

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

THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

=====

IN THE MATTER OF THE APPLICATION OF
BLACK HILLS POWER, INC. FOR AUTHORITY EL09-018
TO INCREASE ITS ELECTRIC RATES

=====

Transcript of Proceedings
June 28, 2010
Volume I, pages 1-187

=====

COMMISSION STAFF

- John Smith
- Karen Cremer
- Greg Rislov
- Bob Knadle
- Dave Jacobson
- Jon Thurber
- Tim Binder
- Terri Labrie Baker

APPEARANCES

- Lee A. Magnuson,
 appearing on behalf of Black Hills Power,
- Todd Brink,
 appearing as co-counsel on behalf of Black Hills Power,
- Sam Khorroosi,
 appearing on behalf of the Residential Consumers
 Coalition.

ALSO PRESENT

Nicole Shalla

Reported By Cheri McComsey Wittler, RPR, CRR
Precision Reporting
P.O. Box 232, Onida, SD 57564

THIS TRANSCRIPT CONTAINS CONFIDENTIAL MATERIALS

1 TRANSCRIPT OF PROCEEDINGS, held in the
2 above-entitled matter, at the South Dakota State Capitol
3 Building, 500 East Capitol Avenue, Pierre, South Dakota,
4 on the 28th day of June, 2010, commencing at
5 9 o'clock a.m.

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

	<u>I N D E X</u>				
1					
2	APPLICANT'S WITNESSES	DIRECT	CROSS	RD	RC
3	William Avera	21	35	--	--
	Kyle White	60	68	--	--
4	Christopher Kilpatrick	86	--	100	--
	Jill Tietjen	101	112	--	--
5	Douglas Buresh	148	165	--	--
	Thomas Ohlmacher	179	--	--	--
6					
7	STAFF'S WITNESSES	DIRECT	CROSS	RD	RC
8	Robert Towers	198	--	--	--
	Dave Peterson	220	--	--	--
	Jon Thurber	225	--	--	--
9	Terri Labrie Baker	227	--	--	--
	Dave Jacobson	231	--	--	--
10	Bob Knadle	242	--	--	--
	Tim Binder	243	--	--	--
11	George Evans	259	--	--	--
12					
13	RCC's WITNESSES	DIRECT	CROSS	RD	RC
	Don Frankenfeld	279	303	--	348 352
14	Christopher James	378	401	472	--
15					
16	REBUTTAL WITNESSES	DIRECT	CROSS	RD	RC
17	Kyle White	474	481	--	--
18					
19					
20					
21					
22					
23					
24					
25					

<u>I N D E X (Continued)</u>				
	APPLICANT'S EXHIBIT NOS.	M	O	R
1				
2				
3	1 - Notice of Proposed Changes	7	13	13
	2 - Tariff Sheets as filed	7	13	13
4	3 - Comparison of Revenue as filed	7	13	13
	4 - Statements A through R	7	13	13
5	5 - Income Taxes Schedule K-1 and K-3	7	13	13
	6 - Work papers	7	13	13
6	7 - Prefiled Wevik testimony	7	13	13
	8 - Organizational chart	7	13	13
7	9 - List of business groups	7	13	13
	10 - Prefiled Loomis testimony	7	13	13
8	11 - Prefiled Ohlmacher testimony	7	13	13
	12 - BHP and Wyodak Agreement	7	13	13
9	13 - Aerial Map	7	13	13
	14 - Prefiled Tietjen testimony	7	13	13
10	15 - Resume, publications listing, testimony listing	7	13	13
11	16 - 2007 IRP	7	13	13
	17 - Prefiled Sargent testimony	7	13	13
12	18 - Prefiled Lux testimony	7	13	13
	19 - Report of Innovating Business Engineering	7	13	13
13	20 - NERC GADS Report of Availability	7	13	13
14	21 - Shared Facility Agreement	7	13	13
	22 - Major components of Wygen III	7	13	13
15	23 - Progress Summary Report Wygen III	7	13	13
	24 - Summary of BHEG experience constructing power	7	13	13
16	25 - News articles/ reports	7	13	13
17	26 - Report of Cambridge Energy	7	13	13
	27 - Prefiled Kilpatrick testimony	7	13	13
18	28 - Prefiled Avera testimony	7	13	13
	29 - Avera qualifications	7	13	13
19	30 - DCF Model - Utility Proxy Group	7	13	13
	31 - Sustainable Growth Rate Utility Proxy Group	7	13	13
20	32 - Constant Growth DCF Model	7	13	13
21	Non-Utility Proxy Group			
	33 - Sustainable Growth Rate	7	13	13
22	Non-Utility Proxy Group			
	34 - Capital Asset Pricing Model	7	13	13
23	Utility Proxy Group			
	35 - Capital Asset Pricing Model	7	13	13
24	Non-Utility Proxy Group			
	36 - Expected Earnings Approach	7	13	13
25	37 - Utility Proxy Group Capital Structure	7	13	13

<u>I N D E X (Continued)</u>				
	APPLICANT'S EXHIBIT NOS.	M	O	R
1				
2				
3	38 - Prefiled Cleberg testimony	7	13	13
4	39 - Service Agreement BHP & Service Company	7	13	13
5	40 - Service Agreement BHP & Utility Holding	7	13	13
6	41 - Cost Allocation Manual (Service Co.)	7	13	13
7	42 - Cost of Allocation Manual (Utility Holding)	7	13	13
8	43 - BHP Credit Ratings	7	13	13
9	44 - Weighted Average Cost of Capital Calculation	7	13	13
10	45 - Prefiled Loos testimony	7	13	13
11	46 - Report of Depreciation Accrual	7	13	13
12	47 - Prefiled McFadden testimony	7	13	13
13	48 - McFadden Resume	7	13	13
14	49 - Schematic of Ratemaking Process	7	13	13
15	50 - Comparison of Billing Units	7	13	13
16	51 - Prefiled White testimony	7	13	13
17	52 - Request for Authority to Implement Interim Rate Increase	7	13	13
18	53 - Certification	7	13	13
19	54 - Avera Rebuttal Testimony	7	13	13
20	55 - Tietjen Rebuttal Testimony	7	13	13
21	56 - Buresh Rebuttal Testimony	7	13	13
22	57 - DAS-1 Resume	7	13	13
23	58 - Wygen III Cost Analysis	7	13	13
24				
25				
	STAFF'S EXHIBIT NOS.			
	1 - Staff Memo (Public)	7	14	14
	2 - Staff Memo (Confidential)	7	14	14
	3 - Revenue Requirement (Public)	7	14	14
	4 - Rev. Requirement (Confidential)	7	14	14
	5 - Rate Design (Public)	7	14	14
	6 - Rate Design (Confidential)	7	14	14
	7 - Evans Rebuttal & Appendix	7	14	14
	7A - GWE-1	7	14	14

	<u>I N D E X (Continued)</u>			
	RCC EXHIBIT NOS.	M	O	R
1				
2				
3	1 - Christopher James Direct	7	13	13
	2 - Christopher James Resume	7	13	13
4	3 - Scenario Analysis	7	13	13
	4 - Cost of energy efficiency	7	13	13
5	compared to costs of new power plants			
	and electricity rates			
6	5 - Electric Consumption Comparison	7	13	13
	6 - Residential and Commercial	7	13	13
7	Customer Savings from reducing energy			
	consumption 10% and 20% by 2020			
8	7 - Cost of Energy Saved v.	7	13	13
	Percentage of Energy Saved			
9	8 - BHP Responses to Data Requests	7	13	13
	8A - Schedule A	7	13	13
10	8B - Schedule B	7	13	13
	8C - Schedule C	7	13	13
11	8D - Schedule D	7	13	13
	8E - Schedule E	7	13	13
12	8F - Schedule F	7	13	13
	8G - Schedule G	7	13	13
13	8H - Schedule H	7	13	13
	8I - Schedule I	7	13	13
14	9 - David Schlissel Direct	7	13	13
	9A - Schlissel Direct (Confidential)	7	13	13
15	10 - Schlissel Resume	7	13	13
	11 - Climate Change and Power	7	13	13
16	12 - Synapse 2008 CO2 Price Forecast	7	13	13
	13 - Don't Get Burned	7	13	13
17	14 - Attachment No. 37.1	7	13	13
	15 - Attachment No. 24.1	7	13	13
18	16 - Attachment No. 56.1	7	13	13
	17 - Donald Frankenfeld Direct	7	13	13
19	18 - Frankenfeld Resume	7	13	13
	19 - Energy Efficiency Increase of 1%	376	386	387
20	per year			
	20 - Energy Efficiency Increase of	376	386	387
21	1.5% per year			
	21 - Impact of EE on load shape	376	386	387
22				
23				
24				
25				

1	<u>I N D E X (Continued)</u>			
2	JOINT EXHIBIT NOS.	M	O	R
3	1 - Joint Motion for Approval of	7	13	13
	Settlement Stipulation			
4	2 - Settlement Stipulation	7	13	13
5	3 - SD Retail Operations Among Rate	7	13	13
	Classes Test Period Ended 6-30-09			
6	4 - Transmission Cost Adjustment	7	13	13
7	5 - Fuel & Purchase Power Adjustment	7	13	13
	6 - Customer Notices	7	13	13
	7 - Tariff Schedules	7	13	13
8				
9				
10				
11				
12	(Exhibit Nos. BHP 1-58 are marked for identification)			
13	(Exhibit Nos. RCC 1-18 are marked for identification)			
14	(Exhibit Nos. Staff 1-7A are marked for identification)			
15	(Exhibit Nos. Joint 1-7 are marked for identification)			
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				

1 CHAIRMAN JOHNSON: We will call this hearing to
2 order. We are live on the internet. This hearing deals
3 with Docket EL09-018. This is the request by Black Hills
4 Power to increase its electric rates.

5 And it's approximately 9 o'clock in the morning,
6 and it's June 28. We're here in Room 414 in the State
7 Capitol Building. And this was the time and the place
8 noticed for this meeting.

9 I'm Dusty Johnson. My colleagues Steve Kolbeck
10 and Gary Hanson are also present. As Chairman I'll be
11 presiding over this meeting which was noticed by
12 Commission Order on March 8.

13 The issue at this hearing is whether the rates,
14 terms, and conditions set forth in the Settlement
15 Stipulation between Staff and the Applicant are just and
16 reasonable and whether or not they are in accordance with
17 the standards which are set forth in SDCL 49-34A-8.

18 Of course, it's the Applicant's burden of proof
19 to demonstrate that those rates, terms, and conditions in
20 the Stipulation are just and reasonable and are in
21 accordance with state law.

22 All parties have the right to be present and to
23 be represented by an attorney. All persons testifying
24 will be sworn in and are subject to cross-examination by
25 the parties. I think it's still the case that Cheri will

1 swear them in if they're here in person, and then I'll
2 need to do it if they're appearing telephonically.

3 The Commission's final decision may be appealed
4 by the parties to the State Circuit Court and to the
5 State Supreme Court.

6 John Smith acts as the Commission's General
7 Counsel, and he will act as the Hearing Examiner and will
8 conduct the hearing subject to the Commissioners'
9 oversight. At any point any Commissioner can make a
10 Motion to overturn a preliminary ruling by Mr. Smith.
11 And the Commissioners will vote on that Motion. If no
12 Motion is made, then the preliminary ruling of Mr. Smith
13 becomes a final ruling.

14 With that, I guess I would pause to see if my
15 colleagues have anything to add before we get started.

16 Mr. Smith, the helm is yours.

17 MR. SMITH: Thank you, Mr. Chairman. I think at
18 the outset I'm going to request of counsel as to whether
19 we have any preliminary matters to deal with. And my
20 understanding is we have some stipulations perhaps to
21 deal with.

22 Is that correct, Mr. Magnuson?

23 MR. MAGNUSON: Thank you, Mr. Smith. That is
24 correct. There are two stipulations that I would like to
25 review and put on the record at the present time.

1 The first Stipulation is a Stipulation between
2 the parties. And the Stipulation is is that the parties
3 agree to stipulate to the admission of the prefiled
4 testimony of Mr. Schlissel. And Black Hills Power agrees
5 to waive cross-examination of Mr. Schlissel on the
6 following conditions:

7 Number one, Mr. Schlissel would not testify in
8 person or by telephone or submit written testimony.

9 Number two, Mr. James would not testify
10 regarding the items in Mr. Schlissel's testimony or
11 testify in opposition to the settlement on the basis of
12 the subject matter in Mr. Schlissel's testimony, which
13 largely deals with carbon taxes and the risks of
14 coal-fired generation, or testify in response to the
15 issues raised in the June 4, 2010 prefiled testimony as
16 regards Mr. Schlissel's testimony.

17 And the third condition, RCC would not present
18 any surrebuttal regarding Mr. Schlissel or his
19 testimony.

20 I have read from the Stipulation of the parties
21 and would just ask that the Staff and RCC acknowledge
22 that that is the Stipulation.

23 MS. CREMER: This is Karen Cremer from Staff,
24 and that's correct. Staff would agree.

25 MR. KHOROOSI: This is Sam Khoroosi from the

1 Residential Consumers Coalition. And we agree as well.

2 MR. SMITH: Thank you. Please proceed then,
3 Mr. Magnuson.

4 MR. MAGNUSON: Thank you, Mr. Smith.

5 CHAIRMAN JOHNSON: Mr. Smith, I'm sorry to
6 interrupt. I mean, I did have some questions for
7 Mr. Schlissel. Obviously, the parties don't have a
8 problem with that. I'm not sure I'm going to.

9 I mean, will I have an opportunity to ask other
10 witnesses about that testimony, or would that be
11 inappropriate?

12 MR. SMITH: Mr. Magnuson.

13 MR. MAGNUSON: Chairman Johnson, the Stipulation
14 that I read to you is binding on the parties. Therefore,
15 it's binding on RCC and would be binding on Commission
16 Staff.

17 If the PUC Commissioners decide that they want
18 to do something other than that Stipulation, you are not
19 bound by that Stipulation.

20 CHAIRMAN JOHNSON: Well, and I'll try to -- I
21 think I'll be able to phrase my questions in a way that
22 will speak more in the direct testimony of folks that you
23 all will call, but it's good to know I have a little
24 leeway. Thanks. Yes.

25 MR. SMITH: Okay. With that, Mr. Magnuson,

1 please proceed.

2 MR. MAGNUSON: Thank you, Mr. Smith. The second
3 Stipulation that we would like to put on the record is
4 that the parties have stipulated to the admission of all
5 of the exhibits that have been presented thus far. And
6 so what I will do is reference my exhibits. I will leave
7 it to Commission Staff to reference their exhibits. I
8 will leave it to RCC to reference their exhibits. And
9 when we're completed with that, we would make a joint
10 motion to move the admission into evidence of all of
11 these exhibits.

12 Starting with the Black Hills Power Exhibits, we
13 would offer as part of the Stipulation Joint Exhibits 1
14 through 7, which have been previously marked. We would
15 offer Exhibit 1, and everybody should have a copy of
16 that. Exhibit 1 is the Joint Summary of Uncontroverted
17 Facts that has been entered into by Black Hills Power,
18 RCC, and Commission Staff.

19 And at this time Black Hills Power has 58
20 exhibits that are marked as Black Hills Power No. 1
21 through Black Hills Power No. 58.

22 Just for your information, Exhibit 58 should
23 be -- copies should be on the Commissioners' desk in
24 front of you, and I've provided copies to Commission
25 Staff and RCC and actually had provided them copies of

1 58 quite some time ago.

2 So at this point we would offer up the exhibits
3 that I referenced and would request that they be admitted
4 into evidence per the Stipulation of the parties.

5 MR. SMITH: Objection from either of the other
6 parties?

7 MS. CREMER: Staff would have no objection.

8 MR. KHOROOSI: RCC has no objection.

9 MR. SMITH: The referenced exhibits by Black
10 Hills Power are admitted.

11 Mr. Khoroosi.

12 MR. KHOROOSI: Thank you, Mr. Smith. We will be
13 offering what have been premarked Exhibits 1 through 18,
14 including sub Exhibits 8A through 8I and 9A as well.

15 MR. SMITH: Any objection from Black Hills Power
16 or Staff?

17 MR. MAGNUSON: Black Hills Power has no
18 objection. That is a correct statement of the
19 Stipulation of the parties.

20 MS. CREMER: And Staff would have no objection.

21 MR. SMITH: Okay. The RCC exhibits referenced
22 by Mr. Khoroosi are admitted.

23 Staff.

24 MS. CREMER: Staff would have premarked
25 Exhibits 1 through 7 and also 7A.

1 MR. SMITH: Can you offer those at this time?

2 MS. CREMER: I'm sorry. Yes. And Staff would
3 offer those.

4 MR. SMITH: Objection?

5 MR. MAGNUSON: Black Hills Power has no
6 objection. That is a correct statement of the
7 Stipulation.

8 MR. KHOROOSI: RCC has no objection.

9 MR. SMITH: Okay. The exhibits referenced by
10 Staff are admitted.

11 And with that, Mr. Magnuson, any other
12 preliminary matters?

13 MR. MAGNUSON: I have no other preliminary
14 matters. I would request the opportunity to provide a
15 brief set of opening remarks.

16 MR. SMITH: Okay. One thing, Mr. Khoroosi, I
17 just wanted to clarify. Ms. Shalla is with you. Did you
18 ever take care of the pro hac issue, or is she just going
19 to act as your assistant here?

20 MR. KHOROOSI: Well, Mr. Smith, I have not
21 received a signed order yet, but the Motion is pending.
22 So at this time I would -- I guess I would request that
23 she be allowed to sit alongside of me but not necessarily
24 enter an appearance until we get that order.

25 MR. SMITH: Okay. Thank you. I just wanted to

1 know where we stood.

2 So with that, Mr. Magnuson, please proceed with
3 your direct case.

4 MR. MAGNUSON: Mr. Smith, may I make some
5 opening remarks before we proceed?

6 MR. SMITH: You may.

7 MR. MAGNUSON: Thank you. My name is
8 Lee Magnuson. I'm here today representing Black Hills
9 Power, Inc. on its application for a rate increase. I'm
10 with the Lynn, Jackson, Shultz & Lebrun law firm in its
11 Sioux Falls, South Dakota office. I've practiced with
12 the Lynn, Jackson law firm for nearly 29 years, and I
13 thank you for the opportunity to appear before this
14 Commission.

15 I would like to make some brief introductions.
16 We have here today co-counsel, Todd Brink, who is
17 sitting at counsel table. He is the senior counsel for
18 Black Hills Corporation.

19 Also at the counsel table representing
20 Black Hills Power are Kyle White, who's the vice
21 president at Black Hills Corporation, and Chris
22 Kilpatrick, who is the director of rates at Black Hills
23 Corporation.

24 Sitting behind us are some additional people
25 that I would like to note so that you'll know who they

1 are. The first is Linn Evans. He is the president and
2 chief operating officer for utilities at Black Hills
3 Corporation.

4 Also here today is Tom Ohlmacher, the president
5 and chief operating officer of one of Black Hills
6 Corporation's subsidiaries.

7 Also sitting behind counsel table are
8 Chuck Loomis, the vice president for operations of
9 Black Hills Power. And then finally also behind us at
10 counsel table is Glynda Rahn, one of the in-house
11 counsels for Black Hills Corporation.

12 As Chairman Johnson indicated, we are here today
13 to request approval of the Stipulation that has been
14 entered into between Black Hills Power and Commission
15 Staff. And as Chairman Johnson correctly indicated, the
16 issue for hearing is whether there is substantial
17 evidence on the record as a whole that the Stipulation
18 establishes just and reasonable rates, giving due
19 consideration to the criteria set forth in South Dakota
20 Statute.

21 We believe that the record and our testimony
22 will show that the rates represented by the Settlement
23 Stipulation are just and reasonable.

24 The Commission Staff and Black Hills Power
25 worked very hard to get to this point. Staff and

1 Black Hills Power were able to agree on a settlement that
2 is represented by the Settlement Stipulation that is
3 before you today. Staff and Black Hills Power were able
4 to agree that the rates in the Settlement Stipulation are
5 just and reasonable. Commission Staff and Black Hills
6 Power were able to agree that it is just and reasonable
7 that Wygen III be included in rates.

8 Black Hills Power got a CPCN, which stands for
9 Certificate of Public Convenience and Necessity, in
10 Wyoming prior to building and prior to construction of
11 Wygen III. Wygen III was built under budget and ahead of
12 schedule and on April 1 of this year started serving the
13 customers of Black Hills Power.

14 A review of the RCC Pleadings, the Intervener in
15 this matter, shows that there's very little in dispute.
16 They contest return on equity, but return on equity is
17 fully supported by our testimony and is in line with
18 other cases decided by this Commission.

19 Number two, carbon taxes were appropriately
20 modeled by Black Hills Power in its IRP.

21 And, number three, DSM and energy efficiency
22 would not have replaced the need for Wygen III.
23 Wygen III is the least cost resource for meeting the
24 Black Hills customers' requirements for electricity over
25 the next 20 years.

1 Just to give you a broad overview of how we
2 intend to proceed with our case, I will just indicate our
3 order of witnesses and who they are.

4 Our first witness will be Bill Avera, president
5 of Fincap, Inc. He will testify on the return on equity
6 related matters. And Mr. Avera has, I believe, testified
7 or at least filed prefiled testimony before this
8 Commission before.

9 Our second witness that we intend to call will
10 be Kyle White. And Kyle has appeared before this
11 Commission many times.

12 Our third witness that we intend to call will be
13 Chris Kilpatrick. Chris has appeared before this
14 Commission several times.

15 Our fourth witness that we intend to call will
16 be Jill Tietjen who is the president of Technically
17 Speaking, Inc. She is the person that was responsible
18 for and prepared the Integrated Resource Plan.

19 Our fifth witness will be Tom Ohlmacher who was
20 earlier introduced, and he has, I believe, appeared
21 before this Commission also.

22 Black Hills Power may also call Doug Buresh who
23 is a senior vice president at Ventyx. And Ventyx is the
24 entity that did the modeling work for the IRP.

25 You should have all of the exhibits in front of

1 you. They have all been admitted into evidence so I
2 won't go through those at this time. As noted, the
3 parties have stipulated to the admission of those
4 exhibits.

5 So thank you very much for the opportunity to
6 present testimony supporting the company and the
7 Commission Staff in what they believe are just and
8 reasonable rates as set forth in the Stipulation between
9 Black Hills Power and the Commission Staff.

10 Thank you.

11 MR. SMITH: Mr. Khoroosi, do you have -- wish to
12 make an opening statement at this time?

13 MR. KHOROOSI: Yes. Thank you. Good morning.
14 My name is Sam Khoroosi. I'm an attorney in Sioux Falls,
15 South Dakota, and I'm appearing on behalf of Karla Kock,
16 Liliias Jarding, Bobbie Handley, and the South Dakota
17 Peace & Justice Center, collectively referred to as the
18 Residential Consumers Coalition or RCC.

19 We intend to show in this hearing that the
20 utility has not and cannot meet its burden based on the
21 evidence filed and the testimony that will be presented
22 that the rates agreed to in the Stipulation are just and
23 reasonable.

24 Our primary reasons will be two-fold. Number
25 one, the utility did not -- did not conduct an adequate

1 planning process before determining that Wygen III was
2 necessary.

3 You'll hear from Chris James that had the
4 utility conducted adequate resource planning and had
5 looked at demand side management and energy efficiency,
6 among other areas, had they done those things properly,
7 there would not have been a need for Wygen III.

8 You'll also hear from Don Frankenfeld who will
9 testify to the return on equity. Mr. Frankenfeld will
10 demonstrate that the proposed return on equity referenced
11 in the Stipulation is not just or reasonable.

12 In addition, as Mr. Magnuson mentioned, there is
13 some prefiled testimony from David Schlissel, whose
14 admission we have stipulated into the record, but at this
15 point Mr. Schlissel will not be testifying unless, of
16 course, the Commission would require it.

17 I should also take this moment to introduce
18 Nicole Shalla who is a Staff attorney with Plains Justice
19 in Cedar Rapids, Iowa. Ms. Shalla is awaiting the
20 approval of her Pro Hac Vice Motion and upon receiving
21 that order will be joining me as co-counsel.

22 Thank you.

23 MR. SMITH: Staff, preliminary comments?

24 MS. CREMER: Thank you. This is Karen Cremer of
25 Staff, and I'm going to wait until before I put on my

1 witnesses. Thank you.

2 MR. SMITH: Okay. With that, Mr. Magnuson,
3 please proceed.

4 MR. MAGNUSON: Thank you, Mr. Smith. At this
5 time Black Hills Power would call to the stand
6 Mr. William Avera.

7 (The witness is sworn by the court reporter)

8 MR. SMITH: Mr. Avera, please get the mic
9 situated in such a way that we pick you up.

10 THE WITNESS: Does this work?

11 MR. SMITH: It does.

12 MR. MAGNUSON: Thank you, Mr. Smith.

13 DIRECT EXAMINATION

14 BY MR. MAGNUSON:

15 Q. Would you please state your name for the record.

16 A. William E. Avera.

17 Q. What is the name of the company that you work for?

18 A. Fincap, Incorporated in Austin, Texas.

19 Q. What business is Fincap in?

20 A. Fincap is an economic and financial consulting firm.
21 Our clients are government agencies, utilities, and law
22 firms.

23 Q. Could you please give us a brief summary of your
24 experience.

25 A. Yes. After receiving my Ph.D., I taught at the

1 University of North Carolina at Chapel Hill including
2 regulatory topics. I became a consultant to the
3 North Carolina Public Utilities Commission in 1972.

4 When I left Chapel Hill to teach at the University
5 of Texas at Austin it happened that that was when the
6 Public Utilities Commission of Texas was first being
7 formed in 1975, and I became a consultant to that
8 Commission and ultimately became a senior staff member in
9 1977.

10 I at the Commission supervised a large part of the
11 staff, overseeing economic, financial, and tariff
12 matters.

13 Since leaving the Commission I have been a
14 consultant to commissions and to utilities and to
15 consumer groups. I have testified in over 300 utility
16 cases before federal agencies in the United States and
17 Canada and in 42 states.

18 I have continued to teach regulatory topics in
19 seminars around the world. I have a CFA charter
20 designation and hold a Ph.D. in economics and finance.

21 Q. Have you testified previously before this
22 Commission?

23 A. Yes. I have submitted testimony before this
24 Commission. This is the first opportunity I've had to
25 come live.

1 Q. Dr. Avera, did you submit prefiled testimony in this
2 matter?

3 A. I did.

4 Q. Is that prefiled testimony represented by
5 Black Hills Power Exhibit 28?

6 A. Yes, sir.

7 Q. Are your prefiled exhibits represented by
8 Black Hills Power Exhibits 29 to 37?

9 A. Yes.

10 Q. Are you familiar with the contents of your prefiled
11 testimony on the exhibits?

12 A. I am.

13 Q. At the time your testimony was filed and the
14 exhibits were filed was it true and correct to the best
15 of your information and knowledge?

16 A. Yes, sir.

17 Q. As we sit here today, do you have any corrections to
18 your prefiled testimony?

19 A. No. There are a few typographical errors, but there
20 are no substantive errors.

21 I would note that I filed the testimony in September
22 2009. Since that time there have been exciting events in
23 the capital markets. For a number of months things
24 seemed to be improving. And then almost on the date that
25 Mr. Frankenfeld filed his testimony in April 28 we

1 slipped back into a time of considerable financial
2 turmoil. Investors became more fearful. Indicators like
3 the Dow Jones Utility Average dropped sharply. The yield
4 on treasury bonds went up sharply as investors sought
5 safety. And the spreads between treasuries and utilities
6 increased.

7 So the bottom line is we are today about in the same
8 financial circumstances we were when I filed my
9 testimony.

10 Q. Could you please give a brief summary of your
11 prefiled testimony.

12 A. Yes. What I did was apply three accepted methods
13 that are used throughout the country to estimate the cost
14 of equity to utilities. I used the discounted cash flow,
15 or DCF, the capital asset pricing model, or CAPM, and
16 expected earnings.

17 I applied these to 16 utilities that were selected
18 based on objective benchmarks of risk, their bond
19 ratings, the Value Line ratings, the Standard & Poor
20 stock valuation.

21 So based on this group I estimated the cost of
22 equity using these three methods. And then I also did a
23 group of 61 of the least risky, nonregulated companies in
24 the economy, again, selected by the very same criteria,
25 objective criteria.

1 And based on these studies I derived that the cost
2 of equity for these companies was between 11 and
3 12.5 percent. And then I looked specifically at
4 Black Hills Power. And noted that Black Hills Power is
5 much smaller than the average utility and has a lower
6 bond rating. In fact, out of the 176 bond ratings that
7 Standard & Poor's gives of investor grade utilities
8 Black Hills is number 156. There are only 20 utilities
9 lower.

10 So based on that, I proposed a range of 11.5 to 12.5
11 for the ROE for Black Hills. And then I looked at the
12 requested capital structure, 52 percent equity. I looked
13 at the capital structure of the comparable risk
14 utilities, and it was in line. And then I noted again
15 because of the small size and low bond rating of
16 Black Hills Power, it was appropriate for the 52 percent
17 actual capital structure to be used for regulatory
18 purposes.

19 Q. Thank you. Now do the opinions set forth in your
20 prefiled testimony remain the same today as they were at
21 the time you field your prefiled testimony in September
22 of 2009?

23 A. Yes, they do. I have read Mr. Frankenfeld's
24 testimony thoughtfully, and I have responded to it. But
25 there is nothing in his testimony or nothing that has

1 happened in capital markets that causes me to change my
2 opinions.

3 Q. Do I understand that you have reviewed the prefiled
4 testimony of Mr. Frankenfeld?

5 A. Yes, sir, I have.

6 Q. And your opinions remain the same today after
7 reviewing the opinions of Mr. Frankenfeld?

8 A. They do indeed.

9 Q. Did you file rebuttal testimony regarding
10 Mr. Frankenfeld's testimony?

11 A. Yes, sir, I did.

12 Q. Is that rebuttal testimony represented by
13 Exhibit 54?

14 A. Yes, sir, it is.

15 Q. Would you please summarize your rebuttal testimony,
16 please.

17 A. Yes. What I did in my rebuttal testimony is tried
18 to directly take on the points that Mr. Frankenfeld
19 made.

20 First he said that I subjectively selected the group
21 of utilities, the 16 utilities. I pointed out that I
22 used objective methods that are used throughout the
23 utility industry and in the regulatory arena to select my
24 16 companies, and, in fact, Mr. Copeland, who was the
25 expert for the Staff used exactly the same 16 companies.

1 Mr. Frankenfeld criticized my DCF because of the way
2 I averaged and handled outliers. Again, I explained the
3 economic rationale behind the way I handled the outliers
4 and pointed out that it's consistent with other
5 regulatory standards, especially those as applied by the
6 Federal Energy Regulatory Commission.

7 Mr. Frankenfeld criticized the use of the 61 low
8 risk industrial companies because he said they didn't
9 have the burdens of -- or they didn't have the benefits
10 of being regulated. And I pointed out they didn't have
11 the burdens of being regulated.

12 They can set their prices, and they can decide
13 whether to do business in any particular locality. And
14 they are really most consistent with the Hope and
15 Bluefield standards. And they are very much present here
16 in South Dakota. These are national firms that are the
17 least risk firms like UPS, Coca-Cola, Wal-Mart,
18 Walgreens, Brown-Forman. So they are indicative of what
19 the cost of equity for Black Hills Power are.

20 Mr. Frankenfeld criticized my Cap M analysis for
21 being subjective. Again, I applied the Cap M analysis in
22 the standard way as is used in the regulatory arena. And
23 I would note again Mr. Copeland, while we disagree on
24 some of the inputs, basically our approach was the same
25 and particularly as to beta, which is the parameter that

1 Mr. Frankenfeld criticized.

2 Mr. Frankenfeld presents a kind of what I would
3 regard a back-of-the-envelope calculation of the cost of
4 equity. In my 38 years I have not seen testimony in a
5 regulatory arena that was based on a single company,
6 backward looking analysis such as Mr. Frankenfeld
7 proposes.

8 I did show that correcting his analysis to use more
9 standard approaches and forward-looking approaches
10 suggests a return on equity of 10, 5, 3. Again, he did
11 kind of a check of the risk premium, but he forgot to
12 understand or he didn't realize that taxes are part of
13 the revenue requirements, not part of the cost of
14 capital so that if you correct that analysis, it's
15 suggested a 10.71 percent cost of equity using his same
16 risk premium.

17 And then he didn't include floatation costs, and I
18 explained that that would increase his numbers further
19 because it's proper.

20 And, finally, I responded to his comments about the
21 capital structure, emphasized again that the capital
22 structure of Black Hills is within the range of other
23 utilities and reflects the small size and the low bond
24 rating that Black Hills has to deal with.

25 Having less equity would be a bad thing for

1 customers. They would end up paying more for debt, and
2 they would have a company that didn't have the financial
3 resilience to deal with unexpected circumstances.

4 Q. Dr. Avera, have the methods that you used in your
5 analysis with regard to return on equity been accepted by
6 regulatory commissions throughout the United States?

7 A. Yes, they have. And I cite in my rebuttal testimony
8 to statutes in Virginia, decisions in Idaho, decisions at
9 FERC that are consistent with the methods I've used. I
10 have presented these methods before this Commission
11 before in cases and in 42 states and in federal agencies
12 around the country.

13 Q. Have the methods that were used in Mr. Frankenfeld's
14 analysis been accepted by regulatory commissions
15 throughout the United States?

16 A. Not to my knowledge. And, in fact, as I mentioned
17 earlier, I have not seen such a cursory analysis
18 presented before a regulatory Commission in my career.

19 Q. Dr. Avera, have you reviewed the Stipulation that
20 has been entered into between Black Hills Power and
21 Commission Staff?

22 A. I have, Mr. Magnuson.

23 Q. Are you familiar with the contents as regards
24 return-on-equity-related matters?

25 A. I am.

1 MR. MAGNUSON: Commissioner Johnson, Hearing
2 Examiner Smith, at this time we are going to be going
3 into an area that we deem to be confidential and would
4 request that it be treated as confidential.

5 MR. SMITH: Looking around the room,
6 Mr. Magnuson, do you see anyone in the room who is not
7 subject to the confidentiality covenants that the parties
8 have entered into?

9 MR. MAGNUSON: Mr. Smith, in looking around the
10 room, I believe all of the people that I'm familiar with
11 have signed confidentiality agreements or are with
12 Black Hills Power. I understand that the two people to
13 the back part of the room are Commission Staff and,
14 would, therefore, not be required to sign confidentiality
15 documents.

16 So, yes, I am comfortable that we may proceed
17 with the people that are in this room. We would request
18 that the internet be discontinued momentarily.

19 MR. SMITH: Okay.

20 MS. AXTHELM: We have three people on the line.

21 CHAIRMAN JOHNSON: Okay. So on the line right
22 now we've got Mr. Frankenfeld, who is fine, Mr. Evans,
23 who is fine, and then I presume Mr. Peterson?

24 MR. TOWERS: Bob Towers here.

25 CHAIRMAN JOHNSON: Bob Towers.

1 MR. SMITH: Okay. Demaris, have you turned off
2 the internet?

3 Okay. I think we're --

4 CHAIRMAN JOHNSON: I don't know that we have a
5 lot whole of people listening, but we should let them
6 know that we'll be off line only as long as we are
7 discussion confidential information. And as soon as
8 we're not, we'll come back out. And, obviously, no
9 Commission action will be taken during the off-line.

10 MR. SMITH: Good points.

11 (The following portion of the transcript is confidential)

12

13

14

15

16

17

18

19

20

21

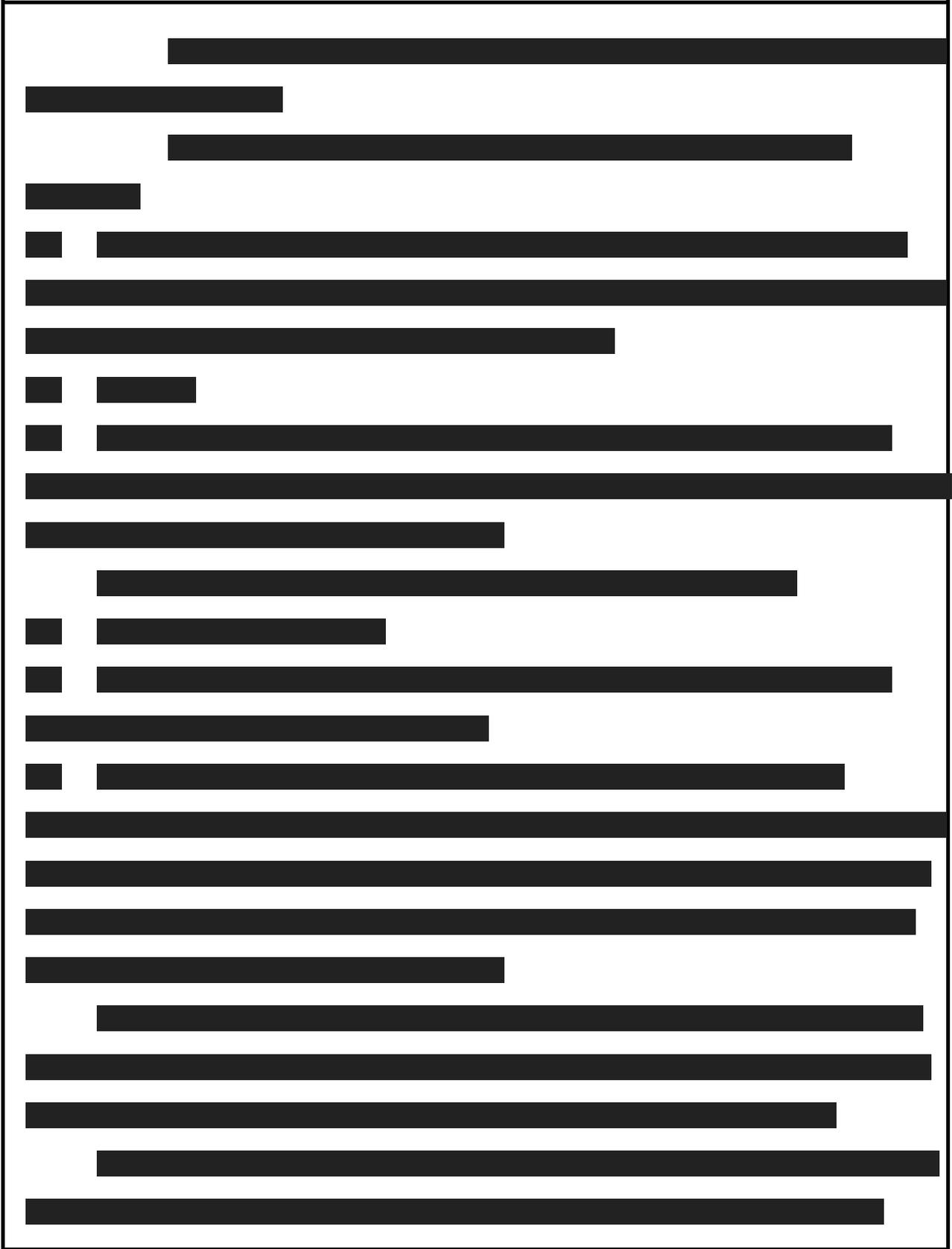
22

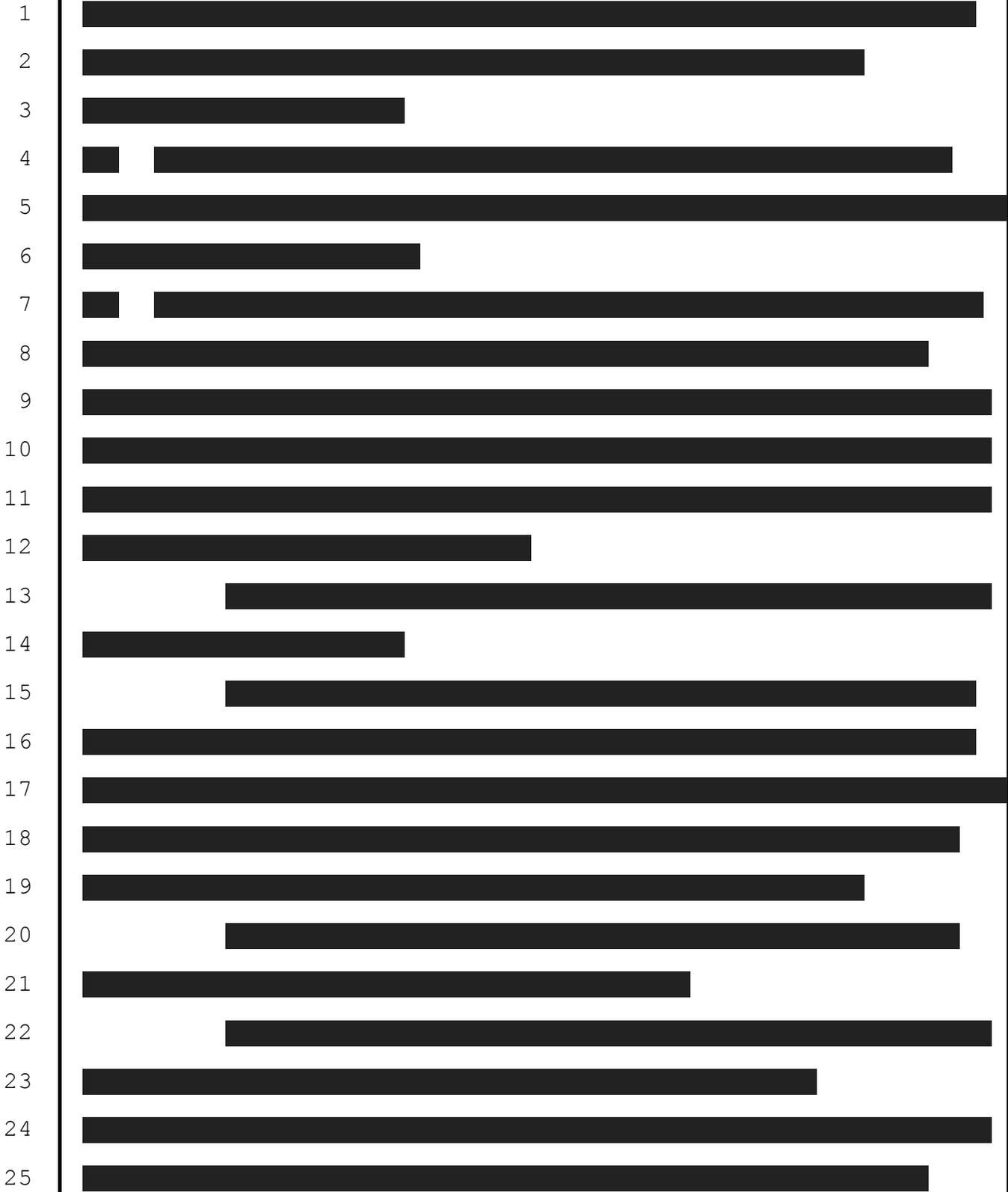
23

24

25

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





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



1 many were rate cases? Or can you give a rough estimate?

2 A. I would say most -- probably 70 to 80 percent were
3 rate cases.

4 Q. Okay. Of those, how many were contested?

5 A. Almost all of them.

6 Q. Okay. And in what -- in what percentage, roughly,
7 of those 300 cases did you appear on behalf of a utility?

8 A. Probably 70 percent.

9 Q. Okay.

10 A. That's a rough estimate, Mr. Khorroosi. Because I
11 did many cases while I was on the staff and consultant to
12 commissions. And it may be less. I don't know. More
13 than 50 percent. Upon reflection, I think that would be
14 safer. More than 50 percent.

15 Q. Okay. Thank you. In how many cases have you
16 appeared on behalf of interveners that were opposed to
17 the rate case -- or the rate increase. I'm sorry.

18 MR. MAGNUSON: I'll object on the basis of
19 irrelevance.

20 MR. SMITH: Overruled.

21 A. Probably 20 percent. Again, a rough estimate,
22 Mr. Khorroosi. I don't keep my records that way. But
23 probably 20 percent on behalf of interveners and 15 to
24 20 percent on behalf of commissions or commission staffs.

25 Q. Okay. Thank you. Throughout your prefilled

1 testimony you referenced looking to seek a fair return on
2 equity. That term went rather undefined in your
3 testimony.

4 From whose perspective were you considering to be a
5 fair return? From the utility? From the investor?

6 A. Well, first of all, I don't think it's undefined in
7 my testimony. I think it's clearly defined by my
8 reference to the Hope and Bluefield decisions, which
9 balances the interests of investors and consumers and
10 allows the utility an opportunity to earn a return that's
11 commensurate with the risk that allows the utility to
12 maintain its financial integrity and allows the utility
13 to raise capital on reasonable terms.

14 Those are the judicial and I think economic and my
15 personal definitions of a fair rate of return.

16 Q. Okay. As you mentioned in your testimony -- you
17 mentioned Black Hills Power's credit rating by the S&P.

18 A. Yes.

19 Q. And I -- and I don't believe that's confidential. I
20 can say it, can't I?

21 A. I believe so. I think it's a public record.

22 Q. It's a BBB-; correct?

23 A. Yes, sir.

24 Q. Okay. And, as you said, there are only 20 with
25 lower credit ratings, 20 utilities with lower credit

1 ratings.

2 A. That's correct. Now that's not just -- Standard &
3 Poor's monthly has a publication that rates -- it's
4 called from strongest to weakest. And it rates all the
5 companies. And within the BBB- credit rating category
6 then it places Black Hills toward the bottom of that.

7 BBB- is the edge between junk bond and investment
8 grade. If you go below BBB-, then you're BB, and that's
9 what's called junk bonds. That means pension plans, mini
10 pension plans, mini government sponsored plans, insurance
11 companies, regulated investment companies cannot invest
12 in bonds that are not investment grade. So it
13 dramatically lowers the market for your debt.

14 Q. Thank you. Of the utilities that formed your proxy
15 group, how many had a BBB- credit rating?

16 A. Many. I'm trying to think of what exhibit we have
17 that has the credit ratings. I know it's in my work
18 papers.

19 I would have to refer to -- let's see if I have -- I
20 have my work papers here. And there was also a discovery
21 request where we have that information.

22 I have in my testimony the average for my proxy
23 group, and it's above BBB-. If you want that, I would
24 have to start up my computer. I can do that for you.

25 Q. That's okay.

1 A. But I will say there were none lower because you
2 can't get any lower.

3 Q. Right.

4 A. And there were some that were higher. There were
5 some BBB and some BBB+. And on average I think the proxy
6 group was BBB.

7 So I make the point in my testimony that the proxy
8 group on average has a higher bond rating than
9 Black Hills. And that's why I recommended that
10 Black Hills be on the upper end of the range indicated
11 by the proxy group.

12 Q. And just to clarify, because there are reasons we
13 become lawyers and not economists, I -- the lower the
14 credit rating, the higher the risk essentially?

15 A. That is correct.

16 Q. Okay.

17 A. Because investors look to the credit rating agencies
18 to tell them what the risk is. So the lower the credit
19 rating, the higher the risk. And in the capital markets
20 the higher interest rate the company has to pay to borrow
21 money. And then the credit ratings also affect other
22 commercial arrangements.

23 Q. Okay. Thank you. You've answered my question.
24 Thank you.

25 A. Yes.

1 Q. Now I'd like to briefly discuss the components of
2 the credit rating. They're not all based on company
3 size, are they?

4 A. No. They're based on many aspects, financial and
5 business aspects. So size is just one of many.

6 By the way, I found, Mr. Khorroosi, on page 26,
7 Table 1 I have the summary of the credit ratings for the
8 proxy group compared to Black Hills Power.

9 Q. Thank you. So we were discussing the components of
10 the credit rating. Certainly there's not some genie out
11 there called market forces that's acting on the hapless
12 utility.

13 In other words, the utility's actions -- the
14 utility's actions have a lot to do with the credit
15 rating; correct?

16 A. Well, the utility actions but also the regulators.
17 Moody's recently published a summary that said 50 percent
18 of their valuation of a credit rating for a utility is
19 the regulatory environment. So the regulators are really
20 important.

21 Q. Certainly the regulators are important. But is it
22 your testimony that the -- that the decisions and actions
23 of a given utility have a negligible effect on their
24 credit rating?

25 A. No.

1 Q. Thank you.

2 A. I think the decisions of the utility have an effect
3 as the decisions of the regulators and other forces in
4 the environment.

5 Q. Okay. So that's a no then, sir? That was a no to
6 my question?

7 A. Negligible, no. Significant, yes.

8 Q. Okay. Thank you. Sorry. That was a double
9 negative. I shouldn't have used that.

10 So if a utility makes poor investments, its credit
11 rating will be lower.

12 A. All else being equal, that would have a negative
13 effect on the credit rating.

14 Q. If a utility does not plan properly, that has an
15 effect on the credit rating?

16 A. Yes. All else being equal, if the investors lose
17 confidence in the planning process of the utility, that
18 will be reflected in the credit rating.

19 Q. Okay. If a utility -- if a utility is organized
20 incorrectly for its size, does that have an effect on its
21 credit rating? If its business model is flawed.

22 A. Yes. It does have an effect. If you read the
23 reports, you don't see any criticism of Black Hills in
24 that regard. And I think that is a much less significant
25 consideration than regulation and economic environment.

1 Q. So that's a yes?

2 A. Yes. It has an effect, but I was trying to explain
3 the relative magnitude of the effect, and there is no
4 indication that that is a concern for this company on the
5 part of the credit rating agencies.

6 Q. And you weren't asked to review that aspect, were
7 you?

8 A. I reviewed all of the credit rating reports for this
9 company over the last several years in the course of my
10 research. So I have read the credit rating agencies for
11 Black Hills Power and for many other utilities. It's one
12 of the things that I end up doing to budget my time.

13 Q. Thank you. You've answered my question, sir.
14 Again, you referenced a volatile energy market that had
15 an effect on the return on equity.

16 Like we said -- or as you had said earlier, a
17 utility can take certain actions to hedge against that
18 volatility; correct?

19 A. Well, I don't understand what you're saying. In my
20 testimony I say that the volatile energy market affects
21 risk. I think your question was return on equity, and I
22 don't recall saying that in my testimony.

23 Q. Oh, I apologize. I made a bleep there. You are
24 correct.

25 In your rebuttal testimony -- and, again, correct me

1 if I'm mischaracterizing, but you state that there should
2 not be a distinction between utility and nonutility firms
3 when it comes to determining an appropriate return on
4 equity.

5 Is that a fair characterization of your testimony?

6 A. I don't think so. I think that both utility and
7 nonutility firms can be useful if they have the same
8 level of risk. That's what the Hope and Bluefield
9 decisions require, comparable risk.

10 Q. Okay.

11 A. So not just taking any nonutility company. We're
12 taking the 61 by objective measures that have the least
13 risk.

14 Q. So companies like Coca-Cola, Walgreens, Wal-Mart,
15 it's your testimony that those companies have the same
16 level of risk as Black Hills Power?

17 A. Yes, they do. By objective measures such as the
18 bond ratings, the betas, the Value Line safety rank, the
19 Value Line financial strength. They are viewed by
20 investors as similar risk.

21 MR. KHOROOSI: Okay. Thank you, sir. I have
22 nothing further.

23 THE WITNESS: Thank you.

24 MR. SMITH: Staff.

25 MS. CREMER: Thank you, Mr. Smith. Staff has no

1 questions.

2 MR. SMITH: Mr. Magnuson, do you have any
3 redirect before we proceed to Commissioner questions?

4 MR. MAGNUSON: I have no redirect at this time.
5 Thank you.

6 MR. SMITH: Okay. We'll turn to Commissioner
7 questions then of Mr. Avera.

8 CHAIRMAN JOHNSON: Thanks, Mr. Smith.

9 Help me understand why when you're dealing with
10 outliers it makes more sense to eliminate them completely
11 rather than include them in the average?

12 I mean, presumably if your sample size is large
13 enough, there's sort of a cancelling out of your high end
14 and low end outliers.

15 THE WITNESS: Well, there is some of that
16 effect. And if you and I talked statistics for a
17 while -- and let me try to explain at least the reasoning
18 that a statistical mind-set would come to it.

19 We are trying to make observations. And if we
20 have observations that are illogical or contrary to other
21 objective facts, we assume, I think correctly, that these
22 are bad observations. If we were doing an experiment and
23 we had an observation that was off the charts for one
24 reason or another that we could objectively identify, we
25 would eliminate the results of that part of the

1 experiment. That data would be taken out of the data
2 that we used in our summary statistics.

3 And that's what we're doing here. That if we
4 have an estimate which is, for example, below the bond
5 yield, that is illogical because we know investors are
6 risk diverse. We know investors have to have extra
7 return to move from the fixed income security of a
8 particular company to the equity of that particular
9 company. When you don't have the contractual payments
10 you're further down the line in bankruptcy.

11 So based on that objective evidence, we
12 eliminate that because we think we've gotten some bad
13 data. So since it's bad data, it shouldn't be used in
14 the summary of the results of our experiment.

15 CHAIRMAN JOHNSON: You talk about objective
16 elimination. I forget whether you talk about a 100- or
17 150-basis point rule of thumb of treasuries. Is that
18 just standard practice and has become objective over the
19 years?

20 THE WITNESS: It is -- and the standard is over
21 the bond yields of the same rating as the proxy
22 companies. So in this case we used BBB companies. So it
23 would be the BBB bond yield.

24 That standard is used widely in the regulatory
25 community. It is most directly articulated by the

1 Federal Energy Regulatory Commission in a series of cases
2 that go back to the Southern California Edison in 2002.
3 It had been done and I've done a great deal of testimony
4 up there and we had done this in previous cases. But it
5 is the nature of FERC is that they will have a case like
6 the Southern California Edison in 2002, and they will say
7 read our lips. This is the way to do it.

8 So in that case they articulated the 100 basis
9 points or -- so standard.

10 Now since I filed my testimony, it happens there
11 was another Southern California Edison case which came
12 out at FERC, April 15, 2010. And in that case they
13 revisited their standard, and they said we still have
14 this standard but we will go over 100 if you look at the
15 data and there's a cluster around -- above the 100 basis
16 points, you might consider whether those are
17 representative or not.

18 So they made it a little less mechanical but
19 they stuck with 100 basis points and they basically said
20 100 basis points or more.

21 In my testimony I talk about several other cases
22 that FERC did between 2002 and 2010 where they used
23 122 basis points and 105 basis points. And let me just
24 say that other state commissions where we work have also
25 adopted that.

1 I mean, FERC, because of its national nature, is
2 kind of the leader in a lot of these methodological
3 things. But it is a standard that I think is widely
4 adopted in the regulatory community and I use in all my
5 testimony.

6 CHAIRMAN JOHNSON: If memory serves, you also
7 eliminated three on the high end, three high end outliers
8 from the proxy group.

9 Is there any objective standard for the
10 elimination of those, or is it more subjective that they
11 are illogical?

12 THE WITNESS: It's a little more subjective.
13 But FERC again has, you know, a string of cases
14 articulated kind of a standard of around 17 percent. So
15 we use 17 percent. And, again, in the most recent
16 Southern California Edison case FERC stuck with that as
17 being a standard.

18 It doesn't quite have the clear economic logic
19 that you have on the low side because I think everybody
20 agrees stocks have to earn more than bonds. The
21 17 percent doesn't quite have that clear logical train,
22 but it is widely accepted. And, again, we've seen it in
23 other states, and we use it in our testimony.

24 CHAIRMAN JOHNSON: I'm going to attempt to ask
25 this question in a way that won't run afoul of anything

1 confidential. But I'll just put all counsel on notice
2 that they should be prepared to object.

3 Again, I'm talking about the return that has
4 been agreed to in the Settlement Stipulation. Won't
5 mention any nominal figures.

6 But in your experience, 300 some rate cases and
7 an understanding of the regulatory regime across the
8 country, how does that fall within a spectrum of return?
9 Is that midpoint, generally high, generally low?

10 THE WITNESS: I think it's generally low. The
11 allowed returns in 2010 have been substantially higher.
12 There have been a few lower. But the average is higher.
13 The median is higher. And many have been substantially
14 higher.

15 In my experience when you have a utility that
16 has a major piece of rate base like we have here,
17 Wygen III, it's worth a lot to the utility, and investors
18 recognize this value to get the case resolved, to get the
19 asset and rate base, and continue.

20 So I think the return is low by any national
21 standards, but I think it can be viewed as reasonable and
22 a fair rate of return in the context of a settlement of
23 this case where you have a substantial asset coming
24 online.

25 CHAIRMAN JOHNSON: Mr. Khorroosi had gotten a

1 little bit in asking about reasonable and fair return.
2 Maybe I'll ask it in a little bit of different way.

3 I mean, reasonableness can be measured on a
4 number of different characteristics. Is there any
5 characteristic whereby which you would argue that the
6 settlement return is unreasonable?

7 THE WITNESS: In the context of settlement I
8 think it is reasonable. If we were litigating this case
9 and you asked me if that return was a fair rate of return
10 for a litigated case, I would say no. Because I think it
11 is low by any national standard, and it's low by the
12 analyses that I've done.

13 CHAIRMAN JOHNSON: Thank you, Mr. Smith. That's
14 all for me.

15 MR. SMITH: Commissioner Kolbeck, you indicated
16 you had a question?

17 COMMISSIONER KOLBECK: He just answered it.
18 That last statement just answered it for me.

19 I do have a couple, though. You mentioned that
20 the IRP is not a concern for this company. Where did you
21 get that information?

22 THE WITNESS: In reviewing the bond rating
23 agencies, in reviewing the security analyst reports on
24 Black Hills Corporation and Black Hills Power I didn't
25 see references to that. I saw references to the rate

1 case. I saw references to the capital spending,
2 references to the Wygen III and its performance, under
3 budget, and those kinds of things are what -- you know,
4 these reports, and some of them are many pages, the
5 analyst talks about what is material, what they think
6 matters to investors.

7 And by the absence of discussion of the IRP, I
8 take from that it is not regarded as material.

9 COMMISSIONER KOLBECK: Okay. But you didn't see
10 anywhere where it said their IRP was good or bad?

11 THE WITNESS: No, sir. I did not.

12 COMMISSIONER KOLBECK: How about you were asked
13 a question about environmental concerns. Can you explain
14 to me how heavy that's weighed for this?

15 You mentioned in your testimony page 14, line 14
16 that environmental concerns are affected and electrical
17 utilities are affected by that. I was just wondering,
18 can you expand on that a little bit?

19 THE WITNESS: Yes. Investors don't like
20 uncertainty. And we don't know what the new
21 environmental laws are going to be. Clearly there is a
22 House passed bill. The Senate is considering many bills.
23 You have a utility in Black Hills Power that's heavily
24 dependent upon coal. Coal is obviously a target for a
25 lot of the proposals going around because of greenhouse

1 gas concerns, carbon concerns.

2 So the uncertainty about what the legislative
3 outcome of all of this will be weighs heavily on
4 investors. And when I do read these bond rating reports
5 and these equity analyst reports they all mention the
6 uncertainty over environmental rules.

7 COMMISSIONER KOLBECK: So, in other words, we're
8 all in the same boat? I mean, South Dakota looking at
9 this is no different than if it was happening in Kansas?
10 They're looking at the same environmental concerns as --
11 South Dakota looks at -- I'm sorry. A South Dakota
12 company is looked at the same way a Kansas company is
13 looked at?

14 THE WITNESS: It is. But there is this
15 difference. Let's take Texas. In Texas we have a lot of
16 nuclear power. We have a lot of natural gas-fired
17 generation. We have a lot of coal generation. We're
18 adding a lot of wind.

19 So coal is a relatively -- less important to
20 generation in Texas than it is in South Dakota. So while
21 the coal generation in Texas has the same concern as the
22 coal generation in South Dakota, because it's so much a
23 bigger part of the picture in South Dakota it
24 proportionately affects the companies more.

25 COMMISSIONER KOLBECK: Okay. All right. Thank

1 you. That answers my questions.

2 MR. SMITH: Commissioner Hanson, did you have
3 any questions?

4 COMMISSIONER HANSON: Yes, I do. And thank you,
5 Mr. Smith.

6 Mr. Avera, I appreciate your testimony very
7 much. I don't know why I was not real thrilled by taking
8 statistics when I was in college, but I do find you -- I
9 guess I surprise myself in this rate case that I found
10 this give and take between you and Mr. Frankenfeld to be
11 among the more interesting components of it.

12 Mr. Khorroosi asked you -- and while he made a
13 very strong point that utility has a low credit rating,
14 would that not require the utility to provide a higher
15 rate of return to attract capital?

16 THE WITNESS: Yes, sir, it does. Both for their
17 debt and equity. When the utility goes out to borrow
18 money the credit rating is one of the main determinants
19 of the yield that it has to pay to get investors to put
20 their money into those bonds. And those higher interest
21 rates stay with the company for 30 years. So the
22 customers of that company will pay more for 30 years.

23 And by the same token, and I have document
24 studies in my testimony, there is a correlation between
25 bond ratings and the cost of equity. The lower the bond

1 rating, generally the higher equity return is required to
2 satisfy investors' discomfort.

3 COMMISSIONER HANSON: Did you see in any
4 location in Senator Frankenfeld's testimony that he took
5 that into account?

6 THE WITNESS: No. I mean, Mr. Frankenfeld -- or
7 Senator Frankenfeld just looked at one company. He did
8 make reference to a couple of others in my group,
9 Great Plains and Westar, but he didn't take into account
10 the relative bond rating of Black Hills Power. Nor did
11 he understand that my group of 16 utilities was not
12 subjectively chosen. It was objectively based, among
13 other things, on bond ratings.

14 So I don't think he took into account that I
15 chose my group based on objective measures that we know
16 investors regard as significant.

17 COMMISSIONER HANSON: In your oral testimony you
18 spoke of three items that you felt would affect the rate
19 of return or the -- Senator Frankenfeld's analysis. And
20 you spoke quite a bit in your rebuttal testimony on one
21 of those.

22 You spoke of the floatation costs, and you felt
23 that that would add approximately 21 to 59 basis points
24 to the Frankenfeld recommendation. Those other two items
25 that you just spoke of orally, I don't recall reading

1 those in your written rebuttal testimony.

2 THE WITNESS: Well, I discussed them, but in
3 terms of taking the -- because I believe that that's why
4 Mr. Frankenfeld erred in looking only to one company or
5 saying that he could take some of the companies out of my
6 proxy group but not all.

7 But when I redid his numbers one thing that I
8 took account of was the fact that his numbers were
9 backward looking for Black Hills. They went all the way
10 to 2004. When an investor buys Black Hills Power stock
11 they do not get the past. They do not get what happened
12 in 2004. They get what happens in the rest of 2010, 2011
13 and forward looking.

14 So if we're going to try to replicate what
15 investors require, we should look to the future. So I
16 made the adjustment to his sustainable growth rate using
17 forward looking requirements and expectations of
18 investors. And that's how you get it above 10 percent.

19 The other adjustment I made is he looked at his
20 end result, and he said, well, if we take out the taxes,
21 it produces a more than 4 percent premium over the 6.18
22 bond yield of Black Hills Power's recent bond rating.

23 Well, you don't take out taxes. That's wrong.
24 So if you add taxes back in because taxes are taken into
25 account elsewhere in the revenue requirements, that too

1 indicates that you should be above 10 percent.

2 And I would also add that the 6.18 is a backward
3 looking number in itself. That was a -- a master stroke
4 that Black Hills Power achieved a very low interest rate,
5 which today, given today's bond yields, probably is
6 unavailable. And Mr. Frankenfeld said it was less than
7 they expected to pay and I can tell you other utilities
8 that have higher bond ratings issued bonds before and
9 after Black Hills and had to pay more.

10 COMMISSIONER HANSON: Thank you very much.
11 Thank you, Mr. Smith.

12 MR. SMITH: Thank you, Commissioner.

13 Other Commissioner questions?

14 CHAIRMAN JOHNSON: Mr. Avera, did you have an
15 opportunity to review Christopher James' testimony in
16 preparation?

17 THE WITNESS: No, sir. I don't think so.

18 CHAIRMAN JOHNSON: Okay. Thanks very much.

19 MR. SMITH: Any last Commissioner questions?

20 COMMISSIONER HANSON: Mr. Smith, I would ask
21 one, if I may.

22 In Frankenfeld's testimony he -- and you did
23 reply to this in yours. But he did make a point, pretty
24 strong point, that the -- we should be looking at what --
25 the regulators should be looking at what is the minimum

1 rate sufficient to attract capital.

2 However, in his testimony he stated that "In the
3 context of current economic conditions which have
4 litigating effects on investors' expectations of
5 returns" -- I don't wish to testify. I'm just wondering
6 from your standpoint are those conflicting?

7 And I'll have the opportunity to chat with
8 Mr. Frankenfeld about it as well. But how do you balance
9 those two statements?

10 THE WITNESS: Well, I think as to the minimum, I
11 think it needs to be sufficient to meet the Hope and
12 Bluefield standards of capital attraction and financial
13 integrity as well as comparable return. And as I
14 explained in my rebuttal, I think the methods that I have
15 used achieve that sufficiency.

16 And that is the minimum. You can certainly
17 allow a return higher I think under the Hope and
18 Bluefield. But what they say is you can't go any
19 lower.

20 As to the economic conditions, I think
21 Mr. Frankenfeld is correct that you've got to consider
22 economic conditions. And I think that's why it's
23 important to understand that his April 28 testimony was
24 in a much more positive environment than we now face.

25 Bond yields have gone down 14 percent since

1 April 14. The Dow Jones stock has gone down 7 percent
2 since April 28. So I think he is right you should
3 consider current economic conditions, but not as they
4 were in April as they are now and are likely to be in the
5 future.

6 COMMISSIONER HANSON: Thank you.

7 MR. SMITH: Any final Commissioner questions?
8 Commissioner Kolbeck.

9 COMMISSIONER KOLBECK: This is more just for
10 clarification, but if the return on equity is too low,
11 that causes no investment, which causes the company to go
12 into financial straits; correct?

13 That's kind of the whole gist of the return on
14 equity -- if it deters people from investing in the
15 company, the company can't get investors. The company
16 can't stay soluble. That's basically --

17 THE WITNESS: That's correct. You get in a
18 bankruptcy situation, and my experience with those is
19 everybody loses except the lawyers.

20 COMMISSIONER KOLBECK: And that's why this is --
21 that's why you're saying that low is good but too low is
22 very detrimental?

23 THE WITNESS: That is correct. And I think
24 there are costs to customers even beyond being down on
25 the ragged edge of bankruptcy.

1 Like we were mentioning when the company is able
2 to issue debt at very reasonable returns like 6.18, that
3 goes into the -- customers' bills for years into the
4 future.

5 Another thing that's important, if you have
6 financial distress as we've had off and on since 2008 in
7 this country, if you're low rated, you can't get money.
8 If there's a storm, if you have a major problem with one
9 of your plants and you need to buy something or you need
10 to enter a contract, if you're low rated, you know, it's
11 cash up front. If you have a high rating, then you can
12 make these arrangements, and you can get the resources
13 the customers need to keep the lights on.

14 So it's really important that the company have
15 its financial integrity.

16 COMMISSIONER KOLBECK: Thank you.

17 MR. SMITH: Mr. Rislov.

18 MR. RISLOV: Good morning. I just have one
19 question, and that pertains to the ownership profile of
20 the stockholders of the company.

21 Do you have any knowledge? Did you look into
22 that?

23 THE WITNESS: I haven't lately. I did
24 earlier -- or last year. And my memory then was that
25 most of the stock is owned by institutions, but that's

1 true for every stock. But relative to other utilities,
2 Black Hills has a relatively larger individual ownership.

3 And while it's hard to know who these are
4 because they're usually held in street name by Fidelity
5 or Merrill Lynch or one of the other brokerage firms,
6 there is evidence that suggests many of the individual
7 holders are in the Upper Midwest, are people, you know,
8 in the communities it serves.

9 MR. SMITH: Commissioners, have you concluded
10 your questions?

11 Okay. With that, Mr. Magnuson, do you have any
12 follow-on redirect to respond to Commissioner questions?

13 MR. MAGNUSON: I have no additional questions.

14 MR. SMITH: Okay. Mr. Khorroosi?

15 MR. KHOROOSI: Nothing further for me.

16 MR. SMITH: Staff.

17 MS. CREMER: Staff has nothing.

18 MR. SMITH: I think your testimony is concluded,
19 Mr. Avera, and you may step down.

20 THE WITNESS: Thank you, Mr. Smith.

21 (Discussion off the record)

22 CHAIRMAN JOHNSON: Mr. Smith, someone just asked
23 me to remind the folks on the telephone they should mute
24 their phones when they're not participating actively in
25 the hearing. Whoever suggested that, brilliance, for the

1 reminder.

2 MR. SMITH: Yes. That's good advice. We're in
3 recess until 10:30.

4 (A short recess is taken)

5 MR. SMITH: We're going to reconvene the hearing
6 in Docket EL09-018, Black Hills' application for a rate
7 increase.

8 Mr. Magnuson, please proceed to call your next
9 witness.

10 MR. MAGNUSON: Thank you, Mr. Smith. We would
11 call to the stand Kyle White.

12 (The witness is sworn by the court reporter)

13 DIRECT EXAMINATION

14 BY MR. MAGNUSON:

15 Q. Would you please state your name for the record.

16 A. Kyle D. White.

17 Q. And are you employed by Black Hills Power?

18 A. Yes. I am employed by Black Hills Power and Black
19 Hills Corporation.

20 Q. And what is your position?

21 A. I am vice president of regulatory and governmental
22 affairs.

23 Q. And if you would speak more directly into the mic.

24 Thank you.

25 How long have you been with the company?

1 A. Nearly 28 years.

2 Q. Have you testified before this Commission?

3 A. Several times.

4 Q. Let's start out by could you just give us a brief
5 description of the number of customers that are served by
6 Black Hills Power in the State of South Dakota?

7 A. We serve approximately 64,000 customers in the State
8 of South Dakota with retail electric service.

9 Q. Did there come a time when Black Hills Power filed
10 an application for a rate increase?

11 A. Yes. Black Hills Power filed with this Commission
12 an application to increase its base rates. That filing
13 was made on September 30, 2009.

14 Q. Why was it that Black Hills Power determined that it
15 was necessary to file this rate case?

16 A. A key driver in our need for increased rates is the
17 construction of Wygen III. It is a coal-fired power
18 plant that has been completed near the City of Gillette,
19 Wyoming.

20 MR. SMITH: Hello. Say, somebody has got their
21 phone on.

22 MR. TOWERS: Bob Towers.

23 MR. SMITH: Please mute your phones, everyone
24 that's on the line, on the phone lines.

25 MR. TOWERS: Okay.

1 MR. SMITH: Thank you very much.

2 A. We also filed this request to increase rates because
3 there have been other increases in our costs related to
4 providing safe and reliable service for our Black Hills
5 Power South Dakota customers.

6 Q. Did Black Hills Power request and receive from the
7 Wyoming Commission a Certificate of Public Convenience
8 and Necessity for Wygen III?

9 A. Yes. There were several permits that were required
10 before we could begin construction of the power plant.
11 And a key certificate was the Certificate of Public
12 Convenience and Necessity, which we applied for with the
13 Wyoming Public Service Commission. It was under their
14 jurisdiction because the power plant was constructed in
15 Wyoming.

16 They completed a thorough review of our application.
17 There was intervention in the proceeding on the part of
18 the Office of Consumer Advocate. And in March of 2008
19 they did issue the Certificate of Public Convenience and
20 Necessity, and the company began construction on the
21 power plant.

22 Q. Did Black Hills Power file for a rate increase in
23 the State of Wyoming?

24 A. Yes. Black Hills Power had similar needs for an
25 increase in the rates our Wyoming customers pay. And we

1 did file an application in much the same form as the
2 application that's before you today.

3 The Commission did recently issue a Bench Decision
4 approving a Settlement with the Office of Consumer
5 Advocate that resulted in an approximate 30 percent
6 increase in our Wyoming rates.

7 Q. Mr. White, would you please give us a general
8 description of the present status of Wygen III.

9 A. Yes. Wygen III went through its formal testing
10 earlier this year and was declared for commercial
11 operation April 1, 2010 and has been serving our
12 customers reliably since that time.

13 Q. And was that constructed under budget?

14 A. Yes. The plant was both constructed under budget
15 and was completed ahead of schedule. We have been
16 successful in doing that with our recent power plant
17 projects.

18 The original budget was for \$255 million for the
19 total cost of the plant, and the plant came in at just
20 shy of \$245 million total cost. We have asked for
21 52 percent of that construction cost to be included in
22 our base rates.

23 Q. Is Wygen III presently used and useful?

24 A. Yes, it is.

25 Q. And as of what date?

1 A. As of April 1, 2010.

2 Q. Could you please describe your role in the
3 application that was filed on September 30 of 2009.

4 A. As part of my responsibilities as a corporate
5 officer I provided leadership, direction, and support to
6 a team of employees, consultants, and attorneys that
7 prepared the application that's before you today.

8 Q. Did you prefile testimony in this matter?

9 A. Yes, I did.

10 Q. Is that prefiled testimony represented by
11 Exhibit 51?

12 A. Yes, it is.

13 Q. And was your prefiled testimony true and correct to
14 the best of your knowledge, information, and belief?

15 A. Yes.

16 Q. Are you adopting any prefiled testimony and exhibits
17 here?

18 A. Yes. I am adopting the prefiled testimony and
19 exhibits of Mr. Chuck Loomis, Mr. Stewart Wevik,
20 Mr. Mike McFadden, and I am adopting the portion of
21 Mr. Tony Cleberg testimony's that supports the cost of
22 capital and the noncost allocation manual and service
23 company costs that he testified to. That testimony will
24 be adopted by Mr. Kilpatrick.

25 Q. Have you reviewed the testimony and exhibits of

1 those witnesses whose testimony you are adopting?

2 A. Yes, I have.

3 Q. Are you familiar with the contents?

4 A. Yes, I am.

5 Q. Are you able to testify regarding the matters in the
6 testimony you are adopting?

7 A. Yes.

8 Q. Did there come a time when Black Hills Power reached
9 a settlement with Commission Staff?

10 A. Yes. We were successful in reaching a settlement of
11 the issues related to our request for a rate increase,
12 and we signed that on May 14, 2010.

13 Q. Was the result of those settlement discussions the
14 Settlement Stipulation that has been filed with this
15 Commission?

16 A. Yes.

17 Q. Are you here today testifying in support of the
18 Stipulation?

19 A. Yes, I am.

20 Q. Is that Stipulation represented by Joint Exhibit 2?

21 A. Yes, it is.

22 Q. You're familiar with the contents?

23 A. I am.

24 Q. Could you summarize, please, the significant
25 provisions in the Stipulation.

1 A. The Stipulation addresses several things. The key
2 items are that it provides for an increase in revenues to
3 Black Hills Power of 22 million -- or approximately
4 \$22 million. It has a return on rate base of
5 8.26 percent. The result is a revenue increase of about
6 12.7 percent.

7 It provides that Wygen III is used and useful and
8 beneficial to customers, both today and in the future.
9 There also are revisions to the energy cost adjustments
10 which provide for benefits to customers when compared
11 with the current energy cost adjustment tariffs approved
12 by this Commission.

13 It also provides for a three-year moratorium on our
14 ability to raise base rates. We cannot raise base rates
15 except under extraordinary circumstances as outlined in
16 the Settlement Stipulation prior to April 1, 2013. And
17 it also addresses some changes to how the company would
18 conduct future resource planning for Black Hills Power.

19 Q. Per the Settlement Stipulation, what is the date
20 that the rates set forth in the Settlement Stipulation
21 would be implemented?

22 A. The rates would be implemented April 1, 2010, the
23 date when Wygen III went into commercial operation.

24 Q. What is Black Hills Power requesting this Commission
25 to do?

1 A. Black Hills Power is asking that this Commission
2 approve the Settlement Stipulation between the Public
3 Utilities Commission Staff and Black Hills Power with an
4 effective date of April 1, 2010 and to provide
5 instructions regarding the refund that would be due
6 customers with interest because we were -- we implemented
7 interim rates effective April 1, 2010, and the rates
8 provided for herein are lower than those rates.

9 Q. Mr. White, in your opinion, are the rates set forth
10 in the Settlement Stipulation just and reasonable?

11 A. Yes.

12 Q. And why do you believe that?

13 A. Well, you have had the opportunity to review our
14 application. We have followed the practice in this state
15 of preparing a historical cost of service based upon a
16 historical test year with known and measurable
17 adjustments. We have gone through a lengthy and thorough
18 process of examination with Interveners as well as Staff.

19 There have been over 500 individual data requests
20 that the company responded to. Many of those data
21 requests were multiple parts. They resulted in over
22 15,000 pages of documents being provided to the Staff and
23 Interveners for their review and consideration.

24 We went through a challenging settlement negotiation
25 and the result of that settlement negotiation is the

1 Settlement Stipulation before you for your consideration,
2 which the signing parties believe and have stated results
3 in just and reasonable rates and is in the public
4 interest.

5 MR. MAGNUSON: Mr. Smith, I have no further
6 questions at this time.

7 MR. SMITH: Thank you.

8 Mr. Khorroosi, cross-examination, please.

9 MR. KHOROOSI: Thank you, Mr. Smith.

10 CROSS-EXAMINATION

11 BY MR. KHOROOSI:

12 Q. Good morning, Mr. White.

13 A. Good morning.

14 Q. You briefly mentioned the similar case in Wyoming.
15 That had -- you had settled with the Intervener in that
16 case; correct?

17 A. Yes. We settled with the Office of Consumer
18 Advocate and also with our large industrial customer.

19 Q. Okay. I guess I'd like to talk to you a little bit
20 about Mr. Wevik's testimony.

21 Black Hills Corporation has a lot of sister
22 corporations, some of which are in other states; correct?

23 A. Black Hills Corporation --

24 Q. I apologize. Black Hills Power has many sister
25 corporations in other states?

1 A. Yes. Black Hills Power is one of five direct
2 subsidiaries of Black Hills Corporation, and the other
3 subsidiaries, some of them have additional subsidiaries.
4 So we are a multifaceted energy corporation.

5 Q. In fact, Black Hills Corporation owns utilities in
6 other states.

7 A. Yes. Black Hills Corporation owns seven individual
8 utilities as legal entities.

9 Q. Black Hills Corp recently acquired the -- recently
10 acquired the Aquilo facility; is that correct? In
11 Colorado?

12 A. Yes. We closed on the purchase of five Aquilo
13 utilities in four states on July 14, 2008.

14 Q. And that included the electric utility assets in
15 Colorado?

16 A. Yes.

17 Q. Now Mr. Wevik had testified, and you're adopting his
18 testimony if I'm not mistaken, that there are a number of
19 benefits that Black Hills Power customers can expect to
20 reap from this new acquisition.

21 A. Yes.

22 MR. MAGNUSON: At this time I would ask that if
23 he's reading from Mr. Wevik's testimony, if he would
24 reference a page, please. And I would also note for the
25 record we're talking about Exhibit 7, which is

1 Mr. Wevik's testimony.

2 MR. KHOROOSI: Thank you, Mr. Magnuson. I'll
3 reference the page number.

4 Q. On page 7 of Mr. Wevik's testimony he cites a number
5 of benefits that Black Hills Power's customers can expect
6 to gain from the acquisition of the Aquilo plants.

7 Are you familiar with those, sir?

8 A. Yes.

9 Q. One of those -- one of those benefits is an access
10 to the intellectual resources, so to speak, of both
11 corporations; correct?

12 A. Yes.

13 Q. Okay. That would theoretically include resource
14 planning.

15 A. Yes. Part of the obligation of any electric utility
16 is resource planning.

17 CHAIRMAN JOHNSON: I'm sorry, Mr. White. Could
18 we maybe bring that microphone a little closer when
19 you're facing Mr. Khoroosi.

20 THE WITNESS: Thank you.

21 Q. Okay. I would like to draw your attention -- I'm
22 sorry. I have to look at the exhibit number -- to the
23 testimony of Mr. Loomis.

24 MR. MAGNUSON: For the record, that is
25 Exhibit 10.

1 Q. And Mr. Loomis references a demand side management
2 study that was in the works. Are you familiar with that?

3 A. Yes, I am.

4 Q. It hasn't been completed yet, has it?

5 A. No. We have chosen not to complete it at this
6 point.

7 Q. So it will never be completed?

8 A. That is not what I said. We have chosen to delay
9 our completion of the demand side management study. We
10 have done so because the Commission has opened a
11 proceeding and had a conference on June 23 looking into
12 energy efficiency and demand side management, and we felt
13 it would be prudent to wait and see what may come from
14 the Commission's consideration of these topics prior to
15 completing that study.

16 Q. So it's incomplete? Is that a yes, sir?

17 A. It is incomplete, yes.

18 Q. Okay. And it wasn't complete when you filed your
19 IRP.

20 A. When we filed our IRP where?

21 Q. In 2007, sir, in South Dakota.

22 A. No, it was not.

23 Q. Are you aware -- and you may not be. Are you aware
24 of the Aquilo electric utility's policy on how often it
25 files IRPs?

1 A. Am I familiar with some of the requirements in
2 Colorado for the filing of Integrated Resource Plans?

3 Yes, generally.

4 Q. Okay. How often does Aquilo file an updated
5 Integrated Resource Plan?

6 A. Under the electric resource plan that was completed
7 last year, we have an obligation to file another electric
8 resource plan in 2011.

9 Q. And your other utilities in other states typically
10 file an IRP every two years. Is that fair to say?

11 A. We have three electric utilities. Black Hills Power
12 operating in South Dakota, Wyoming, and Montana. And in
13 none of those states are we obligated to prepare and file
14 an Integrated Resource Plan.

15 We have Cheyenne Light, Fuel & Power, which operates
16 only in Wyoming, and it has no obligation. And we have
17 the Colorado electric utility --

18 Q. I'm sorry. Maybe I wasn't clear enough. I wasn't
19 asking about your legal obligations. I was wondering
20 about the practices of your sister corporations.

21 A. Our practice has been to prepare Integrated Resource
22 Plans when we see opportunities or needs that need to be
23 met in our resource planning area. They are expensive
24 processes, and we incur those expenses only on an
25 as-needed and justified basis unless required to do

1 otherwise by state mandate.

2 Q. Is it fair to say that you found it necessary to do
3 in many of those corporations approximately every two
4 years?

5 A. Well, we have only owned Aquilo since July of 2008.

6 Q. Yes.

7 A. And we were in dire need of preparing an electric
8 resource plan because we were about to lose 75 percent of
9 our resources under a purchase power agreement. So that
10 electric resource plan was an obligation of Aquilo and
11 was very important because we had a major need that
12 needed to be addressed cost effectively prior to the end
13 of 2011.

14 Q. So yes?

15 A. Our practice has been to do an Integrated Resource
16 Plan when necessary, unless otherwise agreed to or
17 required.

18 Q. Okay. You mentioned in your testimony here today
19 that the settlement agreement includes a three-year
20 moratorium on rate increases.

21 A. Yes.

22 Q. Okay. How long did it take you to -- from start to
23 end to build and obtain the necessary permits for
24 Wygen III?

25 A. Mr. Ohlmacher would be able to provide specific

1 details, but much of that work began in 2007 and
2 construction began in 2008 and we completed the plant in
3 approximately two years.

4 Q. And you're still, as we can see, in the process of
5 attempting to bring the plant -- get the plant up and
6 running and finalize your rate structure?

7 A. The plant is up and running and has been serving
8 customers since April 10.

9 Q. Okay.

10 A. Or April 1, 2010. We are in the process of getting
11 approval for the base rate increase that's necessary to
12 support the costs of that -- its operation.

13 MR. KHOROOSI: Okay. Thank you, sir. I have no
14 further questions.

15 MR. SMITH: Commission Staff.

16 MS. CREMER: Thank you, Mr. Smith. Staff has no
17 questions.

18 MR. SMITH: With that, we'll see if the
19 Commissioners have any questions of Mr. White.

20 Chairman Johnson.

21 CHAIRMAN JOHNSON: I'll want a minute to look
22 through my notes, but if my colleagues have anything, I
23 can look while they ask.

24 COMMISSIONER KOLBECK: I just have one. What is
25 Black Hills Power's ability to sell into the open market?

1 Do you have any?

2 THE WITNESS: Yes. Black Hills Power developed
3 after the 1995 rate case a power marketing function
4 within its utility. We maintain contacts with other
5 utilities and buyers and sellers of power throughout the
6 western United States. It's somewhat of a
7 relationship-based market opportunity.

8 So we have the opportunity when we have surplus
9 energy, more capacity, to sell it principally on a
10 short-term basis to other counterparties. And those
11 relationships also provide us opportunities to bring
12 economic power in when we might be required to utilize
13 natural gas-fired generation, and so we can provide
14 savings to customers that way.

15 COMMISSIONER KOLBECK: How much of that is in
16 your business plan or your -- is it a major part of your
17 generation, or is it just something that you can use
18 to -- like a balancing authority where you can sell that
19 power if you have it?

20 Is 90 percent of all your generation used on
21 your own customers, or do you have a percentage like
22 that?

23 THE WITNESS: I don't have a percentage, but our
24 primary service is to provide safe and reliable service
25 and meet our obligations under state law to retail

1 utility customers. We also have some wholesale contracts
2 that we're obligated to provide service to. I would say
3 that the power marketing is supplemental to the main
4 business, and that's providing customer service,
5 distribution, transmission, and power supply to our
6 customers that we serve on a long-term basis.

7 COMMISSIONER KOLBECK: So Wygen III wasn't built
8 or intended to be any sort of extra generation, any extra
9 money-making opportunity for Black Hills Power, more for
10 your own customers.

11 THE WITNESS: No. We're not in the business of
12 developing merchant generation. We developed the
13 resources necessary to meet our obligations to serve our
14 customers.

15 And Wygen III was an important element in our
16 ability to do that. Over the 20-year Integrated Resource
17 Plan period, as well as the 50-year service life that
18 Wygen III is expected to have.

19 COMMISSIONER KOLBECK: Thank you. Thanks.

20 MR. SMITH: Chairman Johnson or --

21 CHAIRMAN JOHNSON: I've got questions but --

22 COMMISSIONER HANSON: Go ahead.

23 CHAIRMAN JOHNSON: You mentioned a few
24 components of the settlement, Mr. White, but I think
25 there are at least two substantial components you didn't

1 address.

2 The first would be the power marketing income
3 revenues, which are split with rate payers under the
4 settlement.

5 Would you be the right witness to address that a
6 bit?

7 THE WITNESS: I can talk to it generally.

8 CHAIRMAN JOHNSON: Okay. I want to make sure
9 I'm understanding this right. And I'm looking on page 15
10 of the Staff memo that outlined the settlement.

11 It notes that a minimum PMI, which is power
12 market and income credit, of \$2 million will apply
13 regardless of the actual level of PMI.

14 Am I to essentially read that in saying that the
15 first \$2 million of power marketing revenue that
16 Black Hills Power secures in any given year will go
17 100 percent to rate payers?

18 THE WITNESS: What page are you on?

19 CHAIRMAN JOHNSON: Page 15 of the Staff
20 memorandum.

21 THE WITNESS: Thank you.

22 CHAIRMAN JOHNSON: And I'm at subpart C on the
23 top half of the page. Because subpart B does reference a
24 65 percent split. But given that the minimum credit is
25 \$2 million, functionally that means my understanding is

1 that the \$2 million PMI revenue goes 100 percent to rate
2 payers.

3 THE WITNESS: I would agree with one small
4 correction. PMI refers to power marketing income. And
5 so we're not speaking about revenue. We're speaking
6 about the profit opportunity related to power marketing
7 sales. And you are correct that the first \$2 million of
8 power marketing income is credited to the benefit of
9 customers, regardless of the company's success in
10 developing power marketing income during any particular
11 year.

12 CHAIRMAN JOHNSON: In addition to that
13 \$2 million PMI credit -- well, let me back up. I don't
14 see any limiter to that, any sunset.

15 As long as this rate is in effect that PMI
16 credit continues; is that right?

17 THE WITNESS: Should the Commission approve
18 these tariffs, that condition applies within the tariff
19 and would be required to have an application or a
20 revision or a future settlement of another rate case to
21 be modified.

22 CHAIRMAN JOHNSON: There have been other
23 agreements between -- there have been other rates in
24 place for Black Hills Power that have envisioned or have
25 had a split of this PMI. Am I right in remembering that

1 this is perhaps more generous to rate payers than past
2 agreements?

3 THE WITNESS: It's far more generous. The
4 previous agreements provided for a credit of power
5 marketing income, should the expenses of the customers
6 be -- or of the company for purchase power, fuel go up
7 during a calendar year, then it was a conditional
8 application.

9 This is not a conditional application. It's
10 more or less a guarantee that customers are going to get
11 \$2 million of benefit. And it recognizes that when you
12 add generation like we have with Wygen III it does come
13 with some surplus energy. And this gives the company a
14 strong incentive to go out and make a market for any
15 surplus energy that might be available in shoulder
16 periods and off-peak periods and the like.

17 CHAIRMAN JOHNSON: So to the extent Wygen III
18 does provide access surplus power and the extent if the
19 Commission were to adopt the settlement, almost
20 two-thirds of the benefits of the income from those
21 surplus sales would occur to rate payers, would flow to
22 rate payers.

23 Is that a proper understanding?

24 THE WITNESS: If you go to the provision B on
25 page 15 of the Staff memo, it is true that the company

1 has agreed that 65 percent of the power marketing income
2 will go to the benefit of customers on an annual basis.

3 CHAIRMAN JOHNSON: And that PMI wouldn't be --
4 I mean, that could flow from facilities other than
5 Wygen III. That would be all of the generation fleet
6 within Black Hills Power?

7 THE WITNESS: Yeah. It recognizes our
8 generation fleet for purchase power and any market
9 opportunities that we may create outside of the
10 generation that's supported by our customers' base rates.

11 CHAIRMAN JOHNSON: Are there any other states --
12 other jurisdictions, rather, do you have any provisions
13 like this dealing with PMI that are this favorable to
14 rate payers?

15 THE WITNESS: Absolutely not.

16 CHAIRMAN JOHNSON: I would move, if acceptable,
17 Mr. Smith, that -- discussing the second half of that
18 page, the Staff memorandum. And this talks about a
19 South Dakota surplus energy credit in year one of
20 \$2.5 million, in year two of \$2.25 million, and in year
21 three of \$2 million.

22 Mr. White, can you explain more about that
23 surplus energy credit?

24 THE WITNESS: What it recognizes is that when
25 you look at adding resources to benefit customers over a

1 long period of time, timing of those resources can be
2 sometimes a mismatch with what happens in the economy or
3 happens with customer growth.

4 What this recognizes is that during the next
5 three years customers in addition to the sharing of power
6 marketing net income and the \$2 million guarantee on that
7 income have experienced a \$2 and a half million reduction
8 in essentially base rates in year one that will phase
9 down over two years and then be eliminated after the
10 third year.

11 CHAIRMAN JOHNSON: So this is almost \$7 million
12 of cost mitigation or rate reduction that flows to rate
13 payers spread over three years; is that right?

14 THE WITNESS: That's correct.

15 CHAIRMAN JOHNSON: That -- and I don't want to
16 make any presumptions that aren't in the record here. I
17 mean, obviously with a settlement you don't -- you don't
18 see a lot of motivation or lie. You just it is what it
19 is and you all traded something for something and that's
20 how negotiations go.

21 But the impact of this to consumers -- I want to
22 make sure I understand this right -- is to reduce the
23 amount of money over three years that rate payers are
24 paying by almost \$7 million?

25 THE WITNESS: Yes. Plus you could add the

1 \$2 million a year guarantee on power marketing income and
2 add another 6 million to that.

3 CHAIRMAN JOHNSON: So that is \$15.75 million
4 that would flow to rate payers, cost mitigation, rate
5 deduction. Taken together, is that a -- in your
6 professional opinion is that a usual cost mitigating
7 measure?

8 Is this typical as a part of a settlement?

9 THE WITNESS: I have not experienced anything
10 like this previously.

11 CHAIRMAN JOHNSON: I might have some more follow
12 up, Mr. Smith, but I'll yield the floor for now.

13 MR. SMITH: Did you have questions, Mr. Hanson?

14 COMMISSIONER HANSON: Yes, Mr. Smith. Just a
15 couple of housekeeping, if I could, for myself.

16 Mr. White, when is the next Integrated Resource
17 Plan scheduled? Or do you have one scheduled?

18 The Settlement Stipulation talks quite a bit
19 about the IRP. Just curious when the next one's
20 scheduled.

21 THE WITNESS: I don't recall if we've agreed to
22 a specific date. But I would anticipate that we will
23 conduct another Integrated Resource Plan within the next
24 three to five years.

25 COMMISSIONER HANSON: What's the duration

1 usually of an IRP?

2 THE WITNESS: It depends on the utility.
3 Utilities that have growing service territories or have
4 aging resources would most likely do more frequent
5 Integrated Resource Plans. There are some states that
6 have Integrated Resource Plan obligations so that the
7 Commission has the opportunity to review periodically the
8 status of the utility and its plans to meet its
9 obligations to serve.

10 I would think that the three- to five-year
11 horizon was probably typical for most utilities.

12 COMMISSIONER HANSON: My question centered more
13 on -- I didn't phrase it quite properly.

14 How long does it take -- as opposed to duration,
15 how long does it take to perform an IRP?

16 THE WITNESS: Okay. An Integrated Resource Plan
17 has a requirement of, typically for us, hiring
18 consultants, making a work plan, gathering information,
19 doing modeling, reviewing the results, and preparing the
20 document. And it could be six months to a year process
21 and cost several hundred thousand dollars.

22 COMMISSIONER HANSON: The reason I asked was
23 there were some questions whether or not your most recent
24 IRP included all the components that it necessarily
25 should have. I'm curious how long -- the cost is

1 approximately a hundred thousand?

2 THE WITNESS: No. It could be several hundred
3 thousand dollars. And if it's a process that is
4 litigated before the Commission, it could get much more
5 expensive than that.

6 COMMISSIONER HANSON: Who ultimately makes the
7 decision -- or made the decision on whether or not
8 Wygen III would be constructed?

9 THE WITNESS: For Black Hills Power we made the
10 decision based upon integrated resource planning and our
11 knowledge of our system and our knowledge of the
12 resources that we have available to us today and what we
13 may have available to us in the future. And we decided
14 that it would be prudent to construct Wygen III.

15 We were required to get state permits in Wyoming
16 in order to construct the plant. So ultimately I would
17 say it was the State of Wyoming that got the opportunity
18 to decide whether we were allowed to build Wygen III.
19 But it was a decision of Black Hills Power.

20 COMMISSIONER HANSON: Who within the corporate
21 authority of Black Hills Power would make that decision?

22 THE WITNESS: We would have a review by a team
23 that is looking at resource planning. They would make a
24 recommendation to senior management. Senior management
25 would vet the information that's provided and decide

1 whether it would be appropriate to take it to our board
2 of directors. And ultimately a decision of this
3 magnitude would require an approval of our board of
4 directors and did receive that approval.

5 COMMISSIONER HANSON: Thank you.

6 Thank you, Mr. Smith.

7 MR. SMITH: Uh-huh. Additional Commissioner
8 questions of Mr. White?

9 CHAIRMAN JOHNSON: I would just note that I
10 think I had a math error. As I was adding 2 plus 2 plus
11 2 plus 2.25 plus 2.25 and plus 2 in my head, I forget the
12 I said, but I'm pretty sure it wasn't right.

13 THE WITNESS: I think it's a couple of million
14 dollars less than what you stated, Commissioner.

15 CHAIRMAN JOHNSON: That's a pretty big deal. Is
16 it 13.75? Yeah. Thanks.

17 MR. SMITH: Additional Commissioner questions of
18 Mr. White?

19 Hearing none, Mr. Magnuson, redirect?

20 MR. MAGNUSON: I have no redirect. Thank you,
21 Mr. Smith.

22 MR. SMITH: Mr. Khorroosi.

23 MR. KHOROOSI: Nothing further from me, sir.

24 MR. SMITH: Staff, any follow up to the
25 Commissioners?

1 MS. CREMER: No. Thank you.

2 MR. SMITH: With that, Mr. White, you're
3 excused. You may step down.

4 Black Hills, please call your next witness.

5 MR. MAGNUSON: Thank you, Mr. Smith. We would
6 call Chris Kilpatrick to the stand.

7 (The witness is sworn by the court reporter)

8 MR. MAGNUSON: Thank you, Mr. Smith. I've asked
9 the witness to have Exhibit 27 in front of him.

10 DIRECT EXAMINATION

11 BY MR. MAGNUSON:

12 Q. Would you please state your name for the record.

13 A. My name is Christopher J. Kilpatrick.

14 Q. And what is your position with the company?

15 A. My position is the director of rates for the
16 electric services.

17 Q. And what is your business address?

18 A. My business address is P.O. Box 1400, Rapid City,
19 South Dakota 57709.

20 Q. And how long have you been with the company?

21 A. Just a little over 10 and a half years.

22 Q. Have you previously testified before this
23 Commission?

24 A. Yes, I have.

25 Q. How many times?

1 A. Several.

2 Q. What role did you play in the application for a rate
3 increase?

4 A. My responsibilities was to prepare the Cost of
5 Service Study, which developed the revenue increase
6 needed. I also helped develop the energy cost
7 adjustments and was also responsible for developing
8 testimony.

9 Q. So you were responsible for the preparation of the
10 schedules?

11 A. Yes.

12 Q. When was the Application for a rate increase filed
13 with this Commission?

14 A. It was filed September 30 of 2009.

15 Q. Did you provide prefiled testimony along with that
16 Application?

17 A. Yes, I did.

18 Q. Is that testimony represented by Exhibit 27?

19 A. Yes, it is.

20 Q. Is the testimony represented by Exhibit 27 true and
21 correct to the best of your knowledge, information, and
22 belief?

23 A. Yes, it is.

24 Q. Would you please summarize your prefiled testimony.

25 A. My prefiled testimony developed the test year in

1 which the Cost of Service model was developed. The test
2 year was for the 12 months ending June 30, 2009.

3 My testimony also outlined the known and measurable
4 adjustments that were used in the Cost of Service model,
5 the primary one being the Wygen III power plant. I
6 developed the rate base for the Cost of Service model and
7 described the 13-month averages used in developing that.
8 And also outlined the adjustment clause.

9 Q. What Cost of Service model was used, and was it
10 previously used by Black Hills Power?

11 A. Yes. This was a consistent model that we've used in
12 the last several rate cases in South Dakota and is
13 consistent with South Dakota Law.

14 Q. Are you adopting the testimony and exhibits of
15 Larry Loos?

16 A. Yes, I am.

17 Q. Are those represented by Exhibits 45 and 46?

18 A. Yes, they are.

19 Q. And are you adopting the testimony and exhibits
20 of -- regarding any other prefiled testimony and
21 exhibits?

22 A. Yes. I'm adopting the testimony of Anthony Cleberg
23 as it relates to the cost allocation manuals and how
24 costs were allocated down to Black Hills Power.

25 Q. And the testimony of Anthony Cleberg is represented

1 by Exhibit 38?

2 A. Yes, it is.

3 Q. Have you reviewed the testimony and exhibits of that
4 testimony and exhibits that were prefiled and that you
5 are adopting?

6 A. Yes, I have.

7 Q. Are you familiar with the contents?

8 A. Yes, I am.

9 Q. Are you able to testify regarding the matters in
10 that testimony and exhibits that you were adopting?

11 A. Yes, I can.

12 Q. Mr. Kilpatrick, if you could, could you please
13 describe for the Commissioners what I'll refer to as the
14 discovery process that took place from the date of filing
15 of the Application and that took place between Black
16 Hills Power, Commission Staff, Black Hills Industrial
17 Interveners, and the RCC?

18 A. Sure. In general, as Mr. White testified to, there
19 was over 500 data requests submitted. Often those had
20 subparts as well so didn't tally those costs. But in
21 general a question would be asked. I would be probably
22 the point person in gathering that information and then
23 deliver the information to whoever asked the question and
24 also the other intervening parties.

25 Q. Approximately how many pages of documents were

1 provided in response to data requests?

2 A. There was over 15,000 pages submitted which did not
3 include the Excel working models of the Cost of Service
4 and other exhibits that we prepared. So I would say over
5 17,000.

6 Q. And were the responses and the documents that were
7 provided as part of the discovery process, were they
8 provided not only to Commission Staff but also to the
9 Black Hills Industrials and to the RCC?

10 A. Yes, they were.

11 Q. Basically everybody received copies of everything;
12 is that correct?

13 A. That's true.

14 Q. What was the relationship that you had with
15 Commission Staff regarding the data requests and the
16 discovery process?

17 A. Again, I was the primary point person since I was
18 responsible for the Cost of Service model. They would
19 request information. I would gather it, present it, and
20 if they had further clarifying questions, I would be the
21 person that they would ask that question to.

22 Q. In your opinion, do you believe that there was a
23 thorough review of the numbers and the responses to data
24 requests by Staff?

25 A. Absolutely.

1 Q. And why do you believe that?

2 A. Given the sheer volume of questions and the amount
3 of paper that we did develop in supporting our Cost of
4 Service model, it was the most thorough exam that I've
5 been a part of.

6 Q. And has a Stipulation been entered into by
7 Commission Staff and Black Hills Power in this matter?

8 A. Yes, it has.

9 Q. And that Settlement Stipulation is represented by
10 Joint Exhibit 2 and the exhibits attached to that?

11 A. Yes, it is.

12 Q. Are you familiar with the contents?

13 A. I am.

14 Q. What is the revenue requirement increase set forth
15 in the Settlement Stipulation?

16 A. As shown on page 4 of the Joint Exhibit No. 2, the
17 precise total revenue deficiency that we agreed to was
18 \$22,002,926.

19 Q. Have you reviewed the Staff memorandum that has been
20 filed in this matter?

21 A. Yes, I have.

22 Q. Page 2 of that Staff memorandum -- and I quote
23 "Staff accepted some company adjustments, made
24 corrections where necessary, modified other adjustments
25 using more recent actual data, and rejected those that

1 did not qualify as known and reasonably measurable."

2 Can you comment on that statement, please.

3 A. Yes. We filed our original Application with several
4 adjustments, through the discovery process of Staff and
5 Industrial Interveners, vetted those adjustments. Some
6 we agreed to. Some we didn't. And through the data
7 discovery process actually found a few others that should
8 have been made. And the settlement accurately reflects
9 the best information that we have today to support the
10 revenue.

11 Q. Did you work with Staff to gather the numbers that
12 were used in the Staff memorandum?

13 A. Yes. I did assist with that.

14 Q. And to the best of your information and knowledge do
15 you agree with the numbers that are represented in the
16 Staff memorandum?

17 A. Yes. Those numbers are accurate.

18 Q. Would you please turn to Exhibit 58 in the binders
19 in front of you, please.

20 Do you have Exhibit 58 in front of you?

21 A. Yes, I do.

22 Q. Could you please explain and review Exhibit 58 for
23 the Commission, please.

24 A. Sure. What this exhibit is attempting to accomplish
25 is give a quick one-page summary of what Wygen III going

1 into rate base means and how it compares to the CPCN that
2 was referred to earlier from Wyoming.

3 It begins with a total gross amount and then also
4 has some net reductions. Primarily, looking at line 12,
5 Black Hills Power had the opportunity to receive bonus
6 depreciation from the federal tax laws that were put into
7 place in 2009 which reduced the amount of rate base for
8 Wygen III.

9 And the bottom line, line 26, the almost \$27 million
10 in savings to customers has resulted in this Wygen III
11 coming into rate base at this point in time as compared
12 to the approved amount in the CPCN in Wyoming.

13 Q. Okay. Let's back up.

14 CHAIRMAN JOHNSON: I'm sorry to interrupt,
15 Mr. Magnuson. I want to make sure I'm following along.
16 You said Exhibit 55?

17 MR. MAGNUSON: 58.

18 CHAIRMAN JOHNSON: 58. Okay. Thank you.
19 Thank you. My apologies.

20 MR. MAGNUSON: I'll give a moment just to make
21 sure that you're able to have that exhibit in front of
22 you.

23 CHAIRMAN JOHNSON: I have it now, Mr. Magnuson.
24 Thank you very much. And if I could, Mr. Kilpatrick, you
25 talked about was it \$27 million worth of savings?

1 THE WITNESS: Approximately, yes. If you look
2 at line 26 on that page.

3 CHAIRMAN JOHNSON: Okay. And I'm sorry to make
4 you do this and I'll certainly go back and check the
5 record once it's all done, but can you repeat your answer
6 to that question?

7 MR. MAGNUSON: Actually, Commissioner Johnson,
8 I'm going to go back and reask some of those questions.
9 I was intending to anyway because Mr. Kilpatrick was
10 going a little more quickly through the document than I
11 had hoped.

12 So I will go back and go over some of those
13 numbers.

14 CHAIRMAN JOHNSON: Well, and my apologies for
15 not having this ready when you started your line of
16 questioning. Thanks.

17 Q. On Exhibit 58, Mr. Kilpatrick, looking at line 1,
18 what is the final amount paid for Wygen III?

19 A. Sure. The final amount on line one is the
20 approximately 244.6 million final cost of Wygen III.

21 Q. Okay. And then the next column says, "BHP Ownership
22 Percentage," and it shows 52 percent. Why is that
23 52 percent?

24 A. The 52 percent represents the amount that's going
25 into rates for Black Hills Power. The other

1 47 percent -- or excuse me. 48 percent represents other
2 third-party ownership in the Wygen III facility.

3 Q. So in the third column it shows a BHP total of
4 \$127.2 million. What does that number represent?

5 A. That is the total company for Black Hills Power cost
6 of Wygen III. That portion is then split between our
7 three jurisdictions, South Dakota, Wyoming, and Montana,
8 for our retail customers.

9 Q. And so the 52 -- the number 127.2 million is merely
10 represented by 52 percent of the \$244 million total cost;
11 is that correct?

12 A. That's correct.

13 Q. Okay. And then you've got some reductions there
14 represented by lines 3 through line 12; is that correct?

15 A. Yes, it is.

16 Q. Okay. One was accumulated depreciation. You began
17 giving your answer with regard to line 12, which is
18 indicated as the 50 percent federal tax bonus
19 depreciation.

20 What is this federal tax bonus depreciation, and how
21 did that come about?

22 A. Sure. Through the American Recovery Act passed by
23 the Federal Government we had an opportunity to receive
24 this 50 percent bonus depreciation.

25 In general what this means is Black Hills Power gets

1 to take this as an expense on its tax return and pay that
2 much less in taxes to the Federal Government.

3 Q. Is that bonus depreciation available at the present
4 time?

5 A. No. It expired as of December 31, 2009.

6 Q. So the reason that Black Hills Power was able to get
7 this 50 percent federal tax bonus depreciation was
8 because Wygen III was built when it was built; is that
9 correct?

10 A. Yes, it is.

11 Q. Then looking down at line 26, and it indicates rate
12 base savings, would you please just describe what that
13 number is and how you reached that conclusion.

14 A. Sure. The first point to look at is line 21, and
15 that was the amount approved in the CPCN by Wyoming,
16 which represents the \$255 million original budget divided
17 by the plant capacity of 100,000 to come up with a price
18 per kilowatt, or \$2,550 per kilowatt.

19 And when you compare that number to line 18 with
20 what is actually going into rate base on a per kilowatt
21 basis of 2,034, that savings to customers results into
22 approximately \$27 million of savings to customers on an
23 annual basis.

24 Q. So what that number represents -- that \$26.8 number
25 represents is the savings reduction from what it was

1 expected that Wygen III would cost based on the approved
2 Certificate of Public Convenience and Necessity in
3 Wyoming; is that correct?

4 A. Yes.

5 MR. MAGNUSON: I have no further questions for
6 this witness, Mr. Smith.

7 MR. SMITH: Thank you. Mr. Khorroosi,
8 cross-examination?

9 MR. KHOROOSI: We have no questions for this
10 witness. Thank you.

11 MR. SMITH: Staff? Cross-examination?

12 MS. CREMER: Thank you. Staff has no questions.

13 MR. SMITH: Commissioners, do you have questions
14 of Mr. Kilpatrick?

15 CHAIRMAN JOHNSON: I just might make a note. I
16 don't know if this is up on the internet yet, but it will
17 be shortly. Let's try to get it up before the end of
18 lunch maybe.

19 I have a couple of questions, but I've gone
20 first a couple of times so I'll pause and see if anybody
21 else wants to go ahead.

22 COMMISSIONER KOLBECK: I just wanted to make
23 sure -- it's an annual? Under the BHP total of your
24 Exhibit 58, that 26 million, that's an annual savings?

25 THE WITNESS: It is a savings as it relates to

1 rate base. It's not a revenue savings. But when you
2 calculate your rate base amount, that amount is a savings
3 from rate base.

4 COMMISSIONER KOLBECK: Okay. Okay.

5 CHAIRMAN JOHNSON: You had noted,
6 Mr. Kilpatrick, that on line 12 that 50 percent federal
7 tax bonus depreciation. That expired at the end of last
8 year?

9 THE WITNESS: That's correct.

10 CHAIRMAN JOHNSON: And Wygen III qualified for
11 that because it was some percentage completed prior to
12 that date?

13 THE WITNESS: Yes.

14 CHAIRMAN JOHNSON: And then, I mean, I'll speak
15 in general math because I don't have a calculator in
16 front of me, but that \$27 million of rate base savings,
17 some large proportion of that, maybe between 70 and
18 80 percent really came because of that federal -- that
19 stimulus benefit.

20 THE WITNESS: That's true.

21 CHAIRMAN JOHNSON: And then some smaller
22 portion, we'll say somewhere around 20 percent, if I'm
23 doing the math right, ultimately accrues to rate payers
24 because the plant came in under cost?

25 THE WITNESS: Yes.

1 CHAIRMAN JOHNSON: And by "under cost" I
2 should -- under the kW cost allowed by the Wyoming
3 Commission.

4 THE WITNESS: Correct.

5 CHAIRMAN JOHNSON: Thanks very much.

6 MR. SMITH: Commissioner Kolbeck.

7 COMMISSIONER KOLBECK: The other thing that I'm
8 just a little concerned on is the cost per kilowatt and
9 rate base and then the -- which would be line 18 and then
10 the 20.

11 Are those added together for a total cost per
12 kilowatt, or are they two separate figures?

13 THE WITNESS: Line 18 is the actual amount going
14 into rate base with this proceeding, and line 21 was what
15 was approved in Wyoming on the CPCN. So the difference
16 is what we're talking about.

17 COMMISSIONER KOLBECK: Okay. I got you.

18 MR. SMITH: Mr. Rislov.

19 MR. RISLOV: Hello. I'm going to page 15 of the
20 Staff memo.

21 THE WITNESS: Okay.

22 MR. RISLOV: And I'm looking at the bottom half
23 of the page. It would be subparagraph B. And I'm trying
24 to categorize those South Dakota surplus energy credits.

25 Would this be the adjustment that would reflect

1 matching of the plant being placed into service now?

2 THE WITNESS: I think that generally classifies
3 it correctly.

4 MR. RISLOV: Okay. Thank you.

5 MR. SMITH: Is that all, Greg?

6 MR. RISLOV: Yes.

7 MR. SMITH: Any additional Commissioner
8 questions?

9 Hearing none, Mr. Magnuson, any redirect?

10 MR. MAGNUSON: I just have one question.

11 REDIRECT EXAMINATION

12 BY MR. MAGNUSON:

13 Q. Mr. Kilpatrick, as we look at Exhibit 58 and we see
14 the rate base savings, is it true that because of that
15 rate base savings there is a reduction in the company's
16 revenue requirement with regard to this rate application?

17 A. Yes. That's correct.

18 MR. MAGNUSON: No further questions, Mr. Smith.
19 Thank you.

20 MR. SMITH: Thank you. Mr. Khorroosi, any follow
21 up to the Commissioner questions?

22 MR. KHOROOSI: No follow up. Thank you.

23 MR. SMITH: Ms. Cremer.

24 MS. CREMER: Staff has none. Thank you.

25 MR. SMITH: Mr. Kilpatrick, you're excused and

1 may step down.

2 Mr. Magnuson, do you wish to call another
3 witness before lunch? Hopefully we can.

4 MR. MAGNUSON: I'm certainly willing to start
5 with our next witness, if that's acceptable to the
6 Commission.

7 MR. SMITH: Commissioners, should we forge
8 ahead?

9 Okay. Please, let's proceed then.

10 MR. MAGNUSON: Thank you, Mr. Smith. We would
11 call Ms. Jill Tietjen to the stand, please.

12 (The witness is sworn by the court reporter)

13 MR. MAGNUSON: Mr. Smith, could I just have one
14 minute to make sure that this witness has the appropriate
15 exhibits in front of her?

16 MR. SMITH: Please. Yes.

17 MR. MAGNUSON: Thank you, Mr. Smith.

18 DIRECT EXAMINATION

19 BY MR. MAGNUSON:

20 Q. Would you please state your name for the record.

21 A. Jill S. Tietjen.

22 Q. And what is the name of your company?

23 A. Technically Speaking, Inc.

24 Q. And tell us what Technically Speaking, Inc. is.

25 A. Technically Speaking, Inc. is my consulting

1 business. I do consulting work in the electric utility
2 industry.

3 Q. And would you please set forth for the Commission
4 your educational background post high school.

5 A. I have a Bachelor of Science degree in applied
6 mathematics with a minor in electrical engineering from
7 the University of Virginia and a master's in business
8 administration from the University of North Carolina at
9 Charlotte. I'm a registered professional engineer in
10 Colorado.

11 Q. Would you please describe for the Commission your
12 work experience post college.

13 A. I began my career in the system planning department
14 at Duke Power Company in 1976. I worked there for five
15 years. Moved to Denver, Colorado and went to work in the
16 mining and coal division of Mobil Oil Corporation.

17 I joined Stone & Webster Management Consultants in
18 1984 and have been a consultant to the utility industry
19 since that point in time. I worked at Stone & Webster
20 from 1984 to 1992, at Hagler Bailly from 1992 to 1995, at
21 Stone & Webster Management Consultants from 1995 to 1997.
22 I was on the Staff at the University of Colorado at
23 Boulder from 1997 to 2000 when I also served as an
24 independent consultant.

25 Then I established the predecessor business to

1 Technically Speaking, Inc. in 2000 and have been out on
2 my own since 2001.

3 Q. Could you just describe for us generally then what
4 area of work you work in at the present time?

5 A. I work in the area of integrated resource planning
6 for utilities. I also do some fuel-related work.

7 Q. And how long have you worked with Black Hills Power?

8 A. I have done work off and on for Black Hills Power
9 since at least 1992.

10 Q. And in what capacity or what type of work have you
11 done for Black Hills Power since 1992?

12 A. I have done planning-related work for Black Hills
13 Power since 1992, integrated resource planning,
14 evaluation, writing of Requests For Proposals, and
15 evaluations of planning-related topics.

16 Q. So just for the purposes of clarification, you are
17 not an employee of Black Hills Power; is that correct?

18 A. I am not an employee of Black Hills Power.

19 Q. And you work with Black Hills Power on an
20 independent contract basis?

21 A. Yes.

22 Q. Have you previously provided testimony to this
23 Commission?

24 A. I have provided written testimony previously.

25 Q. And have you -- did you prefile testimony in this

1 case?

2 A. Yes.

3 Q. And is that testimony represented by Exhibit 14 with
4 the attached exhibits, Exhibit 15 and Exhibit 16?

5 A. Yes.

6 Q. Could you please summarize for the Commission your
7 prefiled testimony.

8 A. My prefiled testimony starts with an overview of
9 integrated resource planning. It then documents the work
10 process that was conducted for doing the Integrated
11 Resource Plan for Black Hills Power. It talks about all
12 of the assumptions that were required, the load forecast,
13 the fuel prices, the market prices, the planning reserve
14 margin assumption that was used, the emissions costs that
15 were assumed, as well as the resources that were provided
16 as options in the Integrated Resource Plan.

17 It provides the key results of that plan, which is
18 the listing of the resources that were selected over the
19 entire 20-year planning horizon that indicated that the
20 2010 resource of choice -- that means the economic's
21 choice -- was Wygen III in 2010.

22 It also enumerated other resources required over the
23 planning period that the modeling indicated would be
24 wind, natural gas, power purchase agreements. Then
25 described all of the sensitivity analysis that was

1 conducted and concluded that Wygen III was the resource
2 of choice.

3 We also described the conditions that had changed in
4 the marketplace since the Integrated Resource Plan was
5 conducted in 2007 and described why the analysis that was
6 conducted actually considered those kinds of changes over
7 that time and that the conclusion still was that with the
8 assumptions that were known in 2007 Wygen III was the
9 resource of choice.

10 Q. Now, Ms. Tietjen, do I understand that Exhibit 16 is
11 the Integrated Resource Plan that you prepared?

12 A. Yes.

13 Q. And was that prepared with any assistance?

14 A. It was prepared with a lot of assistance. There was
15 a team from Black Hills Power that was involved in the
16 preparation of the report. The firm that did the
17 modeling at the time was called Global Energy Decisions.
18 Today it's called Ventyx, although I think they were just
19 acquired, and I think it's a slightly different version
20 of that name, something like Ventyx part of ABB. And
21 there was much anticipation in the result evaluation by
22 the management of Black Hills Power.

23 Q. Now looking at Exhibit 16, I just want to make sure,
24 when was that IRP completed?

25 A. It was completed in September of 2007.

1 Q. And then for the purposes of my questions is it okay
2 if I refer to what was formally known as Global Energy
3 Decisions -- if I just refer to them as Ventyx, will you
4 understand what I mean?

5 A. I'll be fine with that.

6 Q. Now were you aware that Black Hills Power requested
7 and received from the Wyoming Commission a Certificate of
8 Public Convenience and Necessity for Wygen III?

9 A. Yes.

10 Q. And did you testify at that Wyoming hearing with
11 regard to the CPCN application?

12 A. Yes, I did.

13 Q. Now with regard to your prefiled testimony
14 represented by Exhibit 14, is that true and correct to
15 the best of your information, knowledge, and belief?

16 A. Yes.

17 Q. Ms. Tietjen, would you please just outline for us
18 what the purpose is of an Integrated Resource Plan. And
19 will we understand if I just refer to it as an IRP?

20 A. Yes. The purpose of an Integrated Resource Plan is
21 to look at a planning horizon, in this case we used the
22 next 20 years, to determine over that period of time what
23 are the resources that are needed to meet the demands of
24 customers for electricity in the most economic and
25 reliable manner, subject to a wide variety of constraints

1 and assumptions, constraints being environmental
2 regulations, the requirements of the customers for
3 electricity, and ensuring that those are the -- oh, and
4 sometimes there's also in some states a requirement for
5 renewable resources. That's called a Renewable Portfolio
6 Standard. Looking at the entire planning horizon and
7 selecting the resources that are needed to meet those
8 requirements.

9 Q. To the best of your information, does South Dakota
10 have statutory requirements on how to conduct or prepare
11 an IRP?

12 A. Not to my knowledge.

13 Q. Do other states have statutory or regulatory
14 requirements on how to conduct or prepare an IRP?

15 A. Yes.

16 Q. Would the IRP that you prepared for Black Hills
17 Power that is represented by Exhibit 16 have met the
18 requirements of states that have statutory requirements
19 regarding IRPs?

20 A. The large majority of them.

21 Q. Approximately how many Integrated Resource Plans
22 have you personally prepared?

23 A. Quite a number. Somewhere in the vicinity probably
24 of 20.

25 Q. And that's 20 for entities including Black Hills

1 Power but including other entities?

2 A. That's correct.

3 Q. Approximately how many IRPs have you prepared for
4 Black Hills Power?

5 A. This would be the fourth.

6 Q. Would you please walk us through the background and
7 the work that you did in preparing the IRP that's
8 represented by Exhibit 16.

9 A. Normally, and as was the case here, there's some
10 kind of a preliminary discussion that the Integrated
11 Resource Plan needs to be conducted and would I be
12 interested in participating.

13 There is always a series of meetings. There were
14 series of meetings. We started actually working on this
15 Integrated Resource Plan in 2006.

16 Kickoff meetings, meetings with the company,
17 meetings with the modeling firm to make sure that the
18 assumptions were specified across all of the various
19 assumptions that needed to be agreed upon. Meetings back
20 and forth between the modeling firm and the company and
21 me.

22 Meetings with management of the company that then
23 resulted in -- in this case we actually revised almost
24 all of the input assumptions and redid all of the
25 analysis and then the documentation that takes place and

1 the final vetting of the report with the company before
2 it's published.

3 Q. Ms. Tietjen, I'd like to back up just a little bit.
4 Was Ventyx the firm that provided the modeling with
5 regard to the IRP?

6 A. Yes.

7 Q. Who was it from Ventyx that you were working with?

8 A. I worked with Doug Buresh and Diane Crockett.

9 Q. Where are they located?

10 A. They're in Kansas City, Missouri.

11 Q. And who was it that retained Ventyx?

12 A. I retained Ventyx.

13 Q. And why did you retain Ventyx?

14 A. I retained them because we felt -- I felt that that
15 was a better business model and to maintain the
16 independence of the modeling from the company such that I
17 was overseeing the modeling.

18 Q. Can you give us some type of an estimate of the
19 amount of time that you spent on the Integrated Resource
20 Plan that is represented by Exhibit 16?

21 A. I believe it would be categorized as months.

22 Q. Months?

23 A. Months.

24 Q. Thank you. Now are you aware that Black Hills Power
25 and the Commission Staff reached a settlement in this

1 matter?

2 A. Yes, I am.

3 Q. And your understanding is that the result was the
4 Settlement Stipulation that was filed with this
5 Commission?

6 A. Yes.

7 Q. Ms. Tietjen, was there a time that you filed
8 rebuttal testimony in this matter?

9 A. Yes.

10 Q. Is that rebuttal testimony represented by
11 Exhibit 55?

12 A. It is.

13 Q. Would you please summarize your rebuttal testimony.

14 A. My rebuttal testimony addresses two primary issues.
15 One was the demand side management assertion by Mr. James
16 that demand side management and energy efficiency would
17 have been sufficient if implemented to be used as a
18 resource instead of Wygen III. And I rebutted that. I
19 did not agree with that.

20 And then I rebutted the testimony of Mr. Schlissel
21 that the carbon dioxide tax assumptions and emissions
22 costs used in the integrated resource planning model were
23 not appropriate or adequate and discussed that I didn't
24 agree with that either, that there was very significant
25 sensitivity analysis conducted on the carbon dioxide

1 taxes looking at a high range of costs and that,
2 therefore, the analysis that was done had adequately
3 considered potential impacts of carbon taxes or carbon
4 cap and trade programs.

5 Q. Ms. Tietjen, in your opinion was the IRP that you
6 prepared properly prepared, and did it support the
7 addition of Wygen III as a resource addition for
8 Black Hills Power?

9 A. Yes.

10 Q. And why do you have that opinion?

11 A. The IRP was a very comprehensive analysis looking at
12 the load forecast, the prices, the environmental
13 conditions through a very significant range of
14 sensitivity analysis, lower gas prices, higher carbon
15 taxes, and through that analysis over a very broad range
16 of potential features the Wygen III resource is the
17 resource of choice in this IRP.

18 MR. MAGNUSON: That's all the questions I have
19 for this witness.

20 Thank you, Mr. Smith.

21 MR. SMITH: Thank you. Mr. Khorroosi, are you
22 ready to go with cross?

23 MR. KHOROOSI: Yes, I am. We may have to break
24 for lunch in the middle, if that's okay.

25 MR. SMITH: Yes.

1 MR. KHOROOSI: Sorry. Yes. I can begin.

2 MR. SMITH: I mean, if we get to that point, you
3 know, depending on what the Commissioners' preferences on
4 lunch break, we can take a break and resume if we have
5 to.

6 MR. KHOROOSI: Okay.

7 CROSS-EXAMINATION

8 BY MR. KHOROOSI:

9 Q. Good morning, Ms. Tietjen.

10 A. Good morning.

11 Q. My name is Sam Khoroosi, and I'm here on behalf of
12 the Residential Interveners. I'd like to start with your
13 rebuttal testimony, if I could.

14 MR. SMITH: Can you maybe yank that mic a little
15 closer, Sam, if you would, please.

16 MR. KHOROOSI: Sure.

17 Q. Beginning with your rebuttal testimony,
18 Ms. Tietjen -- or actually I'm sorry. Why don't I start
19 with a couple of preliminary questions.

20 Now you've been working with Black Hills Power since
21 1992 as an independent contractor?

22 A. I have worked on projects for Black Hills Power off
23 and on since 1992. From 1992 to 1993 I worked on an
24 Integrated Resource Plan, and then I did not do any work
25 for them again until 2003.

1 Q. Okay. Now would you say you testify a great deal
2 before regulatory boards such as this?

3 A. I testify on occasion. I believe my testimony was
4 about 30 occurrences. I'm not at the 300 level of the
5 former witness.

6 Q. Okay. And of those 30 -- which is still impressive,
7 by the way. Of those 30 appearances, how many were on
8 behalf of a utility?

9 A. Four, I think.

10 Q. Okay.

11 A. Actually there's probably a list that I could go
12 through and count, but I don't know that it's here in the
13 materials.

14 Q. That's okay. An approximation is fine. How many
15 were rate cases?

16 A. This is the second rate case.

17 Q. Okay.

18 A. Actually I guess it's probably the third.

19 Q. Did you appear for Black Hills Power during their
20 last rate request?

21 A. I don't know when their last rate request was.

22 Q. Did you appear pursuant to that last IRP you
23 performed for them?

24 A. I have -- I have appeared in CPCN hearings for them,
25 and there is not a regulatory process related to IRPs in

1 either Wyoming or South Dakota for Black Hills Power.

2 Q. That's correct. But did you -- did you make
3 appearances -- did you make an appearance to discuss your
4 IRP in front of a regulatory commission for the last IRP
5 you prepared for Black Hills Power?

6 A. Yes. In Wyoming.

7 Q. You had been asked about the purpose of an IRP and
8 some general background questions. In your opinion is it
9 responsible for a utility to conduct regular resource
10 planning?

11 A. Utilities conduct planning all of the time. That
12 was my job, my full-time job when I worked for Duke Power
13 Company. That's what I did day in and day out.

14 And, yes, it is really quite normal for utilities to
15 conduct planning on a regular basis in support of their
16 operations.

17 Q. Okay. And you believe it's a responsible practice
18 to update that plan.

19 A. I think I just said that they do it fairly
20 continuously.

21 Q. Okay. So that's a yes then?

22 A. Yes.

23 Q. Okay. Do you regularly retain Ventyx to do your
24 modeling?

25 A. I believe I've only retained them one time.

1 Q. Okay. I'd like to turn to your rebuttal testimony
2 now. At page 4.

3 A. This is Exhibit 55, page 4?

4 Q. Yes. You state at line 21, "Some DSM programs are
5 cost-effective. Others are not. Some programs are very
6 expensive to implement and require significant marketing
7 and incentives/rebate dollars."

8 What criteria do you use to determine the
9 cost-effectiveness of a DSM program?

10 A. I don't personally conduct these DSM studies. There
11 are many firms available in the U.S. that do conduct
12 studies that are called economic potential studies for
13 demand side management that look at a variety of
14 different standard tests that are available in the
15 industry to determine if demand side management programs
16 are cost-effective.

17 Q. Okay. So you didn't have any personal criteria in
18 preparing this -- the 2007 IRP for Black Hills Power.

19 A. I don't think I understand your question.

20 Q. You did not -- did you have any -- did you examine
21 DSM programs when you were preparing this IRP?

22 A. Yes. We looked at the existing demand side
23 management programs that were in effect at Black Hills
24 Power. And those are enumerated in one of the data
25 request responses. Looked at what those programs were.

1 And so, yes, we did look at DSM programs.

2 Q. Okay. And how did you determine whether those
3 programs were effective or not?

4 A. There was not a decision made as to whether new DSM
5 programs were cost-effective or not, which is what this
6 particular line of rebuttal testimony is referring to.

7 When a consulting firm normally does a study to look
8 at the cost-effectiveness of DSM programs there are a
9 series of measures, demand side management measures, that
10 are identified. And then the demographics of a service
11 territory are examined. A saturation of existing
12 appliances is determined. The penetration of potential
13 demand side management programs are looked at.

14 And then the costs to implement the DSM programs are
15 compared with the benefits of those programs to determine
16 if these new demand side management programs are
17 effective. And that process was not undertaken as part
18 of the 2007 IRP.

19 Q. Okay. What references did you use in making your
20 determinations on demand side management for the IRP?

21 A. We used existing documentation that Black Hills
22 Power had put together on their existing demand side
23 management programs.

24 Q. So what you're saying is you did not research demand
25 side management?

1 A. Demand side management and economic and technical
2 potential study had not been conducted at the time of the
3 preparation of the 2007 IRP.

4 Q. The one that ultimately led to the determination
5 that Wygen III was necessary.

6 A. The IRP that looked at resources that concluded that
7 Wygen III was the resource of choice for the demonstrated
8 need for new capacity over the planning horizon.

9 Q. Now when you speak about the cost-effectiveness of a
10 demand side management program from whose perspective are
11 you looking?

12 Are you looking from the perspective of the utility?
13 Are you looking from the perspective of society at large?
14 Any particular party? Who are you looking from?

15 A. When an economic potential study is conducted, the
16 costs and the benefits are compared so that the costs are
17 the costs that the utility might incur. The costs that
18 customers might incur. As well as the benefits that
19 result from and for the customers and the utilities.

20 So it's the costs and the benefits all around,
21 basically for 360 degrees, everyone that's involved when
22 you do that type of a study.

23 Q. On page 2 of your rebuttal testimony you had
24 rebutted Mr. James' conclusion that a 1 percent -- the
25 1 percent per year peak to management reduction would

1 only achieve a 6 megawatt savings.

2 You were assuming -- you were assuming that it would
3 only have a life of one year?

4 A. If Mr. James meant 1 percent per year, that was not
5 what I understood from the way his testimony was written.

6 A 1 percent savings in peak demand for a year on the
7 Black Hills Power system is about 3 or 4 megawatts a year
8 over the planning horizon of 20 years.

9 Q. How many other separate utility companies have you
10 conducted IRPs for approximately?

11 A. Probably five or six.

12 Q. How often do they update their IRPs?

13 A. It depends on the regulatory requirement for them to
14 update their IRP and file it.

15 Q. They do it regularly?

16 A. As required by regulatory mandate.

17 Q. Exclusively?

18 A. The Integrated Resource Plans that I've been
19 involved with are all required -- except for those at
20 Black Hills Power and affiliate companies, are all as
21 required by regulatory mandate.

22 Q. Well, you seem to think it's important in your
23 rebuttal testimony that there is no requirement in
24 South Dakota that Black Hills Power conduct an IRP;
25 correct?

1 A. My recollection is that I made a statement that
2 there is no requirement for Black Hills Power to file an
3 IRP in South Dakota.

4 Q. And there is no statutory or regulatory requirement
5 that Black Hills Power implement a DSM program. And you
6 chose to mention that?

7 A. That is also my understanding.

8 Q. Was there some kind of legislation or order or
9 regulation that forced Black Hills Power to construct
10 Wygen III?

11 MR. MAGNUSON: Objection. Argumentative.

12 MR. SMITH: Sustained.

13 Q. Ms. Tietjen, I'm clearly not a scientist. I was
14 curious as to how you saw the difference between demand
15 side management and energy efficiency.

16 Could you elaborate on the difference between those
17 two for me?

18 A. Energy efficiency is a component of demand side
19 management resources, as are demand response programs.

20 Demand side management in a broad sense, not an
21 official definition -- we'll just call it my
22 definition -- means that there is an attempt to influence
23 the peak demand and/or the energy of customers and that
24 that is done as part -- so that the load forecast, the
25 peak demand, and the energy forecast do not grow at the

1 same rate as it would without that implementation of
2 demand side management resources.

3 Q. What sort of specific programs do you typically
4 associate with demand side management?

5 A. Demand side management programs vary according to
6 the location in the country, vary depending on the
7 demographics, the weather.

8 Demand side management programs can include such
9 kinds of programs as replacement of refrigerators with
10 more efficient refrigerators, replacement of washing
11 machines, replacement of dehumidifiers, which is not an
12 effective program where I live in Colorado, replacement
13 of central air conditioning units or control of central
14 air conditioning units, energy audits of buildings such
15 as this to determine if there could be steps that could
16 be taken to minimize energy usage, putting in new windows
17 in a home, putting in --

18 All of those kinds of programs that -- a demand
19 response program is done limiting or having an ability to
20 ask an industrial customer to actually turn off pieces of
21 equipment or stopping business in order to reduce peak
22 demand on a certain day.

23 And I'm sure there are -- oh, lighting. Compact
24 florescent light bulbs. I mean, there is just many,
25 many, many programs. I think there are literally

1 thousands of potential measures for demand side
2 management.

3 Q. Ms. Tietjen, in all of your years of experience have
4 you ever seen an efficiency program that was more
5 expensive to implement than building new generation?

6 A. Actually early in my career every demand side
7 management program that I evaluated was more expensive
8 than building new generation. So the answer to your
9 question is yes.

10 Q. I asked you about efficiency programs.

11 A. I -- I don't know the answer to that question.

12 Q. Have you ever seen one that was more expensive than
13 building new generation?

14 A. I have seen many programs, and many of them require
15 incentives. Many of them require rebates for customers
16 to take action. They require marketing dollars. They
17 require extra personnel at utilities. They require a
18 tremendous amount of effort.

19 And one of the biggest issues for a utility that has
20 a legal obligation to serve is that you can give
21 customers, for example, compact florescent light bulbs,
22 and they may or may not actually put them in. And when
23 you install a new refrigerator --

24 Q. Is that a yes, no, or I don't know?

25 MR. MAGNUSON: I'll object on the basis he asked

1 the question; he needs to let the witness finish her
2 answer.

3 MR. SMITH: Overruled.

4 A. Please restate your question.

5 Q. In all of your years of experience have you ever
6 seen an efficiency program that was more expensive than
7 building new generation?

8 A. Yes.

9 Q. Okay.

10 MR. KHOROOSI: Before I begin my next line of
11 questioning, I would note that it's 5 after 5 (sic). It
12 might take a while. I don't know if the Commission would
13 like to break at this point.

14 MR. SMITH: Commissioners, preference?

15 CHAIRMAN JOHNSON: I don't have any problem
16 keeping going.

17 MR. SMITH: Okay. Are you okay?

18 THE WITNESS: Yeah. I just forgot my water
19 bottle.

20 MR. SMITH: I mean, do you need a break,
21 Mr. Khoroosi?

22 MR. KHOROOSI: I wouldn't mind one, but if
23 everyone's willing to --

24 MR. MAGNUSON: Frankly, Mr. Smith, I would
25 prefer that we just continue on and see how far we can

1 get.

2 MR. SMITH: I wouldn't mind doing that. If
3 somebody needs a break for personal reasons, let me know.
4 Why don't we take a five-minute break. How is
5 that?

6 MR. KHOROOSI: Thank you.

7 (A short recess is taken)

8 MR. SMITH: The hearing will be reconvened
9 following a brief five-minute recess. Again, the case is
10 Docket EL09-018 application of Black Hills Power for a
11 rate increase.

12 Mr. Khorooosi, please resume your
13 cross-examination.

14 MR. KHOROOSI: Thank you, Mr. Smith. And thank
15 you, Ms. Tietjen, for your patience.

16 Q. (BY MR. KHOROOSI) Are you familiar with the
17 Midwest Governor's Association's commitment to achieve
18 2 percent of annual electricity sales through energy
19 efficiency by 2015?

20 A. I just read about it in Mr. James' testimony.

21 Q. And so beyond that you're not familiar with the
22 goal?

23 A. I am not.

24 Q. Okay. You are aware that that's a goal that the
25 Governor of this state has set?

1 A. I am not.

2 Q. When you completed your 2007 IRP that didn't -- it
3 wasn't restricted to Black Hills Power; correct?

4 A. The 2007 IRP is not restricted to Black Hills Power.

5 Q. In fact, that -- in fact, it covers all of Black
6 Hills Corporation.

7 A. I do not believe that is the case.

8 Q. Okay. What is the scope, in your opinion?

9 A. It's a combined system for Cheyenne Light, Fuel &
10 Power and Black Hills Power.

11 Q. As far as consideration of alternatives, did you --
12 did you give any consideration to demand side management
13 or energy efficiency as an alternative to building new
14 generation?

15 A. Black Hills Power has a whole slate of demand side
16 management programs that are already in effect, and all
17 of the savings, energy and peak demand savings, from the
18 existing programs are recognized as part of the existing
19 load and over the planning horizon in the load forecast.

20 So demand side management is actually already
21 considered to be imbedded in Black Hills Power's
22 planning.

23 Q. So you didn't feel another study was necessary in
24 2007?

25 A. I don't understand that question.

1 Q. You did not feel another energy efficiency study was
2 necessary.

3 A. Another energy efficiency study?

4 Q. Or I'm sorry. An energy efficiency study.

5 A. At that point in time there was not an energy
6 efficiency study that was conducted.

7 Q. Did you request that one be conducted, any study of
8 energy efficiency or demand side management
9 possibilities?

10 A. I did not request that, no.

11 MR. KHOROOSI: Okay. Thank you. I have nothing
12 further.

13 MR. SMITH: Commission Staff.

14 MS. CREMER: Thank you, Mr. Smith. Staff has no
15 questions.

16 MR. SMITH: Commissioners.

17 Commissioner Hanson.

18 COMMISSIONER HANSON: So accustomed to being
19 third that I work on other things.

20 Ms. Tietjen, I appreciate your testimony. And
21 you don't have to make reference. I'll probably refer to
22 a couple different pages in your rebuttal testimony. I
23 doubt that you'll have to jump there.

24 But on page 7 you refer to sensitivity and
25 stochastic analysis that was conducted. What is

1 stochastic analysis?

2 THE WITNESS: Stochastic analysis -- let's just
3 see if there's -- there's an explanation of the analysis
4 that was conducted on pages 47 and 48 and 49 of what's
5 now been labeled exhibit -- sorry. It was Exhibit JST-2.
6 It's now Exhibit 16.

7 COMMISSIONER HANSON: Thank you. That's
8 probably a better reference. I missed that. I
9 appreciate you -- and I won't take up the --

10 THE WITNESS: The basic concept without reading
11 the words is that using uncertainty analysis for
12 different parameters, you look at developing alternative
13 futures through that range of uncertainty analysis so
14 that you're not just looking at what would be a base
15 case, a low case, or a high case but combinations of
16 different parameters from the variables that are outlined
17 on page 48 in table 21. You construct different
18 scenarios using probability analysis.

19 COMMISSIONER HANSON: Thank you. In your
20 rebuttal testimony you refute the statistics that -- the
21 conclusions that Mr. James arrives at, especially the
22 area of the 1 percent in peak demand where he makes an
23 effort to show that with some energy efficiency, demand
24 side management, et cetera, that significant reduction
25 could take place and Wygen III would not need to have

1 been built.

2 I understood it the way you apparently
3 understood it, that the -- I think it's pretty clear that
4 the intent was that that amounted to 120 megawatts per
5 year.

6 And as Mr. Khorroosi was asking you the question
7 it almost sounded as if it was supposed to be 6 megawatts
8 or 4 megawatts per year. Do you understand Mr. James'
9 testimony as being --

10 THE WITNESS: There are two different concepts
11 that you're talking about, and I'll be happy actually if
12 I can remember long enough to go through both of them.

13 COMMISSIONER HANSON: Please.

14 THE WITNESS: The 1 percent per year of peak
15 demand, if we look at page 12 of Exhibit 16.

16 COMMISSIONER HANSON: All right.

17 THE WITNESS: My understanding of what Mr. James
18 was saying was that a 1 percent savings could be achieved
19 of peak demand in each year of the study period. Now
20 let's also remember that Wygen III in 2007 was positive
21 for commercial operation in 2010.

22 So this table on page 12 starts in 2008. And
23 we'll just pretend for a minute that it had started in
24 2007. And just to be generous, we'll say that the 2007
25 peak was also 342 megawatts just like it shows on

1 table 5.

2 So if we saved 1 percent of peak in 2007, that
3 would have been 3 megawatts. If we had saved 3 --
4 another 1 percent in 2008, that would have been 3 more
5 megawatts, which would have been a total of 6 megawatts,
6 and by 2009 another 1 percent would have been 3 more
7 megawatts, maybe 4. I'll be generous.

8 So that would have been we would have saved --
9 assuming that had been implemented in 2007 and the
10 company were able to achieve a 1 percent reduction in
11 peak demand every year up to 2010, the savings by 2010
12 would have been 10 megawatts. So that's the 1 percent.

13 So by the time you get to something that looks
14 like 100 megawatts, you can't actually do it in the
15 20 years. But that would be -- even by 2028 wouldn't
16 have been 100 megawatts at a 1 percent peak demand
17 savings per year.

18 Now the other question that I heard you ask was
19 about the 120 megawatts, which as I recall from
20 Mr. James' testimony, he said that there had been a study
21 that had been conducted for South Dakota that allocated
22 120 megawatts of peak demand reduction to Black Hills
23 Power.

24 And obviously 120 megawatts is a very
25 significant -- as I recall, a 35 percent amount of

1 Black Hills Power's peak, which is not achievable,
2 even -- I mean, it's not achievable today in the next
3 three years by -- so it wouldn't have been achievable in
4 2007 for 2010.

5 And I hope that answered both parts of your
6 question.

7 COMMISSIONER HANSON: Your response does. And,
8 yes, it is 35 percent.

9 You also refer to -- in your rebuttal testimony
10 to Mr. Schlissel's testimony. And in refutation of that
11 you make some statements pertaining to -- well,
12 Mr. Schlissel actually stated that "It is uncertain
13 which, if any, of the specific climate change bills that
14 have been introduced will be adopted."

15 Forgive me for speaking too fast.

16 You noted today that no carbon taxes have been
17 enacted.

18 Mr. Schlissel's testimony referred to -- at
19 least eight times referred to the Lieberman-Warner
20 Climate Security Act.

21 Do you think, in your opinion, that is the best
22 barometer to be used for ascertaining the costs for
23 carbon issues?

24 THE WITNESS: I think that everyone in this room
25 probably has a different opinion of that particular

1 answer to that question. I am not close enough to the
2 U.S. Congress to know if that's the right choice or not.

3 COMMISSIONER HANSON: Do you have a barometer --
4 well, you do have a barometer. You explained yours in
5 your testimony.

6 THE WITNESS: We used -- on page 11 in table 4
7 of Exhibit 16, we used the assumptions that were
8 available in the Ventyx 2007 spring reference case for
9 the WECC.

10 And then we used additional higher carbon tax
11 values which are shown in that right-hand column to
12 provide a range of costs. And my understanding is that
13 because of the stochastic analysis of how the process
14 works, we actually looked at higher costs than that.

15 And so starting today we could -- anyone could
16 guess what these taxes would be, but we still don't know
17 when they're going to be implemented or if they're going
18 to be implemented.

19 And the first time I actually looked at a carbon
20 dioxide tax analysis for Black Hills Power was in 1992,
21 1993. There was a concern at that point in time that
22 carbon taxes would be enacted and what would be the
23 impacts on the facility that was being built at that time
24 in Wyoming. And here it is 18 years later and we don't
25 have carbon taxes yet. We could have them in 2000 and

1 fill in the blank or not.

2 COMMISSIONER HANSON: Thank you. Thank you,
3 Mr. Smith.

4 MR. SMITH: Other Commissioner questions?

5 CHAIRMAN JOHNSON: Mr. Magnuson, do you expect
6 to call Mr. Buresh as a witness?

7 MR. MAGNUSON: Thank you for that question. We
8 have not made that final decision. As I noted, we
9 probably will, but it depends how the rest of the
10 testimony goes.

11 CHAIRMAN JOHNSON: So I shouldn't necessarily be
12 hesitant about asking this witness questions that might
13 be best directed for Mr. Buresh but that this witness
14 might have a good feel for?

15 MR. MAGNUSON: Chairman Johnson, our goal is to
16 answer all of your questions. So go ahead and ask this
17 witness, but if we or you feel your questions have not be
18 answered, we'll make sure Mr. Buresh is available to
19 answer those questions.

20 CHAIRMAN JOHNSON: Sure. Great. If he was
21 going to be here, I didn't want to waste her time by
22 using a -- I won't say inferior witness. I'm sure that's
23 not the case.

24 COMMISSIONER KOLBECK: Yes. Thank you.
25 Regardless of carbon or Lieberman-Warner or anything like

1 that, what is a realistic -- in your opinion, a realistic
2 goal of an energy efficiency program, 1 percent, half a
3 percent, 3 percent, in anyone's IRP.

4 THE WITNESS: I believe that that goal is
5 actually -- an appropriate goal is specific to a utility.
6 I have worked with a range of utilities. A utility that
7 serves the Los Angeles and/or the San Diego area and that
8 demographic and that level of income is a very
9 different -- and climate is a very different utility than
10 serves the Black Hills of South Dakota, portions of
11 Wyoming and Montana, versus a utility that serves an area
12 in Missouri, Oklahoma, Kansas, and Arkansas that has an
13 incredibly high proportion of mobile homes. I mean, it's
14 a very different demographic.

15 It's like looking at the free lunch program in
16 one area versus another area and determining what an
17 appropriate goal is. So I don't know what the answer to
18 that question is. I think it's very specific to the
19 utility.

20 COMMISSIONER KOLBECK: During researching the
21 DSM and energy efficiency it's come to my attention that
22 the hardest -- and this is according to a different power
23 company, but the hardest is rental property where one
24 person is responsible for the bill and another person
25 lives there.

1 Would you agree with that assessment?

2 THE WITNESS: I would agree that that's a very
3 difficult situation. I don't know that it is the most
4 difficult situation.

5 COMMISSIONER KOLBECK: Sure. And I -- where I'm
6 going with this -- I might have to ask just a different
7 witness, but that's what I needed.

8 Thank you.

9 MR. SMITH: Do you have questions, Commissioner
10 Johnson?

11 CHAIRMAN JOHNSON: Yeah. Thanks for letting me
12 finish my thought there as I was writing.

13 MR. MAGNUSON: Chairman Johnson, I'm sorry to
14 interrupt. We have made a decision that we will be
15 putting Doug Buresh on the stand. We will be calling him
16 as a witness, if that helps you with your question.

17 CHAIRMAN JOHNSON: I still might ask the
18 question, but don't hesitate to step up or for you to say
19 that he would be better or superior.

20 On page 14 of the James testimony -- and I've
21 got to get to it myself. And I'm looking midpage. And
22 the pages weren't labeled so it was the one I sort of
23 labeled myself as 14.

24 The first line on that page is "Recycle energy
25 goal to achieve a resource level of 10 percent." And may

1 be just easiest if I show you the page that I think is
2 14.

3 THE WITNESS: I have the one that says recycled
4 energy goal, to start at the top.

5 CHAIRMAN JOHNSON: Yes. Perfect. Okay.

6 If you look at the middle of that page,
7 Mr. James says, "BHP is essentially admitting that it is
8 not going to initiate development of renewable energy
9 resources unless a state enacts an RPS."

10 It seems to me that is -- that's a strong claim.
11 And so I feel obligated to ask, I mean, did Black Hills
12 Power give you any direction to restrict to what degree
13 renewable energy resources are kicked out of an IRP model
14 as a legitimate resource?

15 THE WITNESS: Absolutely not. And let me just
16 direct you to table 19 on page 42 of Exhibit 16. Because
17 I don't understand where Mr. James -- how he came to that
18 conclusion or what drove him in that area.

19 CHAIRMAN JOHNSON: I'm sorry. Let's get your
20 cite one more time.

21 THE WITNESS: Table 19 on page 42 of Exhibit 16.
22 That's the actual Integrated Resource Plan itself. And I
23 really want to wait until you get there. And here's why
24 I don't understand why he said that.

25 Because in 2008 Happy Jack is wind. In 2012

1 there's wind. In 2013 there's wind. In 2022 there's
2 wind. In 2023 there's biomass. In 2026 there's wind.
3 And in 2027 there's wind.

4 CHAIRMAN JOHNSON: Okay. I tracked all of
5 those. Did you say 2019?

6 THE WITNESS: 2019. That's not wind.

7 CHAIRMAN JOHNSON: Okay. Gotcha.

8 THE WITNESS: So I don't understand where that
9 statement came from at all. No. There was --

10 The way this model works is the resources --
11 choices are input into the model. The model understands
12 what the load forecast is and what the peak demand and
13 energy requirements are. It understands what the reserve
14 margin restrictions are because there's a minimum and a
15 maximum reserve margin.

16 And then it runs. And it picks the most
17 economic resources over the 20-year planning horizon, and
18 we ended up with wind in 2008, 2012, 2013, 2022, 2026,
19 2027, and biomass in 2023. I mean, there's a tremendous
20 amount of renewable resources that are projected to be
21 installed over the planning horizon.

22 CHAIRMAN JOHNSON: So you did not get a sense as
23 you worked with Black Hills Power that there was an
24 unwillingness to initiate the development of renewable
25 resources absent a mandate.

1 THE WITNESS: No.

2 CHAIRMAN JOHNSON: Did you conduct an IRP for
3 any other clients in 2007?

4 THE WITNESS: Yes.

5 CHAIRMAN JOHNSON: Did you have as a part of the
6 assumptions, inputs into that IRP, a similar price range
7 for carbon as you had for the Black Hills Power IRP?

8 THE WITNESS: My recollection of the IRP that
9 I -- the other IRP that I conducted in 2007 is that the
10 Ventyx assumptions were used in the base case for that
11 particular IRP as well.

12 CHAIRMAN JOHNSON: So those would have been the
13 same?

14 THE WITNESS: They would have been the same
15 carbon assumptions. So not just similar but the same.

16 And just so you know, and Mr. Buresh is going to
17 be on the stand and will tell you this, but the 2007
18 spring reference case is the first Ventyx reference case
19 that included carbon.

20 Because their future prior to spring of 2007,
21 there was not any carbon costs in their case at all.
22 Because they weren't of the conviction at that point in
23 time that there was enough probability that there would
24 even need to be carbon included.

25 So this was actually a step forward in including

1 carbon costs that had not occurred before.

2 CHAIRMAN JOHNSON: I think you note in your
3 testimony -- and I don't have it in front of me so please
4 correct me to the extent that I'm misrepresenting it.

5 You note that because there were a number of
6 different scenarios assumed for demand, including a low
7 demand scenario, that one could assume that some energy
8 efficiency measures were accounted for in the demand side
9 rather than the supply demand. Is that right?

10 THE WITNESS: Well, there's actually parts in
11 answer to your question. And the first is that the
12 demand side programs that are already in place at
13 Black Hills Power are already recognized through a peak
14 demand and energy load forecast that is lower than it
15 would have been, absent the presence of those demand side
16 programs. So that's one point.

17 And then the second point is if you look at
18 page 48, table 21 of -- I'm sorry. Of Exhibit 16. That
19 would be helpful. Tell you where it is.

20 When you look at that table, the variables, the
21 first two variables, are the midterm peak and the midterm
22 energy. And the range for the minimum of the midterm
23 peak is 82 percent of what the peak would have otherwise
24 been, and the energy is 92 percent.

25 So when you look at sensitivity cases there are

1 cases that already assume lower load forecast as would be
2 potentially achievable with demand side management
3 programs.

4 CHAIRMAN JOHNSON: So even if in the future
5 higher than customary energy efficiency could be gained
6 within the Black Hills Power service territory, it's not
7 as though that possibility hasn't been accounted for in
8 the IRP. Am I putting that right?

9 THE WITNESS: That's correct.

10 CHAIRMAN JOHNSON: I want to turn toward a chart
11 I'll just show you. This was attached on the final page
12 of the Buresh testimony. So, again, punt if that's
13 appropriate.

14 It looks like this. It lays out, I think, the
15 various scenarios for -- that were considered as part of
16 the IRP; is that right?

17 THE WITNESS: I don't remember seeing that. I
18 don't actually know what exhibit Mr. Buresh's testimony
19 is.

20 MR. MAGNUSON: It's Exhibit 56.

21 CHAIRMAN JOHNSON: Exhibit 56. Okay.

22 I'll tell you my understanding of what this in
23 coordination with some of the other testimony both you
24 and Mr. Buresh touched on, and you tell me whether or not
25 I'm right.

1 I look at this and it seems to me that a
2 majority of the scenarios considered for the IRP have
3 within the next 20 years a carbon price of 35 --
4 approximately \$35 or higher.

5 First off, does that look about right?

6 THE WITNESS: Say it again. Because here's what
7 my -- here's what my concern is in answering yes or no to
8 your question.

9 From 2011 through 2000 and some years I would
10 say probably under half of them are under \$35, and it
11 really probably depends on where in the time frame you're
12 referring.

13 CHAIRMAN JOHNSON: Well, it also gets
14 complicated because it's tough to see as they cluster
15 along the bottom how many lines are there. So maybe
16 we'll dive in a little more in depth with Mr. Buresh if
17 he's going to be called for certain.

18 THE WITNESS: I think that would be a good idea.

19 CHAIRMAN JOHNSON: So I'll skip forward a little
20 bit.

21 I mean, even given what this looks like -- and
22 the IRP that you prepared indicates that in 70 percent of
23 the scenarios Wygen III would have been the more
24 appropriate resource.

25 THE WITNESS: That's correct.

1 CHAIRMAN JOHNSON: Okay. Thanks, Mr. Smith.
2 Other Commissioner questions.

3 Mr. Rislov.

4 MR. RISLOV: Are the IRPs you're performing
5 kicking out coal plants routinely as far as being too
6 high cost a resource?

7 THE WITNESS: The IRPs that I have conducted in
8 the last two years, in one case the IRP was not even
9 allowed to consider coal as an option. And in the second
10 case coal has been priced only with carbon capture and
11 sequestration, which increases the coal price -- the coal
12 capital cost by somewhere on the order of 40 or
13 50 percent, which -- and because the technology doesn't
14 yet exist, also moves it out in the time horizon.

15 So you can't -- in the IRP can't even consider
16 it as an option for 10 years. And then it's still very
17 expensive.

18 So there's so much uncertainty that utilities
19 are just very unwilling to consider lots of options at
20 this point.

21 MR. RISLOV: Is it uncertainty because of policy
22 decisions made by the states they operate within?

23 THE WITNESS: In one case, yes, it's the state.
24 But in the other case it's federal.

25 MR. RISLOV: Do you have any idea how high the

1 carbon tax would have to go before coal is not a
2 preferred option, everything else being equal?

3 THE WITNESS: I have heard some discussion about
4 that. I don't have personal knowledge. And I think that
5 it would ruin our economy if it was set at that level.

6 MR. RISLOV: So you don't anticipate that tax
7 ever reaching that level?

8 THE WITNESS: Not in the near term.

9 MR. RISLOV: We've been talking a lot about
10 energy efficiency. And I've been working with a group
11 out at the Midwest ISO for about 18 months and we were
12 getting into growth rates that we put into our IRP
13 analyses and the growth rates reflected the energy
14 efficiencies. Or at least that was our intent.

15 But one thing we didn't see a lot of was even on
16 the low end that the capacity needs were dropping below
17 zero. In other words, even with energy efficiency
18 programs operating well, there was still a capacity
19 growth going on within the system, albeit at a lower
20 level than what it was before.

21 Do you think energy efficiency programs in and
22 of itself are going to reduce the need for capacity
23 within the next 20 years within an IRP?

24 THE WITNESS: No, I don't. And there is another
25 contributing factor as well. And that is the age of the

1 fleet of power plants. There are units operating on the
2 Black Hills Power system that are 60 years old, that are
3 50 years old, and those plants --

4 I mean, I have a -- my personal vehicle has
5 235,000 miles on it. Sooner or later I'm going to have
6 to replace it. But I'm going to be able to do that in a
7 day. Well, maybe longer. It will take me longer to make
8 a decision.

9 But a power plant doesn't get replaced
10 overnight. So not only do you have continued growth and
11 peak demand and energy but an aging fleet that eventually
12 is going to wear out.

13 MR. RISLOV: When looking at consumption of
14 electricity and the capacity needs as well, we're looking
15 at a whole lot of scenarios, as you would recognize, but
16 one of those involved a large conversion to electric
17 vehicles in the future.

18 And that seems to be becoming more and more of a
19 reality if I can read and trust the headlines and the
20 stories that follow them. What effect do you think that
21 will have in the next 10 to 15 years?

22 THE WITNESS: One of my big fears is that we
23 will have electric vehicles without a smart grid. And
24 people will come home from work at 5 o'clock on a summer
25 afternoon and plug their vehicle in, and, therefore, the

1 peak demand will actually increase.

2 Without some ability to control when those
3 vehicles charge and people -- it's very interesting.
4 People want to charge at the office. They want to charge
5 at the mall. They want to charge at home. And so
6 there's actually two very significant issues associated
7 with electric vehicles.

8 One is the potential to increase the
9 requirements for capacity to meet increased peak demand.
10 And the second one, which I hadn't thought until I
11 discussed this with a transmission person last week, is
12 that now you have a mobile load. Meaning, you don't just
13 have this load at home at night. You could have the same
14 load that could be at the mall, that would be at the
15 office. Where are apartment dwellers going to charge,
16 and who is going to provide that charging service?

17 So there is a tremendous new infrastructure
18 issue which is introduced by having us adopt in larger
19 scale electric vehicles which has not yet been addressed
20 at all.

21 MR. RISLOV: The reason I was taking all these
22 trips over east is basically dealing with additional
23 transmission facilities, to put more renewable wind on
24 the system, you know, within the Midwest ISO.

25 Obviously, wind has a different cost depending

1 on where it's located and what it's being used for. But
2 the one thing in this case there's been so much talk
3 about renewables and the cost of renewables and, again,
4 wind. I'll stick with wind. That seems to be the
5 popular renewable in this part of the country for obvious
6 reasons.

7 Do you have any idea what the ability is of
8 Black Hills Power & Light to accept affordable or --
9 yeah. Affordable wind on their system compared to other
10 capacity options?

11 Could you explain if you see any difference
12 between Black Hills and the Midwest ISO because of that
13 service area?

14 THE WITNESS: I'm not familiar enough with the
15 Midwest ISO to be able to do that comparison. And I
16 think that the majority of your question is best
17 addressed to Mr. Ohlmacher.

18 But what I will say is that wind is an
19 intermittent resource that doesn't operate during the
20 peak demand when you need it in the summer and has a
21 tendency to blow at 2 a.m. on April and October mornings
22 when you don't need it.

23 And there are operational issues associated with
24 being able to regulate it, all of which are best
25 addressed by Mr. Ohlmacher.

1 MR. RISLOV: One last question. It's my
2 understanding talking about Ventyx, and it was
3 interesting to note you said it was the first time that
4 you had employed Ventyx in your --

5 THE WITNESS: It was the first time I had
6 employed them. I had worked with them in other venues.

7 MR. RISLOV: And I really don't know. I'm just
8 asking this question if someone does have some expertise
9 in the field.

10 But it seems to me without a whole lot of
11 knowledge of Ventyx, by many of the state agencies I've
12 been working with it's considered the gold standard in
13 forecasting for IRP purposes. What's your feeling about
14 that?

15 THE WITNESS: Ventyx has an incredibly well
16 respected series of reports that they issue that provide
17 basic information and assumptions for many different
18 agencies and utilities. And they have a slate of models
19 which is among the best, if not the best, in the utility
20 for doing planning work.

21 MR. RISLOV: Thank you.

22 MR. SMITH: Other Commission questions?

23 Commissioner Johnson.

24 CHAIRMAN JOHNSON: I did want to -- it did seem
25 to me that Black Hills Power's energy efficiency efforts

1 here to date -- maybe we should just look 2007 prior --
2 was quite modest by national standards.

3 Is that consistent with your knowledge and
4 experience from working all over the country?

5 THE WITNESS: There are other utilities that
6 also have modest programs, but without recovery of
7 revenues, lost revenues for the energy lost and/or an
8 understanding -- it's actually very expensive to do these
9 economic potential studies. An understanding of what the
10 tradeoffs are between the benefits and the costs of the
11 DSM programs and what makes sense for the demographics
12 for the Black Hills service territory, then there is no
13 reason to embark on a more ambitious program.

14 CHAIRMAN JOHNSON: Thanks very much.

15 MR. SMITH: Any final Commission questions?

16 Redirect, Mr. Magnuson?

17 MR. MAGNUSON: I have no further questions for
18 this witness, Mr. Smith.

19 MR. SMITH: Anything further triggered by the
20 Commission questions?

21 MR. KHOROOSI: Nothing further, Your Honor -- or
22 sir.

23 MS. CREMER: Staff has nothing.

24 MR. SMITH: You're excused. I'm assuming now
25 everybody's probably about ready to break for lunch.

1 What do you say -- what have we got up there? It's 10 to
2 1:00. Should we say 2:00?

3 What's your pleasure? I just don't know for
4 people who have to go out and eat.

5 CHAIRMAN JOHNSON: We should probably look to
6 counsel. These are working lunches. They're not just
7 laying around. So sometimes we end up taking more than
8 an hour and 15 or even an hour and 20. Sometimes it
9 speeds us up in the afternoon session. I don't know.

10 MR. SMITH: Counsel, Mr. Magnuson and Khoroosi,
11 what do you guys think?

12 MR. MAGNUSON: My suggestion would be as I look
13 forward to the witnesses that we have for the remainder
14 of the afternoon, I think we'll be able to get done with
15 our witnesses this afternoon so I would perhaps suggest
16 2:15, which would be an hour and 25 minutes.

17 MR. SMITH: 2:15? Is that acceptable?

18 MR. KHOROOSI: Yes. Absolutely.

19 MR. SMITH: Okay. 2:15 we'll reconvene.

20 (A lunch recess is taken)

21 MR. SMITH: Good afternoon, everyone. It's now
22 a quarter after 2, and that was our time for reconvening
23 the hearing in Docket EL09-018, application of Black
24 Hills Power for a rate increase.

25 We were in the midst of the Applicant

1 Black Hills Power's direct case. And perhaps maybe we'll
2 take one second here and check and verify who is and
3 isn't on the telephone at the moment.

4 MR. TOWERS: Bob Towers here.

5 MR. SMITH: Bob Towers. Anyone else?

6 MR. EVANS: George Evans here.

7 MR. FRANKENFELD: Don Frankenfeld.

8 MR. SMITH: Are either Dave Peterson or
9 Basil Copeland on the line?

10 MR. TOWERS: I know that Basil is not. This is
11 Bob Towers.

12 MR. SMITH: Well, apparently Mr. Peterson isn't
13 on at this point in time, but we'll proceed in his
14 absence.

15 Mr. Magnuson, you've got the floor, and so
16 please continue with your case in chief.

17 MR. MAGNUSON: Thank you, Mr. Smith. Black
18 Hills Power would call Doug Buresh to the stand, please.

19 (The witness is sworn by the court reporter)

20 DIRECT EXAMINATION

21 BY MR. MAGNUSON:

22 Q. Would you please state your name for the record.

23 A. My name is Douglas A. Buresh.

24 Q. And what company are you with?

25 A. I'm with Ventyx.

1 Q. What was the former name of Ventyx?

2 A. It's had a number of acquisitions. Prior to this --
3 we did the Integrated Resource Plan -- it was Global
4 Energy Decisions.

5 Q. And would it be acceptable if we refer to it as
6 Ventyx?

7 A. Yes.

8 Q. What is your position with Ventyx?

9 A. I'm a senior vice president in the advisors group,
10 which is our consulting arm, and I'm in charge of the
11 resource planning area.

12 Q. Would you please describe for the Commissioners your
13 education starting with college.

14 A. I went to the University of Nebraska and a
15 bachelor's degree in electrical engineering. I have a
16 master's degree from Rockhurst University and an MBA in
17 business and also a master's of electrical engineering
18 from Kansas State University. I'm a licensed engineer in
19 the State of Missouri.

20 Q. Would you please describe for the Commissioners your
21 work history starting post college.

22 A. Yes. My first job out of college was with
23 St. Joseph Light & Power Company as a planning engineer.
24 I was promoted to senior planning engineer and then
25 director of fuels at St. Joseph Light & Power.

1 I then took a position with Kansas City Power &
2 Light in their resource planning department where I
3 supported integrated resource planning and also some of
4 the deal structuring and contracts that took place as
5 part of that.

6 From that position I accepted a position with a
7 company called M.S. Gerber & Associates, a consulting and
8 software firm that was acquired by Global Energy
9 Decisions. So I was the vice president of consulting at
10 M.S. Gerber, became a vice president of consulting also
11 as we moved into Global Energy. When we were acquired by
12 Ventyx I became a senior vice president in my current
13 position.

14 Q. Would you please describe for us your qualifications
15 and experience in modeling utility resources.

16 A. I have a long history of it dating back to my first
17 position with St. Joseph Light & Power Company as a
18 planning engineer. So I've been running models or
19 overseeing groups that run models for nearly 20 plus
20 years now in terms of resource planning, integrated
21 resource planning with supply side and demand side,
22 software tools and techniques that are used as part of
23 that process.

24 Q. And did I understand your testimony that you are
25 head of a group at Ventyx that works in the utility

1 resource planning area?

2 A. That's correct. There's a group of eight people on
3 my team.

4 Q. And you are the head of that group?

5 A. That's correct.

6 Q. And how many IRPs do you work on or does Ventyx work
7 on in any given year?

8 A. Generally in the neighborhood of a half dozen up to
9 maybe 10 or so a year depending on how things are going
10 throughout the year. We'll also do asset valuation
11 studies that are somewhat similar to an IRP, but we might
12 not go to the full integration phase. We'll just look at
13 needs assessments, we call them.

14 Q. And as head of the group do you actively participate
15 in all of the IRPs that are prepared on behalf of the
16 group?

17 A. I do.

18 Q. Mr. Buresh, did you file rebuttal testimony in this
19 matter?

20 A. Yes, I did.

21 Q. And is that rebuttal testimony represented by
22 Exhibit 56?

23 A. Yes, it is.

24 Q. To the best of your information is that true and
25 correct?

1 A. Yes, it is.

2 Q. Now do I understand correctly that Ventyx was hired
3 by a -- by Jill Tietjen as a contractor to work on the
4 Black Hills Power Integrated Resource Plan?

5 A. That is correct.

6 Q. Who else from Ventyx was working on that particular
7 project?

8 A. For this project it was Diane Crockett, who's a lead
9 consultant in our group, and myself.

10 Q. Were you actively involved in the modeling with
11 regard to the Black Hills Power project?

12 A. Yes, I was.

13 Q. Would you please describe for the Commission the
14 work that Ventyx did or just basically a general
15 description of the work that Ventyx did in doing the
16 modeling for the Black Hills Power integrated resource
17 planning.

18 A. Certainly. We started off where they needed the
19 expertise from the modeling aspect. They certainly have
20 a lot of expertise on how their system runs and the input
21 parameters that would go with it.

22 So we started off and our particular aspect of this
23 is looking at the load forecast and the different
24 projections of possible loads that would go into the
25 Black Hills system.

1 From there we did an optimization from the different
2 supply side and demand side resources that would go with
3 it. In other words, if you were to look at different
4 load levels, what kind of resources it would build around
5 that.

6 The optimization model is a very intensive model
7 where it looks at all the possible combinations of type
8 and timing. So it says when can I put a resource in,
9 what type is it, how much would it cost, how much would
10 it run, and as I put that into the model it comes up with
11 the least cost plan under that particular scenario.

12 We would run a number of scenarios through that
13 process to come up with optimal plans under different
14 conditions. Once those optimal plans were developed we
15 take them on to a process that we call risk analysis or
16 stochastic process.

17 And the stochastic process -- and Jill described
18 this earlier, but I'll elaborate a little more -- is
19 looking at the uncertainty. We have no idea where gas
20 prices are going to be in the future or CO2 legislation
21 or the fundamental drivers of electricity price or the
22 drivers of a portfolio.

23 So what we'll do in this regard is we'll put
24 parameters around that mathematically to say here is the
25 possible futures, here's the plausible futures that can

1 take place. And if we put those futures into the model,
2 how much risk is our portfolio under if we are wrong.

3 In other words, if we guessed there will be a high
4 CO2 tax and we build a plan accordingly and that tax
5 never came to fruition, you would say, okay, that was a
6 bad idea. We should have built the cheaper coal plant.

7 Conversely, if you built a coal plant and there's
8 been a high CO2 tax, then you would say okay, well,
9 what's the damage that would happen under that scenario.

10 So putting it together from start to finish you
11 optimize a portfolio with different alternatives, and
12 then you subject those portfolios to risk. And that's
13 the process that we went through.

14 Q. You mentioned something about the model that was
15 used. Do I understand that that model is commonly
16 referred to as the MIDAS model?

17 A. It is the MIDAS model. It also has been rebranded
18 by Ventyx to be called our strategic planning model. So
19 it goes by both names.

20 The purpose of that model developed way back in the
21 late '70s is a project with every, and a large membership
22 of users throughout the years lived for integrated
23 resource planning. That was the intent and purpose of
24 why the model was developed.

25 Q. Would you say that the model referred to as the

1 MIDAS model is tried and true?

2 A. Absolutely. It's been used in probably nearly 50 or
3 so different Integrated Resource Plans -- by 50 or so
4 different companies, I should say.

5 Q. Can you describe for us generally -- strike that.
6 When was it that you, meaning Ventyx, commenced your work
7 with regard to the IRP modeling for the Black Hills Power
8 IRP?

9 A. We started the process in January of 2007 and
10 concluded our piece of it in May of 2007.

11 Q. Can you describe for us generally the number of
12 meetings or telephone calls and that type of thing that
13 you would have had with either representatives from
14 Black Hills Power or Jill Tietjen with regard to your
15 modeling for the IRP?

16 A. Sure. So when we start off we had a kickoff meeting
17 and what the scope and timing and deliverables would be
18 from Ventyx in this regard. After the kickoff meeting we
19 routinely have conference calls to go over the subsequent
20 results, different stages along the way, and go back and
21 forth with both Technically Speaking and also with
22 Black Hills about the input parameters and the
23 assumptions that are used.

24 We had some on-site meetings in Kansas City in that
25 regard and also generally by telephone were the follow-up

1 meetings. Let's call them once a week was probably the
2 frequency.

3 Q. What was the ultimate result of the modeling that
4 was done by Ventyx?

5 A. The ultimate result was the IRP filing that we saw
6 earlier in Jill Tietjen's testimony, and that is the
7 results of the different analytics and the risk was put
8 into the IRP report that was submitted in September.

9 Q. Now did Ventyx include carbon taxes in its modeling?

10 A. Absolutely.

11 Q. And why was that?

12 A. Well, carbon taxes were of great concern to
13 Black Hills and obviously to Ventyx as well. We knew
14 about carbon legislation. We've been looking at it for
15 20 years in fact. But as it became that a coal plant was
16 winning in some of the earlier runs, we said we need to
17 take a really close look at possible carbon legislation
18 to the highest degree possible. How stringent can it be.

19 And those are the types of scenarios that we went
20 and developed as stochastic process around carbon
21 legislation.

22 Q. So how did you include carbon taxes in your
23 modeling?

24 A. It's a very complex process to think through it, and
25 I'm not sure how others in the industry always capture

1 this properly.

2 There's a carbon tax put on -- or a policy of carbon
3 put on the entire nation. That's going to affect all the
4 generation, the transmission flows, the price of power,
5 the pressures on natural gas.

6 What Ventyx does is we have a market model. And our
7 market model models every generating asset, all the load,
8 all the transmission in North America and all the NERC
9 regions.

10 Each of other scenarios -- or 50 stochastic
11 scenarios of carbon were subjected to that process so we
12 would understand if carbon legislation came in, how did
13 that affect the natural gas prices, the different load
14 levels, and all the pieces that go with it.

15 If you do it in a vacuum without understanding all
16 of those interplays between these commodities and
17 fundamental drivers, then you miss a piece of it. After
18 we went through that entire process -- imagine running up
19 a 8,760-hour-a-day load forecast for each hour for
20 20 years.

21 We took each of those 50 price trajectories of fuel
22 prices, electricity prices, and, of course, the carbon
23 and other fundamental drivers and then subjected the
24 portfolios that we developed through the optimization
25 process to those possible futures.

1 This gives us a good indication of each of these
2 futures unfolding, the decision that Black Hills would
3 make, and how much risk goes with that decision under
4 each of those scenarios.

5 Q. Did Black Hills Power insist that carbon taxes be
6 considered and included in the modeling?

7 A. They did. In fact, they were probably cutting edge
8 we would consider. When we went to the stochastic
9 process it was certainly at their insistence that we look
10 at the highest possible alternatives as well in terms of
11 carbon legislation.

12 Q. What was your information at that time in January of
13 2007 regarding possible carbon tax legislation?

14 A. Well, it's -- in late 2006, early 2007 we were
15 starting to see a shift in terms of carbon policy that it
16 looked a little more likely. So as Jill mentioned
17 earlier, Ms. Tietjen mentioned earlier in her testimony,
18 what happened in that case was we finally for the first
19 time said, okay, we're going to go ahead in our forecast
20 of our reference case put in carbon, some type of carbon
21 tax.

22 Now what people will have to understand at this
23 point in time is we do a single base forecast for our
24 forward view. And our forward view is put out every
25 spring and every fall and we've been doing it for

1 10 years now. So that was the first time we did that.
2 And each time new legislation comes along we say, okay,
3 this is Ventyx's full review based on the best
4 information we have at the time.

5 That's not to be confused with resource planning
6 where we look at a number of alternatives and run very
7 specific scenarios around those same fundamental drivers
8 like I described earlier.

9 So our forward view for our reference case if it has
10 carbon or doesn't have carbon it's just a starting point.
11 It's kind of our baseline projection. But as we get into
12 a resource plan for a client such as Black Hills we still
13 subject their portfolios to a wide range of uncertainties
14 including carbon and gas uncertainty and the like.

15 Q. So in 2007 was it certain or not certain that there
16 was going to be carbon tax legislation?

17 A. It was not certain.

18 Q. And you mentioned the forward-looking reports that
19 have been prepared by Ventyx. Do those reports have a
20 particular name?

21 A. Those are called the reference case.

22 Q. And those are done twice a year?

23 A. Twice a year released each spring and fall. They're
24 five separate reports. One for the WECC Region, one for
25 Ercon, one for the northeast, one for the southeast, and

1 one for the Midwest. So each spring and fall we develop
2 these five reports that have a pretty strong client base
3 that subscribes to them.

4 Q. You referenced WECC. What does that refer to?

5 A. The western area what --

6 Q. The Western Interconnect?

7 A. Western Interconnect.

8 Q. Thank you. Now at the same time that you were doing
9 the modeling for Black Hills Power in 2007 were you also
10 modeling carbon taxes for another utility about that same
11 time?

12 A. Yes, we were.

13 Q. And did your modeling of carbon taxes for the other
14 utility equate generally with the same modeling that you
15 were doing for Black Hills Power?

16 A. Yes. Very similar.

17 Q. Would you say that the modeling done for Black Hills
18 Power with regard to its IRP was done in a manner
19 consistent with standard industry practice?

20 A. Yes.

21 Q. Mr. Buresh, did you know what the answer was going
22 to be before you modeled it?

23 A. We did not.

24 Q. Why is that?

25 A. Well, in each Integrated Resource Plan that we do

1 it's unique what the answer will be. Certainly it
2 depends on geography, the type of capital cost, the type
3 of fuel cost.

4 And so it's never preconceived what the answer's
5 going to be until we run it through the model and see
6 what the model likes in terms of least cost planning.
7 Even when you subject it to risk a lot of times you won't
8 know what the -- ultimately what the least cost plan is
9 based on the riskiness of the plan because of the
10 different parameters you put in there, the uncertainty
11 around fuel prices, load levels, and, of course, carbon.

12 Q. Mr. Buresh, would you please turn to your
13 Exhibit 56, which is your prefiled rebuttal testimony?

14 A. Okay.

15 Q. And if you would, please, turn to page 4 and
16 particularly Figure 1 on page 4.

17 A. Okay.

18 Q. Would you please describe for us what Figure 1
19 represents.

20 A. If we go back to our stochastic process, we use
21 50 plausible futures, and what we mean by plausible
22 futures are these are futures or scenarios that are
23 likely to occur over the next planning horizon.

24 When we looked at carbon legislation this is widely
25 uncertain. There could be very, very strict carbon, or

1 there could be no carbon legislation at all. That is
2 because carbon is such a politically motivated -- it's
3 largely driven by regulation rather than any type of
4 mathematical behavior, fundamental driver.

5 So in this particular case what you're looking at is
6 what we call stochastic CO2 prices. That is the value of
7 CO2 over 50 scenarios. And you'll see that these are
8 spread out and over a wide range by the end of the study
9 in real dollars, not nominal dollars.

10 So this is 2007 dollars. We're somewhere in the
11 neighborhood of \$75 a ton, or we have some cases that are
12 as low as zero dollars a ton.

13 Q. So does Figure 1 represent the stochastic analysis
14 that was done by Ventyx with regard to Black Hills Power?

15 A. This was the analysis we used to develop the risk
16 profiles, which are the different 50 cases of present
17 value of revenue requirements.

18 Q. You testified earlier that you did file rebuttal
19 testimony to Mr. Schlissel's testimony.

20 Would you please turn to figure 2 on page 5 of your
21 prefiled rebuttal testimony.

22 A. Okay.

23 Q. And if you would, would you please use the projector
24 to put this up so that everybody knows which figure
25 you're referring to and then you can point to things.

1 A. Okay. I think that looks pretty clear.

2 Q. Okay. Thank you. If you would, please, describe
3 what you've done with regard to figure 2 in your prefiled
4 rebuttal testimony represented by 56.

5 A. Without a microphone, or should I carry it over?

6 All right. Thank you. Mr. Schlissel came up with a
7 graph, what he called the levelized CO2 prices. And he
8 compared and ignored the farthest dot -- the far dotted
9 points to the right for now.

10 To replicate his particular graph what we did is we
11 said, okay, let's take and do exactly what he did. And,
12 that is, let's compare these different EPA, EIA, MIT, and
13 Duke studies. And Synapse. And we put those on a graph.

14 And what he failed to put on this particular graph
15 was the stochastic range that Black Hills used for their
16 IRP. So we went ahead and recreated that graph, and on
17 the far right we showed the range that was used inside
18 the IRP.

19 You'll notice that range is both wider, higher, and
20 more diverse, with the exception of one case in terms of
21 higher is the MIT study, than all the other exhibits that
22 Mr. Schlissel put in.

23 And so we're confident that we have not only a range
24 as wide as his but even a much wider range to consider
25 possible carbon legislation.

1 Q. Thank you. Would you please turn to Figure 4 that
2 is set forth on the last page of your testimony.

3 A. Okay.

4 Q. Okay. So Figure 4 is up on the screen right now.
5 Would you please describe what you did when you prepared
6 this particular figure.

7 A. In this particular figure it -- this looks at our
8 50 stochastic scenarios, and you'll see how spread out
9 they are over time.

10 We also put the Synapse mid CO2 prices superimposed
11 on our prices we used. Of course the reason we did that
12 was it was suggested by Mr. Schlissel that those prices
13 would have been the appropriate prices to use.

14 And I think it's pretty clear by this graph that we
15 used similar prices to those, and we used prices that
16 are, in fact, much higher in many cases, as you'll see up
17 here.

18 So there's a wide version of CO2 prices that were
19 considered for the risk. We're not comfortable looking
20 at only one single point forecast or CO2 price, but,
21 rather, with the wide range of uncertainty around CO2 a
22 wide range of prices need to be considered.

23 Q. So, Mr. Buresh, once Ventyx did this model and
24 provided that modeling for use in the IRP, were you
25 comfortable with the results of that modeling?

1 A. Yes. Yes, we were.

2 Q. Now you filed prefiled rebuttal testimony in this
3 matter. Have you covered -- is there anything that you
4 would need to add with regard to what you've said thus
5 far in response to the testimony of Mr. Schlissel?

6 A. No, there isn't.

7 MR. MAGNUSON: That's all the questions I have
8 for this witness, Mr. Smith.

9 MR. SMITH: Mr. Khorroosi, cross-examination?

10 MR. KHOROOSI: Just briefly, if I could.

11 CROSS-EXAMINATION

12 BY MR. KHOROOSI:

13 Q. Good afternoon, Mr. Buresh.

14 A. Good afternoon.

15 Q. I'd like to quickly draw your attention, if I could,
16 back to Exhibit 56. Specifically Figure 2.

17 A. Okay.

18 Q. That would be on page 5. If we could put that up so
19 that everyone could see.

20 Now you stated that the bar on the far right
21 represents the BHP stochastic range; correct?

22 A. That's correct.

23 Q. And the BHP reference case was the one used for the
24 IRP; isn't that correct?

25 A. That's incorrect.

1 Q. Okay.

2 A. Yeah. The reference case, and I think that's been a
3 misunderstanding when I've seen some of the testimony,
4 was used as a baseline to -- this is a standardized
5 reference case.

6 So they took the 2007 reference case and fed it
7 through the model, and we came up with a projection of
8 what the build scenarios would look like and, of course,
9 what the impact would be. But the decisions were always
10 made off the 50 stochastic cases.

11 MR. KHOROOSI: Okay. Thank you. I have nothing
12 further.

13 MR. SMITH: Commission Staff?

14 MS. CREMER: Thank you. Commission Staff has no
15 questions.

16 MR. SMITH: Commissioners, advisors, questions?
17 Mr. Rislov.

18 MR. RISLOV: Following up on what Mr. Khorooosi
19 asked, I believe you stated all 50 cases were included in
20 the IRP?

21 THE WITNESS: That's correct.

22 MR. RISLOV: I have to admit I'm a little bit
23 confused. You ran 50 scenarios for Black Hills using all
24 of those different 50 cases?

25 THE WITNESS: That's correct. For each of the

1 resource plans. So not only -- each resource plan is
2 subjected to those 50 possible futures in the risk
3 analysis section of the report.

4 MR. RISLOV: In that case did their choice pop
5 out in every case you ran?

6 THE WITNESS: No. In certain cases the plan --
7 the base plan did not win, but in most of the cases it
8 did win.

9 The way to measure that is by a technique called
10 risk profiles, which is one of the figures in my rebuttal
11 testimony. In fact, I'll just explain it.

12 Okay. These are what we call cumulative
13 probability distributions or risk profiles. It's
14 extremely important to consider all possible futures when
15 you're considering risk of a plan of this magnitude.
16 That is, if we had chosen or argued over which CO2 price
17 was the appropriate one, most people would say, well,
18 jeez, we could argue all day long about which case to
19 use.

20 Rather than do that, a very accepted technique
21 and it's a technique that's been around for a while is to
22 develop these risk profiles. The risk profiles are shown
23 where we look at the net present value on the X axis.

24 So if we were to look at the range of present
25 values, this is the low range, this is the high range.

1 We ran 50 scenarios. Each of those scenarios had an
2 equal probability of occurrence of 2 percent. So if you
3 stack them from high to low and you accumulate the
4 probabilities, 2 percent, 4 percent, et cetera, up along
5 the side and you accumulate across the Y axis on the
6 bottom, you come up with what we call a risk profile.
7 The farther to the right the risk profile is, the least
8 cost the plan is.

9 You'll see that the base plan that came up with
10 and is recommended with Wygen III defeats the other plans
11 by a huge margin. And in my experience this is a bigger
12 margin than we often see in risk profiles.

13 When we get to about the 70 percent range that's
14 the crossover point. At that crossover point we'll see
15 that that plan is not superior anymore, and these other
16 plans were. And that's largely driven by the high CO2
17 scenarios.

18 MR. RISLOV: I understand. Thank you. When you
19 say very high CO2 plan would you explain exactly what
20 that means?

21 THE WITNESS: So now we're back to our
22 stochastic cases. So the very high plans are the plans
23 that are up in this range right up here.

24 So we start getting CO2 in this level. Then it
25 was a better decision to not build a coal plant and to go

1 with a different type of resource mix.

2 MR. RISLOV: I'd been a little confused by that.
3 I appreciate your explanation. Thank you.

4 MR. SMITH: Commissioner questions?

5 CHAIRMAN JOHNSON: Looking again at your PVRR
6 chart, would you put that up.

7 THE WITNESS: The risk profile?

8 CHAIRMAN JOHNSON: Yes.

9 THE WITNESS: Okay.

10 CHAIRMAN JOHNSON: It also looks that from about
11 70 to 90 there is not much of a margin. It only looks
12 like -- in maybe the most extreme 10 percent of the cases
13 that you see a widening margin between the Wygen III plan
14 and the others.

15 Am I reading that properly?

16 THE WITNESS: Absolutely. That's correct.
17 There's a technique they call looking at the fat tails.
18 So the fat tails of a risk profile, imagine if I had a
19 risk profile that was straight up and down. No matter
20 what unfolded in the future, I'd get the same result. So
21 that's totally risk diverse.

22 If it looks like this, then, of course, it's the
23 other direction where it is very risky. In this
24 particular case we don't have a big fat tail difference
25 between the no coal plans or the base plans until we get

1 right in this area.

2 CHAIRMAN JOHNSON: Now I do understand what
3 spatially may look like a small gap can be millions of
4 dollars.

5 So with that caveat, am I right that in saying
6 in 90 percent of the scenarios Wygen III was the best
7 plan or close to it?

8 THE WITNESS: That's correct.

9 CHAIRMAN JOHNSON: Okay. I think you mentioned
10 that 2 percent weight was given to all 50 scenarios.

11 THE WITNESS: Yes.

12 CHAIRMAN JOHNSON: Is that appropriate? I mean,
13 I understand when you're dealing with 50 you're trying to
14 sort of disperse the risk a little bit by not picking
15 winners and losers. But do you ever do it differently?

16 Do you ever say that these particular forecasts
17 have proven to be more reliable over time?

18 THE WITNESS: Yeah. Well, so there's two
19 different approaches to this, and one we've kind of
20 embraced recently is this stochastic approach. And we
21 use a technique called the Latin hypercube, which I don't
22 expect people to really understand if you're not a
23 mathematician. But it's also a stratified Monte Carlo
24 sampling, which maybe means more to people.

25 And what that means is if you grab a

1 distribution of let's say the behavior of natural gas
2 mathematically, this sampling technique assures that
3 there's an equal probability of occurrence of each of
4 those possible scenarios.

5 So we're comfortable then that we can take the
6 simple average of each these cases and come up with the
7 expected value.

8 The technique that you mentioned earlier is also
9 called decision analysis where you build a decision tree
10 and you weight the probabilities of each outcome
11 separately, 25 percent, 50 percent, 25 percent for high,
12 base, and low. That is a technique we've used in other
13 resource plans. In fact, it's mandated by some states.

14 The trouble with that technique is your decision
15 trees become very large very quickly. So imagine 3 times
16 3 times 3 for high, base, low for different scenarios and
17 becomes 243 and 512 and so forth.

18 This technique allows us to look at a wide range
19 of interconnected, interrelated parameters and measure
20 those by having a reasonable number of runs that we can
21 look at.

22 CHAIRMAN JOHNSON: Seems to me that in either
23 scenario there's a rather substantial subjective
24 component. I mean, I think under the decision tree the
25 subjective component's obvious. You've got to pick who

1 to weight and who to not.

2 For the method that you used isn't the
3 subjective component which of the 50 forecasts to select?
4 And certainly there were some forecasts you didn't
5 select.

6 THE WITNESS: No. In this case we selected them
7 all. All 50 are shown in this graph.

8 CHAIRMAN JOHNSON: I know all 50. But you need
9 to determine what forecast in the universe you will
10 include within your 50. The 50 first forecasts, for
11 instance, didn't make it.

12 THE WITNESS: That's true. Now imagine if you
13 do Monte Carlo sampling, we could have said instead of 50
14 it's a thousand. Okay. But it would have been the same
15 sample space we're looking at. It just more draws across
16 that sample space.

17 So if it looks like a bell-shaped curve and you
18 divide that curve up into equal slices, if you do 50, you
19 ensure 50 draws out of each slice. If you do 1,000,
20 you're making the same slices, but you're doing a lot
21 more draws in each slice of that distribution.

22 So we don't throw away any of the distribution.
23 It's usually a three standard deviation type view of each
24 of these input drivers.

25 CHAIRMAN JOHNSON: So your end might be larger,

1 but the distribution didn't change.

2 THE WITNESS: That's right. We've done a lot of
3 analysis through the years to find out what the right
4 number is. That was a really good question. Because is
5 50 enough? Do we cover the sample space properly?
6 Generally the answer is yes. And we've worked with other
7 consultants in this regard as well.

8 In a perfect world we'd love to do hundreds, of
9 course, and as modelers we like to run the models but
10 that's -- 50 seems to really cover the space well.

11 CHAIRMAN JOHNSON: Have you ever used both
12 approaches, the decision tree and the Monte Carlo?

13 THE WITNESS: For the same client?

14 CHAIRMAN JOHNSON: Yes.

15 THE WITNESS: I don't know if we've ever done it
16 for the same client in the same IRP. We've certainly
17 done it for the same client in different IRPs. I like
18 both approaches. What I like about the decision tree
19 approach is you can easily say what's the impact of gas.
20 You can isolate it.

21 Whereas, in this particular one it's correlated
22 and goes together. However, this is really the
23 state-of-the-art type of IRP modeling. When you go to
24 the stochastic analysis that's far and above what the
25 decision tree techniques could handle.

1 CHAIRMAN JOHNSON: Understanding the difficulty
2 in answering the question because you haven't dealt with
3 the exact same set of facts or the exact same client and
4 done both methods.

5 But does your experience with these two
6 different types of modeling approaches lead you to
7 believe there would be any fact set where their outcomes
8 would likely diverge?

9 THE WITNESS: Could you ask it separately,
10 please.

11 CHAIRMAN JOHNSON: Do you have any reason to
12 believe that if you would have done this using the
13 decision tree, that the outcome would have been much
14 different?

15 THE WITNESS: Oh, no. Not at all. The
16 subjective probabilities would have been the tricky part
17 then. Because in that particular case how do we look at
18 the correlation of CO2 prices with natural gas.

19 Whereas, in our market model we could run those
20 50 CO2 prices through and come up with a different price
21 forecast for the wholesale price of electricity and the
22 input and drivers on natural gas.

23 We could have not looked at nearly as many CO2
24 cases if we had run the decision tree. Because it would
25 have been high, base, low, or maybe five different

1 branches, not 50 branches of CO2.

2 So by using this technique we were able to look
3 at a wide range of CO2, which is fairly uncertain, and
4 give us a coverage of the sample space.

5 CHAIRMAN JOHNSON: I need to dig through my
6 notes for the next question so perhaps I'll pause.

7 MR. SMITH: Other Commissioners have questions?

8 COMMISSIONER KOLBECK: On this same graph you've
9 got the cumulative probability. Could you explain that
10 to me? The cumulative probability of what? That CO2
11 will be extremely expensive, or what is that
12 cumulative -- that percentage?

13 THE WITNESS: Right. So the X axis is the net
14 present value of revenue requirements. So it's not just
15 CO2. It's all the input drivers that went into it. So
16 let's do the simplest example in terms of starting point
17 here.

18 COMMISSIONER KOLBECK: Okay.

19 THE WITNESS: If we start at this point at the
20 very bottom, that represents one possible future. Okay.
21 So we ran that through the model, and it came up with a
22 net present value at this point right here. We put it on
23 the graph.

24 Then we run another possible future, and let's
25 say that turned out here. We put that on the graph. So

1 2 percent, 4 percent. So imagine if there's little dots
2 along each of these profiles. That would be all 50
3 cases. And then we stack them in order from low to high
4 across the bottom. What does this tell us?

5 Or if we look at this point right here and we
6 say at the 50 percent level if I go across, I'm
7 50 percent confident that this plan beats the other
8 plans, you know, this amount of time. And now if I go to
9 this point, I'm 70 percent confident that this plan beats
10 the other plans 70 percent of the time and so forth.

11 And as was pointed out earlier, it's the
12 negligible difference in this area so you could go up to
13 90 percent and look backwards and say that we're kind of
14 indifferent to this point. It's only in the highest
15 CO2 cases, which, you know, I'm guessing these are CO2
16 cases. It could be a combination of a few other drivers.
17 But largely it's going to be CO2, given the difference
18 between the two plans.

19 COMMISSIONER KOLBECK: Okay. Thank you. On
20 your analysis has -- you currently do more analysis
21 similar to this today?

22 THE WITNESS: Yes.

23 COMMISSIONER KOLBECK: Okay. How has this
24 changed since 2000 -- is this what it looks like today
25 too if you were to do the 50 points?

1 THE WITNESS: You mean, the shape of it or --

2 COMMISSIONER KOLBECK: The shape of it, yes.

3 THE WITNESS: Well, certainly the magnitude
4 would be different, given certain information about power
5 markets and gas prices and CO2 legislation or whatever
6 else, but the general shape would be most likely the
7 same.

8 COMMISSIONER KOLBECK: And you find that your
9 modeling -- you have the best numbers when you take
10 the -- like the western interconnect. You can't just
11 take Black Hills Power, for example. You need to take
12 the price of natural gas. You have to take kind of a
13 worldly look at this; correct?

14 THE WITNESS: We always start with the market
15 model. In the absence of having a market model if you
16 put in carbon legislation, you wouldn't know the impact
17 of all the other drivers that would affect Black Hills'
18 portfolio.

19 COMMISSIONER KOLBECK: So it would be easy to
20 skew these numbers if you were just -- if you narrowed
21 them?

22 THE WITNESS: Yeah. I mean --

23 COMMISSIONER KOLBECK: If you didn't even
24 take --

25 THE WITNESS: If you didn't have a market model,

1 often what people would do is try to make some kind of
2 assumption about holding everything else constant and
3 throwing in carbon projections across the board.

4 COMMISSIONER KOLBECK: Sure.

5 THE WITNESS: Of course, that would be wrong
6 because carbon affects everybody and it affects the price
7 of gas and the price of power and there's a lot of
8 interconnection, interplay that goes with those different
9 commodities.

10 COMMISSIONER KOLBECK: Okay.

11 THE WITNESS: So it's really exhaustive what we
12 did in particular for Black Hills because running market
13 models isn't an easy business. So you're running the
14 entire United States or western interconnect in many
15 cases multiple times to come up with these different
16 trajectories.

17 COMMISSIONER KOLBECK: Okay. That makes sense.
18 Thank you.

19 MR. SMITH: Other Commissioner questions? No?
20 Okay. Mr. Magnuson.

21 MR. MAGNUSON: I have no further questions for
22 this witness.

23 MR. KHOROOSI: Nothing further from RCC.

24 MR. CREMER: Nothing from Staff.

25 MR. SMITH: You may step down, Mr. Buresh.

1 Thank you very much.

2 (A short recess is taken)

3 MR. SMITH: Again, good afternoon, everyone. We
4 took a short recess to take care of a technical problem
5 with our court reporter's computer. It's been resolved,
6 and so we're reconvening at about 10 after 3:00. Again,
7 the matter is Docket EL09-018, application of Black Hills
8 Power for a rate increase.

9 Mr. Magnuson, please proceed.

10 MR. MAGNUSON: Thank you, Mr. Smith. We would
11 call to the stand Tom Ohlmacher.

12 (The witness is sworn by the court reporter)

13 DIRECT EXAMINATION

14 BY MR. MAGNUSON:

15 Q. Would you please state your name for the record.

16 A. Thomas Michael Ohlmacher.

17 MR. SMITH: Is that on?

18 A. Thomas Michael Ohlmacher.

19 Q. What is your business address?

20 A. 1515 Wine Coupe, Denver, Colorado.

21 Q. And what is your position with Black Hills
22 Corporation?

23 A. I'm the president and chief operating officer of the
24 nonregulated businesses of Black Hills Corporation.

25 Q. What are your job responsibilities?

1 A. Well, including oversight of the nonregulated
2 businesses because of my experience and history with
3 Black Hills Corporation, I still retain the
4 responsibility for generation management, generation
5 construction, and resource planning.

6 Q. Mr. Ohlmacher, I'm going to ask that you speak up
7 just a little bit more loudly.

8 MR. SMITH: Maybe pull that mic.

9 Q. How long have you been with Black Hills Corporation?

10 A. 36 years.

11 Q. Could you briefly describe for us your work
12 experience and history with Black Hills Corporation?

13 A. Well, certainly. A number of tasks in the first
14 20 years of my work experience included such things as
15 plant operations, environmental management, water
16 chemistry and process control, instrumentation,
17 maintenance, and operations supervision.

18 And in the last part of that 20 years it's included
19 system planning. Then evolving into resource planning,
20 generation construction, power marketing, natural gas
21 marketing, and more recently involved in exploration of
22 production and continued to provide a lot of the support
23 for resource planning for the utilities and also manage
24 the environmental departments for the corporation so that
25 it expands to both operating entities of the utilities,

1 the E&P operations, coal mining operations, as well as
2 the -- all aspects of generation plant permitting.

3 Q. Have you previously testified before this
4 Commission?

5 A. Yes, I have.

6 Q. And have you previously testified before the
7 commissions of other states?

8 A. Yes. I have testified in both Wyoming and Colorado
9 and as well as at the Federal Energy Regulatory
10 Commission in Washington.

11 Q. Mr. Ohlmacher, how often does Black Hills Power do
12 planning?

13 A. Well, planning is a continuum of process. So when
14 you say when do you do planning, you do planning almost
15 every day. And whether it becomes operational in nature
16 or strategic, we as a corporation prepare every year a
17 five-year update of our strategic plan which identify
18 longer term forecasts of our capital and business
19 expansion opportunities may or may not come true.

20 On an annual basis you obviously plan for budgets,
21 which include looking at markets, supply plans for the
22 utilities, and options for optimizing both portfolios,
23 maintenance schedules, and needs for specific facilities,
24 whether you're going to have enough capacity, whether the
25 load forecasts have changed dramatically, what are your

1 opportunities to optimize the portfolios of the company.

2 Q. Did you file prefiled testimony in this matter?

3 A. Yes, I did.

4 Q. And is that represented by Exhibit 11?

5 A. Yes.

6 Q. And to the best of your information and knowledge is
7 that true and correct?

8 A. Yes.

9 Q. And you also had Exhibits 12 and 13? Is that my
10 understanding?

11 A. Yes.

12 Q. And those are true and correct to the best of your
13 knowledge, information, and belief?

14 A. Yes.

15 Q. Are you familiar with the contents?

16 A. Yes.

17 Q. Are you here today adopting the testimony of any
18 other prefiled testimony of -- and exhibits of other
19 witnesses?

20 A. Yes. Jackie Sargent and Mark Lux.

21 Q. Do both of those people report to you?

22 A. Yes.

23 Q. And are you familiar with the contents of their
24 prefiled testimony and exhibits?

25 A. Yes.

1 Q. Are you able to answer any questions regarding the
2 prefiled testimony and exhibits of Jackie Sargent and
3 Mark Lux?

4 A. Yes.

5 Q. Are you aware that there has been a Settlement
6 Stipulation that has been reached in this matter?

7 A. Yes, I am.

8 Q. Are you familiar with the contents of the
9 Stipulation?

10 A. Yes. I'm generally familiar.

11 MR. MAGNUSON: That's all the questions that I
12 have for this witness. Thank you.

13 MR. SMITH: Mr. Khorroosi.

14 MR. KHOROOSI: I don't have any questions at
15 this time.

16 MR. SMITH: Staff.

17 MS. CREMER: Thank you. Staff does not have any
18 questions.

19 MR. SMITH: Commissioners, advisors.

20 COMMISSIONER HANSON: No.

21 MR. SMITH: I think you may step down. Thank
22 you very much.

23 THE WITNESS: Thank you.

24 MR. SMITH: Mr. Magnuson, additional witnesses?

25 MR. MAGNUSON: Thank you, Mr. Smith. At this

1 time we have completed our case in chief. With the
2 completion of all the witnesses that we have had thus
3 far, we would reserve the right to present rebuttal
4 testimony, both later this week, and in the event that
5 Mr. James testifies next week on Wednesday pursuant to
6 the Stipulation of the parties, we would also reserve the
7 right to present rebuttal testimony after Mr. James
8 testifies.

9 MR. SMITH: Okay. Well, then let's turn to the
10 issue then of how do we proceed from here today. I don't
11 think any of us expected you to conclude that rapidly.

12 So, Staff -- my understanding is that Staff was
13 going to proceed next; right, in order of presentation?

14 MS. CREMER: That would be correct.

15 MR. SMITH: I mean, are you prepared to begin
16 now, or would you prefer that we recess until tomorrow
17 morning?

18 MS. CREMER: My preference would be, as Rislov
19 is saying in my ear, tomorrow morning. But that would be
20 Staff's preference. If you do want to proceed now, I'll
21 need about 15, 20 minutes to talk to my witnesses.

22 Otherwise, what time are we scheduled tomorrow?
23 8:30 or 9:00? Do you know?

24 We would be ready to go at 9:00. And our
25 testimony won't take long, depending on

1 cross-examination. I've talked to Sam, and
2 Mr. Frankenfeld could be here late morning?

3 MR. KHOROOSI: Yes. Yes. He'll be here late
4 morning.

5 MS. CREMER: So if Staff got done at 10:00,
6 10:30, we could put Mr. Frankenfeld on at that point and
7 probably be done about noon then with all the witnesses,
8 except for their rebuttal.

9 MR. SMITH: Okay. Well, I guess unless the
10 Commissioners have an objection, why don't we take a
11 break and let Staff proceed to get ready for tomorrow
12 morning.

13 CHAIRMAN JOHNSON: So just so that I understand
14 it, I don't have any problem with that by the way, there
15 wouldn't be a scenario under which Mr. James would take
16 the stand any time before next Wednesday?

17 MR. KHOROOSI: No. No. Unfortunately, he
18 wouldn't be able to.

19 CHAIRMAN JOHNSON: So as far as this week, it's
20 hard to imagine a scenario under which we're not done
21 tomorrow this week.

22 MS. CREMER: I would believe that to be true.

23 CHAIRMAN JOHNSON: Wow. All right.

24 MR. SMITH: Well, with that, we're in recess
25 until tomorrow morning at whatever the scheduled time

1 was, and I regret to say I can't remember.

2 MR. MAGNUSON: I believe it was 9 o'clock.

3 MR. SMITH: That's what I think. But whatever
4 the Order says, and I regret to say I didn't bring it
5 with me.

6 Okay. So we're in recess. Thanks, everyone.

7 (The hearing is in recess at 3:20 p.m.)

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

