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2	STATE CORPORATION COMMISSION
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5	COMMONWEALTH OF VIRGINIA, ex rel.
6	STATE CORPORATION COMMISSION
7	CASE NO. PUR-2017-0005
8	In re: Virginia Electric and
9	Power Company's Integrated
10	Resource Plan filing pursuant
11	to Virginia Code Section CERTIFIED ORIGINAL
12	56-597, et seq.
13	**************************************
14	TRANSCRIPT OF PROCEEDINGS BEFORE
15	THE HONORABLE JUDITH WILLIAMS JAGDMANN
16	THE HONORABLE MARK C. CHRISTIE
17	THE HONORABLE JAMES C. DIMITRI
18	September 25, 2017
19	VOLUME I
20	1:00 p.m 5:36 p.m.
21	Richmond, Virginia
22	
23	
24	
25	REPORTED BY: SCOTT D. GREGG, RPR

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		4
1	INDEX	
2		
3	PUBLIC WITNESSES:	Page
4	Albert Pollard	14
5	Thomas Hadwin	17
6	Dana Wiggins	20
7		
8	STAFF WITNESS:	!
9	C. Myers	
10	Direct Examination by Ms. Clowers	51
11	Cross-Examination by Mr. Browder	53
12	By Ms. Crabtree	60
13		
14	COMPANY WITNESSES:	Page
14 15	COMPANY WITNESSES: G. Kelly	Page
		Page 62
15	G. Kelly	-
15 16	G. Kelly Direct Examination by Ms. Link	62
15 16 17	G. Kelly Direct Examination by Ms. Link Cross-Examination by Mr. Johns	62 63
15 16 17	G. Kelly Direct Examination by Ms. Link Cross-Examination by Mr. Johns By Mr. Burcat	62 63 65
15 16 17 18	G. Kelly Direct Examination by Ms. Link Cross-Examination by Mr. Johns By Mr. Burcat By Mr. Buppert	62 63 65 78
15 16 17 18 19	G. Kelly Direct Examination by Ms. Link Cross-Examination by Mr. Johns By Mr. Burcat By Mr. Buppert	62 63 65 78
15 16 17 18 19 20 21	G. Kelly Direct Examination by Ms. Link Cross-Examination by Mr. Johns By Mr. Burcat By Mr. Buppert Redirect Examination by Ms. Link	62 63 65 78
15 16 17 18 19 20 21 22	G. Kelly Direct Examination by Ms. Link Cross-Examination by Mr. Johns By Mr. Burcat By Mr. Buppert Redirect Examination by Ms. Link R. Thomas	62 63 65 78 83
15 16 17 18 19 20 21 22 23	G. Kelly Direct Examination by Ms. Link	62 63 65 78 83

		5
1	INDEX	
2		
3	SIERRA CLUB WITNESSES:	Page
4	W. Shobe, PhD	
5	Direct Examination by Mr. Johns	127
6	Cross-Examination by Ms. Crabtree	153
7		
8	MAREC WITNESS:	
9	M. Volpe	
10	Direct Examination by Mr. Burcat	163
11	Cross-Examination by Mr. Cleveland	187
12	By Ms. Crabtree	188
13	Redirect Examination by Mr. Burcat	195
14		
15	INDEX	
16	EXHIBITS	
17		Rec'd
18	1 9	9
19	2 9	10
20	2C 10	10
21	3 10	10
22	4 52	53
23	4ES 52	53
24	5 54	55
25	6 (withdrawn) 63	63

			6
1		I N D E X	!
2		EXHIBITS	
3	No.	Marked for ID	Rec'd
4	6	79	79
5	7	81	81
6	8	104	104
7	9	116	116
8	10	126	126
9	11	126	126
10	12	128	128
11	13	130	130
12	14	146	146
13	15	147	147
14	16	164	164
15	16C	164	164
16			
17			
18			;
19			
20			
21			
22			
23			
24			
25			

1	PROCEEDINGS
2	THE CLERK: Today's case is
3	PUR-2017-00051, State Corporation Commission in
4	reference to Virginia Electric and Power Company
5	Integrated Resource Plan. The Honorable Judge Judith
6	Williams Jagdmann, presiding.
7	CHAIRMAN JAGDMANN: Good afternoon
8	everyone.
9	On May 1st of this year, Dominion Energy
10	Virginia filed with this Commission its Integrated
11	Resource Plan, or IRP, pursuant to Section 56-599 of
12	the Code.
13	The IRP is designed to provide a forecast
14	of the Company's load obligations and a plan to meet
15	those obligations over the next 15 years, using both
16	supply-side and demand-side resources.
17	Dominion's IRP analyzes approaches to
18	meet customers' needs with or without the federal
19	Clean Power Plan which has been stayed by the Supreme
20	Court of the United States.
21	On May 12th, we issued our order for
22	notice and hearing. That order established a
23	procedural schedule for this case, directed the
24	Company to provide public notice of the IRP, and set

an evidentiary hearing for today, September 25th.

Several entities filed notices of participation. And respondents prefiled their testimony on August 11th. The Staff filed its testimony on August 25th.

Dominion's rebuttal testimony was filed
September 8th, along with a motion in limine to strike
the testimonies of Witnesses Lander and Penniman. In
the alternative, Dominion's motion asked the
Commission to find that the remedies sought by those
witnesses in relation to the Atlantic Coast Pipeline
do not fall within the scope of an IRP proceeding.

Subsequently, Environmental Respondents filed a limited response in opposition to Dominion's motion as well as a cross motion in limine. The Sierra Club filed a joinder to the Environmental Respondent's filing.

I note that time has not elapsed under the Commission's rules of practice and procedure for responses and replies related to these filings. At this time, the Commission plans to rule on these matters in our final order in this case.

I remind all counsel that this hearing is not a proceeding for the Commission to issue a Certificate of Public Convenience and Necessity, nor is it a rate recovery proceeding, so issues limited to

those types of proceedings are not part of this IRP case and never have been a part of any IRP.

Our procedural order required Dominion to publish notice of its IRP filing in newspapers of general circulation in its Virginia service area and to serve notice of the IRP on certain local public officials. On June 27th, the Company filed proof of notice and service.

If there are no concerns with this filing, we'll go ahead and mark it as Exhibit 1 and receive it into evidence.

(Exhibit No. 1 was marked and admitted into evidence.)

CHAIRMAN JAGDMANN: At this time, hearing no -- hearing no objection, it is so marked and it is moved into evidence.

Our procedural order required Dominion -excuse me -- at this time, we'll also go ahead and
mark the Company's IRP. The IRP was filed May 1st,
including the cover letter from Robert Blue, the
proposed public notice, the reference index, the
corrected page 20 filed on July 10th are all
collectively marked as Exhibit 2 and 2C.

(Exhibit No. 2 was marked for identification.)

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1
                  (Confidential Exhibit No. 2C was marked
2
     for identification.)
3
                  CHAIRMAN JAGDMANN: Is there any
 4
     objection to those documents being moved into
5
     evidence?
 6
                  Hearing none, they are part of the
 7
     record.
8
                  (Exhibit No. 2 was admitted into
9
     evidence.)
10
                  (Confidential Exhibit No. 2C was admitted
11
     into evidence.)
12
                  CHAIRMAN JAGDMANN: On June 30th,
13
     Dominion filed its list identifying the witnesses who
14
     would adopt various parts of the IRP document.
15
     summaries of those witnesses' testimony this June 30th
16
     filing, including the identification chart, and all
17
     direct testimony summaries is marked as Exhibit 3.
18
                  (Exhibit No. 3 was marked for
19
     identification.)
20
                  CHAIRMAN JAGDMANN: And hearing no
21
     objection, it is received into evidence.
22
                  (Exhibit No. 3 was admitted into
23
     evidence.)
24
                  MS. LINK: Your Honor, may I just make a
25
     clarification on Exhibit 3? We've notified the
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parties through the order of presentation that Witness Robert Thomas will be adopting the testimony of Simon Hodges.

CHAIRMAN JAGDMANN: Okay. That is so

noted.

Okay. We have an agreed upon order of presentation. Unless there are any changes or other suggestions at this time, we plan to follow this order.

By way of housekeeping, we want to note that we will start tomorrow at 9 a.m. and that we plan to have closing arguments in lieu of post hearing briefs.

We will now have introduction of counsel.

Ms. Link.

MS. LINK: Thank you. Good afternoon.

May it please the Commission, my name is Vishwa Link,

with the law firm of McGuireWoods. Appearing with me

today is Lisa Crabtree and Lisa Booth, in-house at the

company Dominion Energy Virginia, and together we

represent the Applicant.

MR. JOHNS: Good afternoon, and may it please the Commission, my name is Evan Johns, with the law firm Appalachian Mountain Advocates, and I'm appearing on behalf of the Sierra Club in this case.

1	MR. BURCAT: Good afternoon,
2	Commissioners. My name is Bruce Burcat, I'm
3	appearing on behalf of the Mid-Atlantic Renewable
4	Energy Coalition. I have Eric Wallace here from the
5	law firm of GreeneHurlocker.
6	MR. CLEVELAND: Good afternoon. May it
7	please the Commission, my name is Will Cleveland. I'm
8	an attorney with The Southern Environmental Law
9	Center. Along with my colleagues, Nate Benforado and
10	Greg Buppert, we represent the Environmental
11	Respondents.
12	MR. MONACELL: Good afternoon,
13	Commissioners, I'm Louis Monacell, with the law firm
14	of Christian & Barton. I'm here on behalf of the
15	Virginia Committee for Fair Utility Rates.
16	MR. BROWDER: Good morning, Your Honors.
17	Meade Browder, along with Mitch Burton, with the
18	Office of the Attorney General's Division of Consumer
19	Counsel.
20	MS. KLAIBER: Good afternoon,
21	Commissioners. My name is Alisson Klaiber. I, along
22	with Ashley Macko and Beth Clowers, represent the
23	Staff in this proceeding.
24	Thank you.
25	CHAIRMAN JAGDMANN: Are there any

preliminary matters we need to address at this time? 1 2 MS. CLOWERS: Your Honor, Staff 3 requests Staff Witness Carol Myers be taken out of 4 turn and provide her testimony today to the extent at 5 all possible. Staff circulated this request with the other participants in this case, and there are no 6 7 objections. 8 CHAIRMAN JAGDMANN: Okay. We will hear 9 Ms. Myers. We'll have her take the stand after our 10 public witnesses. 11 MS. CLOWERS: Thank you, Your Honor. 12 CHAIRMAN JAGDMANN: Okay. 13 MR. BURCAT: Your Honor, we also ask to 14 have Witness Michael Goggin be able to testify anytime 15 tomorrow, but he has travel issues, and we didn't have 16 any objection to that request. 17 CHAIRMAN JAGDMANN: Okay. That request 18 will be granted. 19 Thank you very much. MR. BURCAT: 20 CHAIRMAN JAGDMANN: We'll now hear from 21 public witnesses. 22 As your name is called, please come 23 forward. The bailiff will swear you in. You can then 24 take the witness stand, give your name and address,

and they will -- we will then get -- hear your

testimony.

Albert Pollard.

ALBERT POLLARD, called as a witness, having been first duly sworn, testified as follows:

THE WITNESS: Thank you, Chairman

Jagdmann. I'm Albert Pollard. I live at 48 Steamboat

Road Irvington, Virginia 22480.

I'm reading a letter on behalf of four data center firms which is dated September 25th. They apologize they were not able to be here in person to read the letter.

Relating to Case Number PUR-2017-00051, as data center providers and prime customers of energy-intensive data centers facilities with current operations in Virginia, we write to encourage the Commission and Dominion Energy Virginia, Dominion, to take our energy resources preferences into account when deciding on future energy infrastructure projects to meet energy load growth from data centers.

Specifically, we urge the Commission and Dominion to consider the data center community's growing interest in renewable energy when evaluating Dominion's proposed 2017 integrated resources plan, IRP.

Data center companies and customers

recognize the benefits of renewable energy to help control energy costs and achieve price predictability. We are also driven by our investors who are asking us to use renewable energy and reduce our carbon footprint. Renewable energy is the preferred source of power for many Virginia data centers' operations that serve as much as 70 percent of the world's Internet traffic. We've made public commitments, including to our investors, to reduce our greenhouse gas footprint and invest in renewable energy, in some instances to procure 100 percent renewable energy for our operations. We intend to successfully fulfill our commitments to renewable energy and would like more options to procure in all of the states where we operate.

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Access to direct renewable energy options is an increasingly significant factor in deciding where to locate or expand data centers.

Although an improvement over previous years, Dominion's 2017 IRP again underdeploys renewable energy. And we believe Dominion should be giving far more consideration to data center-specific energy priorities. Virginia is currently home to more than 650 data facilities that collectively employ 13,900 people. Data centers constitute the largest

share of Dominion's forecasted load growth, an estimated 2,500 megawatts between now and 2025.

. Meanwhile, growth from non data center customers is expected to remain flat or even decline. Thus, although the IRP does not expressly state it, most of Dominion's future capital investments will be built to serve data center loads. As a result, Dominion should take data center customers' desire for renewable energy into account as part of its planning process.

Investment in renewable energy would be both consistent with our long-term energy priorities and also reflect the fact that renewable energy is increasingly the most cost-effective energy resource.

For example, with prices for utility-scale solar regularly below 51.73 per megawatt in Virginia, other than energy efficiency, Dominion's own IRP shows solar as its least cost resource. In contrast, a buildout of non renewable energy infrastructure would overlook key customer priorities and may prove unnecessarily burdensome to other customers.

A clean, flexible, and dynamic grid is the grid of the future. And we welcome the chance to work collaboratively with Dominion to assist in

accelerating that transition while addressing reliability and benefitting other customers.

We recognize and applaud Dominion's progress made to date in increasing clean energy investment in Virginia and the efforts of Virginia utilities to meet the needs of stakeholders that are actively pursuing clean energy opportunities.

Virginia has become a major hub for data centers because of land availability, infrastructure, and access to affordable, reliable energy.

For Virginia's economic growth to continue, access to affordable, reliable, renewable energy must be readily available. We look forward to working with lawmakers, regulators, and Dominion Energy to continue progress to ensure access to affordable, reliable, and clean energy for all.

Sincerely, Adobe Systems, Incorporated,
Digital Realty Trust, Inc., Equinix, Inc., and Iron
Mountain, Incorporated.

CHAIRMAN JAGDMANN: Is there any cross-examination of the witness?

Hearing none, you are excused. Thank you for your testimony.

Thomas Hadwin.

THOMAS HADWIN, called as a witness,

having been first duly sworn, testified as follows:

THE WITNESS: I am Thomas Hadwin. I live at 328 Walnut Avenue, in Waynesboro, Virginia.

I spoke to you-all last year about the pipeline cost, saying that they are three to eight times -- that the cost of using the Atlantic Coast Pipeline to deliver gas to power plants of Virginia is three to eight times more expensive than using existing pipelines.

I was asked by Commissioner Christie if I was aware that this was a federal issue, and I responded I did, but the point I was trying to make is that the actual need or the market case for the pipeline and its effects on ratepayers are not being considered at the federal level, so we'll come back to the State Commission to really protect ratepayer issues.

How it applies to the IRP is the cost of energy for new power plants has used the cost of natural gas as if it was being delivered by existing pipelines. That's what the ICF numbers show. That's appropriate because there's abundant supply and existing pipelines and they are a cheaper way to do it, but that assumption does not square with what the Company intends to do to come to you with a request

for a firm transportation agreement that will cost billions of dollars more for ratepayers.

So on one hand to assume a lower cost of delivered gas for energy calculations but yet say that it's absolutely essential to have the Atlantic Coast Pipeline to fuel new power plants is not a consistent assumption. Just ask that you consider that as you're going through the review of the IRP and that you also, as soon as possible, provide some guidance to the utility holding companies building a pipeline because they are about to invest 5- to \$6 billion.

If at the end of construction or six to eight years later when the first power plant might need more gas supply, if you determine the lower of cost or market is the amount that they can recover from ratepayers, they will be very short of what their projections require of them in order to pay off that investment.

So the sooner we can make a decision about what the likely recovery from ratepayers will be, the more fair that will be to the pipeline investors and to the ratepayers themselves since I think they will be taken by surprise to know they will be asked to pay billions of dollars more to have service from that pipeline.

Thank you.

CHAIRMAN JAGDMANN: Is there any

3 cross-examination of the witness?

Hearing none, you're excused. Thank you for your testimony.

Dana Wiggins.

DANA WIGGINS, called as a witness, having been first duly sworn, testified as follows:

THE WITNESS: Madam Chairman and Commissioners, my name is Dana Wiggins. I'm with the Virginia Poverty Law Center, and I reside at 3214 Garrett Street, Richmond, Virginia 23221.

On behalf of the Virginia Poverty Law

Center, I respectfully ask the Commissioners to

consider several points as part of this hearing on how

the Integrated Resource Plan affects low-income

ratepayers in Virginia. Specifically, there are

additional burdens and some other considerations

Dominion Energy Virginia will place on its low-income

customers through their plans to pass on the costs of

projects such as the Atlantic Coast Pipeline to its

customers without any risk to their shareholders who

are already overearning on their previous capital

investments per the recent SCC Staff report.

To be clear, we have no opinion on the

pipeline itself. We simply believe that the cost burden passed on to Virginia consumers, particularly low-income consumers, has not been sufficiently backed by the data present or given.

A recent Goldman Sachs assessment on Dominion, which Goldman Sachs made following the recent Virginia support -- Supreme Court decision that upheld a previous SCC ruling, illustrates how shareholders' interests are beginning to significantly displace those of low-income bill payer interests.

The Goldman Sachs assessment reads as follows: We view this Supreme Court ruling upholding the rate freeze as a positive for Dominion as it removes risk that a rate could -- a rate review could given their earning levels at its regulated business in Virginia lead to rate changes that could provide a headwind to EPS earnings per share a potential 20 cent increase EPS -- a potential 20 percent decrease not in our current forecast.

More importantly, we view the court ruling to uphold the rate freeze law as a reaffirmation that Virginia remains one of the top regulatory environments for utilities in the US; one, given the rate review process; two, the Riders that provide revenue increases for major capital

investments such as new power plants, distribution, underground line spending, and other key investments; and three, legislation that approves continued rate base growth initiatives such as storage power plant development and nuclear realize sensing expenditures.

VPLC reads this statement as a positive for shareholders but not necessarily for consumers. The third point in the paragraph, legislation that approves continued rate base growth initiatives, certainly does not indicate a focus by the utility to keep rates low for consumers. Instead, it indicates that Dominion has been successful in being able to make investments that are then passed directly onto their consumers and customers while still claiming low rates.

Any customer but a low-income customer who is already spending twice the average percentage of their income as their moderate income counterparts is not particularly focused on the Company's low rate, but rather is concerned about a monthly bill that only continues to seemingly increase due to a variety of Riders and this current legislation that removes the biennial rate review and any potential decrease and/or refund due to overcharges.

While we appreciate that the utilities in

Virginia are not technically defined as monopolies, low-income households are still captive consumers.

More dismay is the lack of actual programs that Dominion could be implementing for their low-income consumers that would directly affect those consumers' household budgets. More robust programs targeted specifically for low-income and elderly households that combine both weatherization and energy efficiency installations, coupled with education programs on energy usage would directly reduce the unfair burden on these households at a lower cost than investments in increased production.

As already mentioned, the Staff -- the SCC Staff reports have already determined Dominion is overearning by nearly \$250 million per year because of a change in the law that they requested to help the Company mitigate proposed Clean Power Plan objects -- sorry -- objectives.

Now that the plan has gone by the wayside due to a change in federal administration, the Company has changed what they are saying about the rate freeze to indicate that they now need the money to mitigate anticipated cost the Company -- of the Company to comply with any carbon training regulation that may occur due to Governor McAuliffe's Executive Directive

11, yet there are no decisions that have been made, and we have the potential of a change in administrations at the state level that could render that directive moot.

Will Dominion then simply give that money back to its consumers and customers? No. That is money already being passed on to its shareholders.

There is no savings for the consumers and only continues to be a windfall for shareholders.

Goldman Sachs is not wrong in their analysis. Virginia's regulatory environment favors the stockholder and makes Dominion a very good investment.

The concern for us is that the money is being made on a commodity that is a necessity and not a true choice purchase for consumers. And particularly those consumers who can least afford to reward those who are fortunate enough to be able to invest in Dominion's stock.

There appears to be an imbalance and economic fairness of this plan that is borne by the customers of Dominion with no risk to the shareholder. The real tragedy is the additional burden this will place on low-income consumers of Virginia whose energy burdens are already more than twice that of moderate-

to high-income earners and customers.

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To mitigate this overcharging of their consumers, VPLC asks that Dominion be required to take all of the overearnings estimated by the SCC Staff report and invest it directly into programs, particularly energy-efficiency programs, for their low-income customers. In doing so, the SCC should ensure that Dominion's stockholders fully bear that cost while accounting for them of administering these programs through the pilot years so a true accounting can be made of this investment for its consumers. successful energy-efficiency programs for low-income households combines a successful energy efficiency program for consumers; and low-income households combines weatherization programs with energy efficiency measures.

Dominion has implemented these programs in the past, but we believe that more robust funding for these programs will make a measurable impact on the energy savings for low-income customers and reduce the energy burden of these households. This coupled with the anticipated EM&V protocols currently being written should provide the utility, the SCC Staff, and stakeholders the necessary information needed to properly evaluate the effectiveness of these programs

1	and provide data necessary to understand where
2	improvements and additional efforts can be focused to
3	ensure Virginia's low-income households do not bear
4	any unnecessary, unfair, or unfair energy burden than
5	their counterparts.
6	Thank you.
7	CHAIRMAN JAGDMANN: Thank you. Is there
8	any cross-examination of the witness?
9	Hearing none, you're excused. Thank you
10	for your testimony.
11	By agreement of the parties, we'll hear
12	Staff Witness Carol Myers actually, I guess we
13	could have opening statements first.
14	MS. CLOWERS: Your Honor, Staff does not
15	object to proceeding with opening statements
16	beforehand if you would prefer.
17	CHAIRMAN JAGDMANN: Let's proceed with
18	opening statements then.
19	MS. LINK: Good afternoon. Once again
20	for the record, my name is Vishwa Link.
21	Before the Commission today is Dominion
22	Energy Virginia's 2017 Integrated Resource Plan, which
23	was filed on May 1st, 2017.
24	The relevant Integrated Resource Plan

statutes are familiar to the Commission as this is the

sixth such proceeding the Commission has conducted.

Pursuant to Code Section 56-599 E, the Commission is to make a determination as to whether the 2017 plan filed by the Company is reasonable and in the public interest.

The 2017 plan represents a comprehensive analysis of the projected needs of Dominion's system and its customers and provides a robust analysis of how the Company proposes to meet those needs in a reliable and responsible manner. Of course this process is all the more complicated due to the continued uncertainty with the Clean Power Plan, or CPP, which has been compounded by the recent change in federal administration.

Given the uncertainties of the CPP and the need to plan for a variety of contingencies, the 2017 plan, like its predecessors, presents a range of alternatives representing plausible paths forward for the Company to meet the future energy needs of its customers.

Specifically, the Company presents eight different alternative plans designed to meet customers' needs in a future with or without the CPP.

To assess a future without the CPP, the 2017 plan includes an alternative designated plan, its

Plan A, no CPP, and it is designed using least-cost planning techniques, and assumes no additional carbon regulation is implemented through the CPP, other legislation, or rules.

The 2017 plan also includes seven additional alternative plans designed to be compliant with the CPP as set forth in the 2016 plan final order, utilizing one of the three program options likely to be implemented in Virginia.

At this time, and as was the case in the 2016 plan, the Company has not picked one preferred plan or recommended a long-term path forward beyond the short-term action plan. Rather, consistent with the 2016 plan final order, the 2017 plan presents a least cost base plan, called Plan A, and 7

CPP-compliant alternative plans, and that's plans B through H, that represent plausible future paths for meeting the future electric needs of the Company's customers while responding to changing regulatory requirements.

Staff acknowledged the difficulty expressed by the Company to determine a preferred plan given the uncertainties surrounding the CPP and did not disagree with this approach.

While much uncertainty still exists

regarding if or what form future carbon regulations will take, the Company believes the current proceeding is the right place to identify and develop areas and methods for further study.

The goal of the IRP proceedings that are ongoing while the CPP is in flux should be to develop -- to further develop its planning process so when the current regulatory uncertainty regarding future carbon regulation has cleared, the Company will have refined its approach to many of the baseline issues related to planning for CPP compliance, such as methodology, modeling, inputs and assumptions, and will be ready to move forward with compliance with carbon regulation in whatever form it may take.

To that end, as discussed in Mr. Kelly's rebuttal testimony, the Company would propose that the Commission accept that the Company developed plans associated with only two CPP-compliant alternatives going forward; that would be an intensity-based dual rail alternative plan that is trading-ready and a mass-based alternative plan that is also trading-ready.

Beyond those two plans, the Company would continue to develop additional alternative plans for study in its 2018 and future plans, consistent with

......

(T)

The Company believes this proposal appropriately balances the Commission's need for information to satisfy its reporting requirements pursuant to the Code and the uncertainty regarding the form of future carbon regulation.

Finally, the Company agrees with and supports Staff Witness Write's recommendation that the Company be relieved of prior Commission requirements related to the extension of nuclear licenses, natural gas directives, optimum timing of North Anna 3, and analysis of new coal generation facilities without carbon capture sequestration technology.

And just a brief remark in closing of my opening. We appreciate the Commission's guidance on the motion in limine that you shared at the beginning of the hearing. We will respond obviously to the pleadings that are filed in due course. I do not intend to object to respondent counsel's opening statements, but I would like to note my objection for the record to the extent opening remarks relate to the witnesses of Environmental Respondent Witness Lander

and Sierra Club Witness Penniman, and we ask that those remarks not be considered part of the record for the reasons stated in the motion. And at the appropriate time prior to the admission of Witness Lander and Penniman's testimonies, I will make my objection for the record.

We look forward to developing the record during the course of this hearing and urge the Commission to find the 2017 plan both reasonable and in the public interest.

Thank you.

CHAIRMAN JAGDMANN: Okay. Mr. Johns.

MR. JOHNS: May it please the Commission, again, Evan Johns, on behalf of the Sierra Club.

The Sierra Club's testimony in this case highlights three fundamental errors that we continue to see in the Company's Integrated Resource Planning processes.

First of all, the heart of every IRP is the load forecast, and that's why it's so troubling that the Company's past plans have overshot their mark with almost perfect consistency.

Last year, Sierra Club Witness William Shobe identified the flaws in the Company's forecast model that produced these overestimates and thereby

exposed ratepayers to the risk of unnecessary capital investments.

At that time, the Company assured us that the errors were merely a matter of documentation and that once it updated its model, it would become clear that the forecast models did actually reflect significant energy efficiency gains that we have seen over the past decade.

The Company has updated its documentation in this case, but as Dr. Shobe will explain, the Company's model still fails to properly account for those energy efficiency gains. It continues to operate under the assumption that the relationship between economic growth and load growth has not fundamentally changed since 1987. And the truth is no change in average incomes or in housing stock here in Virginia will catapult us back into those Halcion days.

The Sierra Club also sponsors the testimony of Mr. William Penniman. Mr. Penniman focuses on two issues; and I believe that the standing objection is only to one of those, the unobjected portion of his testimony refers to the Company's failure to reign in absolute carbon emissions and how this is inconsistent with Virginia's climate goals and

exposes ratepayers to the risk of high stranded costs. These risks are especially acute as Virginia develops its own state-level climate regulation, and that's regulation that will likely take the form of a mass-based cap on carbon emissions.

Mr. Penniman also addresses the plan's treatment of the proposed Atlantic Coast Pipeline.

And we want to make very clear that we acknowledge the Commission's reservations in dealing with some of those issues, but we believe that in this case as the Company's IRP acknowledges, that pipeline is part of the backdrop against which resource modeling is taking place. And Mr. Penniman's testimony discusses the treatment of ACP-related costs in the Company's resource modeling process.

By treating those costs as already sunk, cost of new gas-fired generation in Virginia is distorted relative to alternative resources or to market purchases. And given the exorbitant cost of the pipeline relative to the alternatives,

Mr. Penniman testifies that it's unreasonable to assume those costs are sunk from a resource modeling perspective.

Finally, the Sierra Club recognizes that the Company's approach to grid modernization and

renewable integration is in flux and evolving; and in that spirit, it offers the testimony of Gerald Braun, an expert in renewable systems planning.

Mr. Braun points out that the Company's plan fails to reflect important technological advances in onshore wind and in energy storage. He also notes that the Company's modeling constraint of only 240 megawatts of new solar capacity annually is inconsistent with the experiences of electric systems in other states.

So we thank you for the opportunity to participate in this proceeding.

CHAIRMAN JAGDMANN: Mr. Burcat.

MR. BURCAT: For the record again, Bruce Burcat, on behalf of the Mid-Atlantic Renewable Energy Coalition. Good afternoon, Commissioners. I appreciate this opportunity to appear before you to address the 2017 Virginia Electric Power Company's Integrated Resource Plan.

My organization, the Mid-Atlantic

Renewable Energy Coalition, an organization supporting

utility-scale renewable energy development in Virginia

and the region believes that the plan filed by

Dominion is inadequate in addressing renewable energy

in the 15-year planning horizon.

The IRP lacks acknowledgement of the benefits that renewable energy would bring the Commonwealth during the 15-year planning period, such as long-term price stability or a hedge against volatile fossil fuel prices and the cost effectiveness of wind and solar and energy.

Some of the most efficient -- some of the most significant deficiencies in this filing are the prices for wind and solar energy that VEPCO has used in its modeling assumptions. Both its price assumptions for onshore wind and offshore wind are so far off base it is no wonder that wind energy hardly plays any role in the 15-year planning period. The record will show that these assumptions are, once again, outrageously high as compared to the market alternatives.

The Company on page 101 of the IRP lists a price of \$99 per megawatt-hour for onshore wind when there's ample evidence that purchase power agreements have been executed at far lower prices for this energy resource in the region. And these prices are -- we've been seeing prices in the range of anywhere in the 20s, to 30s, maybe to low 40s for these types of energy resources for purchase power agreements.

The \$339 megawatt-hour for offshore wind

price in the Company's IRP on page 101 is also way out of the norm, especially with the recent developments in Rhode Island and having the first offshore wind project operating in the country.

MAREC, once again, will demonstrate that the actual market prices for onshore and offshore wind energy are far below the pricing used by the Company in its modeling. In fact, MAREC Witness Goggin's testimony will establish that the price of onshore wind energy is very competitive with traditional energy resources, and, in fact, now rivals the pricing for natural gas.

It is important to emphasize that the pricing for onshore wind energy utilized by VEPCO in its IRP is in direct contradiction to the modeling assumptions utilized by APCo, which are far lower in its IRP docket pending before the Commission.

While APCo is taking advantage of wind energy through annual purchases from competitive procurements, VEPCO stands behind its invalid, unsupported, and outrageously high pricing.

On the solar side, MAREC raises several concerns. While the Company plans to procure limited amounts of solar energy, we believe it is being held back in the IRP by two distinct problems. First, like

wind energy, the pricing utilized by VEPCO in its modeling for the IRP is too high. Part of this is being driven by the fact, as explained by MAREC Witness Volpe, that for modeling purposes the Company utilized the cost of service approach for its solar levelized cost of energy forecast, when we posit that a Market Index approach to rate basing the Investment Tax Credit for solar projects provides a more accurate picture of the value of the benefits of the tax credits. Tax benefits for solar projects are fully realized at the commercial operation date of any project at the beginning, as this Market Index approach recognizes.

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The actual tax benefits in reality are not spread out through the useful life of the project as suggested by the use of the cost of service approach.

MAREC believes that if the more accurate methodology is used, the IRP would indicate a much greater level of solar energy to be procured.

Another critical issue in the IRP is the arbitrary annual cap of 240 megawatts for solar energy projects. The Company was unable to support the purpose of having such a limitation in the IRP, and MAREC believes that the Company should be required to

lift the limitation or at least provide a minimum -provide an increase to the cap level if the Company
can establish the need for one. However, the
240 megawatt annual limitation is not justified, and
that number should clearly be revisited.

The Company will be filing its next IRP by March 1st, 2018. MAREC respectfully requests that the Commission direct VEPCO to use readily available market data to model wind energy prices in its next IRP. The Company has failed to do this in all of its past IRPs.

Even as wind prices have plummeted, the Company continues to use arbitrarily high pricing assumptions for wind. In fact, the market prices utilized by VEPCO have never been seen in the wind industry.

While a fully competitive RFP would be a thoroughly accurate way of obtaining such pricing, we think it's time that the IRP itself for modeling purposes contains a highly supportable price for wind energy. In that particular situation then, if the price, the input is considered in the IRP, the correct price, we believe that wind will play a part in future supply requirements for the Company.

On the solar side, MAREC has a similar

ask that the Company should reflect the more accurate Market Index Approach for rate base and the tax benefits for solar projects. At a minimum, the IRP should contain separate scenarios for each of the two rate basing approaches to accurately reflect a comparison of the added benefits to consumers brought by the investment tax credits for solar projects.

Finally, we ask that the Commission to limit VEPCO's arbitrary use of a cap on annual solar procurement. If solar is shown to be the most appropriate resource and levels higher than an unsupported cap, then the amounts of the IRP should be properly reflected and not restricted.

Thank you.

CHAIRMAN JAGDMANN: Thank you.

Mr. Cleveland.

MR. CLEVELAND: Good afternoon. May it please the Commission, my name is Will Cleveland, with the Southern Environmental Law Center. Along with my colleagues, Greg Buppert and Nate Benforado, we represent the Natural Resources Defense Council, Appalachian Voices, and the Chesapeake Climate Action Network, collectively the Environmental Respondents.

As has been the case in previous years,

Environmental Respondents have serious concerns about

the Company's long-term planning methods. It begins with an overly optimistic, likely inaccurate load forecast as its bedrock. The IRP builds from this with an overinvestment in gas achieved by imposing an arbitrary annual cap on solar resources unsupported by any quantitative analysis. The IRP masks the true cost of this resource mix by baking the Atlantic Coast Pipeline into every scenario but excluding the cost ratepayers will bear from that pipeline.

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First, we will present the testimony of economist James Wilson. He will address recent changes that PJM has made to improve its load forecasting. Dominion has failed to update its own load forecasting methodology and as a result is overpredicting its future needs. Since the load forecast is the first building block in any IRP planning, we ask that the Commission require the Company to update its methodologies consistent with Mr. Wilson's recommendations to improve accuracy in future IRPs.

With respect to the Atlantic Coast

Pipeline, Commissioner Jagdmann mentioned earlier this
is not a proceeding for ratemaking discussions or for

CPCNs. We agree. Nevertheless, I'd like to discuss
the facts that we will present that make the ACP

relevant to this proceeding.

The evidence will show that the Company has never performed an analysis in this IRP or any other IRP of whether it needs the Atlantic Coast Pipeline to meet its service obligations.

The evidence will further show that the Company assumed construction of the Atlantic Coast Pipeline in every single scenario it ran in this year's IRP. Additionally, the evidence will show that the Company treated those costs as quote/unquote sunk. We believe it is imprudent at this stage to make those assumptions.

As the Commission ruled in a very recent case, the Commission correctly reserved its right to review those costs in every single annual fuel factor coming forward.

The Commission also correctly, expressly reserved the right to deny the Company the ability to pass on those cost to customers even though we learned in this year's earlier fuel factor that the Company expects to pass those costs on to its customers.

We will present the testimony of Greg

Lander who calculates using Dominion's own data from
this IRP that the cost to ratepayers will incredibly
be high. He concludes it will not save customers any

money; it will instead increase their costs by between 1.6 and \$2.3 billion.

While the Company has moved to strike Mr. Lander's testimony on relevance grounds in this proceeding, the Company has offered no evidence on testimony disputing the veracity of Mr. Lander's calculations.

The Commission's recent order in the Sierra Club affiliates act case confirms that the future ACP costs are anything but sunk. The Company's IRP clearly states that it has made a long-term commitment in the ACP assuming customers will pay for it. But prudent utility managers will recognize that the Commission's order places the risk of that financial commitment on shareholders, not the customers in a future fuel factor case and not the customers the Company was expecting would underwrite it when they incurred that future obligation.

In light of that risk and given the numerous other legal challenges the pipeline faces, the pipeline's future and the Company's relationship to it are uncertain. One plausible scenario is that the Company's shareholders decide they don't want the risk of proving every year that the billions of dollars of costs are prudent, and they may decide not

to move forward with the pipeline. If that happens, this IRP contains not a single scenario that would inform the Commission what our future resource mix will look like. The evidence will show that the Company performed no alternative analysis in this IRP.

Given the pipeline's uncertain future and the almost guaranteed adverse impact to ratepayers,

Mr. Lander has offered several recommendations in his testimony, but Environmental Respondents would request at a minimum that the Commission directs Dominion to at least evaluate any future IRPs, a scenario where the ACP does not exist. Such an evaluation can only benefit both the shareholders and the Company's customers.

Third, we will present testimony from Karl Rabago who has evaluated the Company's modeling practices with regard to solar power. Integrating solar into the grid, modernizing the grid writ large, and utility-scale storage. In particular, the evidence will show that the Company placed an arbitrary cap on solar power at 240 megawatts per year. In selecting this number, a very specific number, the Company performed absolutely no quantitative analysis, not a single calculation supports this number even though it acted as a

limiting constraint on solar deployment in almost every single year of every single plan.

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Given the unique nature of solar power, Mr. Rabago does not recommend the Company impose no cap; rather, he recommends that the Company should support any cap it uses in future IRPs with sound quantitative analysis that draws on experiences from other utilities, allows for a learning curve in both technical capability and personnel development.

I recognize the frustration we all feel in conducting these hearings every single year, but if the Company's plan is to mean anything, it has to have integrity. The evidence will show several key deficiencies in the Company's fundamental modeling practices and assumptions, and we respectfully ask that the Commission address these deficiencies so the Company can fix them in future IRPs.

Thank you.

CHAIRMAN JAGDMANN: Mr. Monacell.

MR. MONACELL: May it please the Commission, I'm Louis Monacell, on behalf of the Virginia Committee.

The Virginia Committee takes no position and has taken no position on the reasonableness of the ACP cost. We do believe, however, that some of the

testimony that Dominion seeks to strike is highly relevant to the -- how the Company has done its modeling. You've already heard reference that they have assumed in all of their runs that the cost of the ACP is sunk and, therefore, they have not assigned the cost of that pipeline to any of the future gas supply We believe that that evidence is highly relevant. And, in fact, we maintain that the Commission and ask that the Commission direct that Dominion rerun its modeling, each of its runs, assigning the cost of the ACP that Dominion estimates will be used to transport gas to be borne by those future gas supply options. Not doing that does not assign the full cost of those future gas supply options to those options and, therefore, understates the cost of those options.

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If you look at the testimony of Mr. Penniman starting on page 15, starting at line four, you'll see that he addresses there the ACP cost. It's really incredible that --

CHAIRMAN JAGDMANN: Are we getting into the case now? You'll have a chance to cross-examine --

MR. MONACELL: I do not intend to cross-examination. In fact, this witness is not

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    taking the stand.
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                  MS. LINK: Because you waived the right
3
     to cross-examine him.
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                  CHAIRMAN JAGDMANN: Do we need to have --
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     okay.
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                  MR. MONACELL: Right, I'll be very brief.
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     I'm just showing you this to show the portions that I
     believe are highly relevant because it deals with
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     their treating the cost as sunk cost.
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                  CHAIRMAN JAGDMANN:
                                      Do you have an
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     opportunity to respond to the motion?
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                  MR. MONACELL: That time hasn't come yet,
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     I don't believe.
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                  CHAIRMAN JAGDMANN: Okay. Well, you'll
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     have that opportunity then.
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                  MR. MONACELL: All right. We request the
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     Commission to require the Company to meet its burden
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     of proof that the IRP filing is reasonable even though
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     it has excluded and not assigned the cost of the IRP
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     to future gas supply options.
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                  Further, we request that the Commission
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     require Dominion to rerun its IRP analysis assigning
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such cost to future gas supply options based upon the Company's reasonable estimate of how much such firm pipeline transportation costs are likely to be passed

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through to jurisdictional electricity customers. That is the end of my opening statement.

Your Honors, I do not intend to have any cross-examination, and I would ask that I be excused from the remainder of the hearing.

CHAIRMAN JAGDMANN: You are so excused.

MR. MONACELL: Thank you.

Mr. Browder.

MR. BROWDER: Good afternoon, Your

Honors. For the record, Meade Browder, for Consumer

Counsel.

Consumer Counsel has not sponsored a witness and filed testimony in this year's IRP case. In every prior final order in these IRP cases, the Commission has reiterated that approval of an IRP filing -- I'm quoting -- does not in any way create the slightest presumption that resource options contain in the approved IRP will be approved in a future certificate, rate adjustment clause, fuel factor, or other type of proceeding governed by different statutes.

The Commission has further stated that actual expenditures incurred towards any specific resource option that has not been approved by this Commission in an applicable formal proceeding are

_ +	inculted solely at the 113k of the company s
2	stockholders.
3	In view of this approach consistently
4	taken by the Commission in these past IRP proceedings
5	and as, again, restated by Commissioner Jagdmann in
6	the at the commencement of this proceeding,
7	Consumer Counsel does not take a position on
8	Dominion's 2017 IRP filing. We do have or intend to
9	cross-examine a couple of witnesses just to confirm or
10	clarify certain facts for the record.
11	Thank you.
12	CHAIRMAN JAGDMANN: Thank you.
13	Commission Staff.
14	Got some new equipment and trying to
15	figure out how to use it up here.
16	MS. KLAIBER: Good afternoon, Your
17	Honors. May it please the Commission, I'm Alisson
18	Klaiber, and along with Ashley Macko and Beth Clowers,
19	represent the Staff in this proceeding.
20	As directed, Staff investigated the
21	Company's 2017 Integrated Resource Plan, or IRP. And
22	on August 25th, 2017, filed the testimony of Staff
23	witnesses Earnest White, Dave Eichenlaub, David Essah,
24	Gregory Abbott, and Carol Myers.

incurred solely at the risk of the Company's

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I'd like to use my time today, Your

Honors, to highlight what's new in this 2017 IRP in Staff's view compared to the prior IRP.

As discussed by Staff witnesses, this is the first IRP where Plan A, the least-cost plan, with no carbon constraints, switches from mostly natural gas facilities to mostly solar facilities.

Staff investigated the significant change and determined that the Company's forecasted prices for solar renewable energy credits, or RECs, are the driving factor in the model selecting solar. Staff determined that these REC prices are significantly higher than those used in the 2016 IRP. This REC price input heavily influences the addition of solar installations in all plans in the Company's 2017 IRP, causing the switch from mostly natural gas to mostly solar facilities during the planning period, including the near term.

Your Honors, moving to the specific resources considered in this IRP, the evidence will show that the Company has recently announced its intention to move forward with a \$300 million offshore wind demonstration previously called the Virginia Offshore Wind Technology Advancement Project, or VOWTAP, and now referred to as the Coastal Virginia Offshore Wind.