             MR. O'CONNOR: That's at the state?
             MR. RECHTSCHAFFEN: -- in meeting our climate
13
   goals.
14
15
             MS. O'CONNOR: They're doing it at the state
16
    level?
17
             MR. RECHTSCHAFFEN: Yes.
18
             MS. O'CONNOR: Okay.
              MR. RECHTSCHAFFEN: And you could get in on the
19
20
   ground floor. The planning is just starting right now.
21
             MS. O'CONNOR: How convenient.
22
              CHAIR WEISENMILLER: Well, again, thanks for the
23
   partnership.
24
             MS. O'CONNOR: Yeah. Thank you very much.
25
              CHAIR WEISENMILLER: Let's go on to the City of
```

Southgate Council Member, Gil Geraldo [sic].

COUNCIL MEMBER HURTADO: Thank you. It's actually Hurtado, but that was pretty close. I mess up once in a while, so don't worry about that.

The City of Southgate is located just southeast of the City of Los Angeles. It's about 100,000 people there. But I also belong to the Gateway Cities Council of Governments. There's 28 cities there, a little over 2 million people there. And we recognize that the accident that occurred with the facility impacted a lot of people, and it was tragic. The impacts tot the families were horrible. Clearly, mistakes were made. But earlier this year officials did determine that the issue had been resolved. Again, I'm not an expert in that field. And I have to rely on the experts.

What I do know, though, is that sometimes, and hopefully this is the case here, that through tragedies, lessons are learned. Changes are made and safety and health of local residents are taken into account.

I urge you to continue to monitor the health of those families affected by the tragedy. How knows how long those health effects, you know, will be there. And I urge you to continue to monitor the safety of the facility.

But that being said, we've lived through rolling blackouts in the past. In the southeast area we rely on

clean, reliable energy sources in our homes, schools, hospitals, as well as community centers.

I happen to live in a mobile home park for seniors. And having reliable energy for my neighbors is vital. During the hot summer days, not to have energy is not a good thing. And through the cold winter times, it's pretty bad, as well.

Southern California Gas facilities are important to our communities. And that's why I'm here to support the opening of the Aliso Canyon storage facility. Do what is necessary to make it safe. The residents demand that. They deserve that. But the hospitals, schools, and many seniors also have -- must have reliable energy. I have seen my neighbors struggle through those periods of extreme weather, and it's not a pretty sight.

Thank you for your time. Thank you.

CHAIR WEISENMILLER: Thank you. Thanks for being here.

19 Steve Tye from City of Diamond Bar.

COUNCIL MEMBER TYE: Good afternoon. Thank you for the opportunity to address you. I know you guys have had a long day, so we appreciate all the efforts that you're making. I wanted to take this opportunity to welcome you to the Diamond Bar City Hall Council Chambers. We meet here every first and third Tuesday, so it's good to see you here.

You know, my daughter is finishing her vacation in Panama. She's flying home as I speak right now. And she got a lesson in what it's like to have safe, reliable energy, experiencing 90 degree temperatures and 80-plus degree humidity, she found out it's no fun to check into a hotel with regular electricity outages on more than one occasion in more than one city.

We're all here to talk about safe, reliable energy. We, as a family, participated in the cycling program that available through Southern California Edison, so at the right time they could shut off our air conditioner when demand was at a peak. We did what we could do. And I'm confident that Southern California Gas is doing what they can do to provide uninterrupted service to Gas Company customers.

Notice that today there are no cameras here.

There's no public press conferences and photo opportunities for politicians looking to take advantage of a difficult situation. It's just concerned citizens here to express their support of a utility that has been providing safe, reliable energy for almost 150 years.

We need Aliso Canyon so Southern California Gas can continue to provide what we all take for granted. We go to the stove and turn a dial on and we get gas. We go to the thermostat and turn it on and we get air or heat. We

need the Gas Company to continue to do what they do so well, that is to provide safe, reliable energy, and Aliso Canyon is part of that formula. I don't think any of us realize how spoiled we all are when we go to the tap and turn it on and there's water, and when we go to turn on the TV and we have the electricity to provide that convenience.

2.3

The Southern California Gas Company is following DOGGR's Order 1109. It's all part of the process to assure safety is being addressed. I always tell people, as a Councilmember, we're not looking for perfection, we're looking for improvement. And I believe through this process that Southern California Gas has strived toward that goal.

Thanks very much for your time.

CHAIR WEISENMILLER: Thank you.

Let's go on to the Mayor of the City of Covina.

MAYOR PRO TEM MARQUEZ: Good afternoon. Jorge
Marquez, Mayor Pro Tem of the City of Covina. I'm not quite
mayor yet. But first I want to say thank you so much for
giving us here this opportunity to speak to you all today.

You know, waking up, cooking breakfast, making sure that our children have a house that's warm during the long winter nights is really important. And that's why I and many of the residents in the City of Covina are very thankful for Southern California Gas Company. And we understand the importance of making sure that that facility

at Aliso is remained open. So it does provide energy for over 21 million individuals in the Greater Los Angeles Area.

So I'm here just to let you know to please keep it open, and that we understand that energy reliability for our residents is really extremely important for the City of Covina.

So thank you.

CHAIR WEISENMILLER: Thank you.

We're now going to transition from public officials to basically the general public, and so we're going to two minutes.

I was going to start with John Stout, Peak
Reliability. If you want to say a few words, please come
up.

MR. STOUT: Well, thank you for the opportunity. I was a little hesitant to come up here because I didn't sign up, but I'll be happy to make a few comments.

Commissioner Sandoval, you raised some questions about the transmission grid and the risk of additional contingencies and that sort of thing. It might be interesting to note that just a couple of weeks ago when we had some of the fires taking place in California, at one point we had 3 500-kV lines and 2 230-kV facilities out of service. We also tripped over 1,000 megawatts of solar generation as a result under voltage.

```
So there are situations that will occur that
 1
   produce contingencies beyond what are in the studies that
 2
 3
   you represented today, and we need to keep that in mind.
 4
    There's always that additional risk of multiple
 5
   contingencies that can cause additional problems that have
   not yet been forecasted. Thank you.
 6
 7
              CHAIR WEISENMILLER: Thank you. Thanks for your
 8
   help this summer.
 9
              Tom Williams will be next, Dr. Tom Williams.
10
              And after will be Harvey Eder from Solar Power
11
   Coalition.
12
              DR. WILLIAMS: Good afternoon. Dr. Tom Williams,
13
   Citizens Coalition for a Safe Community, and a few others.
14
   We will be submitting written comments. We have done
15
   before.
16
              The basic elements, my experience has been with
17
   Whittier, Montebello, Playa del Rey, and now Aliso, and also
18
    for the Sacramento Natural Gas Storage Facility which was
19
   planned but never implemented by the CPUC. Okay.
20
              We're getting better, but at what cost?
21
    that cost? Who can you trust?
22
              The oil well at Aliso Canyon was SS-25.
23
   years the contractors who logged it said that there was a
    subsurface shutoff valve in place. A few months ago
24
25
   Southern California Gas Company said, oh, no, we took it out
```

```
Is this submission of fraudulent or erroneous data
    in 1979.
 2
   to a state agency for permit compliance fraud? I don't
 3
   know.
              But here's the real issue, Porter Ranch people,
 4
 5
   the public in Porter Ranch have suffered under the Gas
   Company without any knowledge of what was going on. There
 6
 7
    are no emergency response plans for such a facility.
   There's no risk management plan for such a facility
 8
 9
   because -- and no spill contingency plan as required by
10
    DOGGR for all oil and gas facilities in the State of
11
   California. But since they're under CPUC the Gas Company
12
    doesn't seem to be affected by that.
13
              So we need a plan. And this winter we're going to
14
   need a better plan. And we submitted a plan for solar-
   thermal rooftop installations on 10,000 houses in Porter
15
    Ranch. Help them recover. Thank you.
16
17
              CHAIR WEISENMILLER: Thank you.
18
              So Solar Power Coalition.
19
              MR. EDER: Good afternoon. My name is Harvey
20
   Eder. I'm speaking for myself, and as Executive Director of
21
   the Public Solar Power Coalition.
              What we need is immediate total solar conversion.
22
23
   We've got 50 percent solar renewables by 2030. That's half
   of what we need in half the time.
24
25
              Natural gas. In the plan for 2016 for the
```

district, in the Energy section on 10-2, it says that nothing has increased 30 percent over the last 12 years. 2 3 In going over these numbers with Dr. Aaron 4 Katzenstein using 1,800 parts per billion, and using the 5 radiative forcings, the number that we came up with was 274 parts per million Co2 equivalent, plus or minus 10 percent 6 right now for methane, natural gas. And with nitrous oxide, 7 that's like over 700. And we were looking at those numbers 8 9 when we're supposed to see them until 2,100. 10 It's against the law, it's prevented by the Health 11 and Safety Code, natural gas, under Health and Safety Code 12 53002(b), after saying, "The legislative intent declares its intention to help 13 14 to reduce the dependence of California on imported and 15 the amount of renewable energy sources, as well as to 16 hold down the increases in the cost of energy." 17 That's against the law, natural gas. And this 18 renewable natural gas, that you're going into landfills and 19 these places where they're shooting up the cattle with 20

antibiotics, there was an article in the L.A. Times --

CHAIR WEISENMILLER:

MR. EDER: (Indiscernible.)

CHAIR WEISENMILLER: Thank you. You can do written comments.

25

21

22

23

24

```
1
              CHAIR WEISENMILLER: Let's go on to the Greater
 2
   Los Angeles African American Chamber of Commerce.
              MR. EDER: It's the (indiscernible) --
 3
 4
              CHAIR WEISENMILLER: Again, thank you.
 5
             MR. EDER: -- of California right now.
              CHAIR WEISENMILLER: We're looking forward to
 6
 7
   written comments.
 8
             MS. FRAMPTON: Good afternoon. I am Chanel
 9
   Frampton, Director at the Greater Los Angeles African
   American Chamber of Commerce, better known as GLAAACC.
10
   GLAAACC our mission is to ensure the growth and development
11
   of a robust and vibrant Black business community.
12
13
              We have been made aware of the storage facility
    issue. And we believe that if SoCal Gas is not able to
14
15
   operate from Aliso Canyon, the increased costs will be
   passed on to businesses. This will create an additional
16
17
   hardship on the small local business economy. GLAAACC
18
   advocates for an equitable decision that includes the needs
19
    of businesses and its consumers.
20
              Thank you for your consideration.
21
              CHAIR WEISENMILLER: Thank you. Okay.
             Patricia Lacara, Save Porter Ranch.
22
23
             MS. LACARA: Thank you. I am Patricia Lacara.
   am a resident of Porter Ranch for 27 years. I live half a
24
25
   mile from the Southern California site. I was relocated for
```

over six months. I just came back home over two months ago and I am still having headaches, dizziness, and I still have nosebleeds. This was my dream house, my retirement home, and I don't feel safe. I have nowhere to go.

I am a member of Save Porter Ranch. I have been canvassing the neighborhood for the past six weeks with all the members, and people are really sick. People are taking care of their parents who didn't relocate because Southern California didn't allow them, or because it was too stressful for them to relocate. And their parents are sick, some of them are dying.

People are not feeling safe. People are afraid to speak. People are moving out. And I just want this facility to be shut down.

Thank you.

CHAIR WEISENMILLER: Thank you.

17 Loraine Linquist.

2.3

MS. LINQUIST: Hi. Thank you for the opportunity to speak. My name is Loraine Linquist. I'm a resident of Northridge, just south of Porter Ranch. I've seen our community be really devastated by this disaster. And also, I see this disaster as a major opportunity for all of you up on the bench who I know are very keenly aware of the need for drastic action on climate change. In fact, many of you have been key players in reducing California's greenhouse

gas emissions. I'm really grateful for all your efforts on that so far.

But this disaster really represents an opportunity to go a lot further with these efforts. The 500 megawatt response from the Flex Alerts shows that the political will for action is really present in a way that it hasn't been before this incident. People are paying attention and people want to take action. And I think that the mitigation measures that you've proposed for winter reliability could go a lot further and take advantage of that political will that's present, and we could really reduce our energy use in ways that are very permanent going forward and transition away from fossil fuels, transition away from dangerous gas storage facilities, like Aliso Canyon.

It's an opportunity to choose to put in place all the measures that we need to shift away from gas use altogether to continue the things that we've been doing for summer reliability that are working very well and that have shown that we actually don't need Aliso Canyon for reliability.

I, in particular, under your mitigation measures,

I'd like to see a much stronger push on demand response, on

solar-thermal heating, as well as solar PV initiatives, and

especially on electricity storage which is really key for

greening our energy systems. I noticed LADWP was not listed

```
in the list of electricity storage deployment.
 2
              CHAIR WEISENMILLER: Thank you. Actually --
 3
              MS. LINQUIST: thank you.
 4
              CHAIR WEISENMILLER: -- they have accelerated a
 5
   project, but anyway --
 6
             MS. LINQUIST: Okay.
 7
              CHAIR WEISENMILLER: -- so let's go on to --
 8
             MS. LINQUIST: Thank you.
 9
              CHAIR WEISENMILLER: -- Walker Foley.
10
             MR. FOLEY: Thank you for the opportunity to speak
11
           My name is a Walker Foley. I'm a Southern
12
    California organizer with Food and Water Watch. And I share
   Loraine's concerns.
1.3
14
              We have a global challenge that is once in a
15
   lifetime that my generation, my children, and their children
16
   are going to have to face or perish with the warming of this
17
   planet. This infrastructure has failed because it was run
18
   negligently by a company who seems to systemically have
19
   these problems across its infrastructure, whether we're
20
    talking about Eight Mile, Alabama, the facility in Playa del
21
   Rey, or in the Aliso Canyon. This is how the facility --
22
    this is how the company does business.
2.3
              And so when these operations go wrong we have a
24
   unique moment to really shake it up and to challenge
25
   ourselves to do better and provide for that future that we
```

like to talk about so much, but we don't always meet with bold action.

So I'm here to stand with Save Porter Ranch and with my organization, Food and Water Watch, to encourage the shutdown of the Aliso Canyon facility. We think SoCal Gas has had over 30 years to get this thing right, and they've proved through their own negligence that they are incapable of running this facility to satisfy the safety of its nearby community.

And this thing, indeed, is bigger than Porter

Ranch. It's bigger than the five-mile relocation zone. We found people in the south of the valley who were being negatively impacted by this, but that was not being reflected in what people were talking about, both statewide and locally when we're talking about health studies.

And we've been part a large canvassing effort within the five-mile relocation zone, talking to residents. And indeed, as you heard from Patricia Lacara, people are still getting sick in their homes. They're still feeling the impacts. Their children are still getting nosebleeds and having respiratory problems. So it is beyond me how we can talk about reopening this facility when we haven't even addressed the very basic crisis that residents are still facing on a day to day basis.

Thank you for your time.

1 CHAIR WEISENMILLER: Thank you.

Let's go on to Elena Semper.

MS. SEMPER: Hi. My name is Elena Semper. I'm a long-time valley resident, about a dozen miles as the crow flies, and I was affected by the gas blowout.

You can't go to any type of business, you know, when you're near the fugitive releases, especially SoCal Gas actually -- pardon me, I'm thinking back on a hearing a couple weeks ago that South Coast AQMD conducted in the valley where SoCal Gas said under oath that on average that facility leaks twice a day. I'm not sure if you're aware of that.

And what about the EPA's report earlier in the year about the overwhelming harm of methane fugitive releases?

What about AQMD announcing that childhood mental illness is linked to pollution? I think everyone knows that carbon dioxide is pollution.

Regarding our energy, I've heard luck or good luck about a half dozen times here. What I'm not hearing and I should be is reliability wouldn't be necessary if lessons you mentioned in 2011 were actually acted upon to avoid this from happening again by working to take dirty energy subsidies and reallocate to clean, safe, renewable energy.

I'm hearing the credit of avoiding blackouts is

```
due to good planning, but I'm also hearing threats, such as
   residents financial energy burdens. And I'm hearing fires.
 2
    I watched two fire trucks drive by in Porter Ranch on their
 3
 4
   way to SoCal Gas recently. There were two fires within the
 5
    same week. You know, we're watching Little Tujunga Canyon
   burn and take out transmission lines. And a DWP truck hit a
 6
    SoCal Gas line in Woodland Hills, igniting another fire.
 7
 8
              Regarding how businesses would be affected, if you
 9
   really think the environment, you know, is not a priority,
10
   try holding your breath while you count your money. I'm
11
   hearing we can't go wrong with ingenuity and the good will
   of Californians --
12
13
              CHAIR WEISENMILLER: Okay. Let's -- let's --
14
             MS. SEMPER: -- and spending money on marketing --
                                  Thank you for being here.
15
              CHAIR WEISENMILLER:
16
             MS. SEMPER: -- from the private sector.
17
              CHAIR WEISENMILLER: The next person will be Matt
   Pakvcko.
18
19
             MS. SEMPER: Thank you.
20
              CHAIR WEISENMILLER: And the Helen, and then Jane.
21
              MR. PAKUCKO: Hello. My name is Matt Pakucko, a
22
    resident of Porter Ranch and President and Cofounder of Save
23
   Porter Ranch, a local 501(c)(3). We've been around for over
24
   two-and-a-half years.
25
              And one thing I noticed, that all you agencies
```

seem to like working with all these groups. You've got 1 2 industry groups and energy groups. And then you've Chamber 3 of Commerce and big corporations. But ten months later in Porter Ranch we still have people getting sick, bloody 4 5 noses, headaches. You've heard about them and you're going 6 to hear more about them, burning eyes, rashes, on and on. 7 Nobody, nobody has even begun to monitor or study any of the health problems, and nobody is working with us, no 8 9 government agency, none of you. We're all just left to fend, you know, on our own. Why don't you plug that in to 10 11 one of those calculations up there on the graph? 12 So one of you also asked about systematic risk 13 earlier, and Walker just spoke about it. I suggest that 14 SoCal Gas is the systematic risk. Eight Mile, Alabama, eight years of leaking mercaptan (phonetic) from one of 15 their storage facilities. Montebello leaking beyond control 16 17 and forced to shut down. Playa del Rey leaking all sorts of 18 chemicals, and into the ground and into the creeks, a big 19 fire there three years ago. And now the Aliso Canyon 20 facility. 21 SoCal Gas touted, they put on the big screen, how many, 18 wells -- where's the gentleman -- 18 wells, is that 22 23 the right number, back, there you go. You forgot to mention, 67 of them couldn't pass the most basic tests and 24 25 had to be taken offline. That's four SoCal Gas facilities I

```
just mentioned. That sounds like a systematic problem.
              You need to figure not if but you need to figure
 2
   out how to keep that facility shut down, because we're still
 3
   getting sick. And we're the only ones that have been
 4
 5
   affected. Everyone is worried about what might happen, it
   actually still is happening to us. Everyone else is still
 6
 7
    in their office doing these calculations and we're still
 8
   getting sick.
 9
              You talked about unprecedented cooperation earlier
10
    in maintaining reliability this summer. But I didn't hear
11
    any unprecedented cooperation about how to increase
    reliability via renewables. It seems like you're
12
13
   cooperating in shuffling the deck of the status quo.
14
              CHAIR WEISENMILLER: Okay. Thank you very much.
15
              Let's go on to Helen Attai, and then Jane Fowler,
16
    and then Mark Morris.
17
              MS. ATTAI: Hello. Before you time me, I want to
18
    extend my invitation to all of you anybody who is here pro
19
    opening the Aliso to come to my house --
20
              CHAIR WEISENMILLER:
                                  That's fine, but the time --
21
              -- and live there.
              CHAIR WEISENMILLER: Start the time.
22
23
              I have a spare bedroom. You guys can live there
24
   and see what we feel.
25
              Anyways, we are maybe 10 or 12 of us residents are
```

here right now. And I just want to let you know that each one of us representing, if not houses, then hundreds of residents who couldn't be here today.

The first thing, the meeting is a on a weekday.

Again, it's away from the valley. And the kids are back at school, and people have missed so many sick days this year that they could not afford to miss any work days. That's why they're not here. I'm here representing them.

And I've been sitting here listening to SoCal Gas representatives saying that Aliso is needed and we really need to open it up. Of course they're going to say that. I mean, what do you think they're going to say? They're going to say that it's not needed? I mean, they're a lot of things but they're not stupid, okay? You all know that.

And -- okay.

I'm here today in this beautiful building, AQMD, and I thought the job of the AQMD is to care about our quality of our air. And I have not even heard one word today about our health coming from your guys, from your representatives here, just residents.

We're still getting sick. My daughter has been rushed to the hospital twice. She even had, yesterday, she had a bad headache that Advil or any medicine cannot take of it. We are foggy. We cannot -- I mean, I lived in Granada

```
Hills for 25 years. When I exited the other day I didn't
   even recognize my own exit, and I was going left instead of
 2
   right. And my daughter said, "Mom, where are you going?"
 3
   It's that bad. We have depression. We have anxiety. We
 4
 5
   have confusion. It's really bad.
 6
             I mean, it's not -- these people are saying, from
 7
   Covina and here and there, to open that facility up, but
   we're breathing the air. You're worried about us being cold
 8
 9
   or hot. I mean, really? I mean, we're breathing that air
10
   24/7, 12 months a year.
11
             CHAIR WEISENMILLER: Okay. Thank you. Thank you
12
   very much.
             MS. ATTAI: And I drove one-and-a-half hour
13
14
   here --
15
             CHAIR WEISENMILLER: Let's go on to Jane Fowler.
16
             MS. ATTAI: I think I deserve more than two
17
   minutes of your time.
18
             CHAIR WEISENMILLER: Let's go on to Mark Morris,
19
   and then John Teboe. Thanks.
20
             MS. FOWLER: Hello. My name is Jane Fowler, and I
   live in Granada Hills. And I've lived there for almost nine
21
22
   years now. And along with them, I also have been doing the
23
   door-to-door. So I'm going to tell you my family's
   symptoms. But this is the community's symptoms. Many of us
24
25
   are feeling this.
```

205

```
I personally have had the headaches, the nausea,
 1
   skin rash, bloating. My hair is falling out. My stomach
 2
 3
   hurts, extreme pain. And you have this constant kind of
   feeling of fear and dread, which is not a good way to live.
 4
 5
   Even for me to leave my house, there are times when I can't
 6
   leave the front door.
              My daughter has asthma. Sometimes her heart beats
 7
 8
   so quickly that it's just pounding. And she's young, but
 9
    she's lethargic. She has depression.
10
             My husband, who's away most of the time, when he
11
    returns he has headaches and gets nauseous.
12
             My dog has a clear liquid that -- had a clear
    liquid that ran from her nose, had seizures, and is now
13
14
   dead.
             My cats have hair missing, balding patches. One
15
16
    is peeing everywhere. This is not how he was the first few
17
   years of his life, just now with the gas leak. And if you
18
    go to a doctor or vet, methane gas is not a diagnosis.
              Since returning after seven months, when I came
19
20
   back I had -- I was away, I started to feel better. I had a
21
    flat stomach. I felt good. Literally eight hours, I went
22
    to bed, woke up, big bloating. It looked like I was
23
   pregnant.
24
             My daughters came to visit. Okay, so we're back.
25
   Supposedly everything's okay. My daughters came to visit.
```

206

```
I had to go lay down because I wasn't feeling well.
   they have returned us from relocation there was another leak
 2
 3
   reported in the news, and I was in bed again.
 4
              CHAIR WEISENMILLER: Okay. Well, thank you.
 5
             MS. FOWLER: Thank you.
              CHAIR WEISENMILLER: Let's go on to Mark Morris,
 6
   and then John Teboe, and then Gary Passmore.
 7
 8
              MR. MORRIS: Good afternoon. My name is Mark
 9
   Morris. I'm a Faith-Based Director for Granada Hills South
10
   Neighborhood Council. I'm also Advocacy Co-Chair for the
11
   L.A. Neighborhood Council Sustainability Alliance. I'm not
12
   here necessarily in that capacity.
              I'm here as a resident who also took a day off,
13
14
   vacation day, that I don't have very many left of to travel
15
   out there from the north San Fernando Valley to emphasize
   how important to us, and how I can assure Mr. Picker that
16
17
   we, the residents, as you said in your opening comment, we
18
    are severely ready to start cutting back. And we are ready
19
   to start working on removing ourselves from and weaning
20
    ourselves from this dangerous and health-impacting energy
21
    source of natural gas.
22
              And I also wanted to say and report that as the
23
   Neighborhood Sustainability Alliance, we're working on
24
   programs like Cool Blocks, which is getting residents ready
25
```

to move.

And as Mr. Doughty had mentioned, great idea with the gas Flex Alert. But a number one thing that I want to bring to you as a faith-based person is I'm quite aware of what happened in Nepal after their earthquake. They brought solar power. They had a disaster. There was Buddhist advocacy groups that were out there to bring solar power to an area that had a disaster.

North San Fernando Valley has had a disaster, and it's continuing to have a disaster, as you witnessed in these reports from residents. Why can't we bring solar power to that disaster, if we can bring it to Nepal?

Thank you very much.

CHAIR WEISENMILLER: Thank you. Okay.

So Gary Passmore next, and then Peter Wiersma, and then Kristina Zitkovich.

MR. PASSMORE: Good afternoon. Thank you all. And thank you for the opportunity to appear. I'm Gary Passmore representing a statewide advocacy organization called the Congress of California Seniors. We've been around for about 40 years.

Seniors, I discovered today, I've learned a lot of things, and one of the things I discovered is that we're the core. And so I guess I should be proud to be the core, I'm not sure, trying to live how to live with the label. But seniors, 5 million seniors statewide in California, several

million here in Southern California, as members of the core are really, really focused on reliable energy. It's essential to us. It is key to our health. It's key to our safety. Lots of seniors use medical equipment that requires dependable energy. And I would say among cost and clean energy, reliability is probably our most important concern.

And so as part of that concern, first let me say thank you for keeping a crisis from becoming a catastrophe and for all of your organizations working as you have, and we see it, to try to make things -- keep things from getting worse.

But I want to say particularly is that as we move through the winter months we think it's important to allow within the parameters of safety, and you have to determine what that is for consumers, to allow the utilization of Aliso Canyon, both the resources and the storage, and at the same time look to the future. I am convinced California consumers, as we've showed during the water crisis, would do almost anything when they were called upon to do so. And one of the things would be to help conserve energy.

Thanks.

CHAIR WEISENMILLER: Thank you.

Peter. And again, next would be Kristina, and then Jasmine Borrego.

MR. WIERSMA: Good afternoon. My name is Peter

Wiersma. I'm Vice President of Business Development for Osceola Consulting. We're a management, technology and software consultancy, specializing in energy and utilities. We're a Native American-owned business, certified as a minority-owned business by the Public Utilities Commission Clearinghouse.

We -- one of our businesses is we operate a technology delivery center on the Morongo Indian Reservation in Riverside County. And, you know, we have about 40 high-value technology jobs there that would normally be outsourced out of the country. And we do work there for a number of utility companies. And we're able to keep these jobs here in Southern California.

Based on the information provided here by the regulatory agencies and National Labs and the other experts, it seems that Aliso Canyon storage is a critical strategic resource to both gas and electricity reliability for both core and non-core customers. The information provided clearly demonstrates a so-called nexus between gas and electric generation.

That said, we believe it critical that the Aliso Canyon field be brought back online in the Gas Company's system with the needed safety, environmental and air quality requirements, and that it be brought back as expeditiously as possible. The unavailability of Aliso runs a risk of

energy curtailment, with potentially huge impact on the 2 regional economy and jobs. Thank you for the opportunity to comment this 3 afternoon. 4 5 CHAIR WEISENMILLER: Thank you. Okay. Kristina, please. And then after you will be 6 7 Jasmine Borrego, and then Issam again. 8 MS. ZITKOVICH. Hello. My name is Kristina 9 Zitkovich. I made the trek down from Chatsworth today. 10 It's my daughter's last Friday before she starts school next 11 week, and I decided to come here rather than spend the day with her because I feel like this is a huge issue. 12 13 My main concern is that people are still getting 14 sick, my daughter and a lot of other people. But my 15 daughter, who is ten, got her first migraine during the gas leak. We didn't go to the doctor for three years. The 16 17 school had to call me and say, "Can you come in for a checkup? Can you come and update your records?" She hasn't 18 19 been sick for years. Now my daughter gets a headache and 20 she's either throwing up or it's so horrible that she falls 21 asleep. I mean, it's bad, and nobody talks about it. I know there's a lot of suits behind me that's 22 23 like open, open, open. But I don't feel like my health, my daughter's health, or anybody's health for that matter 24 25 should suffer because somebody wants to make a few extra

211

```
bucks. And what really upset me earlier was the lady
   talking about small businesses that support the opening.
 2
 3
   Well, I have a small business. I don't support the opening
   of it. A lot of small businesses in the area, we are
 4
 5
   afraid, not afraid of losing power.
 6
              We're afraid that when they start injecting,
 7
   there's 16 wells and they want to just jam it on in there.
    They've never done that before. A 115 jamming it in there,
 8
 9
    there was problems on a daily basis. What's going to happen
10
   when we only have 16 and we're injecting like maniacs into
11
    that storage facility? Nobody knows.
12
              And we are afraid that the way that they have been
13
    operating is not safe by any means. They have lied on
14
   official documents. Me, if I did that, I'd be in jail right
15
   now. But we're not holding them accountable. It's really
   not fair and it's very sad. And I hope that you listen to
16
17
   the community, especially to the residents that have been
    affected and are still affected. This is nowhere near from
18
19
   being over. A year ago I was enjoying my life. I think I
20
   was on vacation at this time. Now I'm some angry protestor
21
    that drives to god knows where to talk for two minutes.
22
              CHAIR WEISENMILLER: Thank you.
23
              Let's go on to Jasmine Borrego.
24
             MS. BORREGO: Good afternoon. Thank you.
25
   is Jasmine Borrego, and I'm President of TELACU Residential
```

Management. I also serve on several boards for low-income housing, seniors, and disabled. TELACU, the East Los Angeles Community Union, was established in 1968 to serve and empower people living in the low-income communities with the basic tools that all Americans need, including jobs, educational opportunities and affordable housing.

2.3

I represent the voices of tens of thousands of low-income people across SoCal Gas service territory when I ask that you authorize the reopening of the Aliso Canyon facility. The low-income residents that we serve and represent and who rely on uninterrupted energy cannot be put at risk by a small -- who do not want Aliso Canyon reopened. The people we serve should not be expected to rely on the thin margins that may, I repeat, may be available to meet our coming winter demand. We must be prepared for any situation that would result in unnecessary and burdensome interruptions in energy availability.

Being prepared should not be measured simply by past outcomes. We can see imperfect 20/20 hindsight. For example, we were assured prior to last winter that the projected El Nino weather patterns would result in what was described as a conveyor belt of storms. We all prepared like never before, but the storms generally did not occur. If similar patterns are projected in the future we should not -- we should -- should we not prepare because we did

it -- it did not happen last time? 2 The people we serve must be served at the highest 3 level of our responsibility preparedness. Being prepared for this coming winter include the energy resources that may 4 5 likely be needed to fulfill by the use of Aliso Canyon. 6 Thank you. 7 CHAIR WEISENMILLER: Thank you. 8 Issam, you want to come back up? 9 MR. NAJM: That's okay. 10 CHAIR WEISENMILLER: That's okay? Okay. Great. 11 John Howland, and then Tracy Hernandez, and then 12 Gene Kim. 13 MR. HOWLAND: Good afternoon. I'm John Howland 14 with the Central City Association, representing 450 15 businesses with over 350,000 employees around the region. CCA supports the reopening of Aliso Canyon for storage and 16 17 transmission of natural gas for use around Southern 18 California. To date, Southern California has been able to 19 avoid power outages because of the excellent work of CAISO, 20 So Cal Edison and LADWP, bringing in power that's been 21 generated outside of the region. However, this could change 22 this winter. Demand for natural gas goes up as temperatures 2.3 cool. 24 Your own technical reports indicate that there is 25 not sufficient enough gas in the case of a one-in-ten year

cold winter day. In fact, supplies and availability, excluding Aliso Canyon, are well below what could be needed, half a billion cubic feet below what's needed.

This will have a major impact on businesses throughout the county and beyond. Many businesses rely on gas for essential functions in their operations. And if they shut down it's not like a power outage where they will have immediate backup available. Restoring operations can take several days or more. If these operations are forced to shut down it will have negative impacts throughout the local economy directly, numerous jobs and potentially tens of hundreds of thousands of employees.

Restaurants and hotels in downtown and around the region need gas for cooking. If that goes out, the employees are sent home, they have no paycheck, they have no tips.

Senator Pavley's Bill SB 380 was put in place -has put in place stringent requirements and standards for
the monitoring and the operations at Aliso Canyon. We
support those and we believe that they need to be allowed to
do their job.

Businesses need predictability and consistency.

Maintaining the status quo is a huge risk to businesses.

This group here today must go forward with the realistic program that will give assurances to businesses and to the

residents throughout Southern California that their access 2 to gas that powers their ovens and furnaces and that core 3 equipment will be available when it's needed this winter, 4 and not just for the next three months but for the 5 foreseeable future. 6 Thank you. 7 CHAIR WEISENMILLER: Thank you. 8 Okay, next it will be Tracy Hernandez, then Gene 9 Kim, then Weston Labar. 10 MS. HERNANDEZ: Good afternoon. My name is Tracy 11 Hernandez, and I'm the founding CEO of the L.A. County Business Federation. We're BizFed which is a massive 12 13 grassroots alliance of over 162 diverse, distinctly 14 different business associations around L.A. County. We 15 represent more than 325,000 companies, and they employ a little over 3 million people. Thousands of those employees 16 17 in those companies are directly right in the Aliso Canyon 18 area. 19 Today I'm here to express how critically important 20 it is for Aliso Canyon to get back online as soon as 21 possible. The bottom line is that without Aliso Canyon 22 functioning, this winter when peak demands of natural gas 2.3 are at their highest the risks of natural gas curtailments will reach alarming rates, potentially affecting key 24 25 industries that drive our entire economy, such as electric

216

```
generators, refineries, manufacturers, and other significant
 2
   users.
              California's economic and climate change
 3
 4
   competitiveness declines as our energy becomes more
 5
   unreliable. And reliable energy in Los Angeles County
   depends greatly on natural gas, and especially the gas
 6
 7
   that's stored at Aliso Canyon.
 8
              Our region's 11 million people rely on Aliso
 9
   Canyon for basic heating and cooling every day throughout
10
   the L.A. Basin. And, of course, this winter, natural gas at
11
   Aliso Canyon will be essential to meeting those demands.
12
              As California's Flex Alert system reminds us
13
   constantly, the power is in your hands. Use it wisely.
14
   Work to restore the storage facility as soon as possible.
15
              Thank you.
16
              CHAIR WEISENMILLER: Okay. Thank you. Okay.
17
              So Gene Kim next, then Weston Labar, then
   Elizabeth Warren.
18
19
              Gene Kim?
20
              Then let's go on to Weston.
21
              Then let's go on to Elizabeth Warren, and then Ted
22
   Green.
23
              Okay, come on up.
24
              MS. WARREN: Thank you very much. My name is Ted
25
            I live and work in West Hollywood. I'm not being
   Green.
```

paid to be here today.

You know, when I get up in the morning and turn on the lights I'm confident that the power is going to be there, that Southern California Edison will deliver it.

When I take a shower I'm confident the hot water will be there because Southern California Gas has delivered gas. In a few minutes I'm going to buy gasoline and I'm confident the station will have gas because the local refiner will have made it, and there will be electricity to pump it from their tank to my car.

I have that confidence because I believe that my elected officials in Sacramento and their appointees and their staff have put together a regulatory system to ensure the reliable supply of electricity in the region that I live, Southern California. And I believe that system is strong enough and that you all have the wherewithal, the strength to look in the face of angry homeowners who apparently have such a sense of privilege that they would call on shutting down the lynchpin of the energy supply of Southern California. And I believe that you as regulators will see that that is wrong and that it would harm millions of people throughout Southern California.

I thank you for your service to our state. And I thank you for the actions I know you're going to take.

CHAIR WEISENMILLER: Thank you. Okay.

```
So Alene Taber, next Elizabeth Hawley, and then
 1
 2
   Wayne Brown.
              Okay, then let's go to Tracy Stanhoff. Please
 3
 4
   come on down. But if can get more people lined up then --
 5
    and after -- okay, great.
 6
              MS. HAWLEY: Hi.
 7
              CHAIR WEISENMILLER:
                                   Thanks.
              MS. HAWLEY: I'm Elizabeth Hawley. I'm not sure
 8
 9
   if I was next but --
10
              CHAIR WEISENMILLER: Okay.
11
                             -- but I think there's a reason.
              MS. HAWLEY:
12
              CHAIR WEISENMILLER: Yeah. Go ahead.
13
              MS. HAWLEY: I'm Elizabeth Hawley. I'm
14
   Legislative Affairs Manager at the Valley Industry and
15
   Commerce Association, or VICA. We represent the business
    community in the San Fernando Valley, so we're neighbors of
16
17
   Aliso Canyon and we've been following this for a long time.
              A reliable energy supply is at the absolute
18
19
    foundation of our economy. And I think sometimes we take
20
    that for granted and we forget how important it is to all of
21
    our lives. A huge amount of effort has gone into the last
22
    few months, getting through the summer without any major
   outages. And I think those efforts should be commended.
2.3
24
   However, the use of natural gas can be higher in the winter
25
   than in the summer. And I think it's worth reminding
```

ourselves of the cost of outages.

Just a momentary outage for a large or medium commercial user can cost just under \$13,000. For small commercial customers an eight-hour outage costs an average of \$4,500, less eye-popping, but if you're a small business, that's quite a significant hit.

An outage costs manufacturers twice as much as non-manufacturers. Los Angeles is the biggest manufacturing center in the U.S. and it employs just over half a million people. And there are a lot of manufacturers in the San Fernando Valley, especially in the aerospace industry. These are good jobs. They have opportunities, they offer training, and we want to keep them in L.A. There's no environmental benefit to risking our economic growth as backup diesel generators, including one in the valley, just in Sunland, releases around 40 more carbon dioxide than burning natural gas.

So from both a business and air quality perspective, keeping key parts of our energy infrastructure, such as Aliso Canyon online, is critical. And VICA supports strongly the work to bring Aliso Canyon safely back online.

Thank you for your time today.

CHAIR WEISENMILLER: Thank you.

Is Alene Taber there or -- please come on up.

25 Please, if you're next, come up. And then I think the next

gentleman behind you. And then we have Tracy Stanhoff, and then Whit Peterson. 2 3 MS. STANHOFF: I'm Tracy, so --4 CHAIR WEISENMILLER: Okay. Good. 5 MS. STANHOOF: Okay. Hi. I'm Tracy Stanhoff. I'm President of the American Indian Chamber of Commerce of 6 California. I'm a former tribal chair for the Prairie Band 7 Potawatomi Nation out of Kansas. And I'm finally a business 8 9 owner here in Huntington Beach, California, for about 28 10 years now. Los Angeles is the home to the most American 11 12 Indians. California is the home to the most American Indians in the country, and we have the most American Indian 13 businesses in the country. Our businesses in the American 14 Indian Chamber are in the hundreds in numbers, and we 15 represent about 50,000 jobs throughout the state. 16 17 As an aside, tribal reservations have dealt with 18 complex problems like this with urban sprawl coming up to 19 our areas and infrastructure problems for years. So I know 20 what a complex issue this is and I feel for both sides of 21 the issue. Infrastructure development and restoration of all of our natural resource uses needs to be conducted 22 2.3 throughout all of the United States. 24 As the leader of a business association we always

take into consideration the reliability and tremendous cost

25

221

```
of energy we have here in California, and it's been a
   serious problem for us. We've been lucky that after the
 2
 3
   closing of San Onofre Nuclear Power Generating Station that
   reliability has been maintained. And we rely on reliability
 4
 5
   here in California for having our businesses operate.
 6
              Therefore, we support the usage of Aliso Canyon in
 7
   a safe and sane manner. We support communication that
   they've been doing, and that the prices -- and the process
 8
 9
    that they've been doing. We support increased funding for
10
   energy efficiency programs. And I think that's very
11
    critical to the state because of the fact that we will be
12
    changing the way we generate and use electricity here and we
13
   need to evolve as it happens. But turning off a source that
14
   we have already that keeps our grid reliable is not a
15
   prudent way to do it.
16
              And again, we support the opening of Aliso Canyon,
17
    and we really understand that this is a complex issue, and
18
    thank you for your time and everything.
19
              CHAIR WEISENMILLER: Thank you.
20
              So, Wayne? Great.
21
              And then it's Whit Peterson, and then I'll go back
22
    to the other representative of Food and Water Watch,
2.3
   Alexandra.
24
              Please, sir.
25
                          Thank you. My name is Wayne Brown.
              MR. BROWN:
```

I'm the Director of Government Relations for the South
Orange County Economic Coalition. The Coalition is
dedicated to speaking out for the businesses -- for the
business community throughout South Orange County region
which contributes more than \$25 billion annually to Southern
California's economy. It matters not whether a business has
a handful or employees or is considered a major employer
with hundreds or even thousands of employees. It matters
not whether they prepare fast food or fine dining, sell
hammers and nails, or build new homes with hammers and
nails, they all require one vital ingredient for success,
power, power to run kitchens, power to press clothes, power
to run computers, power to produce goods and services, power
just to keep the lights on.

2.3

I am here today to urge those who will make the decision to allow natural gas supplies to restart the injection process at SoCal Gas Aliso Canyon storage facility to approve this action. We have made it through a very long, hot summer with many indicators of a strained supply of energy. The winter months are ahead and the power generation systems will again need natural gas supplies to provide the necessary generation to keep homes lighted and warm, but also keep the necessary power coming to companies large and small across Southern California to sustain and grow our economy.

The Coalition understands the need for safety and compliance with the restart of operations at Aliso Canyon.

We are aware of -- we are aware of the required testing of all wells, and that this must be a priority for the facility. We ask that as those compliance requirements are met and the field is again ready for supplies injection that you consider the importance of providing Southern California with a source of reliable energy for communities and businesses, including those in South Orange County.

Thank you for your time.

CHAIR WEISENMILLER: Thank you.

Whit, then Alexandra, and then we'll have Phyllis Dixon.

MR. PETERSON: Good afternoon. Thank you for allowing us to share our thoughts with you today. My name is Whit Peterson. I'm the Director of Government Affairs for the Irvine Chamber of Commerce. The Irvine Chamber Represents nearly 840 businesses that range from multiple thousands of employee companies to single employee shops.

Our members depend on reliable gas service throughout the year, especially the winter months. Without sufficient storage of natural gas, rate hikes, and even worse, service interruptions could severely disrupt business as usual and put our businesses in difficult positions. Our Winter Action Plan and accompanying assessments have stated

that during normal winter conditions the current supply, combined with other sources, might satisfy the needs of the L.A. Basin. However, as we're currently experiencing, normal conditions seem to be the exception.

We ask that you support our businesses and residents by recommending that the Aliso Canyon be reopened to ensure steady and reliable supply of gas.

Thank you.

CHAIR WEISENMILLER: Okay.

Alexandra, please.

Phyllis Dixon, then Ken Phillips.

MS. NAGY: Good afternoon, everyone. My name is Alexandra Negy. I'm the Senior Organizer with Food and Water Watch. And I wanted to thank you and commend all of you for putting together what looks like a much better report than was put out in April. Like Tim O'Connor said, it's much easier to read, it's a lot more transparent, and it gets away from the hysteria of 14 days of blackouts.

And this report, I would like to remind the room, actually says that we can get through winter, if we look at average demand, without Aliso Canyon. What we are kind of squabbling about are these peak winter demand days, so the one-in-10 and the one-in-35, which the independent consultant said would be a 0.03 percent chance. Therefore the Action Plan, right, to put the mitigation measures in

place that we would need to get through, not eliminate risk entirely, you can't do that generally, but to get through the winter without Aliso Canyon.

So when you consider who's really responsible for the situation that we're in today, and that's Southern California Gas Company, we're hearing about businesses, we're hearing about people who are extremely concerned about their bottom line, about having to pay more for gas because of the new system, go after SoCal Gas for your money. We can keep this facility closed. This report shows we can keep it closed. And we encourage the regulators who have been complacent in this sort of deregulated free-market approach to the way the gas system has run that has gotten us into this mess it the first place, to continue putting smart rules in place, smart regulations in place to keep this facility offline and to protect residents who are still suffering through this disaster.

In the future we would really like to see these events held in the San Fernando Valley where the people who have been most impacted can have a stronger voice.

And we really call on Governor Brown. We appreciate the hiring of these consultants. We feel like there's been good conversation there to have more transparency on this process. But with the new information of showing we can keep it closed, we really call on him to

keep it closed, to fulfill his legacy as a climate leader. 2 Thank you. CHAIR WEISENMILLER: Thank you. Okay. 3 Again, Phyllis Dixon, Ken Phillips, and Heather 4 5 Stratman. 6 MS. DIXON: Good afternoon. My name is Phyllis 7 Dixon. And I'm here on behalf of the Black Business 8 Association headquartered in Los Angeles. The Black 9 Business Association is the oldest ethnic business 10 organization in the State of California, and a long-time 11 supporter of Southern California Gas Company, and a corporate community leader. Why? Because of the positive 12 13 economic impact and track record that the Gas Company has 14 had in terms of providing contracting opportunities for not 15 only African American-owned businesses, but for women, minorities, veterans, and other diverse-owned business 16 17 enterprises, no matter the size, whether they're small, 18 medium or large. As a matter of fact, I, myself, is a 19 person who benefitted from that as a small business owner. 20 The January 26th moratorium issued by Governor 21 Brown, reducing more gas levels to approximately 17 percent 22 of its billion cubic feet working gas capacity was a 23 necessary step to take to ensure system reliability and public health and safety for consumers. There are still 24 25 some outstanding issues that I think the residents in those 227

```
communities deserve attention to. But the Black Business
   Association is in support of opening this facility as soon
 2
   as possible because of the economic impact it will have.
 3
              We can't solve problems without money. And the
 4
 5
   businesses and the people who work in those communities who
 6
   have jobs that would be impacted without this source of
 7
    energy could be very detrimental to us as citizens of this
    state overall.
 8
 9
              I wish you guys the best.
10
              PRESIDENT PICKER: Thank you.
11
              Ken Phillips, then Heather Stratman.
12
              MS. PHILLIPS: Ken Phillips, President and CEO of
    The Valley Economic Alliance. Our mission at The Valley
13
14
   Economic Alliance is to elevate the economic vitality and
    stability of the five-city region in the valley. The Valley
15
16
   Economic Alliance, our organization, is a 501(c) not-for-
17
   profit organization that's a public-private cooperative with
18
   business, government, education and community. As we say,
19
   it's the group that brings together all the people that
20
    live, work, learn, play and pray in the San Fernando Valley.
21
    There are well over 70,000 businesses in our region that
22
    represents a total of 350 miles square, and represents 2.1
2.3
   million residents.
24
              In fact, I'm not only a resident, I have two
25
   daughters that work in the valley. One also goes to Cal
```

State Northridge. And we also run a small not-for-profit in the San Fernando Valley.

2.3

I complement the group in working closer with the residents of this area, Aliso Canyon. But you should be commended with this cooperative multi-agency in a successful model that should be definitely studied. In a very short period of time you're coming up with some resolution.

And so in the past months multiple government agencies, including the community organizations and businesses, have been working together to solve the safety-energy solutions and conservation. And instead of decades to identify, prioritize and start solving the issues, you've accomplished this very quickly, while there's still lots and lots of work still to be done.

While there hasn't been a disruption, we are going into the winter months. And we want to include the fact that we don't want a disruption. So the Aliso Canyon natural gas needs to be restored to support business growth in Southern California. In fact, for the very first time in decades we've seen manufacture and growth return in Southern California 3.8 percent. We expect that we're going to see additional growth very soon. And we hope that the resolution will also include the growth for the many businesses in the San Fernando Valley.

PRESIDENT PICKER: Heather Stratman, then Patricia

Renteria.

MS. STRATMAN: Good afternoon. I'm Heather

Stratman. I'm the CEO of the Association of California

Cities, Orange County. Our organization represents 28 of

the cities in Orange County, the County of Orange, dozens of

special districts within our county, as well. Our

collective membership provides service to over 3.2 million

residents.

Our membership is supportive of the need for reliable energy, and specifically natural gas, to ensure that we have the ability to keep energy flowing to our city halls, businesses, homes, hospitals, and schools. We believe the importance of such reliability is not only critical to our daily economy, but equally important to our public safety system, transportation, and water delivery.

ACCOC applauds the efforts that SoCal Gas has made to ensure appropriate safety measures at Aliso Canyon have been taken. And we are supportive that the system will be operational and back online in time for increased storage before the winter months and going into the summer of 2017.

Thank you.

PRESIDENT PICKER: Thank you.

Patricia Renteria, and then Samuel Robles

MS. RENTERIA: Good afternoon. My name is Pat

25 Renteria. And I'm here today representing the Southeast Rio

Vista YMCA in Maywood as the Executive Director.

The Southern California Gas Company has been supportive of the Southeast Rio Vista YMCA for decades. The Gas Company has supported our programs, such as our Urban Initiative Cradle to Career Programs by investing in low-income communities, such as Maywood and the surrounding Southeast Los Angeles communities.

Recently the Gas Company supported our effort in helping Maywood residents during the magnesium power plant explosion and fire. In partnership with the Y, the Gas Company provided 1,000 air filtration systems to Maywood residents to help mitigate air quality.

I'm here today to support the opening of the Aliso Canyon facility. Without the Canyon, Southern California Gas's ability to meet the demand during the upcoming winter season is reduced, increasing the risk of natural gas shortages. These shortages can impact the entire Southern California region and the families of the Southeast Los Angeles communities. The reopening of the Aliso Canyon facility is important to the families and the businesses for the Southeast Los Angeles community.

Thank you for your time.

PRESIDENT PICKER: Thank you.

Samuel Robles, then Desi Gamez.

MR. ROBLES: Hello. My name is Samuel Robles.

I'm representing the Weingart East Los Angeles YMCA located in the Boyle Heights community of Los Angeles. 2 3 SoCal Gas has been a tremendous community partner to the YMCA throughout many, many years. And I'm here in 4 5 support of opening the Aliso Canyon facility. Without the Aliso Canyon facility SoCal Gas's ability to meet the demand 6 7 during upcoming winter season is reduced, increasing the risk of a natural gas shortage that will impact the entire 8 9 Southern California region and the families of the East Los 10 Angeles communities that we serve. 11 In addition to the families of our communities, 12 shortages would also impact electric generators, hospitals, 13 large manufacturers and other large users in our 14 communities. The Aliso Canyon facility fuels gas-fired 15 power plants that are needed to meet the regional electric demand during peak periods. The reopening of the Aliso 16 17 Canyon facility is important to the families and businesses 18 in the East Los Angeles Community. 19 Thank you for your support. 20 PRESIDENT PICKER: Thank you.

Desi Gamez, then Bryan Starr.

21

22

23

24

25

MR. GAMEZ: Good afternoon. My name is Desi Gamez. I am the Chairman of the Board of the Weingart East Los Angeles YMCA. I'm also an insurance broker out in the valley, so I wear two hats today. I'm basically here to

tell you -- to give you two testimonials.

Shortages of power that caused blackouts, and conservations that really disrupted our way of life. Life in Boyle Heights is very simple. As you know, it's one of the most impoverished communities in the country. And growing up there in the winter, not able to turn on the heater, living in a 100-year-old house with 11 kids was very challenging. I still remember sleepless nights, feeling like, you know, we were freezing. Having to go outside in the backyard to heat up our water so we can take, you know, warm baths. And not, you know, able to wash our clothes when they needed to be washed.

I'd like to thank SoCal Gas for all of their customer assistance and support in Boyle Hearts, such as CARE, 20 percent off the ESA Program which is a weatherization program, the Gas Assistance Fund, and the Medical Baseline Program.

In the valley I'm a broker. I represent various organizations there, manufacturers, school districts, nonprofits. And I talk to CFOs every day and business owners, and one of their biggest concerns is the cost of doing business with the shortage of reliable energy. It affects their supply line. It affects their pricing, their customers. And unfortunately many times, because of these

unexpected costs, there are layoffs, and very, very few raises.

So again, I encourage the opening of the Aliso
Canyon facility. And my sympathy does go out to those
families. I live in Canoga Park and I do have friends that
have been affected by this. However, many of them are
encouraged with the opening of the plant, as well.

Thank you.

PRESIDENT PICKER: I mispronounced your name.
Bryan Starr, then Aki Leung.

MR. STARR: Good afternoon. Bryan Starr, representing the Orange County Business Council. We represent some of the largest employers in the region, employing about a quarter million men and women throughout the region.

Aliso Canyon is critical to the regional energy reliability during the summer and winter months. In addition to serving residential and commercial customers, it also fuels gas-fired power plants that are needed to meet the regional electric demand during peak periods. Without Aliso Canyon, SoCal Gas's ability to meet the energy demand during peak periods is greatly reduced, increasing the risk of natural gas curtailments for the entire region, potentially effecting electric generators, hospitals, large manufacturers, and refineries and other large users.

The business community counts on having a reliable source of energy to run their businesses. It is absolutely critical to get Aliso back online to replenish our local supply of natural gas that can be used throughout the winter.

Thank you for the opportunity.

PRESIDENT PICKER: Thank you. Aki Leung, and then Kirby Van Amburgh.

MS. LEUNG: Good afternoon. My name is Aki Leung and I'm the Director of Programs for the Center for Asian Americans United for Self-Empowerment, also known as CAUSE. We are a nonprofit organization. And for the past 23 years we have been working very hard on the political empowerment of the Asian-Pacific American community through voting engagement, and also leadership development work.

On behalf of CAUSE, I'm here to support SoCal Gas in reopening the Aliso Canyon facility. SoCal Gas has been a long-term partner in our community work, specifically for the Veterans Initiative where we help veterans, and also reservists, taking leadership roles in a community. In working with them we've come to know that they are responsible corporate citizens.

Knowing that they have leading experts on their team, and also the joint effort of the various environmental agencies present in this room, we are confident that

informed and responsible decisions will be made to meet the needs of the community. So therefore, we support SoCal Gas to bring the Aliso Canyon natural gas storage back online.

Thank you so much.

PRESIDENT PICKER: Thank you.

Kirby Van Amburgh, Kheir. And then Sarah Roscon.

MS. VAN AMBURGH: Good afternoon. My name is
Kirby Van Amburgh and I'm with Kheir Center. We are a
federally qualified health center located in Los Angeles,
and we operate medical clinics that primarily serve lowincome patients. We serve more than 10,000 residents from
302 zip codes across L.A. County and beyond. Ninety-six
percent of our patients are low-income.

And I'm here today to support the reopening of the Aliso Canyon storage facility. And our main concern is that Aliso Canyon is needed to meet the demand for services in our service area in the winter months that are quickly approaching. Curtailments could negatively affect electric generators, and most notably in our industry, our own medical offices, and also the hospitals that we partner with to serve our patients.

Safety is critically important. And SoCal Gas has been focused on complying with regulations and working with regulatory agencies throughout this process, showing that safety is a priority.

So it's for these reasons that we are in support 1 2 of the efforts to reopen Aliso Canyon. 3 Thank you. PRESIDENT PICKER: 4 Thank you. 5 Sarah Rascon, then Laura Lechtenberg. MS. RASCON: Good afternoon. Sarah Rascon, Public 6 7 Policy Manager at the L.A. Area Chamber of Commerce. 8 As many of you know, Aliso Canyon has a direct 9 impact on electric grid reliability in our region. Most of the electricity consumed by Southern Californians is 10 11 produced by power plants fueled by natural gas. Aliso 12 Canyon is a direct source of energy for many of those power 13 plants. 14 Today, natural gas accounts for more than half of 15 the energy in Southern California businesses and homes. And because California imports most of its natural gas via 16 17 interstate pipelines, it is essential that we have regional 18 storage facilities, like Aliso Canyon. Since California has placed a greater emphasis on 19 20 renewable energy, natural gas from Aliso Canyon is one of 21 the major sources of energy to fill the gaps when the wind doesn't blow and the sun doesn't shine. 22 23 Although we have almost made it through summer, 24 natural gas storage will be critical to winter usage and 25 reliability. Currently, without Aliso open for operation in

the middle of summer, we resorted to dirtier resources we don't want to see the norm.

It's great to see the following agencies represented, working together to address our regional concerns. We urge every organization represented here to work together to safely expedite the restoration of all or parts of Aliso Canyon that natural gas reliability is better protected. All who use gas operations, jobs and regional economy activity rely on Aliso, especially for winter reliability. The safe continued operation of the Aliso Canyon facility is absolutely necessary to providing a reliable supply.

Thank you.

2.3

PRESIDENT PICKER: Thank you.

Laura Lechtenberg, then Nancy Starczyk.

MS. LECHTENBERG: Hi. I'm Laura Lechtenberg. I work at United Way of Greater Los Angeles. And I'm here today to be the voice of the 1.7 million people in Los Angeles County who live below the poverty line.

So as you make your difficult decisions here, just keep in mind that so many people in Los Angeles County live one incident away from severe poverty, and even homelessness. So the loss of a week or a month's worth of groceries in the frig because there was no power will be devastating to many families in Los Angeles County. So

please keep that in mind when you are working on the reliability of our energy here. 2 3 Thank you. PRESIDENT PICKER: Thank you. 4 5 Nancy Starczyk, then Ranji George. MS. STARCZYCK: My name is Nancy Starczyck. 6 7 I've got two stories to tell you. First of all, I'm a resident of Porter Ranch for 38 years. My husband and I 8 9 live very close to Aliso Canyon. It's virtually in my back 10 yard. We didn't vacate because we did not experience any issues. Our health was fine. 11 12 I'm a neighborhood captain for my street. And my 13 entire street looks to me as a key contact. No one had any 14 issues. So you should know this. 15 In addition, I'm a birder. So over the years I 16 feed at least 500 wild birds. I have squirrels, rabbits, 17 coyotes, they all come to my yard. And all during the time 18 that this leak was taking place there was no change in the 19 activity, and I continued to feed them. 20 Secondly, for 27 years I have been a realtor. I 21 should tell you that I am the President Elect of Southland Regional Association of Realtors. I'm here speaking for 22 23 myself, not for the association. But I was assigned to the 24 task force to study property values. The property values 25 that we studied were over the course of nine months. And

239

```
there was no statistical data to show that there was any
 2
   change in the property values going down, they were, in
 3
    fact, going up.
              I am currently selling homes in Porter Ranch for
 4
 5
   more than asking. And at the time, on December 14th, I sold
   a home for more than asking that was right against the Aliso
 6
 7
   Canyon entrance.
 8
              And finally, I'd like to say that I support the
 9
   reopening. The Gas Company, SoCal Gas, has given us so much
   information. Because I'm on the task force I've compiled it
10
11
    all. I have it all. And we were very impressed with what
12
    they provided us. We were never in the dark. We knew
13
   exactly what they were doing on a weekly basis. And they
14
   were available to us so that whenever I called with any
15
   issues or any questions, I got answers immediately. So we
   want to make sure that when it open it's reliable, safe, and
16
17
   we want it to remain affordable.
18
              Thank you.
19
              PRESIDENT PICKER:
                                Thank you.
20
             Mr. Ranji George, then Ted Green.
21
              MR. KIM: Hello. My name is Gene Kim.
    called earlier while I was out of the room.
22
23
              PRESIDENT PICKER: Sorry.
24
             MR. KIM: I just wanted to come by now to provide
25
   my piece, as well.
```

As I mentioned, my name is Gene. I'm with the Imprenta Communications Group. We are a public affairs and ethic marketing firm based out of Pasadena, California. And our mission is to empower communities of color by providing them with a voice and communicating to them in ways that respect their diversity and understand their culture. We are a proud member of BizFed. And we also have assisted SoCal Gas with what happened in Porter Ranch by providing bilingual interpreters at their Community Resource Center in Porter Ranch.

And I'm here today because I also believe that it's very important for us and for the communities that we work with to reopen the Aliso Canyon natural gas storage center as soon as possible and as soon as it is deemed safe to do so.

Aliso Canyon stores roughly 60 percent of natural gas here in the Los Angeles area. And as some of the previous speakers have spoken about, if there were a disruption to that it would place a disproportionate burden on low-income families, middle-income families, communities of color and others who really cannot afford the extra energy costs.

And so for the sake of all those who work here I think it's important that we work to safely restore service at Aliso Canyon so that we can protect the energy

reliability and affordability for all of the families here 2 in our region. 3 Thank you. 4 PRESIDENT PICKER: Thank you. 5 Ted Green. MR. GREEN: I've already spoken. 6 7 PRESIDENT PICKER: Oh, sorry. My apology. 8 Then Ranji George, and the Theresa Harvey. 9 MR. GEORGE: Good evening, Chair, and Ladies and 10 Gentlemen. My name is Ranji George. I have some really 11 good news to share, and at the same time, three proposals to 12 make. But before that, I am speaking as a private citizen, 13 even though I am a staff member here, and I did supervise 14 the installation of solar photovoltaic on top of the 15 building, which I welcome you to go see. It's a great 16 installation. 17 The main good news I wanted to share in this 18 context of increasing demand for electricity, both for 19 stationary and for mobile, we know that San Onofre has been 20 decommissioned, and because of climate change the heat index 21 is going up and the population growth is effecting 22 electricity demand. And, of course, in our agency we are 2.3 relying on millions of electric vehicles to meet air quality 24 goals, plus natural gas in other sectors. So the demand is 25 going up but the supply is shortening.

What is the good news then?

2.3

The good news is, and some of us have heard it already, solar prices have come down to \$2.00 a watt for residential. And guess what? For \$1.60 for commercial installation. That's dramatic. Just a few years ago it was \$7.00.

And I want to thank you, all the gentlemen here and people and ladies and all the agencies who worked together to promote solar here. I appreciate that. But I would request you strongly to take it to the next step.

The next step is to be a little more aggressive, and that means 100 percent solar rooftops. Why do I say that? Because if you look at Google and you'll see the great shots, aerial views. Google is full — the solar covers that building top. Same here. And they are not Northern California. In Southern California we have better sun and (indiscernible) sun, and it's an excellent place to get all the links, new and — to put solar. And that includes rich and middle class single-family homes. No incentive. We can mandate it because the prices are so low. And for the lower income, we should give them some incentives. So I urge you, that proposal, to adopt that, work the legislation.

The second proposal is --

PRESIDENT PICKER: Thank you. We will take your

```
written comments.
 2
              MR. GEORGE: Right.
              PRESIDENT PICKER: But as somebody who works here,
 3
 4
   you know what happens when that bell runs out.
 5
              MR. GEORGE: Right. One quick thing.
              PRESIDENT PICKER:
                                 Thank you.
 6
 7
              MR. GEORGE: Solar water cooker and solar heaters
 8
   are available in Europe and all that. We should introduce
 9
    that here, too. Thank you.
10
              PRESIDENT PICKER: Thank you.
11
              MR. GEORGE: All right.
12
              PRESIDENT PICKER: Theresa Harvey?
13
              I know I don't look like her, but I'm not.
14
              MR. HECTOR: Jason Hector, a Porter Ranch
15
   resident. I, as well, drove here. We are volunteers coming
    from our community to share with you our stories. I know
16
17
   I've seen several of you at other hearings and committees,
18
    so you know I'm very active in our community.
19
              I want to make a recommendation, specifically to
20
    the Governor's Office and to the PUC, that you've seen so
21
   much conversation on this side of the aisle about solar, and
22
   not enough of it on this side of the aisle. So I would ask
2.3
   you when you hold these types of meetings to bring the
   people, the industry people to be included in the
24
25
   conversation on this side so they can speak to the witnesses
```

and such.

Secondly, I think we need more environmental justice representation on this side, because this is a regulatory, primarily regulatory people here. But we also need people who can advocate for the communities, address the health concerns of our communities.

We had several business people come up who couldn't even pronounce Aliso Canyon. It was Alisio or -- you know, these people are not in tune with what's going on in our community, okay? The people who came out from our community, we are volunteers. We are taking time out of our day and representing hundreds, if not thousands of other people who are experiencing the same problems, so keep that in mind. The people who come up and read you written presentations and speaking on behalf of businesses, those are paid people who come in. The people who come in from the Y, for example, got donations from the Gas Company. So, you know, understand, they've made money off of this and they're inclined to support the agenda of the Gas Company.

But at the end of the day this facility, we've had none of these blackouts. This facility has not been necessary. We can keep it at the 15 billion cubic feet as is. The only reason to inject into the reservoir is for the profit motive of the polluter, and this is unacceptable. People are getting sick still.

Thank you for listening.

PRESIDENT PICKER: Thank you.

3 Theresa Harvey.

2.3

MS. MATTHEWS: The final two comments, they were not able to be here. So they requested the Public Adviser read those.

On behalf of Theresa Harvey, she wanted the Panel to know, the North Orange County Chamber of Commerce, an organization that represents over 1,000 businesses and organizations in 8 cities across North Orange County, would like to express our concerns for continuing to delay the reopening of the Aliso Canyon natural gas storage facility.

As home to many large manufacturing plants and a plethora of small businesses, including the entertainment corridor in Buena Park and Downtown Fullerton, it is important that each of our business owners and professionals feel comfortable knowing that they can rely on energy being provided to their places of operation. Our region recognizes that 60 percent of our energy is generated from natural gas, and that Southern California's largest facility is offline. Having a local pool of natural gas allows businesses to operate, knowing the power will stay on for them and their customers.

The heat of the summer is on us and our energy consumption is a high as ever. As business professionals,

we are sure you understand the need for security of energy and the guarantee that we can turn the lights on. Thank you for your consideration.

And the last public comment that was received is from John Teboe. He is a 15-year resident of Porter Ranch Estates. He lives less than one-half mile from the Aliso Canyon facility. He attended the Air Quality Management District public hearing on August 6th. And one of the Board Members asked that a professional who deals with methane poisoning speak at the next meeting.

The extreme symptoms he's experienced last year from October to December 2015 are the classic systems of methane poisoning. His symptoms were extreme headaches, continuous severe heart palpitations, cognitive impairment, dizziness, loss of motor coordination, severe flu-like symptoms, lethargy, and severe summer and gastrointestinal problems.

He went to urgent care four times because of the heart palpitations. He had to take tests to see if there was heart damage. And now he's on high blood pressure medication, and he never took it until this catastrophe. He has still not fully recovered.

SoCal Gas has not had my house professionally cleaned. I am still experiencing headaches and a dry cough.

My doctor doesn't know why or what's causing the dry cough, so he ordered chest X-rays, and he is now awaiting results.

On August 6th the Aliso Canyon facility operations manager under oath testified that they are still finding leaks on average of two a day. That's over 700 leaks found a year; right? Please shut this leaking facility down permanently because people are getting sick. Please close the Aliso Canyon facility permanently.

Thank you for giving me his opportunity.

PRESIDENT PICKER: Okay. I also have a sign-up from Anthony Duarte. Is Mr. Duarte here? Thank you. Sorry.

MR. DUARTE: Good afternoon. My name is Anthony
Duarte. I'm the CEO of the Regional Chamber of Commerce for
the San Gabriel Valley. The Regional Chamber represents the
business communities of Walnut, La Puente, Rowland Heights,
Avocado Heights, Hacienda Heights, also Valinda, and right
here in Diamond Bar.

I'm here today to speak in support of reopening SoCal Gas's Aliso Canyon facility. Without the reopening of the Aliso Canyon facility the ability to meet demand during the upcoming winter season is reduced, increasing the risk of natural gas shortages. These shortages can impact the entire San Gabriel Valley and the business communities the Regional Chamber serves that rely on natural gas to operate.

248

```
The reopening of the Aliso Canyon facility is
 1
 2
   important to our business community and to the tens of
    thousands of people employed by these businesses and that
 3
   potentially would be directly impacted if the Aliso Canyon
 4
 5
    facility is not reopened.
              The other hat I wear is I'm a School Board Member
 6
 7
   for the Hacienda-La Puente Unified School District here in
 8
   the San Gabriel Valley. We service almost 40,000 students
 9
   every year, 40 school sites. And when parents drop off
10
    their students at our school sites, they rely that we're
11
    going to have the doors open and the light on. And that can
12
    only be done with reliable energy.
13
              But also being a school board member, I know that
    it has to be done safely. And I'm assured that Southern
14
15
   California Gas Company can reopen the Aliso Canyon facility
16
   safely.
17
              Thank you.
18
              PRESIDENT PICKER: Okay. Thank you. And thank
19
   you for being patient for us to call your name.
20
              This completes the list of people who signed up to
21
    speak.
22
              Oh, sir?
23
              I signed up.
24
              PRESIDENT PICKER: My apologies. We may have
25
   called your name earlier when you were out of the room.
                                                              And
```

thank you for your patience, as well.

2.3

Oh, good afternoon. And thank you for your time that you've spent here with us. My name is Jaime Garcia. I'm with the Hospital Association. I'm the Regional Vice President here in Los Angeles County. The Hospital Association of Southern California represents 172 hospitals in the six county region that comprise Santa Barbara, Ventura, San Bernardino, Riverside, Orange, and Los Angeles Counties.

Mospitals operate 24/7 and provide emergency medical attention to patients in need, whether it's a trauma victim who is critically injured in a traffic accident on Interstate 10, to an individual who arrives with severe chests pains. Regardless of the emergency or disaster, the availability of medical attention 24/7 truly make hospitals key, critical infrastructure assets that we must work collectively to keep their doors open, especially in Los Angeles County. According to OSHPD there was about 3 million ED visits in 2014. So that kind of shows you the scope and the need for hospitals here in the Los Angeles Region.

Water, electricity and fuel, such as natural gas, are essential resources that hospitals rely on to remain fully operational. A service interruption or curtailment attributed to any of these utilities could force a hospital

to go into internal disaster or, depending on the circumstance, elect to have ambulances diverted to other alternative facilities. Natural gas fuels a hospital's boiler system which supplies steam for heating water for use in sterilization of medical equipment, surgical tools, as well as in the operation of food preparation.

While we appreciate and understand the need to conserve, and we are working on trying to achieve that where it's possible, hospitals must also remain compliant with Health and Safety Code 1250 and Title 22 requirements that assist with the prevention and control of infections that protect patient safety and quality of care. While a demand response program is mentioned in the report as a strategy for reducing natural gas consumption, it's not a viable option for hospitals at this time.

HASC recommends adoption of a methodical process that takes into consideration the existing regulatory environment and the role of hospitals, versus a curtailment recommendation that is premised on penalizing hospitals simply because of their size. Thank you for your time.

PRESIDENT PICKER: Thank you.

So is there anybody else who signed up whose name I did not call? I just want to check to see that I didn't miss somebody on the list. No? Okay. Thank you.

Then I'm going to turn it back to the Chair.

1 CHAIR WEISENMILLER: Okay. And I've been told, also, there's no one, no WebEx comments, so no one on the 2 3 phone. So it's time for sort of a wrap-up. I think we've 4 all had a pretty long day, and certainly a lot of 5 interesting questions. I think in terms of -- we've heard a lot of 6 7 sentiment on the basic question of opening or reopening, which obviously wasn't what we're dealing with today. We're 8 9 dealing with the winter question. And we have gotten a risk 10 assessment. We have an action plan. I certainly would encourage folks who have ideas 11 on additional actions to submit those for the record. 12 13 Again, those are due -- Heather? Sorry. 14 MS. RAITT: September 9th. And the information on 15 the notice provides how to submit the comments. 16 CHAIR WEISENMILLER: Okay, just so everyone knows. 17 Sort of looking across the dais, welcoming anyone 18 else who wants to do wrap-up comments. 19 COMMISSIONER MCALLISTER: I just have to get my 20 pitch in for energy efficiency and demand response. 21 you know, I think they make all the sense in the world for 22 many, many different reasons, but certainly our primary 23 toolbox for dealing with issues such as this, reliability 24 generally. We've got a long history of it, we know how to

25

do it.

And I want to thank the PUC for its initiative on 1 a lot of this. And we've really partnered, the Commissions 2 3 partner together really well on energy efficiency and complement each other well. But I do want to challenge us 4 5 to do better. We've got the AB 758 Action Plan to get at our existing buildings. We've got big goals established SB 6 7 So just, you know, this is what keeps me up at night. And I know it probably, you know, keeps some of you up at 8 9 night with it, as well. But this has been a primary policy for 40 years 10 11 and it remains important. So I just wanted to make sure to 12 highlight that in the wrap-up. 13 CHAIR WEISENMILLER: Well, Andrew, could you also 14 mention the other thing that's keeping both of us up in 15 terms of the zero net goal? 16 COMMISSIONER MCALLISTER: So existing buildings 17 are a big deal, there are lots of them here, but we also have new construction. 18 19 What's that? 20 MR. WEBSTER: You said you only have two things 21 that are keeping you up. 22 COMMISSIONER MCALLISTER: Yeah, exactly. Well, 23 zero-net energy is another bigger. You know, as our economy 24 rebounds we're building a lot of new homes. And there was 25 some talk today about that and how to use code to promote

energy efficiency, and certainly we're doing that. I mean, I don't want to just say we have to do better, we are doing a lot. And I think, you know, no one person, even on this dais, knows everything that's going on with respect to clean energy and energy efficiency and demand response. There's so much going on, it's more than one person can track.

Certainly with the ISO and the PUC and the Energy Commission and Air Resources Board, we're getting together on a lot of these issues, as well as other agencies on the dais here.

You know, our built environment is where most of our energy, well over half of our energy gets utilized. And so it's about behavior, but it's also about equipment, and it's also about the buildings themselves, the shell, our infrastructure in the state. So we are doing a lot, I think is the message. But we do need to do more, and there's a lot more to be done.

MR. RECHTSCHAFFEN: Thank you to the agencies, the experts, the public, the community members who participated today. Clearly this is an issue about which people feel very deeply. We benefitted enormously from all the input.

We had a six-month plan for the summer. This is basically a six-month plan for the winter. Hopefully we'll get over the immediate crisis and the next time we meet in a setting like this we will have a longer term plan and solution going forward.

Thanks again, everybody.

2.3

COMMISSIONER SANDOVAL: So I just wanted to add my thanks to everyone for coming.

And one of the things that I think that is also striking is that we're all in this together. So I, like many people on this dais, I'm from Los Angeles. I have family in the Los Angeles area. The reality is that we would not have gotten through the days where things were close without the efforts of all of the people of L.A. County and Orange County and parts of Ventura County. It's going to be a regional solution. And every time that we call for demand response, every time that we call for installing energy efficiency, it's going to take everybody.

So I really also would love to see more cross-town collaboration where neighborhoods are really talking to each other and realizing that we all really need each other.

In addition to that, the other regional dimension,

I think, that we need to explore is that as we look at

beyond the region of Southern California and California, you

know, when we look at gas imports from New Mexico, for

example, and times when gas freezes in New Mexico, in Canada

they made investments where they insulated their pipelines,

and that wasn't done for economic reasons in New Mexico.

So as we think about what are the supplies that we can rely on to be able to deal with our problems, we have to

just recognize the vulnerabilities of different supplies, while we also really look at what can we do this winter, and we work towards longer term solutions that can get us to our commitments and goals for energy efficiency, for greenhouse gas reduction, but also for safety and reliability.

So I look forward to working with all of you to figure out those solutions together as a region, a community, a state and a nation.

MR. WEBSTER: And I do also believe in the creativity of Southern Californians to resolve this. And I heard today, don't let a good crisis go to waste. And so L.A. has taken that to heart. It is because we have to look at our mitigations in the short term. But long term, the City of Los Angeles has launched a study to really look at, could we be 100 percent clean energy in the future? And we think that over the next six months we can have a really robust dialogue, looking out far into the future. Because ultimately, to resolve these types of problems we need to have that type of creativity really launched and a really healthy discussion, whether it starts over the next six months or three years. But I think that's what we need to be looking forward to in the future.

CHAIR WEISENMILLER: Okay. Again, I'd like to thank the South Coast for the hospitality. We certainly appreciate the stakeholder participation today. Thank all

```
the agencies for working together. We obviously have a lot
   on our plates to continue. And as Michael said earlier,
 2
    obviously we're hoping that we can continue to be either
 3
 4
    smart or lucky or both.
 5
              So this meeting is adjourned. Thanks.
           (Whereupon the Workshop adjourned at 5:30 p.m.)
 6
 7
 8
 9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
```

REPORTER'S CERTIFICATE

I do hereby certify that the testimony in the foregoing hearing was taken at the time and place therein stated; that the testimony of said witnesses were reported by me, a certified electronic court reporter and a disinterested person, and was under my supervision thereafter transcribed into typewriting.

And I further certify that I am not of counsel or attorney for either or any of the parties to said hearing nor in any way interested in the outcome of the cause named in said caption.

IN WITNESS WHEREOF, I have hereunto set my hand this 7th day of September, 2016.

Mason Booker CER**00866

Mason Booker

CERTIFICATE OF TRANSCRIBER

I do hereby certify that the testimony in the foregoing hearing was taken at the time and place therein stated; that the testimony of said witnesses were transcribed by me, a certified transcriber and a disinterested person, and was under my supervision thereafter transcribed into typewriting.

And I further certify that I am not of counsel or attorney for either or any of the parties to said hearing nor in any way interested in the outcome of the cause named in said caption.

I certify that the foregoing is a correct transcript, to the best of my ability, from the electronic sound recording of the proceedings in the above-entitled matter.

MARTHA L. NELSON, CERT**367

Martha L. Nelson

September 7, 2016