IN THE MATTER OF AN ARBITRATION UNDER THE TREATY BETWEEN THE GOVERNMENT OF THE UNITED STATES OF AMERICA AND THE GOVERNMENT OF THE REPUBLIC OF BOLIVIA CONCERNING THE ENCOURAGEMENT AND RECIPROCAL PROTECTION OF INVESTMENTS

-and-

THE AGREEMENT BETWEEN THE GOVERNMENT OF THE UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND AND THE GOVERNMENT OF THE REPUBLIC OF BOLIVIA FOR THE PROMOTION AND PROTECTION OF INVESTMENTS

-and-

THE ARBITRATION RULES OF THE UNITED NATIONS COMMISSION ON INTERNATIONAL TRADE LAW (UNCITRAL)

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In the Matter of Arbitration          :
Between:                              :
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GUARACACHI AMERICA, INC. (U.S.A.) and :
RURELEC PLC (UNITED KINGDOM),         :
                                      :
          Claimants,                  :  PCA Case No. 2011-17
                                      :
     and                              :
                                      :
PLURINATIONAL STATE OF BOLIVIA,       :
                                      :
          Respondent.                 :
                                      :
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HEARING ON THE MERITS

Monday, April 8, 2013

International Chamber of Commerce
112 avenue Kleber
Bosphorus Conference Room
Paris, France

The hearing in the above-entitled matter came on, pursuant to notice, at 8:37 a.m. before:

DR. JOSÉ MIGUEL JÚDICE, President of the Tribunal

MR. MANUEL CONTHE, Arbitrator

PROF. RAÚL EMILIO VINUESA, Arbitrator

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P R O C E E D I N G S

PRESIDENT JÚDICE: Good morning, everyone. I think the four of you speak Spanish; correct? So, we're going to do this in Spanish, but perhaps some of the issues here will be dealt with in English, so there is going to be translation.

We would like to apologize because we weren't able to discuss things with you on Friday, so you had to spend the weekend in Paris, quite a sad thing, but thank you very much for your assistance to the Tribunal.

For the record, the Tribunal would like to state for the record that it has called upon the entities that have cooperated with experts of Claimants and Respondents, this according to the desire by the Respondent to talk to MEC now called Estudios de Infraestructura in connection with the forecast that constitutes the basis of the calculations made by Compass Lexecon.

In this regard, the Procedural Order Number 6 stated that the Parties were going to examine the representatives of these companies. The Parties were going to first examine these individuals, and then the Tribunal is going to ask questions.

I would like to ask the Parties if they would like to start with the examination of these individuals, or if what Mr. García Represa and Mr. Blackaby stated are still their intention.

MR. SILVA ROMERO: In connection with Bolivia, 08:39 Mr. President, I think that the agreement that was arranged with the Tribunal is fine.

MR. RUBINS: I'm Mr. Rubins, although I'm flattered by the comparison with Mr. Blackaby.

We feel it's perfectly appropriate for the Tribunal to start with its questions.

PRESIDENT JÚDICE: Okay. Thank you very much.

HERNÁN JALDÍN FLORERO, ÁNGEL TARIFA BERNAL, ALEJANDRO PARODI,
DANIEL LLARENS, WITNESSES, CALLED

PRESIDENT JÚDICE: We're going to start our examination.

The intention of this examination is that these witnesses cover very briefly the bases and the assumptions they used in order to conduct the evaluations in the simulation models. We have time, all the time that you need, but we're going to ask you that you provide brief answers whenever possible.

We're going to ask questions of the three institutions. Some of questions are the same for both institutions, and some of them are different.

We're going to talk first with CNDC because everything is borne of the CNDC.

The first question is where you have given MEC and EdI--has CNDC given information?

I'm sorry, I was forgetting that there is a witness

08:40 declaration that has to be read. Each of you needs to read the statement.

You have to read the Declaration.

THE WITNESS: (Mr. Jaldín Florero) I solemnly declare upon my honor and conscience that I shall speak the truth, the whole truth, and nothing but the truth, and my statement will be in accordance with my sincere belief. My statement will be to the best of my knowledge and belief.

THE WITNESS: (Mr. Tarifa Bernal) I solemnly declare upon my honor and conscience that I shall speak the truth, all the truth, and nothing but the truth and that my statement will be in accordance with the best of my knowledge and belief.

THE WITNESS: (Mr. Parodi) I solemnly declare upon my honor and conscience that I shall speak truth, the whole truth, and nothing but the truth and that my statement will be to the best of my knowledge and belief.

THE WITNESS: (Mr. Llarens) I solemnly declare upon my honor and conscience that I shall state the truth, the whole truth, and nothing but the truth and that my statement will be to the best of my knowledge and belief.

PRESIDENT JÚDICE: Thank you very much.

The questions will be posed now. I would like for you to identify yourself.

(Pause.)

PRESIDENT JÚDICE: Excuse us for this short delay.

08:45 The first questions are going to be posed to the CNDC. The first the question is the following:

The CNDC has given MEC, EdI, and Mr. Paz information from your system, from your organization?

THE WITNESS: (Mr. Jaldín Florero) No, we have not provided any information, but the data and the results of the operations of the CNDC are available in its Web page for all the market agents.

PRESIDENT JÚDICE: Thank you very much.

I think Mr. Paz has requested information--for that information to be prepared by CNDC. Do you confirm this?

THE WITNESS: That has to do with results of some calculations that Guaracachi requested of us, but the data is available on the Web page.

PRESIDENT JÚDICE: Apart from everything that's available and can be used by whoever wants to use that information, you have provided information to Mr. Paz but not to MEC and not to EdI.

THE WITNESS: (Mr. Jaldín Florero) Yes, not to MEC and not to EdI.

PRESIDENT JÚDICE: If I understand correctly, the information that is available is available for studies for MEC and for Bolivia and for Guaracachi, and it's also available to any entity that would like to access to that data?

THE WITNESS: (Mr. Jaldín Florero) Part of the

08:47 information is open to the public, and part of the information is only available for the market agent.

PRESIDENT JÚDICE: Okay, for the market agent.

THE WITNESS: (Mr. Jaldín Florero) So, EdI and MEC are not agents. EdI and MEC are not agents of the electricity market.

PRESIDENT JÚDICE: So, perhaps some of the information is not available to them?

THE WITNESS: (Mr. Jaldín Florero) Not all the information is open to the public.

PRESIDENT JÚDICE: Very well. Do you know whether the information used by MEC, by EdI, and by Guaracachi or by the State of Bolivia would have been the same because you haven't provided those data?

THE WITNESS: (Mr. Jaldín Florero) No, I don't know that.

PRESIDENT JÚDICE: The software used is SDDP and NCP, Nuevo Corto Plazo. This software has been used to look at the demand and all the expected availability, or does the software apply only actual data?

THE WITNESS: (Mr. Jaldín Florero) Demand and availability are information that is prepared without using those models. These models used as data demand and availability. What these models do is to optimize hydrothermal dispatch, so SDDP is the model that we use. We call that a

08:49 medium term for four years, and SDDP is a short-term model.

PRESIDENT JÚDICE: Like the name indicates.

THE WITNESS: (Mr. Jaldín Florero) Yes.

PRESIDENT JÚDICE: And are these models that use real data, or they use forward-looking data?

THE WITNESS: (Mr. Jaldín Florero) These models use forward-looking data.

PRESIDENT JÚDICE: They're used for forecasting actual data, or are they a study that don't use other data?

THE WITNESS: (Mr. Jaldín Florero) These models are not to be used with actual data. They are forward-looking. They are related to the operations going forward. So, for the medium term, what we'd do is we would conduct a forecast for the following four years, and for the SDDP model we'd it one week ahead. For the week ahead is what I'm trying to say.

So, if we're talking about the short-term operations scheduling or the medium-term operation schedule, I have to have as entered data the forecast demand and the maintenance data that has been forecasted. But the model is not being adopted in connection with actual data or it has nothing to do with the future--sorry, has nothing to do with the past.

It has nothing to do with the past. The update is done in the short term, and then we conduct the weekly scheduling, and we do this from Saturday onwards. So, on Monday I conduct the update of the best information that's been

08:51 forecast.

PRESIDENT JÚDICE: The actual data is being used for the forecast that you conduct?

THE WITNESS: (Mr. Jaldín Florero) Yes, for demand, but in connection with maintenance, agents have the information; when they conduct the forecasts from Monday through Tuesday, they have the information.

PRESIDENT JÚDICE: What about the long term? Is it the same thing?

THE WITNESS: (Mr. Jaldín Florero) For the long term, we conduct two yearly studies, every six months. For that study, it becomes current May 1st and November 1st, and then the statements are conducted February 10 and August 10. And with the information that was declared for the agents on 10 February, we do the scheduling for the operation that's going to become current as of March 1st for four years, and the same thing happens with the declarations for 10 August. That is going to become current as of November 1st.

PRESIDENT JÚDICE: Thank you.

We have information that Mr. Paz requested information from June '08 to April 2010 with or without the amendment of operational Rule Number 3 in connection with Spot Prices, and then a historical study has been conducted. That study, is it based on historical data or on actual data, or rather--or an estimated data?

08:52 THE WITNESS: (Mr. Jaldín Florero) What has happened is that the study was conducted on the basis of current Node Prices, so we studied the prices with or without the Decree. This price variation was applied to the actual data that came from the relevant semester's operation.

As I told you, the Node Price studies have a currency of six months, as I said. So, we have seen the price variability with and without the Decree, and we conducted the corrections or the variations on the basis of the work done.

PRESIDENT JÚDICE: This is the last question I have on behalf of the Tribunal, and the lawyers may have other questions.

Has there been any study conducted about the impact on the Stabilization Fund, and what criteria has been used?

THE WITNESS: (Mr. Jaldín Florero) Yes, we found the same variation, and that variation was introduced to the variation in the Stabilization Fund.

PRESIDENT JÚDICE: Now, for MEC and EdI, I'm going to ask the questions of both of you, and MEC can answer this because MEC worked on this first, but either of you can answer.

Have you given Compass Lexecon's information for Compass Lexecon to be able to prepare their Expert Witness Statements?

THE WITNESS: (Mr. Llarens) Yes.

PRESIDENT JÚDICE: Did you use CNDC data or other

08:54 data?

THE WITNESS: (Mr. Llarens) basically we used CNDC data.

PRESIDENT JÚDICE: Basically, that means that you also used other data?

THE WITNESS: (Mr. Llarens) Well, all the data are CNDC data, those in connection with the scheduling of the operation, and also the POES prepared by them.

PRESIDENT JÚDICE: Another question: Have you changed the data of CNDC or you submitted them in the way that you have received them or you organized them in a manner that was understandable for Mr. Abdala?

THE WITNESS: (Mr. Llarens) No, no changes on the information provided to us by CNDC.

PRESIDENT JÚDICE: I also have questions for you, sir.

Your reports, were they based on the CNDC data, or were they based from data from other sources?

THE WITNESS: (Mr. Parodi) Only based on the information provided to me, Mercados Energéticos.

PRESIDENT JÚDICE: Have you or have you not made changes to the information received by the CNDC--received from the CNDC?

THE WITNESS: (Mr. Jaldín Florero) No, none whatsoever.

PRESIDENT JÚDICE: I have different questions for you.

08:56 Could you please summarize briefly the assumptions that Compass Lexecon requested to be applied by MEC in the reports? Mr. Abdala said that he requested some things. Could you please clarify.

THE WITNESS: (Mr. Llarens) The work that we conducted with Compass Lexecon included two periods, the historical period August '08 to mid-2010, and a forward-looking assessment of the market. These are two different tasks because in one of them we analyzed what actually happened on the basis of historical data, and the other task has to do with an estimate of what may happen in the future on the basis of the best knowledge that one had at the time in connection with market variables.

These two tasks has to do with different tools and different criteria, and different calculations.

We gave Compass the ability to conduct the simulations, and we also provided our understanding on how the wholesale market works in Bolivia.

So, we structured our calculations. First we conducted a test stage to make sure that everything worked correctly. We conducted a large number of simulations to make sure that everything worked correctly, and once everything was adjusted and we understood that this showed a reasonable scenario on the basis of our knowledge of the Bolivian situation, we conducted simulations to provide the results that

08:58 Compass Lexecon had asked of us. The results that we were asked had to do with the historical period. They wanted us to determine the marginal cost of energy in Bolivia if the Decree had not been enforced because the Aranjuez unit was a candidate to provide marginal cost, and it got annulled later, the Aranjuez unit D.

And then we conducted the calculations for the historical period August 2008 and mid-2010. We operated the system every 15 minutes. The operation of the system showed that the natural gas in Bolivia was insufficient to meet demand, and the marginal unit was Aranjuez diesel, according to our determination, and the new marginal cost of the system without the application of the Decree was calculated.

So, you have to do an assessment that is two years long in 15-minute integrals, and this has nothing to do with the programming and estimation, and has to deal with real data from the system. We did this every 15 minutes to be able to determine the marginal cost variation. This is what we did for the historical period. Now, in the forward-looking period, the situation is much more complex.

You have to analyze 10 years of operations; and, according to the capacities of the simulation models, as you were mentioning, we used SDDP as the simulation model, we used the maximum capacities for the simulation, and we had to conduct tests according to different scenarios, and we had to

09:00 adjust databases to the information that we had. The CNDC data, in connection with the SDDP, are limited. They're time limited. They only deal with four years into the future, and they contain data that need to be corrected to represent a longer period of time. In this case we wanted to conduct simulations until 2018.

So, we had to adjust the SDDP databases for the whole period going from 2011 to 2018 both in the generation part in demand and in other technical aspects of the database.

So, we had to adjust the databases so that they represent not a short term, four years, but rather a longer period of time, nine years.

So, this meant that we had to include much more information into the database. This information was not originally in the database. We had to add it to the database.

The data source that we used was the POES from Bolivia. The POES contains information that is aggregated, that is not very detailed, but it includes sufficient information, and this information has to be entered in the simulation models, but you have to follow a certain structure in order to be able to structure the data.

So, we structured this database that went until 2018; and, once we did this in a reasonable scenario for this valuation, we conducted the simulations that were forward-looking in nature. This forward-looking simulation

09:02 provided a large amount of results. The future ultimately is something that depends on statistical variables. No one knows how much rain is going to take place in the future. So, this depends on the different weather conditions or hydrological conditions.

So, we had to choose the information that was useful for calculation purpose and the useful data is dispatch, how much energy is generated by EGSA units and what the marginal costs are to value that energy.

The results for Compass Lexecon was a dispatch of the generation units marginal costs to value energy and the consumption of fuel that results from this generation dispatch.

Generation dispatch also involves something called the economic dispatch. It's called economic dispatch because it involves a minimum cost, but then you have forced dispatch that is required because of other operational conditions in the system, and we also provided Compass with these variables. We did this applying the Decree and then without the application of the Decree. And this was the process that we followed, and we calibrated the models, we tested the models, we adjusted the databases, once everything was done, we provided the results that were requested of us by Compass.

PRESIDENT JÚDICE: Thank you very much.

Now, I have two questions for you. The first one is the following one. You started to work on this after MEC, and

09:04 there is data in the proceeding that indicates that Mr. Abdala has requested simulations based on some comments or criticism by Econ One, the other Expert from the other side, but you have also accepted data prepared by MEC or you have changed the data. What is the situation?

THE WITNESS: (Mr. Parodi) I used the model that was calibrated by Mercados Energéticos. There was no change to it. I did not change the model or the databases.

PRESIDENT JÚDICE: So, you continue with the work as if it were MEC, but you just included some simulations to help, I guess, Mr. Abdala, Compass Lexecon to present situations based on some comments of the other Expert?

THE WITNESS: (Mr. Jaldín Florero) Correct.

PRESIDENT JÚDICE: Second question: In addition to this, what type of work have you conducted to help Compass Lexecon?

THE WITNESS: (Mr. Parodi) No other work.

PRESIDENT JÚDICE: So, these are the questions by the Tribunal, and now the Parties may ask questions from the point of view of the Tribunal without limitations. And I know that the Parties have said or they agreed that they are not going to ask anything beyond what is related to these issues, but for the Tribunal, the Parties have the full right to ask as many questions as they want. Thank you very much.

Who will be the first one?

09:06 MR. RUBINS: Thank you, Mr. President.

I'm just passing out the exchange of letters from Mr. Paz of EGSA to the CNDC and the letter back from the CNDC to EGSA, and it's only about this that I'd like to clarify.

First, gentlemen, and I suppose it matters relatively little which of you answers the question. I assume you both know the answers. Only one of you need to answer the question.

EXAMINATION BY COUNSEL FOR CLAIMANTS

BY MR. RUBINS:

Q. Do you recognize these two documents?

A. (Mr. Jaldín Florero) Yes, we do recognize them.

Q. Okay. If you look at the request from Guaracachi, you can see what Mr. Paz asked for, and you can see in the middle of the page, in the middle of the paragraph it says--he asks you to, and I will I will read it in Spanish because that's all there is--"to develop two impact studies regarding marginal cost, nodal prices, and revenue for the energy that's expected for EGSA."

And I'd like to know if when you received this you understood Mr. Paz to be asking you for purely historical data or some form of past projections, for example, a projection of expected Spot Prices and resulting revenues as of, let's say, 2008 for the 2008 to 2010 period, for example. Which of those did you understand him to be asking you for?

A. (Mr. Jaldín Florero) What we understood is what we

09:09 did; that to say, we understood what the impact would be if the Decree had not been passed; that is to say, the situation with and without Decree. And, with that understanding, we developed both pieces of work on the nodal prices, the current one, and we understood that we had to use actual data there. That is what we understood in our letter. So, that is to say, the letter is a result of what we understood from Mr. Guaracachi's request.

Q. Now turning to your study, if we turn to the second page and we see the table, the first table on that page, on the left side, the title of this table in Spanish is "Energy price taking into account the estimation of Node Prices."

Do you see that?

A. Yes, yes, I can see that.

Q. In the actual scenario in your study, that is to say, with the actual Spot Price regime in place, is the Node Price also an estimation in this table?

A. (Mr. Jaldín Florero) This table has to do with the Node Price studies, both studies with Decree and without Decree; and, in this table, we did not have actual data.

Q. Okay.

A. (Mr. Jaldín Florero) That's what you see in the title itself.

And as I explained before, this is the table that allowed us to establish the impact of the Decree, and this is

09:11 the table that has to do with the variation with and without a decree based on Node Prices.

Q. So, looking at the first line underneath the title, "Marginal cost with DS number," et cetera, the Spot Price revenues with the supreme Decree in place, these prices are not historical prices; correct?

A. (Mr. Jaldín Florero) They're not historical prices. Once again, it's the second time I say that. These are the studies of Node Prices. It says--the title says "cost of energy taking into account the estimation of Node Prices."

Q. Right.

So, it's not surprising that this is the actual scenario. This is with the change in Spot Price regulation in place. It's not surprising that these numbers do not correspond to the historical Node Prices for that period; correct?

A. (Mr. Jaldín Florero) It is impossible for something that is expected to correspond to the actual historical price.

Q. That sounds right to me.

And you understand that the difference between the results of the impact of the change in Spot Price regime between your study and the results acquired by MEC are the results of that, the fact that these are not historical prices? Do you understand that?

A. (Mr. Jaldín Florero) What I can understand is that

09:14 CNDC has experience in estimating sensitivities, and we have models that are recognized by the market; and, throughout the study period by CNDC, projections are made for prices.

And in addition to that, there is a seasonal study where it is--where the differences are indicated between what actually happened and the expected information, and the variation level is below 5 percent. Based on CNDC's periods, this price variation was established to actually apply to real prices, to actual prices.

Q. Understood. But I think now we've clarified the nature of the information that Mr. Paz used which was, as you say, an estimation based on expectations at the beginning of the period that was surveyed; right?

A. Yes, that is correct.

My colleague is adding that this variation, price variation, was applied to what actually happened in those six months. That is clear. That is what we said from the very beginning.

Q. Just for the record, the documents that we have been looking at were Annex 42 and Annex 43 of Mr. Paz's first--of his statement. I guess they're all numbered sequentially. And that is all I have to ask. Thank you.

Thank you very much, gentlemen. You have been very helpful.

PRESIDENT JÚDICE: Thank you very much, Mr. Rubins.

09:16 Now I give the floor to the attorneys of the Respondent. Mr. García Represa?

MR. SILVA ROMERO: Yes, Mr. President. Both of us will be asking question, and my colleague with start with the questions.

EXAMINATION BY COUNSEL FOR RESPONDENT

BY MR. GARCÍA REPRESA:

Q. I would like to begin with a question directed to the CNDC people just to get some examples about what was mentioned. You responded to the Tribunal software SDP--SDDP--and we understand that this has a time restriction, and you cannot make any projections beyond eight or nine years; is that correct?

A. (Mr. Jaldín Florero) No, it's not. SDDP was used with weekly representations, and back then, demand was represented in three block periods. But for long-term studies, the representations are taken into account monthly demand, and that's when we used the SDDP for over four years.

Q. So, you can use it, for example, for over 10 years with projections clearly?

A. (Mr. Jaldín Florero) CNDC has done that, with that simulation, for 10 years. You need to think of monthly stages.

Q. And you also mentioned to answer my colleague's questions--

PRESIDENT JÚDICE: I don't know if this is very clear

09:18 in the transcription. You said that for over 10 years you have done or you have not done?

THE WITNESS: (Mr. Jaldín Florero) We have included projections up to the latest POES update. We have done 2013 to 2025 to address the patriotic agenda mentioned by President Morales.

BY MR. GARCÍA REPRESA:

Q. And you also mentioned how you had estimated the historical damages based on Spot Prices, Decree 25,999.

Now, if the Tribunal ordered the annulment of that operational standard Rule Number 3, would you do anything different from what you have done in this arbitration?

A. (Mr. Tarifa Bernal) Your question is not very clear.

Q. In case the annulment of Supreme Decree was declared, the Decree that actually established the dual units as candidates for marginal costs, the economic liquidation would be different in this case?

A. (Mr. Tarifa Bernal) Well, no, it wouldn't.

Let's imagine that there is an annulment of this Decree. The market is already consolidated; that, on the one hand, we need to have a very clear provision to introduce adjustments based on the same abrogation of the Decree. But if that was the case, the estimation methodology should be the same.

Q. Thank you. And I have the last question for you. I

09:20 don't know who is in a better position to answer my question.

You mentioned two studies that cover six months, and I have two questions. I understand that you were referring to the PMP or midterm programming or planning.

A. (Mr. Jaldín Florero) Well, we have done this based on Node Prices rather than medium term.

But I would like to clarify that the Node Price studies is part of the Node Price studies.

Q. But I'm not referring to historical data. I am thinking of future projections, and you mentioned that for future projections, long-term future projections, CNDC has six-month studies. Is that what you call midterm programming or PMP?

A. Yes.

Q. And you also said that the Node Price study is an extract from the PMP, and I don't know if you know, but the Tribunal has been asked to take into account the Node Price that was current as of the date of nationalization that banned--that expected the operation of the Karachipampa unit during the following six months and also the Node Price Report in which it shows that Karachipampa was withdrawn in August 2010. Could you explain to us why there was this difference, and also what would be the term used in the documents?

A. (Mr. Jaldín Florero) Well, based on the current

09:22 regulation in Bolivia, the Node Price report is based on the first half of the year prices, and the PMP should be presented first to the electricity authority, the regulator, up to September 15 or March 15. Node Price studies are results that come up after the observations by the regulator.

So, to the PMP published by CNDC, modifications are introduced based on the modifications that could be introduced by the agents or the regulator.

The final Node Price result is based on the database that covers the four years for the medium term. So, the medium term, the database is corrected based on the observations by the agent or the regulators. For us, Node Prices come from the midterm database.

Q. And those Node Prices are current only for six months; correct?

A. (Mr. Jaldín Florero) Well, even though the past horizon is for four years, the Node Price report for six months is only current for six months, and it has not been renewed.

Q. And for the long term, which one would you choose? The PMP or the Node Price report?

A. (Mr. Jaldín Florero) Once again, for me, it's the same.

MR. SILVA ROMERO: Mr. President, now I have some questions for MEC's representative, Mr. Llarens.

BY MR. SILVA ROMERO:

09:24

Q. I understand that you were hired by Rurelec; correct?
A. (Mr. Llarens) Yes.
Q. And I also understand that the instructions to conduct the study were given to you by Mr. Abdala; correct?
A. (Mr. Llarens) Yes.
Q. Did you actually develop MEC's study?
A. (Mr. Llarens) I worked on it together with the team that I lead.
Q. How many people worked on your team?
A. (Mr. Llarens) There were only two additional persons.
Q. But you did not sign the study that you provided to Mr. Abdala?
A. (Mr. Llarens) I am responsible for the team that actually produced the results for Mr. Abdala.
Q. That is not my question. My question is whether you signed the report.
A. (Mr. Llarens) I did not sign the report.
Q. You mentioned your knowledge about--of Bolivia not too long ago; correct?
A. (Mr. Llarens) Yes.
Q. Have you worked before in Bolivia?
A. (Mr. Llarens) Yes, I have.
Q. I understand that in June 2012 the CNDC invited MEC to participate in the bidding terms; is that correct?
A. (Mr. Llarens) I am not in charge of the business

09:25 portion of it.

Q. So, you're not aware of the bidding terms to study the maintenance and the operational cost of the new generation units so as to obtain the information necessary to approve each type of technology and the maximum operational costs?

A. Well, once again, the Commercial Director, the Business Director was in charge of that.

Q. And so, you're telling me that you did not participate in developing the various proposals for being awarded a bidding?

A. (Mr. Llarens) No, I did not participate in that case.

MR. GARCÍA REPRESA: I also have some other questions, if you allow me.

BY MR. GARCÍA REPRESA:

Q. To address the questions of the Tribunal, you said that you used CNDC data without changes. Do you remember that?

A. (Mr. Llarens) Yes.

Q. And later on you said that you made adjustments to the database; correct?

A. (Mr. Llarens) Yes.

Q. You were based on projections up to 2018; correct?

A. (Mr. Llarens) Yes.

Q. And that was based on instructions by Compass Lexecon; correct?

A. Well, basically because as I mentioned before--may I

09:27 answer?

Q. First, did you receive instructions from Compass Lexecon to do your projections up to 2018?

A. (Mr. Llarens) No.

Q. You used the POES 2011-2021; correct? I think that we're overlapping a little bit.

So, you used the POES 2011-2021; correct?

A. (Mr. Llarens) Yes.

Q. And no one told you that you could not use information after 2010, May 2010?

A. (Mr. Llarens) Well, I understand that I need to use the best information available.

Q. What are you referring to?

A. (Mr. Llarens) As of May 2010?

Q. And you know that the POES that you used was published in May 2010?

A. (Mr. Llarens) Well, I understand that POES actually captures information and publishes it in a document that was published in December 2010.

Q. So, you understand that this document that you used was published in December 2010 but not before.?

A. (Mr. Llarens) Well, I understand that document includes the information current to that date.

Q. POES 2011-2021 goes only up to 2021; correct?

A. (Mr. Llarens) Yes.

09:28 Q. And one of the adjustments that introduced to POES was the start-up of the combined cycle process.

MR. RUBINS: I'm the only one listening to the translation. I think for the transcript when counsel asks a question, you might want to just pause for like two seconds in order to give the translator an opportunity to take a breath.

PRESIDENT JÚDICE: Yes, the idea is to have some breaks, some pause in between.

MR. RUBINS: Otherwise, it's impossible to tell which one is the question and which one is the answer, and you are going to say yes, say yes instead of um-hmm'ing your answer because that is not a very good answer.

BY MR. GARCÍA REPRESA:

Q. So, when you--

A. (Mr. Llarens) Could you please repeat your question?

Q. You modified POES 2011-2021, to include the combined cycle with the--in connection with November 1st, 2010; correct?

A. (Mr. Llarens) Yes.

Q. And you also modified the information provided by CNDC to leave Karachipampa operational during that model; correct?

A. (Mr. Llarens) Yes.

Q. And you did not estimate future firm capacity; correct?

A. (Mr. Llarens) Well, we published in our report future firm capacity.

09:30 Q. Could you look at Item Number 3 of the document that we just gave you. I'm going to ask you a question, but I hope you are going to recognize this document. Do you recognize it?
A. (Mr. Llarens) Yes.
Q. And if you move on to Section 7, Page 9, and you look all the way through Page 10 in Table 6. Do you see it? Do you see Table 6?
A. (Mr. Llarens) Firm capacity.
Q. Yes.
Table 6 includes what you just called your estimation of firm capacity; correct?
A. Yes.
Q. And that calculation was very complicated, that's my understanding, because starting in 2010 it's always the same; correct?
A. (Mr. Llarens) Well, you are saying it was complicated. That's your idea.
Q. But your problem is from that 2012 on, it's all the same?
A. (Mr. Llarens) That's what my problem is, everything that was done.
Q. So, from 2012 on, it was all the same.
A. (Mr. Llarens) That's the result that we saw, yes.
Q. And that considers the operations are more efficient than those of EGSA?

09:31 A. (Mr. Llarens) Yes.

Q. The fact is that starting in 2012, we have the same firm capacity for EGSA units including all of the more inefficient units in the system such as Aranjuez 1 to 3 that considers the operations of the new units; right?

A. (Mr. Llarens) It considers the POES 2011-2021.

Q. The POES 2011-2021 includes Rositas 10-20-19; correct?

A. (Mr. Llarens) Yes, correct.

Q. You don't include that in the model; correct?

A. (Mr. Llarens) As I explained before, there are models that have to do with a time limitation.

Let me explain because I have to also add something to the answer given by my colleagues from the CNDC. The CNDC estimation model has a time limitation. We're talking about 480 weeks or months of simulation. There is a time limit here, so we have 480 weeks or months of simulation.

The CNDC databases, as we obtained them, are weekly.

PRESIDENT JÚDICE: Excuse me, I didn't really understand. 480 weeks or months? 480 months is 40 years; right?

THE WITNESS: (Mr. Llarens) Yes.

The databases give you the possibility of working with weekly or monthly calculation periods. This is something that you can choose. You can choose as to how to conduct the simulations, weekly or monthly. The CNDC database that we used

09:33 as it was given to us has a weekly calculation basis.

So, 480 weeks, it's about nine years of simulation, approximately.

If you would like to change to a monthly simulation for 480 months, you have to fundamentally change a lot of information on the databases. All of the demands that were done weekly have to be done monthly, and all of the hydrological data that were weekly we would have to do them monthly, and you had to alter the SDDP model given to us by the CNDC.

If the CNDC uses a calculation basis that is weekly in nature, that means that it is more accurate in connection with result of the simulation.

You have to understand that the more aggregated the calculation is, the more time it includes, more mistakes are made. When you do a calculation on a monthly basis, you estimate that every single month the hydrological contribution to the dams is the same. But if you use a weekly calculation basis, all of the days of the week have the same kind of contribution. The CNDC migrated to a weekly database in the understanding that it better represents the system.

If I wanted to change that to include more time, I had to change the CNDC database structurally. We thought that this was technically incorrect. We wanted to work exactly with the information that the CNDC provided to us in the database.

09:35 That is why we decided to keep the weekly scheduling of the operation and to obtain nine years of detailed operation on a weekly basis.

Q. When you talk about database of CNDC, are you talking about the databases included in the PMP?

A. Yes, the ones that are published by the CNDC in its page.

Q. Please go to Page 1.

MR. RUBINS: I'm not fundamentally opposed to continuing; however, we did have an agreement proposed initially by counsel for Bolivia last night that counsel would stay within 15 minutes with their questions, and we are already at 20 for counsel for Bolivia, so I wonder, given the thickness of this bundle, how long counsel intends to continue. We did prepare for 15 empties and held to 15 minutes with respect to our questions.

PRESIDENT JÚDICE: Thank you, Mr. Rubins.

MR. GARCÍA REPRESA: Thank you, sir. If the witness limits the answers, we are going to go faster. But also apart from a time issue if I heard the Tribunal correctly, the Tribunal said this morning that apart from asking questions in connection with the answers given to the experts by the--given to the Tribunal by the experts, perhaps the Tribunal would be interested in listening to the answers of questions that could explain things to the Tribunal.

09:37 I think we are going to the core of the issue, and I think this is something that may help the Tribunal.

PRESIDENT JÚDICE: It is true that the Tribunal wants the Parties to ask questions because we think it's important, it's important for due process, but again we have to think that this period of time questions by the Parties is included in the total time accorded to each one of the Parties.

And as I understood that Claimants stick to the 15 minutes, Tribunal accepts, obviously, that you take more time, if necessary, to answer some questions that you--to us for some questions, sorry, that you did not include because you were thinking of 15 minutes as the maximum amount of time.

It's not for us a problem, but as you know both Parties wanted to close today with hearings to leave time to prepare for the final pleadings tomorrow morning; and, therefore, I ask the two Parties to be actually very strict on their questions or we may have a problem in the future. The Tribunal is prepared to work tomorrow morning, but the counsel for both parties, I understand, need some time to prepare.

MR. GARCÍA REPRESA: Sir, I still have five minutes. Perhaps that will facilitate this debate. I only have five minutes left.

(Pause.)

MR. GARCÍA REPRESA: Thank you very much.

BY MR. GARCÍA REPRESA:

09:42 Q. A moment ago you were saying that the database that you used is the PMP, and I asked you to look at Page 10 of your report. I don't know what this is, really, but I'm going to call it a report. But if you go to Page 9, Section 7, you say that in order to determine the income of the generator units from EGSA, the firm capacity value was used that was reported in the PMP; is that correct?

A. Yes.

Q. I think you were given a sheet of paper, a few pages, actually.

PRESIDENT JÚDICE: Where are they coming from?

MR. GARCÍA REPRESA: You're going to see, Mr. President. This is an excerpt from the PMP current as at the nationalization date, Annex 37 of Mr. Paz's statement. It's a long document, and that is why we have only printed a part of it.

And if you go to one of this binder, you're going to see there are a number of annexes, and we have included this annex.

If you go to 8(h), you're going to see the firm capacity that was included in the PMP.

BY MR. GARCÍA REPRESA:

Q. Do you see that? It's 8(h).

And this Annex 8(h) has two pages because it goes from 1 May 2010 to 31 October 2014.

09:43 A. (Mr. Llarens) Yes.
Q. And it covers that period of time.
But let us look at the first page, and please look at your own report, Table 6, and let us look at Guaracachi II. If we look at the CNDC report for Guaracachi II, the second column that relates to firm capacity up until May 2010, you see zero. The fourth column that goes to July 2010 is zero. The third column that goes to 31 October 2010 is zero. And the next column that goes until 30 December 2011, is zero.
Do you see that?
A. (Mr. Llarens) Yes.
Q. And then in your 2010 chart, we have 4.6.
So, you did not use the information from the CNDC to conduct your forecast?
A. (Mr. Llarens) I would have to verify this information against my own files.
Q. You agree that zero and 4.6 is not the same?
A. (Mr. Llarens) Yes, of course.
Q. You also know that.
You confirmed the information that is included in this PMP is not reflected in your capacity run?
A. (Mr. Llarens) No, it's not the same information. What I'm not sure of is whether this is the same source.
Q. Thank you very much, sir.
I have a question for Mr. Parodi.

09:45 Just for you to answer a question and for you not to have come here for naught, are you--I understand that what you did with this study if you considered this assumption in connection with MEC data and the result. Would that be a fair summary of what you did?

A. (Mr. Parodi) Yes.

Q. And you conducted a sensitivity study for the Rositas project, if I remember correctly.

A. (Mr. Parodi) Yes, that's correct.

Q. And if you can look at that booklet that we gave you, Number 17. No, it's the other. It's the binder, actually.

So, in Number 17, you see the sensitivity study that you conducted; right?

A. (Mr. Parodi) Yes.

Q. And Rositas--I don't know if you know this--is connected, interconnected, with the City of Sucre. It's the same ring that includes Aranjuez 1, 2, 3--1 to 3.

A. (Mr. Parodi) Yes.

Q. And if you look at the first page of this Tab, it says here, dispatch level for EGSA plants. I understand that here you're indicating what period of the year these units are going to be operational according to the forecast conducted by MEC; right?

A. (Mr. Parodi) Yes, right.

Q. Look at Aranjuez 1, 2, and 3, and please start at

09:47 2013, and you can go earlier if you want. You're going to see the chart that says "dispatch level," that is how much energy these unit are going to be selling. If you look at Aranjuez 1, 2, and 3 starting in 2015, we have the same level for these three plants; correct?

A. (Mr. Parodi) Yes, correct.

Q. And this simulation, Rositas, becomes operational in 2018; correct?

A. (Mr. Parodi) Yes, that is correct, 2018.

Q. Rositas becomes operational in 2018 with a 400 megawatt hydroelectrical generation power, and it's connected with Aranjuez, so how can you explain that Aranjuez units produce exactly the same that they produced in years before?

A. (Mr. Parodi) That is what the program of MEC shows.

Q. That's what it shows?

A. (Mr. Parodi) yes.

MR. GARCÍA REPRESA: I have no further questions.

PRESIDENT JÚDICE: Do you have additional questions, just for a few minutes?

MR. RUBINS: Just one question, Mr. Chairman, to Mr. Llarens.

EXAMINATION BY COUNSEL FOR CLAIMANTS

BY MR. RUBINS:

Q. If you could please explain to the Tribunal a bit of your background and experience with respect to the electricity

09:48 markets and the work that you do.

A. (Mr. Llarens) I am a capacity engineer. I have worked doing these kinds of valuations or assessments for more than 30 years. I have worked in the Universidad de la Plata, where I got my degree, and I worked for market administrator for a wholesale entity in Argentina called CAMESA.

I was then a consultant. I have worked in that field for 20 years. I worked for Government, for regulators, for private companies, for investment banks, for market agents all over the world.

In Bolivia, I have participated in the drafting of the regulatory framework. I have conducted audits to the CNDC in connection with its functions.

I also prepared the first POES for generation and transmission in Bolivia, working for the Vice Minister.

I have also trained the CNDC professional staff in connection with simulation models such as the PMP in short-term models and other models.

I have also trained them in connection as to how demand is projected for the electrical market, and I have conducted private market valuations for the Electricity Sector in Bolivia up until now.

MR. RUBINS: Thank you. I have no further questions.

PRESIDENT JÚDICE: Thank you very much for being here. You don't need to stay here to be heard. You have discharged

09:50 your functions. Thank you very much, and thank you for your cooperation. Thank you very much.

(Witnesses step down.)

PRESIDENT JÚDICE: Now we start with one of the expert witnesses. I'm going to leave for two minutes to get my bag that I left at the hotel, but I think it's here.

MR. SILVA ROMERO: Perhaps we need five minutes to organize everything. We are going to have to show a PowerPoint presentation, et cetera.

(Brief recess.)

MANUEL A. ABDALA, CLAIMANTS' WITNESS, CALLED

PRESIDENT JÚDICE: Good morning, Mr. Abdala. A pleasure to meet you and a pleasure to have you with us. I think that you already have experience in this type of situation as an expert witness.

I'm going to ask you to say your name, and there is a statement, I believe, for you to read.

THE WITNESS: Good morning, Mr. Chairman and Members of the Tribunal.

My name is Manuel Abdala, and I have a Declaration here in Spanish, which I will read.

I solemnly declare upon my honor and conscience that I shall tell the truth, the whole truth, and nothing but the truth, and my Statement will be in accordance with my understanding - both with my knowledge and my understanding.

10:08 PRESIDENT JÚDICE: You made this statement in Spanish? It's fine with you?

THE WITNESS: It's fine with me. I can understand both languages.

PRESIDENT JÚDICE: Thank you very much.

Then now you know how it works, and we expect a presentation from you in the beginning, and then you will be able to answer questions inquiries from the Respondent, but also some questions afterwards from the Claimants, and also from the Tribunal.

THE WITNESS: Excellent.

PRESIDENT JÚDICE: Please proceed.

THE WITNESS: Thank you very much, Mr. President.

DIRECT PRESENTATION

THE WITNESS: I have prepared some visual aides that you have with you. I have selected the topics that I think are most important in trying to understand the differences of opinion between Dr. Flores and my opinion on damages, and I'm not going to be able to cover all the subjects on but please feel free to ask me any questions, of course, in any of the issues.

In Slide Number 2, I have summarized the topics that I intend to cover, which mostly relates to the nationalization claim. I will focus on the two on key differences—eventually that this discount rate, which is the most important one--and also

10:10 the price projection and dispatch forecasts.

I also will talk about the reasonability of the valuation tests and how I have benchmarked my Discounted Cash Flow valuation results with market multiples, and then I will summarize damages.

Now, in Slide Number 3--please feel free to interrupt with questions at any time, of course.

In Slide Number 3 I have a representation of the differences in the opinion between my valuation at $247.8 million, and that's a valuation for the firm, that's Enterprise Value, and Dr. Flores at 91.3 million, and I believe that this is the best way to compare differences on opinion because it focuses on what is Enterprise Value as of the date of the nationalization, May 1st, 2010.

In this chart, what you have is the discount rate. If you just modify the discount rate in my valuation model from 10.63 percent to Dr. Flores's 19 percent or so, then you get a first-order effect of $127.9 million. As you can see, that's the main area where we have disagreement.

And the other four topics of disagreement, which we agree with Dr. Flores that these are the four key issues, are the price and dispatch projections which you see here. Once you correct for a discount rate, it, will you represent around $20 million in differences of the value of the company, $8 million in Capacity Prices, and other differences which is

10:12 mostly related to working capital and administrative expenses, which represent 0.4.

As I note in this slide, the order in which you apply these four factors may have some slight impact.

Like, for instance, if we start--I think you have seen a table by Dr. Flores. If you start with the price on dispatch projections first, then those 20 millions may become 40 millions, and the discount rate, if you put it all at the end, 127 may become up to 90 million or so. So, because there is interactions, the order in which you put this will have an impact.

But in any case, this gives you a good idea of the representation of the relative impact of each of the topics in which we disagree on opinion.

Now, let me focus on discount rate first. This is Slide Number 4.

And let's go directly to Slide Number 5.

On discount rate, on the left side you have the relative magnitude of the different components in which I disagree with the opinion of Dr. Flores. The Size Premium and the Country Risk Premium are the main ones. As you know, I don't use any Size Premium; Dr. Flores uses 6.28 percent.

As you also know, the main difference in opinion on Country Risk is 1.5x multiplier--that Dr. Flores applied to my 7 percent Country Risk Premium, and you also know that there are differences

10:13 on the other components going from risk-free rate, Market Risk Premium, optimal leveraged ratios, and raw data use, which are not negligible; they represent $35.9 million in valuation, but for the purposes of this presentation, because I have time constraints, I'm not going to dwell into those. I'm going to focus exclusively on Size Premium and Country Risk Premium.

Now, in Slide Number 6, I show the issues related to Size Premium. Well, do we need to use any Size Premium when we're valuing a company that is a relatively small company compared to the U.S. but we're valuing the company outside the U.S.?

And here, what we have is that we know that in the literature, researchers have assessed the fact that for companies that are traded in the U.S., if they have relatively small size, they have found that, on historical returns, small-size firms have a higher return than large or medium-size firms, and that reflects what then has been known as sort of a higher risk related to being a small size because of different fundamental aspects of affecting those small companies as compared to large ones.

Now, even though this literature started in the Seventies, there has been many authors also writing that the empirical tests may be confounding other elements that are not related to size. And I pointed out this to the Tribunal because of two very important authors in corporate finance, 10:15 Fama and French, who once were basically supporting this idea that there is a size premium, released in 2012 a very comprehensive study using data from 1989 to 2011 on 23 Developed Countries in the North America, in Europe, in Asia-Pacifica, and Japan, and they concluded that there was no Size Premium in any of these region during the sample period, which is so obviously something that all practitioners and academic community took notice because it's a very important result.

Furthermore, you have seen in this record that Professor Damodaran is cited extensively by Dr. Flores as well as myself, and he condemns the use of a size premium without really looking into the fundamentals of the company. And here you have a nice quote from him saying that "Adding a small-cap premium strikes me as not only a sloppy way of adjusting expected returns, but an abdication of the mission in intrinsic valuation."

And that's what I mostly criticize Dr. Flores on. I mean, he basically says well, this is a relatively small company if we plot it with a U.S. company, it's less than the premium. But if you look at his First Report, he really doesn't explain to you why--whether he has analyzed the fundamentals of the company and whether he thinks that a size premium is called for.

So, what I did in my Second Report--and this is the summary that you have in Slide Number 7--is to really

10:17 ask--well, for this company, do we have any fundamentals that justify the use of a size premium? Can we see Guaracachi as a--as having the type of higher risk that some empirical research has found in the past for small firms in the U.S.?

And my conclusion is that it doesn't, and let's see why. Well, I have a list here of the most relevant aspects of two authors that are relevant. Each are discussed as to the conditions for higher returns in small firms.

The first one is whether the company's very sensitive to business risk. So, whether it operates in the market that is volatile or whether there is significant uncertainty as to the revenues that they can expect.

On the contrary here, Guaracachi, what we see is it mostly depends on regulated prices, Capacity revenues and Spot Prices that come from a well-defined, regulated market. So, we don't have that type of uncertainty on the revenue side that may justify.

And, indeed, if you look at companies--generator companies throughout Latin America, regulators would not use a size premium because they understand that in regulated industries, this is a concept that doesn't require any addition to the cost of capital for this concept.

The second thing that this companies--when you believe the company--a small company may have trouble with, is the issue of a very poor history of dividends or a very poor history of

10:19 profitability in general, which is clearly not the case of Guaracachi.

Similarly, small companies in the U.S. are related to the fact that normally they--no one is monitoring or supervising or providing externally generated information. In Guaracachi, not only we have the key Shareholder being traded in the U.K., but also we have credit-rating agencies carrying since 2007, given that the company has issued corporate bonds and, therefore, monitoring by external agents was present.

Lack of management expertise, well, the record is clear that management was not an issue in Guaracachi. On the contrary, it was praised for being managed by professional experts.

And last is the issue of financing, whether the company may have had--small firms may have difficulties in financing or they--or they may be financing themselves at a very high interest rate. And I don't see this issue here at all because, even as late as 2009, Guaracachi was able to raise 24 million to finance a combined-cycle project, and the interest rates that they pay on all this outstanding debt is an interest rate that is very reasonable for Bolivia and for market conditions prevailing at the different times where they took those loans.

So, I don't really support the use of Size Premium in this case, and I think it is not merited, especially after

10:21 consideration of all the fundamentals of the company.

The second most important issue, if we move to the next slide, is the issue of Country Risk Premium. And here the Tribunal have different measures that they can use or valid references. I present here what I think are the most important ones, apart from my opinion and Dr. Flores, who basically seems to add only the 1.5 to my 7 percent.

As you understand, this 7 percent is--that I found is an indirect measure of the sovereign spread of Bolivia because in 2010, we didn't have any bond--sovereign bond issue by Bolivia in U.S. dollars with which we could compare a spread. So, what I had to do was I had to use the credit rating that three agencies--Fitch, Standard and Poor's and Moody's--would give to Bolivia--I believe it's a B rating--and then compare that spread of sovereign bonds of other countries for the 12-month period prior to May 2010 in order to obtain a 7 percent figure.

And I notice that this measure might have been like too high because by taking the 12-month average, I picked up data from early 2009 when there was a run on emerging bonds in general. So if you see that, if I had taken only the May 2010 month average, this 7 percent would be 5 percent. And that 5 percent is more in line with what Professor Damodaran has for Bolivia, which is 5.5 percent.

And finally, the only other test that we have--the

10:23 only direct test that we have for Bolivia comes two years later, which I don't use because it's 2012, but really, I think you have seen my comment in my report, that the 3.1 percent probably represent the only direct estimate of the spread that we have for Bolivia, and it's difficult to think what happened--what transpired, say, between 2010 to 2012 would be so much different from one period to the other.

But I think with my 7 percent, I think it's high, but it's a reasonable benchmark for what you use for Bolivia.

Now, let me comment on the 1.5x. I heard in the opening that counsel to Respondent brought two examples cited in Dr. Flores's Second Report from Mr. Damodaran applying in two Indian companies a so-called "1.5" or a multiplier for a period of five years and then 10 years." And I think counsel made some interpretation related to whether this is what Damodaran meant by "short term" versus "long term" because, as you know, Professor Damodaran recommends eventually the use of this multiplier only for a short-term valuations.

Now, upon examination of these two Indian examples, the truth is Damodaran doesn't use it for definition of short term versus long term, but if you go to the spreadsheets in which he has published in his Web site on these two examples or others, really the reason that he's using this or suggests that others may be using it is the differentials in growth rate in the very early years where he sees that the company may be more

10:25 stable or growing at a very, very high rate as compared to what he called the steady state, more stable conditions in later years.

So, I think this has been misinterpreted as--whether it had been interpreted at the short term is a few months or five years or 10 years.

The issue here at stake is whether the 1.5x or this multiplier is being used or not in practice.

And the next slide shows you--Slide Number 9 shows you that the multiplier doesn't seem to be used in the region for any power generator or for all the information that we have in the record so far. What you see in Slide Number 9 is basically the different investment bank reports from which you can extract the WACC that is being estimated in valuation made by Santander Investment Bank on 15 different generators operating in the groups of ENDESA, ENERSIS, and AES Gener for this relevant period of time in 2009 and 2010 and--

PRESIDENT JÚDICE: Sorry, I remember that one comment to being only Santander's. And you are speaking of different investment banks' reports?

THE WITNESS: Yes. These are different investment bank reports, all authored by Santander Investment Bank, but they are made in different points in time and with respect to different groups which, in turn, have different companies, 15 generators in total. And they are located in different

10:27 countries.

So, what we can see from this data is that these--for each country, the investment bank reports will contain a measure of the WACC which includes a breakdown with the Country Risk Premium.

So, the first column you see the Country Risk Premium that they have used for different countries, and the second column or the last column, what I show there is the EMBI spread, the sovereign spread corresponding to that country in that particular month of valuation.

As you will see they are very, very similar. They don't apply any multiplier that is explicit. There is nothing explicit. There might be some gaps between maybe the data that they have used, they may have one month or two months' average, and that's why they don't coincide exactly, but they're very much in line. And in practice, as I can tell you, this multiplier is not applied by regulators either, anywhere, to my knowledge, in Latin America. And it's not a--it's not a practice that you do when you value long-term assets. Here we have an asset that goes up to 2038. And in long-term valuations, you don't have to multiply the already spread on the sovereign bonds by any differential between equity and debt markets.

Now, the Tribunal may see the evidence from these same from Latin American benchmarks--and this is in Slide 10--as to what are the costs of capital or WACCs that I used for

10:28 generators elsewhere? And here again, we have the 15 companies with the sample median of 9.19 percent. Which, as you can see in the example, all of the comparables located in Colombia, Peru, Chile, and Brazil, have a WACC that is lower than the one I recommend for this case at 10.63 percent. Those that are highest are basically involving Argentine companies with WACCs between 13 to 15 percent.

The same comparison you can make for the cost of debt, and that is shown in Slide Number 11. And here, this is an interesting one because Dr. Flores and I shared the same opinion, at least he--although he thinks that the cost of debt could be a little bit higher, but he accepts and he uses in his valuation the 7.88 percent as being the cost of debt, which is very close to the median of this sample, again, with the exception of the Argentine companies that seem to be borrowing at very high rates, maybe, as I mention in my report, because of the Argentine companies being subject to specific distress from the Government regulations that do not allow them to earn any margins at all, and in many cases they're in situations very close to insolvency.

And you see here that what is striking is that in the cost of debt, we have the same opinion with Dr. Flores, and it's very close to the median of this sample.

Now, what happens when we look at cost of equity, which is the main discrepancy of opinion with Dr. Flores? And

10:30 that's represented in Slide Number 12.

When we see the cost of equity, we see that here is where the striking difference is. Here, we have Dr. Flores at 27.6, and mine at 14.45 percent, with the sample median of 11.6.

Well, one thing that is important to notice here is if you think the risk of investing in Bolivia for a Shareholder is as high as 27 or 28 percent, you would expect the lenders to have the same perception either because of size or because of the Country Risk Premium so that the cost effect would be that Shareholders are asking for has to bear some proportion or has to bear some relationship to what lenders are demanding.

And here we have lenders of very different types. We have the commercial side of CAF, we have direct lending by bank loans, and we have corporate bonds being issued--that are being eventually bought by the pension funds in Bolivia. So, different types of measures of lending tells you that the lenders are seeing no Size Premium and very little Country Risk as compared to what Dr. Flores is using for cost of equity.

And visually, you can observe that in Slide 13. Slide 13 is, again, the same sample of comparables. And I calculated the relationship between cost of equity and cost of debt. So, what we are seeing here is the ratio difference between cost of equity and cost of debt. For the sample, the median you see is very stable, even for Argentina. In

10:32 Argentina, you see exactly clearly what's going on. The cost of equity is very high, but also the cost debt is very high.

So, you see that this ratio relationship between cost of equity and cost of debt is very stable in all companies. And here is where Dr. Flores comes with this relationship of 3.5 times higher for Shareholders and debtholders, which is something that, in my opinion, is unsustainable and cannot be the case.

Summarizing on the issue of discount rate, I notice the Tribunal has asked to what extent do we have any other reference from Bolivia in the Electricity Sector as to what type of discount rates Bolivia might be using? And I found two references that I wanted to share with you, and this is shown in Slide Number 14.

The first one that is shown, the 10.10 percent here, is what Bolivia used for Electricity Distribution Companies for the 2007-2011 period, which is the relevant period close to my valuation date, at 10.10 percent.

And the second reference that I found was the one that was already spotted by the Tribunal, which is the one that is in the law. In the law, if you recall, Article 48 has a 10 percent discount rate in real terms that, to my understanding, has been modified by Resolution or by the Ministry in 2000, and that has been set at 12 percent in real terms. And to my knowledge, that has not been changed so far.

10:34 That was set back in 2000.

And as you see in my graphical representation, so as to make sure that we are comparing apples to apples, nominal rate, so that 12 percent is in real terms, so you have to add some inflation--which I don't know how Bolivia would use it--but assuming it is around 2 percent or 2.5 percent, you would have some--a nominal rate between 14.5 or so.

So, I thought that was useful information to share with the Tribunal. And again, I compare that also with the comparables of Latin American companies, the median being 9.19 percent.

Now, in his Second Report, I was a little bit surprised by Dr. Flores introducing the concept of the IRR that you didn't see in his First Report. In his First Report, he seemed to agree that the WACC is only standard to determine Fair Market Value as a cost of capital to use for this firm. And then in his Second Report he says, well, let's test the notion of what we see in some documents. And he shows--well, you have seen them. He shows you some documents of what Rurelec may be having as an IRR or IRR benchmark for investing in South Africa, and you have seen some documents as well for what an IRR could be like for--as per someone's opinion in Bolivia, et cetera.

Now, let me clarify that these are two different concepts. And if you look at Slide Number 15--and I'm not

10:36 going to spend too much time on this because it might be complicated--but this is a very standard way of teaching the differences of IRR and discount rates when you're looking at corporate finance. And the blue line here, the downward-sloping blue line represents basically the trade-off between Net Present Value and discount rates. And this is very intuitive. The higher the discount rate represented here in the "X" axis, the lower your Net Present Value of expected cash flows. And the lower the discount rate, the higher the Net Present Value.

And the IRR--what is the IRR? Well, the IRR is just the discount rate that makes the Net Present Value equal to zero, by definition. And there is no disagreement, I think, between Dr. Flores and I on the definition.

Now, what is the IRR used for? The IRR is used as a benchmark to compare whether--given my discount rate, whether I want to invest in a particular project or whether I don't want to invest. And then I say, well, look, if my discount rate is below the IRR, then I will invest because the project is profitable. If it is above, I don't invest because then it might become unprofitable.

And if it is equal, well, then I'm indifferent because, it's like, well, why would I take that risk if it is--if my discount rate is equal to the same and you're indifferent.

10:38 And that's the only way you can interpret the IRR. The IRR should never be used for a fair market valuation, and that is a concept that is very well understood. You should always use the rate discount rate that is applicable to the industry, because the discount rate that represents the cost of capital to the industry is that rate that, in the competitive situation, the transaction value of that asset will sell for.

In Slide Number 16, it's the same thing I just said, is you have it on the record and I just flag it for your information, the quote on the definition by Damodaran as to what is the IRR, and as well the quote of what the IRR should be used for, which is a tool for decision-making, always in comparison to your discount rate.

Let me turn to the issue of price and dispatch projections. And I think here, although the differences in Enterprise Value is much lower than the issue of the discount rate, I think it's important that we clarify--or that I clarify two aspects: Projections of prices and projections of dispatch.

And let me start with prices in Slide Number 18.

Slide Number 18--

MR. GARCÍA REPRESA: Excuse me, sorry, I would just put a marker on the record, we've reached 30 minutes, so we add four minutes additional time just for your use, Dr. Abdala, for you to keep track of time.

10:40 THE WITNESS: Thank you.

Slide Number 18 has the actual selling prices of the company. Then you have two dots that represent the actual Spot Prices observed in Bolivia as it happened, and then the blue versus the orange, the projections.

Why is that we have such a discrepancy? Well, the main reasons are that, in the projections used by Econ One and eventually undertaken by Mr. Paz, we have a very optimistic situation in which demand grows relatively little. The demand that Mr. Paz is drawing is coming, at least according to his First Report, from the medium-term plan from 2010 to 2014, which only takes into consideration information that the marketplace provides from existing distributors. It doesn't take into consideration, for instance, the mining projects or the cement projects that Bolivia would have as new, and those you can pick up only from the POES.

The second issue is that there are some differences in supply, as a--and the bottom line of this is whereas Mr. Paz's projections will increase the effective reserves, which Bolivia, as of 2010, were around 5 percent, very, very tight market--only 5 percent, supply and demand very, very tight--in the long run, these reserve margins goes up to 30 percent; whereas, in my projections, I do also improve the reserve margins but on average at 8 percent.

Why? Well, because I don't think any willing buyer in

10:41 Bolivia in 2010 would have seen a significant improvement over time on these margins because--precisely because now Bolivia would only have to rely on investment by the private sector and would be deprived of a private sector investment for the future.

So, in order to save some time, you see this Slide Number 19 shows you the difference between MEC and Mr. Paz on total available capacity, and I think most interesting is Slide Number 20, which is the implications as to Guaracachi's dispatch energy.

You see what you have here--and that's why I criticize Dr. Flores for not being conscious of really studying what is the underlying data provided by Mr. Paz's runs, because what we have in the history of Mr. Paz is that Guaracachi, which represents 40 percent of the total energy in Bolivia, with the emergency situation that Bolivia has, will eventually be dropping to half its production by 2018, losing market share from 40 percent to 20 percent, and staying there for the rest of the period up to 2038. That's not consistent with what you would really need to analyze in the situation which, even if new capacity comes into place that might displace you temporarily, well, obviously Guaracachi would have reacted and would never lose such an important market share.

But even so, the result that Mr. Paz implies here is because of the very overoptimistic projections which your

10:43 reserve margins goes up to 30 percent.

I'm happy to expand on any issues on dispatch, but let me finalize with a very important tool for you to benchmark my DCF results, and this is the comparables of market multiples. You have seen that evidence on Slide 22 already. It's in the record. I have data from 30 companies from Emerging Countries that shows a multiplier of 9.74 percent.

And I just want to briefly respond to Dr. Flores's latest observations which are summarized in Slide 23 as to why he doesn't like comparables, when this is a standard technique used to benchmark DCF on Fair Market Value.

MR. GARCÍA REPRESA: Dr. Abdala, just so you know and everyone knows, we have exceeded already by a minute the maximum time. Obviously, if the Tribunal allows this to go on, we will request the same treatment later.

PRESIDENT JÚDICE: We prefer that you close your statement with some time, if possible, not much time. Thank you.

MR. RUBINS: Mr. Chairman, if I may, it would seem to me only fair, given that the questioning of CNDC and MEC went over without limitation by at least five minutes, that that time should be used now by Dr. Abdala.

PRESIDENT JÚDICE: My statement is based on fairness, okay?

For the Tribunal, we would rather prefer to have a

10:45 little more information by witnesses; and, then, to be better prepared to answer to your requests than to stick to a very formalistic approach limiting the time and then not to have the advantage of being learned as we expect.

And, therefore, please proceed, taking into consideration that you are not with all the time of the world, as you can imagine.

Thank you very much.

THE WITNESS: Thank you, Mr. Chairman.

And I think I have only these last two slides. I will be quick.

Basically the new arguments that Dr. Flores raised was, first of all, he says, well, look, the median of this sample is 9.74 EGSA, which is equal to AES Gener in Chile, and then he lists all the reasons why Guaracachi may be different from AES Gener.

Well, I was surprised by this comparison because the median is the median. It's not reflecting any spot in any particular company of the sample. You have 30 companies. The median just happened to be close to one because it's the middle point of the sample. Obviously, the case. But that doesn't mean that your company's comparable only to that specific company.

The median represents the full range of the 30 observations, and the median has the beauty of taking out the

10:46 extremes, as you have seen in a previous slide, Slide 22, takes out the extremes of those that are traded at very high 40, 50x, and also takes out the extreme of those that relatively very low, trading at 4 or less than 5x.

And so, this is an invalid criticism, and Dr. Flores obviously knows this.

Now, the second criticism is that my sample has Bolivia being the--among the top two Country Risk Premium, and I disagree. Because if you go to Econ One--Econ One's second report in Table 2, really, the opinion of either Dr. Flores or mine that Bolivia is between 7 and 10.5 percent, and that would put them in the middle of the pack of comparable Country Risk Premiums.

The third new argument that Dr. Flores had brought on the benchmarks is that eight out of the 30 benchmarks have indefinite term licenses, and he separates out those with term licenses that are indefinite with those that are finite. And I would argue that it is proper to include both because when you have a License that goes as far as 2038, market will see that as eventually possibilities of renewal, so both are important.

And in any case, if you look closely at the 22 benchmarks that have a finite term, they have a very high median at 8.2x and an average of 9.8x.

Finally, he basically says that Guaracachi cannot be compared to this because other companies have future growth, 10:48 whereas Guaracachi's does not. Well, that's obviously not the case. I mean, you have a License--you're sitting on a License up to 2038. We know that the company already had some other projects in mind, and certainly there will be growth. The fact that I'm not including those potential new investments in my DCF of new plants is because we want to value the assets as we have today, not speculate about new assets.

And the last criticism that he make is on the issue of EBITDA, which I already adjusted to match the forecast EBITDA adjusted by 6 percent.

So, in sum, in Slide 24, you have the only other method that is put forward as comparable to the DCF, which is the market multiple you had it already.

PRESIDENT JÚDICE: This is clear. And the summary is also clear.

THE WITNESS: Thank you very much, Mr. President.

PRESIDENT JÚDICE: Now you know what is happening. You are going to be crossed. That is the name of the game.

Thank you very much for your presentation.

MR. SILVA ROMERO: Yes, Mr. President. Mr. García Represa will conduct the cross-examination.

MR. GARCÍA REPRESA: Thank you very much, Mr. President.

CROSS-EXAMINATION

BY MR. GARCÍA REPRESA:

10:49 Q. Good morning, Mr. Abdala.
A. Good morning.
Q. You know that you are accustomed to doing things in English, but we're going to do everything in English as you see fit.
A. Yes, it would be better.
Q. Could we start.
My name is Jose Manuel García. I will be representing Bolivia, as you probably guessed already.
Now, I want to pick up on a point you just raised about CAPEX. You said because you're valuing the assets that exist now, you don't include CAPEX.
Now, just to be clear are you valuing the assets or you are valuing company? Which one of the two?
A. I'm valuing the company. And what I said is I'm valuing the company with the assets that I have right now. So I'm not including new plants in valuing the companies.
The value that I'm doing is the value of company, but not--what I'm saying is I'm not trying to see if there is any additional value, say, for future investments and new plants.
So, as you see, the DCF only has a valuation restricted to the existing plants.
Q. But additional plants will mean additional CAPEX, i.e., additional costs that would reduce the value, wouldn't it?

10:51 A. No, absolutely not.

I mean, additional plants would increase the value in principle, because you would assume that the investor will undertake the investment if it expects to add value, not if it doesn't. So, only the investments that add value will be added. So that's the--normally, otherwise, you will be planning for something that may be a bad investment. So, you have both costs on the CAPEX side and operating, but have you more revenues because you're expecting more revenues. So, in expected terms, you would expect those to add value, not to decrease value.

Q. And just to be clear on how your model works, revenues constantly increase after 2018; correct?

A. Costs increase during--

Q. Revenue, sir. I'm talking about revenues.

After 2018, revenues keep growing constantly, don't they?

A. Revenues are kept constant in real terms. Revenues increase with the rate of inflation after 2018.

Q. Right. But have you no CAPEX, no investment whatsoever?

A. No, that's wrong. That's wrong. I mean, if you read my First Report, I do talk about CAPEX, and I said, in CAPEX, I do not put CAPEX explicitly--

PRESIDENT JÚDICE: Please make a small pause between

10:52 yourselves. It's always happening. It makes sense because everyone is very energetic, but it's a good way to try to stop to allow transcripts to be made more clear for our future work.

Thank you very much.

THE WITNESS: Thank you. I will follow that advice, Mr. Chairman.

PRESIDENT JÚDICE: No, for both of you.

THE WITNESS: In my model, as I explained in the First Report, the CAPEX is already in the OPEX. Why? Well, because the company informed us what would be the costs that each of the plants would have to be incurring in order to be able to be maintained with major maintenance and overhaul so that they could be operational until 2038. And so, we have a very detailed spreadsheet with the cost which is a function of the number of hours that the units are expected to be dispatched. So, the more hours the units are expected to be dispatched, the higher these costs would be. And those are reflected in the OPEX in my model.

And what I stated about the CAPEX is that I do not--because the maintenance of the existing units are reflected in the OPEX, I do not project any CAPEX into the future because the CAPEX would be only for new plants, and I don't project any new plants in the future.

BY MR. GARCÍA REPRESA:

Q. Thank you.

10:54 So, just to confirm, the CAPEX line is zero after 2010, just given your explanation, and your assumption is that EGSA would continue to operate the very same generators it has installed in 2010 up until 2038; correct?

A. Well, yes--

Q. Thank you. For the moment--

A. Yes.

PRESIDENT JÚDICE: Wait a minute.

MR. GARCÍA REPRESA: It's a very simple question, Mr. Chairman, and I would like to move on.

PRESIDENT JÚDICE: I'm just saying that you need to allow for the answers to be clear for the transcripts. Thank you.

THE WITNESS: Thank you, Mr. Chairman.

BY MR. GARCÍA REPRESA:

Q. Mr. Abdala, if I may rephrase the question.

Is it your testimony that in your model the only plants you factor in are the existing ones you said, existing ones as of 2010, which would continue operating until 2038? Yes or no?

A. Yes, that's correct. The only plants that are being modeled are the existing plants as of 2010; and, according to dispatch projections, they are expected to be functional until 2038, yes.

Q. And you mentioned a moment ago that revenues increased

10:55 with inflation at 2.5 in your model after 2018.

Do you recall that?

A. I do.

Q. But that's not correct, isn't it? It's Capacity Price revenues increase at a higher rate than inflation, don't they?

A. You're right. And I guess I misspoke thinking only on the revenues on the energy sales. The energy sales on Spot Prices, they are expected to increase by the inflation rate.

As it relates to Capacity Payments, the Capacity Payments, as you have seen in my opinion, I noticed that the Capacity Payments are regulated, and they have to be updated every six months by the evolution of the turbines that the Bolivian regulator uses in order for the reference of the Capacity Payments.

And I analyzed the evolution--the historic evolution of the U.S. turbine PPI index as proxy, because that's a proxy that the Bolivian regulators also use in order to see the use--they look at the plant and the cost of the plant and equipment produced in the U.S., and that's what I have concluded that it would be higher--would grow in a higher level than the wholesale inflation in the U.S., and that's at 3.5 percent overall inflation on those.

Q. Okay. And we will get to that in a moment. We're on revenues.

I'm not sure whether you were in the room, but counsel

10:57 for Claimants stated last Friday, from Day 4, Page 942, "I do understand from Compass Lexecon that Mr. Paz's models to do run from July and not from May 2010."

Did you tell this to counsel?

A. No, I don't recall that.

Q. What I just read to you, is that your understanding as to how Mr. Paz's model works?

A. No. I understand that Mr. Paz's model will have implications from May 2010 onwards.

Q. So, counsel for the Claimants was mischaracterizing your views in their cross-examination of Mr. Paz, weren't they?

A. I don't know. I didn't pay attention to that, sorry.

Q. Now, we were talking, sir, about 2018 a moment ago.

Did you provide an instruction to MEC to run dispatch only up to 2018? Yes or no?

A. No, I didn't. As I explained today by Mr. Llarens, Mercados explained to us, and I knew this from my experience in electricity markets elsewhere in Latin America, that when you have to do simulations on a weekly basis, you have a limit up to the number of weeks that you can use. Because otherwise, then you start repeating yourself on the expected history of hydroelectricity, which is randomly forecasted.

So, that came only through the technical limitation on the weekly analysis.

Q. Okay. So, when we see in your First Report at

10:59 Paragraph 72 and then repeated in your Second Report at Paragraph 106, quote--Page 34.

So, when we read towards the middle of that paragraph--

A. Sorry, could you repeat the paragraph number?

Q. Yes. Seventy-two.

Are you with me, sir?

A. Yes.

Q. When we read there, "I asked MEC to run a dispatch simulation for the upcoming nine years starting in May 2010 and ended in December 2010," you want to correct that statement, I understand? 2018, sorry.

A. Well, here--yeah, it reads as if it was my decision, but this was really--we worked closely with MEC in understanding the limitations of the technical model. So, I agree with the--it came through their suggestion, and I agree with that, and as part of the set of assumptions and--that MEC would have to run, the time horizon would be something that I would have told them that I would be okay for them to run up to December 2018.

Q. In that same sentence that we find in your Second Report at Paragraph 106, we should also correct it; correct?

A. Well, it's the same thing. I don't think a correction is needed. It's just a clarification on how that decision came through.

11:01 Q. Okay. Now, you understand that the MEC team used the expected expansion of the system arising out of what's called the POES 2011-2021. Do you understand that, sir?

A. I do. I understand that those are the main--that that POES would have the main expected entry dates and project size that forms the basis for MEC's input. It's not the only one, but it's one of the main basis.

Q. And you understand that by using that POES, which was dated December 2010 and not the POES that was in force as of the nationalization date, the Rositas hydropower project comes off MEC's runs, doesn't it?

A. No, that's not the--not the reason why Rositas is out. As I said, that's one of the things I instructed Mercados to look at. And I told him, I said, look, we need you to assess what would be the expected capacity and what would be the expected demand as known by the market in May 2010.

And thus, we review the information that has been published by the Bolivia before, like the POES 2000--that was released in November 2009. I reviewed with Mercados other information, such as the medium-term plans that were available.

But I also review and analyze what type of market information would be already known to the participants at that time, because eventually that's the exercise that I wanted to do.

And thus you have, say, information such as the delay

11:03 on entry of certain plants that was already known to the market. We had already knowledge about mining plants that would add new demand as of May 2010. And I concluded that the best representation of what could be expected would be best summarized by the plan of--that was released by the CNDC in December 2010 because that's something that, although it was released later, it was information that was already in the marketplace.

So, I told them, well, look, because you need consistency between the demand and supply forecast, use that as a base with these qualifications. And I instructed them on the modifications on Karachipampa, the modifications on the date of entry of the combined cycle, and because of--Rositas was at the very end in November 2009 plan, and was it off by one year, by only one year, in their November--sorry, in the December 2010 release plan, I specifically discussed whether we would need to include Rositas because it may--because of its size, it may have some effect in the modeling.

And I concluded that Rositas really was not needed because it was unrealistic. And it's been there for more than 40 years. And then as soon as I studied what would be required, more than $1 million in expenditure compared to the size of the budget that Bolivia has annually for infrastructure projects, which is over 300 million or so for the energy sector, I thought that was not realistic.

11:05 And I was criticized for that, and I provided the Tribunal with the sensitivity to my model. If I had included Rositas by 2018, the impact would have been a decrease in damages by $900,000.

Q. Thank you.

MR. GARCÍA REPRESA: And I would need an instruction from the Tribunal.

BY MR. GARCÍA REPRESA:

Q. My question was whether you understand by using the powers--the POES after nationalization, Rositas came off of MEC's runs. I thought I heard an answer that was yes, but it took about five minutes to get that yes.

MR. GARCÍA REPRESA: So, I would please appreciate a Tribunal instruction in that regard.

PRESIDENT JÚDICE: Thank you very much, Mr. García Represa.

Mr. Abdala, when possible, as we have time constraints and the Parties are living with that, don't go to deeply on the time allocated to Respondent. As you will be, I would say, redirected by the other side, by Claimants; and therefore, it would be possible to detail a little more, if convenient.

Then, my suggestion, when you think you need to clarify more in detail--and the Tribunal always appreciates that--take some notes and attend to it afterwards.

This is something to be decided on a normal basis.

11:06 Please don't say only yes or no. If you need to clarify, clarify. But if you think you need to clarify with much more information, it's probably a good solution if you put it for a second moment, okay?

THE WITNESS: Very good. I will try my best.

PRESIDENT JÚDICE: Thank you very much.

It's easier to suggest to apply, but anyway, that's my little thing.

Go ahead.

MR. GARCÍA REPRESA: Thank you, Mr. Chairman.

BY MR. GARCÍA REPRESA:

Q. Dr. Abdala, just to confirm, Rositas never comes on line in your model before 2038; correct?

A. It doesn't. It never comes on line.

Q. Now, you said that you explained in your report why Rositas--

Now, to be clear, there is no mention whatsoever of Rositas in your First Expert Report, is there?

A. There is none, yeah.

Q. Now, you just explained that the reason to exclude Rositas is you found it to be unrealistic. And to be clear, that is your judgment call, sitting here today; correct?

A. Correct. That's what I thought it would be. Also the views of the market participants as of May 2010.

Q. Okay. And the views of the market participants, 11:08 according to you, as of May 2010, is was that Rositas would be delayed until after 2038; correct?

A. No. I mean, basically what the opinion implies is that not that it will be delayed after 2038. It will be--it's just an unrealistic project that Bolivia, on its own, would not be able to undertake. And because we are in May 2010, that there is no expectations that private Parties would be funding this because private investment, as of May 2010, will be seen--for the generation industry, in the middle of full nationalization--something not feasible either.

Q. Okay. I would like you to turn, please, to your Second Expert Report, Footnote 125, which you will find on Page 61. And if you could let me know whenever you are there, Footnote 125 on Page 61.

A. I'm here.

Q. Now, sir, am I right in looking at this and noting that the only two articles that you referred to for the state of Rositas as of May 2010, are an article dated 19 January 2013 and Bolivia's 2012 investment budget?

A. Those two are the ones cited here, but not in relationship to Rositas. This is a relationship to basically the issue of whether Bolivia's own public investment in utilities, how we would fare compared to private. This is not on Rositas specific.

Q. Okay. Sorry. I thought Footnote 125 was called in

11:10 Paragraph 115-A, 115 starts by reading, "in the case of Rositas," and 115-A says, "Rositas's economics are unsound."

I would assume--and please correct me if I'm wrong--that the footnote you're referring there deals with Rositas, doesn't it?

A. The footnote that is in there deals with Rositas. Prior to that cite, there's lots of sentences that deal with Rositas. I'm just saying that the quotes that you have here referring to the issue of private versus public investment, not to specifically to Rositas.

Q. Okay. So, these are not the articles that would support your conclusion that the market knew, as of May 1, 2010, that Rositas would not come on line?

A. No. These articles have nothing to do with that.

Q. Excuse me. I was wrong.

Now, point me to what article discusses that as of 1 May 2010, sir.

A. Well, as I explained, it was my judgment call that Rositas would be unfeasible for the reasons that I explained in the Second Report and also for the reasons I gave in Footnote 125.

The quotes that I have here relates to the more broader question as to whether Bolivia would have the ability to further invest and manage new--investment in new capacity in general.

11:11 Q. Okay. So, your judgment call is not supported by anything that's referred to in this document, is there?

A. In which document?

Q. In this Report, sir. We're talking about your Second Expert Report and, for that matter, the first Expert is also appropriate.

There is nothing in either of your Reports, no document, no support for your own personal judgment that Rositas would not come on line, is there?

A. No, that's not the case either. You also have all the different CNDC reports. If you actually look at all the CNDC reports, what you see through time is that Rositas has always been like put one year after. So, every new plan or every new report would have Rositas come in a year after. And also you see the budget for Rositas never being allocated. So, that information is already also in the record in CNDC. So, that's also part of why I made that call. It's not coming out of the blue. It's already--that information in--produced by CNDC itself.

Q. So, are you suggesting, sir, that the CNDC, as of 1 May 2010, was telling the market that Rositas would not come on line before 2038?

A. No. It's different. It's--what I'm suggesting is that Rositas has always been on the plan, put like nine years, 10 years ahead of time as a wish that they would have in the

11:13 future, but, A, it's always being rolled over by one year; and, B, has never been allocated any budget.

So, by looking at those facts, you see--and looking at the size of the project and looking at the expected profitability of the project and also by looking at the constraints that Bolivia has on budgets for allocating, then we are told that information, I don't think any market participant would see that as a credible investment.

Q. Okay. And you were referring to the CNDC documents, so if you could please turn to your Tab 5 in the bundle.

A. I don't think I have a bundle.

Q. It seems I'm the only one that has it.

PRESIDENT JÚDICE: But this is a problem with a good solution.

(Pause.)

BY MR. GARCÍA REPRESA:

Q. Take your time. I was following Tab Number 5.

(Pause.)

BY MR. GARCÍA REPRESA:

Q. Take a look at Tab Number 5.

Do you recognize this document?

A. I do.

Q. Is this one of the CNDC reports you were referring to?

A. Correct. This is the one that was released in November 2009.

11:15 Q. Right.

And if you can please turn to Page 17, you will see on the top of Page 17 a reference to Rositas.

Do you see that, sir?

A. I do.

Q. Now, you obviously read Spanish, so I won't have to translate. But in that paragraph it is said that (in Spanish) it is recommended that in the final studies the possibility to install smaller generation unit is analyzed and, if possible, have an earlier date for the entry into operation.

Had you seen this when you prepared your Expert Reports? Yes or no?

A. Yes, I did.

Q. But you did not consider it relevant to draw the Tribunal's attention to this, did you?

A. Well, the issue here is that Rositas, as it shows on this paragraph, doesn't even have a firm size or design, and there has been projects with Rositas, as I mentioned, since the Seventies. And the CNDC, in 2009 says, well, it may be at 400 megawatts; in 2010, says maybe at 500 megawatts. Now, it says, well, why don't we discuss whether we do different pieces.

So, it's a project that's completely in the air, and it's a project that, regardless of how you--it is a nice project to make. Santa Cruz always wanted to have that project. But what I'm saying is the market is not really

11:17 seeing the strong commitment by Bolivia because it's not yet specified and it's not been allocated any budget and, therefore, probably the market doesn't take it seriously.

Q. Okay. So, if you could please turn to Tab Number 2. And here we're going back on time. We were in November 2009. You're saying the market doesn't take Rositas seriously.

Now I would like to take you to January 2009. This is a publication submitted by Claimants in this case.

And you if turn the page after the exhibit reference is found, you will see in the middle column at the top "Hidroeléctrica Rositas se Reactiva."

Do you see that, sir?

Hydroelectric Rositas is reactivated.

Do you see that sir?

A. Yes, I do.

Q. Turn the page after the C-294. If you turn that page, you have the cover of the Reporte Energía, and in the middle column on the top, you see Hydroelectric plant Rositas is reactivated.

Have you seen this before submitted in your report, sir?

A. This specifically, no, I didn't.

Q. Okay. If you would please turn to Page 12, which is where that article is drawing our attention to.

So, as of January 2009--

11:19 A. I'm sorry, I'm not with you. You said Tab 12?

Q. Page 12 of this document. Sorry if I confused you. It's Tab Number 2, and it's at Page 12.

Are you with me, sir?

A. Yes.

Q. Now, I will invite the Tribunal at some convenient time to look at this article in more detail, but what I would like to confirm with you is that what you have been referring several times as the 1970s project was suddenly being reactivated in 2009, wasn't it?

A. Well, I cannot confirm that. I mean, here, this is a publication that basically says that ENDE is trying to think about reactivating it. But Rositas has been, as I mentioned, in the list of potential projects for much further than 2009.

Q. Okay. I understand that you haven't seen this document before, and that's why you can't opine on it.

A. I haven't seen this magazine before, no.

Q. That's fine. We will just, for the record, strike out Footnote 127 of your Second Report in which you cite this document.

A. I'm sorry?

Q. Yes, Footnote 127, you can take a look at it. You cite this document--

A. Okay.

Q. --but you've confirmed twice you had never seen it.

11:20 But that's fine.

MR. RUBINS: Could we ask Dr. Abdala to look at Footnote 127 so that he can recall?

MR. GARCÍA REPRESA: I think it says what it says. I would like to move on, if you don't mind.

MR. RUBINS: Mr. President--

MR. GARCÍA REPRESA: You can do it on redirect.

PRESIDENT JÚDICE: Dr. Abdala, if you may give a very quick answer. Okay, if not, we can read afterwards. And anyway, you can redirect. Not to waste our time, or I would say Respondent's time with that. But if you wish to comment very quickly on it, that's okay.

THE WITNESS: I see here a cite of the report, but I don't recall. It's been cited for other reasons.

PRESIDENT JÚDICE: It's okay. It's enough for the time being. Then you don't recall.

THE WITNESS: I don't recall, no.

PRESIDENT JÚDICE: That happens to everybody. Thank you.

BY MR. GARCÍA REPRESA:

Q. Now, if we could go back to your Second Expert Report, where you speak about Rositas. That is Paragraph 114 onwards.

A. Which paragraph?

Q. 114 onwards.

Now, I understood from your testimony now--and it's

11:22 further developed in your Report--that you considered Rositas unfeasible because of the costs involved. And I understand that the long-term project costs would be $1.2 billion.

Is that your understanding, sir?

A. Well, the first statement that you made is not the only reason. There's many reasons that I discuss here.

And 1.2 billion is one of the figures that you see reported. There's other figures as well. And that's, again, another reason why I don't think the market takes it seriously because it has different estimates for costs that vary through time, as well as its design and specification.

Q. Well, sir, do you agree or do you not agree with the fact that Rositas was a 1.2 billion project?

A. Well, that's--the 1.2 billion is a quote from the CNDC's POES. So, it is stated there as 1.2 billion project expense.

Q. And I'm now back at Footnote 125, where you said there were other explanations. There you compare that 1.2 billion to the State budget, the total public investment budget for 2013; correct?

A. Yes.

Q. Now, you're assuming that Rositas will be financed in one year. Is that your assumption?

A. No, sir.

Q. Are assuming that Rositas would be financed solely

11:24 with the State's budget?

A. Yes. As of 2010, that was what market participants would have expected.

Q. Okay. Now, if we could stick to this page where we are, now we're looking to the left, and we're looking to another reason why you suggest that the POES of 2010--that is, the one in force as of the nationalization date--will not be reliable.

And if you turn the page back please, sir, I would like you to take you to Paragraph 112.

Towards the middle of that paragraph, you said that you've analyzed CNDC's 2009 POES.

Do you see that?

A. I do.

Q. And I will--just for semantic purposes, and because it can be a bit confusing, when in your Report you referred to CNDC's 2009 POE, that is the POE published in November 2009 which was in force as of the nationalization date, wasn't it?

A. That's correct.

Q. And when in your Report we see CNDC's 2010 POE, that was the POE published in December 2010 that would have figures for 2011 onwards; correct?

A. That's correct.

Q. Okay. So, here you've analyzed one that was in force as of the nationalization date, and you say that it's "quite

11:25 out of date as of the time of valuation."

Do you see that, sir?

A. Correct.

Q. And the reason you give for saying that it's out of date is what we have on Table 6, in the coming page, which are delays in the entry into operation of certain plants; correct?

A. Well, that's only one reason, but there's other things that were out of date as well. But this is the reason--one of the reasons that I show--that is the most relevant one, because it has to do with plants that were supposed to enter before May 2010 and they have not yet entered into the marketplace.

Q. Now, you said it's one of the reasons. Tell me, where can I find in your report any other reason for saying that the POES in force as of nationalization is out of date?

A. Well, I'm saying that if you look at my overall opinion of why I thought the 2009 plan was already not being used is because of the issue of what type of information the marketplace would have had. And what I say--I make the broad statement that it was quite out of date. But it wasn't just quite out of date because of this entry; it was quite out of date for other reasons.

For example, for Rositas, it had a budget of $32 million. As of May 2010, we knew that that wasn't the case. And the same with all the--many of the hydro and geothermal plants that the market knew, they already were not

11:27 being properly budgeted for.

So, this is one of the reasons. There's other reasons why it is outdated as well.

Q. Now, what you just told us is nowhere in your reports, is it?

A. What I just told you is just--I'm elaborating on all the reasons why I thought that the market--the information that contained in the 2009 POE was already out of date.

Q. Right. And you confirmed that the only reason that you actually cite in your report is what we see on Table 6, some delay in the entry of certain plants; correct?

A. Well, no, I don't know whether this is the only reason that I cite. That's the one you referred to, and you said "the only reason." I don't know. There might be other quotes in the report that might be related to that. I don't remember.

Q. I put it to you--and I remain to be corrected on redirect--that this is the only reason. And I will work on that assumption.

Now, if we look at that Table 6, sir, you mentioned projects in general.

Now, to be clear, in Table 6, there were only two projects that were cited: The Entre Ríos plant and the Guaricachi combined-cycle; correct?

A. I don't think I talk about projects.

Q. You did in your testimony a moment ago, sir.

11:28 A. Well, I may have referred to projects, but if you read the report, I'm showing five new power plants. So, I'm referring to power plants.

Q. And tell me, Entre Ríos is a generator unit. There are four generator units in the Entre Ríos plant; isn't that true, sir?

A. Right.

Q. So, Entre Ríos is one plant?

A. Entre Ríos is not--it has different units. It has four units, and since obviously what matters is that the units may come into place at different times, the market would look at when the unit--the relevant unit will come, not when the full plant eventually will come. So, each unit will add new capacity. So that's a proper way to look at that time, by units.

Q. Okay. And if you look at the Guaracachi combined cycle, you are suggesting that the POES is out of date because it projected combined cycle as of May 2010, and it actually came into force as of April 2012.

Do you see that, sir?

A. I do, yes.

Q. And that's inconsistent with your model, isn't it?

A. No.

Q. Because you project--let me finish, please--because you project that combined cycle will enter on 1 November 2012.

11:30 A. It's not inconsistent--

Q. 2010, excuse me. For the record.

A. It's not inconsistent with the model.

What I'm reporting in this table is the Effective Date of entry as it actually happened--now, in my model, I have to see what is the expected date of entry as of May 2010. And what I use for Guaracachi combined cycle is the information that the marketplace may have had available; which, as I explain in my First Report, was that the combined cycles will be finished by sometime mid-2010. I think it was by August of 2010. And then I explained that I used November 2010 because of--that was a more reasonable date of entry.

And I think Mr. Paz and Dr. Flores also adopted the same November 2010.

So, it's not inconsistent. This is just reflecting effective entry date.

Now, for other reasons, then, after nationalization I understand that the combined cycle had to be delayed, but that was not something that any market participant would have been able to anticipate as of May 2010.

Q. Okay. So, as of May 2010, sir, is it your testimony that a willing buyer would have considered combined cycle coming on line in 2012 or in 2010?

A. In 2010.

Q. Now, as of May 2010, sir, if we look at this Table 6,

11:31 Entre Ríos 2 was already on line; correct?
A. Yes.
Q. And Entre Ríos 3 was already on line; correct?
A. Correct.
Q. Now, Entre Ríos 1 and 4 were not yet on line; correct?
A. That's correct.
Q. And they came on line in January 2010; correct?
A. That's also correct.
ARBITRATOR CONTHE: June?
BY MR. GARCÍA REPRESA:
Q. June. Excuse me.
A. June.
Q. I see we're agreeing on mistakes.
(Pause.)
Q. So, a willing buyer as of May 2010, doing a due diligence of Entre Ríos, would have very likely seen that it was doing a final test, wouldn't it?
A. Well, no, it was slightly delayed. You would have seen that two of the units had already entered, and the others were pretty much coming on line. That's what it would have seen, yes.
Q. So, Entre Ríos was not a big issue in terms of delay, was it?
A. Well, it just reflects that the information on the POE of November 2009 was out of date. And if you model those, then

11:32 you have distortions as to the type of supply and demand balance that you have for the early months beginning in May 2010.

Q. And, sir, in your model, when does Entre Ríos come on line?

A. Exactly on the effective dates that they actually came on line.

Q. So, you look at the POES December 2010, but then in your model you factor in Entre Ríos from June 2010; correct?

A. Well, because we already basically know--the market knows that these plants are about to enter at any minute.

So, for those--there are two of them that are already entered, so the market knows that. And the other two are coming on line very soon.

Q. Now, if we can go now--keep going back, and we look at Paragraph 110. There you refer to an instruction given to MEC to use CNDC's November 2009-October 2013 SDDP database.

Do you see that?

A. I do.

Q. Now, were you aware when you gave this instruction to MEC that there was a more recent database published in March 2010, the one used by Mr. Paz?

A. Yes. And like the technical restrictions to run--not being able to run more than 480 weeks, this is something that we discussed with Mercados, and they explained to me why they

11:34 needed to use the November 2009, October SDDP database in order to project the full calendar, which is something that they would not be able to do if they use a more recent database. And I agreed with that. And I also consent that that would be the proper way to do it.

Q. So, let me get this clear. MEC explains to you that if they use the May 2010 PMP, which includes the SDDP database, they would be looking data from January through May 2010; correct?

A. That is correct. And that has an impact on the sequences of hydro conditions which they wanted to start with the full calendar year by using the SDDP database as of November 2009.

Q. Now, let me get this right. Since you're projecting as of May 2010, why do you need to project January to April and not just take historical figures that are available in the public domain, sir?

A. Well, you can use historical data, but that historical data eventually will not have much in terms of the continuity of the hydroelectricity conditions. So, that's what Mercados explained to us, that in order to be fully consistent, they considered it better to have the full calendar year with information contained on the November 2009 SDDP.

I understood the difference, and I agreed with that. And in my Second Report, as you can see, then I--because I was

11:36 criticized for that, I asked EdI to run what would be the results if we were to use the actual information in this regard in November 2009. And I think it is reported somewhere that the difference was, I think, around 200,000--yah, 0.2 million as of May 2010. That's in Footnote 122.

Q. Now, if you were able to run that sensitivity for your Second Report, doesn't that mean that you could have done that same calculation before your First Expert Report, sir?

A. Well, as a matter of what can be done or cannot be done, yes. But as a matter of what is technically proper--and I understood the reasons why Mercados wanted to do it that way, and I agreed with that because it also made sense to me. And I had experience with this type of continuity in hydroelectricity dispatch model, and my understanding of what they were explaining was perfectly logical. So, I thought that option was preferred to--to just applying the actual information in this particular case.

Q. To be clear, you instructed MEC to use that old 2009 SDDP database, didn't you?

A. Well, as I just mentioned, it came about with the same type of reasoning in which MEC provided their technical reasons, and I agreed, and I consented that, yes, this is the right way to do it.

Q. The answer to my question is yes? Did you instruct MEC to do it? Yes or no?

11:37 A. Well, yes.

Q. Thank you.

A. If you want to play the word instruction with all the background I just gave to you, yes.

Q. Sir, if we could move on to a different topic--

PRESIDENT JÚDICE: Good time for a break?

MR. GARCÍA REPRESA: Yes.

PRESIDENT JÚDICE: Fifteen minutes.

MR. GARCÍA REPRESA: I know Dr. Abdala knows it, but if you could give the instruction.

PRESIDENT JÚDICE: As you know, you're not allowed to speak with anybody related to this case, not only people that are inside this room, but even that are outside this room. You need to stay a little alone, but not obliged to stay here. You can obviously leave the room for a walk or for a cigarette or whatever you wish.

THE WITNESS: Thank you, Mr. President. I understand.

(Brief recess.)

PRESIDENT JÚDICE: Let's proceed.

MR. GARCÍA REPRESA: Thank you, Mr. Chairman.

BY MR. GARCÍA REPRESA:

Q. Dr. Abdala, I hope the news were not too bad today?

A. Not that bad.

Q. As I said before the break, I wanted to change topics, and I would like to clean up a few things in the record.

11:57 If you can please turn in your Second Report to Paragraph 82.

Now, this is in the section where you address the risk-free rate, and what I would like you--and picking up here, you would have gathered, on the President's earlier question. At Paragraph 82 you state that you reviewed valuations performed by investment banks. Do you agree with me that it's only valuations performed by Bank Santander in Chile?

A. Yes, I do agree.

Q. So we'll correct. We will take out that S; right?

A. Yes. It is Santander on the power generators, yes.

Q. And we should make the same correction on Figure 2; correct? Risk-free ratios on investment bank report; correct?

A. Yes.

Q. Even though there are various reports?

A. Yes, you're right.

Q. And if we turn--before I move on from there, the various reports that you include in C-300, those are dated both before and after the nationalization; correct?

A. That's correct.

Q. And you did not consider that it would be relevant for this Tribunal to know that you were using hindsight in preparing this Figure 2 that we have on Page 46, did you?

A. This is not using hindsight. This is just presenting the Tribunal with the only areas that I was able to gather from

11:59 investment bank, which the only one that was having relevant information that I was able to source, was in Santander for 15 corporations and different dates, and I think I explained that on the date of these reports, and I think they are relevant because both before and after is just to show basically benchmark of WACCs and risk-free and other components of the WACCs around the date of valuation.

So, I think those are clear. Some of them are before, and some of them are after.

Q. And you intended this Tribunal rely on this Figure 2 as a sign of confirmation of your analysis; correct?

A. No, I presented it as a sign of whatever else is relevant out there for my investment bank report as to what type of risk-free rates and other parameters of the WACC they have used, and then the Tribunal can compare to both my analysis and to Dr. Flores's analysis.

Q. Okay, so you're submitting this raw data to the Tribunal without suggesting that it confirms your analysis; correct?

A. Well, no, no. It does confirm our analysis, but as I showed today, I mean both the WACCs and the cost of equity, the cost of debt, I'm showing that the analysis is similar, and the results that they find for different companies in the different five countries with the exception of Argentina, for the reasons I mentioned, are very in line with the assets and the

12:00 parameters that I have used.

Q. Okay. Now, did you intend the Tribunal to rely on this Figure 2 as supportive of your conclusions? Yes or no.

A. Look, that's for the Tribunal to decide. Well, assuming that I think that it's relevant for the Tribunal to know, and how the Tribunal will use it, it's up to them.

Q. Sir, I'm asking about your intentions when you wrote this. I don't think that's for the Tribunal to determine, but rather for you.

So, I will ask you again. Did you intend when you provided these figures to this Tribunal for this Tribunal to rely on them as supportive information for your conclusions, sir?

A. And again, I don't have any intentions as to how the Tribunal may or may not rely. My intentions was to present evidence that I think is relevant for the Tribunal to know.

Q. Okay. So, in your first sentence when you read the review valuations performed by investment banks, and we corrected that, on traded power generators in the region confirms my analysis, you had no intention of this Tribunal to rely on this. Is that your testimony?

A. Well, look, the intentions as to whether the Tribunal may or may not rely is that I disagree with that phrasing. The intention is to present this evidence because I think it's relevant, yeah, I think it does confirm my analysis, and I

12:02 think the Tribunal will see how they use it. I mean, this is what the evidence is out there for, the purposes of comparison with other companies in the region.

Q. Okay. If we can please turn, and keep these open, if you will, and turn to Tab 30 in your bundle. It's Volume 2.

(Pause.)

Q. You should normally find in there the Second Expert Report of Dr. Flores.

Do you have that, sir?

A. I do.

Q. Okay, so we will be comparing your risk-free rate table, Figure 2 that we were looking at Page 46 of your report, sir, with Page 64 of Econ One's Second Expert Report, grafico uno, and let me know if you are there, sir. Page 64.

A. Correct.

Q. Now, so that everyone follows what Dr. Flores did, is take your same figures, your same raw data and isolate the data prior to the nationalization and the data post-nationalization. Is that your understanding of what Dr. Flores did?

A. Well, what Dr. Flores did was first he reported in Table 4 some separation of dates and showing the different risk-free rates used by Santander Investment during the different time framework here 2009, 2010, 2010, and 2010. And here in graph Number 1, what basically Dr. Flores is reporting not the 2010 average as it is reported in this graph, but

12:05 rather the 4.2 corresponds to all the 2009. That's what it seems.

Well, hold on. Let's see.

Q. Have you reviewed this report before, sir?

A. I did, of course, yes.

Q. Now, I will put it to you--and take it as an assumption--the Tribunal can accept it for itself--that Graph 1 is simply taking the Banco Santander reports dated after nationalization to one side and showing the Banco Santander reports that existed as of 1 May 2010, showing the average and the medium, both the average and the medium, 4.2; Econ One's risk-free rate is 436, and your risk-free rate is 358.

Do you see that, sir?

A. Yes, and what I'm saying is that I find consistency with what is reported in Table 4.

Q. So, there's no inconsistency, but I know that you could do numbers, so you can find inconsistency where you want.

Now, if you were intending for this Tribunal to rely on what Banco Santander did to assess Fair Market Value of EGSA as of 1 May 2010, will you not look at the expert reports that were available--excuse me--the investment reports by Banco Santander available before 1 May 2010?

A. No, no, because, first of all, I'm not using them for the purposes of my own valuation, but, second, I'm providing context of what I have available, and what I consider is

12:06 that the Tribunal should know what are the type of discount rates that are being used by Santander Investment around the date of valuation, so the Tribunal will see that some of them are August 2009, but some of them are June and October 2010, so I think those are the ones that I considered relevant for the closest that I could get to the date of valuation.

Here, it's not a question of hindsight because I'm not using them for my valuation. It's just a question of saying, look, around the date of valuation. These are the opinions of the investment bank report on the conditions of the WACC.

Q. And, sir, in your report, where we find this contextual evidence, if you will--that is evidence after nationalization date--for every line of your model? Yes or no?

A. For every line of my model, well, that's thousands of lines.

Q. Let's simplify for every revenue, and there are three revenue types, energy, capacity, and carbon credits.

A. For revenue lines, let's see, yes, there is information out there on issues of revenues. There's information that provides context for issues of revenues as to Capacity Payments--indexation, for instance. There is context for issues of how the Spot Price is being determined, which is another component of revenue. We have context of information that has been published before or after the date of valuation.

So, there's lots of information that are surrounding

12:08 the date of valuation that is useful for benchmark.

Q. Two points arising out of there. Is it first your testimony that evidence after the nationalization date is relevant to assess the reasonableness of your assumption? Yes or no?

A. Some information, yes, it could be very well relevant because it's relevant for the Tribunal, although I'm using--I'm trying to use information as available as of that date to try to lock in a value as of that date. There is information there that the Tribunal should see as to actual performance, actual Spot Prices, et cetera, that I think it is relevant for the Tribunal to consider.

Q. Okay. And the second point that arose from your answer, I mentioned three revenue lines. You gave me an answer for two, and you conveniently avoided carbon credits.

Now, what is the price per ton of CO2 that you included in your Expert Report, sir?

A. Well, there are several prices for carbon credits. First, you have the pre-sale, so you have an agreement--

Q. Well, that's a set price. What price--let's simplify here. What price did you project after 2013?

A. You asked me for prices.

Q. Well, what prices did you project after the pre-sale contracts ended?

A. After the pre-sale Contracts, what I projected was

12:10 expected future prices on carbon credits as of the date of nationalization.

Q. That was not my question. What was the price per ton of CO2 that you project in your model, sir?

A. If I recall correctly, I think it might be around $17-$18 per ton of carbon emission.

Q. Okay. And carbon emission rights the industry considers are traded in euros; is that correct?

A. Right, I think these are converted into--I think I gave you the right currency, I think in dollars were around $17 to $18.

Q. It's 14 euro, and we're not going to argue about that.

Now, if you think that contextual information is relevant and you consider revenues for carbon credits at 14 euro per ton of C02, don't you think it would have been interesting for this Tribunal to know that carbon credits are trading at less than 50 cents of euro per ton today?

A. Well, I could have provided that information, but I would have to do it with a context of why that's the case because you have a certain permits that are eventually expiring or quotas that are expiring, so I would have to write many pages about why today the price is at zero as opposed to expected price that was at the time of nationalization. Why eventually certain of these rights may have renewed or not renewed, but I use information as to what is the price as of

12:11 that date, and I think--I don't think that has been contested, and I don't think that is information useful that any willing buyer or willing seller would have used at that time.

Q. I'm not trying to see what has been conducted or not, but really trying to understand your way of doing things, because for some things contextual post-nationalization information is relevant; for others you consider it's not relevant, and I just want to confirm with you that you did not mention to this Tribunal that, from October 2008, where carbon credits were trading already at half what you've considered to April 2013 today, when they're trading at less than 0.5 euro at the time, you did not consider that to be relevant information for the Tribunal; correct?

A. I don't think so, because the valuation that was conducted as of 2010 took into account what was expected of the price as reflected by the future markets as of that date.

I mean, again, if I had to put ex post information for every single assumption, then I would have to explain what happened, whether the predictions have been right or wrong for each of the items, and that's not the exercise. I mean, it would take a while for that exercise to be done. I don't think that information is relevant for my valuation. That's why it's not included.

Q. Okay. I heard you, and we diverted away from where we were, which was in the risk-free rate where you do refer to

12:13 post-nationalization information because for that it's relevant, according to your testimony. You can go back, please, to your Second Expert Report, Paragraph 82, and we were looking at Page 64 of Daniel Flores's table.

Now, if you turn the page in Tab 30 of Daniel Flores's report, you will see a graph Number 2.

You see that, sir?

A. I do see it, yes.

Q. And this is, if you go back to your report, a correction at Figure 3 at Page 51.

Do you see that, sir?

A. Well, that is the title of the graph. I would disagree with that correction.

Q. Now, let's take it step by step. Paragraph 91 of your report, second report, you state, "From my review of valuations performed by investment banks on traded power simulated in the region." I understand that we should correct "banks." It should be one bank; correct?

A. No, I have no problem with that, yes.

Q. No, no correction, or, yes, you acknowledge--

A. No, I have no problem with your suggested correction.

Q. Figure 3, we should also do the same correction on the title, shouldn't we?

A. Yes, you can strike the S on banks.

Q. Okay. And when we look at the blue columns in your

12:15 Figure 3, those are based on pre-nationalization and post-nationalization Banco Santander reports; correct?

A. Those are based on all the reports both pre- and post-, yes, that's right.

Q. And Graph 2 of Dr. Flores does the same thing it did in relation to your prior graph, which is isolate the reports dated after the nationalization. Is that your understanding, sir?

A. Let me check.

Yes, that's--it is explained in Paragraph 165. It says that using the data prior to the date of valuation, so that is taken in August 2009, and that's why--first of all, the labels are wrong in Dr. Flores's graphs. They say 2010, 2010. They should be--I think he's referring only to the August 2009, and as I see--

PRESIDENT JÚDICE: I'm sorry, I don't understand. What is the mistake?

THE WITNESS: Graph 2 has the 6.5 percent and 6.5 percent that you see in blue represented as average--as median, that refers to the August 2009 in Santander Investment Bank report, but it has a title, the label that says 2010, and these are not 2010. These are August 2009, and the reasons why I disagree with this being a valid correction is that this is completely the opposite, misleading because it uses something that Professor Damodaran explains how his opinion on Market

12:17 Risk Premium has changed from 2009 where he thought it was between 5 to 6 percent to 2010, where he thought it would be from 4.5 to 5 percent.

So, by excluding any information in 2010, you're missing what's the transition between the end of the financial crisis by mid-2009 to what was going on already by the middle or May of 2010. So, that's relevant information that you don't want to exclude.

So, unfortunately, I wish we had Santander investment reports dated, say, March or April 2010, but we didn't. So, I think it's relevant for the Tribunal to see what the June 2010 or October 2010, which are more representative of what the dynamics, as Professor Damodaran explains, of what the Market Risk Premium perception was after coming out of the financial crisis.

BY MR. GARCÍA REPRESA:

Q. Sir, you submitted the Banco Santander investment reports; correct?

A. Correct.

Q. You did not submit any other report before the nationalization date other than the November 2009 report, did you?

A. No, for the reasons I explained, because I was looking for the closest to the valuation date. And the closest I had prior and after were the ones that I found. I didn't find

12:18 anything closer to that date than the reports that I used.

Q. But yet you did not alert this Tribunal to the fact that in those figures that we just looked at where we saw investment banks' reports it was neither banks, and it was neither as of the nationalization date; correct?

A. Well, I disagree. I apologize for the mistake of having a plural for investment banks when it is Santander, but I did submit the full exhibit with all the reports, and those are in Exhibit C-300, and I don't think I misrepresented anything from that--from there. I had all the valuations of reports, they are stated in that exhibit, and I think I discuss somewhere in my report--exactly where I mention that this comes from dates around the valuation date.

PRESIDENT JÚDICE: Anyway, the Tribunal is aware of this issue, and respectively, if you're right, to remember as what we know, it's better if you proceed. We are prepared enough to take our own conclusions.

MR. GARCÍA REPRESA: I will move on to a different topic, but a similar exercise.

PRESIDENT JÚDICE: Fine.

BY MR. GARCÍA REPRESA:

Q. Which is looking at your figures, because your figures I think are very telling.

If you go back in your Second Expert Report--we will now go to Page 44, and that's where we will find Figure 1, and

12:20 please let me know if you are--whenever you're there.

A. I am here already.

Q. And in that table, sir, you present four columns, the one to the left, Bolivia's 2012 sovereign date--debt. Sorry. Do we agree that using that would be hindsight? Yes or no.

A. That's correct, and that's the reason why I don't use it for my valuation purposes.

Q. Okay. Next, you refer to Professor Damodaran's 2010 indication. You just spoke about it a second ago, and you referred to that again today in your Slide Number 8, if the Tribunal wants to look at today's presentation. Professor Damodaran, 2010, at 5.5.

Now, tell me, shall I understand that 5.5 is Bolivia's Country Risk Premium according to Damodaran in 2010? Yes or no.

A. Yes. Damodaran has an indirect way of computing a Country Risk Premium by looking at a credit rating of the different sovereigns, and then he would have a table assigning basis points according to those ratings.

And for 2010, the 550 basis points that I reported here is that what he considers for Bolivia.

Q. So, if we look at Damodaran's table, we will see under country risk 5.5; is that your testimony?

A. Well, if you look at Damodaran's tables, I mean, you will find both the 5.5, and you will also find another column

12:22 where he says--well, if you agree with a multiplier, then you will find the 1.5x over the 5.5. So, Damodaran will present both results.

Q. Right. And which one of those two is Damodaran's 2010 Country Risk Premium for Bolivia?

A. Well, the first one because that's--it's based on the criteria, the first one meaning the 550 basis points because that's his direct criteria for the rating--ranking that he has, and the spread that he associates for the ranking, and then whether evaluated the size or not, use of multiplier is a different thing.

Q. Okay. So, let's go to the source that we are both referring to, which is C-308 for the record, and that's in Tab Number 7.

Are you with me, sir?

A. Trying.

Q. Now, the title of this slide, this table, is "Estimating Country Risk Premium," and this is Professor Damodaran's table, the one you are referring to; correct?

A. That's correct, yes.

Q. And I know you will want to talk about the top part, but let's look at the figures.

What Damodaran is doing here for several countries listed on the left column is look or estimate, rather, the risk by looking at the rating of that country, and then

12:24 doing--calculating what's called an adjusted default spread, which basically is the spread of the country sovereign debt versus the U.S. sovereign debt; correct?

A. Well, what Damodaran is doing here is basically listing all countries and assigning them the long-term rating and then showing in the next column; the first numerical column is the spread that he assigns for that particular rating, and it's a spread that should be interpreted, yes, as a measure of the spread over the U.S. sovereign or, in this case it's not just the U.S. Sorry. It's the spread over the best rating. You see Australia. Also they have AAA ratings. So, according to Damodaran, those should not carry any Country Risk Premium because, in his scale of rating, they have a better qualification. So, it's not just of the U.S.

Q. And the U.S. AAA, also, isn't it?

A. In 2010, yes.

Q. So, whether you take the U.S., whether you take any other AAA, what we have in the adjusted default spread is the difference between in the case of Bolivia, Bolivian sovereign debt and U.S. sovereign debt; correct?

A. No. It's the difference between the spread that Damodaran assigns to B2 rating that he has for Bolivia as compared to a AAA rating.

Q. And that's the 5.5; correct?

A. Correct.

12:26 Q. And if you move two columns to the right, you will find a column that says "Country Risk Premium."

Do you see that?

A. I see that column, yes.

Q. And according to Professor Damodaran, the Country Risk Premium for Bolivia in 2010 is 8.25; correct?

A. No, that's an incorrect conclusion because you have to read--look at what it says here. You have it in yellow.

Q. At the top?

A. At the top. You have a column that says, do you want to adjust the Country Risk Premium for the additional volatility of the equity market. Damodaran is asking to devaluate, yes or no. So, depending on the judgment whether this is something that is appropriate or not, then you apply it, but his opinion as to what is the direct Country Risk Premium without the application of the multiplier is the column that you see right next to the long-term rating justification.

Q. You see, where I have an issue, sir, is that in your Figure 1 and in your Slide 8 today, you placed Professor Damodaran's Country Risk Premium for Bolivia at 5.5. You're not telling this Tribunal everything that you're telling us now, which is that Damodaran multiplies that 5.5 by 1.5 in order to reach 8.25 which is his Country Risk Premium for Bolivia; is that a fair statement, sir?

A. No, that's a wrong statement because I did explain in

12:27 my Second Report why the 1.5x should not be used for long-term valuation, and I quoted Damodaran's exactly references as to his also, his recommendation that it be used only for short-term valuation purposes. So, I don't think this has anything to do with your statement. I explained that in my Second Report.

Q. Sir, can we find 8.25 percent as Bolivian Country Risk Premium in your expert reports? Yes or no.

A. You wouldn't find because that would be a mischaracterization of what the Professor Damodaran would recommend for long-term valuations.

Q. Okay. So, your view, which you've just confirmed here, is that Professor Damodaran's table here is only for long-term valuations; correct?

MR. RUBINS: Mischaracterization.

PRESIDENT JÚDICE: Please, if you don't mind, rephrase your question.

BY MR. GARCÍA REPRESA:

Q. Your view, sir, is that Damodaran's table here, where we have his application of a 1.5 multiplier should only be used for long-term valuation; correct?

A. That is mainly the recommendation that you can read from Damodaran's hints that he has in his printouts or spreadsheets when he talks about the 1.5 multiplier.

Q. Right.

12:29 Now, I would like to take to you the top part of this document in which you were basing yourself.

Now, the first line reads, "To estimate the long-term Country Risk Premium, I start with the country rating, referring to Moody's, estimate the default spread for that rating, U.S. corporate, the country rate bonds over the Treasury Bond rate. This becomes a measure of the added Country Risk Premium for that country. I add the default spread to the historical risk premium for mature equity market based on U.S. historical data to estimate the total risk premium.

"In the short term especially, the Equity Country Risk Premium is likely to be greater than the country default spread."

Sir, is that the sentence on which you base your conclusion that it is only for short-term--excuse me, only for long-term valuations that you apply the multiplier?

A. No, this is just one of them. There is also quotes where Damodaran discusses where you have to do long-term valuations, these relative volatility factor tends to disappear because you would expect that in the long term the volatility of the U.S. bonds compared to the equity markets will converge or will not be present any longer, so this is just one of the quotes, but there's others as well., and I think I quoted those in my report.

12:31 Q. Sir, you're referring to the long-term volatility. That's stocks over debt; correct?
A. That's true, yes.
Q. And you're saying that the long-term volatility of stocks over debt will be the same in the long term; is that a fair statement?
A. I was trying to summarize what Professor Damodaran has also put forward in his opinion, yes.
Q. Now, there has been a study of that relative volatility in the U.S. market, and are you aware that the volatility is still 2.6; the volatility of stocks is still 2.6 higher than volatility of bonds in the U.S. market, sir?
A. That is true, and that is something that you have when you look at the volatility, depending on how you measure with historical time framework you would use, and you would find more noise in equity than in debt, but there are plenty of reasons explaining that, but what I'm saying is that the concept of what Damodaran uses if you look, we're doing a theoretical valuation of the long-term asset. Well, in that case, he doesn't recommend the use of adding an extra spread because in the long term one should expect certain convergence on that, and that's a practice that I've seen elsewhere. I mean, most practitioners would not add any multiplier because when you're valuing long term assets. When you're valuing short-term assets you may be a little bit more aware and

12:33 eventually adjust but not when you're valuing long-term assets.

Q. Sir, is it your view that there is no more volatility in stocks than in debt? Yes or no.

A. I don't think I have said so. Depending on how you measure, you normally find that there's a bit more volatility, yes, on equity rather than on bonds. There's many reasons for that.

Q. And in your Country Risk Premium, you do not account anywhere for the high volatility of stock over debt, do you?

A. No, it doesn't need to. You don't need to apply that. Absolutely not.

I mean, you already have in the WACC components that reflects a higher premium that equity demands over the risk-free. That's a properly way to capture on the market a risk-free premium, so you don't really need for a long-term valuation to add any multiplier to the Country Risk Premium.

Q. So, we were talking about the relative volatility of stock over debt, and when I was telling you the studies that were done in the States, you said it depends on the period that you consider.

Now, I'm not sure whether you have seen this, but I think Econ One has calculated the volatility--

MR. RUBINS: Excuse me, sorry. I have to, for the record, the characterization of what was said was also inaccurate. Counsel said--you said it depends on the period

12:34 that you consider. That's an extreme simplification of what Dr. Abdala said.

MR. GARCÍA REPRESA: I have no doubt that Dr. Abdala is well prepared to correct any mischaracterization, if he finds so, in my questions.

PRESIDENT JÚDICE: And out of that, the Tribunal will look much more, as is usual, to what is the witness statements than the resume that every lawyer in any court of law or any Tribunal always do. It is one of my characteristics, I would say, as a lawyer, and then I'm prepared to understand it. But tell me why, Dr. García, it's probably better not to try to make a résumé of what Mr. Abdala stated unless really necessary because it may confuse and for sure not help him, and you wasting your time.

Thank you very much.

MR. GARCÍA REPRESA: Thank you, Mr. Chairman.

BY MR. GARCÍA REPRESA:

Q. Dr. Abdala, when you said in response to my question about relative volatility, it is true, and that is something you have when you look at the volatility, depending on how you measure with historical time framework. You recall that answer, sir?

A. I do.

Q. Were you in that answer suggesting that the calculation of relative volatility will depend on the time

12:36 period that you consider? Yes or no.

A. It does. It does change a lot, depending on the time period that you consider.

Q. Thank you.

And are you aware that from 1928 to 2009 the volatility of stock in the U.S. over debt has been 2.6 times greater?

A. I have not been able to check that calculation, but it might well be. I wouldn't be surprised.

Q. And you still maintain that in the long term, there is no reason to apply a multiplier to a Country Risk Premium to account for the difference between the debt which is what you're measuring with Country Risk Premium and the stock of a company of that particular country? Is that your testimony?

A. Correct. I mean, for long-term valuations, you don't need to do any adjustments. All the risks that you see from equity is already captured on the Market Risk Premium, and here we're trying to do an adder to the Capital Asset Pricing Model which is to account for what would be the expected risk that an investor would add to its equity premium for investing in a country that is less stable than the U.S. or than a AAA country.

And the sovereign debt per se already shows that spread, and normally for any long-term investments I would never ever use a multiplier, and I have very rarely seen other

12:37 valuation experts or other regulators apply any multiplier to the already measure of the spread of the bonds that is already captured by the bond itself or by the rating system, as Damodaran does here in the column called "Adjusted before spread" in your exhibit.

Q. Now, if you can please go to Paragraph 60, and we keep going from the back to the front--your Second Expert Report--that's Page 36, and now we're going to be talking about the concept of Size Premium.

Now, would it be fair, sir, to say that Size Premium takes into the effect of term size on returns?

A. Size Premium attempts to capture what you might expect as an additional risk of investing in a small corporation that in the U.S. in particular the evidence shows that, on average, small firms may earn--would earn a return that is higher than larger corporations; therefore, are seen as riskier.

So, that's the main understanding of the concept of Size Premium.

Now, the discussion is, okay, when we're measuring that, are we really capturing size or are we capturing other things such as the fact that smaller firms are not able to access to credit markets as larger firms, et cetera. So, that's why there is so much discussion in the literature whether this is a good representation.

PRESIDENT JÚDICE: Mr. Abdala, your initial

12:39 presentation was really very clear as to that, and we are fully understanding your point.

Thank you very much. You can proceed.

MR. GARCÍA REPRESA: Thank you, Mr. Chairman.

BY MR. GARCÍA REPRESA:

Q. Now, put simply, Dr. Abdala, would you say that the size premium mostly accounts for illiquidity issues of smaller stocks?

A. I would say that illiquidity is an important factor on why you observe a premium on small companies, yes.

Q. Thank you. And I was hoping I would get a shorter answer because I was reading from your report but it seems I'm going to get a comment for every one.

Now, when we refer to liquidity in this context, I will simply, and I'm sure you will correct me, we are referring to the fact that potential buyers, of let's say Google stock are many more than the potential buyers of small boutique firm and that illiquidity will mean that an investor in a small company will demand a higher return. Is that a fair simplification?

A. No, no, no, not a good one. Now, the liquidity has to do basically with the ability that an investor has to either enter or exit from the particular equity investment in a company, so the fact that you eventually will invest in Google, it's a great asset to have because you can trade it at any

12:41 time, enter and exit without much cost at any time because it's so illiquid. But there are also many companies that are traded that are not as illiquid or may have restrictions and, therefore, the premium that you want to have on a stock that is illiquid, it relates to your ability of exiting quickly on the ability to sell in a very short period of time. That's what illiquidity means, basically.

So, what liquidity means is your ability to sell in the short run. Illiquidity is the opposite, that you have to wait.

Q. Thank you.

And I would like you to please turn to Tab 38, and this time it's the second bundle, I can confirm that. 38.

(Pause.)

Q. Now, this is a document, sir, to which you refer to in your report by Tarbell, and it's titled, "The Small Company Risk Premium: Does It Really Exist?"

Do you see that?

A. I do.

Q. Do you recognize this document, sir?

A. Yes, I do.

Q. Could you please turn to Page 9.

Now, this is, I put it to you, that this is an explanation that you've agreed to as what a size premium is; is that correct?

12:43 A. Well, no. It's only a partial explanation. I don't see the issue of liquidity being raised here. This is basically a partial characterization, I believe the issue of small versus large, and small expecting higher returns, et cetera, but it doesn't really discuss the fundamentals of why.

Q. Is there anything on this slide with which you disagree, sir? First tell me yes or no.

A. Let me read it.

Q. You submitted this document, sir.

A. There are five bullet points. Let me see.

(Witness reviews document.)

A. Well, I would disagree with bullet Number 3, for instance, because this is quite a generalization. You see many valuation professionals have never, ever applied a higher cost of capital to value smaller companies as opposed to larger companies, so this is an implication that I would not agree with. In fact, in line with the most recent research, there's reasons to believe that there is no small Size Premium at all, so that I disagree with Number 3.

Q. Other than Number 3, is there anything else with which you disagree? Yes or no?

A. Let me read the rest.

I would also disagree with Number 4 because Number 4 talks about a discount rate based on the expected return, and

12:45 that's incorrect. I mean, normally you would--the discount rate would be related to the cost of capital of the industry, and your expected return may be much higher than that, but that's not the discount rate that you would value the Net Present Value of future cash flows, so I would disagree with Number 4 as well.

Q. Okay. I hesitate to ask you the question again. Is there anything else with which you disagree except for bullets three and four of this document which you submitted, sir?

A. In this slide, no, I don't think so.

Q. Let's now go to the conclusions, if you will, Page 30.

And again I will ask you the question. Is there anything on these conclusions with which you disagree, sir?

A. Oh, yes, many things. For instance, smaller companies are riskier than larger companies. Well, it's a very general statement that many people will eventually agree, but also we have seen some empirical literature, mostly recent, not only French and Fama, but I've read other papers as well, where this has been put in doubt. And so that's why I say the evidence from the literature on this is at the moment a little bit inconclusive, and that's why it's not a good practice to assume that smaller companies always carry higher returns or higher risk. So, that's for Bullet 2.

I haven't read the others yet.

Q. Now, after that, I'm just a bit hesitant as to your

12:47 Slide Number 7 in your direct presentation which cites this document as a source for your point about Size Premium, and that is Slide 7, source Number 1, Tarbell 1999.

MR. GARCÍA REPRESA: This is what we were just looking at, Members of the Tribunal.

BY MR. GARCÍA REPRESA:

Q. And we'll get more to that.

Now, you referred to more recent research, and if we look at the more recent research that you cite in this Slide Number 7, we have Exhibit C-257, do you see that, sir? You can go directly to Tab 7. That's where you will find the document. It may be easier.

ARBITRATOR CONTHE: Tab number?

MR. GARCÍA REPRESA: Thirty-seven.

THE WITNESS: C-257 by Hitchner?

BY MR. GARCÍA REPRESA:

Q. That's correct, the Hitchner article that you cite also.

Now, I would like to look, please, at Page 141.

And if you look at the title "Does size matter?"

A. Yes.

Q. Third line from the top after recalling the debate that you mentioned, it says, "but most analysts agree that some adjustment should be made to account for the fact that over time smaller entities in the public markets have demanded

12:49 higher rates of returns, generally speaking, than their larger counterparts.

Do you agree or disagree with this statement here?

A. I'm sorry, I'm lost where you started reading.

Q. Yes. You can read the entire paragraph from the front. We can read it together, if you want.

A. Okay.

Q. Fine.

So, I'll repeat my question. Do you agree, at Page 141, the third paragraph from the top, do you agree or disagree with what he said there?

A. Well, I would not agree with this because, I mean, according to future--some analysts do not use it and most analysts will use it, that is not my experience, and I rarely see Size Premium being used, so I would disagree with this line of balance as most analysts would have used it.

Q. Okay. And we can go now to Slide 7. We have just gone through the first two sources that you cited there, and now the third source is your own Expert Report, and in particular your Second Report at Paragraph 63 to 64.

Just out of curiosity, you referred a few times in your direct to these studies or the Size Premium studies being done in companies in the U.S. Now, had EGSA in this case been a U.S. company, would you applied a size premium? Yes or no.

A. Oh, no. Absolutely not. We were looking at

12:51 fundamentals, and that's why I cited these two reports by Tarbell and Hitchner. I mean, what I cited these two for is because they say, okay, look. These are the conditions that you normally see on small companies that justify the use of the size premium, and so we have a long list of issues. And I put the most relevant ones and put them in my report as applicable to Guaracachi.

So, I would not conduct any Size Premium or add any Size Premium without first looking at the fundamentals, regardless of the size of the company and whether the company is located in the U.S. or Bolivia.

And in my more than 150 valuations that I have done, I mean, I probably have used Size Premium in one or two cases, and they were related to very severe illiquidity issues for companies that really demanded such things, but otherwise I rarely use it. Never use it.

Q. Keeping this slide open, and we can go to your Paragraph 63 of your Second Expert Report.

Now, 63, you begin by stating, "In a more recent work, Tarbell 2012 presented a list of company characteristics."

Do you want to correct that, sir?

A. I do. There is only one Tarbell document that we referred to. This should read 1999, and this is the Tarbell document that I was referring to, so this is a mistake here, and I think it's also a mistake on the citing--

12:53 Q. In the footnote?
A. In the footnote. The Tarbell 2012 should say Tarbell 1999.
MR. GARCÍA REPRESA: Okay. And this is, for the record, Exhibit C-247, the one we were looking at a moment ago in your bundles. Tab 37.
PRESIDENT JÚDICE: There is not a more recent work?
THE WITNESS: No. This is a wrong quote. Tarbell is only the 1999 report.
PRESIDENT JÚDICE: Thank you.
THE WITNESS: Which is then stated the similar things on the Hitchner article that we see here as well as Exhibit C-237.
BY MR. GARCÍA REPRESA:
Q. If you turn the page, sir, Page 38, your Paragraph 64 continues and again we see a reference to the characteristics explained by Tarbell 2012, I understand we need to correct that, too, and you point to five characteristics. And just so that we are all on the same page, are these characteristics that, if met, would require the application of a size premium? Yes or no.
A. No, there is not a simple answer. These are the characteristics among some others that are listed but that are considered the most relevant for this case that you should be looking at to decide whether you want to apply any adjustments

12:54 to the cash flows or you want to apply some adjustment to the discount rate because you were unable to do any adjustment to the cash flow, so it becomes a matter of judgment. Then if you think some of the characteristics are met, then it might be that you need to do some adjustment because your cash flows may not be capturing fully the features of these characteristics. But it's not an automatic thing. I mean, you have to evaluate the company in context and fully.

Q. But your view is that if none of these is met, you don't apply the Size Premium. Is that your view?

A. Well, the view is that you should ask yourself the questions are these characteristics are present. For if none of these are present, then there is absolutely no reason to apply the Size Premium. And maybe the one is more or less present, the others are not. Well, it becomes a matter of judgment.

Again, the judgment is, do you have anything in the cash flows that are really accounting for what you see, say, as a company, let's say a company's small and it's completely exposed to market volatilities, and you would think is this already captured in my cash flows by having volatility on the revenues or do I need to do an adjustment on the discount rate.

Q. Okay. Let's take these conditions one by one.

Letter A, you state that Guaracachi EGSA, as we follow it here, there were few limitations or constraints on

12:56 fundraising.

Do you stand by that, sir?

A. Yes, I do. I think in general--

Q. A yes will be fine, if you don't mind. We are pressed by time.

A. Yes.

Q. Is this statement as of 1 May 2010?

A. Well, this statement is as of May 2010, and taking into consideration the situation of the company at as that time, which is being in the process of finalizing the construction of the combined cycle, so when you look at what is expected in the future, yes, I think this company would have had no problem in raising finance as soon as the combined cycle would have been operating. I understand that obviously any willing buyer would have seen that as of May 2010, the revenues of the combined cycle were to come in the next few months, but they were still not there, so they would have understood any particular restrictions that the company would have had in the very short term on financing, but they would also have seen the broader picture as well.

Q. Were you in this room when Mr. Blanco testified?

A. No, I wasn't.

Q. Have you seen the documents in the record authored by Mr. Blanco?

A. I am not aware which documents you're talking about

12:57 here. I mean, I have seen some, but I don't know which ones you have in mind.

Q. Now, are you aware that EGSA had no access to international financing other than development banks?

A. When?

Q. Pick your date.

A. Well, if you give me any date, I would say--

Q. How about 1 May 2010?

A. Well, then you have to say when because it's important because what you have is that as of May 2010, what you have is a company that was approaching some of limitations on your debt covenants, you had the CAF debt covenant restriction, so you wouldn't be able to eventually raise more debt as of May 2010; but again, that's why I say you have to look at the long-term perspective.

So, you have to ask yourself, is this going to be solved as soon as this combined-cycle revenues are coming in, or is this permanent, is it a long-term situation or a short-term liquidity constraint on cash. So, that's how we need to see this.

Q. Okay. Now, my question was not exactly that. My question was about international financing.

Isn't that true that EGSA did not have any international financing other than through a development bank called CAF?

12:59 A. Well, CAF was one source, and then the others was currently domestic lending as far as I can recall.

Q. Primarily or all?

A. Other than CAF? I don't recall, but probably you're right. It's mostly being sourced in Bolivia through both an issue of corporate bonds. I don't know exactly who the buyers are, pension funds, but whether there has been any foreign capital source in the issue of the 24 million bonds in 2009, I cannot tell.

Q. Thank you. Apologies for my discussion with my colleagues.

Second point that you raise in Paragraph 63 is companies subject to price regulation.

Isn't it true, however, sir, that Guaracachi's units could be displaced from the market, even though the price is regulated because they're less efficient?

A. Well, it is true as a general concept, but it's also true that Guaracachi's smallest units were the ones that were subject to that risk, and these smaller units also could have been obviously upgraded as Guaracachi itself did in the past with some. And as any generator would do, the bottom line here as to what is expected volatility of the market is, is this a market in which prices can fluctuate a lot? Is this a market where I do have significant uncertainty as to whether I'm going to be able to source revenues or not?

13:01 Well, given the situation of Bolivia as of May 2010, whereas Bolivia is operating with the reserve margins of 5 percent and not being able in the future to source private investment or at least would be very, very tough, any willing buyer would have understood that the units for Guaracachi would be very much in demand for a very long period of time, and thus revenue's uncertainty would not be of any concern.

Q. Okay. We will get back to the reserve issue later.

Now, third point in your Paragraph 3, you said Guaracachi had a healthy history of dividend payments from 2005 to 2008, which was only suspended in 2009 to finance the combined-cycle project.

Now, tell me, sir, we just have the relevant period to look at dividend payments is after 1 May 2010?

A. The relevant period would be in this case, yes, up to May 2010, yes.

Q. Isn't it a fact that in the two years prior to the nationalization EGSA distributed no--I'm getting to the confusion of Mr. Earl here--EGSA distributed but did not pay any dividends?

A. Well, it is true, as I say here, that they were suspended in 2009 to finance the combined-cycle project. What I was stating here is basically look at the broad picture. Is this a company that is losing money, that was never able to pay dividends because it was so in trouble with the possibility of

13:02 ever distributing dividends because it was eventually in the red or anything?

So, here, basically what you have is you look at the history, whether history shows something different. So, that's what I was referring to.

Q. Right. And you said they stopped paying dividends in 2009. Those were dividends of the 2008 Financial Year, weren't they?

A. My understanding was that, yes, they were two years that dividends were declared or at least one year-and-a-half--I don't recall exactly, but there was some period of time which dividends were being postponed, not being paid out to the Shareholders.

Q. Okay. And I think the confusion may arise from your Table 2, Page 13, sir, of your Second Report. I'm sure you will correct me if I'm wrong. Page 13 of your Second Expert Report, Table 2.

There you refer to Guaracachi's financial performance prior to nationalization.

Do you see that?

A. I do.

Q. And the second line from the bottom says "Dividends Paid."

Do you see that, sir?

A. Yes.

13:04 Q. And when we see, for example, in 2008, dividends of $8.4 million paid, those are 2007 dividends, aren't they?
A. Yes, most likely those would be exactly 2007, declared dividends, and that normally they're being paid out the next following year, yes.
Q. Well, in these tables, sir, you mix cash and non-cash items, don't you?
A. No, I don't. These are the dividends paid out of the dividends that are paid out on that particular year.
Q. Fixed assets is not a cash element, is it?
A. Well, look, this table has proper title. It says balance sheets, profitability ratios, and dividend distribution, so each of the elements are--balance sheets are balance sheet elements, assets and equity, then you--
Q. Excuse me, Dr. Abdala, please complete your answer.
A. I'm saying that each of these items are properly labeled. We have balance sheets on the one hand, profitability ratios and even distributions, so I'm not trying to compare everything. Everything has a meaning.
Q. So, you agree with me this table mixes cash and non-cash items?
A. No, I don't because I don't like the word mixing, implying that there is something that is improper for comparison. Cash information balance sheets, it has profitability ratios, and it has dividend distribution as

13:06 reported by the Financial Statements.
Q. Do you agree, do you not, that this Table includes cash and non-cash items, sir? Yes or no.
A. Well, balance sheets, by definition, you can see them as part of the assets. I mean, if you want to go technical, part of the assets could see--
Q. You didn't answer my question. I don't want to go there.
A. Part of the current assets are cash, so what you mean. If you want to do flows versus stocks, I don't know.
Q. And, sir, tell me why did you not look before 2005? Don't you think that was relevant for this Tribunal?
A. Before 2005?
Q. Yes.
A. Well, I think the most recent year shows basically that performance after the Rurelec investment, certainly a year prior, and then the rest.
Q. You received all of the EGSA Financial Statements, didn't you?
A. Yes, I think I did, yes.
Q. You did not include here, for example, Year 2002 in which EGSA reported a loss, did you?
A. No, it's not reported here, that's right.
Q. But you recognized in 2002 EGSA reported a loss?
A. I don't remember.

13:07 Q. And while we are on this page, these dividends paid, those include the inflation adjustment called UFV in Bolivia; correct?
A. No. The dividends do not include inflation adjustment. The inflation adjustment that has been discussed in the records refers to an adjustment on the assets. And I had the, say, corresponding adjustment on the income side, and then you can say well, because the income now allows you to legally distribute more dividends, you may say, well, the dividends may have reflected that ability, legal ability, to distribute more, but the dividends per se obviously are not adjusted by inflation accounting.
Q. So, would EGSA not have applied--and this is a hypothetical--would it not have applied an inflation adjustment? Would it have been able to distribute or pay whichever, the dividends that we see on this Table 2? Yes or no.
A. I understand that there are legal restrictions on how much dividends you can apply as a relationship to the net income of the previous year, so that might have changed the--your ability to declare and pay out the amount of dividends that you actually see, yes.
Q. Sir, did I gather at the very end of your answer that you said a very shy yes?
A. I answered what I answered.

13:08 Q. Now, going back to where we were, which is your list at Paragraph 63 of your Second Report, in relation to the Size Premium, we've gone to Number 4 where you say that Guaracachi--sorry letter D where you said that Guaracachi was featured in externally generated information, indeed, it was covered by at least two credit-rating agencies, PCR and Fitch Ratings.

Do you see that, sir?

A. Yes, I do.

Q. Are you aware of any other credit rating agency that covered EGSA?

A. No, I'm not.

Q. And so, when you said at least, you have no indication that there is no any other but the two that you mentioned?

A. I'm not aware.

Q. So, should we strike out the "at least"?

A. It's a matter of taste. There might be others, but the research I had done, I think these two were the ones that I was able to find.

Q. Now, were you in this room when Mr. Earl and Mr. Blanco explained the change from Fitch to specific credit ratings?

A. I was not in the room, no.

Q. So, you're not aware that these two agencies were not to continue covering EGSA but only one of them?

13:10 A. I am aware because I think I have reported it that there was there was a change in grade rating agencies. I think the company started to--when they started to have PCR coverage, I understand Fitch ratings were no longer providing coverage.

I don't remember--in fact whether there was any overlap in time, but my understanding was basically, yes, one was replacing the other.

Q. And the last point, Guaracachi's management was tabled in comparison to the provisional Experts in the electricity generation industry. Would you say that EGSA's professionals were well acquainted with the combined-cycle project?

A. Well, I would say--I would say what I just say here. I'm quoting the coverage that the credit-rating agencies also talk about the management, and that's what I just quoted.

Q. Now, I'm going to move to another line, which could be the last or the second to last. I anticipate that line going to take at least half an hour.

PRESIDENT JÚDICE: I will explain in a very graphical way.

Then we will make recess now. I'm sure you are aware of all the time constraints and, therefore, I expect we may return within 45 minutes, okay?

MR. GARCÍA REPRESA: We break for 45 minutes?

PRESIDENT JÚDICE: It's lunchtime.

Then we will begin exactly at 2:00, not later on.

13:12 Mr. Abdala, now I won't forget the message.

THE WITNESS: Yes.

PRESIDENT JÚDICE: Stay alone. It's not always happy to have lunch alone, but--

THE WITNESS: I will eat outside.

MR. GARCÍA REPRESA: I will use this time to streamline to get shorter in the afternoon, but not intending to do this, it's taken a bit longer than I anticipated.

PRESIDENT JÚDICE: The Tribunal today has no time constraints. And if you need more time afterwards, we want to finish later, then half past 6:00, we can live with that. But I understand those gentlemen and the lady, they will be probably be very tired, and then, if you can, do it, both of you, during the time constraints, it would be very appreciated. Thank you very much.

MR. RUBINS: Mr. Chairman, I wonder if we might nevertheless have from Mr. Doe a tally of the amount of time remaining as agreed by the Parties.

PRESIDENT JÚDICE: I thought you passed it yesterday.

SECRETARY DOE: Yes, indeed, we communicated that yesterday. What I can let the Parties know right now is that the total that I have on the Claimants' side that has been used up until now is nine hours and 35 minutes, and on the Respondent's side is 10 hours and 57 minutes.

PRESIDENT JÚDICE: You have one hour for everything.

13:14 The Tribunal is so wonderful, patient, and is so happy with your work of both counsel that we'll give you more time, as necessary.

(Whereupon, at 1:15 p.m., the hearing was adjourned until 2:00 p.m., the same day.)

AFTERNOON SESSION

PRESIDENT JÚDICE: Let's proceed. If you would.

MR. GARCÍA REPRESA: Thank you, Mr. Chairman.

CONTINUED CROSS-EXAMINATION

BY MR. GARCÍA REPRESA:

Q. Dr. Abdala, good afternoon.

A. Good afternoon.

Q. Now, I understand that one of your judgment calls in this case was to take a subindex of the general PPI, Producer Price Index, to forecast increases in future Capacity Prices, what we have been calling here "precio básico por potencia," PBP. Have I summarized what you have done properly?

A. Yes, I think so, yes.

Q. Thank you.

And one of the issues you had with that subindex is that no one projected that subindex into the future; correct?

A. That is correct.

Q. And, therefore, you had to come up with your own forecast of what that subindex of the general PPI would be for the future so that you would apply that rate of increase that you project to access the "precio básico por potencia" revenues; correct?

A. Correct.

Q. Now maybe just to put things into context, you do apply the general PPI, I hesitate to say official, but the

14:04 projections that exist in the market for the general PPI as a general inflationary rate in your model; right?

A. Yes, I do.

Q. And that general PPI rate that you use is 2.5 percent annually; right?

A. Approximately. A little bit lower, but approximately 2.5, yes.

Q. Maybe it's just my--I have seen it rounded. That's why maybe I'm saying 2.5. Is that correct?

A. That's correct, yes.

Q. And instead of taking that general PPI, you take the subindex of PPI turbines, and you make your own projection of what that would be, and you come up with a 3.5 percent inflation rate; correct?

A. That's right.

Q. And you do that by looking at historical values of that subindex from 2000 to 2010; correct?

A. That's right.

Q. Now, were you in the room when counsel for Claimants said that it was "pretty obvious" that a hypothetical buyer of EGSA as of the nationalization date would look at the growth of the PPI turbine from 2000 to 2010 as you did?

A. I was in the room, yes.

Q. Do you agree with that statement by counsel?

A. Well, whether it's pretty obvious or not, I don't

14:06 know. That's the judgment call that I made because I thought that by looking at the most receipt history of how much the Turbine Index had been increasing, that would provide a willing buyer information as to what to expect in the future.

Now, it is true that you can look at even further into the past to make that same inference. The choice of 10 years, it's because in this particular case, I thought this was most relevant because it indicates that more closely the relationship between an industry that has been growing in participation because of electricity being at a much higher pace of growth than the GDP, for instance, and, therefore, the 10 last years would be more representative than, say, by looking 20 or 30 years. And that's basically the rationale for that assumption.

Whether it's pretty obvious to everybody, that's at least the judgment that I made on that index.

Q. Okay. And would you say that it's pretty obvious? Yes or no.

A. I said I probably wouldn't characterize it that way. I mean, there would be different assessments, and I mean, it was a natural choice for me to do, whether everybody would agree with that--obviously Dr. Flores disagrees, so that's where we are.

Q. I appreciate that. Thank you.

Now, why not 11 years, but 10?

14:08 A. Well, 10 years is a convention, as same thing looking at 15 years, 20 years, 30 years, so you can--10 years, I mean, as I said, the rationale is what happened in the last decade, reflecting a higher demand for electricity as compared to other growth in the rest of the economy.

Q. So, 10 years is an arbitrary and--strike that.

It's your judgment call, but it would also be reasonable for someone to take 15 or 20 years? Yes or no.

A. Well, the reason I chose 10 and not a longer period, as I said, is because what you see in general is the use of electricity as compared to other goods had increase in the last 10 years or maybe 12 years have been constantly increase and probably will continue to increase. The recent history by using 10 years is what provided me the frame for the analysis.

Q. But you see that is precisely my issue, which is that you take 10 years because in the past 10 years that's when you have seen a particular significant growth, for example, the raw materials that are necessary to produce turbines. So, by looking precisely at those 10 years, you come up with a higher rate than you would otherwise have calculated had you considered a longer period.

Now, did you see Econ One's demonstration of that, sir?

A. Well, first of all, you made a statement that the raw materials is--the raw materials is not the main or key issue

14:09 related to why they are seeing something increasing at a higher rate. It's about demand and supply economics. So, if you have a higher demand for electricity, you have a higher demand for turbines as well, and that's why the prices convey a higher increase on average than the rest of the wholesale economy is because of the higher demand that you see. And this higher demand is more obvious in the last 10 years than in the last 30 years. And if you take the last 30 years, then you can use that, but it's not going to be as informative as what we expect in the future as taking a recent history.

Q. So, do you agree that most of the increase in prices that factors into the IPP turbines witnessed in the years prior to 2010 correlated to the increasing commodity prices? Yes or no.

A. To commodity prices? I don't think--

Q. By commodities, I mean raw materials such as nickel, lead...

A. No, no. There might be some correlation, I mean, statistically we see between those series, but I'm saying that doesn't necessarily explain the issue that I'm saying, why I expect that the dynamics of the industry of having electricity being more consumed, more demanded as compared to other goods and services.

Q. Were you in the room, sir, when Mr. Lanza explained the impact of increases in raw materials in the price of

14:11 turbines? Were you not?

A. I wasn't in the room, no.

Q. Did you discuss this with Mr. Lanza before submitting your two expert reports, sir?

A. No, I didn't.

PRESIDENT JÚDICE: May I put a couple of questions.

Is it possible to know whether you were aware of any studies assuming the trend for the future of elasticity demand? As you're speaking about that criteria as the most important basis, did you see or do you know studies as to the trend for electricity demand in the last decade?

THE WITNESS: Probably you are right that I should have cited and explained it better in my report.

Yes, you do have information about, for instance, energy in EIA, for example, will get you prospects of electricity consumption or electricity use in the future.

What we're seeing in general, not just in the U.S. but in many countries is that the pace of growth of Electricity Sector is always outpacing--being in excess of the growth of GDP. For instance, if GDP grows by 3 percent, probably electricity demand will be growing by 5 percent or by 4.5 percent.

In the past, this relationship also happened, but what we are seeing in the most recent years is that because of the more demand for electronic goods, et cetera.

14:13 PRESIDENT JÚDICE: Thank you. It's okay with me. I don't need any more.

Sorry for interrupting.

MR. GARCÍA REPRESA: No, please, sir.

BY MR. GARCÍA REPRESA:

Q. Would you please turn to your Tab 27. It's in Volume 1. And if my numbering is right, you should find in there a copy of Dr. Flores's First Expert Report. It's Page 11 of Tab 27.

Now, looking at graph Number 1, which reflects the IPP turbines from 1999 onwards up to May 2011, looking at this graph, sir, do you accept that the increase in the IPP turbines in 2008 and 2009 was exceptionally high? Yes or no?

A. In 2009.

Q. 2008 and 2009, sir.

A. Well, it's partly picking up what I'm saying about the supply and demand economics.

You see, it is high with respect to the history, of course, but you see it's because 10 percent, 11 percent, and it is high, and I don't expect that gap with the U.S. PPI to be maintained forever. But it is obviously indicating something. It's not just 2008 and 2009. 2006 and 2007 also are--are high growth years, and then we have some adjustment, say, in 2010, which is when it is not as high, may be reflecting the fact that 2009 was relatively too high.

14:15 But what you see is the dynamics of this sector is changing in the direction where turbines are getting more expensive compared to the average goods and services of the wholesale industry.

Q. An average PPI was 2.5 percent; correct? So, if we draw a line in here--

A. No, no, no.

Q. 2.5.

A. No, that's not correct. Sorry. 2.5 is the forecast for the PPI.

Q. Okay. Now, you said earlier today that when you thought information post-nationalization was of interest to this Tribunal, you considered it and presented it to this Tribunal.

A. Um-hmm.

Q. Now, you never submitted to this Tribunal that the 2010 PPI turbine was 0.2 percent, did you?

A. No. That's incorrect. Indeed, I used the 2010 for the purposes of the average, compound average growth rate for my forecast, so the 3.5 that I use includes fully the 2010 period that you see here at 0.2 percent.

Q. And are you aware that in 2012, the IPP turbines was negative 0.5, sir?

A. Yes, I'm aware, but that I became aware, yes, only with the latest information not at the time I wrote my First

14:17 Report, and not necessarily that I would have changed my view, but yes, I am aware of that number, yes.

Q. You were aware of that when you submitted your Second Expert Report, weren't you?

A. Yes, I was.

Q. But you did not mention that in your report, did you?

A. Well, it was mentioned already in Dr. Flores's report.

Q. Dr. Flores's First Report?

A. Second--sorry, it was mentioned in Dr. Flores's Second Report, but no, but in my Second Report I didn't mention it. No, I didn't.

Q. And to be clear, I don't want to confuse you.

A. Okay.

Q. Dr. Flores's Second Report is after your--

A. It's after my First Report, yes.

Q. So, your Second Report that you knew you did not tell this Tribunal that the IPP turbines of 2012 was negative, did you?

A. No, I didn't, no.

Q. Now, had you taken the longer time period to assess your inflationary index for capacity revenues, it would have given you a lower figure than what you did for, in your model, wouldn't it?

A. That's true, but that would be inconsistent with the dynamics of the industry that I just explained. That's why I

14:18 have looked at the most recent past.

Q. Okay. And if we look at your Paragraph 125, speaking of dynamics of your Second Report, on Page 66, there you indicate, "The turbine U.S. PPI has been systematically higher than the U.S. PPI."

Do you see that?

A. Yes.

Q. This is the trend that you were talking about a second ago?

A. Well, no, this is comparing the average on a year by year basis for the 30 years period; right?

Q. Um-hmm.

A. Since its creation in 1984.

Q. Conceptually, if the turbine U.S. PPI had been systematically higher than the U.S. PPI, one would expect both indices to distance themselves over time. They wouldn't come back to the same place where they were, would they?

A. They don't need to distance, but, yeah, well, yeah, they would be distance, yes, you're right, yes. It will be increasing the difference between themselves, yes.

Q. In one increases at 3.5 and the other at 2.5, they would separate each other out in time; correct?

A. Yes.

Q. If we look at Page 67, Figure 4, that is the figure that you include to support your conclusion that the turbine,

14:20 U.S. PPI Turbine Index which we see in blue, as you said, had been systematically higher than the U.S. PPI. Do you want to correct that statement, sir?
A. No, this is showing the history. I think you just mentioned the future, but this is the history; right?
Q. So, from 1984 starting point or 1983 to 2007, both indices started and ended up at the same place, didn't they?
A. From which dates to which dates?
Q. From the beginning of your modeling in 2007?
A. Right.
Q. We end up with about the same index; correct?
A. Until 2007?
Q. Yes.
A. Yes, you do.
Q. So, would it--
A. Okay, go ahead.
Q. Would you say a willing buyer in 2007 would have been right in looking at the general PPI to consider inflation of Capacity Prices?
A. Well, not necessarily because you see you do have also a history of many years, significant number of years where the U.S. PPI for turbines had outpaced the growth of the average U.S. PPI inflation.
Q. So let's look at this chart properly, if we may.
What this chart shows is percentage increases, doesn't

14:21 it?

A. No. It's an index.

Q. Right. So--

A. It's not percentage increases.

Q. So, you take an index in your model of a hundred and applying the increase, the annual increase in the index, you estimate the next year's index; correct?

A. Sorry, ask that again?

Q. Yes. In your table you take a hundred as the beginning of your modeling, and if it increases by 2 percent, the next year you have 102. And if next year inflation is zero, you remain at 102; correct?

A. Correct, yes.

Q. So, when we see a steady line, it means zero inflation; correct?

A. Yes.

Q. So, when we see the blue line, which is a turbine PPI being almost steady from, let's say, the Nineties to the end of 2004 with a very small increase, that is actually growing at the lesser pace than the IPP turbines; correct? Which is the red line which has a more--a higher angle, and I'm looking in particular, for example, in the years from mid-nineties through the mid-2000s?

A. You said many things.

First of all, some periods that you may see this graph

14:23 as steady, it may be because of the scale that you cannot see, but this is a very long period of time, so you do have inflation in most years for both the red and the blue line.

Q. And I misspoke, sorry, I may have confused it. Red is the general PPI.

A. Red is the general PPI. I was about to correct that as well.

Q. Thank you, sir.

Now, in this chart you're showing the correlation between the general PPI and the turbine PPI; correct?

A. No, I'm showing since the evolution.

Q. Okay. So, when I see correlation 0.9482, I should delete that program?

A. No, it's a sign-out. It's also--it's true statistically they're correlated, so you don't need to strike anything. But the main purpose is that the title says to show the evolution.

Q. Right. And when you want to show the evolution, you look at 1983 onwards, when you want to calculate the index, you just look at 10 years, that makes a significant difference in your result, doesn't it?

A. Well, it doesn't make a significant--well, it may make some difference, but you look at what I'm concluding in 125, it's true that when you look at a longer period of time, then you would have rather than a 1 percent gap between the U.S. PPI

14:24 turbine and the general U.S. PPI, you would have a low smaller, you would have a 0.7 percent gap, and I concluded that that was not something that I would change my opinion because of that gap because I think the last 10 years best represents the dynamics which I would expect for the future rather than the last 30 years.

Q. Sir, did you perform that same calculation extracting 2008 and 2009 being the significantly high years?

A. Why would I do so? I mean, precisely because the dynamics that I'm explaining allows me to say, well, look, what we see, something that may be important here because it's not the last three years, it's the two years of relatively high growth. You don't to want exclude that information.

Q. And you don't think it would have been interesting for this Tribunal to know that, say, for those two years, everyone admits there was an exceptionally high increase, the historical average difference between the general PPI and the turbine PPI was 0.1 percentage points?

A. Well, I don't agree with your characterization of these two being exceptionally, and I think the Tribunal had all the information that casting these drafts, I mean, as it relates to the increase on these indices.

Q. And I would like for the Tribunal to really have a complete view on the basis of the graphs to look at Tab 42 where I will be asking you a question, sir. It's the last tab

14:26 in your bundle. This is your Figure 4, Dr. Abdala, and in dotted lines is the result of applying the 3.5 percent inflationary rate that you use, and that's in blue that corresponds to the--your estimate of the turbine projected, and in red you have the historical U.S. PPI in the full line, and in the dotted line you have your projections of 2.5 percent general price increase, which is the same that Econ One has used.

Now, would you agree with me, would you not, sir, that in this slide, as opposed to what we saw in your graph at Figure 4, we can see that, as I will explain, with your numbers, there is a systematically higher difference, and the two lines deviate each other significantly over time by using 3.5 which you do to estimate the inflate revenues while using 2.5 to increase costs. Is that correct?

And I can cut up the question if that's a problem for you.

A. Well, it's that you mix up other elements. You now brought costs into a table that has nothing to do with what we're seeing here in our table.

Q. That's why I offered. I take your point, and I apologize if I was confusing.

You inflate costs in your model by 2.5; correct?

A. Not all of them, no. I have different costs. There's certain cost categories that are projected with inflation.

14:28 There are cost categories that are projected with utilization of the plant. There are costs categories that are linked to the dispatch. There are other cost categories that are a percentage of revenues.

Q. When you increase cost with inflation, you increase them at 2.5; correct?

A. For those set, of course, that I use inflation, I would use the--let me try to remember--probably I would use either the U.S. PPI or U.S. CPI. I think U.S. PPI most likely, yes.

Q. But when you project and inflate revenues, you use the higher inflationary rate, which is 3.5 in this case; correct?

A. Well, no, you have to differentiate--

Q. Capacity revenues I'm talking about. Capacity.

A. Okay. Well, you mentioned revenues. Revenues in general, no, there are different components in revenues.

For capacity revenues, the capacity revenues, yes, they do increase by 3.5 percent per year.

Q. And do you take any issue with the graph I was showing at Paragraph 42 in terms of that being an accurate portrayal of what you're proposing this Tribunal to apply? I'm referring to the blue line here.

A. I didn't have--make calculations supporting this, but I don't disagree with the type of tendency that you would observe if you had that cap between--I don't know if this is an

14:30 accurate representation because I haven't been able to verify this graph in particular, but it is true, yes, as I mentioned before, that you would have a tendency towards the blue line to outpace the red line over time.

Q. Mindful of the time, I would like you to please take your opening slides, please.

Now, Slide 9 is the one I'm interested in for the moment.

Now, there you indicate--that you describe the samples that companies that you then use in the slides that follow to build up on the graphs that can see on slides 10, 11, 12, and 13; correct?

A. I'm sorry, would you repeat that.

Q. On Slide 9, you list the companies that make up the graphs and actually the bars that we see on pages 10, 11, 12, and 13; correct?

A. Well, the list here is the groups, not the companies. There are 15 companies. These are just the three groups that have these 15 companies.

Yes, the underlying data comes from the same dataset from Santander Investment Bank reports.

Q. So in Pages Slides 10, 11, 12, and 13, what we have is data coming from companies that belong to three groups; correct?

A. Yes. ENDESA, ENERSIS, and AES Gener.

14:32 Q. And, sir, by my count, I have 11 companies, not 15. You want to check that?
A. Where is your count coming from?
Q. Well, your Slide 9.
A. My Slide 9?
Q. Yes. ENDESA has four companies. ENERSIS has five. ESA Gener has two. By my count, that is 11.
A. We'd have to verify. We can check on this. Exhibit C-300. I remember ENERSIS, too. We can check. I would need to see the Exhibit C-300, just to be clear.
Q. Just to be clear, every time we see ENDESA here in this slide, we see three times we have four companies. Every time we see ENERSIS in this slide we see three times after we have five companies. Every time--
A. No, no, no. I see where you're coming from. What you see is, every time you see ENERSIS here, what you have is you have five countries, but you have more companies, you have more companies in a particular country, so what you have is five countries, not companies. So, companies are 15, but countries are five.
Q. And all these are from three groups, ENDESA, ENERSIS, and ESA Gener; correct?
A. That's true.
Q. If you want to go to Tab 34, sir, those are the reports on which you based these slides that we have here.

14:34 Tab 34.

And again, what we see in the slide is only the opinion of an analyst of Banco Santander; is that correct?

A. These reports involve Banco Santander, investment bank, various reports, different dates, different companies. That's what we have.

Q. Right. And it's just one analyst; correct?

A. Sorry, no. It's not just one analyst. You're meaning it has one investment bank report.

Q. Tab 34. My apologies if my pronunciation isn't proper.

I think it's already established, but it's one investment bank, would that be something that you would agree with?

A. It's the same investment bank, but it's not the same analyst as you mentioned, the same investment bank.

Q. And do you agree with me, do you not, that ENERSIS is the controlling company of ENDESA Chile, which is the one that you have here on your slide?

A. Where are you reading?

Q. I'm just asking from your knowledge.

Is it not your understanding that ENERSIS is the controlling Shareholder of ENDESA Chile?

A. As of what time? As of--

Q. As of the time of these investment reports.

14:35 A. I don't recall exactly whether--

Q. I take it that you reviewed these reports carefully before--

A. Yes, yes, but I don't require review of the reports carefully. I don't recall exactly whether that's the case of the controlling--whether it has a majority control stake or not.

Q. You may want to look at Page 263.

Now, I will have to inform the Tribunal that these pages were not consecutive. There were cuts in the page numbers, but I'm sure there is an explanation for it. It's just that sometimes it jumps, and it's 263 at the bottom right. And to be clear, this is the way we received the exhibit from Claimants.

Are you at Page 263?

A. I am right now, yes.

Q. You may want to find that information that we may want to read together the top paragraph. "ENERSIS is an integrated electricity group," and pausing there, I understand that by "integrated," it means a group that is both in generation, distribution, transmission. Is that your understanding?

A. That's correct.

Q. ENERSIS has operations into Argentina, Brazil, Chile, Colombia, and Peru; correct?

A. Yes.

14:37 Q. And it controls 13,748-megawatt of generating capacity through ENDESA Chile and ENDESA Brazil; correct?
A. Yes.
Q. It is the largest publicly traded electricity group in the region; correct?
A. Yes. As of this date, as of speaking about 2008.
Q. Excuse me?
A. This is speaking about 2008.
Q. Now, this is a report dated October 2010; no?
A. Right.
Q. Okay.
A. But the data above assets seems to be related to other data, capacity seems to be related to 2008.
Q. So, in your view, this document is not reliable?
A. Did I say so?
Q. Okay. Now, you would agree with me, would you not, that ENERSIS has nothing to do with EGSA, does if?
A. ENERSIS a larger group. The point of these investment bank reports is that they are showing basically the fundamentals valuation of each of the companies of the group. The group is the one that eventually is subject to analysis as well because the group encompasses different companies, but there are companies within the group that are larger than EGSA, and there are companies that have similar size than EGSA, so these are the companies--these are the only companies basically

14:38 that trade in Latin America and that are generation companies, so this is the closest comparable set that we can get.

Q. And EGSA is not publicly traded, is it?

A. It's not.

Q. Changing topics--and this is my last line of questions. I appreciate the Tribunal's patience.

PRESIDENT JÚDICE: I appreciate the interest.

BY MR. GARCÍA REPRESA:

Q. Do you agree as a matter of principle, sir, that there are cases in which the application of accounting standards or policies may lead to a change in the recorded profits not reflecting an economic gain?

A. Potentially, yes. It depends obviously in the circumstances because obviously for both accounting and tax considerations, countries are not too keen on imposing policies that may distort the economic significance or meaning of Financial Statements.

So, potentially, yes, it could happen, but neither countries nor the tax authorities want that to happen.

Q. And the DCF will look at cash flows and not at accounting profits, would it?

A. DCF will always look at cash flows. Yes.

Q. And not accounting profits?

A. Well, not for calculation of value. Accounting profits will be an important component of the DCF because

14:40 that's the way you derive certain parameters such as Income Taxes that you have to pay, some other taxes that may be related to accounting profits. There might be also components of depreciation that are related to accounting profits.

There's also the dividend pay-out ratio may be related to the accounting profits.

So, the accounting profits enter as an input into your DCF analysis.

Q. You received the Rurelec Financial Statements from Claimants; correct?

A. Yes, I did.

Q. You received detailed information of financial models from Claimants; correct?

A. Yes, I did as well.

Q. Did you receive the Financial Statements of Guaracachi America?

A. I don't recall. I don't remember.

Q. You did not think that was relevant?

A. Let's see. I don't recall if we have seen this or maybe. I think I discuss this in my first report when I show the ownership change, and I think we have a hundred percent relationship, so we go straight directly to Rurelec from the intermediate companies, so I don't think for valuation purposes it was needed to look at Guaracachi America. But I don't remember because there might be in the record as well. I don't

14:42 recall.

Q. Well, you were valuing the bottom company through an intermediary. So, if you look at the top accounts, this means the intermediary is just a shell company to hold the bottom company?

A. Um-hmm.

Q. I didn't hear you.

A. I'm sorry, was that a question? I was not following your--

Q. Yes, that was a question.

A. Okay. Could you restate it or repeat it.

Q. You valued the bottom company through an intermediary?

A. Yes.

Q. So, if you look at the top company accounts, it means that the intermediate company is just a shell company?

MR. RUBINS: Objection. Counsel is asking--

PRESIDENT JÚDICE: I understand your point.

I think you are trying to take some legal analysis out of this witness, unless you explain a little better.

MR. GARCÍA REPRESA: Absolutely. I will explain that in a moment.

BY MR. GARCÍA REPRESA:

Q. Dr. Abdala, if you look at the value of the Shares of EGSA into Rurelec, knowing that Guaracachi America holds those shares and Rurelec holds the Guaracachi America shares, isn't

14:43 that because there is no difference in value between the shares--apologize. Is it not because the only asset of Guaracachi America are the shares of EGSA?

A. No, not necessarily. I mean, what I did value was the value of EGSA, and then from the value of EGSA I asked, what is the value to Rurelec out of this, and the value to Rurelec, I look at the ownership change. I conclude that since it has a hundred percent on all the change, then it would be directly the 50.01 percent stake that Rurelec ultimately had indirectly on EGSA, but that's the way I've done it, yes.

Q. Now, in addition to Rurelec accounts, you received the EGSA accounts, didn't you?

A. Yes, I did receive EGSA accounts. Yes.

Q. And did you seek the assistance of a Bolivian accountant to interpret those accounts?

A. Not directly. If we had some information that we may see that we would need something of the sort, we will probably have consulted Claimants'--those who might have been acquainted to or related to that. But no, I didn't need to seek specifically any information from a Bolivian accountant.

Q. Now, were you aware that the Bolivian accounts include what we were discussing before, an inflation adjustment called UFV?

A. Yes.

Q. And were you aware that Rurelec consolidated EGSA

14:45 without the inflation adjustment for UFV?

A. I don't recall that. The records may be--I don't know. I haven't seen that.

Q. You did not look at Rurelec's accounts when you were looking at the Book Value of EGSA?

A. No, when you look at the Book Value of EGSA, you don't look at the Rurelec account.

Q. You do not look at the value of EGSA recorded in Rurelec's books? Is that what you said?

A. No, when I was looking at the Book Value of EGSA, I don't need to look at the Rurelec's accounts.

Q. So, it would not be relevant for you to know that the Book Value of EGSA that you presented in your reports is not the Book Value of EGSA in the books of Rurelec?

A. Well, listen, you have a discrepancy, and you know that, for instance, from the moment that Rurelec bought this asset, they have a valuation that had follow the U.K. standards and they had goodwill, for instance, because they valued the assets I think at 20 percent over the Book Value of what was registered in Bolivia. So, I naturally see that there are accounting differences on how Rurelec has to keep their account in the U.K. as opposed to EGSA, but I didn't have to look at Rurelec's accounts for the purposes of this valuation, in particular for the purposes of looking at the Book Value of EGSA.

14:46 Q. So, you disregarded the Book Value of EGSA in your First Expert Report, didn't you?

A. Well, I wouldn't say disregard it. It plays a certain role in the DCF, but I did say that in the method of looking at Book Value would not represent typically a Fair Market Value, because it doesn't capture the full potential of the asset.

And I say that in particular that would be the case in Guaracachi because the combined cycle still wasn't performing, so that generation capability of the new asset may not be reflected in the books, so I didn't use it.

What I use it for is in the Second Report, where I say, well, in commenting on Dr. Flores's opinion what I say is, well, look, you cannot value something at zero when it has a significant value in the books. I mean, there must be something that the books are telling you, that obviously if the company was worth zero, either the books are completely wrong, which I don't believe is the case in this case, or you're missing something because there is a significant mismatch, that it's quite difficult to understand.

Q. Are you suggesting that it's Bolivia's position that EGSA's Book Value was zero?

A. No, I was criticizing Dr. Flores's lack of benchmarks not only with Book Value, but also with other methods.

Q. Now, you disregarded and I will cite you--you discarded the Book Value approach at Paragraph 55 of your First

14:48 Expert Report, sir. Page 28. You discarded the book value approach to damages. And that's because the Book Value is a number that's largely determined by accounting conventions; correct?

A. That's correct. That's just exactly what I just said.

Q. And you would agree with me, would you not, that in looking at Book Values, one must be particularly careful with different accounting standards across country, wouldn't you?

A. Well, it depends on what you're trying to value, and for what purposes and whether you're trying to get an opinion of value of an asset located in a particular country or whether you're trying to assess a value to a particular Party on a different kind of jurisdiction.

Q. So, do you think it would have been relevant for this Tribunal to see a reference in your reports to the inflation adjustment of EGSA's accounts?

A. No, I don't think so, because the way I used the Book Value is just for the reference of what it is, and I think whether there is a discussion as to what's the meaning of those inflation accountings, I was reporting the Book Value as it is, so that's what it is. So, you look at the books of the companies, you see the amount of equity in Bolivian pesos, you take the Exchange rate of the date of where you're looking for your valuation or your assessment, and you convert that into dollars. That exactly reflects what the Book Value is.

14:50 Q. Thank you, sir. And I think I have one last question, and then we can go.

You began your presentation indicating that the Size Premium was the single largest component of the Parties' difference on the discount rate. Do you recall that?

A. No, I don't recall. I think I mentioned the discount rate was the biggest component of the differences. I don't recall--

Q. Excuse me. Within the discount rate debate, that the largest difference is in the size premium that both Parties apply; correct?

A. Okay, yes, this is in Slide Number 5 that you mentioned.

Q. Right, so I should have drawn you to that.

And we were discussing before that the Size Premium factor in liquidity or rather illiquidity of smaller companies with some larger companies. Do you recall that?

A. No, but not the way you're describing. I referred to the fact that illiquidity is probably a component to take into account, and that sometimes it could be picked up by the larger returns that you see on smaller firms as compared to larger firms. I think the way you phrased it was strange to me.

Q. Okay. And let me see if we can agree on a phrasing that will not get an issue from you.

Size Premium is there to account for the illiquid

14:52 nature or illiquid--relative illiquidity of smaller stocks versus larger stocks?

A. It could.

Q. It could.

A. I say normally it could account for that, yes.

Q. Now, you could turn the slide, please, just to Slide 6. You referred to Damodaran article in 2011 condemning, you say, the use of Size Premiums.

Do you see that?

A. I see--I see it, yes.

Q. Now, you've cut Damodaran's text, haven't you?

A. Damodaran has--I just represented, yes, this part. And there's many others.

Q. But you cut his conclusions in that article, didn't you?

A. Let's see.

Q. Tab 36.

We should have it there for you. Tab 36. It's Volume 2--excuse me, it may not be 36.

Yes, it is 36. Apologies.

What you have in the slide is part of the very last paragraph. And I will invite you to read the very last paragraph of that article.

A. Right.

Q. Now, after stating what you have on your slide, 14:54 Professor Damodaran then says, "I do think that it makes sense to adjust your expected returns for liquidity, and I think our capacity to do so is improving as we get access to more data on liquidity and better models for incorporating that data."

Do you see that text, sir?

A. I see that. But you see that--

Q. Do you see that text, sir?

A. Of course I do see it.

Q. And may I ask you questions?

A. Please do.

Q. You did not alert the Tribunal to the fact--now you're at Slide 6.

PRESIDENT JÚDICE: We're in the wrong one. What is the paragraph or the page?

MR. GARCÍA REPRESA: It's on Tab 36, Page 2 of 3 at the bottom right corner, and it's the very last paragraph that you have before you have the comments. This is part of Damodaran's blog, so you have the article followed by people commenting on it.

So, it's the very last sentence of the very last paragraph, which starts--and it picks up where Dr. Abdala's presentation cut off--"I do think that it makes sense to adjust your expected returns for liquidity."

BY MR. GARCÍA REPRESA:

Q. Did you not think it was relevant to alert this

14:55 Tribunal to the fact that you were cutting off the last sentence of Professor Damodaran's conclusion?

A. No. Because if you will see that there, he's talking about two different things. He's talking about Size Premium and he's talking about liquidity. He's saying, look, I don't agree with those practitioners that will just put a Size Premium per se without doing an analysis of the fundamentals.

That is what he is discussing, size premium.

Then he says as it relates to liquidity, there might be some room for adjustment.

But the two are different concepts. The illiquidity, as I mentioned, could be captured eventually through the small size issue, and that has been debated in the literature, whether you're capturing the small Size Premium, another thing that could be referred to, illiquidity. But the two are concepts that theoretically could be measured also separately.

So, Damodaran here is not talking about the two as being the same thing. He's saying okay, as it relates to small Size Premium, I do not use it, and I don't like it when analysts use it blindly without an analysis of the fundamentals.

Now, if we have evidences of an issue of liquidity, he says, yes, I could adjust the discount rate. But those are, you see, two different concepts that may or may not be related. Some companies that are small may have a liquidity issue; some companies that

14:56 are small may not have liquidity issues.

Q. And I will find no reference to EGSA's liquidity in your Reports, will I?

A. There are references to liquidity in my Report. I mentioned--when I discuss the Size Premium issue, I do mention the liquidity issue.

Q. My colleagues may have further questions. I appreciate your patience, Dr. Abdala.

Thank you, Mr. Chairman.

PRESIDENT JÚDICE: Thank you very much. Now I will pass to the other side, but just a small question probably without any interest whatsoever.

Quite often, I heard about control premium when you evaluate companies. Both Parties disregard this concept. Then it's more for my learning process out of this case. Of course, I'm not sure--I'm sure it is not relevant, but it's possible within one minute to say why this concept has been disregarded by both Parties.

THE WITNESS: Well, first of all, under DCF analysis, you normally do not account or have anything for Size Premium because you're already trying to represent the cash flows that are expected for the Majority Shareholder.

The way control premium normally comes into is when you're looking at evidence that has to do with traded companies, because it is the understanding that traded

14:58 companies represent the value to the Minority Shareholders.

And I thought about the issue for this particular case, but I did not adjust the control--for control premium in the market comparables. But I could have, and normally--

PRESIDENT JÚDICE: It's more for my learning process because it's out of this case. Thank you very much.

Mr. Rubins, as soon as you wish.

MR. RUBINS: I would need 30 seconds to clarify one issue, and then we could start.

(Pause.)

REDIRECT EXAMINATION

BY MR. RUBINS:

Q. Just a few questions, Dr. Abdala.

Mr. García Represa referred to a MEC projection period of 2010 to 2018, and Paragraph 72 of your First Report--you don't have to turn there--that's the place where you discuss the period. And the discussion between you and counsel for Bolivia was related to the way in which that period was defined as a technical obstacle.

Do you remember that?

A. I do.

Q. Okay. Now, if you could turn to Tab 27 in the binder in front of you--it's in the big binder.

A. Yes. I'm here.

Q. Okay. And if you could turn to Paragraph 19 of the

15:00 Econ One First Report, where Dr. Flores talks about the period of time that he used in his report through Mr. Paz, how does the period that Dr. Flores uses relate to the one that you had MEC use?

A. It's the same period, 2010-2018.

Q. Do you understand that there are any disputes between you and Dr. Flores about the appropriate timeframe of 2010 to 2018?

A. I don't think so.

Q. There was a lot of discussion about the Rositas plant, and you were referred to Tab 2, which is C-249.

First, if you look on the first page there, and actually it's on the cover page, too, do you see what the date of this document is? This article?

A. Let me see.

Q. If you turn back to the title page, it will tell you that.

A. It says January 2009.

Q. Now, if you turn to Page 13.

A. Yes.

Q. Okay. Do you see the first full paragraph on the page, you can see where it says "un plazo ambicioso"? It says un plazo ambicioso si se considera que para construir la represa y la puesta en funcionamiento," et cetera.

Do you see?

15:03 A. No, I'm not seeing. It starts with "un plazo ambicioso"?

Q. Sorry. The paragraph on Page 13 begins "Basta ya."

A. "Basta ya." That's the one I was looking at.

Q. Bottom of the paragraph.

A. Oh, okay. Bottom. Yes, I see that.

Q. Read that sentence to yourself.

A. Okay.

Q. And then the second column, the first full paragraph, which begins "La Prefectura."

A. Right.

Q. And towards the end of the first sentence there is the phrase "una vez que se determine su factibilidad."

Do you see that?

A. That's right.

Q. And then the last thing I will turn you to is the next page, Page 14, first column, last full paragraph, which begins "entre 1972 y 1973."

Do you see that?

A. Hold on. Last full paragraph, first column?

Q. Last full paragraph which begins "entre."

A. Okay. I've got it. Yes.

Q. Now, the suggestion was that in Footnote 127 of your Second Report, where you cite this document, that you had not actually read the document, and I would like you to comment, if

15:05 you can, on whether those passages relate to the reasons for your including the reference in your Second Report.

A. Okay. Well, I had completely forgotten about this document. I think the main reference that we make to this document is just to point out the fact that this has been a project that has in the making or in the plans of Bolivia for a very, very long period of time. And I think the quote that I have on this document is precisely to support that since 1972 or '73 is at least the evidence that I was able to find that this project has been around.

And, of course, there is information here that tells you more about the history of the project itself and as well of an interest of Bolivia to pursue it. But the main purpose of this citation is to go to the 1972 and 1973 reference.

Q. You also refer to the fact that it was known to the market as of 1st of May 2010 that Rositas would require an expenditure of $32 million in 2010.

Do you remember that?

A. Correct.

Q. Turn to Tab 5, please. And this is the 2010 or 2009, depending on how you defined it, POES. If you could turn to Page 9, please.

This is the--looking at the "cronograna de inversiones requeridas" for various projects, you will find Rositas about seven lines from the bottom.

15:07 Do you see that?

A. I do, yes.

Q. And for the 2010 column, there is budgeted $32 million. Is that what you're referring to?

A. Yes. I was referring to the fact that the November 2009 plan had this prospect of starting to spend money in 2010, but as of May 2010, it was obvious that this was not being allocated or budgeted for, and Bolivia has not been spending on that project in 2010.

Q. There has been a lot of discussion today about judgment calls based on your experience, and I think the Tribunal may be more familiar with your valuation experience than with your electricity market experience.

Can you just explain the basis on which you make judgment calls related to the electricity market.

MR. GARCÍA REPRESA: Objection. Beyond the scope.

PRESIDENT JÚDICE: What?

MR. GARCÍA REPRESA: That sort of question on redirect is rather beyond the scope. They had an opportunity to do the classic rehearsed speech about how the great the Expert is on direct.

PRESIDENT JÚDICE: I was not able to understand the experience of Mr. Abdala in the specific field of practice, and I was not aware before this case--or at least so aware, but when I came to this hearing, I was--and I think my

15:09 co-Arbitrators also--was really aware of that. I understand your point, I appreciate your effort, but we're running out of time, and we are clearly identified with the expertise of Dr. Abdala.

MR. RUBINS: Thank you, Mr. Chairman.

BY MR. RUBINS:

Q. Dr. Abdala, what--with respect to the fair market valuation of Guaracachi in this case, what was the relevant criteria for you in deciding what information to incorporate into your model and what information not to incorporate into your model?

A. Well, the critical part is to try to assess what would have been the--what willing buyers and sellers would have made of all of the information that is available in the marketplace, and that includes not only the information published or not published by CNDC, but also the perception as to what is reasonable to expect or not to expect in terms of both supply and demand for electricity as well as other parameters that were known to willing buyers and sellers at that time.

Q. With respect to the 1.5 multiplier, there was some mention of the relationship between the volatility of stocks versus bonds and the Market Risk Premium, and, frankly, I think that that discussion didn't quite go to its logical conclusion. And I would like you just to explain as concisely as you can what is the relevance of the Market Risk Premium to the difference in volatility between stocks and bonds.

15:11 A. Well, what I say is that the Market Risk Premium is trying to--it's worse; it's the premium over the risk-free rates on the bonds. So, you're already assessing in the industry what is the risk for an equity investor by the capture in that Market Risk Premium.

So, to some extent you're already incorporating that, and by eventually using the multiplier on top of a separate component, which is the Country Risk Premium, you also have the risk of eventually exaggerating the premium that attached to equity as opposed to bonds. And that's why, in practice, I rarely see these--by practitioners being used a multiplier prior on top of a sovereign spread or whatever other measure you may use to capture Country Risk Premium for an investor.

Q. Thank you.

On the issue of Professor Damodaran's calculations of the Country Risk Premium that we were looking at in the printout of the spreadsheet at C-308, Mr. García Represa suggested that you do not refer in your reports to the 8.25 percent figure that would result from adding a 1.5 times multiplier to the 550 basis points.

Do you remember that exchange?

A. I do remember that, yes.

Q. Okay. I would like you to take your Second Report and open to Page 42--and I realize that these reports are on both sides are quite voluminous, and so sometimes one doesn't recall

15:13 precisely what one has written; I can't imagine how I would keep half of this stuff in my head--on page 42, if you would look at Footnote 78, if you could read that to yourself.

(Witness reviews document.)

BY MR. RUBINS:

Q. You speak precisely about the 825 basis points there, don't you?

A. Yes, I have mentioned it, yes.

Q. Okay. And you looked at two documents with Mr. García Represa that related to the Size Premium. You looked at more, but I want to talk about two of them. One was the Tarbell slide show, and one was the Hitchner report.

Do you remember those two documents?

A. I do.

Q. So, there was actually discussion with regard to Tarbell about the date on that. Do you remember the year on that?

A. Yes, it's 1999.

Q. And do you remember the year of Hitchner? If not, we will go and look at it.

A. If you remind me, that would be helpful.

Q. So, it's Tab 37. And again, the cover page will tell you.

A. 2003.

Q. The Fama/French study that you referred to in which

15:14 Fama and French conclude that there is no size premium, C-272, what date is that?

A. That's the 2012 report.

Q. You talked about the liquidity of stocks which has played, as I understand your view, a role--or plays a role in explaining some of the studies that suggest a Size Premium.

What I would like to understand is this issue of liquidity of stocks, how relevant is that to long-term valuations?

A. How relevant is that to long-term valuations?

Q. What I mean to say is, where--what you're looking at in this case is not buying and selling stocks on the stock market but, rather, buying into an enterprise with an eye to getting cash flows.

A. Right.

Well, typically, I mean, you don't do any adjustments for a DCF or for an analysis, for instance, on a long-term asset valuation. The only relevance in general that one can see is that if there is a literature out there that would say if you can exit and enter more easily than other companies, then some investors may place a premium on that, and that's a premium that--not a premium on risk, a premium on value because it is more valuable to eventually hold an equity stake of the company that is traded as opposed to a non-traded company. And that's a one way to look at this.

15:16 Q. You were taken to graphs in the second Econ One Report, and if you have it there, it's Graph 1 and Table 4.
A. Which page number?
Q. I'm going to sell you in just a moment.
Yes, it's on Page 63 of the Second Report.
A. Sixty-three of my report?
Q. No, I'm sorry. This is Econ One's report. Second Report.
A. And that's Tab 32?
Q. It's Tab 30, if you've found it.
A. Thirty, okay.
All right.
Q. You looked at the table, Table 4, and the graph, Graph 1.
A. That's right.
Q. And were asked questions about it.
A. Uh-huh.
Q. And it seemed to me that you wanted to comment on something in relation to the 4.2 percent shown in the graph and the results on the table prior.
Would you like to comment on that now?
A. Well, yes. I wanted to comment, first of all, that there is a problem with the labels. These 4.2 and 4.2 that you see in Graph 1, those refer to 2009, not 2010. And that refers to the August 2009 report that you see in Table 4.

15:18 And the same comment that I made for the graph showing Equity-Risk Premium, I mean, there is no reason to disregard this information on 2010, which, by the way, it's closer to the date of valuation than the August 2009.

All of these documents are relevant, in my opinion, so as to see what the benchmarks were on these comparable Latin American generation companies.

Q. Just a couple more questions.

Carbon credits. There was a suggestion from counsel for Bolivia that you should have somehow taken account of a decrease in the value of carbon credits after the nationalization.

You've reviewed, obviously, the Econ One reports. Did Dr. Flores make comments in that regard?

A. No, I don't think so Dr. Flores has made any comments on the price for carbon credits.

Q. Slide 9 in your presentation, there were a number of questions that you were asked about this slide that were suggesting that the number of companies observed is somehow not representative or something to that effect.

Can you explain just in 30 seconds or less what was the point of the slide for you?

A. Sure. The point of the slide is to look at information of the only 15 traded companies that we could get comparables for in Latin America, and see how Santander

15:20 Investment Bank report has, at different moments in time close to the valuation date, made an assessment of the Country Risk Premium. And the Country Risk Premium, which is in the first column of the numbers, is very, very similar to the EMBI spread of each of these five countries as represented by the sovereign spread without any adjustment or multiplier included on the calculation of the cost of capital.

Q. Thank you, Dr. Abdala.

MR. RUBINS: I have no further questions.

PRESIDENT JÚDICE: Thank you, Mr. Rubins.

Dr. Conthe?

MR. GARCÍA REPRESA: Mr. President, I have to.

PRESIDENT JÚDICE: I'm so worried with your time.

MR. GARCÍA REPRESA: I understand, and I promise to be quick this time.

RECROSS-EXAMINATION

BY MR. GARCÍA REPRESA:

Q. If you could take Tab 2, that is the famous Rositas article that I referred you to, and my colleague referred you to also. We went through some reading exercise with my colleague, and I would like for you to complete that reading exercise.

A. And I need my glasses.

Q. Feel free, and it's a particularly small article.

Now, if you could please turn to Page 14 in that

15:22 document.

Do you have it, sir?

A. I do.

Q. Now, can you look at the very last paragraph--once again, I like looking at the last paragraphs of things.

And if you have any doubts, I will read it out loud in Spanish: (Translation of Spanish) "Rositas is more available than 30 years ago because it was twice as what it was during the demand period and now this is going to be a third of it."

Did you consider this in your report?

A. Well, there's no doubt that Rositas project will be a great project for Bolivia and the region of Santa Cruz to have, and the issue is how do we get there, how do you finance it, how do you make sure that it happens when it has been in the charts for so long, and whether a private investor would have taken into account as a credible entry in 2018 or 2019.

Q. And so, do I understand your testimony to be that documents that are closer to the valuation date, even though after the valuation date, are relevant? Yes or no?

A. Sorry. Say that again? Documents are closer?

Q. We were talking about the investment bank reports, and you took issue with Econ One using the only investment bank report pre-nationalization, which is the August 2009 report which is submitted.

Your criticism was there are reports from 2010, even

15:23 though they're after the nationalization date, which could be relevant.

So, am I understanding you correctly that you consider relevant for valuation purposes documents created after the date of valuation? Yes or no?

A. Yes. Some documents that might be--that are after, might be relevant, as I mentioned before, not just for the purpose of valuation, but for the purposes of benchmarking. In the case of the investment reports, those are benchmarks that are important.

Q. Thank you, Dr. Abdala.

MR. GARCÍA REPRESA: I have no further questions.

PRESIDENT JÚDICE: Mr. Conthe.

QUESTIONS FROM THE TRIBUNAL

ARBITRATOR CONTHE: Let me start with a theoretical methodological question which nonetheless has a bearing on this case. And just to make it clear that this is a purely hypothetical case and to the extent that North Korea is on the front page of many papers these days.

Let's consider a hypothetical case in which North Korea were to overrun South Korea and were to nationalize a number of companies and you were asked as an expert to do a valuation of companies which were owned by private investors in South Korea and you need to look forward into the future and try to calculate the Net Present Value of that company.

15:25 My question--you need, then, a counterfactual in which you compare how the future would look like.

My question is: As an Expert, would your consider South Korea, in that future scenario, to be independent or to be now controlled by sort of a very, very interventionist Government?

Because I will explain us, when you respond, why this is relevant to what we have in the discussion this morning.

THE WITNESS: Well, certainly in your hypothetical I would take into account how North Korea would eventually play a role in letting private companies get revenues and eventually profits. So, obviously you're talking about kind of a completely new market situation for that investor going into a country in which now there is expectations of a much higher degree of intervention.

ARBITRATOR CONTHE: From a methodological point of view, for me that would raise a question because then it would be a self-fulfilling prophecy. So, if you overrun South Korea and all of a sudden your Market Premium goes through the roof to 1,000 automatically, all investments will have no value whatsoever. That's why I would think that, in theory, you should consider a counterfactual in which something very close to continuity of prevailing conditions remain.

THE WITNESS: Well, let me clarify. Because obviously it depends on which variable you're controlling for and the

15:26 measure that you're complaining about.

You could measure, in that particular example of yours, well, give me the give me the value, Dr. Abdala, for what this investment would be like in the absence of nationalization. Then the answer would be completely different because, then, as you would said, there would be a but-for scenario with continuity of what we had before.

In our case of EGSA, my understanding of the but-for scenario is eventually in the scenario in which Guaracachi is not expropriated, but not controlling for the fact that Bolivia has expropriated others and that, therefore, most of--or all of the generation sector now is owned by the State Government.

ARBITRATOR CONTHE: But your approach seems consistent to my view that you don't need to take into account the changes in circumstances, to the extent that you consider the Market Risk Premium for investment in Bolivia irrespective of the political regime, so to speak, on the basis of a composite index of emerging economies, and even though you, of course, taking into the account the famous Damodaran paper. But anyway, now, this morning, when you make the presentation on--your initial presentation on capacity and most recently when you talk about the Rositas project, you were already saying that well, to the extent that now the climate is going to be less friendly to foreign investors, in all likelihood, capacity will grow less and the full prices will remain higher than otherwise, and then

15:28 Rositas is very difficult to be funded.

So, when you come to that part, you're considering already that there has been a change in the--from the very friendly market approach of the Nineties in Bolivia to the new approach taken by the Morales administration since the Year 2000. And I think that, to that extent, to me, that approach is not fully consistent. In some cases you're continuing as the country was before, but when it comes to capacity and prices you're taking into consideration a less-friendly atmosphere for private investors.

THE WITNESS: Well, I'm not making any differentiation about how friendly or unfriendly it would be or whether there is any component within the Country Risk Premium that relates to nationalization. I'm not controlling for that.

What I'm saying is that as it relates to new investment in capacity, where I do take into account that now, in principle, the only one financing--or at least is expected in 2010--might be the state of Bolivia, but without making any judgment as to whether that would be more friendly or less friendly, but it's just that one source of financing, which is private investment, seems to be, at least for some time, curtailed.

ARBITRATOR CONTHE: Okay. Then another question on returns--expected returns on equity, because one of the measures--one of the ways of measuring expected returns is by

15:29 surveys to investors and the like. And actually, Bolivia and his Expert, Mr. Flores, is on record in his Second Report, he quotes extensively both Mr. Earl's statements as head of Rurelec, as well as Tenasca, even there they see the company, and they clearly say that in an emerging economy like Bolivia, they would expect an expected return of equity of at least 20 percent.

How would you compare that with your own assessment, which is 14.45? Because don't you see too wide a gap between what you, yourself, are using as expected Rate of Return and what the Chief Executive of Rurelec himself was saying publicly with respect to South Africa?

THE WITNESS: Right. An excellent question.

Now, the difference is in the concept of why is it 20 and why is it 14. The 20 percent is an aspiration of what an investor--or the threshold that an investor may pose before deciding to invest. They may say well, look, I'm not going to invest in Bolivia if I don't earn in an expected sense a 20 percent.

ARBITRATOR CONTHE: On equity?

THE WITNESS: On equity.

Now, the 14 percent is different. The 14 percent is the cost of equity of the industry; that is, the competitive rate at which all investors under full information and under a scenario of competition would eventually value assets because

15:31 at the cost of the equity, they can source funds at 14 percent. So, in a competitive environment, they will accept that 14 percent as the normal Rate of Return in that industry, and that's why, if we were to organize an auction, that is the discount rate that you would need to use, because that's the outcome of competition.

Now, as you know, the threshold Rate of Return that a particular, a single investor may have may be higher than 14 percent. They can simply say, well, I want to really get a return on 20 percent, and so I'm not going to value--he's not going to value the asset with a discount rate at 14 percent. He may say, well, no, I'm not going to get that return; therefore, I don't invest. That's okay in that particular decision-making.

But as long as you assume for the purposes of fair market valuation the concept that there would be more than one willing buyer, but there would be another willing buyer which is willing to pay as much as whatever amount of dollars is with the cost of equity of 14 percent. And that is why it is so important that when you do Fair Market Value assessment, you differentiate between what is the cost of equity of the industry as opposed to any particular threshold that a particular investor, individual, may have.

And Damodaran, for instance, shows nice evidence as to the differences between the aspiration of thresholds that

15:32 investor had ex ante compare to the average returns ex post. And you would normally find that, yes, when we enter, we expect to earn 20, but then, on average if markets are competitive, then you end up earning 14 or so. Or maybe 15 or maybe 12, depending on how market conditions unravel.

But it's typical, that obviously in competitive markets, you end up earning the normal Rate of Return. Otherwise, everybody would be making tons of money. I mean, everybody would be making lots of money.

Of course, in some particular projects, it might be that you're lucky, you pay very cheap, and then you end up earning 20 or 25 percent or 30 percent. That can happen as well.

PRESIDENT JÚDICE: Mr. Abdala, if you may be a little shorter.

THE WITNESS: Sorry about that.

PRESIDENT JÚDICE: It's very interesting what you are saying, but we are with some time restraints.

ARBITRATOR CONTHE: If you allow me--for me, that's key.

I was talking about ex ante rates of return, no ex post, so we are here talking only about ex ante.

So, if I understood you correctly, you meant that the 14 percent of your calculation and your 20 percent of Mr. Earl's statement are comparable, but what you're

15:34 essentially saying is that Mr. Earl would be too conservative, and in the end, in the market, there would be another investor who would be willing to go lower than Mr. Earl. So, Mr. Earl, the second time, wouldn't get the company because he would be cut off from the competition, and there would be someone else bidding for lower expected Rate of Return.

THE WITNESS: Absolutely. You got it exactly right.

ARBITRATOR CONTHE: I find it a bit weird, but I will reflect on that.

Then, on the question of discount rate, which is a totally different issue, let's go to your Slide Number 14 this morning. Because that was interesting. Until you spoke this morning, I had wrongly understood that the implicit discount rate used by the Bolivian authorities when transforming into an annuity, the price of a turbine was a real--a nominal 12 percent, but you here clearly say that it's a real 12 percent plus inflation, which works out to something like 14 percent. So--14.5, say.

So the Bolivian authorities, in the past, when trying to use the discount rate for multi-year projects like buying a turbine and putting it in place for many years to come, you say discount rate, which normally, by and large, is some 14.5 percent, which, funnily enough, is midway between your--your own assessment and Econ One's assessment.

But what I didn't pick up is what's this other

15:35 discount rate of Bolivian distributors? Did the Bolivian authorities apply a similar discount rate for calculating the remuneration of distributors?

THE WITNESS: Yes. For the purposes of tariff reviews in the distribution electricity sector, they use a 10--.10 percent, at least for this period of time 2007-2011. They change it every four years.

And my understanding is it normally has been between 10 to 11 percent during the whole history for electricity distribution. But this is mostly a discount rate that is used in distribution for Tariff Review purposes.

ARBITRATOR CONTHE: Let's move on to another major difference between you and him, which is optimum capital structure. Because you consider an optimum capital structure to be something like .8 between debt and capital, whereas Econ One considers just .5 or something of the sort--and actually, as we were discussing the other day, Guaracachi was subject to a .7 Covenant ratio by CAF.

So, on what basis do you think that there is such a wide difference? I was surprised by the reference in Econ One's report to .5 as being the optimum capital structure in the U.S., and--but could you explain what's the reason for this wide gap between your own optimum capital structure and Econ One's?

THE WITNESS: Well, the main difference is the sample

15:37 from where we're drawing. Whereas I'm using the information from Ibbotson on the beta and the optimum debt-equity ratio, which includes, I believe, 40 companies or so, and the traditional SEC code for electricity generation, Dr. Flores is, rather, looking at five companies, which is a much smaller sample of--a custom-made sample that he pulled out from other sources.

And I mentioned that in my Report--my Second Report, that I think that's a very narrow choice. It's also the fact that one out of the four happens not to be a very good comparable. But in any case, it's a very small sample that not only had the effect of having a very low debt-equity ratio, but also a very high beta.

So, that's basically what explains the differences.

ARBITRATOR CONTHE: My following and almost last question is on turbines. And there was an extensive discussion, but are there significant entry barriers into the market for manufacturing turbines? Because you, over time, consider that turbines are going to become more expensive and more expensive in real terms.

So, following your logic, if you apply it to the electricity sector, in the market economy, then new entrants will make the price go down. What's the logic for expecting such a continuous trend of turbines becoming all the time more expensive vis-à-vis the rest of the goods in the economy?

15:39 THE WITNESS: Right, right. And I understand the
promise of such a long-term valuation in this case.

The only rationale that I apply is the issue of having
much more demand in general; when you have a more demand than
in the rest of the goods and services, then you would expect
that particular product to become more expensive.

That doesn't mean that the sector is not competitive.
So, I don't see any barriers to entry in the turbine
business. So, it is a competitive sector. It is as of the
fact that it seems if there is more and more demand, then the
increase in prices could be slightly higher than the rest of
the economy.

ARBITRATOR CONTHE: But good supply would not react to
this increase in demand? So, in a market economy, if demand
grows, supplies grows, and so you don't need to see necessarily
prices going up in real terms because of an increases in
demand?

THE WITNESS: Well, probably it depends on how long
that dynamics adjusts. It may take some time for suppliers to
react to that. But probably you're right that over the long
term, there shouldn't be that much of a difference.

ARBITRATOR CONTHE: Not to tax the patience of my
colleagues anymore, but there is one paragraph in your Report
which I didn't quite understand, and my guess is that many
other people might have not, which is Paragraph 90 of your

15:40 Second Report. It's on the survivorship bias and to what extent by using an arithmetic mean you correct for that bias, which would be aggravated if you were to use a geometric mean as Mr. Flores does in his report.

Could you allow--this is purely, I confess, educational because I didn't quite grasp your reasoning on Paragraph 90 of your Second Report.

THE WITNESS: Let me re-read it and try to remember exactly.

Right. And this is quoting a paper from Koller and mostly talking about this issue that there are arithmetic means--arithmetic may have one to two percentage points, including a survivorship bias here. Right?

ARBITRATOR CONTHE: Well, don't worry, because I'm going to ask the same question to Mr. Flores.

THE WITNESS: Basically this is saying that the arithmetic mean, unlike the geometric, may be capturing the fact that you're only looking at those companies that have survived as opposed to looking at the full spectrum of companies.

When you're looking from one point to the other, then whatever happened to the returns in between, you don't have the same bias by looking at the arithmetic because the arithmetic is capturing only the returns of those companies that are operating and eventually were survivors. They are still--you

15:43 have like the--arithmetic means takes one year after the other from 1928 to, say, 2010. And so, by computing the arithmetic mean of every year, then the returns that you're capturing are the returns of the observables. The observables are only those who are surviving in the market; whereas, if you're taking the geometric mean, you're starting in 1928 and ending up in 2010, and you're essentially taking these two observations and you don't have that bias in the middle.

ARBITRATOR CONTHE: What you mean is, then, by--a geometric mean would compound the bias implicit in survivorship to the extent that only the returns of those companies which have remained alive are not considered in the sample?

THE WITNESS: It's not a compounding effect. It's just that by using year-to-year data—and by looking at that obviously comes from the firms that have survived only--then for the same dataset that starts in Year 1 to Year 20, then for arithmetic mean will have that issue, but whereas the geometric may not.

ARBITRATOR CONTHE: Okay. Thank you.

PRESIDENT JÚDICE: Just one question. I think that for experts like you, and even for lawyers and Arbitrators, consistency is an important point.

In getting there, I noticed that some examples have been provided of apparent inconsistencies between some valuations or some comments or some points of view or of Compass

15:44 Lexecon as compared with other cases.

I don't want you to speak a lot about your track record or about the Compass Lexecon track record. Just in one minute, give me some reasons to justify these inconsistencies or to just say nothing more than that, that it's not the case.

THE WITNESS: Okay, good.

Well, first of all, it's not an inconsistency what you have seen in the records.

Second, Compass Lexecon is a large entity, so you don't expect by any means consistency because we have lots of Experts, and so we may have different opinions on certain issues.

But, third, the case that was related here was a Professor Spiller's reference of inclusion of the Size Premium in the Guatemalan Railroad Case. And there is significant differences between one case to the other.

The first one, and the most important--I'll be very short, because I think it's important--the first one is that that company was seven years showing a track record of negative profits with prospects of operating only real estate assets and services that were in competition, prospects of not even being able to overturn. So, there are case-specific differences. I could go on and on.

PRESIDENT JÚDICE: Thank you very much.

No further questions.

15:46 Mr. Abdala, we thank you very much for your cooperation, and you may stay, as you know better than me, and now we are going for a small recess, 15 minutes, as usual, and then we have Mr. Flores, and you will be, I think the last but not the least.

(Brief recess.)

DANIEL FLORES, RESPONDENT'S WITNESS, CALLED

PRESIDENT JÚDICE: Is it possible to start now?

MR. SILVA ROMERO: Thank you, Mr. President.

PRESIDENT JÚDICE: Is it possible to start, Dr. Rubins?

MR. RUBINS: Yes, thank you, Mr. Chairman.

PRESIDENT JÚDICE: Good afternoon, Mr. Flores.

THE WITNESS: Good afternoon.

PRESIDENT JÚDICE: It's a pleasure to have you here with us to help the Tribunal.

Would you please identify yourself and then read the piece of paper that you have in front of you.

THE WITNESS: My name is Daniel Flores. I work with Econ One, and I solemnly declare upon my know and conscience that I will tell truth, the whole truth and nothing but the truth, and my statement will be based on my honest belief and knowledge.

PRESIDENT JÚDICE: So, I think that you have a PowerPoint there. I understand that it cannot be longer than

16:06 15 minutes, but it may take a little bit longer as we have seen before.

MR. GARCÍA REPRESA: The agreement is that we actually have 30 minutes.

PRESIDENT JÚDICE: Even better.

THE WITNESS: I have a timer here, so I know when to stop.

DIRECT PRESENTATION

THE WITNESS: In my presentation today I will be addressing four issues that we have already seen during this hearing. I am going to move to Page Number 3. I wanted to call your attention to the breakdown between the difference in the valuations done by Compass Lexecon and Econ One. You're going to see a graph there that was introduced during the Opening Arguments by the Claimants. At the bottom you're going to see a table from my Second Report. As you can see, we agree in our disagreement, but the quantification of the disagreements leads to disagreement.

What does it mean?

If you look, Compass Lexecon is saying that the discount rate is 64 million. In my report, I say that its importance is 45 million. Both are significant amounts of money, but compass Lexecon is much higher than the value I present.

What is the reason for this? You can see that the

16:08 correct methodology for the discounted cash flow method is, first we need to estimate discount cash flows for each of the years of the project, 2010 to 2038. Second, we take those yearly cash flows and discount them to the valuation date. Therefore, it is important to have certainty first about the quantification of the cash flows and once we quantify the cash flows, second, we discount those flows.

That's the reason why Table 1 shows on Page 4 changes that are introduced to the aspects that have an impact on yearly cash flows, and only after that we can look at the importance of the discount rate, and that is the reason why I will be devoting some minutes to what is important in connection with the cash flows.

We see price and dispatch projections, and today and Friday we talked to representatives of MEC, CNDC, and Mr. Paz, and I only had four comments.

First of all, it is not true that I have adopted the projections made by Mr. Paz without any judgment or uncritically. I had several meetings with Mr. Paz in Santa Cruz and also several discussions over the phone. And only when I was familiar enough with his estimations and I made sure that they were correct, I included them into my model, financial model.

Second, I would like to clearly state that the Claimants have not found any estimation mistake in Mr. Paz's

16:09 exercises. He has a long experience doing this, but they're discussing the inputs to the model, whether POES--what type of POES to use, and that is the difficulty. But in connection with the estimation, no one has questioned what he did.

Item Number 3 says also that it is not true that Mr. Paz started to calculate numbers in July 2010, and I think that Mr. Abdala made it clear that he never said that, and that is something that is no longer relevant.

And, fourth, and something that might be even more important, as an economist, I clearly disagree with the assertion by Mr. Abdala that the hydroelectric project process is not economically viable. Today we have heard that Mr. Abdala is not saying that this would be delayed one or two more years, but he is saying that this will never be built, but a buyer in May 2010 would assume that this would never be built, and this is very strange to me.

And I think it is a good idea to use Mr. Abdala's presentation. And if you have it handy, and if you look at Slide 33, I think it is interesting no notice the effect. This is a POES slide, 2010 POES, and I wanted to indicate to you that there is an impact for not introducing Rositas here.

So, there is a consequence for not introducing Rositas into the interconnected system in Bolivia.

In blue you see the addition of new capacity, and towards the end between July 2017 and December 2018 there is a

16:12 step that includes the addition of Rositas. If Rositas is not added, the line remains at 1850 megawatts. It was at 2016 and 2017. That is in 2016 and 2017. Now, if you look forward in early April 2020, the blue line will cross the red line. What does it mean? Outages, blackouts. It means that the capacity will not be enough for generation in Bolivia.

Clearly, from an economic point of view, to say that that plant will never be built, in my opinion, is incorrect.

And there are some other considerations. Mr. Abdala, who in his first report never said anything about Rositas, in the Second Report he's trying to justify why he did not include Rositas. And something that is striking is that he says that it is too big. It's true that this plant had had some preliminary studies in 1973, and that electricity demand in 1973 was 200 megawatts.

So, upon building a hydroelectric plant of 400 watts--the construction of a hydroelectric plant for 400 megawatts was exceptional, was not necessary, but there has been a big change in Bolivia or the last years, and Rositas has to be built; otherwise, there won't be enough electricity for the country.

Mr. Abdala also referred to costs, and he said it's just too expensive, Bolivia cannot afford it, but he never said anything about what I said in my Second Report. There is a problem with thermal electrical generation in Bolivia, and that

16:14 is the following. The country has gas. Gas is sold cheaply within Bolivia based on regulation $1.3 per million cubic meters. This allows for rate production of thermoelectrical energy and for consumers to have electricity. But there is also a difference between 1973 and to date. In 1973, Bolivia was unable to export gas. They had no connection with other countries, but they do so today.

So, it is essential for Bolivia to capture that gas that is being sold at subsidized prices at 1.3 and exported to Brazil, Argentina, wherever, at a higher price. That is going to generate very significant income revenue for the country, for example, for the construction of Rositas.

I respect Mr. Abdala, but I think that his economic analysis of Rositas, whether it should be included or not, is completely wrong.

The second item is the indexation of the basic capacity power. We have received information about this, and clearly the problem is that there are no PPI turbine projections. That is a subsector. And as for other sectors such as inflation, exchange rate, and similar sectors, we do have recognized sources that were used by Mr. Abdala and myself, such as the IMF, economist intelligence unit, among others. No one makes projection based on this subindex. Why? Because there are several subindexes in connection with the IPP in the United States. And in the long term, all of these

16:16 indexes have to have the same performance. Otherwise, after two or three decades, otherwise, the price of a component within the IPP would be much higher than the other component, and that doesn't make any sense from the economic point of view.

Mr. Abdala later on said that that is due to the fact that there was an increase of the electricity demand in the United States. That could be right, but it should also be taken into account that by applying economic principles whenever there is an increase of demand, also prices are going to increase, but what is the reaction? As Mr. Abdala certainly knows as an economist, the higher the prices, the higher the benefits, and that is also going to attract more companies. If year after year the companies that manufacture turbines are receiving very high benefits, other manufacturers are also going to say we can do that too, and that is going to lead to a drop in prices.

It is impossible for a component to continue to have an increase in prices above the general inflation level ad infinitum. That is not possible.

I disagree with the statement by the Claimant that it is pretty obvious that it should be 10 years. I don't know why it should be 10 years. As I showed at Slide Number 11, if we take a 10-year period, we have a 3.5 rate annually, which is much higher than historical standards.

16:17 It should also be said that this week we listened to Mr. Lanza, and he indicated what I was referring to. There was an unexpected increase of cost, and that is reflected in the previous page number 11 when you see the two bars with the increase of prices for turbines over 11 percent.

As he said, this was a phenomenon that did happen. It was completely unexpected, and it was an incredible increase.

I agreed, prices increased. No one is arguing that, but to assume that that price increase will continue in the future is not correct.

At Slide Number 13 I show a graph showing what would happen with the price of capacity if we increase that based on the erroneous or mistaken estimation by Compass Lexecon. Given that in the long term all of the prices are going to increase at the same pace, it is convenient to take the same projections for general price increase of 12.5 percent and use the same rate to 2.5 percent and then take that same rate. Part of EGSA's revenue increased at 2.5 percent and others at 3.5 percent of the next 28 years, and this doesn't make much sense.

Mr. Abdala--

PRESIDENT JÚDICE: This 15 percent and the difference between both of them, this effect is the effect on the valuation?

THE WITNESS: If you look at Slide Number 4, that is

16:19 the first table that I introduced there, and if you look at Number 3 in the station of price indexation for capacity, and that shows the difference between Mr. Abdala and myself, the 12 million difference.

And, finally, there is a very high correlation between the two theories. The PPI and also the turbines have index, and that also indicates that prices are moving or growing at similar pace, and that does not happen yearly and as we saw in 2009 one to much higher than the other. But a buyer in 2010 cannot say this will continue to happen over the next 28 years.

Next, we see the discount rate, and at 16 I show you the differences that would be the first conclusion by Econ One and the difference between Econ One and Compass Lexecon. And, here, I would like to devote a minute to clarify an answer to Mr. Conthe, but I imagine it must be a misunderstanding. What is it that we did in terms of the debt-equity ratio? We can see that at Line Number 4. There we see that Compass Lexecon is assuming 80 percent, and we assumed 133 percent higher than what Compass Lexecon assumed in the United States. What Mr. Abdala said is mistaken, and that is clearly shown here. Why did we use that rate that was higher than Compass Lexecon's? We said that that represents the optimal rate of borrowing in the United States, and we used that to unleverage beta, and to estimate the discount rate. First, we do it as if we were in the United States. Therefore, the estimations are

16:21 based on parameters relative to the United States, but then to apply it to a country in an Emerging Country, we do the ratios with the relationships based on Emerging Countries.

And here is where you can see at row 15, rather 16, they were using a different source. They were using 55 percent, but we were using 64 percent.

Why do we have different figures? Because this is based through a different source. For the United States we used the same source for the debt-equity ratio than Mr. Abdala. But when we move on to Emerging countries, we use sources from Emerging Countries. And if you wish, I can give you other details later on.

And I'm referring to what you have already heard, an itemized discourse, a little bit confusing about the discount rate.

PRESIDENT JÚDICE: This is not confusing, but it should be a little bit slower.

THE WITNESS: The discount rate, I am going to refer to the data presented by EGSA and Rurelec in connection with the approval of the combined cycle in its presentation to the United Nations.

What is the discount rate? We can talk about leverage and beta and risk rates. The discount rate represents the minimum return of an investment to off--to convince potential Shareholders and creditors so as to contribute funds to the

16:23 investment. This minimal return is dependent on the risk associated to the investment. The higher the risk, the higher the return to capture funds.

So, if I am going to invest in U.S. funds that give me 4 percent and I get 4 percent also by investing in a Bolivian company, I'm sorry, but I will remain with the United States. I would have stayed in the United States.

PRESIDENT JÚDICE: So, you would have stayed in the United States?

THE WITNESS: Yes, but I'm not very happy there.

So, there are different names to call this discount rate. We can call it the threshold rate, Minimum Rate of Return, minimum IRR, hurdle rate, cost of capital, capital--cost of capital, discount rate.

So, this is done so as to assess projects, so we're going to compare the minimum IRR or the hurdle Rate. That Minimum Rate that I need to compensate for my risk with the expected Rate of Return of the project; that is to say, the IRR of the project.

Over the first two days we said that someone said that I used the IRR to assist the investment. That is not what I said. I said that we have to use the minimum IRR. We need to compare the minimum IRR, that is to say the discount rate, the minimum expected Rate of Return, and compare that to the expected rate of the project.

16:25 So, what is the IRR? A very clear example. Let's imagine an investment that requires an investment of $100 per share, and we expect that next year we will be obtaining from that investment $125, and this is the IRR for the project. That is to say, we expect next year to obtain $125. The IRR for that project would be 25 percent.

So, how do we use this? How do we compare the discount rate to the minimum IRR, the hurdle rate, and the expected return--Rate of Return of the project on the other hand? Let's assume two projects. Both of them require investment. Initially of $100 we expect for Project A to return $115 on the second--in the second year, so the IRR for that project would be 15 percent. Let's imagine Project B, that given the same investment would return us $130, and both have the same level of risk.

So, what we need to do is to determine the discount rate, the hurdle rate, the Minimum Rate of Return for that project. Let's imagine that doing after all this we decide that it is 20 percent. Project A does not meet minimum return. Therefore, it has a negative net value, whereas Project B does obtain that minimal Rate of Return. So, we need to compare the internal Rate of Return for the project, expected IRR with the minimum to be expected for that project.

If we move on to 21, we see that this can be applied to the CER request before the United Nations. As Mr. Earl

16:27 explained during his statement, that the United Nations only offered these credits, if it can be proven that the project needs them to continue. If this is a project that is sustainable without the carbon credits, the United Nations is going to say, no, please go ahead without them. But given all of the risks, if the project is below the level and the addition of the CERs allow for the project to continue, the United Nations will approve it.

This is a very serious process that requires the certification by companies indicating that the carbon credits are necessary.

Here you have an example that is quite similar to the previous example. Let's imagine that what we used to call Project A is now called the project without CERs. So, by adding the carbon credits, $15, we can exceed the discount rate, the Minimum Rate of Return, the hurdle rate, so at that point this project would be approved by the United Nations.

At 23 we see this German company, I don't know how to pronounce it, and in April 2010 presented in connection with the combined-cycle project, before the United States, the additionality study, and they said, as of April 2010, we do need the surge, because if we do not get them, we won't be able to continue, but if we do, we can. So, it was very necessary.

And what did they say? Well, they said that the equity, that is to say, the Internal Rate of Return, the

16:29 Minimum Internal Rate of Return to carry out that project is between 25 and 30 percent. If we do not attain 25 to 30 percent for return to our investors, we won't be able to create this generation project. If we exceed that rate, we will be able to.

So, that is the return on capital that should be incorporated into the WACC. That is my position. And if you have any questions, I will be able to answer them later on.

And one of the specific projects, first of all, is that we have the Country Risk Premium, and even though the initial presentation by the Claimants indicated that the country risk premium indicated that 5.5 percent was the percentage that Damodaran considered appropriate, in those tables he mentioned 8.25 percent, and this is just an extract from an Excel page taken from Mr. Damodaran's page, Web page, but he also has some other presentations to other universities where you can clearly see that when he refers to the Country Risk Premium, he always uses the same rate 2.5 percent--1.5 percent. And if you look at Slide 25, you see some of his examples, and here we have Compass Lexecon, Professor Damodaran, and this is 825, and this is the one that I suggested, and there is another one that I did not mention and that Mr. Abdala never mentioned. That is, the Country Risk Premium suggested by Ibbotson and Morningstar, and Mr. Abdala and myself have used it.

16:31 The rate is 19.02 percent, and I indicated this in my First Report. I said I'm going to use the same method that Compass Lexecon used, but they're only measuring the bond differential and not a share differential, so I applied the multiplier.

But bear in mind that there are other sources and other parameters to calculate this, including Ibbotson and Morningstar. As you can see, my risk of premium is not the highest that has been submitted in this case.

Another thing that has been indicated during the Opening Statements and today Mr. Abdala said it was well is that that rate of 1.5 percent is not frequently seen. I have looked at the files, but I haven't been able to look at any other examples apart from the ones that I proposed for the application of the 1.5 percent. But undoubtedly this is applied. I'm going to move to give you two difference pieces of information.

You can Google this and look at this Web page, and you're going to see that there is a lot of information. This Web page captures every single request for carbon credit that is supposed to be--that is established to the United Nations. And the additionality is precisely the one that uses Mr. Damodaran's method.

I'm sorry, I am not able to offer evidence, but I'm here to tell the truth, the whole truth, and nothing but the

16:33 truth. I'm also working in another arbitration, and I'm working for the Claimant, and--I'm working for the Respondent, rather. The Claimant is working with Charles River Associates, and that economist that is working for the Claimant is using Damodaran's data using a multiplier. Apparently, I'm the only person in the world that does this, but this is not true.

The next point has to do with the Size Premium. For the Size Premium on October 27, you can see the different data sources. Ibbotson Morningstar breaks up all the companies in the stock market, and they go from the larger to the smaller, and here you see the threshold to go to the next group. Using information from 1926, and I used data up until 2009, just before the valuation date, you're going to see that historically no doubt for this period 1926 to 2009, the smallest companies have offered more returns to their Shareholders, and that is clear to see.

Regardless of how you measure this, Guaracachi was a small company.

He suggested an equity value of $150 million approximately, but I'm sure it's going to go below the smallest company. That is why we have applied this information. These are very common data from Ibbotson/Morningstar, and we have applied a 6.89 percent.

So, you can go to Google and look to the Request to the UN for carbon credits, and you're going to see that you are

16:35 going to find energy generators that say that four are discount rates. We are using a size premium.

Twenty-eight, Guaracachi and EGSA was a small company. I don't think this is up for discussion. It was a 70 person company. Mr. Lanza accepted this. It said it went beyond our capabilities, Mr. Lanza said.

PRESIDENT JÚDICE: It is the largest company in the country it says here. It is not true or is it true?

THE WITNESS: It is the largest thermoelectrical company in the country.

PRESIDENT JÚDICE: That's what I was thinking.

THE WITNESS: There are hydrocarbons companies that are much larger than Guaracachi. I would be very surprised if a 70-person company would be the largest in the country. Maybe in Andorra, but not elsewhere in the world.

You can see this in the conversation that we held this week on the effect of what EGSA had to do to obtain new debt. The debt obtained by the bonds, and these bonds were sold in the internal market in Bolivia, well, and then they said that pension fund ponds were the only purchasers and when the pension funds said we're not very interested in EGSA, they found no one else, and they wanted to place 20, and they were only able to place 16.

I'm sure you heard about the comparables method, and I also talked about AES Gener, the Chilean company. This company

16:37 uses the same multiplier--would you like to say something?

MR. RUBINS: I'm marking the time as my colleague did that the time has passed.

THE WITNESS: I'm almost done.

AES Gener, in Chile, for comparison purposes, uses multiples on the company value on EBITDA of 9.7. This is what Dr. Abdala said should be applied to EGSA's valuation according to the comparables method. That company had 900 employees, not 70. It is a company that is publicly traded and has a 4.5 capitalization level, $4.5 billion.

So, AES Gener, when it wanted to capitalize itself, came here to Paris, went to BNP, and organized a bank syndicate to be able to get millions of dollars in borrowings, so this 9.7 multiple and $1 for profit of EBITDA in AES has a similar value as $1 of profit in EGSA. I think that's ridiculous to say that.

I don't have access to the file of EDF v. Argentina, but mention was made of this, so if there are any questions, I would be glad to answer it, though.

Now, the capitalization factor of 12 percent of the calculation of the basic Capacity Price, this in answer to a question posed by Mr. Conthe. If you go to 34, my opinion is that that 12 percent is lower than the discount rate that an electricity generator investor would use in Bolivia. Why? Because the minimum discount rate for return, well, if I don't

16:39 obtain it, I'm not going to invest it.

So, 12 percent has to do with a formula that comes from the law. We're going to assume that a turbine is going to be in operation for--operations for 20 years, and we're going to hypothetically assume that we're going to pay you an annuity at 12 percent so that you can cover the costs of this hypothetical turbine. No one follows this. Why? Because one is not obligated to buy that reference turbine that appears in a manual in the United States. You can purchase a cheaper turbine, and EGSA always bought, except for one case, used turbines, and the CCGT turbine was also used because this is much more--this is a much less expensive than if one buys a reference turbine. There are turbines in EGSA that have been in operations for more than 36 years.

The prices on capacity are just a fraction of the percentage of the income of EGSA. So, an investor could say, okay, I'm going to ask for 12 percent as a hypothetical number, so my yield will be more than 12 percent, and if I include income for carbon credits and for Spot Price sales, the yield will be lower, so that 12 percent does not--does not represent the hurdle rate that an investor in Bolivia could achieve.

Thirty-four minutes. I am going to stop here.

PRESIDENT JÚDICE: Thank you very much, Mr. Flores.

MR. GARCÍA REPRESA: Mr. President, excuse me. We have a space in our transcript that has not been filled, but at

16:41 16 hours:15 minutes:04, when Dr. Flores said it's erroneous, what Dr. Abdala said is it's not erroneous, so there is a contradiction, so I think that that would have to be corrected using the audio files later on.

PRESIDENT JÚDICE: Thank you very much.

MR. RUBINS: Thank you, Mr. Chairman.

CROSS-EXAMINATION

BY MR. RUBINS:

Q. Good afternoon, Dr. Flores.

A. Good afternoon. Hello.

Q. My name is Noah Rubins, and I'm with Freshfields representing the Claimants in this case, and I will be asking you some questions about your Expert Reports, and I will try to be as brief as possible, and I will ask you to try to be as brief as you can as well, keeping in mind the instructions of the Chairman earlier today.

I have a few preliminary questions to ask you about your approach to preparing the reports, so I can understand your thought process.

If you thought that a document authority, other piece of information was relevant to supporting your position, your opinion in your report, is it fair to assume that you included it in your report?

A. Not necessarily. This is a discovery process as I indicated today, and I have been looking for sources in Google

16:43 in support of my position, but I didn't do this before preparing my reports, so I think this is a point that supports my viewpoint, but it's not reflected in my report, so I tried to do the best I could, but sometimes we are not reaching objective because the file here is quite voluminous, as you know.

Q. Yes. I actually wasn't asking about the Google thing, although maybe I will ask you a question about that in a minute. I was asking more generally. When you are preparing a report, okay? So imagine--think back to when you are preparing your First Report criticizing Compass Lexecon's First Report, I presume that you do your best to include all the information that you're aware of and that you can find that will support your position?

A. Again, not necessarily. I can give you an example, if you want.

Q. No. I'm trying to understand why you would exclude information that you are easily able to find that you think is supporting your position, and again, I'm not talking about Google. This is a new thing to me. I'm just saying in general, when you as an expert, you go about writing a report, normally one would expect in reading that report that the Expert in question has done his very best to find everything he can to support his position. Isn't that a fair assumption when one is reading?

16:45 A. Again, not necessarily.

I could explain if you want me to. If not, I don't have to.

Let me explain. Let me give an example, very quick example. One of the reasons why I wasn't trying to look for every single information that's out there would be to preserve my independence.

Q. When you were preparing your two reports, you had reviewed at the very least Dr. Abdala's Reports and the attachments to them; is that correct?

A. The reports, yes, certainly, and the electronic model as well for valuation, and also a lot, perhaps not all, of the exhibits that were attached to the report.

Q. On the Size Premium, you impose your 6.28 percent Size Premium on the basis of the Ibbotson/Morningstar classification; correct?

A. That was a basis that I used for quantifying the Size Premium.

Q. And the Size Premium is something that is outside the classic CAPM method; correct?

A. I would have to ask you to show me what you understand by the classic CAPM model.

Q. Okay. We're going to turn to Compass Lexecon's First Report, and we're going to turn to Paragraph 149. It's under the heading "Cost of equity."

16:47 Do you see that?

A. Yes, I do.

Q. So, you did not contest in your First Report that this was not a statement of the classic CAPM model, so this is the, I understand, agreed formula of the CAPM formulation.

Do you see that?

A. I would say that this is what we called a building block, that is to say, the starting points where you start calculating the equity ratio.

Q. Dr. Flores, I'm going to ask you questions, and I'm just going to ask you to not try to guess where I'm trying to get to with the questions because we will get there. I just asked you about the CAPM model. I understand that your position is that there are other things besides the CAPM model, and as I understand, Dr. Abdala agrees with you. You both agree, for example, that a Country Risk Premium has to be added to the CAPM model. That's outside also the CAPM model. So, I'm just asking, isn't it so the Size Premium is something outside the scope of the traditional CAPM model?

A. I would like to be precise when I am testifying, and you talked about the classic model. Now you're calling it traditional model. I think words are very, very important in these legal contexts, so I don't know. I would rather not say this is a traditional model or this is the classic model because perhaps you can say, well, according to my sources, 16:49 classical model is this. Without having a definition of what traditional model means or classic model means, I would rather not say anything about that.

Q.   I will just ask it one more time, then: Is the size--is the Size Premium part of the CAPM model?

A.   Yes, I would say yes, yes.

Q.   And you agreed actually in your report, your report, to use the CAPM model for which you cite this page of Compass Lexecon for the formula of the CAPM model, and it's not there, so I'm trying to understand--I understand that you see it as an adder. Are you saying you don't even see the Size Premium as outside the framework of CAPM?

A.   No, I think it is within the framework. This is within the same framework.

The title of this section, and I'm going to read Paragraph 149. It says to estimate the cost of equity. And the title here is "cost of equity."

So, what we're doing in this paragraph is using one method to calculate the cost of equity; and, of course, I know that the Size Premium belongs in that analysis. It is not something that is outside that framework. It belongs in that framework.

Q.   Okay. I'm going to leave that marking that you didn't answer my question, and we will just move on. It's really not that important.

16:51 The Size Premium--

MR. GARCÍA REPRESA: Objection. Mischaracterizes the Witness's testimony.

PRESIDENT JÚDICE: Well, as I said before, we take--pay attention to what the witnesses say and not exactly the same attention to what each one of the lawyer makes as comment to what the witness said. I understand--I'm a lawyer also--this is a standard procedure, but Arbitrators even not very well-qualified as me pay attention to that.

MR. RUBINS: Thank you, Mr. Chairman.

BY MR. RUBINS:

Q. The Size Premium in your model is based on some studies that showed that the common stock of small firms had on average higher risk-adjusted returns than the common stock of large firms; is that fair?

A. I'd say that that is a partial answer. I will supplement it. That is one of the components, some of the studies you mentioned some studies, but apart from that the usual practice of financial analysts is that as well. This not necessarily means that they published an economic study, but they use the Size Risk Premium.

Q. And do you accept that the size effect that I've just described is understood in the economic literature as something of an anomaly? Do you accept that?

A. What do you mean--I'm sorry, that it is an anomaly.

16:53 Well, the theoretical model says that that should not exist because, in principle, if markets were fully transparent and efficient, well, there should not be any risk--any Size Premium. But that is actually observed. I don't know if that's what you mean by when you talk about anomaly.

The theoretical model does not contemplate this, but in reality it does occur.

Q. Right. And while I think I understand what you're saying, my understanding of anomaly--which isn't worth much, so we're more interested in your understanding of anomaly--I understand anomaly as a phenomenon that is not readily explainable by economic theory.

Is that fair?

A. If that is your definition, I don't think that that is an anomaly.

Q. Would you open to Tab 2010 in your binder.

I take it, Dr. Flores, given that your location in Washington, D.C., you can read English documents just fine. Is that fair?

A. Yes, that's correct.

What happens is that generally when I'm preparing a report in Spanish, I testify in Spanish, and if I prepare it in English, I testify in English.

Q. Absolutely fair. That's why I'm wearing these really uncomfortable headphones. No problem.

16:55 A. Please repeat what tab?

Q. Tab 10.

Tab 10 is an article by Horowitz, Loughran and Savin.

Have you seen this article?

A. Yes, I think I reviewed this article a little while ago, not recently, though.

Q. And this is C-248.

In the introduction they start out by saying the Size Premium is one of the best-known academic market anomalies, and then citing a couple of the early 1980s surveys on the topic.

Do you see that?

A. Excuse me, where is it shown, the surveys?

Okay. Okay. I'm sorry, you mentioned surveys, where?

Q. Reinganum and Banz. Banz is one of the ones you cite as well.

A. Yes, I do, yes.

Q. So, these gentlemen--and they're relying on also Banz--suggest that there is something unexplainable about the size effects; correct?

A. I don't see the word inexplicable here.

Q. It's a synonym proposed for anomaly.

A. Is there a question?

Q. Yes.

My question was: These gentlemen suggest that there is something unexplainable about the size effect; correct?

16:57 A. Generally speaking, academicians, when they write a paper, they're trying to explain something. I assume that they're explaining something in connection with the Size Premium.

Q. Now, Bans--Dr. or Professor Banz, was the first to document the size effect; correct?

A. I'm not sure, actually. He was one of the first. I'm not sure whether he was the first or not.

Q. To save time, we won't turn to it in the Ibbotson/Morningstar Report, EO-13 to your report, Page 107, End Note 1, it does say that. It doesn't really matter. He's one of the first is fine.

Banz used data in his 1980 report from the stocks of the New York Stock Exchange between 1926 and 1975; correct?

This is not this document anymore. We're talking about Banz.

If you could open to--

A. I don't remember it by memory.

Q. If you could turn to Page 6, and this is Exhibit EO-30.

If you turn to Page 6 of Professor Banz's article, under the heading Data, Section 3, he says the sample includes all common stocks quoted on the New York Stock Exchange for at least five years between 1926 and 1975.

Do you see that?

16:59 A. Yes, I do.

Q. So, his data was the price of stocks on the New York Stock Exchange between 1926 and 1975; correct?

A. Yes.

Q. So, Banz in this study was looking at the size effect with respect to U.S. companies; correct?

A. To be precise, these were companies that traded in the NYSE. It could be companies from other countries, companies that can be bought and sold in NYSE.

Q. Yes. The vast majority of the companies listed on the New York Stock Exchange as opposed to, for example, to some other lesser Exchanges, are U.S. companies; is that not right?

A. I would state the majority for sure. Vast majority, I don't know. Without looking at the data, I wouldn't be able to--I would rather not respond to that.

Q. One of the main authorities you rely on to support the use of a Size Premium is the Morningstar/Ibbotson report; correct?

A. Yes.

Q. Let's open to that document. It's Tab 23. It's Exhibit EO-13.

Now, if you turn to Page 98, please.

Now, the Ibbotson/Morningstar Report covers securities between 1926 and 2009; correct?

A. It is updated annually and the one I used for my

17:02 report, since it was a valuation date of May 2010, I used up to 2009. But it has been updated since then three times, I believe.

Q. We're looking at this document. I understand there may be others, but this document covers securities from 1926 to 2009; correct?

A. Yes, this one does.

Q. On the right-hand column of Page 98, Ibbotson and Morningstar report talks about seasonality.

Are you familiar--and don't explain it to me yet, but just tell me, are you familiar with the concept of seasonality?

A. Yes.

Q. Okay. In this section on seasonality, the report concludes that virtually all of the small stock effect occurs in January, and I'm quoting now, "as the excess for outcomes for small company stocks are mostly negative in other months of the year."

That's what it says; correct?

A. Yes, that's what it says. But it also says in the same paragraph demonstrating that the Size Premium is largely promised by the general effect does not seem to refute the existence of such a premium.

Q. Fair. We will conclude that for ourselves, and the Tribunal will do so as well.

I just to want try to understand this January effect.

17:03 And there are some explanations under the next heading of why the entire size effect for the stocks reviewed was felt in January; whereas, the entire rest of the year, the opposite effect was observed. And there are two explanations given here.

The first is that fund managers are cleaning out their portfolios of loser stocks as what's called "window-dressing"; right?

A. You need to refresh my recollection.

Q. Sure. It's directly under the heading possible explanations for January effect. And I will read it: There is no generally accepted explanation of the January effect. One potential explanation is that it results from year-end window-dressing by portfolio managers. Window dressing is the process of dumping money-losing stocks just before year-end so such stocks are not included in the portfolio Manager's Annual Reports.

Do you see that?

A. Yes. And it shows that this is a potential--possible explanation.

Q. If that is the explanation--I'm not saying that it is or not. Personally, I don't know. I don't know if anyone knows. But if that is the explanation for the January effect, this has--would have no impact on the price of a direct investment in a long-term business, would it?

17:05 A. But if we are going to talk about a direct investment, this is an additional reason to write a Size Premium.

Q. Well, let's see. With a direct investment in a long-term project, there is no portfolio manager, and there is certainly no reason to dump shares because that has absolutely nothing to do with the nature of the investment; isn't that fair?

A. Yes, but it is also true that a portfolio manager can also decide--here the word they use is "dumping." They say, well, I'm not interested in this one and I am going to sell this one, and he can do so in four minutes. But if you invest in a real company and you're saying EGSA is not having good performance, I'm going to leave it in four minutes, you cannot sell EGSA--you cannot dump it in four minutes, and that's what we're trying to capture in this Size Premium.

Q. The second reason--the second explanation is that people are dumping their stocks before the end of the year for tax purposes and buying them back in January as a way to choose the moment to allocate their tax losses so as to maximize the fiscal benefit to themselves.

Is that a fair characterization of the second explanation?

A. That's what it says.

Q. And that's not relevant to a long-term direct investment--sorry, a direct investment in a long-term

17:07 enterprise, is it?

A. Here we need to clarify that it is relevant because what we are doing is trying to assess a company that is not traded. This is a company that had a Shareholder and another one and another one. So, it is important--or what we're trying to do is to measure the minimal expected Rate of Return of Shareholders, so we have some idea about why it was the small company, and we need to add a premium. We need to quantify it, and the best way to quantify what I found is to use this database.

Q. I have to disagree with you a little bit as to what we are trying to do here.

I mean, the idea, as I understood it in your report, is that the Size Premium reflects an additional risk that a buyer or seller of Guaracachi in May 2010 would have attributed to the cash flows of the company. Isn't that fair?

A. The risks--rather an additional risk to the cash flows due to the size of EGSA, yes.

Q. And what we're reading here in Ibbotson is that if there is a phenomenon of a Size Premium, it all happens in January, and the only explanations that Ibbotson and Morningstar can come to about why it happens in January have nothing to do with the risk of the underlying companies at all?

A. I disagree with you here. I disagree with you here because if we look at the same page, it said that a potential

17:09 explanation would be--and I don't think that they showed anything. They said that it might be that, but I don't think there is any evidence or any empirical study that tells you yes, that is what it is, and I proved it--we've proved it.

Q. Now, Fama and French are pretty well-known economists; yes?

A. Yes, they are.

Q. And they observed the size effect between 1963 and 1990 in their early study; correct?

A. Early studies, I think that they wrote a lot about this.

Q. Earlier.

A. Yes.

Q. In the Nineties?

A. Yes, agreed.

Q. And Fama and French completed a new study in 2012; correct?

A. Correct.

Q. In your reports, you did not consider Fama and French, did you?

A. Correct. The reason is that that study is from 2012, two years after the valuation date, and taking into account the academic studies take a while to get to the actual practice of financial analysis because, once again, an article is published in a journal, and then other economists take a look, support

17:11 it, criticize it with other data, with other evidence, and that's what happens with the first Fama and French study carried out in the 1990s. It was heavily criticized, supported, and consensus was reached.

So the new article by Fama and French, I do respect it, I am going to read it thoroughly, but it will take some time to reach consensus as to whether that analysis is accurate, and this is also and supported by all of the financial analysts.

Q. Let's turn to Tab 12, which is that study. And, once you find it, please turn to Page 459. It's Exhibit C-272.

We can see what the sample used is, data and variables, you see there, and it says that the sample period is November 1989--

A. I'm sorry, to the right or to the left?

Q. I do the same thing.

To the left-hand column. Right under "3" and variables.

They examine a sample period from November 1989 to March 2011.

Do you see that?

A. Yes.

Q. And you can see the sample that they used towards the bottom of that column, 23 developed markets in four regions.

Do you see that?

17:13 A. Yes. I also see that at the beginning of this paragraph it says that the short analysis period also has an effect on our tests.

This is what I said before. I think that this is a preliminary study that others will have to verify with more information, more evidence, more data.

Q. Are you aware of any subsequent, more up-to-date report than this one on the Size Premium?

A. No, not that has not been published. And I don't know of any other either that hasn't been published.

Q. And if you had seen something, even not in an article of this formality, but criticism from a leading economist, you would have told us about it by now, I assume?

A. Sorry, I failed to understand the question.

Q. Am I correct in assuming that you have not seen any criticism of this report to date?

A. No, I haven't been looking for it actively. Once I saw that it was a study published in 2012, it was not my priority to criticize it. I thought that in the Second Report--I think that in the Second Report I do not even refer to it.

Q. Turn over the page, please, to Page 460. The right-hand column, 4.1, explanatory returns, the start of the second paragraph says, there is no Size Premium in any region during our sample period.

17:15 Do you see that?

A. Yes, I see that.

Q. Do you disagree with their conclusion?

A. When I read this--this is quite at the beginning of your study--of the study, under summary statistics, agreed?

So, that does not involve any study. It's just taking data as collected and presenting what they called median, the deviation--the standard deviation, and statistics--or statistical data.

Later on in the report, in Sections 5, 6, and following, you are going to see that they actually analyze what determines the return for small companies.

This is just a preliminary point without any sort of filter, without any fixed parameter that could control for other factors that may explain this. And in addition to size, you see many other factors on Page 461 that are trying to determine what could be explained and also what correlations there are.

This statement at 460 I see it, I understand it, but it refers to data without any sort of analysis.

Q. But you did not--

PRESIDENT JÚDICE: My question is the following: Shall we go to the conclusions?

THE WITNESS: Yes, if we go to the conclusions, you're going to see that that is not repeated there. If you go to the

17:16 conclusion, you're going to see that it is quite difficult to understand. That's the reason why I chose not to refer to that report.

PRESIDENT JÚDICE: Thank you.

BY MR. RUBINS:

Q. Now, Professor Damodaran--we have all been talking about him so much--you rely on Professor Damodaran in your reports quite a lot; is that correct? Is that fair?

A. That is one of the sources that I use, his data and writings, yes.

Q. In fact, you probably--I don't know if we can statistically figure this out, but you probably cite him more than most or all of any other one source.

A. I don't know. I think that I also rely on Ibbotson and Morningstar, but I don't know which of the two sources I used the most.

Q. Let's open to Tab 21, please, which is Damodaran's blog "Musings on Markets." And if you look down to the end of his discussion, the last paragraph begins as follows: "I have never used a Fama/French model"--this is referring to the old model that assumed a risk premium--"or added a small-cap premiums to a cap-end model in intrinsic valuation. If I believe that a small-cap stocks are riskier than large stocks, I have an obligation to think of fundamental or economic reasons why and build those into my risk and return model or

17:18 into the parameters of the model. Adding a small-cap premium strikes me as not only a sloppy and high-error way of adjusting expected returns, but an abdication of the mission in intrinsic valuation, which is to build up your numbers from fundamentals."

Now, here, if it's possible, I would just like a yes-or-no answer.

Do I understand correctly that you disagree with Professor Damodaran on this point? And I don't necessarily need to know now why; counsel for Bolivia can get into that, if he likes.

A. (In English) Yes, I disagree with Professor Damodaran on this point.

Q. Now, in the Ibbotson model that you use for your country premium, in order to get the size of it, am I correct in understanding that the cut-off size for adding some Size Premium is a market capitalization of $14.6 billion?

Is that fair?

A. I have it in my presentation. I can confirm.

At Page 27 of my presentation.

Q. So, we can also look at the original, but this is fine for now.

So, here the positive Size Premium begins at Decile 2 for which the cut-off is 14.691 billion U.S. dollars; correct?

A. Yes.

17:21 Q. So, is it your position that every company in the world with a market capitalization of less than 14.6 billion U.S. dollars should attract a Size Premium?

A. Yes, and this goes hand in hand with what I indicated at Table 7.9. That is not too large.

Q. And it's your position that valuers in the marketplace, every time they look at a company of $14.6 billion or less, will be adding a risk premium like that?

A. The question is whether it is my position?

Q. Yes.

A. No, not necessarily. When we get to these extremes, well, we are talking about Deciles 1, 2, 3 and 4, I think that there will be greater variation as to how to focus on this. This is the type of analysis that is used more frequently when we're getting to the bottom of the table, and it could also be the case that Ibbotson and Morningstar, in this study and in the yearly updates for Decile Number 10, this is broken down into smaller deciles because that is the key of the argument. That is the effect of the risk premium, and usually people do not focus too much on one, two, three, four, five, but they go to the bottom of the table.

For example, when Mr. Spiller from Compass Lexecon was working on Guatemala, he used a subsection of Decile Number 10, and both Experts in those case--in that case used a Size Premium, but the discussion was to use--whether to use 10-A, 17:23 10-B, or 10-C; that is to say, subsectors within the last category.

Q. Well, there was a lot there to talk about. Let's start with this.

So, in Ibbotson/Morningstar, there are smaller premia for relatively larger companies; correct?

A. Correct.

Q. And the reason they're smaller is, in the view that there should be a Size Premium, that Size Premium is less important, the larger the company gets; correct?

A. Yes, sir.

Q. But what you've told me is that, in fact, the Size Premium drops away as the company gets bigger; not that it only shrink, but, in fact, there may none at all. That's what I understood you to say. Was I misunderstanding you?

A. I did not say that it drops down or that it disappears. What I said is that variation was greater among economists--financial economists whether to use it or not. Some might use it or some might not. So, I think that the consensus is greater in the sense that a Size Premium has to be used when we get to the last deciles on that table.

Q. Now, you mentioned the Guatemala case, and you mentioned the subdivision in that case in the discussion among the experts in the tenth decile between 10-A and 10-B.

A. Yes.

17:25 Q. Now, 10-A and 10-B are also subdivided into the Ibbotson/Morningstar; correct?

A. Yes, sir.

Q. So, there are four categories of Decile 10; correct?

A. The truth is I don't remember. There are several. Four or six. I can see the table, but I don't remember exactly the number.

Q. Again, t's Tab 23, EO-13, Table 7-6.

PRESIDENT JÚDICE: Table?

MR. RUBINS: It's on Page 91 of the Ibbotson report in the upper right-hand corner.

BY MR. RUBINS:

Q. And here, we see the breakdown of that tenth decile, at W, X, Y, Z. Do you see that?

A. Yes.

Q. Now, the proper categorization of Guaracachi, if one were to use all of this, would be in 10-X; correct? That is to say--I won't jump steps.

You have used the Book Value of equity of Guaracachi to find its place in the deciles of Ibbotson/Morningstar; correct?

A. What I explained in my Second Report is that even though I mentioned in the First Report that I was referring in a footnote to the Book Value of EGSA, at any rate, regardless of how you look at it, it belongs to group 10. If you take the

17:28 value of company as suggested by Mr. Abdala.

So, regardless of the way you look at it, it is Number 10.

The reason why I stayed with 10 instead of going to 10-X, -Y, or - Z, is that we would be assuming the answer. My position is that the--EGSA's company value was lower than Abdala's, so it could be accused this was a circular argument. If I go and say that the company is worth so much, therefore the Premiums--the Size Premium is higher, I have a higher discount rate and the value drops down, and that can't be solved. That is the reason why I refrained from using this subdivision, and I stayed with Decile Number 10, Decile 10 in general, so that we could not go up to nine or eight.

Q. Yeah, I hear you. And I certainly agree that that would be circular. But my suggestion is that that is precisely what you have done in effect, if you're taking, for these purposes alone--and I understand you don't agree with the Book Value of equity, I understand that, but you have taken it for these purposes in order to have a benchmark for this purpose--I understand that--but if you're to do that, 133.7, which is the number, falls within 10-X.

Now, if one puts it in that proper category and one were to assume that a Size Premium should be applied, then we need to look over on the next page, on Page 192, where the report gives different Size Premiums for each of the four

17:29 subdeciles.

A. Sí.

Q. I'm almost done.

And so 10-X, which corresponds to a Book Value of equity of 133.7, involves--according to Ibbotson/Morningstar, involves a Size Premium of 4.91 percent and not 6.82 percent; correct.

It's on the next page, 92.

A. Yes, I was just looking at the next table to compare.

Q. Okay.

A. I didn't hear the last portion of your question. I'm sorry. It's my fault. Could you repeat it.

Q. Sure.

If one were to use the Ibbottson's subdecile that corresponds to a Book Value of Equity of 133.7, the proper Size Premium, if one were to apply at all, is 4.91 percent and not 6.28 percent; correct?

A. According to Table 77, yes.

Q. Let's look now at Tab 14. This is Exhibit C-300, the investment bank reports--singular on the first, plural on the second--and we're going to look at Page 47. The pages don't go exactly in exact order in this document.

And we're looking--now, this is an analyst's report from Banco Santander; correct?

A. Yes, that's correct.

17:32 Q. It is valuing ENDESA and its subsidiaries; correct?
A. The purpose of this report, as I see it, is to propose a price for ENDESA's Latin American shares. I don't know if they are conducting an individualized valuation of the subsidiaries, but rather of the whole company. The recommendation is that the company is worth $63 per share. This is Page 44.
Q. If you turn back to Page 46, you can see valuation price per share. At the bottom of the page it is saying specifically we're introducing a target price of $63 per share for ENDESA Chile, subsidiary.
So, this is a Valuation Report. I mean, I would have thought we could at least agree on this, Dr. Flores, because this is how it was presented in Compass Lexecon's report. You never said that it was anything other than that in your Rebuttal Report.
So can we at least agree, so that we can move on, that this is valuation of ENDESA's subsidiaries?
A. Honestly, I don't think anywhere in the Compass Lexecon Report it is said that this is a valuation of ENDESA's Chile subsidiaries. You could show it to me if you want, but I don't remember seeing in the Compass Lexecon Report subsidiaries of ENDESA Chile.
Q. Turn back to Page 46, please. And it says, again, "valuation" at the bottom of the page. It gives a price for

17:34 ENDESA Chile. That is a valuation of ENDESA Chile. Can we move on now?

A. It is the value that they recommend for the price of one share of ENDESA Chile. It's not a valuation of the whole company. It's one share of the company.

Q. And one would assume that a price for the whole company is slightly higher; is that your point?

A. Slightly higher?

Q. Because of the control premium or something like that.

A. Possibly.

Q. On Page 40, we see in Figure 10, you can see that the equity values of Chocón and Costanera are given in the third column, equity, as $1.14 million and $165 million.

Do you see that?

A. Yes, I see it.

Q. These are both equity values under $214 million, therefore, in the 10 smallest--in the smallest decile of Ibbotson/Morningstar; correct?

A. Yes, correct.

Q. In the figure above, Figure 9, we can see the elements of discount rate or the WACC for each of those subsidiary, including those in Chile, for example. There is no Size Premium implemented for any of ENDESA's subsidiaries, is there?

A. Of course not. I wouldn't have included that there either.

17:36 Here we're talking about one single company. The price, they say, is $63 per share--that's the recommended price, and what they're saying is this is a company that is operating in Chile with activities in South America, and it has a number of items in common.

For EGSA--well, for them it is impossible to have access to international market financing unless it's via CAF. They could not come to Paris to obtain bonds such as ESA Gener. This is a company that is very interrelated. The offices of the company may have been linked to the other ones.

PRESIDENT JÚDICE: One doubt, you say that they cannot go to Paris. Is that factual information or is this a conclusion that you've reached?

THE WITNESS: It is my conclusion after having read the evidence and heard the evidence in this case, that all of EGSA's accounts--all of EGSA's debts were in Bolivia.

BY MR. RUBINS:

Q. We're talking now about your reports because remember your reports, both of them, were composed prior to hearing the evidence, okay? And already you came to your conclusions which you did not change one way or the other, okay? And you explained in your Second Report, starting at Paragraph 126, your reasons for using Size Premium. And, frankly, none of what you've said is in there. You didn't explain any of that. And, in fact, your only explanation--your only explanation is

17:38 your footnote to literature and to Professor Spiller, frankly.

There is no explanation in your article--in your Report as to why in this particular case you apply a Size Premium except for the size. That's the only reason you give; isn't that fair?

That's the only reason you give; isn't that fair?

A. I invite you to read what I wrote in my First Report.

Give me one moment, please.

In the Second Report I did not repeat what I said in my First Report. That gives you a more general view of my position on this issue.

Q. Yes. I have gone back now to your First Report, and what you say is the financial literature explains small companies tend to produce higher returns than large companies. And the reason you say is that markets perceive that investing in small entails more risk than investing in large companies. That's it. There is nothing else. There is nothing about Guaracachi, there is nothing about anything specific to the company, which now you seem to think is so important.

A. But in my Second Report I explain a lot of pages explaining the financial position of EGSA, and that is related to the limited size that EGSA had. I think all of that is relevant to the Size Premium. Perhaps it's not in the same section, but all of this has been explained.

Q. Not only, Dr. Flores, is it not in the same section, 17:40 but it's not related in any way to the Size Premium in your Report. But I think we have to move on for want of time.

Have you looked through the samples from Santander's reports, 300?

A. I looked at them as PDF files, and I searched for words using the functions. But it was over a hundred pages. I haven't read it page by page, if you'll make reference to it.

Q. But I presume that it would not surprise you, based on what you've just said, that none of the Santander reports include a Size Premium for any of the companies reviewed.

A. We know that Damodaran is against Size Premium. That is one piece of information that we have. And I don't discuss that--I don't argue with that. And in his models, Damadoran says I'm going to do things differently. I'm going to calculate the things use cash flows and such.

What we know after looking at C-300 is that the group of analysts of Santander Chile--they only have one or two people in Brazil--well, that group of analysts--three or four people, I think--they don't apply that either. That's the only thing we know.

Mr. Abdala, in it his Second Report--Dr. Abdala, rather, in his Second Report said, look at the multitude of financial analysts that failed to apply the Size Premium. We only know that it's one. They don't apply it, but I do. We know it's only one.

17:42 Q. Yes. We know that you're one as well.
And I wonder, you didn't submit with your Second Report any other investment bank analyst's reports with respect to companies like this that did add a Size Premium.
Does that suggest that you did not find any?
A. I simply did not look for it. I know that Compass Lexecon has access to a database that has them, well, access to free reports. They had access to that. I don't. That's why I don't have it.
MR. RUBINS: I would be glad to take a recess.
MR. GARCÍA REPRESA: Could you please give me an indication more or less as to how much more the Claimants are going to need for the examination, just for organizational purposes--organizational purposes, rather.
MR. RUBINS: Well, I've taken one hour so far. I certainly hoped to be done in another 45 minutes, but it could be an hour. I don't think it will be more than that.
See, you're halfway done, Dr. Flores.
PRESIDENT JÚDICE: Now we have 15-minute stop. You may leave, but you cannot speak with anyone.
THE WITNESS: Thank you.
(Brief recess.)
PRESIDENT JÚDICE: Okay. Let's return to the work.
THE WITNESS: Would you allow me to say something? This is very brief.

18:04 I noticed that here you have a translation into English of my second report, and I just noticed that the translation is incorrect at Paragraph 141. I imagine that this is your own translation, but I don't know if this is in the record. This is not in the record? Okay. So, it doesn't matter. Please review 141. There is a mistake in the English version.

PRESIDENT JÚDICE: The Tribunal worked with your Spanish version. We do not have your translation, but even if that was the case, we will work with the original.

Thank you.

BY MR. RUBINS:

Q. Dr. Flores, we were just talking about the analysts' reports, and you said about that that the reason you did not look for other analyst reports which might have, I suppose, added a size premium to their discount rates in valuations was because you didn't have a subscription to receive them.

Do you remember that?

A. Yes.

Q. And you also said that Compass Lexecon has a free subscription.

A. I didn't mean that it was free. I just said that they do have it. That's what I wanted to say.

Q. You understand that they would have paid for that?

A. Yes.

18:06 Q. And you understand that you also could have paid for that?

A. Yes, but I have a risk premium as a small company. Econ One is smaller than Compass Lexecon.

Q. Did you ask counsel for Bolivia to cover that cost?

A. No, I didn't ask for it, but I was quite sure that it was not going to be an approved expense. And I don't think it was key to the discussion once I proved that the analysis by Mr. Abdala was--had no grounds.

Q. Let's turn to the Country Risk Premium.

Now, you and Dr. Abdala agree that it is necessary to add a Country Risk Premium to account for the difference in risk between an investment inside a risk-free jurisdiction like the United States and outside in, for example, Bolivia; correct?

A. Not exactly. I would not say that the United States is risk-free. I think that there are risks when you invest in the United States, but we are looking into additional risks when you invest outside mature economies outside of the United States.

Q. And you disagreed also with Dr. Abdala's statement that the sovereign debt approach is the most usual methodology; right?

A. Do you mean that I agree or that I don't?

Q. I understand you to disagree with the statement that

18:07 the sovereign debt approach, which Dr. Abdala used, is the most usual methodology.

A. I would say that it is one of the methodologies. It is accepted, but it is not the most accepted one.

Q. But you accepted to use it as the first step in your Country Risk Premium analysis; correct?

A. Correct.

Q. So, the sovereign debt approach that both of you used as the base for Country Risk Premium takes the yields of the host State's dollar-denominated bonds and compares that with U.S. Treasury bonds of similar maturity; correct?

A. Yes, at a very superficial level, that would be the approach.

Q. And there was no information about Bolivian sovereign bonds as of May 2010, so Dr. Abdala used a proxy of the EMBI, the Emerging Bond Index, which uses sovereign ratings given to Bolivia by the various agencies; right?

A. Correct.

Q. And you agree that that was the correct thing to do in the circumstances?

A. As a first step to establish the Country Risk Premium, yes.

Q. And Dr. Abdala used a one-year average of the bond yields he obtained through the EMBI proxy; correct?

A. I'm not sure, but I take your assumption, or I take

18:09 your assertion as the right one.

Q. It's in Compass Lexecon First Report Paragraph 161, for reference.

A. Yes.

Q. So, you accept that the EMBI proxy is one of appropriate ways to assess the Country Risk Premium, subject to the 1.5 multiplier; correct?

A. We have been talking a lot about the 1.5 multiplier, but it should be stated clearly that we are multiplying this by the relative volatility on the return of the--given the return of the Shares over the return of the bonds. And since we did not have a value for Bolivia, we use 1.5. That is a common value for all of the countries. If we had data, we could use a specific number that could be higher or lower than 1.5.

Q. And as a base you accept that 7.02, which is the EMBI result that Dr. Abdala reaches is proper as a base; correct?

A. It's like a base to calculate additional risk that the investors in bonds need to invest in Bolivia as opposed to invest in the United States.

Q. Your support for the use of the 1.5 multiplier is the work of Professor Damodaran; correct?

A. Correct.

Q. And in your Report, in your First Report you did not provide any other support for the 1.5 multiplier; correct?

A. I don't think I did.

18:11 Q. Let's turn to the source that you cite, which is Professor Damodaran's 2003 article, which was EO-25, and which you will find at Tab 24.

Now, the part we're interested in starts at Page 7, and Damodaran, as you say, offers different ways to measure a Country Risk Premium, and the first one we just described using bond default spreads. The second is relative market standard deviations, and the third is a combination of default spreads and standard deviations.

Now, you are looking at third way; right? And adding 1.5. That's a combination method; correct?

A. Yes.

Q. Now, at Page 11, Professor Damodaran compares the three approaches and shows that the melded approach, the third approach that you used, generally yields higher premiums; correct? Higher market equity premia; correct?

A. That is correct, and behind him at Table 1 it also says, "We believe that the larger Country Risk Premiums that emerged from the last approach are the most realistic for the immediate future, but that Country Risk Premiums will decline over time."

Q. Yes.

So, that suggests that that third approach is best suited to the short term; correct?

A. If you want it to be that way, yes, but as it shows, 18:14 as time goes by, yes, it could be that there is a decline in risk.

Q. What do you consider to be a long term "investment"?

A. It depends. As I indicated in my Second Report at Paragraph 141, there I say that I do not disagree with the theoretical possibility that in the very long term the volatility of the Shares or of the stock converge with that of the bonds, but there I am referring to the situation in the United States, and after such a long time, there hasn't been such a convergence. But in almost a century of data that convergence has not been observed in the United States, I do not think that the convergence may be a reality in emerging economies in a similar period of time. Maybe within a hundred years Bolivia may have the same volatility for shares for stock holding as for bonds, but I don't think that this is something that is going to happen in the next decades.

Q. Dr. Damodaran clearly is not thinking the way you are thinking in this text, Dr. Flores. If we look at it, he says, "We believe these larger premiums that result from your method are most realistic for the immediate future." Immediate future. But, but meaning they are not the most realistic over time.

So, the contrast is not between 100 years and 30 years but between the immediate future and the not immediate future.

Don't you agree with that?

18:16 A. As we presented in our second report, Professor Damodaran studies over ten years, and for me that is not the immediate future, and he still applies those factors. Therefore, I disagree with you that the immediate future only means today or tomorrow. What Mr. Abdala says only a day--some days or only some months I do not think is what Mr. Damodaran is saying.

Q. Do you think that four years is the short term?

A. I imagine it would be borderline. I would say midterm.

Q. Okay. Let's turn to your Second Report at Paragraph 207. Here you're talking about cash flows to creditors as financing, and you say, "Before your delay such as the one that Compass Lexecon is assuming is not a short-term plan."

Four years is not short term; correct?

A. Yes. We could call it midterm, as I just said.

Q. And 28 years, surely that is long term.

A. Yes, it all depends on the borders that you establish, but for the context, we need to establish when we can be reasonably certain that the relative volatility would have decreased and disappeared, so I think that the parameter is different if we refer to midterm, short term, very short term as opposed to when I am going to pay my gas supplier. Here, the short term is different in both contexts.

18:18 Q. In Page 12, if you turn over the page of Damodaran's article, you can see in that first full paragraph that Damodaran, refers to the possibility of adjusting the premium obtained by your approach in a valuation over time.

You do not do that in your model, do you?

A. It's true, I do not do that because I did not have any quantitative phases to do it. Dr. Damodaran here is using a relative term as the longer the term, et cetera. But the truth of the matter is that only in examples that I was able to attach to my report Mr. Damodaran says or Professor Damodaran says that for the residual value of the company, I will remove that, but when it is procedural, it captures cash balances ad infinitum.

So, I have not seen any information by Professor Damodaran that says use it for 10, 12 years and then stop after that, or use it as at 100 percent and then decline step by step until year Number 20.

There is no research by Professor Damodaran or any other person for that matter that allows me to quantify that. Therefore, I leave it then, and it should be mentioned that if at some point you started--the discount rate started to diminish gradually as of 2022-2025, the result in my model would be quite reduced in the sense that at that level the cash flows are deeply discounted.

Q. Damodaran gives an illustration at the bottom of the

18:20 paragraph. He says, for example, a Country Risk Premium for Brazil under the method you use with the 1.5 multiplier would be 7.67 percent for the next year, but decline over time to either the 6.01 percent country default spread or 3.6 percent Relative Standard Deviation.

Do you see that?

A. I'm sorry, where?

Q. At the same paragraph we were looking at at the top of Page 12.

A. Yes, I can see that.

Q. And so, he's suggesting that even using his multiplier, without having any quantitative indicators of any kind, it would be appropriate to decline after the first year from the highest result for country risk; correct?

A. Yes, but there is no indication here as to how that would happen. And we know in other studies by Professor Damodaran he maintains it's fixed for 10 or 12 years--for five or 10 years, and this is what I found.

Q. Let's turn to Tab 15, which is C-308, and this is the famous Damodaran spreadsheet.

Now, we've already looked at the default spread column which is the second column which for Bolivia has 550 basis points, and at the top of the page, he explains how he gets this default spread. This is in the box at the top, explanatory note, and he says, in the short term especially, 18:23 the 1.5 multiplier should be--let me quote it exactly. "In the short term especially, the equity Country Risk Premium is likely to be greater than the country default spread. You can estimate and adjust the Country Risk Premium by multiplying the default spread by the relative equity market volatility for that market," and he says below, "I've used 1.5."

Do you see that?

A. Yes.

Q. Now, the 550 basis points that Professor Damodaran uses for Bolivia, that corresponds, does it not, to the 7.02 percent that Dr. Abdala calculated for the default spread; correct?

A. Yes, with a different methodology in both cases, something is calculated without multiplying it by something that would take into account the higher volatility of the Shares over the bonds.

Q. Yes.

And precisely when Professor Damodaran uses his 1.5 multiplier, he doesn't mix methods. He doesn't apply it to 7.02. He applies it to 550, doesn't he?

A. I do not understand your question.

Q. Well, Professor Damodaran takes 550 basis points which is under his method, the method that includes the 1.5 multiplier, the proper assessment of the default spread; right? You follow me so far?

18:25 A. The right one. That is one of the options, and Mr. Abdala did it differently, but in all cases the idea is to look for measure of the additional return of the sovereign debt of a country over the sovereign debt of the United States.

Q. Sure. But Dr. Abdala covers volatility in a different way. Damodaran covers volatility by doing his 1.5 multiplier, and that's why Professor Damodaran comes to a total using the 1.5 multiplier of 8.25 percent, which is, of course, 1.5 times the 550 basis points; right?

A. Yes, that is what Professor Damodaran does.

Q. And what you have done is you've taken from a different method a higher base rate of 702 basis points and applied Professor Damodaran's 1.5 multiplier to that; correct?

A. Yes, that is correct.

Q. Let's go back to Tab 14 which is the investment bank reports in the six months on either side of the nationalization, and let's go to Page 47. We have seen this before. This is the calculation of the WACC of ENDESA's subsidiaries.

And do we still have access to Compass Lexecon's slides? Does Dr. Flores have that? It's not necessary.

(Pause.)

Q. Okay. So, let's look at the country risk for Peru, for example. The country risk for Peru, which is the last column on Page 47, Figure 9, is 2.4 percent.

18:28 Do you see that?

A. Yes.

Q. Now, if now we turn over to Tab 42, we have the same information that Dr. Abdala showed this morning which shows the EMBI spreads in various reports and, for example, August '09--that's also on the screen--and so, for example, for August '09, the EMBI spread is 2.4 percent, exactly the same as country risk, and you can follow that all the way down. They match.

A. Which page?

Q. Yes, that's it. It's marked as Slide 0 here.

So, do you agree that the country risk from C-300, which we just looked at, matches pretty much the EMBI spread?

PRESIDENT JÚDICE: This document, for the record, is?

MR. RUBINS: The document is a table of Santander's, Investment Bank report. It's a summary of two figures that are contained in those reports, first the EMBI spread and, second, the country risk indicated for various points in time.

PRESIDENT JÚDICE: Thank you.

BY MR. RUBINS:

Q. And the point that I just wanted to confirm is, given that the EMBI spread is the same as country risk in all of these Santander Investment Bank reports, we know for a fact that Santander is not multiplying the country risk by 1.5; is that correct?

18:30 A. Santander did you say?
Q. That the analysts from Santander are not multiplying the country risk by 1.5 in their valuations.
A. Yes, that is correct, yes.
I just wanted to clarify something. I have not verified the data that are labeled EMBI spread in that column. I assume that they are correctly calculated, but I cannot verify that.
Q. Sure. You verified the ones that go into Compass Lexecon's models and you've agreed with them; but you haven't confirmed that these particular numbers on this paper correspond to those?
A. Exactly.
Q. Understood.
Just a couple of questions on Market Risk Premium.
Dr. Abdala adopted a 5 percent Market Risk Premium relying on Professor Damodaran; correct?
A. Yes, that's correct.
Q. And you say that Dr. Abdala selected the low end of Professor Damodaran's limit or range, which was 5 to 6 percent; correct?
A. Yes, that's correct.
I think that that was due to the fact that Mr. Abdala failed to indicate--well, a source was being used that he then changed.

18:32 Q. So, if we turn to Tab 3--Tab 3--Tab 3 is the Damodaran article that has caused this discussion.

Now, if we turn to Page 67.

At 67, at end of the first paragraph on the page, the last sentence we find the statement of Damodaran that caused the difference of opinion here.

He said--this is October 2009--he said, "Since October of 2008, I have moved to a 5 to 6 percent mature market Equity Risk Premium and will continue to use this higher premium until I'm convinced otherwise." Right?

A. Page?

PRESIDENT JÚDICE: Page?

MR. RUBINS: Page 67. Paragraph at the top of the page, last sentence.

BY MR. RUBINS:

Q. So, you see that?

PRESIDENT JÚDICE: Yes.

THE WITNESS: I don't know if you were asking me or the President.

I do see it.

BY MR. RUBINS:

Q. Now, if we turn to Page 77, we can see some of the information that Professor Damodaran used to come at his conclusion for--in September or October--October of 2009, various sources and the Equity Risk Premiums they come to. Can

18:35 you confirm that 5.1 percent is the highest result on the table?

A. Yes.

Q. And if we turn now to Tab 25, this is EO-29, which is the updated version of Professor Damodaran's 2009 discussion of Equity Risk Premiums from February 2010. If we turn to Page 68, we find that--do you see where I am, Dr. Flores?

A. Page...

Q. Page 68, first full paragraph, in the middle of the paragraph, the sentence that begins, "Having watched."

Do you see that?

A. Yes.

Q. He says, "Having watched the reversion to historical averages in 2009, my valuations in 2010 will be based upon Equity Risk Premiums of 4.5 to 5 percent."

Do you see that?

A. Yes, I do.

Q. So, 5 percent is the upper range for Damodaran in 2010 valuations; correct?

A. To be precise, it's February 2010, yes.

Q. Let's look back at Tab 15, the spreadsheet again, C-308. Let me know when you find it.

A. I've got it, yes.

Q. So, again, January 2010 around the same time, we find here the Equity Risk Premium, the market premium, in the yellow

18:37 box at the top of the set of yellow boxes, where Damodaran uses 4.5 percent in all cases; correct?
A. Yes, in that table it uses 4.5 because...
Q. Well, because Damodaran believes that 4.5 percent is the proper Market Risk Premium for 2010; correct?
A. In February 2010, yes. I know that sometimes Damodaran changes his risk premium in mid-year. He doesn't always keep it fixed for 12 months intervals.
Q. Are you aware in this case that Damodaran actually changed his view in 2010?
A. I know that he changed it. The rate for 2011 is higher, but I don't know exactly whether he changed it in January or December or where.
But the answer is no. The next update that he conducted was to increase the Market Risk Premium.
Q. Professor Damodaran said in the article we just looked at in his statement of assumptions for Equity Risk Premium for 2010 valuations that he will use that 4.5 percent for all valuations in 2010. That's what he said. We saw it. Will use.
A. For all these valuations?
Q. He says, and I can go back into the record, if you would like. He said, "Having watched the reversion to historical averages in 2009, my valuations in 2010 will be based upon Equity Risk Premiums of four-and-a-half to

18:39 5 percent."

A. It says will be based. It's not that every single one of them will be based. It says it will be based.

Q. So, you used 6.7 percent as your market Risk Premium; correct?

A. That is correct, yes.

Q. So, you thought that using Damodaran's 1.5 multiplier was a very good approach, but using his 4.5 percent Market Risk Premium was not a good approach; correct?

A. That is not correct. What I think is correct is to increase the spread in connection with the return on Emerging Country bonds--I don't know if you were listening to me or not--you were, okay--the Relative Volatility has to be adjusted. If I had had specific data for Relative Volatility for the share market in Bolivia for the bond market in Bolivia, I would have used that number. It wasn't going to be the number used by Damodaran. It could have been 1.5, 1.8, 2.5 any number. I didn't have that, so I reverted to Damodaran. It's not that I used Damodaran's method. I used his quantification as an average for 20--I did not use the Damodaran method. I used his quantification for an average of 26 countries.

MR. RUBINS: If you bear with me for just a moment.

(Pause.)

BY MR. RUBINS:

Q. Dr. Flores, you're aware, I think, that Dr. Abdala

18:42 uses a benchmark analysis in his first report which deals with multiple comparable companies.

Do you understand that?

A. Yes. He called them comparable companies. I'm disagreeing with that, that the companies he used are comparable to EGSA.

Q. You did not propose your own benchmark method of any kind, did you?

A. Yes, I did propose a comparative or comparables analysis.

Q. You did not propose an alternative method to using comparables; correct?

A. Yes, yes, I did. Can I explain?

Q. I personally, looking through your report, didn't see a number, a valuation number, that would result from a comparable--for some alternative methodology other than the DCF. That's what I'm trying to understand.

A. Yeah, a specific number, no, I didn't--I didn't use that.

Q. Did you consider using some alternative valuation method before completing your First Report?

A. Yes.

In principle, I don't disagree with the comparables method. I have used it in certain occasions. But one has to be very sure that there are comparables. If there are no

18:44 comparables, the method cannot be applied.

Just one minute to very briefly explain to you. To me, comparables are used in many aspects of everyday life, for example, prices of apartments in Paris. So, it is a relative-valuation method. It is done in euros per square meters. It doesn't matter if an apartment is 100 square meters or 300 square meters, 400 square meters. What's important is to find the price per square meter, so that can be used and applied to an apartment I was thinking about buying.

What you cannot do, and that's a problem, is to take a sample of apartments in Paris, London, Barcelona, and Madrid, and I get an average of 120 euros per square meter, and then I'm going to Bolivia to rent an apartment for 120 euros per square meter. That makes no sense, so one has to be sure that the comparables are really comparables, and the companies that Dr. Abdala has contributed in this 30-company sample are not comparable to EGSA.

Q. But you did not create your own model based on comparables. Are you suggesting that in the entire world there were no companies that would form suitable basis for comparison with Guaracachi?

A. I would have applied that model if there had been other similar companies to EGSA in Bolivia. Then I would have used it. But because of the features of the Bolivian market, well, are different from any other countries, so this would not

18:46 have been applicable. With no adjustment at that, Mr. Abdala says, okay, I put them from higher to lower, and I choose one in the model, and he uses a Chilean company, AES Gener, and that makes no sense.

Q. Right, but you could, then, have made an adjustment, if you thought one was appropriate and still come to a valuation based on comparables. You could have adjusted it, if you thought that was appropriate.

A. But the kinds of adjustment required are so many that it is not a valid alternative to the DCF method.

In the Second Report, I said--I criticized Mr. Abdala. I said, look, you're assuming that the CCGT starts operating today, is operational today as of May 2010, and he said okay, it is not operational as of May 2010. It's going to take another six months.

So, he adjusts his multiples. But to conduct the adjustment, he has it do a DCF method for those six months. And he deducts this from the multiples valuation method. So, the adjustments would be so many that it wouldn't really be worthwhile doing this.

Q. Yes. And you're saying that Bolivia is so unique that there is no country in the world that has sufficiently similar conditions to even compare?

A. If I said Bolivia, I made a mistake. I meant EGSA in Bolivia.

18:47 Q. But every company is unique; isn't that right?
A. Yes, just like every apartment is unique. But the apartment that I see from here, and the one right next to it, I'm sure they're comparable. One is more to the center of the street, and the other one is closer to the corner. But if I know that the apartment here sold last month for 500,000 euros, I will know that the apartment next to it is going to be around that figure. That's reasonable.
What is not reasonable is what Dr. Abdala does.
Q. You're again saying to me that it's not about EGSA. You're saying to me that it's about Bolivia--by comparison, Paris, this street--the place where it is, not the thing it is.
I'm trying to understand. You seem to be telling me that any comparables with any company in Bolivia, that analysis is useless even as a benchmark.
Is that what you're trying to tell me?
A. I wasn't referring to Bolivia in this example. I was referring to one apartment vis-à-vis another apartment in the same neighborhood. That is what I was making reference to.
Q. I presume the neighborhood, by analogy, is Bolivia; right?
A. No, it is a thermoelectrical company in Bolivia. I'm looking at comparables to that. A small company, a thermoelectrical company in Bolivia.
Q. And you can't make a single comparison that would be

18:49 useful outside--to any company outside of Bolivia; is that your position?

A. Yes. If they show it to me, I would be ready and willing to consider it, of course. But in the Second Report I look at this detail, and I look at the features of EGSA, and this is why it cannot be assimilated to any other company.

Q. One last point on comparables. In your First Report, you used Professor Damodoran's sample of companies in Emerging Markets to calculate a proxy for the optimum capital structure; correct?

A. Yes, that's true.

Q. And this is his database of 322 power companies in Emerging Markets in 2010; correct?

A. Yes, that is correct. It's true.

Q. Very few of those companies are located in Bolivia; correct?

A. I think so.

Q. So, you're okay to use the database for some things, but you didn't use the database to try to find comparable companies and to calculate some benchmark for your DCF; correct?

A. As I explained in my Second Report, the problem that we have with Emerging Country companies is that, for most of them, there is little information available.

So, it is true that Damodaran has a Web page where he

18:51 calculates some financial ratios that are basic, such as debt-to-equity ratio. We tried to identify Web pages for those companies around the world in Emerging Countries, and we were unable to find information. Many of them don't even have Web pages.

So, we had to use an example that, it is true, it is less accurate than the example that we used to determine the beta coefficient in connection with the United States, companies because companies have very good information in the United States, and they submit reports to the SEC.

Q. Let's now move to discuss something completely different, Spot Price revenues.

Do you accept that in a fair-market valuation you should assume that the willing buyer and willing seller will have access to all information available in the market about the asset or project being valued?

A. Could you please repeat the question? I think I understood it, but would you please repeat it?

Q. Yes.

Do you agree that, in a fair-market valuation, the valuer should assume that the hypothetical willing buyer and willing seller will have access to all of the information available to the market and it is on the basis of all that information that they will assess the value of the project or company in question?

18:53 A. Yes, I agree with that statement.

Q. Now, we heard in your direct about your interactions with Mr. Paz and the conversations, meetings, telephone calls and so forth, were not described in your Reports.

I just want to understand, I understood that Mr. Paz supplied the elements of information to--that he himself included in his model, that you then used for your projection of Spot Prices and also Spot Price sales volumes; is that correct?

A. If you allow me, I can actually explain the process.

Q. Can you start with just clarifying whether I understand that correctly or not; and then if it really needs clarification, we can get to that.

Do I understand that correctly, or not?

A. No, that was not the case.

Q. So, in fact, you used your own judgment in choosing which information to use; is that correct?

A. No, that is not correct, either.

Q. Did you feel yourself qualified as an expert to make decisions about future capacity in the market and about the future course of Spot Prices and Spot Sales revenues?

A. If I was qualified to make decisions, myself, on Spot Price issues and such, no, I would say that I, myself, would have not been able to reach the results that I reached when I worked together with Mr. Paz.

18:55 Q. So, Mr. Paz--you relied on Mr. Paz, the General Manager of Guaracachi--to select the factual assumptions and carry out projections with respect to those variables; correct?

A. No. The process was very simple. We sat down simply. We read together the relevant sections of the Compass Lexecon Report and of the MEC report.

I have been involved in a number of international arbitrations, and I know what the Tribunals expect out of this kind of analysis. For Mr. Paz, this was the first time that he dealt with this.

I had never dealt with the SDDP program, and Mr. Paz has been working with that program for all his life, ever since the firm was created, so we had to work together for both of us to agree as to what was it that should be done.

Q. So, did you view Mr. Paz's input to you or the contribution that he made to your analysis as the contribution of an independent expert or a fact witness?

MR. GARCÍA REPRESA: Objection. You are making a legal characterization. You know that is not appropriate.

MR. RUBINS: Mr. Chairman, I'm certainly not asking that. I assume Dr. Flores--

PRESIDENT JÚDICE: If you're not asking that, please put it in a different way to convince me that that's not what you are asking.

MR. RUBINS: Sure.

18:57 BY MR. RUBINS:

Q. Dr. Flores, you appear often in international arbitration as an independent expert; correct?

A. Yes.

Q. Okay. And you have also seen, for example, for example, fact witnesses appear in those same arbitrations; correct?

A. Yes.

Q. You understand by your Declaration you make as an independent expert that it is very important for the decision-maker to understand that, since you are making your opinion based upon your general experience rather than your personal knowledge, it's very important to the decision-maker to know that you're independent; right?

A. Yes, I agree.

Q. Well, this is what I'm trying to get at. Because the inputs--the contribution that you got from Mr. Paz, it's unclear whether he was playing a role beside you as another Expert like you, in which case one would expect him to be subject to that same independence, or was he something else, in which cases that's not an issue?

So, I'm just trying to understand, when you took the inputs from him or however that comes about, whether it be by exchange by telephone or meeting and looking at the papers--it doesn't really matter--did you understand that he was giving

18:58 you material which was based upon his general expertise or his personal knowledge?

MR. GARCÍA REPRESA: Objection. Again, we are wasting time which we don't have, trying to have an Expert tell us whether he thinks that an Excel spreadsheet came from an Expert or came from a witness.

Frankly, I think it's a waste of time.

PRESIDENT JÚDICE: If you allow me, I will put the following question: The information provided by Mr. Paz was just information that he could obtain as an expert on that field of practice, or it is that and also information that he was able to obtain personally based on his position in this case?

THE WITNESS: I'm going to be very frank. Before starting working in this case, I didn't know when the POES were published or how often the PMP came out and all that. I read this in the MEC report, and I didn't understand it. I explained--I got an explanation from Mr. Paz.

He facilitated data to me, and how the--about how the market operates in Bolivia.

PRESIDENT JÚDICE: So, Mr. Paz provided to you information that a person who knows the way the electricity market works, whether EGSA--or from EGSA or not could do so, and you received that information in that manner.

THE WITNESS: Yes, that's exact.

19:00 PRESIDENT JÚDICE: But information was communicated to you that are not--that is not market information without being involved in the position of one of the Parties?

THE WITNESS: I think the answer to that is no. The only thing that I needed from Mr. Paz was the fact that he had access to these software program, the SDDP, et cetera, and he knew how to run them correctly.

PRESIDENT JÚDICE: Very well. Can we proceed, then.

MR. RUBINS: Sure.

BY MR. RUBINS:

Q. Last topic, I think, the Spot Price claim. I would like to talk first about the damages in relation to the pre-nationalization period, 2008 to 2010.

If we could open in your First Report to Paragraph 112. So, in Paragraph 112, you say that you focused on a study carried out by the CNDC in 2012 using an actual historical database.

Do you see that?

A. Yes.

Q. And the point of this historical study, as I understand it, was to figure out what the real impact was on Guaracachi of Operating Standard 3; correct?

A. I did not understand the last section, operating what? Are you referring to the standard?

Q. Sorry.

19:02 The point of the whole historical study was to assess the real impact on Guaracachi of the change on the Spot Price formation regime; right?

A. Yes. Given the exclusion of the dual year-endings and the formation of marginal prices.

Q. You said that the study used an actual historical database prior to the valuation date; right?

A. Yes.

Q. Now, did you understand at that time, the time of your First Report, that the CNDC had not actually provided Spot Prices in the actual scenario that corresponded to historical reality?

A. No, I did not have that understanding back then.

Q. But you understand it now; yah?

A. No, I don't. This morning I heard the statement, but honestly it's not clear. I did not have an opportunity to talk to people from the CNDC, and I don't know. You heard the information, and I don't know whether it is clear to you; it is not clear to me.

Q. Did you check whether, for any one of those times or periods, the results for the Node Price actually corresponded to the actual Node Price for that period of time?

A. Well, I reviewed the data, the calculation carried out by MEC in one of the reports, and it was impossible to figure out what they had done. They provided an Excel file with

19:04 various thousand rows, and they included some numbers, but I have no idea how they estimated those numbers.

Q. Did you ask them whether they were estimations or actual prices in the actual scenario?

A. I was referring now to Mercados Energéticos.

Q. Sorry. Did you ask Mr. Paz or the CNDC whether the numbers you were going to put into your model to calculate these damages were in the actual scenario actual historical or estimated?

A. Yes, I did ask that.

Q. And the answer was?

A. Yes, that they were actual data.

PRESIDENT JÚDICE: Sorry, I assume that--I assume that you asked Mr. Paz, not CNDC?

THE WITNESS: Correct. I talked to people from CNDC after they talked here today. I hadn't met them before.

PRESIDENT JÚDICE: Thank you.

BY MR. RUBINS:

Q. And did you see the report, the CNDC report, that came back to Mr. Paz from the CNDC?

A. You're referring to a letter, yes, a letter.

Q. And did you see what we were looking at this morning with the CNDC, where the core results were marked as an estimation of Node Prices?

A. That's the reason why I told you it wasn't

19:06 clear--that's the reason why I told you a moment ago that this was not clear, because my understanding up to this morning was that they were actual numbers. But now, honestly, I don't know. I haven't had an opportunity to read the transcript.

Q. But if you read that report this morning, you saw that it clearly said "estimated Node Prices"; correct?

PRESIDENT JÚDICE: The Tribunal will do that, even if Mr. Flores agrees or disagrees with your interpretation, that would be for the case actually important. It's not speaking as something he knows, but since he's making an interpretation based on information that he has been provided perhaps today. Then, please, ask--it's possible to ask, but clearly I think it would be better to use your time with other issues. Thank you.

MR. RUBINS: Thank you, Mr. Chairman. I'm merely trying to explore with Dr. Flores whether at least now he understands that there was a mistake in using the wrong numbers, and he asked for the transcript, and I could give him the transcript.

PRESIDENT JÚDICE: But respectfully, if--Mr. Flores's opinion at this stage, what is important for us is the opinion he provided in a different moment. If that is a response or want to what actually is the truth, that's something that the Tribunal, and with the help of counsel in the final pleadings, will decide.

Thank you.

19:07 MR. RUBINS: Fine. Thank you, Mr. Chairman.
BY MR. RUBINS:
Q. Then, for the post-nationalization period, the CNDC was not involved nor was Mr. Paz in your calculation of damages for the post-nationalization period; correct?
A. Correct.
Q. What you did was took the gap between the CNDC report, which you assumed to be actual, and the MEC results, and you found a 50 percent gap, and you applied that to Dr. Abdala's number and going forward; correct?
A. Yes.
Q. Did you ask Mr. Paz to project--based on the other information that had been used to project Spot Prices and so forth for the post-2010 period, did you ask Mr. Paz to undertake projections with the help of CNDC, I suppose, with respect to this claim?
A. I asked him, yes.
Q. Did he refuse?
A. No. He told me that this is going to take several weeks of analysis and for the amount of the future damage, it is so small that jointly we decided it wasn't worth it.
As you can see at Table 7 of my Second Report, even if I use the data provided by MEC for future projections, as Mr. Abdala explained to us, very soon after 2010, future years are going to go down because with the addition of new capacity

19:09 included in his model in 2012, there are no further damages under this concept. So, we're talking about a very small damage that is discounted minus cost, and it doesn't make any difference if you sit here if you use my data or the procedure I used or the procedure suggested by MEC.

For this claim, at any rate, the significant amount is the past one, not the future amount.

Q. But if the Tribunal were to find that, in fact, what CNDC provided to you was not historical, then the 50 percent sort of rate across the board, that would be an incorrect approach; correct?

A. Yes, it would be, and the difference would be minus 100 million--less than $100 million.

MR. RUBINS: Just one moment.

(Pause.)

MR. RUBINS: I have no more questions. Thank you very much, Dr. Flores.

THE WITNESS: Thank you.

PRESIDENT JÚDICE: Thank you, Dr. Rubins.

MR. GARCÍA REPRESA: I'm sorry, I'm the one who is going to ruin the party, but I'm the last one, and I do have some questions.

PRESIDENT JÚDICE: Yes, but you can rest assured that we will be listening to you with interest.

REDIRECT EXAMINATION

19:11 BY MR. GARCÍA REPRESA:

Q. Good afternoon, Mr. Flores. I am going to ask you to bear with us, I know this has been a long day.

Questions by my colleagues, at the very beginning you were asked about what the Capital Asset Pricing Method would be or the classical--classic or standard method, and assuming that nowhere has it been seen that that includes Size Premium; correct?

Do you remember that?

A. Yes.

Q. I would ask you to go to--I don't know if you still have what I used for the examination of Mr. Abdala. I don't know if you still is have it, but it is Number 12.

And we're going to give you a copy.

As you may see, this is Exhibit C-270 that was presented by the Claimant. This is an article from 2011, where there is an explanation of what to take into account when applying company-specific risk or a size-premium factor. And it says those are different items and that you should try to avoid their overlapping.

If you look at the first paragraph, there is a definition of "small business" based on this article, and it refers to Ibbotson 10, and it refers to market capitalization of almost $75 million.

A. Did you say 85?

19:13 Q. Yes, I did say 85.

And if you look at the first page, is there anything in this document that actually confirms that the CAPM may and has included Size Premium?

A. Yes. We are seeing this on the same page, based on the buildup approach or the addition, we add elements. Because the idea is that if there is no risk at all, then we have R-F, that is, the risk-free rate, what the United States gives me. And that is a very low rate because I'm only compensated for time, but no additional risk.

So, to that risk-free rate we add other components such as, for example, Size Premium.

Q. And now you would you remember that you were referred to Ibbotson and Morningstar at Tab 23 of the binder you received.

And you were asked several questions. First, you were asked to look at Page 98, to refer to the seasonality. But before referring to that, I would like for you to look at the beginning of this section on the previous page, 96.

Would you please explain the meaning of the serial correlation in small company stock returns in this document?

A. That is a difficult question at this time in the evening. Let me try.

In the first paragraph to the right, it says that this is a first-degree correlation, and it is an attempt to measure

19:16 how a variable is related to the next one. That is to say, whatever happens to a variable today depends on what happened to it in the earlier period.

Q. And how is this related to the notion of risk in small-size companies?

A. I imagine it could be that the wealthy become wealthier and the poor, poorer. It should be--it could be a similar message. If a company had smaller returns last year, it could be that they continued to be small.

Q. And if we continue with this document, as I mentioned before, on Page 98, you were asked about the January effect. And you were not shown the last paragraph in this section. And once again, I like conclusions, and I would like for you to look at Page 99 to the left, and read the last paragraph that starts, "this argument vanishes," and tell me whether that confirms your opinion in and, in that case, why.

A. Should I read it out loud or just to myself?

Q. Just read it to yourself, if you don't mind.

(Witness reviews document.)

A. Yes, it says that the argument of the January effect, even though it is true that someone has measured it, vanishes if one looks at it carefully.

Q. When you measured the size of EGSA, did you do it based on Market Value only, or did you consider any other aspect of EGSA to determine that it is a small company?

19:18 A. For Market Value and taking into account the fact that EGSA does not have publicly-traded stock, that is not something that we can use. We need to resort to other criteria.

Q. And what other criteria did you take into account to determine that EGSA a small-sized company?

A. Well, in the First Report I referred to the Book Value as the starting point, and I also referred to the fact that the absolute cap for the valuation in this Report would also have the valuation by Mr. Abdala.

Q. And continuing with this document, since you were asked about it several times--

A. I also see that there is a reference to the number of employees, and that is a factor that clearly shows that EGSA was a small company.

Q. Thank you.

As I mentioned before, if we continue with this document, you were asked why you chose Category 10 as opposed to 10-Y, -Z, or -X, sorry--and I understand this is dealt with at Page 92, where it says, choosing the right Size Premium.

Would you please read the first two paragraphs in the bottom left as opposed to the first paragraph in--to the right, and then after you read that, I will ask you a question.

(Witness reviews document.)

A. Yes, I read it. And I think that we discussed this during RDC versus Guatemala. There, both Experts, Pratt and

19:20 Professor Spiller from Compass Lexecon, did agree on applying the Size Premium, but the discussion was around this topic, indeed.

Q. Agreed.

And what is the conclusion you reach after reading this comment on the categories to apply in case one has various options?

A. What I said and what seems to be reasonable is that if we have so much granularity that we don't know whether to put it here or there, it is advisable to sacrifice granularity and have more scientific confidence. That is to say, to remain in the last of the deciles Number 10, instead of going to 10-W, 10-X, or 10-Y, -Z.

Q. In the same binder, you were shown the document at Tab 21, 3--C-360, that is an article by Professor Damodaran of 2011. And you were asked whether you agreed with Professor Damodaran or not. And you said that you did not agree with him, and you said that you could explain, but you were not given the opportunity to explain.

So I would like to know why you do not agree with Professor Damodaran.

A. Here it should be mentioned that Professor Damodaran said that he never used it. This is what Mr. Abdala says, that until recently, everyone accepted this, but now there is no literature by French and Fama of 2012, and now everyone is

19:22 saying no, let us not use it again because it has been proven that it doesn't exist.

That is not what Mr. Damodaran said--Professor Damodaran said. Professor Damodaran said that he never used it even though the consensus developed with all of the financial analysts was to use it.

Here, he's one of the extremes. He said, I have never used that. That, on the one hand--and I respect his criterion. But he also says that at the same time, since I did not the use it, and that might be the reason why it is not used, he does say that he applies adjustments to the valuation and the expected return given illiquidity factors. And that is what we discussed this morning.

Small companies are less liquid. And what would be clearly wrong is if one applied a premium due to lack of liquidity to the Discount Rate and a Size Premium. Those two factors would be overlapping, and that would be incorrect. But I haven't done that. I have not applied a premium due to lack of liquidity.

Q. And to continue with Professor Damodaran, I know this has been the word that has been cited the most in this transcription. I'm not going to show you the document, but you were told or explained that, based on the 1.5 multiplier that he uses in connection with a Country Risk Premium, in one of the options suggests a reduction through time.

19:24 Do you know if Compass Lexecon reduces its rate throughout time, considering that this was Professor Damodaran's opinion?

A. What do you mean by reducing it? It starts higher and it goes down? No. They are low from the very beginning.

Q. And in connection with the Size Premium, you were told that there was nothing in the report and that you had to explain why you applied Size Premium in connection with EGSA, and you said that there was a section in your Report.

Could you please explain or look at the contents of your Second Report and refer what sections you were referring to when you said you did study EGSA's situation.

A. Yes. That is--or rather, I was a little bit offended when I received the report by Compass Lexecon.

PRESIDENT JÚDICE: Well, there is no reason. This is like working with the lawyers.

THE WITNESS: I have worked with Mr. Abdala in several arbitration cases, and we have a very good relationship, but in this arbitration I think that he was a little bit too aggressive, that I was doing something astronomical that was never seen before, but I guess it's part of the game.

So, I thought it was necessary to say let's look, is this-my valuation so crazy to say that EGSA was $91 million's worth?

Well, Section 2 it refers to this. It refers to the

19:26 reasonability of the--the reasonableness of a valuation. And I referred to all of the problems faced by the company, in particular Section 2(a), liquidity problems. I think that this is closely related to this item.

BY MR. GARCÍA REPRESA:

Q. And to continue with this topic, you were asked whether in your reports you had any benchmarks, and I see that you had a positive answer, but it caused certain surprise in your colleagues. What benchmark are you including in your reports?

A. We tried to establish with these benchmarks, or reference points, comparable elements to me. EGSA's sale, if comparable to another sale, another EGSA sale. I always explained that whenever EGSA was sold, it was sold at a value lower than the one established in the book. So, that is a benchmark. Is it reasonable for that value to be below the Book Value? That is in section that starts on Page 29--19, sorry--Paragraph 53 and 54, and that's where I explained that there were some other operations within the stock holding package, but I do understand that there is a dispute whether the one in 2006 actually happened or not. But based upon the publication and also the documents, the values cited were lower in both instances to 2003 and 2006. They were below the Book Value.

Q. Thank you very much. I should have called you

19:28 Professor.

A. I used to be a professor.

MR. GARCÍA REPRESA: Thank you very much.

PRESIDENT JÚDICE: Dr. Rubins, do you have recross?

MR. RUBINS: Just two questions.

PRESIDENT JÚDICE: Okay.

RECROSS-EXAMINATION

BY MR. RUBINS:

Q. The first is not really a question but just a suggestion. I certainly am prepared to take responsibility for the astronomical characterization of your discount rate. I certainly wouldn't want Dr. Abdala to take the blame for my choice of words, by which I stand, but I'm a lawyer, not an independent expert.

Secondly, I just wanted to test with you what you said, which I think you may not have meant what you were saying. You were sort of in the middle of a stream of thought, and I think you may have gone a little bit too far. You were talking about Damodaran and his statement about never using the Size Premium, and you said why you disagreed with him, and I'm going to just read. It's in English, but I don't have the Spanish one in front of me.

You say, here, he's one of the extremes. He says I have never used that, that on the one hand, and I respect his criterion--sorry, that's not it.

19:30 Professor Damodaran said he never used it, and although the consistency with all of the financial analysts was to use it. Okay? That's what you said. So you're suggesting that at a time when there is complete consensus among all an analysts, you say, Professor Damodaran says I'm not going to use it, I never used it. Okay?

And I think you will agree with me that even the documents, even the articles that we've looked at that support the use of a size premium to recall, for example, Tarbell, even they start from the premise that a lot of people dealt the Size Premium, a lot of analysts, a lot of economists at all times have doubted the Size Premium, and that was, in fact, the purpose of Tarbell's PowerPoint that you were looking at or that you were showing before. Right? So I just wanted to confirm that you didn't really mean it to be that absolute a statement. You didn't mean to suggest it was an absolute consensus at any particular time with respect to the Size Premium; is that fair?

A. I would like to review the transcript in Spanish to see the exact words that I uttered, but I agree that never in economics or finance are you going to find something that 100 percent of the economists and financiers agree on.

PRESIDENT JÚDICE: You've done that to help the Tribunal.

BY MR. RUBINS:

19:31 Q. One more thing for completeness.

There was a discussion with Mr. García Represa about whether--I have this in Spanish--whether the Size Premium fits within the CAPM model.

Do you remember that?

A. Yes.

Q. And the suggestion that came out of that, as I understood it, was that you say it does come within the CAPM model.

A. Yes, the CAPM model includes--well, the determination of the cost of equity following the CAPM methodology includes the additional factors.

Q. I want to confirm for the record that the source of the statement that I would make that I made to you before that it is not part of the CAPM method is from your First Report, Paragraph 75, which, in Spanish says, "However, the CAPM approach does not take into account the additional risk and yield due to the size of small-sized companies."

A. The first?

Q. 75, in the middle of the paragraph. "Sin embargo."

A. Sí. Yeah.

Q. So, I assume you confirm the statement that you made in your first opinion that the CAPM model does not take into account the Size Premium.

A. As I said initially, the CAPM model has a basic

19:33 component. I think I called it the building block, and that is what I mentioned here. The single component that tries to determine the beta and the country--and the Market Risk Premium is not included. This is called an anomaly, like any other article you mentioned. That is why the CAPM model has to have other things added to it to solve that anomaly.

PRESIDENT JÚDICE: Thank you, Dr. Rubins.

QUESTIONS FROM THE TRIBUNAL

ARBITRATOR CONTHE: Members of the tribunal also have to tell the truth. I'm not a doctor. I'm very happy when they call me "Doctor." I'm not a doctor like my father. It's a joke, really, but let's start with the first methodological question I posed to Mr. Abdala before. I was talking about North Korea, et cetera, but I could say the deterioration of the business climate and private investments in connection with the arrival of a government which nationalizes a company. Should this be taken into account or not when valuing this company? If we said yes, it has to be taken into account because the willing buyer is going to buy a company in that country, but also we could reach a self-fulfilling prophecy, and everything could be national and said nobody can come here, that our companies are valued at zero, and they can be expropriated. The increase in political risk of a government that ends up nationalizing should not be taken into account to value a company that has been the subject of nationalization.

19:35 THE WITNESS: The way I understand this--and I apply this--when one conducts a valuation, one has to exclude the act that takes place; in this case, nationalization. It would be unfair to say, "Look, the night before I announced that you were going to be nationalized, so the next morning the price of your shares drops to zero, and the value of your company is zero, and I will pay you nothing." One has to exclude this, and the value of the company should be calculated the day before the announcement of nationalization.

Now, what cannot be excluded is the perception by the market agents, sellers and buyers in connection with what the political risk is in a given country. Independently of the fact that, "Okay. We are going to nationalize Guaracachi." That needs to be maintained there because when Mr. Earl decided to come and invest in Bolivia, by that time, I think--well, we know that was Latin America, of course, and Latin America is a country or, rather, a region that goes to the left and to the right, there are nationalizations and there are privatizations and so on and so forth.

So, for valuation purposes, what would be fair was to eliminate any kind of political risk saying they were doing so because we were conducting an international valuation because, if not, people would be in the business of going to places in the world where they know that oftentimes governments try to control the resources, and they would say, "Okay. Fine. In

19:37 four or five years I think we're going to become nationalized, so we're going to buy cheap, we'll wait for nationalization," and we say, "Okay. Value our company as if the nationalization price would be zero." So, they sold--they bought by 20 and the arbitral value would be 100.

Do you understand?

ARBITRATOR CONTHE: Yes. The increase in the time period is irrelevant, of course. This is a very crucial issue. Sometimes we're always disregarding other methods to evaluate companies such as Book Value, multiples, et cetera, and we say the discount rate is the ideal method and then we discuss this for 24 hours, and it's not as clear; right? So, the discount flow method actually provides an incentive to the country that's nationalizing because if there's a pattern that is hostile to foreign investment, the fair market value of the investment is becoming depreciated.

A new Government that is hostile to foreign investment with the discount rate we have been discussing buys or nationalizes cheaper than a country that does it because of public utility reasons and not because it wants to have productive assets. A country that is more prone to nationalization generates more political risk, and the purchase of the companies that it is willing to nationalize comes cheaper. So, it is perverse to favor a nationalization method that favors hostility to foreign investment.

19:39 THE WITNESS: Yes, of course. One has to be careful when analyzing this. Let's think about a country like Paraguay, the Paraguay that is in the middle of South America. Let's assume Paraguay has never had a leftist Government, it never thought of nationalizing--nationalizing or anything or being hostile to foreign investment. But all of the countries around Paraguay have done it in the past 30 years, although in the Constitution of Paraguay are going to say, We will never nationalize. The investors when they go there, they say, "Okay. I have a 20-year investment in Paraguay and another in Argentina and Chile has nationalized. Well, that has to be taken into account."

ARBITRATOR CONTHE: Yes. This is a practical application in this case. Mr. Abdala talks about the evolution of the future generation capacity. I think in your case we have this self-fulfilling prophecy. In Paragraph 122, when you talk about the minimum return that Harris and company suggests, it would demand a ROI, a return of investment, from 25 to 30 percent. And I'm assuming they're talking about now and not when Rurelec made the investment. Right?

THE WITNESS: Two points: The letter by Hitchens, according to the company--well, this is undated. We don't know when the letter was sent by the broker to Rurelec to be submitted together with this report. A number of things happened, and I don't think this letter--well, let's see. If

19:41 the plan was presented in April 2010, or it was approved or presented in April 2010, I assume that letter is something that predates that date.

ARBITRATOR CONTHE: A second question--and I posed this to García Represa the first day. I'm going to speak Spanglish, and that's the way we speak in finance terms between Spanish and English.

There is the Expected Return on Equity, and the second one is Weighted Average Cost of Capital. So, let's forget about the IRR, which is a way to apply those to kinds of income. If I understand your methodology correctly, in this cocktail maker, you include an expected return on equity of 27.6. You mix this with foreign financing of 8.88, and then you get a WACC of 19.85; correct?

THE WITNESS: Yes, correct.

ARBITRATOR CONTHE: The statement by Mr. Earl as the person responsible for Rurelec in South Africa, when he said he wanted a profitability of 20 percent, my understanding is that that 20 percent is comparable with your 27.6 percent expected return on equity and not with your WACC, which is a mixture, which became the discount rate.

THE WITNESS: I'm not sure. That's what happens when you come to a hearing for a week. You come here with your ideas very clear in your mind, and then you leave very confused.

19:42 The Hitchens letter for the approval of the EGSA, states very clearly that this is the minimum return on equity, IRR, we are expecting or something to that effect. They're talking about equity for sure there, 25 to 30 percent minimum, and that is compared to the 27 percent. No dispute about that.

Now, the other document that I produced in my report has to do with the presentation in the London Stock Exchange of the investment in South Africa. The document clearly establishes minimum project IRR. I think it said project IRR of no less than 20 percent. So the word they use is "project." Mr. Earl said he was referring to equity IRR. That is what he said. And I assumed his word had more weight than what the document said that was presented to the London Stock Exchange. This is an important issue.

ARBITRATOR CONTHE: There was a little bit of confusion in Mr. Represa's statement because apparently Mr. Earl has said I say 20 percent and Econ One says 19.88 and apparently you agree. You go to Paragraph 118 and it says the investments validated by EGSA have to have a Minimum Rate of Return of 20 percent, otherwise, EGSA is not going to invest in--

THE WITNESS: Excuse me. I'm sorry?

ARBITRATOR CONTHE: It's Paragraph 118.

THE WITNESS: Yes, I found it.

ARBITRATOR CONTHE: The second phrase is the one that

19:44 I think is--it says, Therefore, that is the discount rate that should be used to value electric generation projects in South Africa. It is suggesting that that discount rate is comparable to your 19.88 percent.

THE WITNESS: That is my understanding, according to the paragraph in English. It says the project IRR of no less than 20 percent. So, the IRR can be calculated as everything included in a project, and financing terms they may come from the lenders or the Shareholders. So the IRR can be calculated as such as things coming in and things going out. Where he says "project IRR" instead of "equity IRR," it seems to make reference to the whole project.

This is not what Mr. Earl said. Perhaps you are right. It's referring to the 20 percent in connection with the Minimum Rate of Return on equity.

ARBITRATOR CONTHE: The WACC does not concern the investors. They are concerned about the money, with the money that they're going to get. So this is very unfortunate, the phrase in your report. It created this confusion, and I'm assuming that in the Closing Arguments tomorrow, things are going to be completely clarified as to what the point of view that they put is. In connection with the unfortunate nature of this phrase that you mentioned, Mr. Earl said that a clear distinction needed to be drawn between "project IRR" and "equity IRR." That is what he said before the explanation, so

19:46 I used that principle to guide myself.

PRESIDENT JÚDICE: Yes, Mr. García Represa.

MR. GARCÍA REPRESA: Thank you, Mr. President. I want things to be very clear in connection with the comments we have heard.

The Second Report of Mr. Flores and the answers that I provided the Tribunal at the beginning of this hearing are based on what the documents say. The comments we heard from the Tribunal refer exclusively to the verbal statement given by Earl during this hearing. If that statement corrects something that was submitted to the Stock Exchange of London, that is an issue that just came up now.

PRESIDENT JÚDICE: Well, he is trying to obtain answers from Mr. Flores. He was trying to obtain answers.

ARBITRATOR CONTHE: I heard a new argument by Mr. Abdala. I thought you were a lawyer because you were there all the time, so you've heard things right, I thought. I was asking Mr. Abdala how can you explain the distance that exists between the 20 percent of the expected IRR by Mr. Earl or others vis-à-vis the 14 percent expected IRR?

Mr. Abdala proposed a new argument. The relevant thing to evaluate companies is not the expected IRR that is average for the investment community--that is the average for the investment community, but the expected IRR for those that are most optimistic and are going to buy the company if it's

19:48 ever sold.

So, we don't have a lot of time to make questions as Members of the Tribunal, and we are faring very poorly time-wise, but if I interpret Mr. Abdala correctly, he was talking about the winner's curse. The one that buys the company is usually the most optimistic person. So, it doesn't have to do with the average investment community people think but those that are thinking about buying the company without going out into the market. This is a new argument. What do you think about it? I don't know if you know about it.

THE WITNESS: It is not new for me. I've heard Mr. Abdala say this in other arbitration proceedings, and I disagree. If that were true, all the market is using a 10 percent except for EGSA when it goes out and asks for money to the United Nations, and they say, "Okay. The minimum that we use is this," and the other one says that "The minimum thing we use is this." The consequence of Mr. Abdala's statement is that Mr. Earl would have never invested in any company. That is a consequence and that, of course, makes no sense because he has invested in companies.

To say that the financial market is very competitive and the rate I used is everyone's rate, but I don't believe that rate because my rate is higher, well, I'm not trying to measure the minimum expected rate by Mr. Earl. I'm using the rate for the hypothetical market for the buyer. What we're

19:50 using is a proxy to estimate something that is unknown.

We can know for sure what the Spanish Government bond rate is. We know that. But no one knows with absolute certainty what is the expected Minimum Rate by investors. But to use this argument to say that the average investment or the average investor is risk-averse--and I'm not--

ARBITRATOR CONTHE: Well, we don't have any time, but the willing buyer process is a self-selection process. It is not aleatory. But to end this financial type matters to calculate the Net Present Value of the cash flow, you have to use a WACC, which is a financial artilage (ph.) to convert future flows in present value or present value in future flows.

So, to do this, to convert the capital price of a turbine and its covenants in an annuity, the Bolivian authority, starting in 2000, as we saw in one of the presentations by Mr. Abdala this morning, decided to use an actual discount rate of 12 percent, and as Abdala was saying in nominal terms, this would be about 14.5 percent. So this nominal discount rate was accepted by the authorities in Bolivia themselves in 2000 to convert turbine values in annuities that were then, in turn, turned into dollars for kilowatt hours for Capacity Price. I was saying that tribunals are accuse of splitting the baby, but that rate is halfway between the discount rate by Mr. Abdala of 10.63 and the discount rate of Econ One of 19.85.

19:52 So, you have said that 12 percent rate should be dismissed and it's irrelevant. What's the argument to consider it irrelevant?

THE WITNESS: A number of points: The easier and simpler of them is Mr. Abdala and I agree that the discount rate must be calculated at a specific point in time. As you know, all financial variables go up and down in time. The fact that this rate is provided for in a law or a regulation or the fact that it's stated there and it's fixed there, well, that shows that it is not a valid financial analysis. What we need to know is what the discount rate is at the date of valuation and not what it was in 2000.

Second, the discount rate is the minimum expected return, and that has to include the minimum expected return taking into account the risks of that investment specifically speaking. I have seen no analysis of this kind in the sense that 12 percent takes into account the risks of the investment.

A simple example. You're right in connection with this annuity. You take what a hypothetical turbine would be worth or would cost in the United States, and then you're going to get a monthly payment for you to say that. There is no guarantee that that payment is going to be made during the 20-year period. All you have to do is to put in the Rositas project. What happens? Because hydroelectrical generation is so much cheaper, it's going to displace a number of

19:54 hydroelectrical units, and it's going to displace EGSA. So, you would have been happy with that monthly payment for capacity, and that would disappear. That 12 percent cannot measure the risk of the investment because it is assuming a series of circumstances that did not occur in reality.

ARBITRATOR CONTHE: I will reserve my opinion.

Next question: We have spoken about the small Size Premium, and that was mentioned in the report. In Paragraph 223 of the report, mention is made of the Spot Price, and we can look at it briefly if you want.

You state something that is a little contradictory. You just said EGSA, as a large generator company, had a certain market power, and because of that, it could control the new installed capacity. And that is why, like Bolivia, it did not remove Aranjuez 1, 2, and 3 just to benefit from that market power and to have a windfall on the Spot Price because it knew there would be no other competitor that was going to enter the market and to reduce that price and to make the three Aranjuez units to become units in cold reserve, et cetera.

So, in 223, you say that EGSA had a certain market power. Isn't this a bit incompatible with the calculation of the discount rate, whereby you apply a small Size Premium to EGSA as if it were a small company and it has to pay a return that is six points higher than a large company?

THE WITNESS: I think the contexts are different. The

19:56 electrical market in Bolivia, the whole of it, in this period from 2000 to 2001 is a small electricity market. We are talking about an install capacity of 1,000 megawatts. Perhaps I'm mistaken, but just to have a point of reference, I'm sure that you have heard about the Three Gorges Dam in China. This is a unit that has thousands and thousands of megawatts. We are talking about one dam in China that is 32 times higher than the one in Bolivia.

When we talk about market power, if you have 20 kids, and there is one that is stronger and taller, he's going to be the king of the clan. But if you put that same kid in the middle of the city, you are going to get lost. You can be big in a small space or you can be small in a big space.

ARBITRATOR CONTHE: But if you're a local monopoly, the monopolist or the one that has market power controls the market and has less risk.

So, traditionally, the electric utilities were considered in some countries. Good securities for widows and orphans because of the risk was very, very low. What Bolivia was saying and what you were saying, perhaps with reason, is that there were very few players in the market, and theoretically the marginal cost system and the fact that the competition makes it that there is always new capacity. And for the prices to go down, in practice, doesn't work very well because this would be a perfect competition scenario and in

19:58 Bolivia this does not happen. That is the argument the Superintendency stated to marginalize units one, two, and three. But that argument also needs to be applied when calculating the discount rate.

THE WITNESS: I don't think so, because, again, we're talking about two different things. We are talking about the market power when you have few small companies, or rather we have small companies that are very, very small.

ARBITRATOR CONTHE: I also have very, very brief questions. We don't have a lot of time to talk about alternative methods, but in the multiples valuation system, I was wondering whether this metaphor you used in connection with the apartments is something that can be applied. You talked about the dollars that one has to pay for each dollar of EBITDA that it needs to obtain. The multiple is price, and one can say how many euros and how many dollars do I have to pay for a unit of EBITDA? One EBITDA dollar is very similar to a dollar in Bolivia, Peru, New York, et cetera, but an apartment is not the same to have an apartment in the Champs-Élysées than have it in the Puerta del Sol or in a different city.

So, we have used a comparison that exaggerates the diversity of the companies' universe but have to apply the same multiple. But multiples have to do with price with the unit in the denominator and that EBITDA which is money. There is a little bit of money, but we're not talking about intangibles.

20:00 So, it's almost like a lottery ticket. The price of a lottery ticket in Bolivia, in Paris, and in Spain is very different or a burger is very different.

THE WITNESS: I'm sorry, but I completely disagree. When you're thinking of a lottery ticket, it depends on the auctions and whether--or how many have been issued, whether 1 million or 1,000, and the payment is going to be the same everywhere. And this is something important, and I wouldn't like to conclude on this note.

One EBITDA dollar is what has to be related to the price, but the price, that is, how much am I willing to pay for each EBITDA dollar? One EBITDA in a company in Chile with a very de-regularized market and very adverse has nothing to do with one dollar in Bolivia.

ARBITRATOR CONTHE: Agreed.

And my last question has to do with Book Value and the paragraph you already quoted, and it is quite interesting, and it has two components. That is Paragraph 53, Page 21 of your report, first bullet point where you say that in December 2003 a subsidiary sold its participation to Integrated Energy Limited with a loss of 33 million. That is to say the value was 33 million below the Book Value. That is to say that was the Book Value for First Energy, but my question is, do you know what that Book Value was?

THE WITNESS: No. I don't know it. I looked for it, 20:02 but I couldn't find it.

ARBITRATOR CONTHE: But at some point I seem to understand that you were saying things that are bought below its Book Value, but you're talking about two different concepts. On the one hand you have the carrying value, what you have in the asset, and the other one is the net value what you have in the books.

So, these are two completely different comments. You're saying that some assets are sold at a lower value because that value is less than the value that I have accounted for, but it has nothing to do with the net value that I have in the company that I am selling.

THE WITNESS: When one sells a company, in the accounting you say this was the net value, the value--the net value of both the assets minus liabilities. I have a net value, and that is what I accounted for in my books, in my financial accounts, that say that was 50 million. So, I go in and sell for 60 million, so I delete this subsidiary from my books, and what I am deleting is the assets minus liabilities. I sell everything, so I am deleting the net value, the net worth.

So, what I am going to put in my cash account is just the 60 million that I got for that transaction, but what I understand is that here it says that less was paid, 33 million below the Book Value, that is to say, the net worth, what that

20:04 company was worth, based on the seller's books.

ARBITRATOR CONTHE: But you just changed something as you were talking. One thing was the value of the accounting for the American company, and the other one is the net worth for the Bolivian company. There is an assumption in which those two values have to coincide, and that is conciliation based on correspondences. But I would be very surprised to have an American company to use this correspondence method in Bolivia, so then you'd have the method that Enron used; very high values for subsidiaries and they may have been worth less.

So, if that was overvalued in their books by selling them, they would have losses, but you're confirming to me that you are confusing two terms, what happens in accounting to the seller and the net worth. That is a U.S. company, and the U.S. company communicated that value to its shareholders, and that has nothing to do with the net worth based on the Bolivian accounting. One thing is the seller and the other thing is the company that you sold.

THE WITNESS: But you're saying that that loss was registered with the American company. That is what you said.

ARBITRATOR CONTHE: That is what you said.

THE WITNESS: No. I said with the subsidiary. Now, I need to go back to the file.

PRESIDENT JÚDICE: If you allow me, this is a debate. It's very interesting, but I don't think it is key to our

20:05 decision, with due respect, because when we see people that have this technical and scientific people, this is very interesting debate for people like me, but--and also when both speakers are Spaniards.

I do not want to ask any questions.

Mr. Flores, thank you very much for your cooperation, for your effort, for the time, for the long hours here in the room, and for all the assistance provided to us.

THE WITNESS: Thank you very much. Thank you. And I would like to thank the interpreters, and I know that I am difficult to interpret. Thank you very much.

PRESIDENT JÚDICE: Thank you very much.

(Witness steps down.)

MR. SILVA ROMERO: Mr. President, this is something that we have not discussed. Bolivia has a lot to say, a lot to say, and we need two hours for our Closing Arguments in connection with the merits and also with the way--the procedure.

So, the proposal would be for them to do their--to have their Closing Arguments between 1:00 and 3:00, and we can have it between 4:00 and 6:00 because we need one hour to organize our notes and be able to answer the arguments presented by the other Party, and they will be able to prepare overnight and tomorrow morning.

That is Bolivia's suggestion.

20:07 PRESIDENT JÚDICE: We might need a little bit longer because we have questions and pauses and breaks.

MR. RUBINS: Mr. Chairman, I was going to ask the Tribunal and counsel for Bolivia whether, given that there are less than 16 hours left between now and the time when we certainly are to make a presentation, two hours to cover things we've heard just today, in particular, but the rest of the hearing as well, whether it's really an exercise that we need to engage in, given that it sounds like the Tribunal is, in any event, interested in hearing--in reading the Parties' written Post-Hearing Submissions.

Again, we're ready to do it. We will do it, but I just want to check with the counsel for Bolivia whether they are certain they want to put us all through that tonight before I answer because, certainly, we will not give up a single hour of preparation, but it just seems to me a bit--I don't want to say "unfair" because it's perfectly fair--painful. And I sympathize with counsel for Bolivia's team as much as my own; we're all very tired.

PRESIDENT JÚDICE: Well, we need to proceed to a solution, and I assume you made a proposition, and this proposition is to begin at 1:00 p.m., and you begin at 4:00 p.m., and you have some time in between for organizing your documents and to be allowed to answer.

And, if I understand, you are assuming the possibility

20:10 of not having final oral pleadings?

MR. RUBINS: Yes, that's correct. That is one solution, but, of course, if Bolivia wants to have them, we will have them. Certainly--

PRESIDENT JÚDICE: Sorry. Even before, even before the answer of Bolivia, I think it has been agreed, and we think--well, at least I think that that the final oral pleadings are not exactly the same as the written part of briefing, and to receive your input after six days or five days of very, very tough hearings, may be good for all of us. Obviously if the Parties agree not to have them, we will not impose it on the Parties, but unless the Parties agree not to have, we rather prefer to have. Okay? And that's why it's incumbent upon us to call on Mr. Silva Romero to see what he thinks.

MR. SILVA ROMERO: Mr. President, Bolivia's position was always very clear. We do want oral Closing Arguments tomorrow, and we don't think that written pleadings are necessary after the hearing. I don't know how many pages have written by the Parties in this case to date. You will have the transcript with whatever happened here, and tomorrow you will be listening to the hearing argument.

This is fresh in our minds. Clearly, we're not going to sleep overnight or we are going to sleep very little, but this is not going to be the first time. This is what happens

20:11 every time. Oral arguments are useful, in my opinion, because you have in your mind fresh in your mind what has happened.

As an arbitrator I usually appreciate those final arguments because they are like the final curtain call. And if there are any issues that we have not solved--how many memorials do we have on jurisdiction on the case? If you still have something that is still unclear, I think it is more convenient to decide that tomorrow after the oral arguments, and say that on 40 or 50 pages based on having the hearing, you could clarify what happened from here to there, points one to five. That would be Bolivia's understanding.

PRESIDENT JÚDICE: I just wanted to tell you the following: I understand there is a lot of information. I understand that there are a lot of memorials, a lot has been written. It has been a great effort by the lawyers, the witnesses, the experts. You have helped us a lot, but when there is a lot, sometimes it could be useful for the Tribunal to be channeled by the attorneys of the Parties. So, in my opinion, the Post-Hearing Briefs, given some direction by the Tribunal, or to complete the so-called "improvisation" during the oral pleadings might be important. At any rate, the Tribunal will be deciding that tomorrow.

So, we have final oral pleadings, and we might have written pleadings, but it hasn't been decided yet. We need to leave it with that. I understand it's an enormous effort.

20:14 MR. RUBINS: No problem at all, Mr. Chairman. We will certainly rise to the challenge.

PRESIDENT JÚDICE: But for sure I'm not saying two hours is better than one hour. I am not sure if a size premium or size risk exists, but clearly on final oral pleadings, dimension may be good or bad. Then it may be shorter. If it's shorter, we will end sooner, but it's up to you. You are entitled--as Mr. Silva Romero is expecting to have two hours, you are entitled to have two hours, but that does not mean that your strategy cannot be different and speak less.

MR. RUBINS: Absolutely, Mr. Chairman.

PRESIDENT JÚDICE: Beginning at 1:00 p.m. is acceptable for you?

MR. RUBINS: No, it's not, Mr. Chairman.

PRESIDENT JÚDICE: No?

MR. RUBINS: No. We agreed we would start at 2:00, and certainly we are not prepared that we would lose an hour of what is now less than 16 hours. We need the full time.

And I should say I also don't agree there should be an hour of break between the two presentations. 15 minutes just to refresh ourselves should be sufficient.

PRESIDENT JÚDICE: I agree with you that if there is no agreement as to 1:00 p.m., 2:00 p.m. would be, I would say, more standard.

Second issue: We need to authorize Bolivia to have

20:15 one hour to prepare. I understand that could be useful, but I also understand that it is not necessary. The Tribunal is not expecting an immediate answer to the point of view. The Tribunal has to decide there is no agreement. The Claimants think that 15 minutes is enough. The Respondent thinks that they need an hour. So, if you allow us, it is better to clarify this because your preparation is important. We're going to leave the room for two minutes, and we will be right back. Thank you.

(Tribunal conferring outside the hearing room.)

PRESIDENT JÚDICE: We have made a decision. We accept the principle that it is reasonable to have some time in between the oral pleadings, but, as we are short of time, our proposal or our decision is to have 30 minutes with some flexibility. So, it doesn't need to be 30 minutes, but 30 minutes instead of an hour.

And we start at 2:00, 2:00 sharp. Thank you all. See you tomorrow morning.

(Whereupon, at 8:22 p.m., the hearing was adjourned until 2:00 p.m. the following day.)

CERTIFICATE OF REPORTER

I, David A. Kasdan, RDR-CRR, Court Reporter, do hereby certify that the foregoing proceedings were stenographically recorded by me and thereafter reduced to typewritten form by computer-assisted transcription under my direction and supervision; and that the foregoing transcript is a true and accurate record of the proceedings.

I further certify that I am neither counsel for, related to, nor employed by any of the parties to this action in this proceeding, nor financially or otherwise interested in the outcome of this litigation.

DAVID A. KASDAN