BEFORE THE
CALIFORNIA ENERGY COMMISSION

In the matter of, )
) Docket No. 11-IEP-1D
) Preparation of the 2011 Integrated )

Joint IEPR and Electricity & Natural Gas Committee Workshop

Electricity Infrastructure Need Assessment

CALIFORNIA ENERGY COMMISSION
HEARING ROOM A
1516 NINTH STREET
SACRAMENTO, CALIFORNIA

TUESDAY, NOVEMBER 23, 2010
9:00 A.M.

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NOVEMBER 23, 2010                          9:10 A.M.

MS. KOROSEC: All right, good morning, everyone. I
think we’ll go ahead and get started. I’m Suzanne Korosec.
I manage the Energy Commission’s Integrated Energy Policy
Report Unit. Welcome to today’s workshop held by the
Commission’s Integrated Energy Policy Report Committee and
the Electricity and Natural Gas Committee on Assessment of
Electricity Infrastructure Need as part of the 2011

I’ll start with just a few housekeeping items. For
those of you who may not have been here before, restrooms
are in the atrium, out the double doors and to your left; we
have a snack room on the second floor at the top of the
stairs, under the white awning; and if there is an emergency
and we need to evacuate the building, please follow the
staff out of the building to the park that is diagonal to
the building, and wait there until we’re told that it’s safe
to return.

Today’s workshop is being broadcast through our
WebEx conferencing system. Parties need to be aware that it
is being recorded. We’ll make an audio recording available
within a few days after the workshop, and then we’ll have a
written transcript available within about two weeks.

We have a very simple agenda today, starting with
opening comments from the dais, followed by a brief overview from Dr. Jaske and David Vidaver, on staff’s proposal for electricity infrastructure need assessment in the 2011 IEPR, and then we’ll move directly to public comments. We’ll take comments first from those of you here in the room, and then we’ll turn to the folks that are on WebEx. For those of you who are here in the room, please come up to the center podium and use the microphone so that the WebEx people can hear you, and also so we can capture your comments in the transcript. It’s also helpful if you can give the transcriber your business card when you come up to speak, so we make sure that your name and affiliation are reflected correctly in the transcript. WebEx participants can use the chat function in WebEx to let the coordination know that you have a question or comment, and we’ll open your line at the appropriate time. We’re also accepting written comments until the close of business on December 10th, and the Notice for today’s workshop, which is available on the table out in the foyer are also on our website, it tells you the procedure you need to go through to get those comments into the Docket.

Just some very brief context for today’s topic. The 2009 IEPR identified the need for a statewide Integrated Planning Process for electricity infrastructure that balances our policy goals to reduce environmental impacts of
energy production and use with the need to maintain
reliability and affordability of electric power. California
has strong energy policies in place to increase the use of
preferred resources like energy efficiency, demand response,
renewables, distributed generation, combined heat and power,
and rooftop PV. In addition, our new Governor’s Clean
Energy and Jobs Plan identifies the need for a plan and
timeline to make new homes and commercial buildings in
California zero net energy, as well as the need for a
renewable energy plan by July of this year, to expedite
permitting of high priority generation and transmission
projects. His plan also sets aggressive goals for 12,000
megawatts of localized and distributed generation by 2020,
and 8,000 megawatts of additional large-scale renewables,
along with increased combined heat and power projects. At
the same time, we have other policy goals like decreasing
use of once-through cooling technologies and power plants,
retiring aging power plants, modernizing the State’s
transmission system, and reducing greenhouse gas emissions
in the electricity sector. So, the 2009 IEPR identified the
need for a more coordinated planning and assessment process
for electricity infrastructure, that allows decision-makers
to set priorities, identify trade-offs, and turn these
broadly framed objectives into specific actions and,
eventually, into something like a statewide blueprint for
what the electricity system will need to look like to meet
our various policy objectives, while still providing
reliable and affordable electricity to consumers.

So, today’s workshop is looking at staff’s proposal
for a need assessment project which is an important
component of developing that kind of a blueprint. Dr. Jaske
will provide a brief overview of the staff’s proposal, but
first let me turn it over to the Commissioners for opening
comments.

COMMISSIONER BYRON: Madam Chair, I hear Ms.
Korosec’s voice, but where is she? I don’t quite - oh,
there she is back behind the -

MS. KOROSEC: We have a very large monitor up here
now, so...

COMMISSIONER BYRON: You’re invisible to us up here.

CHAIRMAN DOUGLAS: So, opening comments, I’ll be
very brief. I’m pleased to be here and thank staff for the
white paper that they’ve put out for our review and for
public comment. As Ms. Korosec indicated, we are looking at
how to bolster analysis of distributed generation storage
and how to integrate the renewable energy plan that the
Governor-Elect has called for in the Clean Energy Jobs
platform, and integrate those concepts into the concepts
that we’ll be talking about today. So, there will be a
considerable amount of work that we’ll be doing to scope and
We’ll look forward to public comment on all of that. Commissioners? Commissioner Byron.

COMMISSIONER BYRON: Thank you, Madam Chair. I’ve been looking forward to this workshop for a while and I appreciate the fact that there are so many of you here today to participate in this discussion, we really value your input. I would characterize it this way: so far, siting power plants in California has been a piece of cake. You know, we fully mitigate most all the impacts for natural gas, there’s few overrides that are necessary – even the large solar plants that we’ve been permitting, the large solar thermal plants where we’ve had immitigable impacts and had to override them, we’ve somehow managed to get through that process and produce, I think, very good projects. But now, of course, we’ve got these other constraints, the priority reserve has pretty much gridlocked the South Coast, we’re going to soon reach transmission and renewable integration limitations, which have not take effect yet, and the once-through cooling limitations and deadlines are going to prove pretty formidable here soon, as well. Add to that that, in California, we have disparate processes of procuring electricity, siting plants and transmission, and the multiple jurisdictions – it’s going to get an order of magnitude more complicated in the ensuing years. And can we site new power plants and retire aging plants in this newly
constrained environment? Can we make some no-regrets
decisions early on, on how much and what type of generation
and where it will be needed? How can we convince local
jurisdictions what’s going to be needed? And really, are
the utilities and the developers ready for this more highly
constrained environment? They always amaze me in coming up
with projects that fit our policy needs and fit all these
constraints, but I think it’s going to get much more
challenging now.

So, this Commission is certainly interested in
looking at what can be done ahead of time to prepare for
what I think is going to be a very difficult environment.
We’ve put some of our best minds to work on this and, in the
2011 IEPR, we will begin to address this in a more
significant way. I think you’ll hear today that the staff
has got a lot of – they’re well aware of many parallel
efforts that are trying to address the very aspects of this,
it’s incumbent upon this Commission to try and figure it out
and put the whole picture together. So, I certainly look
forward to today, I think this is a very important subject
for this Commission to address, if not perhaps the most
important for the next couple of years.

COMMISSIONER WEISENMILLER: Actually, again, I would
like to thank everyone for their participation today and, in
the subsequent phases of this process. This is my first
time on an IEPR on this side of the dais, so looking forward
to working through a lot of interesting issues with folks.

Obviously, most of my focus so far here has been on siting,
but now it’s time to shift more over to the planning part.

I think Commissioner Byron hit the challenges that
we really, I think, as the white paper has pulled together
or focused on, is the South Coast between the once-through
cooling priority reserve issues and emerging greenhouse gas
regulations, of how to deal with reliability needs there in
the Basin, and the tradeoffs between generation and
transmission as we shift more to renewables. I think, as
this paper has worked its way out, other events have
occurred, obviously we have a new Governor, and the new
Governor has a Clean Energy Jobs Program, and we will
certainly refocus this IEPR to reflect the election and
those priorities. In particular, we have a very strong
focus on the Renewable Generation and Transmission Plan that
will be done by July. I think we will build off some of the
priority exercises we are now going through as part of the
REAC group, look at priorities next year on siting and
transmission for renewables, it certainly will build off of
the lessons learned process that we’re launching on siting.
But ultimately, I think, there is a lot of work that is
going to have to be done on the DG part, I guess the bottom
line is we certainly take the Governor’s goals of 12,000
megawatts of DG, 8,000 megawatts of utility scale renewables, seriously. And we will come up with a plan to meet those targets, and certainly we look forward to everyone working with us on that. At this point, we’re still trying to think through the implications, although I think one model to think of is the BUC Strategic Plan for Energy Efficiency. I think the State needs a similar document on renewables, I suspect that is what the Governor contemplated. So, with that, again, welcome to this process. We’ll obviously be rethinking and we’ll re-struggle or re-scope parts of this, but the bottom line is we will get the renewable plan out on time.

MS. KOROSEC: All right, I think we’ll turn it over to Dr. Jaske and David Vidaver to take us through the staff proposal.

DR. JASKE: Good morning. For the record, my name is Mike Jaske, in the Electricity Supply Analysis Division. With me is my colleague, David Vidaver, and also co-author of this paper. We are seated here at the table, we don’t have a Powerpoint presentation, what I’m going to do is literally give you a guided tour through the paper, so I’m going to take maybe 20 minutes or so and turn the pages and hit some high points, paraphrase what is there, sort of staff’s way of bringing the most important pieces to our attention this morning.
So, in the Executive Summary on the first page, the
2009 IEPR, of course, made a decision that the Energy
Commission would create a more formal, quantitative,
integrated need assessment element of future IEPR’s, so here
the staff is with a specific proposal about how to do that.
You’ve already identified the fact that we have been
pursuing as agencies -- U.C., Energy Commission, ARB/ISO, in
particularly -- the California Clean Energy Future, a way of
bringing together all of our policy goals and merging those
with, in particular, the reliability concerns that are a
responsibility of the ISO and other balancing authorities.
Now we have Governor Elect Brown with a very similar vision,
but different in some particulars, and as Commissioner
Weisenmiller just now mentioned, distributed generation
being one that is seemingly, in particular, emphasized more
so than in California Clean Energy Future.

There are a number of applications for this effort
that are identified on page 2, one that is not called out
perhaps as much as it ought to have been is that the
passages in the Warren-Alquist Act, Public Resources Code
25301, 2 and 3, all directly say that the Energy
Commission’s IEPR should undertake assessments, you can use
it as assessment of need at some point in there; we’ve done
that in a formal way in the 2005 IEPR, paid more attention
to policy issues in the 2007 and 2009 IEPR’s, and now, as
indicated before, we are sort of turning to a more fully quantitative assessment of what kinds of infrastructure are needed. There are a number of other applications that one can imagine, the information use of this, the bringing together of the numeric consequences of all these various disparate policies, and the constraints of reliability, a lot of rhetoric conflicting with the person speaking it on who tend to push single-purpose solutions to our electricity needs and problems. So, to the extent those can be more readily understood and comprehended by bringing together an overview assessment of how pieces fit is another purpose. And finally, of course, Commissioner Byron highlighted the potential application of this to our own power plant licensing, or the licensing activities for power plants that even other jurisdictions do. Do we need all the power plants that are being proposed? Are what’s being proposed by various developers what is needed? Do they fit into the locational and operational flexibilities or a template that we are beginning to understand that we need, but yet we don’t have sort of quantitative magnitudes ready to hand, to guide the generating industry? Some key terminology are identified on page 3. These are taken straight out of the last IEPR, and there is this cascade of concepts on the top of that page from vision to blueprint to need assessment to need conformance.
Certainly, the CCF document is a vision and Governor Elect Brown’s Jobs Energy Policy document is another vision. They are not in themselves sufficiently complete to do planning, and they need to be translated into this concept of a blueprint. So, this architectural metaphor of a vision, you know, a rendering that is the dream, then there’s a blueprint that’s necessary to really understand how a building would operate, and the engineering firm could actually construct it, lots of details. There are many ways to translate the same vision to different blueprints, and unfortunately, that’s where we are today; there is not agreement about how to take the vision, whether it’s the CCF version, or Governor-Elect Brown’s, and spell it out. Everyone incorporates 33 percent renewables by 2020 – what does that mean? How much is in-state? How much is out-of-state? What kind of technologies? Where are the located within state? All of those different ways of answering those questions lead to different transmission, different types and amounts of the generating technologies themselves, portions that would fall to Energy Commission licensing vs. local processes. So, there are numerous ways in which we don’t yet have a blueprint that is the simple execution, one step after another, until you actually get there. That leads, of course, to a lot of uncertainty, so our need assessment proposal features being explicit about much of
this uncertainty, tracing through alternative assumptions, showing their consequences, contrasting one to the other, that’s our notion of how to address this uncertainty. We’re not going to solve it with this proposal, we’re going to try to illuminate it, make it sharper so that where there are choices, we can assist in understanding the magnitude of what different choices mean.

And finally, need conformance. This proposal is only to do the planning stage, the evaluation. We’re not proposing anything about how to take the next step, which might be to say, given a particular power plant, does it fit the geographic, or operational characteristics this analysis suggests? That’s a logical next step, but that’s not part of this specific proposal.

Perhaps now is the time to take the caveat that is imbedded in the document in a couple of places and just highlight it, particularly in light of the comments that Commissioner Weisenmiller made about DG. It’s certainly the case that a high DG vision of the future can be handled in the apparatus that we are proposing; the problem is that there are many other dimensions of Distributed Generation that this proposal can’t handle. We are not in this proposal endeavoring to describe the impacts on the distribution system. We’re not capable as this project is designed to understand where the distribution system can
handle Distributed Generation in significant amounts, and where it is not. We’re not able in this particular project to be clear about the costs and the requirements of any kind of Smart Grid technologies that will allow those distributed generation facilities to actually operate harmoniously as part of a whole system, so certainly we can put in a high DG future in this apparatus we’re proposing, it will show lesser need for other kinds of resources, but it wouldn’t be a complete assessment and an ability to contrast a DG future vs. a different future. Many of those questions can, of course, move farther than what I’m saying right here, we can ask the right question, but whether we can fully evaluate Distributed Generation vs. other things is very unlikely for this project. There may be some supplemental attention within the IEPR that can move farther on that particular subject.

Page 5 of the paper lays out sort of the basic simple equation that, you know, guides the capacity version of need, so we’re simply projecting peak demand with escalating it by a planning reserve margin and making the appropriate adjustments for supply side resources, and seeing if we have a position or negative number. We’re going to do that at the balancing authority area level, we’re going to do that to the extent we’re able through assistance from the ISO at local capacity areas, and that
will tell us some things about where we have surpluses and
deficits of resources going out into the future.

We’re going to propose to do this for all of the
balancing authorities in the State, and so that’s one of the
ways in which this effort can be differentiated from what
the PUC is doing for IOU’s within the ISO, and the ISO
itself focusing more narrowly on transmission and system
operation questions, as opposed to overall capacity
assessments.

On pages 10 and 11 are the beginning of staff’s
proposals, so, as I was just saying, a bunch of supply
demand balance tables, different balancing authorities,
local capacity areas, imagine doing them numerous times with
alternative sets of assumptions to give a fleshing out to
the uncertainties that exist. So, one unresolved challenge
that we have in providing a picture of what this uncertainty
means is visual techniques for bringing all these different
versions of the future — alternatives futures — into some
coherence so that policymakers like you and other users of
the information can see at a glance what it means. There
are some techniques out there with different kinds of
modeling backgrounds to provide a way of synthesizing, you
know, dozens or hundreds of cases, and sort of bringing
visual techniques to show what they mean. We’ll be trying
to evaluate those as we get to the point of developing
actual software.

One of our most challenging dimensions of this subject is to try to disaggregate capacity down into different -- or into buckets, let’s call them -- to have different operating characteristics. The ISO is giving us very good ideas about how renewable integration leads to increasing need for regulation, up or down, for load-following within the hour, to a lesser extent load-following across hours, and so forth. So, we are honing in on what the different ways of describing the services, the capacity provides, but we are only at the beginning steps of trying to actually identify a method which can be cranked through systematically and consistently across a whole different set of assumptions in order to understand how those requirements change from one set of assumptions to another.

Page 12 identifies that we’re planning to go out probably to year 2022 in this analysis. The last IEPR went out to 2020, naturally, the next sense is to try to go two more years.

Pages 13 and 14 describe some challenges that we have, I won’t repeat each of them, they’re written up with some care. Hopefully the commenters today will provide some feedback on those.

Pages 15 and 16 start a very lengthy table that identifies both the specific inputs that staff proposes to
use, as well as what we identified now as the best source of those. And Appendix A to the paper goes into more detail about those sources and some challenges with trying to make use of them. One of the things that the last IEPR called for in Chapter 3 was not only instituting this integrated needs assessment capability, but trying to do so on an integrated basis, or a consolidated basis, or a cooperative basis with the PUC and ISO. We have no doubt that both the PUC’s long term procurement planning process and the various forums that the ISO supply a good bit of the information that we need for this project, and we don’t propose to reinvent the wheel, we propose to acquire those items of information and make use of them. To some extent, they may need to be tweaked or adapted, translated, you know, into different geographies, but I think there is a strong desire to make use of that which exists and these tables call out in some detail where that comes from, and some of the challenges with them.

Page 20 identifies our project schedule. Staff proposes to do this in two iterations. Sometime in the spring, we identify here in May, we would put out a preliminary version of the results. We would hold some workshops, perhaps staff workshops or committee workshops, or some combination of those, get some feedback over the course of the summer we would refine the results, bring in
new elements of information that are only available then, and put out a revised version in August.

Page 21 identifies – let me sort of express this in the sense of the caveat – what we’re proposing for this project encompasses some of the dimensions of numerous other analyses that I’m sure will be underway as part of the IEPR. Next month, I believe, there is going to be a workshop on renewable net shorts, all of the ingredients to go into that are the same elements that are quantitatively going to be assessed as part of this need assessment effort, so there are actually a variety of renewable net shorts that one can imagine, depending on certain kinds of assumptions. There are, of course, as Commissioner Weisenmiller mentioned, a host of issues in Southern California having to do with OTC power plant retirement or replacement, the source of offsets for new or repowering power plants, the extent to which demand side measures can reduce load and, therefore, lessen the amount of dispatchable capacity that must be located there, the degree to which transmission development can at least somewhat substitute for the locational requirements that exist today, and allow us greater flexibility about where to locate fossil power plants away from the coastal area itself, or perhaps take a greater advantage of renewable development than we might otherwise be able to. Those are dimensions that will be encompassed within this
project, but we’ll be encompassing them in the sense of let’s make some reasonable – let’s identify the reasonable range of assumptions and use those as part of our apparatus and crank through alternative futures. So, this need assessment project can encompass these particular issues of Southern California, but it’s not the best way to address the issues themselves. The IEPR needs to tackle directly some of the questions of OTC implementation, of the source of offsets for fossil power plants. And there are numerous issues of moving those topics forward that are separate from and outside of this need assessment effort.

Starting on page 22 and then going on for several pages are some particular issues that staff highlights in trying to pull together this integrated need assessment engine and crank through alternative assumptions. I’ll just quickly list off what they are: better understanding of how transmission is a complement to generation, for example, where there are renewables, obviously there has to be at least a gen. tie, if not something more developed in order to integrate that resource into the grid; improved understanding of instances where generation and transmission are substitutes, so, a moment ago I mentioned the possibility that some OTC capacity might not need to be replaced, you know, in its current location if transmission is improved within the sort of urbanized LA Basin, and then
allow greater flexibility of that type and location of the
generation needed to serve load. An issue which came up in
some of the limited amount of discussions staff was able to
have with other parties before finalizing the paper is this
whole issue of, is a capacity oriented focus as we’re
proposing here sufficient? Or, is it necessary for some or
all of the cases, to evaluate them in parallel with system
simulation models so as to understand fuel use and GHG
emissions, displacement of out-of-state resources? That’s a
major commitment to accomplish that in our ability to crank
cases, you know, system simulation model setting will be
very limited. To the extent that that is necessary to
better understand all these nuances, and we may be looking
for some more short cut methods, than the full blown ones we
would normally be using. Clearly, the desire to reflect
reliability, you know, in conjunction with policy goals is
one of the motivations for capacity balanced tables at the
balancing authority area level, or the local reliability
area, but those, of course, are only particular facets of
reliability, there are other dimensions, other metrics that
would be desirable to try to understand, but which may be
beyond our reach in this cycle.

And I think I already mentioned earlier that we are
frankly torn between, you know, designing a whole series of
specific cases, CCEF case, a Governor-Elect Brown case, or a
PUC LTTP case vs. exploring the much wider realm or range of uncertainty, or inputs and therefore results. Those are so prominent among the industry that some combination of specific cases, and then a more systematic examination of uncertainty may be the best way to go, but that’s a topic for which we’re very interested in receiving feedback.

Let me just quickly call to everyone’s attention this Section 4, starting on Page 24 where we are describing how we’re attempting to coordinate with the PUC and ISO, doing so predominantly in the sense of trying to make use of the inputs into those proceedings, and the results that are generated within those proceedings to the extent they all match up to our schedule. Many of the submittals that the investor-owned utilities will be making into the PUC’s LTTP Proceeding pursuant to the about to be issued Scoping Memo are hopefully able to satisfy our needs and, for the publicly-owned utilities, we’ll be relying largely upon the results of the demand and supply forms that they submit to the Energy Commission. Staff has conducted workshops on those demand and supply forms, there will be a transmission workshop, I believe, next week, and all of those will come before the Commission to be adopted, and their due dates are off into the late winter and spring next year.

Section 5 of the paper, starting on page 27, addresses uncertainty as a key dimension of what we’re
trying to do here, we don’t think it’s appropriate to just focus on the particular views that the CCEF vision has, or Governor-Elect Brown has, or the PUC’s LTTP Scoping Plan as staff understands it today, and there are many other ways in which the future can unfold, and trying to understand the uncertainties on inputs and translate those through into uncertainty and the results and what’s needed according to the various levels of this aggregation, you know, is I think something that we’re trying to contribute to and bring to bear in a more systematic fashion than has been the case previously.

Starting on page 29, there is some very brief discussion of a whole range of possible purposes, of course, one that is not literally in the paper is the one I mentioned earlier today, the satisfying the requirements within the Public Resources Code, itself. And among these various bulleted items, there are some that staff indicates are more likely to be usefully accomplished, successfully accomplished, in this cycle than in others. We are certainly not going to get into the specificity that is a substitute for the CPUC’s LTTP proceeding because we are not going to be analyzing things at the bundled customer level, or at just the IOU service area level, we’re looking at things at the ISO balancing authority level, perhaps SP and MP26. We’re not going to be getting into things at the
level of detail that lets this project be a substitute for AB 1318, that needs its own specialized study and that is being designed and initial work underway and hopefully we’ll be able to have a public workshop on that in the next month or two.

In conclusion, let me reiterate what I hope the paper itself says and my summary comments this morning, this is a proposal, we are at the beginning of this project, we don’t have results, we don’t even have the software to crank this through developed yet. We are looking forward to feedback, we’re looking forward to feedback here today, in the written comments that I think Ms. Korosec mentioned, I think December 10th, that if there are more in-depth discussions any of the stakeholders are interested in pursuing with staff, we’re happy to do that, too, over the course of the next few weeks or months. So, we look forward to any questions you have now and the comments from the parties. Are there questions?

MS. KOROSEC: All right, do we have any parties being brave enough to be the first to come up and respond to staff’s proposal? Mr. Kelly, always the first.

MR. KELLY: Thank you. Good morning, Commissioners. Thank you very much. My name is Steven Kelly with Independent Energy Producers Association. I appreciate the opportunity to provide some feedback on the draft of the
A couple observations; first, I think it’s important to make a distinction between an infrastructure assessment and a process that leads to need conformance. This mechanism that is being discussed is an approach to integrating those two things. And where I’m really comfortable with the Energy Commission doing an infrastructure assessment, I have more concerns about delving into need conformance and I’ll explain why in a second. When I look at the Energy Commission and the processes that you apply toward planning and, particularly, the siting of generation, my foremost goal is to remind you to do no harm and I think, in this context, particularly, we need to evaluate the processes moving forward to make sure that they provide the information that you need in a timely manner, but do not harm the development of generation resources that are needed to supply load, whatever the types that you need, or that the State policy directs. Just as an aside, I did print out the document from the website and I noticed, at least in my document, it starts on page 21, so naturally I’m always concerned about the first 20 pages of any report that I haven’t seen, so just as a little notation, a little paranoid, maybe, but who knows? Let me talk a little bit about a couple aspects here. I’d like to talk about some of the design goals, maybe go through a little bit of history since Mike and David and myself and a
few other folks have been here for a long time and have been
through some of this, and then talk about some issues and so
forth. First, and again, in the construct of do no harm,
I’m looking at the design goals, and when I synthesize those
down, I focus in on a couple attributes, one is to determine
the operating characteristics of future generation plants,
and that those should be essentially designed by State
planners. That seems to me something that comes out of this
analysis, which is an issue that needs to be further
discussed, I think. Secondly, the report speaks to
addressing how facilities in the siting process match
planners’ estimates of future need, given a range of
scenarios. Given the complexity of developing a range of
scenarios and the reality of a range of scenarios, it’s hard
from a developer perspective to plan in advance about what
should be trying to develop projects to meet state policy
goals in past years’ siting process, and I think that
creates a problem which I’ll address in a little bit more
detail. It really begs the question, which operating
characteristics are being sought? For what time frame? And
whose need is being determined? From a generator
development perspective, the signals that we take when we
enter California to develop new generation, or to serve
California load, that process starts way in advance of any
siting project coming to the Energy Commission. People
spend years trying to identify sites, work with landowners, and so forth, spending lots of money before they even get to you. And generally in this context in California today, the primary factor that leads to actual development is whether you have a PPA in California or not, whether you can finance the project. That’s coming from the utilities, usually. Either the POUs or the IOUs, it doesn’t necessarily come, that price signal does not necessarily come from the Energy Commission. A concern that I have is that we go down a planning process that is constantly changing, that is not sending signals to developers that are constant enough, and stable enough, that people can actually go out and try to develop the projects that are sought by the load serving entities to serve consumers. And if that’s the process that we’re going down, where we have perhaps the potential for mixed signals over time, that undermine the ability of developers to go out in advance to look for these sites and work with landowners, I think that raises the question of whether we are creating barriers to development, rather than moving barriers to development. And my goal, and I hope this Commission’s goal, is to remove barriers to development for the projects that you want. Now, let me talk a little bit about history here, and I beg your indulgence, I’m going to take a little bit of time to walk through kind of the history that I’ve experienced in California and that many of
you have, that deal with the issue of particularly need conformance. This Commission and other bodies have done infrastructure assessments since time memorial, we will continue to do those, but I really want to focus in on the issue of need conformance and how that can undermine development. Way back in the ‘90s, we had a biennial planning process designed to do need conformance and identify exactly what kind of projects were needed and where. That imploded because the process was essentially gained to create disincentives for developers to build generation that were needed. The State modified the statutes, removing the need conformance test, and creating an environment where the private sector could come into California and, on their dime, invest their money to develop their projects, recognizing that many of those had to come before the Energy Commission in the siting process where you would review them from an environmental/CEQA perspective. If they were able to pass that test, including all the mitigation, the assumption was that they could be sited here, and then the next decision was, would they spend the money to develop the capital and infrastructure to build, and that was another question - early on, it was in the marketplace, now it was under a PPA structure, generally. That process, the need conformance structure, was changed back in the ‘90s because we had problems with that process.
It was overly detailed, overly planned, and it ended up not resulting in the types of generation that we needed and, as a result of that, was one of the contributing factors for the energy crisis because we were resource short during a period of time that things went haywire. So, I just want to reemphasize the reality from a developer perspective of the need – the obligation for them if they want to develop projects, to enter into the forum of California way in advance of this needs assessment or the infrastructure assessments that you’re doing here, before they bring a project to you to site. Millions of dollars are spent in that process and what they’re reacting to are relatively clear signals about what the State needs, generally – not specifically down to location because that allows, then, the flexibility to go out and talk to developers. The problem today is that, 1) there’s a lack of transparency and we have overly complex planning processes conducted by any number of agencies in the State of California, all of which tend to be sending slightly different signals about what’s needed from an infrastructure perspective, what’s going to be built from an infrastructure perspective, and so forth. Those have a tendency to delay that advance work that I was talking about a second ago, from a developer to get out and actually spend the money because the question is, what is it that California is going to allow to be built, and who am I going
to sell to. Developers need clear stable signals, they need
a process that is clear for the selection of the resource
that is going to go forward and they need a process that is
clear on the signals to build. And the extent to which
planning processes, which tend to be never-ending in
California, amongst a variety of agencies and entities like
the ISO, those multi-processes on planning tend to undermine
a developer’s willingness to spend the millions of dollars
in upfront investment to build those projects. Currently
today, we have a multi-planning process that I don’t think
is particularly helpful, we have RETI, which, compared to
the others, is quite transparent, we have the CTPG, which is
a precursor to the ISO’s Transmission Planning Study, which
is not particularly transparent, particularly to developers.
It is controlled and operated by the utilities. We have the
ISO doing a 33 percent integration study, which is very
complex and detailed, which tends to be delayed because of
that. For better or for worse, it’s just the reality of
planning in California. And then we have the PUC doing
integration studies, all of which are slightly different,
all of which may have slightly different assumptions, and
all of which means that most stakeholders cannot follow them
properly. We are not in a position, particularly an
association like IEP, to really track this in great detail
because there are so many different forums that this is
going on. The only ones who are able to follow this are the State planners and maybe their consultants, and perhaps some of the utilities if they view that they’ve got some investment concerns there. But that’s a problem. It’s creating a problem about the transparency of California’s process. From a developer perspective, what we face, ultimately, at the end of the day, is for 75 percent of the load, if we’re interested in serving 75 percent of the load, we’re at the PUC and the LTTP, where the utilities individually are applying the least cost best fit methodologies to determine how each bidder fits into the system. That, too, is not a particularly transparent process. But that is, at the end of the day, the determining mechanism that drives the PPA structure, that drives the investment. So, I just want to point that out, that that becomes from a developer’s perspective the key criteria right now for determining what you’re going to do and when you’re going to do it. Third, I want to talk a little bit about problems in modeling. We’ve been around watching modeling and everybody in this room has been watching modeling for way too long. Modeling typically, at the level it’s being talked about here, results in delays because of the complexity and usually that’s a tension between transparency and complexity and we end up with no transparency and inadequate satisfaction in terms of
sophistication on the complexity issue. Secondly, whenever we turn down this process of complex modeling, invariably the assumptions that get embedded in the model today, when it comes out in a study work in 18 months is out of date. Who predicted the economic recession that occurred in 2007? If you go back and look at all the planning studies that occurred in the mid-2000’s, nobody saw that coming, at least at the scale that it did. Nobody predicted the energy crisis at the scale that it they did when they were doing these planning studies. The problem is that the resources that go into the modeling are fine for an infrastructure assessment, but if it becomes a tool for need conformance, the tool because out of date by the time it’s being applied, and that is what I think is a very big problem if we’re going to use it for that application. And then, finally, this is not going to be a surprise to anybody at the dais, I mean, as a stakeholder, we see continually bureaucratic in-fighting between models about what are the assumptions, what are the endpoints, and ultimately what that had, the effect of that, is to delay decision-making. And again, to get back to my first point, from a developer perspective, what we want is some regulatory certainty. We want some price signals that tell us what to do and when in advance, so we can plan for it. The bureaucratic in-fighting that usually emerges out of this kind of - when multi-agencies are doing
similar but slightly different modeling, it creates problems from a developer investment perspective. So, what solutions do I offer up from a concept perspective? First, we want to see advance signals that would indicate what kinds of projects, if they pass CEQA, are going to pass muster at the Siting Commission at the Energy Commission. We’re not particularly interested in investing millions of dollars to come to the Energy Commission with a project that meets CEQA requirements and then have a finding that all of a sudden it doesn’t meet the needs of some planning study that was done a couple years ago. The Legislature addressed this a while back, if independent power producers, or even the utilities, are willing to move forward and invest a dime on their resources, we should have a process that allows that to move forward. Secondly, we need to reduce – or increase – regulatory certainty in the same regard. And I’m going to point out the role of the least cost benefit methodology that is employed today; if that’s a problem because people don’t understand how it’s being applied, and particularly the agencies don’t understand how it’s applied, I would recommend that we look at that methodology first, to find out what resources that are being posed in these RFOs are actually fitting the constructs that people have for the desired products. If there is a problem there, we should look at and fix that because that’s the instrument that is
being used to send the primary signals to the development community today. If the goal here is to tell other agencies what the need is, then I think I would like to see a clear signal of what I’ve seen to date amongst the various agencies about agreement on that. I would like to know where to go to make my arguments and not have to run amongst four or five different agencies to work these issues out. I beg to differ, I saw the Governor’s statement on the integration of the agencies, I’ve read it twice now because I heard how glowing it is about what it tells the development community; I don’t see it there. I would like to see the agencies be a little more affirmative about the PUC is going to defer to the Energy Commission on X, Y and Z, and that will be it, or the ISO is going to defer to the Energy Commission, or the PUC is going to defer to the ISO, or whatever. Right now, we don’t have any of those price signals. We don’t know where to go. And we’re being sliced apart – all stakeholders, I suspect, are being sliced apart by many different proceedings, and there’s not enough time to deal with all of them. So, I would just make that observation. So, I guess, if I were to sum this up, I mean, I think the Energy Commission has always been good at doing infrastructure assessments, and I’m not necessarily taking a position here about the need for that, per se, and this report describes a need assessment that would probably be
very helpful to the State of California. I do have
discomfort with the notion that that need assessment, and
all that modeling, and all those scenario playing, are going
to have an impact on need conformance in the actual siting
case, where developers have done a lot of work based on the
signals that you provided them, and they come to you, pass
CEQA, pass all the tests that you have on your books, and
all of a sudden it’s the wrong project, on the wrong street,
in the wrong neighborhood. We have troubles with that
because it takes, as I indicated the upside, three to four
years to find a street, to find a neighbor, and so forth, to
get a project moving. And that kind of certainty is
something that we’re looking for about how you’re going to
proceed on this, and where we can go to invest millions of
dollars over the next 10 years. So, those are my comments.
I’m happy to answer any questions, and look forward to this
proceeding over the next 18 months.

COMMISSIONER BYRON: I’m not sure he does. Do you
think he really does? Mr. Kelly, I like the way you think.
I understand - I believe everything you said and I think
they’re all good comments that we need to pay attention to.
If I’m not mistaken, though, you described yourself early on
as being paranoid, maybe that was just with regard to the
document, but I sense a little bit of that all through your
comments, as well. The fundamental question I’d like to ask
you, and we could get into some other details, time permitting, because I’m jotting down all the things you’re saying, you know, do no harm, the issues around State planners setting operational characteristics for future power plants, you know, the notion of coordinating and sending the right signals to developers on what’s expected of them, there’s no doubt about it, the developers are incredible in terms of meeting all the various requirements the State puts in front of us. But the fundamental question I think I want to ask you is, instead of looking at what we’re trying to do here as additional constraints, what if we were to not take on this assessment and, given the environmental that I outlined earlier in my comments, that you’re going to be dealing with in the State going forward, and Commissioner Weisenmiller and the Chairman added additional things I failed to mention, such as greenhouse gas reductions, etc., if we weren’t going to do this kind of analysis and we’re going to provide this kind of additional information that would inform other agencies and developers like yourself, what would be the likelihood of your spending millions of dollars to come before this Commission with an AFC, and having to spend perhaps even more millions of dollars and it not being approved? Wouldn’t it be much higher if we weren’t going to do this kind of analysis?

MR. KELLY: Well –
COMMISSIONER BYRON: Your likelihood of success, I think, would be lower is what I’m trying to point out.

MR. KELLY: Yeah, let me answer it this way. How many projects have come to you in the last seven years where you haven’t been doing this kind of assessment? How many millions of dollars have been expended by developers over the last seven years to develop the projects that have been sited here? And even the ones that you declined to site? There is, for better or worse, a number of market signals in California that developers are taking today and investing millions of dollars on. So, if you’re dissatisfied with the rate that developers are bringing projects to you over the last seven years, then maybe we’ve got to look at that and figure out why that’s occurring. But, if you are looking back over the last seven years, particularly the last four or five, and seeing a plethora of developers bringing projects through this agency for siting, set aside all the ones that are going through the local agencies for other technologies, then the question is really, do we need to change that? What’s wrong with the horse we’re riding today?

COMMISSIONER BYRON: A lot of things.

MR. KELLY: Well, but you’re getting the generation that is coming through you. I mean, if there’s something wrong, it’s the sense that the planning is disassociated
from – is spread across a number of agencies, perhaps, and
there’s not one central place that is doing it, which is
true. And that’s not something that I favor, necessarily,
but it’s the question that keeps – that comes to my head all
the time is, if the Energy Commission were to be that focal
point, what does it matter? My members that want to serve
at least the 75 percent of load that is supplied by the
IOUs, respond to the signals that come out of the LTTP and
the methodology of least cost best fit that’s applied to
review RFOs. Additional planning will just undermine that
in some respects, unless it’s consistent. And if you’re
here to tell me that you will be exactly consistent with the
LTTP process, and that they will accept all your
assumptions, and integrate that perfectly into their
process, that would be great, but I’ve not experienced that
to date.

COMMISSIONER BYRON: But you make it sound as though
this Commission is responsible for these – and I use the
word “constraints” – that this Commission is responsible for
all these constraints that a developer faces, and of course,
we’re not. We don’t have anything really to do with the
procurement process, except the demand forecast. We don’t
have anything to do with reliability issues that need to be
addressed, you know, to meet the ISO’s concerns. I mean, on
and on and on. We’re not responsible for all these, we’re
trying to integrate this on a statewide level and make sense out of it.

MR. KELLY: Yeah, but if you succeed in integrating it, that might be fine. If you succeed in simply adding another layer to the planning process that’s already there, then that’s not going to be helpful, and that’s the problem that we have in the state. We have a number of agencies that are doing this planning work, and you may be the best planner in the world, but if it’s just in addition to all the other plans that are going on, most of which are not particularly transparent because they’re so complex, where’s the help?

COMMISSIONER BYRON: And, again, that goes back to my fundamental question. I would hope you’d be standing up there, Mr. Kelly, begging us to do this analysis so that it would help inform you as a developer coming to this process, with a better understanding of how all these various - and, again, I use the word “constraint,” but all these various issues are going to come together.

MR. KELLY: Well, I’ve been through -

COMMISSIONER BYRON: Because I don’t think you’re going to be able to do it 10 years from now, five years from now.

MR. KELLY: But I’ve been through a number of planning processes over the last 15 - way too long - and the
reality is that it becomes a huge time sync, a huge resource sync for stakeholders, and may not have any impact at the end of the day, but you’ve got to cover your bases just in case because you don’t really know. And that’s what I’m talking about, is my concern that this is an additional layer that has no impact at the end of the day. I mean, I have, as a stakeholder, had to assess where I’m going to apply my limited resources to the greatest effect. And if you’re telling me that this is the forum where we’re going to have the work, and this is going to apply to the ISO, and this is going to apply to the PUC, and this is going to apply to the Air Boards, and it’s going to apply to the local agencies, as well, great, I’ll be here and we’ll get the bright people in front of you. But if you’re doing something in addition to all the time I’m spending at the PUC, and all the time I’m trying to spend at the ISO, and the CTPG, it doesn’t work very well.

COMMISSIONER BYRON: All right, fair enough. We’re all competing for your time.

MR. KELLY: And I just want to go to the beach.

COMMISSIONER WEISENMILLER: Actually, look at it this way, Steven, if it was easy, they wouldn’t need you. Your clients could just handle it themselves, but since it’s not easy, there’s a need for the trade organization. I think there’s a lot of mythology, obviously, in California,
on issues, and I think part of your discussion is based in some of that mythology. If you look at projects now in the South Coast, they have been through here, they’ve been permitted, they have contracts, they’re not being built. Why is that? It’s not because the planning process is too much, it’s because it hasn’t dealt with some of the issues it should deal with. If you look at projects, if you look at the Federal greenhouse gas regulations, if you look at the EPA’s recent regulatory guidance, that’s coming. We can have projects that have PPAs that get through our process, and run into a brick wall at the EPA. Unless we figure out a way in this process to deal with the greenhouse gas issues, in a way which the EPA is going to listen to us, otherwise your people are going to spend millions and just stop after they get their permits from us. And that’s what we’re trying to deal with in this process, is solutions for the South Coast issue, and for the impending EPA issues. It’s not going to be cheap, it’s not going to be easy, but we have to do it.

MR. KELLY: I think that, I mean, we all understand the problems in the South Coast, I mean, when I see language that says, “We, the State planners, are going to define the operational characteristics of these units and select the ones that meet all that, and the location that we want them,” and blah, blah, blah, to me, that is a signal for
problems down the road. If what you’re saying is the Energy Commission is going to come out with a statement on the assessments side of it, “You know, we need 11,000 megawatts down in the South Coast, in-Basin,” I mean, fine. We all know that. But if it takes the Energy Commission to step up in its planning process to make that statement, we would support that. We would support things that will lead to a resolution of the problems down there. It’s not clear to me that the need conformance aspect of what I’m sensing from the narrative in the report necessarily solves that. And I don’t know whether SCAQMD is looking to the Energy Commission to make an assessment of how many resources are needed in the state to support either Grid reliability, or whatever the public policy measures are that the state wants to support; that should have come out, probably, of all the precedent IEPR’s that we’ve been doing over the last 10 years. I’m not certain that we need to fundamentally change what we’re doing in order to send that message to that agency.

COMMISSIONER WEISENMILLER: I think, certainly, the public in that area want a regulatory assessment that we’ve done all the energy efficiency we can do, all the renewables, all the DG, and that something is needed in that Basin. Now, that certainly is something which could be dealt with by a number of agencies, although I would argue
this is probably one of the best positioned to do that,
particularly if we can combine Edison and LAWP’s issues in
the Basin, but similarly, if you just look at Avenal, I
mean, Avenal was permitted by here, it’s now at EPA. And
you know, it’s not moving. So, again, I think the current
system is broken. I don’t know if the staff framework is
going to get us to where we need to get to, but that’s the
purpose for having our workshop today is to start getting
comments on how to improve it so we can deal with the pieces
in the current system that are broken.

MR. KELLY: Well, but all your historical IEPR’s
dealt with assumptions based on energy efficiency demand
response, penetration of a certain amount of renewables, and
so forth. And I’m not saying don’t do that, you’ve done
that for 10 years. Now, I may not be sensitive to what
SCAQMD is indicating that they need from this agency as a
declaration of why SCAQMD should move forward and work on
those projects, we would endorse that; but what I’m sensing
is a fundamental change of the process that has been used in
the past, and maybe I’m misinterpreting what this proposal
is, but it strikes me as very different, or else we wouldn’t
be talking about it, from what has been employed in the
past.

COMMISSIONER WEISENMILLER: But, I mean, if you look
back at the MRW Study on Greenhouse Gas, if you then look at
the Avenal Decision, but then look at the current -- recent EPA Regs on that, there’s a lot of stuff to do to basically deal with the greenhouse gas permitting parts that, certainly, this agency as part of its siting process, you know, if we can build it in, it’s going to be a lot easier than, you know, giving your people the permit and saying, “Go deal with EPA next and figure out how to deal with their issues.” So, if we can basically, as part of our process, set that up - but, again, if you look at that part, that’s a different strain than the ‘80s, ‘90s, need conformance question. But, certainly, we’re not trying to step back into that, but trying to step past Avenal to the next step on greenhouse gas assessment.

MR. KELLY: Well, let me - we worked - IEP worked with your agency, at the resources agency, and here on you Regs on GHG, and I thought that was a very positive outcome where we all recognized that, if somebody is siting a new facility and, by definition, displacing an existing facility, or even another facility with a higher heat rate, the presumption is that you’re getting a GHG benefit. I haven’t read the most recent Avenal transcripts. I guess where my concern is, last summer I was reading transcripts in this agency about projects that were being sited, and reading a narrative that was telling me, you know, coming from the context of those transcripts, you know, “You’ve
brought me the wrong technology,” or, “Your technology is in
the wrong location.” From the developer perspective, it’s
hard to deal with that kind of environment.

COMMISSIONER WEISENMILLER: Yeah, but I mean, the
developers should be smart enough to know that, in
California at this point, we’re looking for renewables, and
that’s going to have consequences in terms of renewable
integration. And renewable integration, the types of
facilities that they’re going to build, should not be
something base load, but it should be pretty flexible, and
that’s certainly the message people are getting, so I think
that part of it, again, if someone hasn’t gotten that
message from just the physical market and the regulators,
you know, they probably are going to lose a lot of money in
development, but –

MR. KELLY: I totally agree with you, and they’re
losing their money. I guess, though, the part that we’re
teasing out here is the role of the Energy Commission to
define the operational characteristics of these units at
specific geographic locations. And what level of detail
we’re talking about there. I mean, if that process moves
forward, and then there’s a parallel process at the PUC on
the LTTP and least cost best fit methodology, which is
presumably doing almost exactly the same thing, it creates a
tension that is not helpful in my view.
COMMISSIONER WEISENMILLER: That certainly can be an issue, but I think the thing that would drive a lot of need in the future would be renewable integration, that’s an issue which I don’t think any of us have our arms around very well, I mean, as you indicated, the ISO is certainly taking a lead more trying to crunch that through; we would certainly hope that we can rely upon that assessment in this work. But, again, I don’t even think at this stage we have – you now, we’re still trying to frame that in a way that people believe the numbers coming out of the ISO, and that’s what we’re relying on, but, I mean, we don’t really intend to re-crank all those wheels. But we do need – that’s going to be a huge driver of our study is the ISO’s renewable integration work.

MR. KELLY: Well, I think that’s right. We had the ISO two-year study, or whatever the heck that’s going to take, and then it comes over here for 18 months, or 12 months, or whatever it is –

COMMISSIONER WEISENMILLER: How about a workshop here? I don’t need 18 months.

MR. KELLY: Well, but until you get it integrated into your final decision, that has no bearing. And then it goes over into the LTTP, which is an 18-month process, before there is a decision there that’s telling developers, “Okay, this is what we want to do.” That is a huge gap of
time. And all of the assumptions that went into the ISO study work over here are out of date. And we get pleadings at the PUC which has occurred this year, well, all of a sudden we don’t need that now, things have changed, and we’re fighting that. And the need for regulatory certainty and price and development signals going forward is something that is critical for the industry, for the investment that is needed, and I’m just emphasizing that, if we’re bringing it altogether, that’s great, but if we’re adding on an additional layer, then it’s not clear to me that it’s particularly helpful, except for maybe some discreet issues related to, you know, once-through cooling in the South Coast, I don’t know.

COMMISSIONER WEISENMILLER: I think you should also assume with the new Administration that there will be a pretty good zero basing of energy activities among all the agencies, so we’re going to certainly become more – hope become more efficient. But I think, again, the question for IEP in its participation is, how do we frame this so that we can deal with removing some of the barriers that come in after we’re done? I mean, that’s what we’re trying to do here, not erect more barriers to getting in the door. But there are real barriers out there and we certainly need your help in trying to figure out how to address those.

MR. KELLY: We look forward to that discussion,
MR. PETTINGILL: Good morning, Chairman Douglas and Commissioners Byron and Weisenmiller. I am Phil Pettingill with the California ISO and, first of all, I’d just like to thank you for the opportunity to provide comments, you’re kicking off a new project, it is certainly a challenging initiative. I guess what I wanted to do is start off with the notion, I guess, that Suzanne did, you know, that if the idea here is a more coordinated blueprint to help meet the State renewable energy goals, then we would certainly say start from the basis of the California Clean Energy Future, and the document certainly recognizes that, but recognizing that we’re going to move through a transition to a new Administration, the CCEF and that whole vision that we all worked on together certainly becomes the foundation. We’ve identified most of the elements that you’ve certainly identified in your report, and many of the elements we think that are going to affect the Grid as we move forward over the next 10 years or so. So, in terms of the foundation, to start there. But let me provide some specific comments. It looks like, you know, and the Staff Report is trying to
bring together valuable information, there is an awful lot of activities going on between the different agencies, whether it’s the PUC, CEC, or us at the ISO. And to bring that information together is certainly going to be valuable for a new Administration and all of us that are trying to move down this path over the next 10 years. On the other hand, though, I think it will be beneficial as we go through this process with you, to be really clear on what is the proposal going to provide because, certainly, re-doing work, or re-analyzing, or reproducing, can certainly be costly, and very likely unnecessary, given the activities that are going on. We are certainly, at the ISO, well aware of the fact that we’ve got operational challenges with air restrictions in the South Coast, once-through cooling, as well, and so, you all know, we do operate most of the Grid in the system, but we also do a fair amount of technical and operational studies to understand what are the implications of the fleet that we have today, and how that fleet might change over the coming years as we all work to implement the environmental policies. So, that work, we appreciated, was highlighted in the report by Dr. Jaske and Mr. Vidaver, you know, the renewable integration studies. It’s certainly very complex, very challenging to try to understand how large penetrations of renewables are going to affect the operation of the Grid. The transmission that’s going to be
necessary to connect those renewables, and if not just those renewables, then how will it help us in resolving the issues of once-through cooling and air emission restrictions, as well? But more specifically, as Mr. Kelly said, the reason we know there’s 11,000 or 8,000, or 10,000 megawatts required in areas like the LA Basin is because of the local capacity studies that we produce on an annual basis. We think it’s important to try to communicate that information to all of the agencies and developers in the state to understand, given the fleet that we have, or given the transmission that we have, then what are the requirements to be able to reliably operate the system? And we’re certainly committed to continue doing that. So, as you know, we’ve worked collaboratively with you, PUC, Air Board, and others to put together the California Clean Energy Future, and we’d certainly continue to do that as we go forward, but again, trying to be careful that we’re not replicating or redoing work. We look more specifically to the proposal, I think there’s maybe three things to think about, trying to produce a real precise quantification of need at this point of time is likely to just be impossible, frankly. We can get an idea, a direction, a path to head towards, but to get something specific is going to be probably impossible. And maybe three key points to think about as we do that: the most challenging one, of course, is just the fact that we
don’t want to get too far out ahead of the defined processes, and the timeline that is outlined in the proposal starts to do that, asking for deliveries in May, when certainly some reports or analyses may not be available in May. We’re trying to produce a final report in October when those things may not be available for your final report. But, I think more specifically, just drilling down the issues and the interaction between generation and transmission is certainly going to be a challenge for all of us. At this point, there is such a significant change in generation technologies, we’re seeing that, you’re seeing that, with your siting efforts in some of the solar projects, that to try to understand how those technologies will be operating eight and 10 and 12 years from now will certainly be difficult today, and will certainly drive – or not drive – the need for additional transmission or other generation to support those. So, that interaction between generation and transmission is a challenge primarily because technology is starting to drive the different products that are coming into the system. I think the second area I wanted to help our here was just the approval of new generation, as Commissioner Byron and Weisenmiller raised. It’s going to be a challenge when we look at the air and water restrictions, and we should all expect that those will change over the next eight, 10, and 12 years. So, we’ve got
some idea what the process is today, but it will change, and
that of course, then, makes trying to shoot towards a target
eight or 10 or 12 years from now a very difficult challenge.
To recognize that those permit processes will be modified is
certainly something for us to consider, and so our approach
has been to look at sort of a breadth of options. What do
we think would happen if things were sort of the status quo?
Where do we think things would go if there was significant
change in those permitting or other requirements? And more
importantly, what if there was a significant penetration of
other technologies? And, Commissioner Weisenmiller, you
mentioned the new Administration focusing on 12,000
megawatts of DG, certainly the California Clean Energy
Future said 5,000, so that said, we recognize we need to go
in that direction, maybe we’re off by a few thousand
megawatts in 10 years from now. But certainly, if we’re
designing a system to incorporate 5,000 megawatts, we’ve now
got a lot of the infrastructure and the processes in place
that I believe will get us to the 12,000 that the new
Administration would like to get to. So, again, just to
sort of summarize these opening comments, we look forward to
working with you, I think we still ought to use the
California Clean Energy as a framework, and more
importantly, we’re going to work together to try to make
sure that we have a reliable electric system as we convert
the infrastructure that we have. There were three sort of key questions for today, and I wanted to just touch on the first couple because I think it’s helpful to really think about what we already do have. The first question is, well, what kind of cases, what kind of breadth of analysis should go into this particular activity. And I would certainly point out to you that, coming out of the California Clean Energy Future, and what’s already been adopted at the PUC, is a 3 X 5 matrix. There is already 15 different scenarios that we’ve worked together to identify. Given this is the first time through this initiative, I would certainly suggest that is a place to start, that gives us enough breadth and enough understanding, but more importantly, it would be consistent with the analysis processes that are already in place if you stay with those cases. And then, finally, you know, where does this go - maybe question 2 was where does this go in terms of the range of need and so forth and so on, and I’d take you back to that matrix. When that matrix is talking about high load, low load, high imports, low imports, high DG, low DG, I think we’ve got a pretty good sense of what the breadth of possible futures are in at least going through this first round. So, let me stop there and say thank you very much for comments and, if you have any questions, I’d be happy to try to answer those.

COMMISSIONER WEISENMILLER: Actually, thanks a lot,
Phil, I think this helps. I think the one question as we’re going through our planning is, in terms of what’s the current expectations on the renewable integration studies, if you could sort of fill us in on that that would help.

MR. PETTINGILL: Yes. Well, going back just a half step, as you know, we’ve put out a report on 20 percent, that’s pretty detailed, pretty specific, on what we think is an initial indication when we’re at a 20 percent penetration. We are already producing preliminary results through the PUC’s Long Term Procurement Proceeding, so we’ve talked about how we go about this methodology for 33 percent, and in their workshop on November 30th, we’re going to be presenting our Step 2 results, those Step 2 results will actually start to identify similar outputs that we had in that 20 percent analysis, so what do we see as sort of maximum levels of regulation, or load-following, those kinds of numbers under a 33 percent case.

COMMISSIONER WEISENMILLER: And I guess, just to sort of fill out the rest of the space, also, could you give us an update on where the ISO’s transmission planning process is at this point? Again, when to expect some conclusions there?

MR. PETTINGILL: Yes. Well, where we are right now is we’re going through our annual process, generating a plan for our portion of the Grid. We’re expecting to have a...
draft report, or certainly near final results, by next month, December. That will roll into January of next year, where we would have a final transmission plan. That plan looks out for 10 years, so it identifies what our needs are for years 1, 2, 3, 4, 5, and then jumps out to year 10. So, that takes us to the year 2020 and we have incorporated in that plan a 33 percent RPS. So, I think you’ll get a pretty good sense of what are the specific transmission upgrades that are needed, you know, in the year 2020, and for 33 percent RPS program. We’ve made a number of assumptions in that, we’ve looked at – considered retirement of some of the once-through cooling plants, and so forth and so on. So, I think that will be very informative in terms of the additional transmission that may or may not be required by the time we get to 2020.

COMMISSIONER WEISENMILLER: Just to circle back on uncertainty for a second, obviously, trying to focus on uncertainty as part of this process is going to be a challenge. I guess one of the upcoming workshops we’re going to have is going to deal more with the economy part of that, you know, because we were trying to figure out what some of the major uncertainties were, certainly when California gets out of the doldrums is a key part of this, and as I said, certainly in the next couple months, at one of our upcoming workshops, we’ll try to focus more on the
obviously, if you deal with uncertainty on some level, you can just - in order to provide range, you could justify any actions. In terms of as the ISO struggles with uncertainty, what’s the best way you’ve found so far to try to deal with that?

MR. PETTINGILL: Well, that’s why I was really focusing on the matrix of possible future cases. In there, we’re pretty comfortable that there is what, I guess, we would characterize as sort of a normal load case. If the economy, you know, sort of recovers, and we move back to a normal projection over the next 10 years, that’s certainly something that we should all at least plan for because, in our case, we’re concerned mostly about having sufficient infrastructure. So, if that load does come back, we’ve got to make sure we’ve got enough transmission and generation facilities to serve it. Now, we can then sort of take away from that with some of the other policy initiatives like high DG, energy efficiency, and some of the other initiatives that may take away some of that load. Now, of course, I know you can appreciate that, for us, being the System Operator, we’re always concerned about things like Distributed Generation. Distributed Generation can certainly cause problems for us in the sense that, if it’s behind the meter, or it’s not clear to us that it’s
offsetting real load, what happens when, certainly, from
time to time we’ve seen this, the generators trip off,
they’re not available, they’re not serving the load? Now we
are expected to be able to pick up that load. We’ve also
got to be concerned about the Federal Reliability Standards
that will say we need to maintain operating reserves to
serve that load, even though it’s being served by a
generator most of the time, what happens when that generator
trips? So, those are the kinds of things that we’re going
to be concerned about as we go forward from a planning
standpoint. We want to know what all of the load is, but
certainly recognize that it could be offset by some of these
initiatives. It creates a breadth of options or
considerations for us when we’re looking at the
infrastructure, and we feel pretty comfortable if we’re
looking at a wide enough bookshelf, then we can identify
sufficient infrastructure to cover the outcomes. That’s the
way we deal with the uncertainty.

COMMISSIONER BYRON: Mr. Pettingill, just a couple
of questions, in fact, maybe a few comments before I ask you
questions. I feel like I’m in a position where I can say,
“Let’s not overstate Governor-Elect Brown’s energy policy
statement around DG.” I mean, I like it, we’re all in favor
of looking at it, but let’s recognize it for what it is. I
believe that document was prepared before he was elected
Governor. And it’s not necessarily had the benefit of
public input and all the vetting that we go through, so
let’s recognize it for what it is.

MR. PETTINGILL: Agreed, and I hope you appreciate
that was part of the reason why I wanted to really reinforce
the California Clean Energy Future, because all of us
working together, were able to vet those kinds of numbers
and those objectives, because we think those are actually
realistic.

COMMISSIONER BYRON: And we recognize the concerns
that the ISO has around increased amounts of Distributed
Generation, and renewable DG, as well. And I don’t think
this analytical effort really can even address that, I mean,
in fact, I sense a little bit of – maybe this is a bad word,
but I sense a little paranoia in some of your comments, as
well – there’s not a great deal of precision that can
result, and correct me if I’m wrong, Mr. Vidaver, and Dr.
Jaske, the word “precise” is nowhere in this white paper
that we’ve written here.

DR. JASKE: I think it would be unreasonable to
think that one can be precise, that there is, in fact, a lot
of uncertainty that is not probably as recognized as it
ought to be, in an attempt to be overly-precise.

COMMISSIONER BYRON: And, in fact, I don’t even
think you can or will be addressing Distributed Generation
in this analysis, correct?

DR. JASKE: As I said, it can be done in the sense of either adding to supply, or reducing demand if it’s behind the meter, but that’s a far cry from really understanding all of its implications to the Distribution System going forward.

COMMISSIONER BYRON: Uh huh. I think the workshop Commissioner Weisenmiller has planned on the renewable net short will help inform this perhaps to a great extent. But what we’re saying up here at the dais is that we’re paying attention to this potential policy redirection, we’re certainly interested in it, it may not fit the ISO’s model, or even in the investor-owned utilities model for moving to a more distributed source of generation, but we’re going to look at this more carefully. But let’s get back to the analysis, some of the comments that you mentioned. We’re certainly starting from the clean energy – the California Clean Energy Future document, and I think at least twice you mentioned about duplicating previous analysis, there’s no agency that looks at these issues really on a statewide basis, and that’s what we’re trying to do here. We’re going to rely heavily upon the work that the ISO does, we’re not interested in duplicating efforts here, it’s really more an integration effort that’s underway. As I said, precision is really not going to be possible. And you had indicated
about not getting too far out in front of when material and
information might not be available. I recognize that
analysis and the input might not be done when we’ll need it
to complete our work, but we’ve got to get out in front of
this issue. I just think it’s crucial. We can’t wait and
sit around, and we’re frustrated at times because the
analysis that other agencies do is not necessarily available
in a timely way for our work, we’ve got to move forward on
this, we’ve got to try and understand this at least from
some sort of qualitative way. So now, my questions if I
may? You mentioned operational characteristics of new
technologies that are changing the way you’re going to be
operating the Grid. Give me an example or two of that
because I just can’t — I mean, we’ve seen the output
profiles of solar and wind, we understand the challenges
around that, what kind of additional technologies are you
talking about when you are saying that they will change
operating characteristics of the Grid?

MR. PETTINGILL: Well, I don’t think we’ve actually
seen where solar facilities are going to go. There is just
a significant change in the kind of research and development
that is happening in different types of solar. Today, you
see the solar thermal facilities, but certainly there is a
huge shift to photovoltaics, for example, that you wouldn’t
necessarily see, but we’re certainly seeing. And part of
the reason for that is, you know, as there is greater and
greater penetration, their pricing point is reducing. So,
compared to a solar thermal facility, it’s starting to look
like projects are now shifting to photovoltaics, so that is
the first one that comes to mind. Now, the design of the
photovoltaics is certainly going to change, as well, and we
start looking at how these solar facilities are being
designed out there, that they’re starting to have different
operating characteristics. For us, the solar thermal
provides some value in the sense that it’s got some ride-
through, you know, when it loses the solar, we still get
some energy out of it, photovoltaics don’t. Now, once the
industry starts to understand that, we’re certainly
optimistic that we’re going to see some changes to that.
More importantly, one of the more recent things we’ve done
is say, “Well, can we see those facilities ramp in or ramp
out so that they’re not just turning on and off like a light
switch?” We’d much rather have the dimmer than the light
switch on those kinds of facilities.

COMMISSIONER BYRON: I see.

MR. PETTINGILL: So, those are the kinds of things
that I was thinking of and mentioning. And I guess as a
follow-up point to that, to think about for a second is,
again, if we see high levels of Distributed Generation, what
type of technologies will those be? Is it going to be all
rooftop solar? Or, are we going to bring back fuel cells?

What will be the type of technologies that go into these high levels of Distributed Generation, whether it’s 5,000 or some other number? And those are the kinds of things that we get concerned about because, certainly, if it were only 5,000, that represents 10 percent of our peak load on the system, and that starts to be a pretty significant concern to us as the System Operator. So we just need to be aware of it and understand, as we’re doing the studies, how it’s going to affect operations.

COMMISSIONER BYRON: Fair enough. And that makes perfectly good sense. Let me ask one last question, and I think this -- I could infer the answer is yes from everything you’ve said -- but I want to ask you, do you see value in this Commission doing this kind of analysis and work going forward? Do you see any benefit to it? Or is this, as Mr. Kelly’s concern was, a potential duplicative or constraining effort on the work that they’ll be doing? Will this be helpful to the ISO or not?

MR. PETTINGILL: Well, thank you. I mean, because one of the points I said, and maybe it was too early on in my comments, was, to pull together and to be able to describe what we are doing is probably a very helpful exercise, and if what I’m hearing you say is not to do reanalysis, not to redo what has been done, but to put it...
together and put it in a single story, having worked real
closely on the California Clean Energy Future, I can share
with you that that was an effort and very much like what I’m
hearing you describe here. If we’re going to pull pieces
and parts together and put it into a nice, clean story about
where things are going, or what needs to happen, or where
there would be value in the system, then I think that’s what
I was trying to communicate.

COMMISSIONER BYRON: Okay, good. I can tell you, my
time at this Commission, certainly I’ve learned most of our
time seems to be trying to consolidate the efforts of how
many different energy agencies and environmental agencies do
we have in the State, we seem to spend a lot of time on that
exercise, and thank you for your efforts on that Clean
Energy Future, I think that is a very helpful document.
But, again, it doesn’t decide anything, and it doesn’t bring
any precision to what we’re trying to do, or analytical
capability. I think it helps us all understand how these
pieces come together. But thank you for it.

MR. PETTINGILL: Thank you.

CHAIRMAN DOUGLAS: And, Mr. Pettingill, I just have
a brief comment or invitation based on the discussion of DG.
As I noted, and we noted at the beginning of this, we’re
really thinking about how to focus in on some of these
elements of the Governor-Elect’s Clean Energy Jobs Plan and
better flesh out and better analyze some of these components, so we will be asking staff, or we are asking our staff, for their thoughts as to where we can get these gains in DG that the Governor-Elect is looking for, what are the needs, what types of analysis, what types of infrastructure upgrades go along with it, what concerns might it raise, and how do we deal with them. So, we’ll be very interested in your thoughts and your comments as we flesh out that element of the work, and I would say the same about storage, both concentrated and distributed storage potentials and potential concerns, and needs around that. And my own thinking is that, it’s actually very beneficial for us to spend some time developing those two chapters, where we really do have different technologies to change the way we typically think about the Grid, and to be able to integrate that into the infrastructure analysis thinking that we’re doing, so we would be really interested in your thoughts.

MR. PETTINGILL: Great, well, we’ll be here to assist, definitely.

CHAIRMAN DOUGLAS: Excellent. Well, thank you.

MR. PETTINGILL: Thank you.

MS. KOROSEC: All right, anyone else in the room here want to get up and speak? Please.

MR. SMITH: Well, good morning. I appreciate the opportunity to stand here and speak in front of you.
Chairman Douglas, Commissioners Byron and Weisenmiller, my name is Bob Smith and I am the Director of Energy Delivery Asset Management and Planning at Arizona Public Service. And just maybe a little bit about me because you folks probably haven’t ever met me before, but I’ve been with APS for about 25 years, degreed engineer, I’ve been in Transmission Planning and Operations for most of that time. I’ve had extensive experience within the WECC interconnection in terms of chairing committees, planning and operating. I don’t know if you recall a group that we held, joint planning between the Southwest and California a number of years ago, we refer to it as STEP, the Southwest Transmission Expansion Planning Group, I actually chaired that for a number of years, and currently chair the West Connect Steering Committee. But if you’ve heard of West Connect, it’s a group of Southwestern utilities that have formed an organization chiefly for market enhancements initiatives, one of which is planning. We have three sub-regional planning groups within West Connect that all rolls up to the West Connect Planning Management Committee. I probably have to do the required advertisement on APS. APS is the largest electric utility in Arizona, it’s got roughly half the load in Phoenix and most of the other municipalities in Arizona, with the exception of Tucson and Kingman. And APS – and the reason I want to bring up APS a
little bit here is, I think we have a rich history of
working cooperatively with the California utilities, both in
terms of jointly owned power plants, transmission lines, and
I think we did a really good job up until a couple of years
ago of coordinating our planning efforts. And APS was
actually the first balancing authority to sign what at the
time was the Control Area Agreement with California when it
first started up, so we have a history of working
cooperatively with the California utilities. And what I
wanted to do with my comments this morning really is to
build on some of the things that I’ve heard from
Commissioner Byron regarding uncertainty of where we’re
going to get permitting for power plants, where we may be
replacing retired generation, just all the issues that are
out there, it’s been very interesting hearing about all of
the issues that you folks are facing because I think we’re
all basically in the same swap, it’s just a matter of how
deep it is, the various areas around the country. So, what
I wanted to really encourage you to do was in terms of risk
management, of how you’re going to ensure the reliability of
your system, ensure that you meet the energy needs of the
folks here in California moving forward, and implement your
energy policies, to just make sure that you have a broad
range of alternatives that you’re looking at. And the
specific alternative that I’m here to encourage you to look
at today is the inclusion of renewable generation in Arizona and the potential plan to meet the energy needs and policy desires of the State. So, I just want to point out, and I’ll be brief about this, but we have 20,000 megawatts of renewable generation, primarily solar, as you can imagine, that has announced the development, and are currently in the interconnection queues of the utilities within Arizona, and this is in a state that the peak load is really just barely over 16,000 megawatts. So, obviously, even though we’re committed to meeting our renewable requirements within Arizona, I think there is potential development there far beyond what we can actually sync in Arizona, and we would like to encourage you to look at that as a potential way to meet your future needs. I think we have an environment within the State of Arizona at both the legislation and certainly the Arizona Corporation Commission, that is very favorable for the development of renewable resources in Arizona, and, in fact, yesterday we had as part of an open meeting at the Arizona Corporation Commission, a discussion of the recent Biennial Transmission Plan, I’m sure you all have heard of the Biennial Transmission Assessment that is done every two years within Arizona, the Corporation Commission staff with the consultant looks at all the plans that these utilities have put together, other studies that we’ve been required to do, and basically makes an assessment
of the transmission system. And one of the things that we’ve focused on the last couple years is developing transmission plans for renewable transmission, to facilitate renewable generation in Arizona. Up until recently, it’s predominantly been to meet the needs of renewable resources within Arizona, but one of the two amendments that were approved yesterday when the ACC approved the staff’s recommended Order regarding the BTA was that, over the next two years, we would specifically study transmission to be able to export renewable generation. So, this is an example of the environment within Arizona. So, the other point I wanted to make is the importance of coordination and cooperation between the planning entities really throughout the entire Western Interconnection, but specifically the Southwest and California. I mentioned that I did chair the STEP organization a number of years ago, and I really think, since that group dissolved, that we don’t have quite the close coordination between the transmission planning folks in the desert Southwest and California, like we used to. And I think this is partly because the CAISO is still trying to get their hands around how to integrate their process with a California-wide transmission planning process. But, just so you know, we’re committed to continue to try and strengthen that relationship and ensure that we do that coordination upfront. So, in summary, I would encourage you
to look at the alternative of renewable generation in Arizona, and look at supporting any transmission that might be developed to facilitate the development of that renewable generation. APS currently has a project from the Palo Verde Hub into the Yuma area, the North Gila #2 line, and we’re certainly going to continue to work with the entities within California to try and ensure that the infrastructure in California is developed to maximize the benefit of that line, and we also continue to look at the possibility of developing the Arizona portion of the DPV2 line. So, with that, I appreciate the opportunity to speak to you, we’re here to help you in any way that we can, and I’ll take any questions that you might have.

COMMISSIONER BYRON: Mr. Smith, thank you for being here. I can’t believe you came all that way just to tell us to buy your renewable energy, though. Did I understand you correctly?

MR. SMITH: It was a cheap flight. Certainly, there would be benefit to the State of Arizona and APS would support anything we can do to develop renewable generation; if selling it to California will help do that, we’d like to do that, however, we believe that it can be sort of a win-win for both states if that, in fact, is what is necessary to help you meet your reliability energy needs and energy policy moving forward. So, I’m not telling you that that’s
the best answer at this point, but just encouraging you to keep it as an alternative.

COMMISSIONER BYRON: Okay, fair enough. So, I’d ask you, could you make sure you firm that power up before you send it across to California?

MR. SMITH: That would be worked out through the PPA, I’m sure.

COMMISSIONER BYRON: The ISO is over here like raising their thumbs. Again, thank you for being here.

MR. SMITH: Sure.

COMMISSIONER WEISENMILLER: Yeah, I certainly also wanted to thank you for coming today and participating. I think that it’s certainly a good step, I think all of us sort of wondered about how to reengage in the relationships in the post-DPV2 discussion. I think, obviously, one of the questions I had is, when we do the interconnections with the Northwest, Bonneville has been able to use its system to really facilitate backing up and trading. I mean, given the magnitude of the resources you’re looking at and the magnitude of your loads, and the nature of your resources, how are you going to deal with the intermittency issues there?

MR. SMITH: So, we obviously don’t have the capability that the Northwest does in terms of all their hydro and those kinds of things, but I believe the State
would certainly be open to tariffs, ancillary services, and things like that, that could facilitate some firming of resources, so obviously it is going to be on an individual contract basis, the product that is being sold, and the desire to purchase energy vs. capacity vs. firm energy in California.

COMMISSIONER BYRON: But, Mr. Smith, you’ve been involved in all these transmission planning activities for a long time, you know that this hydro up in the Northwest isn’t turning out to be all that good of a thing for firming up renewables, is it?

MR. SMITH: It is probably better than anything we have in Arizona. No, I think, you know, the firming is the huge challenge with variable generation, and it can be done, it’s just a matter of the penetration, where it’s done, and who is paying the cost of it. I think we have adequate resources to provide that firming, it’s just a matter of you’re running units off economics, and having more spending reserves than we have today. So it’s a product that has to be factored into the price of the energy.

COMMISSIONER BYRON: Well, you’re probably aware that this issue of in-state vs. out-of-state renewables is crucial here, it’s probably why we today don’t have a 33 percent RPS bill is a lot of the discussion around that particularly issue.
MR. SMITH: I am, yes. I’m just encouraging you, again, to look at alternatives for whatever policy develops in the future.

COMMISSIONER BYRON: All right.

COMMISSIONER WEISENMILLER: In terms of – back to DPV2, looking out 10 years, do you think that egg can be put back together in the Arizona portion on line in the next 10 years, or what?

MR. SMITH: Absolutely. I think, really, all that’s required is just a matter of who – where we’re going to get cost recovery for the line. I mean, I think it’s certainly permissible in the State of Arizona. Edison already has a lot of the permits other than the HCC Certificate of Environmental Compatibility, the CEC. So, I think if there was a firm desire on a number of parties in Arizona and California to see that line built, sure, we could build it in a couple years.

CHAIRMAN DOUGLAS: I don’t have any questions.

Thanks for being here.

MR. SMITH: Okay, you bet. Thank you very much.

MR. SKINNER: Good morning, Chairman Douglas, Commissioners Byron and Weisenmiller. I’m Nathaniel Skinner with the California Public Utilities Commission, Energy Division. And I have some general comments, as well as a few questions. The first comment is that, if the Needs
Assessment is designed to function like the following aspects of the CEC’s Incremental Uncommitted Energy Efficiency Analysis, from the 2009 IEPR, it could provide benefits to policy discussion at the appropriate agencies. The Incremental Uncommitted EE Analysis had a stakeholder process to improve data quality and information. This information was then transmitted as a range of possibilities to the Public Utilities Commission, allowing stakeholders and our energy efficiency and LTTP processes an opportunity to provide their insight as to what future was likely to occur. Given this, if the current IEPR focuses on other data and analytical weaknesses, we support it; however, we’re concerned that the needs assessment could be duplicative of other analyses such as the LTTP or the CAISO’s Transmission Permitting Process. If the proposed need analysis produces results that do not match the LTTP adopted by the PUC or the TPP adopted by the ISO, which is quite possible if different methodologies and/or data are used, then it will create a significant amount of work to resolve and explain these differences. For an example, conducting in-depth analysis of non-event based Demand Response is something we look forward to working on with the Energy Commission, and to accurately forecast the impacts of new and different Demand Response programs on both the demand and supply side. While we note that the staff needs
assessment acknowledges the quality of information provided by the IOUs and the CAISO, Energy Division believes that attaining similar quality data from other sectors of the statewide Grid is an important step in enhancing the IEPR generally and the needs assessment, specifically. Additionally, close collaboration between the sister agencies on the Energy Commission’s demand side and the Public Utilities Commission supply side analyses helps improve product of both agencies. And while the Energy Division is sensitive to the need for the CEC to control the workload created in the AFC process, by recent events, we’re equally concerned with the need for the AFC process not to become a significant barrier to entry in the current market for new generation resources. A balance between these two concerns must be reached in a way to benefit the goals of both agencies. The AFC process is not designed to evaluate cost and benefits with competing projects and it also should not be used as a method of picking winners or losers in the IOUs’ RFOs. Energy Division will work with the Energy Commission on the Needs Assessment, but we would ask that the Energy Commission use our proceedings inputs and outputs whenever possible for CPUC-regulated entities. And, as a last comment, the staff paper does not mention the PUC’s statutory responsibility to determine the need for transmission projects under its review; however, we think
that the Need Assessment could fill a crucial role by helping to identify, quantify, and understand the implications of the risks and uncertainties inherent in the CPUC’s RPS scenarios. With those comments, I also had a couple of questions that I think would help inform the discussion around the Needs Analysis. The first would be a good definition of what is meant by central station power plants and by bulk transmission. So, are these the areas that are specific to the CEC’s AFC process, or generation that falls underneath that? We are also interested if there would be a stakeholder process for helping determine the total range and potential cases for analysis, or if that would be determined by staff, or the Commissioners? And a final question would be, how does staff anticipate resolving differences or discrepancies between its analysis and analyses like the 2010 LTTP system track for entities such as the IOUs? And I wanted to thank you for your time and if you have any questions?

COMMISSIONER BYRON: Well, I think it would be good if we give Dr. Jaske and Mr. Vidaver a chance to respond a little bit to some of these, and I’m going to preface – I’ll give them a few moments to think about responses, but, Mr. Skinner, thank you for being here, but I can’t help but notice, most of all of these comments seem to be very protectionist in terms of some fear or concern that we’re
treading on CPUC toes here. The fact that the paper doesn’t mention what’s in the statute with regard to PUC requirements around transmission, the concern that it’ll take a great deal of work to resolve differences between the outcome from this analysis and the efforts that you’re doing in the LTTP, the concern that the AFC process could become an impediment, and I may not have gotten it correctly, but that we’re picking winners and losers over here at the Energy Commission from your RFO process – I should say, from the investor-owned utilities – so maybe I’m misunderstanding or mischaracterizing the concern, but we’re not really interested in this kind of protectionism, we’re looking for cooperation amongst the agencies so we can demonstrate to the public that we are indeed working together to resolve what are some serious concerns about how we’re going to site generation and transmission in this state given all these constraints. So, I don’t expect you to respond to that, unless you’d like to, I’m really stalling here for my staff to respond to some of your concerns.

MR. SKINNER: Right. And I would say that our concerns are largely over duplication of processes, creating additional uncertainty. We definitely understand, and the staff paper acknowledges, many sources of information which are common, which could be drawn from the LTTP Proceeding, as well as other proceedings at the Commission. And I think
I’ll just conclude with that point to your –

COMMISSIONER BYRON: Are these your comments? I’m always curious where the comments come from. Are these your comments that you’re providing today?

MR. SKINNER: These are the Energy Division’s comments.

COMMISSIONER BYRON: Okay.

DR. JASKE: Well, let’s try to tackle Mr. Skinner’s comments sort of in reverse order. As I indicated, we are seriously considering the idea of cases, you know, as a way of portraying a package of assumptions that are being used in some other agencies forums; so, you know, an LTTP case could, you know, readily be generated by using exactly the assumptions that will be in the forthcoming Scoping Memo of President Peevey, so in that instance there wouldn’t be any discrepancies at all. Alternatively, one could take that particular view of the future and join all the supply and demand modification assumptions with a different load forecast such as the one that the staff anticipates generating, you know, this spring, so you in effect get a minor variation on LTTP by virtue of combining it with a different base load forecast. So, I think we would anticipate, if we go down the path of showing a range in specific cases, to have a result that the PUC staff would agree is, in fact, you know, their LTTP assumptions. There
might be, you know, minor variations, in addition to that.

His second question about where range of uncertainty might come from, and how they might be developed, we haven’t yet investigated the idea of some sort of working group or task force to help us assemble a whole range of views, you know, that might be one way to be as inclusive about sources of different views in the future, but I think the whole point of the uncertainty section of the paper is for this project to assemble and crank through, you know, a wide range of alternative views of the future, and show what they mean in terms of results of the various balancing authority capacity, or local capacity area, or to the extent we’re able, you know, divvying those up into some sort of operating regime. So, I don’t see that there’s any reason not to have an open public process about what those assumptions are or where they come from. And defining central station generation and bulk transmission, I don’t think I’m going to try to get into a precise definition of those, but we’re happy to talk with stakeholders off line about exactly what we mean by that. Maybe they are ideas and their questions will help sharpen some delineation that Mr. Skinner thinks are important.

MR. SKINNER: Thank you. And I think, just as a comment, Energy Division greatly appreciated the collaboration with the Energy Commission both on the 2009
IEPR and, particularly, as I said earlier in my comments on the structure and format for the Incremental Uncommitted Energy Efficiency Analysis. And I think the bulk of my comments were designed to highlight areas where there is plenty of room for close cooperation between the two agencies, and we’d like to see that relationship continue as it has both with the Energy Efficiency work, and as it has been with our 2010 LTTP process, with our relationship with the Energy Commission, as collaborative staff.

COMMISSIONER WEISENMILLER: I guess the one question, one of the areas where I think the PUC needs to dig a little bit is that, and actually I first came across the issue when I was working more with the Energy Commission staff on Sunrise, is that obviously you have a lot of contracts now for resources, and have probably the world’s best database on cost of fossil fuel units in California, and cost of renewables in California, and obviously that’s under some degree of confidentiality, whether negotiations are going on, but I would urge you certainly, as I have urged your Commissioners, to start releasing some of that data. Again, you can try to figure out when it’s appropriate to keep it confidential, and when it is would certainly be very useful to have more data in the public forum on CT costs, combined cycle, solar, to start moving some of that so we can actually bring that into the public
consciousness.

MR. SKINNER: Thank you.

CHAIRMAN DOUGLAS: I don’t have any additional
questions, but I appreciate your being here and your
engagement in this process and, of course, we are looking to
add value and bring information and integrate information in
this process, so we think working closely with the PUC and
the ISO is how to do that.

MR. SKINNER: Thank you for your time.

MS. FRAZIER-HAMPTON: Good morning, I’m Janice
Frazier-Hampton from PG&E. I would like to first thank you
for the opportunity to be here, Chairman Douglas,
Commissioners Weisenmiller and Byron, and also staff. While
I won’t go into a lot of detailed comments, I do have a
couple of high level observations that I would like to make.
First of all, I agree very much so with some of the comments
made previously about the ability to be part of this
process, and the importance of making sure that we’re not
adding on another layer to the process, but that we work
together to ensure that information that is currently
provided through the CPUC’s Long Term Procurement Planning
process, the ISO’s Renewable 33 percent process, and other
issues that are currently underway, that we work together to
make sure that we’re using the information that is already
available. I would also like to say that, to the extent we
think about what renewable integration means, and how those
costs are determined, that while there are various models
and approaches that can be used, in addition to what the ISO
is doing from a simulation study approach, PG&E has also
presented a model that it thinks may also be useful in
trying to ascertain what some of those costs may be. We
welcome the opportunity to continue to work collaboratively
with the various agencies to ensure that, from a stakeholder
perspective, a lot of views are considered, and when one
talks about cases, as well as ranges, I would advocate that
not only do we have cases as we are considering what the
costs are, or what the needs are, and that kind of thing,
what we also consider are a range of uncertainty. I don’t
know that we have to look at every single case that’s
currently being considered in the LTTP process, perhaps one
could look at two or three of those cases, while at the same
time look at a broader range such as what if there is an
economic upturn in the next three to four years, what if
other things occur. I think there is value to be considered
in that process. Again, I appreciate the opportunity to be
here. Thank you for the time, and if you have any questions
for me, I’d be more than happy to answer them.

COMMISSIONER BYRON: Ms. Frazier-Hampton, thank you
for being here. Can we expect more in the way of written
comments from PG&E?
MS. FRAZIER-HAMPTON: Yes, we will be providing written comments.

COMMISSIONER BYRON: Excellent, so got your primary concern, but let me ask you a couple of things. One is, we don’t see the RFOs, we are not involved in that process, obviously. Are they becoming more specific? In other words, part of what we’re trying to determine here is what kind of generation is going to be required, where is it going to be required, characteristics around it, the firming issues that the ISO brings up. Are your RFOs getting more specific geographically and output characteristic-wise, and firming-wise? I don’t know how to change those things into words.

MS. FRAZIER-HAMPTON: And I don’t know that I can answer that question precisely with respect to the details of the RFOs that we’re getting, however, I do know that, from our perspective, we need to make sure that we have the ability to consider the type of characteristics that the generators can provide to us, that those developers and those resources can provide. So, we look at the need for whether we’d need additional ramping up and down, whether load-following, those types of characteristics, so they’re critical in our decision-making. Whether or not we’re getting that level of detail in the more recent RFOs, I can’t necessarily opine to that, but we can certainly – I
COMMISSIONER BYRON: I see that – and correct me if I’m wrong, gentlemen, I turn to my staff – that’s part of what we’re trying to characterize here, that it helps inform the RFO process. It’s become clear to me by the time and application for certification comes to this Commission, there is a great deal of money and effort and time that’s gone into it, but a lot of things have not been considered. And I think you know, we get a number of folks that appear before this Commission saying, “These are bad projects and bad places.” And what we’re trying to do is avoid that as we add all these additional – and I keep using the word “constraints,” but what I mean by that is all these additional requirements that the Legislature and others are imposing on the procurement process, or let’s say the generation process in this state. And, of course, we’ve got Mr. Smith that wants to send us his renewables from out of state. So, gentlemen, am I – I guess I’d like to ask for your comments on this, Dr. Jaske and Mr. Vidaver, do you see these RFOs at all? Are they becoming more specific? Will our process help inform the RFO process on the part of the PUC and the IOUs?

DR. JASKE: Well, we’ll let Mr. Vidaver amplify what I have to say, but you know, the RFOs themselves are public, it’s the responses to the RFOs, and the criteria by which
the utility sift through the bids that are received, that’s
what is not public.

MR. VIDAVER: As you know, Commissioner, we don’t
sit in on the discussions of individual bids that take place
in the procurement review groups.

COMMISSIONER BYRON: You had to work that in, didn’t
you, Mr. Vidaver?

MR. VIDAVER: Yeah, I had to. I’m sorry. Mr. Kelly
made an interesting point. The bottom line is what happens
with regard to least cost best fit, that’s what merchants,
generators, developers need to know, that is somewhat
shielded from them, as Dr. Jaske pointed out, what goes into
a least cost best fit determination is certainly public. I
just want to say something about, that Mr. Kelly said we
have a rather large overhang of permitted generation that
has not been built, which arguably, or not arguably, would
only be built with a long term PPA with the utility. The
fact that 9,000 megawatts of generation came in here and got
sited, and wasn’t deemed suitable by the regulators for a
permitting agreement is, I think, what we’re trying to
avoid. It’s, of course, up to the Commission to decide the
extent to which it uses the information that the
infrastructure assessment would provide in deciding whether
or not a plant should be permitted, but I think what staff
is hoping for is that you get fewer projects coming in who
really don’t have a chance at the PUC, and with the utilities.

COMMISSIONER BYRON: Thank you. Ms. Frazier-Hampton, just one last question. Do you see the analytical effort that we’re attempting to undertake here as being needed or useful for your company in going forward with procuring energy?

MS. FRAZIER-HAMPTON: I do see value in attempting to make sure that we have a broader state perspective, not just focusing on the ISO’s portion. So I certainly see value there. I also see value to the extent there is more transparency or information that is available to all the stakeholders; however, my concern does come to how we make sure we do not duplicate –

COMMISSIONER BYRON: Got it.

MS. FRAZIER-HAMPTON: -- we do not have inefficiency of our resources that are used in putting together all these plans.

COMMISSIONER BYRON: I think that’s a consistent theme we’ve heard from everyone here today.

COMMISSIONER WEISENMILLER: Yeah, I think obviously PG&E is a joint utility with gas and electric, and the gas side has got a lot more focus in recent months. And I guess the one thing which we want to make sure going forward is that, as we look at gas power plants, that the potential
implications back on your gas pipeline system, you know,
works through – I mean, obviously I know everyone is waiting
for the NTSB Report to tell you what the root cause was, but
somehow I think, going forward in this IEPR, we’re going to
have to be factoring that in on our gas analysis and its
implications for our electricity planning just in terms of
whatever the real top 100 problem points are, to make sure
we’re not putting power plants there. So, certainly, we’re
going to need your help in figuring out how best to connect
between your gas operations and/or gas pipeline system, and
the power plant questions on this infrastructure study.

MS. FRAZIER-HAMPTON: Okay, thank you.
CHAIRMAN DOUGLAS: Thank you.

MR. SILSBEE: Good morning, Chair, Commissioners,
and Commission staff. I appreciate being here today. I’m
Carl Silsbee, Manager of Resource Policy and Economics for
Southern California Edison Company. At the outset, let me
express willingness to provide reasonable support to
Commission staff for their efforts to analyze infrastructure
need. I’ve already met with them to discuss some of the
work that they plan to undertake and offered to provide the
year 2020 datasets that we have available to us for analysis
of renewable integration. We’re also going to provide
whatever experiences that we have in running the production
simulation model that staff plans to use for this work, the
Plexos model. The input datasets, by the way, that we’re talking about are based on publicly available information. We’re also anticipating a process where we work in close collaboration not only with the PUC, but the CEC, in developing the Edgar analysis that we expect the CPUC to direct shortly in a scoping ruling. One comment is, there’s a lot of sources of data for this analysis and we do hope that there will be a thorough vetting of those data for us and other stakeholders as part of this process. In reading through the staff white paper, I found it a mix of ambitiousness and cautious realism. The comments that Dr. Jaske provided orally this morning focused on the latter, rather than the former, and I appreciate that and I would caution you to take those caveats or limitations seriously, given the complexity of the work that we’re doing, and all of the points that Commissioner Byron made in his opening comments about the gridlock and the problems with all of the competing, largely environmental, but also process constraints that we face, particularly in Southern California. I think that the work that staff has anticipated doing will be incremental and not definitive. I think that’s true of all of the studies that are being done at the present time and by various players, and so it will contribute incrementally to all of our knowledge, and all of our understanding of the complexity and the issues we face.
But part of the IEPR process is going to have to be the synthesis of those results, in trying to understand the meaning and the substance of a variety of different inputs to the overall process of moving forward over the next decade. With regard to some of the caveats, we do support not prioritizing at this time, at least. Bundle procurement issues and identification of specific storage needs, I think that needs to await further work in some of the CAISO Phase II efforts and distribution needs. We’re also very mindful of the practical limitations that Dr. Jaske mentioned with regard to the interplay of transmission analysis and some of the generation siting issues. These are issues that will get worked out slowly over time, I think, rather than in a single study. We do appreciate staff’s efforts to look at the entire state instead of just the three IOU service area profiles, I think that is a unique position this agency brings to resource planning issues. But we also appreciate staff looking at years other than 2020, which has been the focus of all of the renewable integration work to date, other than, I believe, some of the 20 percent study work. Particularly, they focused on 2017 and 2022. I do caution that putting together two input datasets for different periods in time is a complex undertaking. I think that will be a challenge for staff to accomplish. And, you know, there may need to be mid-course corrections as work goes.
forward. As you take some of these results, what I would ask you to consider is how your actions can enhance competitive markets for generation and retailing, and how you can provide regulatory certainty to those who are the ones investing money in the infrastructure necessary to move us forward over the next decade, and that investment is not just utilities, but it’s also private parties, and I think it is incumbent on us to think about what are the processes by which we encourage that investment, instead of just ordering it. This is a mixed environment. Certainly the state has spoken very strongly about achieving certain environmental goals, but it has also spoken through AB 1890 and AB 57 about creating a competitive market with retail choice. So, we need to take that into consideration as we think about how to move forward. Finally, I would like to offer some brief comments in response to the questioning of the previous two speakers by Commissioners Weisenmiller and Byron with regard to the information that comes out of some of the utility RFO procurement. The CEC publishes a widely noted document each IEPR cycle called the Cost of Generation Report. That report represents staff’s views on the cost of various renewable and conventional technologies. There is an issue of how does one take some of this information and filter it, if possible, into that kind of a document, but I would certainly encourage and invite the CEC to return to
the PRG Group of Edison and, by doing so, gain access to some of this information in a manner to help further the Commission’s understanding of what the reasonable ranges are of some of these different technologies, and also to provide the Commission’s thinking on some of the issues that you raised with regard to practicality of some of the siting of specific projects. So, thank you.

COMMISSIONER WEISENMILLER: And, too, the difficulty with your suggestion on a procurement review group, is I’d like to get those data into that report, you know, and again, you could argue, well, maybe not this year’s data, but some previous year’s data, but just having the staff look at it still doesn’t get the actual numbers into the report, and that is my goal is to get as many real numbers as we can into that Cost of Generation Report.

MR. SILSBEE: My experience looking at data, and it is somewhat limited because I, myself, don’t look at the results of our RFOs because I’d rather not know what those figures are, but I did work on the so-called Edgar Analysis for our Mountain View Power Plant project a few years ago and, in doing so, we compared the cost of Mountain View to a wide range of similar technologies, and I was struck by the range of cost of individual projects, cite specific aspects, permitting difficulties, competency of the developers, all create a tremendous range in cost. It isn’t as if a
specific RFO number is all of that instructive. And the
other point there is, what we were trying to do in that
analysis, is look at costs, but the RFOs are getting bids
and there is a distinction because people don’t necessarily
bid their costs.

COMMISSIONER WEISENMILLER: Another question for you
is, you are certainly – you are part of ground zero on sort
of the air quality issues, and so we’re back to the issue of
how do we use this forum to try to address some of the
constraints in the South Coast in terms of if Edison has any
specific suggestions.

MR. SILSBEE: You know, I think a lot of it is
trying to struggle through and understand what, in my mind,
are some of the critical knowledge development pieces, the
interactions that parts of the system have with other parts
of the system. Dr. Jaske talked about how location,
location, location matters with regard to renewable
development and its impact on transmission needs. As we
delve in to try to understand the PM10 and the OTC and the
renewable integration issue, I think we develop
understandings of some of those relationships, too. It’s
those linkages I think are particularly important. So, for
instance, two or three years ago, we were just barely
scratching the surface to understand that we might need to
build new power plants to meet the needs of ancillary
services and that the ramping and the load-following, even
if they weren’t needed for capacity, and I think that’s very
much on everybody’s mind today. And so, creating some of
these insights of relationships, I think, is a critical
contribution, and I encourage thinking in those areas.

COMMISSIONER WEISENMILLER: What about -- one of the
things we’re struggling with on that sort of
interrelationship is the inertia question in the Basin, how
far has Edison gone in terms of assessing the inertia -- for
the generation inertia needs in the South Coast Basin?

MR. SILSBEE: We’re definitely looking at it. I
don’t think I’m going to point where I can share any end
results, we haven’t seen any.

COMMISSIONER WEISENMILLER: But you anticipate
having a better understanding of that this year or next
year? What is the sort of timing?

MR. SILSBEE: Hopefully early next year.

COMMISSIONER WEISENMILLER: And we talked earlier
about, obviously the CAISO has a very complicated approach
on renewable integration modeling, while I guess Antonio at
PG&E has a much more simplified model. I don’t know if
Edison has done any evaluations of the trade-offs on those
different modeling approaches?

MR. SILSBEE: We have and it’s a complicated issue
in that I think there are a lot of perimeter values in the
renewable integration model, and the strengths and the
weaknesses of the model come into one’s belief as to the
validity of a lot of those perimeter values. You know, we
and PG&E and the CAISO and others have filed rounds of
comments before the CPUC on this issue, I’m sure it’s
something that your staff has access to if you want to go
through the blow-by-blow At this point, we’ve made our
comments and I think we’re looking to the PUC to give us
some direction on how they would like to proceed with the
use of these various modeling approaches in the LTTP.

CHAIRMAN DOUGLAS: Thank you.

COMMISSIONER BYRON: Yes, thank you, Mr. Silsbee.

MS. KOROSEC: Anyone else here in the room who would
like to speak? Okay.

MR. ASLIN: Good morning. My name is Richard Aslin
and I work for the Pacific Gas & Electric Company, where I
manage the Economics Forecast and Quantitative Analysis
Section. And I think PG&E, as Janice mentioned earlier,
will be filing more detailed written comments, but while I
was here today, and I’ve had your attention, one thing that
I wanted to tee-up just specifically was, in Section 5,
under addressing uncertainty. There is a section which
talks about the uncertainty due to the economy and the
economic expansion, which we all hope will follow this very
long and very tedious recession that we’ve been in. But I
think that’s all good because I think that’s one of the
things that came out of the last IEPR was there was an
effort to try to model uncertainty around the economic
future, but one of the things that we also explored in the
2009 IEPR was the uncertainty in the projection of demand,
which is due to climate change, itself. And I think that is
an area which I would like added to this uncertainty
analysis, if possible, because I think just a one degree
Fahrenheit change in the projection of the expected maximum
temperature would create about a 2,000 to 3,000 megawatt
increase in the expected demand forecast. And I think a lot
of the climate change studies indicate that, if your
reference period is, let’s say, the last 30 years and your
normal’s are coming from there, that you’re likely to be off
by as much as five to seven degrees Fahrenheit, and that’s a
very very large change, something that we should, I think,
really think about. And also, it would be very interesting
to look at how the economic expansion on certainty plays out
in the local areas because the local area economy has been
much more – there is much more volatility there than there
is at the service territory level, or at the state level.
It would be very interesting to see how that will play out,
as well as climate and the interaction between climate.
There’s been a lot of work done on climate change and its
impact on energy demand, and I think we could – we don’t
need to really reinvent the wheel here, we could just kind of pick up on some things that are out there already. So, to the extent that there was a workshop scheduled for looking at economic uncertainty, it might be - I would hope that we could have a workshop that would be looking at how are we projecting what the likely temperature is going to be, going forward, how are we doing that and are we doing that consistently. And that’s all I have.

COMMISSIONER BYRON: Mr. Aslin, you’ve always added good comments on our IEPR process, and I thank you for that, in the past. And it’s interesting, I would have never thought this one, so this is definitely an out-of-the-box thought here, and I mean that in a positive way, this is good, we wouldn’t have thought about this one and the fact - and I assume when you say a 2,000 to 3,000 megawatt demand change, that is just in-state, correct?

MR. ASLIN: Yes.

COMMISSIONER BYRON: So this is extraordinary, but also, don’t we know from climate change research that there’s a lot of increased variability, as well, in these temperature variations? In other words, it’s nice to take a nice simple one or two degree number and put it in the model, but it’s that variability problem, too, isn’t it?

MR. ASLIN: Yes, that’s kind of what I - that’s why I was saying that’s what I’d like to see added to the
uncertainty analysis piece, is to see what is the impact on, first of all, the demand forecast, but more importantly, how you meet demand when you start to look at different ways that the future of climate could unfold. If you look at the way that we’re – maybe this is too technical, so if it is, I’ll take it offline, but when you look at what we call the one and two temperature scenario, so that’s the expected value of the one and two, but that expected value is drawn from a distribution, and if we looked at the 95th percentile of that distribution, we would come out with quite a different answer about what that was, and when you think about one and 10, used for local planning, the distribution around that, that’s the expected value of the one and 10, but the distribution around that is also very large. And, again, when you look at the sensitivity of peak demand to temperature assumption, it starts to become a very large number and I think it’s something that we should think about if we’re thinking about uncertainty in the demand forecast.

COMMISSIONER BYRON: So let me ask two questions, one of you and one to my staff, do you know, is this factor considered into any of the matrix of scenarios that are being developed by the ISO or the LTTP? I think we know the answer.

MR. ASLIN: I think the answer is no.

COMMISSIONER BYRON: Correct. So, let me turn to my
staff, do you guys want to add another variable to your high imprecise analysis at this point? In other words, I’m really asking – I’m not looking for a commitment from you, I’m trying to understand, would this make much of a difference in the analysis that you’re doing?

DR. JASKE: I think that we need to figure out a means by which this project can encompass the kinds of things that Mr. Aslin is talking about. When we’re focused on, you know, what is the predicted value 10 years from now, you know, we get hung up on all kinds of precision things. And to the extent this is what we’re overtly trying to recognize, the uncertainty that exists either about future assumptions, or methods of translating assumptions into results, we need to figure out how to be a little more free about how we do that translation and encompass things in maybe a softer way than we might have traditionally tried to do. So, I – we’ll try to go down that path.

MR. ASLIN: I appreciate that. Thank you very much. And I’m more than happy to work with staff on anything that you’re working on. I think the last round of the IEPR, I would say, was very insightful and I think the working relationship with staff really improved quite a bit, and I hope that that will follow through on this next IEPR. I’m really looking forward to that.

COMMISSIONER BYRON: Great, and that’s what I meant...
earlier by my comments, your contributions were very
helpful.

COMMISSIONER WEISENMILLER: Yeah, I had a follow-up.
Talking about the economic uncertainty, I guess –
historically, my impression was that some of the issues
people have ran into in uncertainty is not considering
changing demographics, so the classic example when you look
at the '50s electric forecast, it simply didn’t consider the
shift of women into the workforce, or the shift to suburbia,
and thus the models were – the results were not that useful.
So, I think one of the things that we’re trying to tee-up
for the uncertainty workshop is also the demographic
uncertainties in terms of what is going on in California
with sort of aging population, potential lifestyle changes,
you know, talking about what is going on with immigration
out of state, but I think it’s important that we think about
some of the demographics or sort of sociological changes,
too, that might well affect our economics and our loads over
the long term.

MR. ASLIN: Yes, I think that’s very important. I
would just say, just anecdotally, that one of the things we
noticed during this economic downturn was that our
residential demand actually went up, and the question was
why did that happen, and I think the answer was maybe it was
because there was more people at home.
COMMISSIONER BYRON: Yes.

MR. ASLIN: And so, you know, with the aging of the population that might be something that we’re really not fully considering in the models that we have because we’re focused on some other things. So, you’re right, there are these kind of long term trends and demographics are really what drives a lot of the demand forecasts, the economic cycle is up and down, but the demographics are there, they have a much more, I think, maybe inertia.

COMMISSIONER WEISENMILLER: Yeah, and I was going to say, on your point on the climate stuff, the weather stuff, I mean, that was very very good, I know at one point I tried to look at the Western Gas demand and tried to look at 40 years correlations, and the distributions of temperatures are by no means Gaussian, or I never could find a simple fit and the correlations across the regions, again, were not predictable. The only thing you could ultimately just basically just keep running weather tapes to see what the variation looked like and, of course, going in the future you can’t just simply say, “Let’s focus on the last 40 years and crunch that through.” So, how to take that into account is going to be very interesting and very challenging.

MR. ASLIN: It will be, but there has been quite a bit of fundamental research and stuff done on that, so – and the climate change models have come a long way in terms of
having a more specific regional granularity than they had
previously, and we could pick up on that sort of work that’s
been done. So, that was all the comments I had, actually.

COMMISSIONER WEISENMILLER: That’s great. Thanks.
I mean, certainly the more you can point us to the existing
research and we can build off of it, the better.

MR. ASLIN: Right, thank you.

MS. KOROSEC: Anyone else here in the room? Okay,
we do have a couple people online, too, I just wanted to
note that we need to hit them before we wind up.

MS. RASBERRY: Good almost afternoon, Commissioners.

Tamara Rasberry representing the Sempra Energy Utility
Company, San Diego Gas & Electric, and Southern California
Gas Company. And I don’t want to belabor what’s already
been said from our sister IOUs, whose points that we agree
with, so I’ll just reiterate quickly that the Sempra Energy
Utility Companies do support the Commission’s efforts on the
IEPR this year, and look forward to working with you and
providing all the data resources that you need. We’re also
encouraged to see that the Commission wants to coordinate
with other efforts throughout the state to do pieces of
this, as stated earlier, coordinating – collaborating, I
should say – with the CPUC’s LTTP process. And we also
agree with the statements made by PG&E and Edison earlier of
making sure that the Commission keeps a wide range of
scenarios as they move forward on this Needs Assessment Plan, and consider any facts that may come up that aren’t part of the State’s policy plans currently. Thank you.

MS. KOROSEC: All right, anyone else here in the room? All right, could you open – oh, we have Carl Zichella on the line, who wants to make comments. Carl, go ahead.

MR. ZICHELLA: Thank you, good morning. This has been a very interesting workshop and, first of all, I wanted to say, as a stakeholder in a Renewable Energy Transmission Initiative, Western Governor’s Western Renewable Energy Zone process, and the Western Electricity Coordinating Council Transmission planning process, I think the statewide focus that is being proposed here is really important, but I also want to emphasize the need to look more broadly. California, although it’s the largest consumer of electricity in the West, is part of this integrated system that benefits us in many ways, and can benefit us in many ways. I’m representing today the Natural Resources Defense Council, I should say, I’m the Director of Western Transmission for the NRDC. I wanted to first touch upon the issue of coordination between the agencies. Steve Kelly raised this issue and the desire to not add layers, but to add efficiency, and to the extent that we can address these things, and get the various parts of our transmission planning network to function together, I think the better
off we’re definitely going to be. And part of the reason for that is because we need to really look better at how we balance our resources across these different jurisdictions. I noticed in the document that there was an emphasis on balancing area authorities focusing on their own territories, and even as we’re trying to look statewide at this, I think one of the key components we’re going to need to consider as we try to judge how much transmission we’re going to need in California to meet our renewable energy goals and our overall energy goals, is how we can best take advantage of the advantages across our system. The comments that were made from the representative of Arizona, I thought, were interesting from the standpoint of wanting to collaborate more with California in terms of exporting power to the State, but I would also urge that we consider these relationships, not just with Arizona, but Nevada, Oregon, and other states, in terms of balancing services to the Grid, and better taking advantage of the strengths of various types of renewables that we have across the regions. This follows on the kinds of planning being advocated by the Federal Energy Regulatory Commission across the entire country that is calling for broader regional planning for transmission across regions, jurisdictions, and assessing the benefits of complying with Federal and State policies like our own AB 32, as positive attributes for assigning
cost allocation for transmission. These are trends that I
think we ought to get ahead of and be part of and not just
look inward quite so much. Being able to balance across
broader geographic areas means we may need to build less
transmission, or it may enable us to zero in on the
transmission that truly is, and to use RETI and California
Transmission Planning Group parlance, RETI being the
Renewable Energy Transmission Initiative, you know, least
regrets sorts of decisions about what to build, things that
are truly going to benefit and enhance the stability,
reliability, and the ability of the system to integrate
variable resources. So, I want to really encourage a look
at balancing area coordination in terms of the transmission
infrastructure needs that we’re going to need, and I did not
see that emphasized as strongly as I would have liked,
anyway, in the staff papers. So I wanted to encourage that.
Also, I wanted to praise the emphasis on looking at storage
capacity. This is something that is coming of age right
now. We’re looking out five years, seven years, and as
others mentioned, the traditional transmission planning
cycles about a decade, you know, I do think within that
frame, we’re going to see the kinds of innovations and
storage that we’ve been expecting. We do have some rather
significant storage capacity projects out there already, the
30 megawatt battery project, for example, in Texas. These
things can play a critical role in helping to smooth out the variability of our renewable energy resources as we go to 33 percent, and I want to mention, and beyond because we have AB 32 greenhouse gas reduction goals, and as was pointed out by the PG&E representative, a great deal of uncertainty about how climate will affect our energy consumption needs, going forward. So, I support the idea about incorporating climate impacts on energy demand and consumption in our transmission and generation needs, as part of the uncertainty analysis that we’ll be looking at. I think I’ll stop there. I wanted to thank you for doing this and especially for looking statewide, it really is important and I do think, to the extent that we can figure out how to fit our pieces together, rather than have things done, as Steven Kelly so passionately pointed out, sequentially or adding layers that could create additional duplicative review. We really need to avoid that if we’re going to hit our climate goals, and I know that’s not the intention, but I do know, as was indicated actually by some of the comments today, that people are well and truly seated in their silos and not always willing to step out of them, and if we’re going to use all the various attributes of our Grid, from pumped hydro in the Central Valley, down to desert solar, and hopefully large solar in the Southern San Joaquin, you know, we’re going to need to look across these silos both in terms
of policy regulation and system operation, and I know that’s a difficult thing to do because our institutions were created along the way sort of as we went, but now is the time to sort of think about how we can make these things operate, get the maximum benefit out of our existing Grid, to build the enhancements and network upgrades we actually need to build, and not to build stuff that we don’t need to build, so that we can keep public support behind the transmission infrastructure that we’re going to need in the coming decades.

CHAIRMAN DOUGLAS: Thank you, Mr. Sichella.

Questions?

COMMISSIONER BYRON: No real questions, Mr. Sichella, but thank you very much for your comments, very helpful. And here we’re trying to look at, you know, statewide -- all these issues on a statewide basis and you trump us and say we really ought to be looking regionally, so point well taken.

COMMISSIONER WEISENMILLER: Yes, Carl, certainly thanks for your participation and we look forward to your help this year.

MR. ZICHELLA: Thank you.

MS. KOROSEC: All right, that’s the end of the comments that we have from folks online. Is there anybody else here who would like to make any kind of comments? All
right, then I think we are to Next Steps.

As we mentioned earlier, written comments are due December 10th at 5:00 p.m. and, Mike, did you want to talk again about your willingness to meet with outside parties to discuss this further?

DR. JASKE: Yeah, just in case anyone didn’t hear that, we are, as I said, very much at the design stage of this. We’re happy to meet with folks who want to talk about this in more detail, and we’ll try to figure out how to have some intermediate steps at a minimum where we can sort of share progress as it goes.

CHAIRMAN DOUGLAS Thank you, Dr. Jaske.

Commissioners, are there any closing comments? Commissioner Byron.

COMMISSIONER BYRON: Thank everyone for their comments today and we do look forward to the additional written comments that we will receive. I jotted down some of the main messages that I got — do no harm; don’t duplicate effort; don’t add another layer to existing process. In other words, when I add these all up, they say “don’t make this more difficult than it already is.” I turn to my staff. If but only we could have gotten rid of the need assessment phraseology, but as you’ll read in the paper, they kept it for various reasons and it does bring up these concerns. We’ve got it, okay, we appreciate the concerns —
also being spread more thinly, I’m very conscious of that working in Government service and just seeing how much effort has to go into everybody covering all these bases and keeping track. You all do an extraordinary job, but I know we don’t make it easy for you. I particularly liked Mr. Silsbee’s comment, and I think it’s correct and accurate, that this analysis will be incremental and not definitive. I hope that addresses some of your concerns, it is not precise, nor do I think it transgresses on others’ turf. I would ask you to consider what the future will be like if we don’t begin as a state to take on or undertake this work. I’ll draw my conclusion; I think we will have another energy crisis of different proportions and of a different kind in this state. Mr. Smith is probably enjoying himself, listening to California go on about all its constraints and issues, as he says “take our renewable power.” And there are issues around that which we have to deal with, as well. I think the agencies, the IOUs, the developers, are going to have a much more difficult time if we do not begin to undertake this kind of an analysis and integration effort now. And perhaps, in addition to informing us as a state, perhaps the best result from all of this could be that it would provide some consensus, or be the basis for justifying the no regrets kind of projects that we know we will need to undertake. And I guess one last comment, a couple of folks
including our own staff indicated the potential value of returning to the procurement review groups, we all love access to information, Mr. Vidaver is an info junky, and I think we all are, we like information and that’s what we thrive on around here. But, as Commissioner Weisenmiller pointed out, even if we got to see it, and have access to it, it’s not usable to us in our documentation and the analysis we do. As one of my fellow Commissioners says, we don’t know what we don’t know, but we do have a completely public and transparent process here at this Commission. Our work and analysis will be completely open to review, comment, and criticism, but I think, in the end, it’s going to be much more informative. I think, in the end, it’s going to be of value and I hope that you will all take it that way. I apologize to those that commented because I’m very sympathetic that it is going to take some time and effort to participate in our process, and it’s enriched because of that participation. So, Madam Chair, I applaud the efforts of the IEPR Committee this year and going forward next year in undertaking this analysis. We, of course, put this recommendation in the ’09 IEPR, I would have liked to have seen this work done a couple of years ago, and it will not be completed in any definitive way this year, it will probably have to be reevaluated and looked at again, but if we don’t begin undertaking this now, we’re
going to be behind the eight ball once again when all these
issues become much more critical than they currently are.

COMMISSIONER WEISENMILLER: Yeah, again, I certainly
would like to thank the staff for putting up the straw man
for people to react to, and obviously we’ve gotten a lot of
reaction, and certainly appreciate the comments, and as
Commissioner Byron indicated, certainly urge everyone to
provide written comments. I think what we’re looking for in
the written comments, again, are ways to deal with, again,
what I’ll characterize as the issues, the bottlenecks, South
Coast is one example, certainly the emerging greenhouse gas
Regs are another, to do that efficiently and effectively
given state resources, and to think a little bit about the
phasing, you know, we’ve laid out sort of an optimal
process, we realize that some events, I think, as we were
scoping this, have sort of slid back in time already, so
that I think, as we look forward, certainly I think we have
to be thinking of a multi-year process to get to where we’re
going, with this being our first steps, as opposed to
definitive or getting there, but, again, what’s the most
efficient way to do this so that we can make some progress
this year, some more next year, and some more the following
year. By “this year,” I should be saying 2011, as opposed
to 2010. But anyway, more steps as we go forward to
ultimately help give this sort of road map and presumably
linking that back to our siting decisions, ways to simplify things. So, again, I think we have a straw man, we’re certainly looking for proposals, I think the proposals should help us reshape it, but expect that we need to move forward in this direction. So, thanks again for your help.

CHAIRMAN DOUGLAS: And I’d like to join my fellow Commissioners in thanking everyone who participated in the workshop. We certainly have a lot of work to do and I agree that it’s incremental and that we’re building on what we have, and integrating and synthesizing, and identifying areas where we absolutely need more work. So I appreciate everyone being here, look forward to receiving the written comments, and thank staff for their work in getting us going in this process. So, with that, seeing no more public comment, we are adjourned.

[Adjourned at 12:06 P.M.]