Rob

561-694-4744

Elizabeth Ray

From: Gaudi, Madan [Madan.Gaudi@nexteraenergy.com]
Sent: Monday, June 21, 2010 10:21 AM
To: Sergio Garza
Cc: WYBIERALA, PETER; Bagnall, Jan; Nair, Sunil
Subject: Summary of Options
Attachments: LCRA-HHGT Presentation2.pdf; Case Comparisons_r1.doc

Sergio,

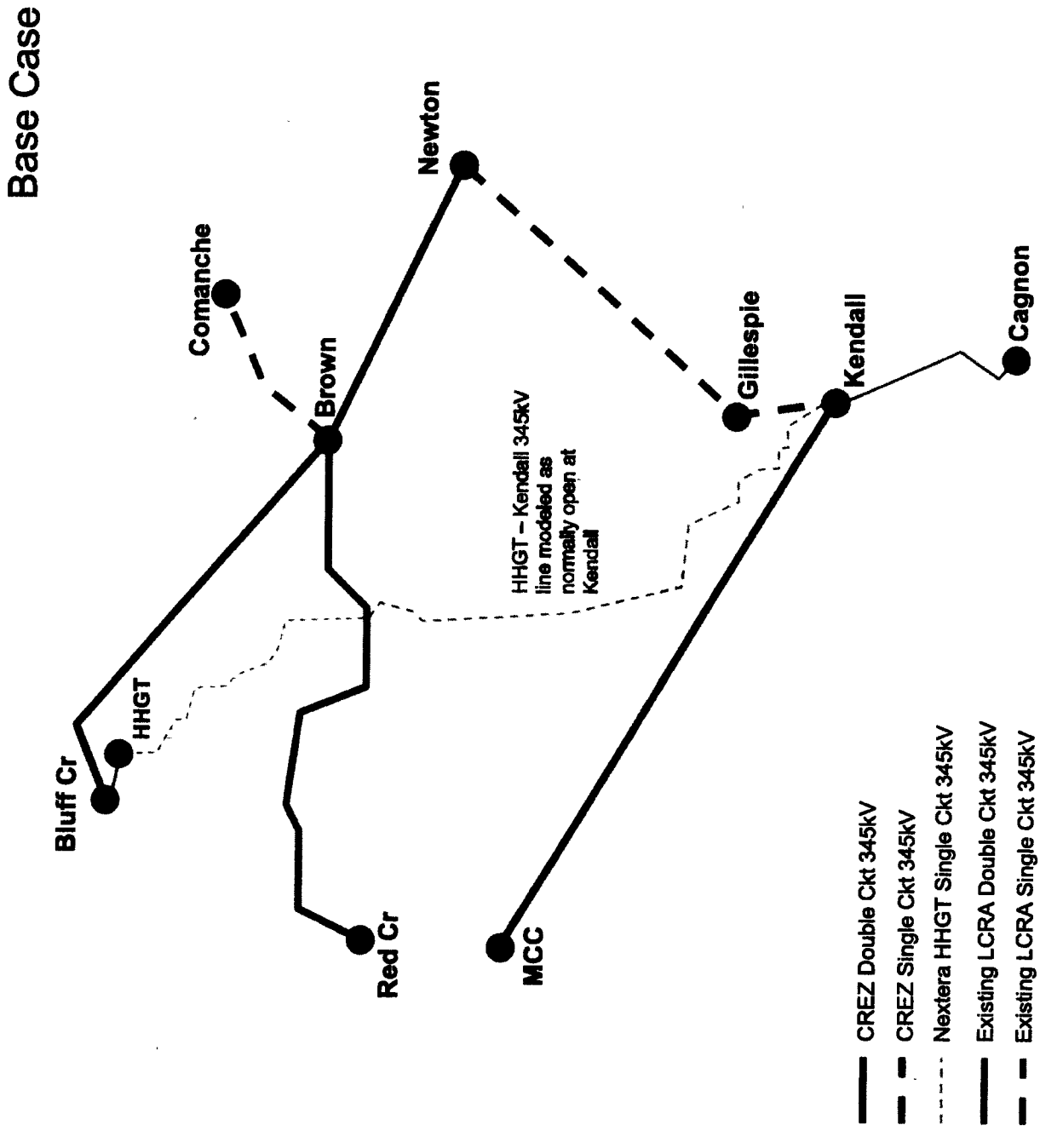
Here is a summary of the final results of various study cases and their comparisons. Attached also are the corresponding network diagrams on the West to South interface.

Please review this information before our mid-afternoon phone call today. I am assuming the call time at 2 p.m. CST (3 p.m. EST). Please confirm it. We will be calling you at your office phone unless advised otherwise.

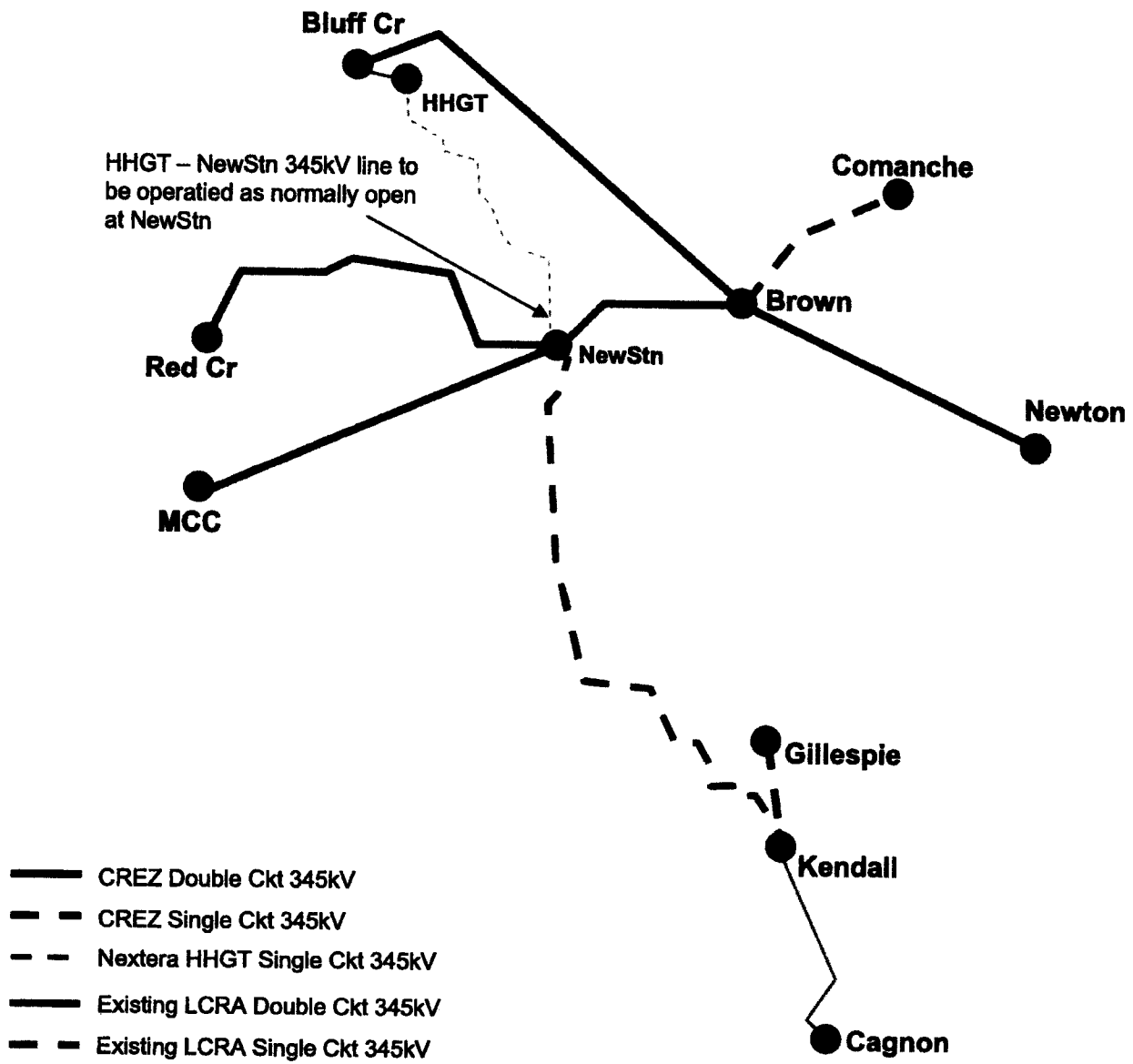
We are ready to share with you all the details of these studies. Please let me know if you are ready for that too.

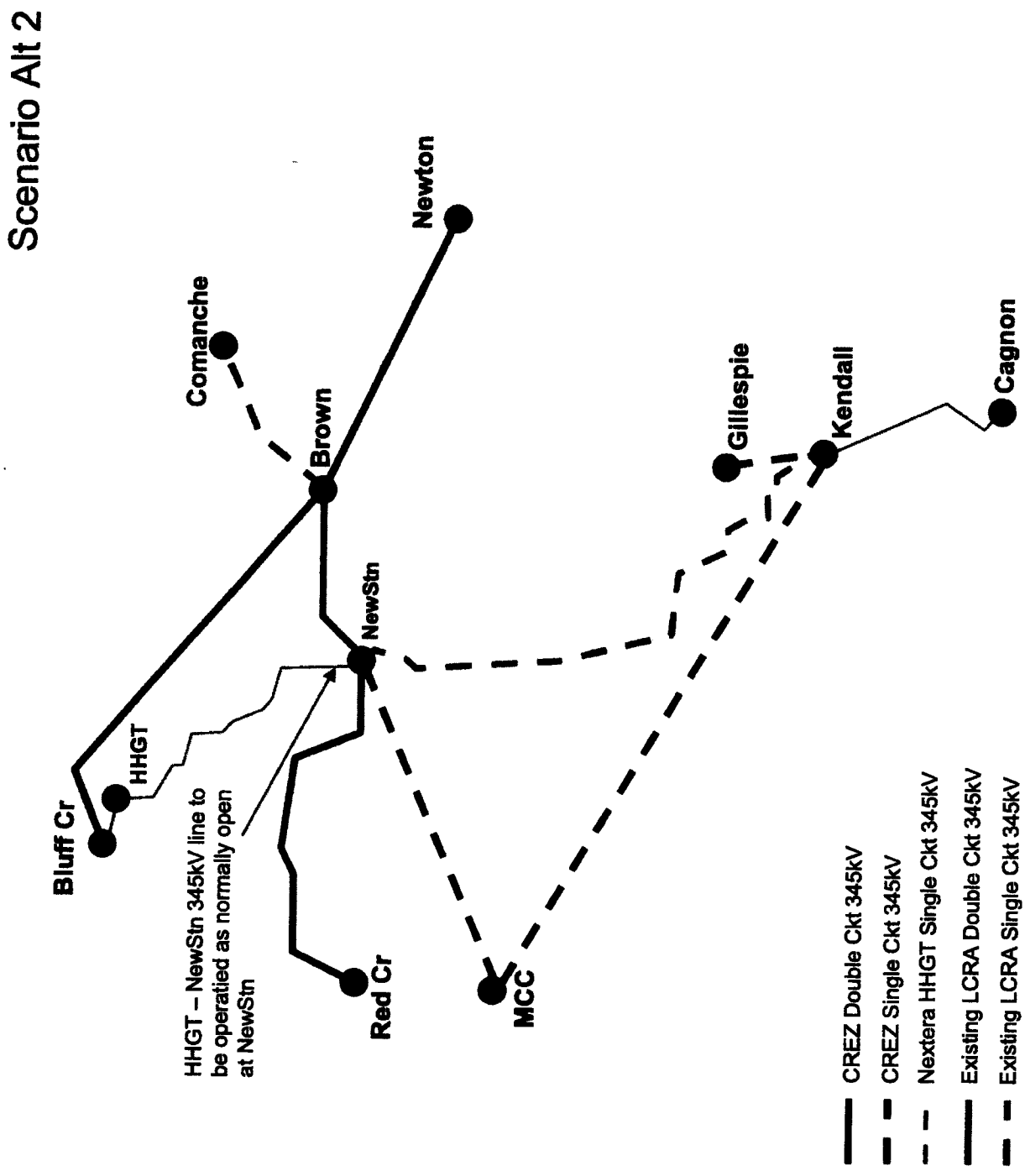
Thanks.

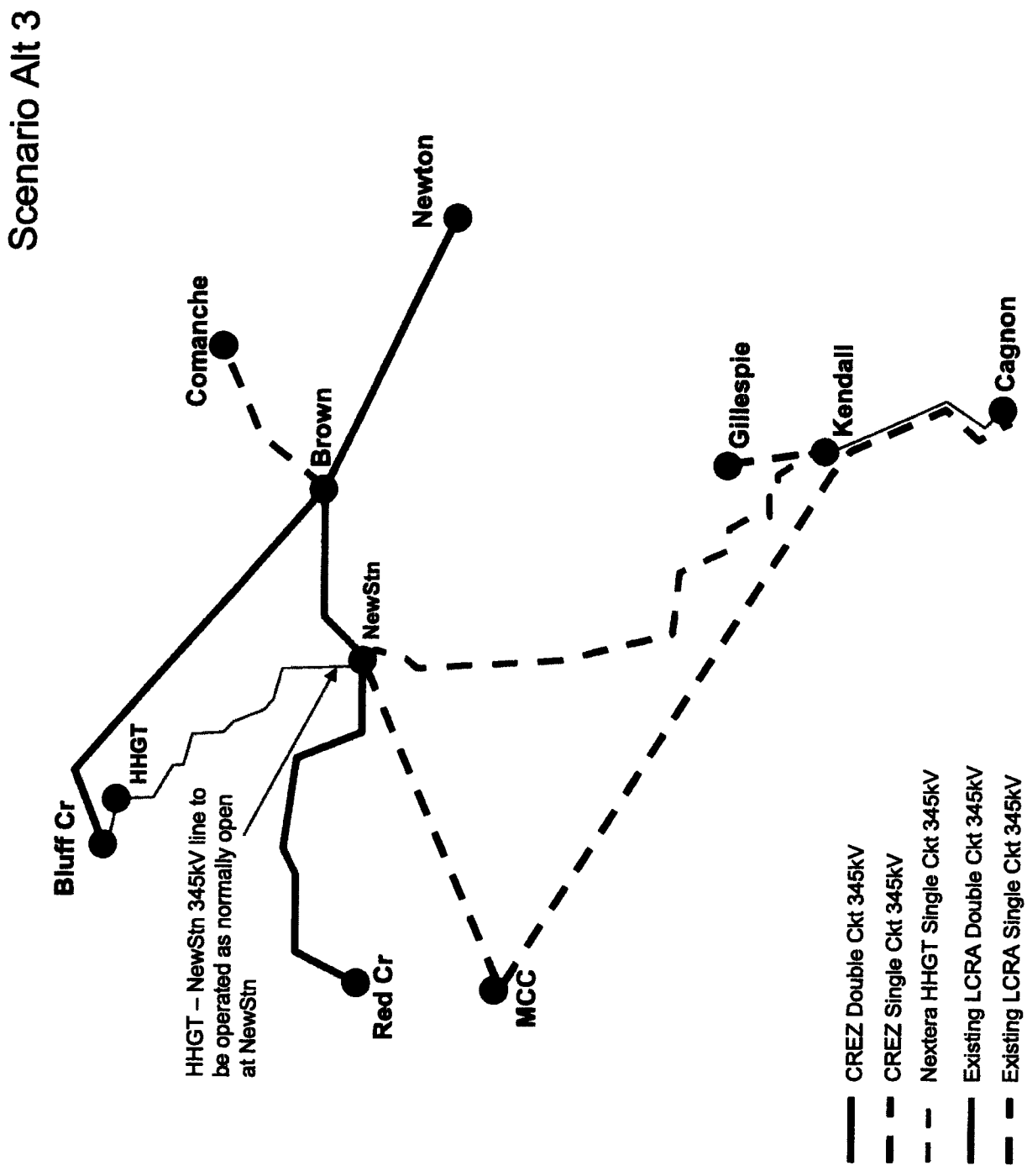
Madan Gaudi
Transmission Manager,
FEJ/JB, NEXTera Energy Resources (Formerly, FPL Energy)
700 Universe Blvd., Juno Beach, FL 33408
Desk: 561 694-4133 Cell: 561 301-3004


Base Case
Newton
Comanche
Brown
Gillespie
Kendall
Cagnon
HHGT – Kendall 345kV line modeled as normally open at Kendall
HHGT
Bluff Cr
Red Cr
MCC
CREZ Double Ckt 345kV
CREZ Single Ckt 345kV
Nextera HHGT Single Ckt 345kV
Existing LCRA Double Ckt 345kV
Existing LCRA Single Ckt 345kV

Scenario 17 (Alt 1)




Scenario Alt 2
Bluff Cr
HHGT
HHGT – NewStn 345kV line to be operatied as normally open at NewStn
Red Cr
NewStn
Brown
Comanche
Newton
MCC
Gillespie
Kendall
Cagnon
CREZ Double Ckt 345kV
CREZ Single Ckt 345kV
Nextera HHGT Single Ckt 345kV
Existing LCRA Double Ckt 345kV
Existing LCRA Single Ckt 345kV


Scenario Alt 3
Newton
Comanche
Brown
Gillespie
Kendall
Cagnon
NewStn
HHGT
Bluff Cr
HHGT – NewStn 345kV line to be operated as normally open at NewStn
Red Cr
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CREZ Double Ckt 345kV
CREZ Single Ckt 345kV
Nextera HHGT Single Ckt 345kV
Existing LCRA Double Ckt 345kV
Existing LCRA Single Ckt 345kV

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Comparison of Alternatives

Case	Description	LMP Annual Average ($)	Production Cost (K$)	Generator Revenue (K$)	Wind Energy Curtailment (GWH)	Wind Energy Curtailment (%)	Annual Energy Losses	Wind Energy Generated (GWH)	ERCOT Demand Energy (GWH)
Base Case (CREZ)	CREZ Topology and >18,456 MW wind generation modeled in ERCOT posted 2014 Case	60.30	19,894,683	20,336,258	491	0.71%	2.97%	68,929	343,100
Scenario 17 (Alternative 1)	McCamey - Kendall both circuits diverted to NewStn cut-in at the crossing of the HHGT and Red Creek - Brown 2-ckt line	60.31	19,878,107	20,364,457	1,009	1.48%	3.03%	68,398	343,100
Alternative 2	One of the McCamey - Kendall circuits taken to Kendall instead of NewStn	59.47	19,823,297	20,061,150	518	0.75%	2.99%	68,903	343,100
Alternative 3	One of the McCamey - Kendall circuits taken to Cagnon instead of NewStn	58.16	19,730,728	19,697,352	232	0.33%	3.06%	69,191	343,100

Elizabeth Ray

From: Gaudi, Madan [Madan.Gaudi@nexteraenergy.com]
Sent: Friday, June 18, 2010 2:06 PM
To: Sergio Garza
Cc: WYBIERALA, PETER; Bagnall, Jan; Stuart Nelson; Nair, Sunil
Subject: RE: Let's postpone today's call to Monday

Let's tentatively schedule 2 p.m. CST (3 p.m EST) for Monday. I will check with Peter Wybierala and Sunil Nair (R. W. Beck) on my side and re-confirm it by Monday morning.
Thanks.

From: Sergio Garza [mailto:Sergio.Garza@LCRA.ORG]
Sent: Friday, June 18, 2010 2:59 PM
To: Gaudi, Madan
Cc: WYBIERALA, PETER; Bagnall, Jan; Stuart Nelson
Subject: RE: Let's postpone today's call to Monday

Madan-

Thanks for the "heads up" – I was not sure how long I was going to stick around today for the phone call. This is not a problem. My schedule for Monday is flexible and I prefer mid-afternoon assuming you send me all final results in the AM.

Thanks again,
Sergio

From: Gaudi, Madan [mailto:Madan.Gaudi@nexteraenergy.com]
Sent: Friday, June 18, 2010 1:12 PM
To: Sergio Garza
Cc: WYBIERALA, PETER; Bagnall, Jan
Subject: Let's postpone today's call to Monday

Sergio,

Let's postpone today's call to Monday since we are still checking our study reports. I apologize for abruptly changing our agreed upon plans.
What is the best time for you next week?

Madan Gaudi
Transmission Manager,
FEJ/JB, NEXTera Energy Resources (Formerly, FPL Energy)
700 Universe Blvd., Juno Beach, FL 33408
Desk: 561 694-4133 Cell: 561 301-3004

Elizabeth Ray

From: Gaudi, Madan [Madan.Gaudi@nexteraenergy.com]
Sent: Friday, June 18, 2010 7:57 AM
To: Sergio Garza
Cc: WYBIERALA, PETER
Subject: RE: Summary of Options

Peter will try calling you around 9 (our time) since I am in another meeting. After 3 p.m. (our time) we all, including R W Beck, will be calling you. Thanks.

From: Sergio Garza [mailto:Sergio.Garza@LCRA.ORG]
Sent: Friday, June 18, 2010 8:54 AM
To: Gaudi, Madan
Subject: RE: Summary of Options

Madan

What time are you calling me?

Sergio

From: Gaudi, Madan [mailto:Madan.Gaudi@nexteraenergy.com]
Sent: Friday, June 18, 2010 7:45 AM
To: Sergio Garza
Cc: WYBIERALA, PETER
Subject: Summary of Options

Sergio,

Here is a summary of options that we studied. Please review so that we can discuss these in our call today. Thanks.

Madan Gaudi
Transmission Manager,
FEJ/JB, NEXTera Energy Resources (Formerly, FPL Energy)
700 Universe Blvd., Juno Beach, FL 33408
Desk: 561 694-4133 Cell: 561 301-3004

Elizabeth Ray

From: Gaudi, Madan [Madan.Gaudi@nexteraenergy.com]
Sent: Friday, June 18, 2010 7:45 AM
To: Sergio Garza
Cc: WYBIERALA, PETER
Subject: Summary of Options
Attachments: Case Comparisons.xls; LCRA-HHGT Presentation2.pdf

Sergio,

Here is a summary of options that we studied. Please review so that we can discuss these in our call today. Thanks.

Madan Gaudi
Transmission Manager,
FEJ/JB, NEXTera Energy Resources (Formerly, FPL Energy)
700 Universe Blvd., Juno Beach, FL 33408
Desk: 561 694-4133 Cell: 561 301-3004

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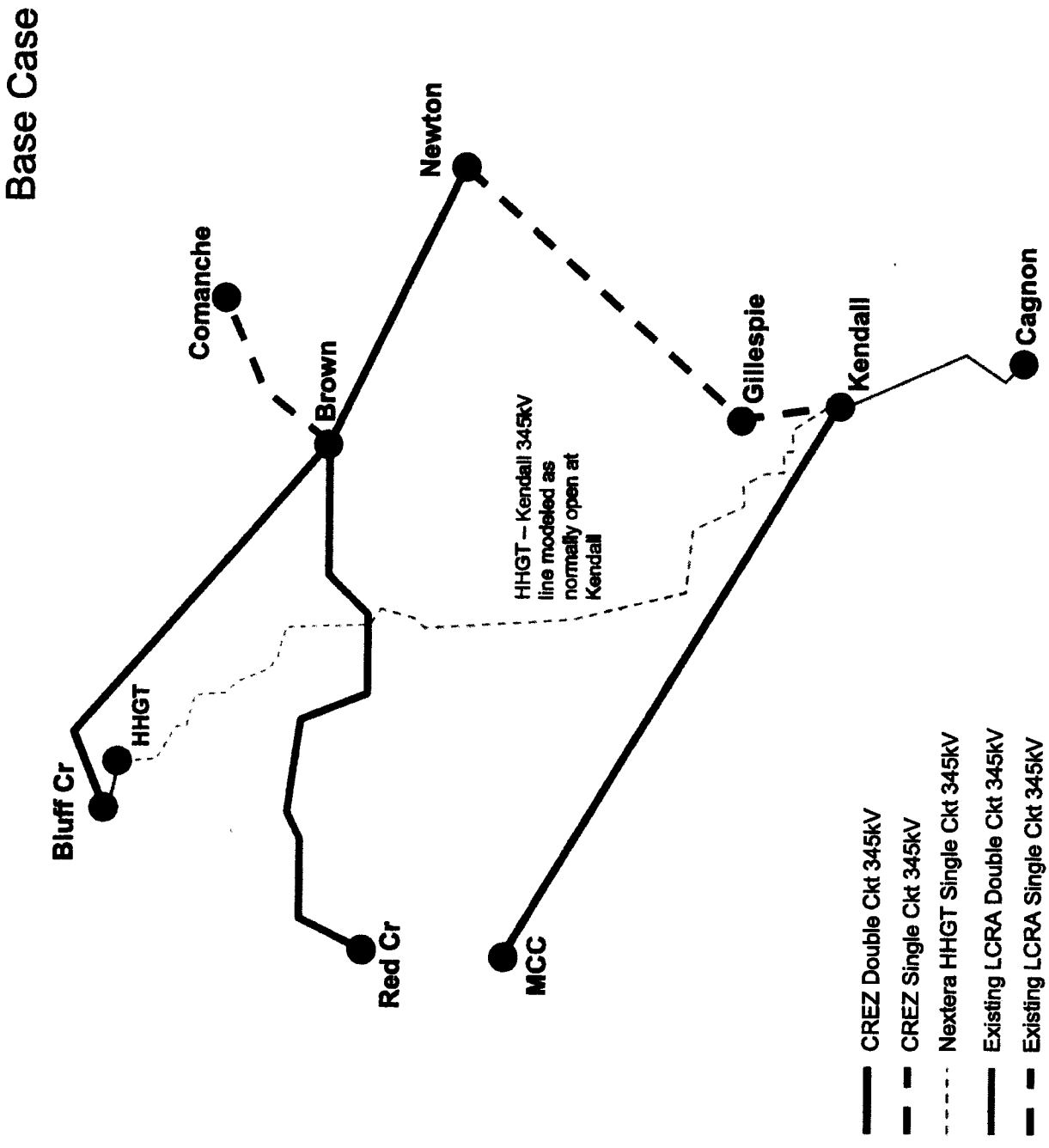
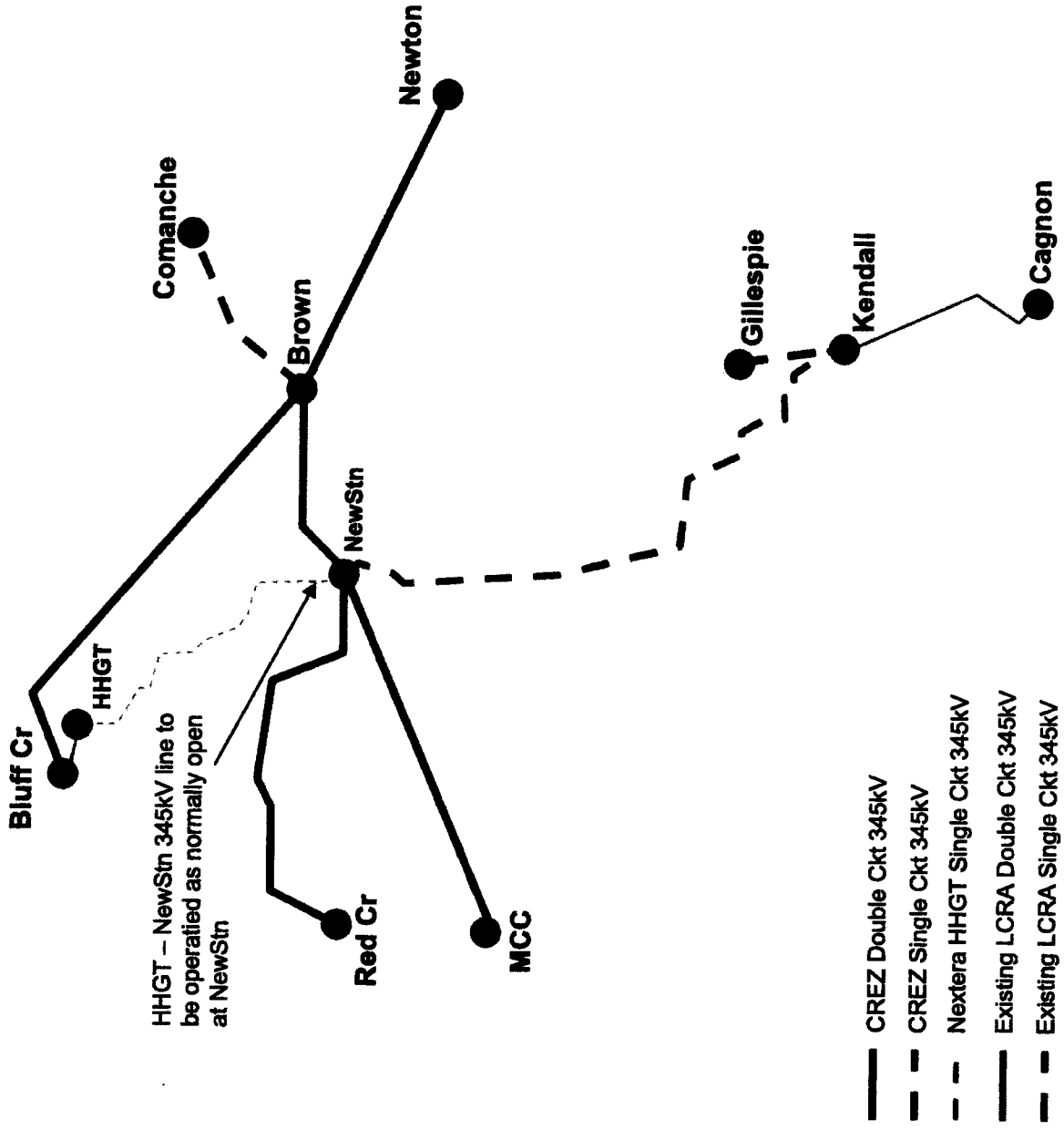
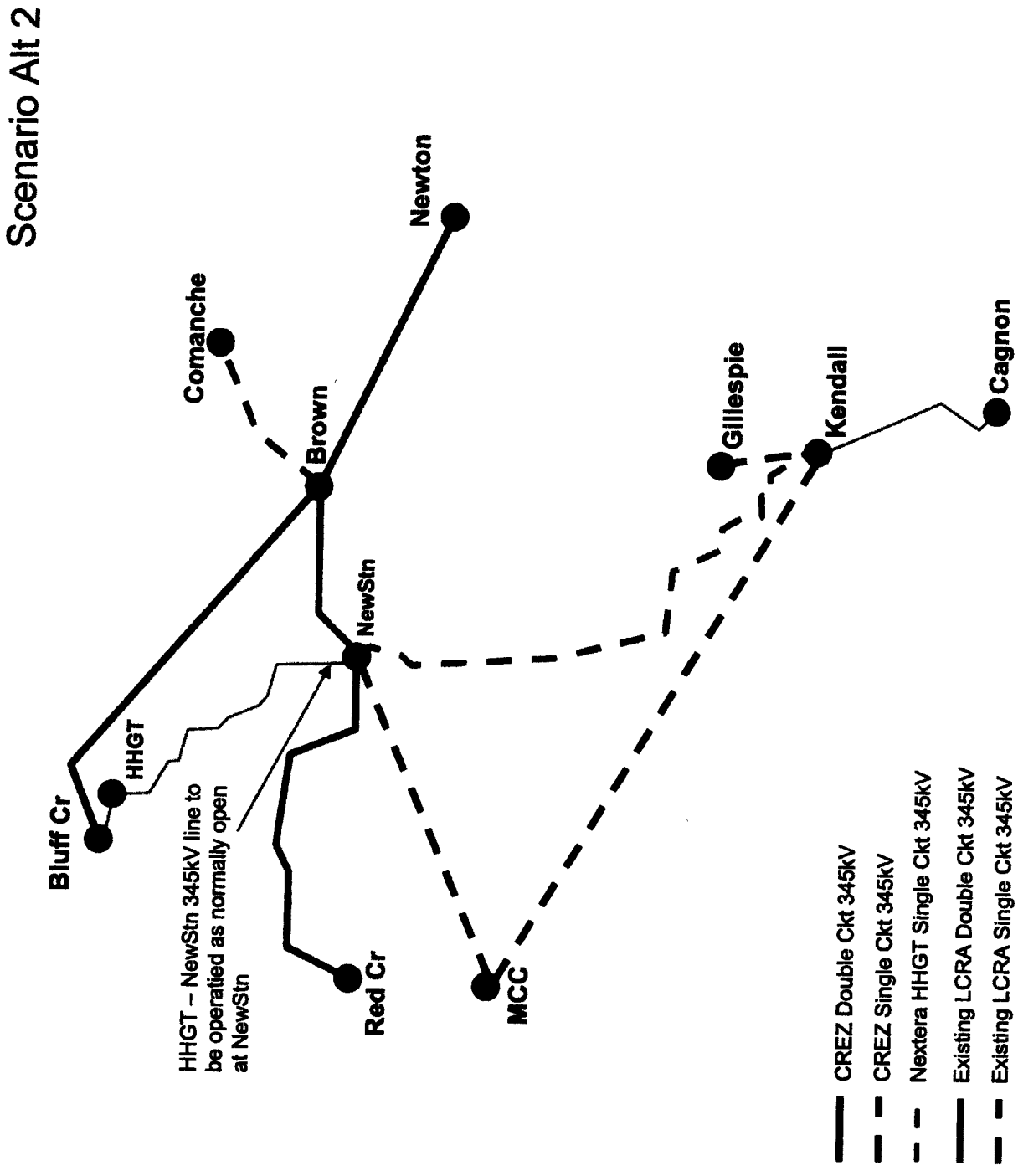
Comparison of Alternatives

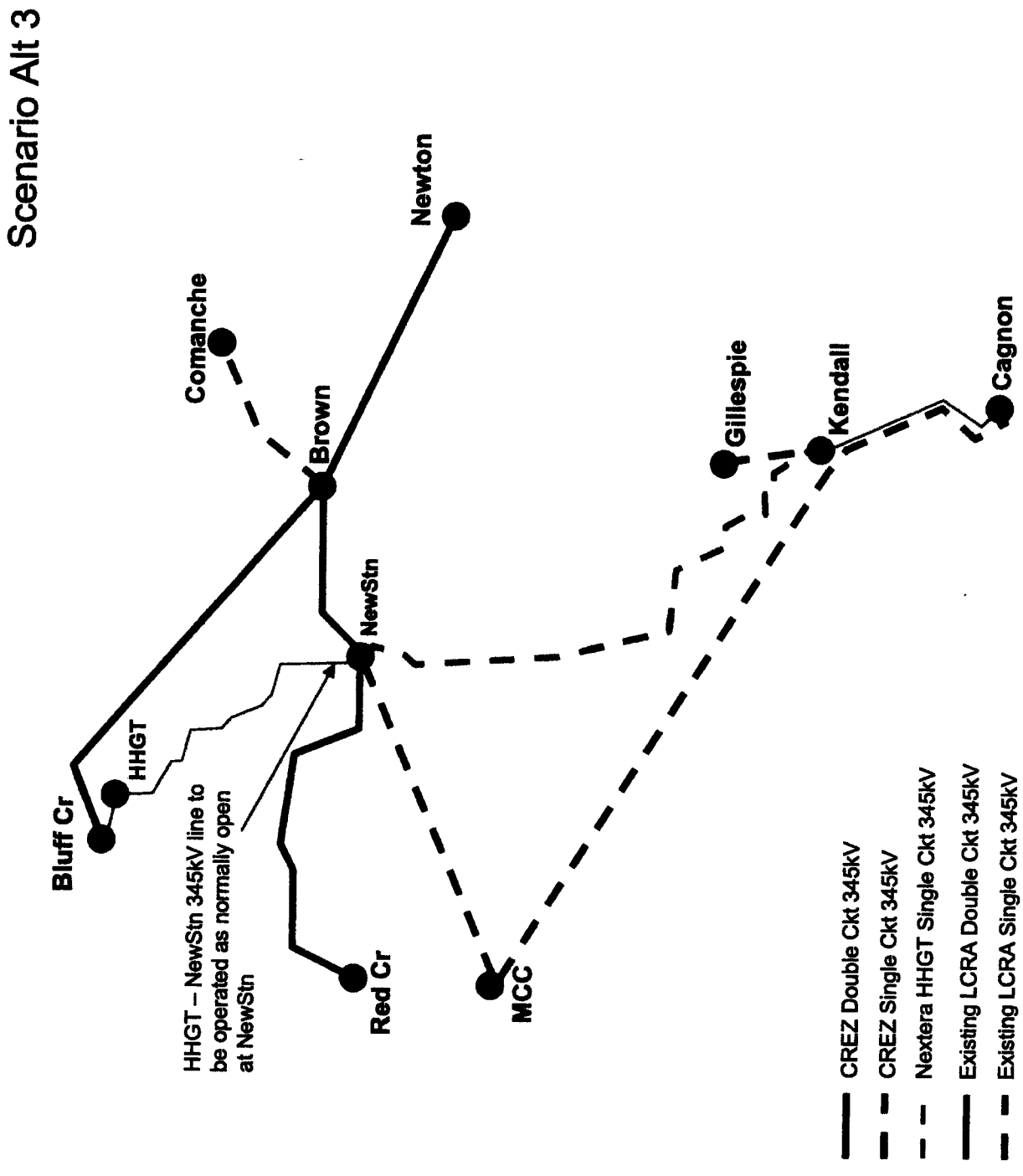
Case	Description	LMP Annual Average ($)	Production Cost (K$)	Generator Revenue (K$)	Curtailment (MWH)	Losses (Delta from CREZ)	Wind Energy Generated (GWH)	ERCOT Demand (GWH)
Base Case (CREZ)	CREZ Topology and 18,456 MW wind generation modeled in ERCOT posted 2014 Case	58.34	19,288,763	19,790,042	22,973	2.44%	51,485	343,100
Scenario 17 (Alternative 1)	McCamey - Kendall both circuits diverted to NewStn cut-in at the crossing of the HHGT and Red Creek - Brown 2-ckt line	58.31	19,285,052	19,751,991	50,496	2.51%	51,446	343,100
Alternative 2	One of the McCamey - Kendall circuits taken to Kendall instead of NewStn	58.31	19,287,799	19,774,379	26,121	2.47%	51,477	343,100
Alternative 3	One of the McCamey - Kendall circuits taken to Cagnon instead of NewStn	58.22	19,286,117	19,728,942	18,010	2.44%	51,496	343,100


Base Case
Newton
Comanche
Brown
Gillespie
Kendall
Cagnon
HHGT – Kendall 345kV line modeled as normally open at Kendall
HHGT
Bluff Cr
Red Cr
MCC
CREZ Double Ckt 345kV
CREZ Single Ckt 345kV
Nextera HHGT Single Ckt 345kV
Existing LCRA Double Ckt 345kV
Existing LCRA Single Ckt 345kV

Scenario 17 (Alt 1)




Scenario Alt 2
Bluff Cr
HHGT
HHGT – NewStn 345kV line to be operatied as normally open at NewStn
Red Cr
NewStn
Comanche
Brown
Newton
MCC
Gillespie
Kendall
Cagnon
CREZ Double Ckt 345kV
CREZ Single Ckt 345kV
Nextera HHGT Single Ckt 345kV
Existing LCRA Double Ckt 345kV
Existing LCRA Single Ckt 345kV


Scenario Alt 3
Bluff Cr
HHGT
HHGT – NewStn 345kV line to be operated as normally open at NewStn
Red Cr
MCC
NewStn
Brown
Comanche
Newton
Gillespie
Kendall
Cagnon
CREZ Double Ckt 345kV
CREZ Single Ckt 345kV
Nextera HHGT Single Ckt 345kV
Existing LCRA Double Ckt 345kV
Existing LCRA Single Ckt 345kV

Elizabeth Ray

From: Gaudi, Madan [Madan.Gaudi@nexteraenergy.com]
Sent: Wednesday, June 16, 2010 2:26 PM
To: Sergio Garza
Cc: WYBIERALA, PETER
Subject: FW: ERCOT GenTie SCED Results Summary
Attachments: LMP_Alt1_RCHHGT.jpg; LMP_Base.jpg; GenTieSCEDResultsSummary_20100616.xlsx; Single and Multiple 2008 07122007.con

Sergio,

Here are the R. W. Beck study results for comparison between the ERCOT CREZ case and our Scenario 17.

A minor tweaking is needed for one line impedance but should not change these study results.

Your comments will be greatly appreciated.

Thanks.

Per our phone discussion, I am also attaching a contingency file that I used for my MUST studies. If you have any comments on that, please let me know.

From: Nair, Sunil [mailto:snair@rwbeck.com]
Sent: Wednesday, June 16, 2010 11:08 AM
To: Gaudi, Madan
Cc: WYBIERALA, PETER
Subject: ERCOT GenTie SCED Results Summary

Madan & Pete,

Attached is the results summary which includes results for both the Base Case and Alt1(Scenario17). Please let me know if you have any questions.

Thanks.

Sunil

Sunil Nair
Consulting Engineer

Phone 480.367.4295 *Fax* 480.998.1618
14635 North Kierland Blvd, Suite 130 Scottsdale AZ 85254

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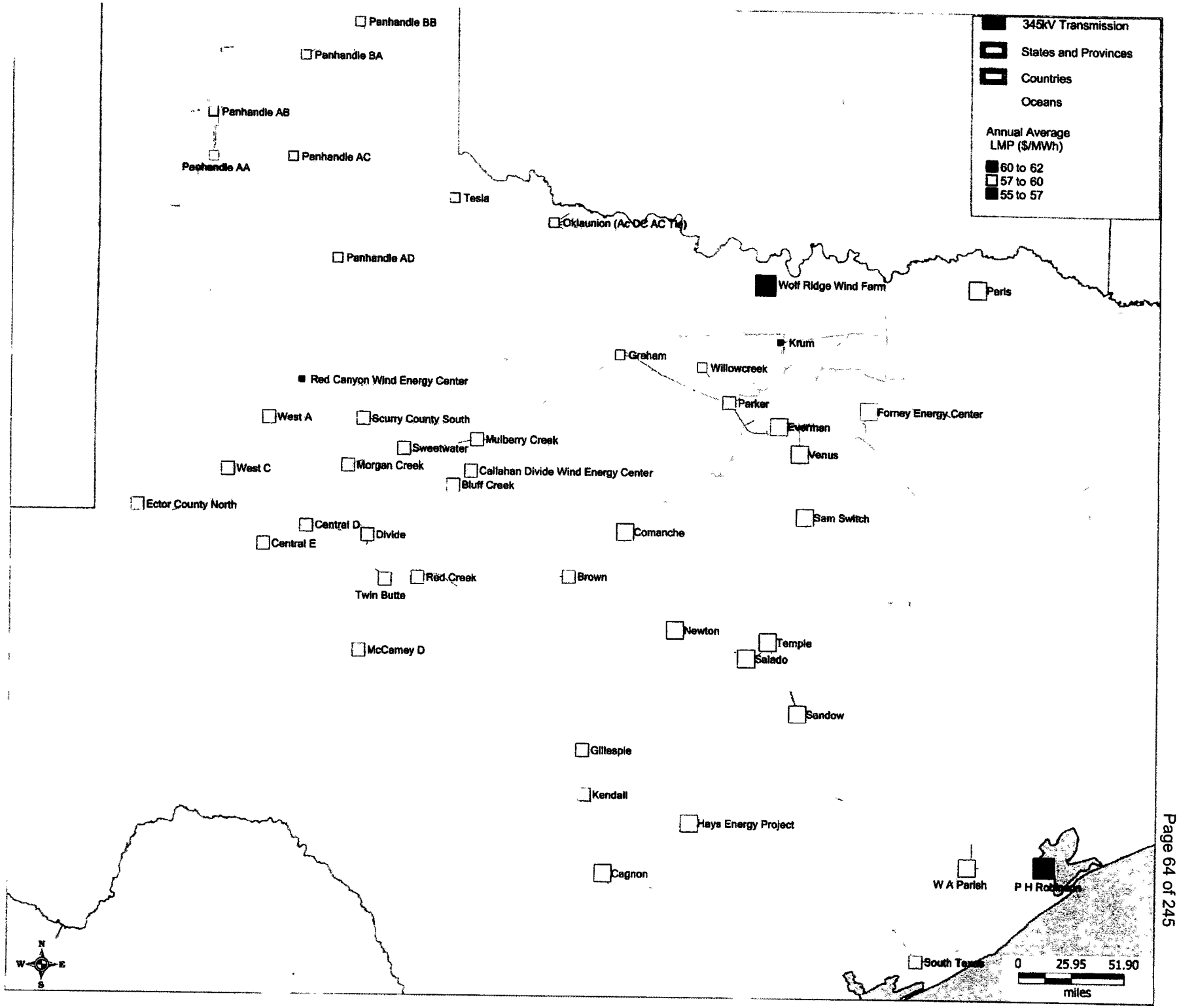
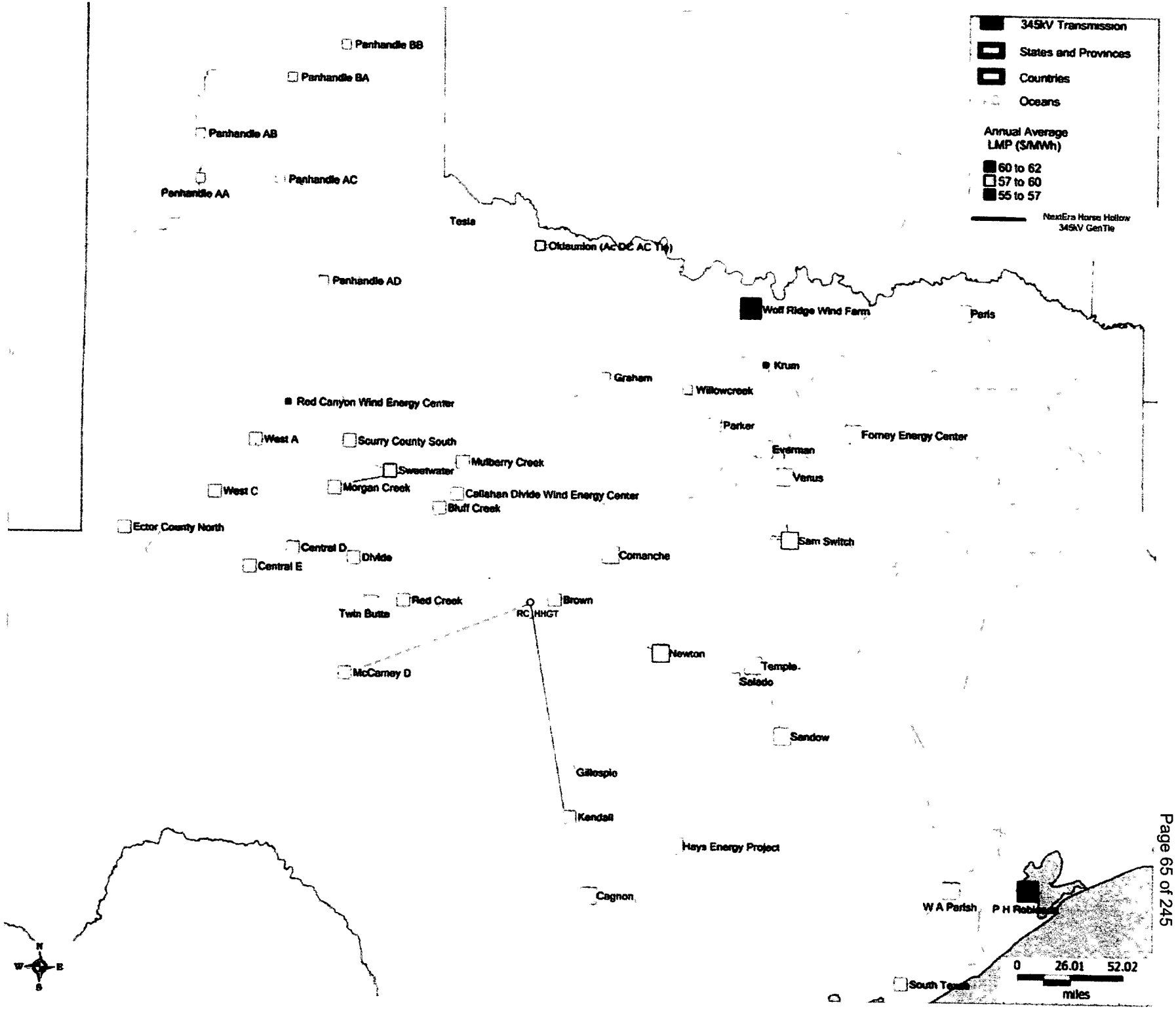
rwbeck.com

SEE ATTACHED EXCEL SPREADSHEETS ON CD


345kV Transmission
States and Provinces
Countries
Oceans
Annual Average LMP ($/MWh)
60 to 62
57 to 60
55 to 57
Panhandle BB
Panhandle BA
Panhandle AB
Panhandle AA
Panhandle AC
Tesla
Oklaunion (Ac Dc AC Tie)
Panhandle AD
Wolf Ridge Wind Farm
Paris
Krum
Graham
Willowcreek
Red Canyon Wind Energy Center
Parker
Forney Energy Center
West A
Scurry County South
Everman
Mulberry Creek
Sweetwater
Venus
West C
Morgan Creek
Callahan Divide Wind Energy Center
Bluff Creek
Ector County North
Sam Switch
Central D
Divide
Comanche
Central E
Red Creek
Brown
Twin Butte
Newton
Temple
McCamey D
Salado
Sandow
Gillespie
Kendall
Hays Energy Project
Cagnon
W A Parish
P H Robinson
South Texas
N
W
E
S
0
25.95
51.90
miles



PUC Docket No. 38354
Segrest et al.'s 1st, Q. 1
Attachment 1
Page 65 of 245

Elizabeth Ray

From: Gaudi, Madan [Madan.Gaudi@nexteraenergy.com]
Sent: Wednesday, June 16, 2010 2:18 PM
To: Nair, Sunil
Cc: WYBIERALA, PETER; Sergio Garza
Subject: Transmission Elements to Monitor for LCRA

Per our discussion with LCRA, here is what we should monitor in the Killeen/Salado area:

Salado - Newton -Brown 345 kV
Killen - NewtonFly - Brown 345 kV
Killeen 345/138 kV auto (if this auto overloads in your study we can add another one or upgrade it)

Thanks.

Madan Gaudi
Transmission Manager,
FEJ/JB, NEXTera Energy Resources (Formerly, FPL Energy)
700 Universe Blvd., Juno Beach, FL 33408
Desk: 561 694-4133 Cell: 561 301-3004

Elizabeth Ray

From: Gaudi, Madan [Madan.Gaudi@nexteraenergy.com]
Sent: Monday, June 14, 2010 3:04 PM
To: Sergio Garza
Cc: WYBIERALA, PETER
Subject: FW: ERCOT SCED CREZ Capacity Update
Attachments: CREZ_Capacity_Updates_20100614.xlsx

Plz review and comment.

From: Nair, Sunil [mailto:snair@rwbeck.com]
Sent: Monday, June 14, 2010 3:11 PM
To: Gaudi, Madan
Cc: WYBIERALA, PETER
Subject: ERCOT SCED CREZ Capacity Update

Madan,

Attached is the suggested updates to the CREZ Wind Capacity for the study. Please let me know what you think.

Thanks

Sunil

Sunil Nair
Consulting Engineer

Phone 480.367.4295 *Fax* 480.998.1618
14635 North Kierland Blvd, Suite 130 Scottsdale AZ 85254

An SAIC Company
rwbeck.com

Name	Maximum Capacity (MW)	Commission Date	CREZ Area
CREZ-Central West-Wind(10943):WT1	316	1/1/2013	Central West
CREZ-Central West-Wind(10945):WT1	316	1/1/2013	Central West
CREZ-Central West-Wind(10946):WT1	316	1/1/2014	Central West
CREZ-Central-Wind(10927):WT1	454	1/1/2014	Central
CREZ-Central-Wind(10941):WT1	454	1/1/2012	Central
CREZ-Central-Wind(10942):WT1	454	1/1/2012	Central
CREZ-Central-Wind(10944):WT1	454	1/1/2014	Central
CREZ-Central-Wind(10949):WT1	454	1/1/2014	Central
CREZ-Central-Wind(10950):WT1	454	1/1/2013	Central
CREZ-McCamey-Wind(10931):WT1	415	1/1/2014	McCamey
CREZ-McCamey-Wind(10932):WT1	415	1/1/2012	McCamey
CREZ-McCamey-Wind(10934):WT1	415	1/1/2014	McCamey
CREZ-McCamey-Wind(10935):WT1	415	1/1/2013	McCamey
CREZ-PanA-Wind(10913):WT1	677	1/1/2013	Panhandle A
CREZ-PanA-Wind(10914):WT1	677	1/1/2014	Panhandle A
CREZ-PanA-Wind(10916):WT1	677	1/1/2013	Panhandle A
CREZ-PanA-Wind(10917):WT1	677	1/1/2013	Panhandle A
CREZ-PanB-Wind(10918):WT1	1015	1/1/2014	Panhandle B
CREZ-PanB-Wind(10920):WT1	1015	1/1/2014	Panhandle B
CREZ-PanOak-Wind(34501):WT1	250	1/1/2014	Panhandle Mid
Total All Non-plant specific	10318		

TOS Transmission Optimization Study April 2008

MW	Definition
18456	TOS ERCOT Wind Total Capacity
8138	Real West Wind Capacity online by 2014
10318	CREZ Wind Capacity
11553	TOS CREZ Wind Capacity
1235	CREZ Capacity Reduction Amount
6903	TOS Base Case Real Wind Capacity

	CREZ TOS Capacity (MW)	Percent of All CREZ Capacity	CREZ TOS Capacity Reduced due to 8,138 of Real Wind Capacity (MW)	CREZ Area Generation Capacity (MW)	CREZ Area Generation Capacity Per Bus (MW)	CREZ Area Generation Capacity Per Bus (MW) including Pan Mid
Central West	1063	9%	114	949	316	316
Central	3047	26%	326	2721	454	454
McCamey	1859	16%	199	1660	415	415
Panhandle A	3191	28%	341	2850	712	677
Panhandle B	2393	21%	256	2137	1069	1015
Panhandle Mid						250

Elizabeth Ray

From: Gaudi, Madan [Madan.Gaudi@nexteraenergy.com]
Sent: Monday, June 14, 2010 2:57 PM
To: 'Nair, Sunil'
Cc: Sergio Garza; WYBIERALA, PETER
Subject: Study Scope
Attachments: GenTie Study scenarios.PPT

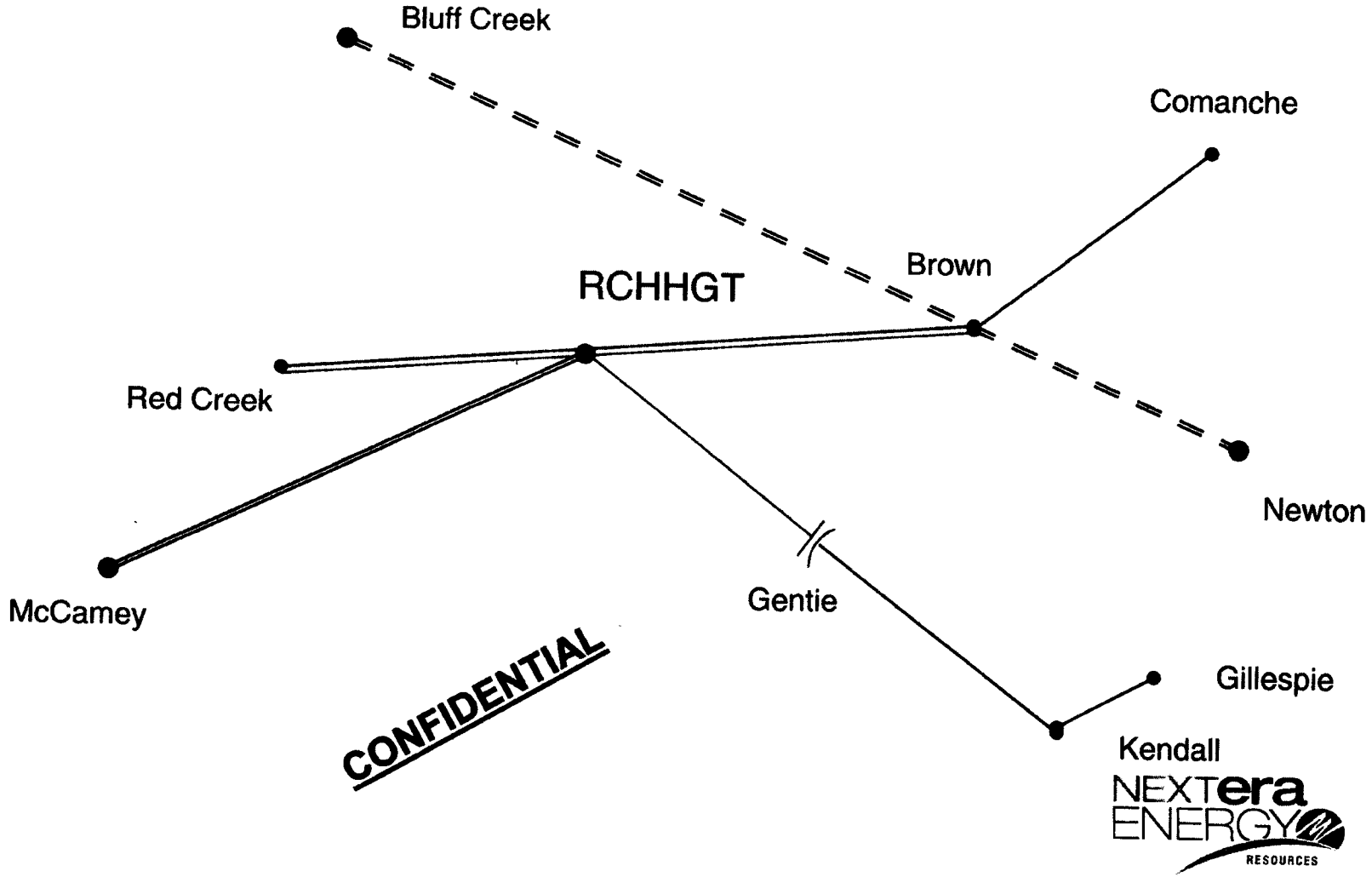
Sunil,

As discussed, here is the description of the cases that need to be run. Also refer to the attached diagrams.

1. Base Case. It should be the latest SSWG case and should include all CREZ transmission facilities and the wind generation of 18,456 MW per ERCOT's Tansmission Optimization study report dated April 2, 2008. The percent wind generation allocations in various wind zones should be as per the ERCOT report.
2. Scenario 17 case. All HHGT related wind farms (HH1,2,3,4 and Callahan) connected back to their original interconnections with AEP. Create a new 6-terminal 345 kV station: "RCHHGT" at the crossing of the HHGT and the Twin B/Red Creek - Brown lines near (McCulloch County). The McCamey - Kendall double-circuit line should be re-configured as McCamey - RCHHGT double-circuit line. The new RCHHGT - Kendall 345 kV line should be series compensated (for -0.25 p.u. impedance) at the middle of its span. The 345 kV line section between HHGT and RCHHGT and the original series compensation at the HHGT should be disconnected. The Newton - Gillespie 345 kV line to be taken out of service (i.e. not built).
3. Sensitivity Run 1: In Scenario 17, instead of taking both McCamey - Kendall circuits to the new station RCHHGT, connect only one circuit to RCHHGT while the other circuit goes to Kendall as before. This second circuit should have 50% series compensation in the middle of its span.
4. Sensitivity Run 2: In scenario 17, instead of taking both McCamey - Kendall circuits to the new station RCHHGT, connect only one circuit to RCHHGT while the other circuit goes to Cagnon. This new circuit should have 50% series compensation in the middle of its span.

Madan Gaudi
Transmission Manager,
FEJ/JB, NEXTera Energy Resources (Formerly, FPL Energy)
700 Universe Blvd., Juno Beach, FL 33408
Desk: 561 694-4133 Cell: 561 301-3004

Scenario 17: HH1,2,3,4 and Callahan connected back to their original interconnections with AEP. McCamey-Kendall 2-ckt taken to a new station RCHHGT at the crossing of HHGT and Twin B/Red Ck – Brown lines; Newton – Gillespie not built; RCHHGT – Omega line series compensated and re-rated to 1735 MVA.



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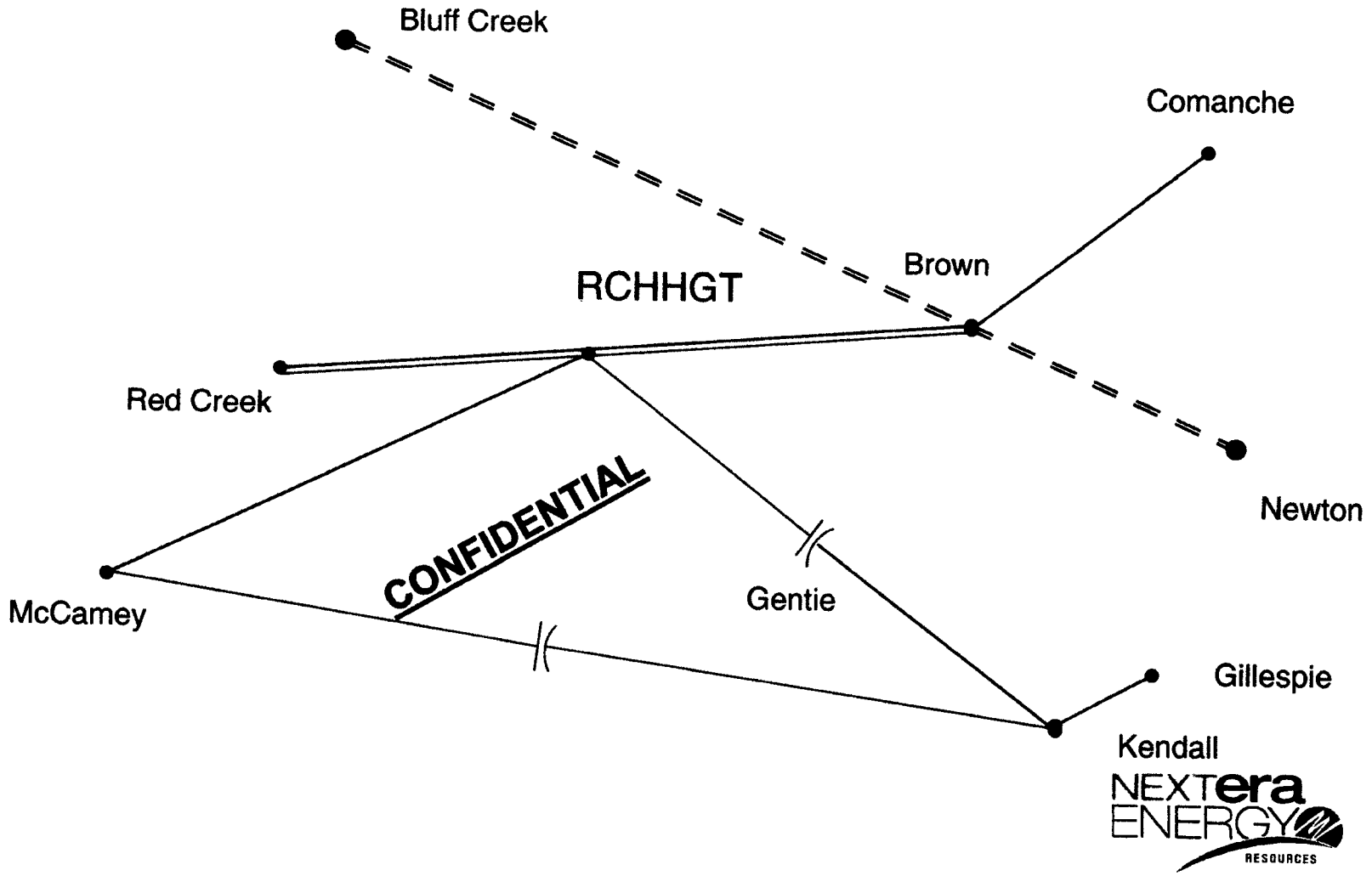
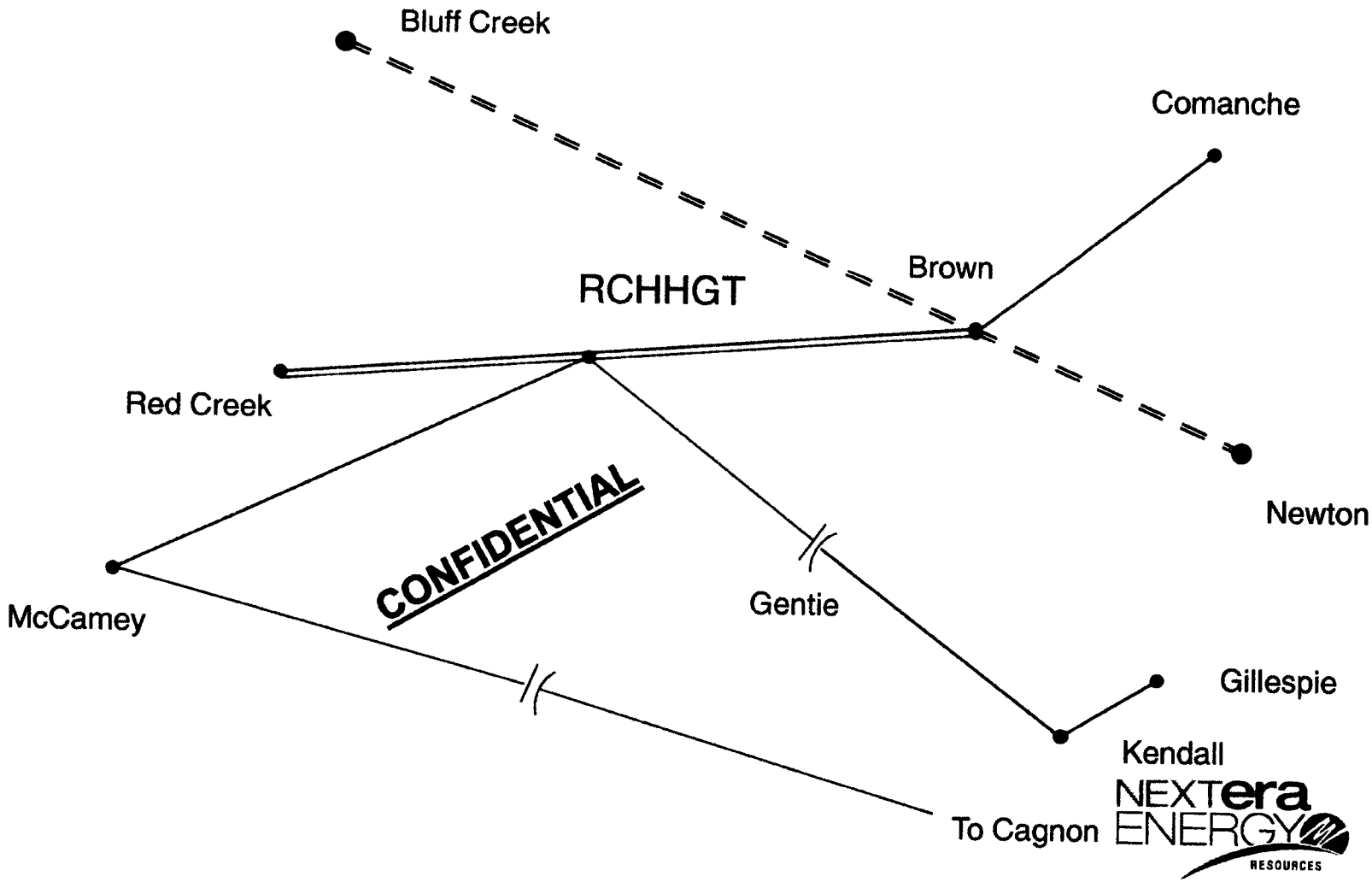
Sensitivity 1: In scenario 17, instead of taking both McCamey - Kendall circuits to the new station RCHHGT, connect only one circuit to RCHHGT while the other circuit goes to Kendall as before. This second circuit should have 50% series compensation in the middle of its span.



Sensitivity 2: In scenario 17, instead of taking both McCamey - Kendall circuits to the new station RCHHGT, connect only one circuit to RCHHGT while the other circuit goes to Cagnon. This second circuit should have 50% series compensation in the middle of its span.



Elizabeth Ray

From: Gaudi, Madan [Madan.Gaudi@nexteraenergy.com]
Sent: Monday, June 14, 2010 11:59 AM
To: Sergio Garza
Cc: WYBIERALA, PETER
Subject: Can we talk on the phone today?

Hi Sergio,

We would like to discuss your loadflow case needs and we would like to discuss that with you today before we ask R. W. Beck to run the study. Are you available anytime today, besides 3 to 4 CST?
Please lt me know.
Thanks.

Madan Gaudi
Transmission Manager,
FEJ/JB, NEXTera Energy Resources (Formerly, FPL Energy)
700 Universe Blvd., Juno Beach, FL 33408
Desk: 561 694-4133 Cell: 561 301-3004

Elizabeth Ray

From: Gaudi, Madan [Madan.Gaudi@nexteraenergy.com]
Sent: Monday, June 14, 2010 7:37 AM
To: Sergio Garza
Cc: WYBIERALA, PETER
Subject: RE: Scenario 17

Please see my comments on your e-mail below. Thanks.

From: Sergio Garza [mailto:Sergio.Garza@LCRA.ORG]
Sent: Sunday, June 13, 2010 8:30 PM
To: Gaudi, Madan
Cc: WYBIERALA, PETER
Subject: RE: Scenario 17

Thanks You Madan. I understood from our meeting that this case is the latest SSWG-posted case with the accurate amount of wind generation added to each of the CREZ zones per the TOS. (MG - No, this is the base case from two years ago which was developed by me and was based on ERCOT posted cases at that time. The modeled wind generation should be around 90% of the CREZ 2 capacity. I used this old case for screeningvarious study scenarios with the MUST program. R. W. Beck is running studies with the latest SSWG-posted case and that we plan to send you after tweaking for some modeling corrections.)

Regarding the existing gen tie TL, the rating (Rate A,B,C) on this TL is actually 1735 MVA. (MG - Correct)

Lastly, you also said you had other study summary available that you could share with me - i.e. expected wind curtailment under scenario 17 and the MWH studied. For example, the Scenario 2 plan resulted in a average annual wind curtailment of 2.3% with a total wind generation of 64,031 GWH (page 24 of ERCOT CREZ TOS). Is this something you can send me early this week? (MG - Yes, we will share it with you once R. W. Beck finalizes the above study).

Sergio

From: Gaudi, Madan [Madan.Gaudi@nexteraenergy.com]
Sent: Friday, June 11, 2010 10:02 AM
To: Sergio Garza
Cc: WYBIERALA, PETER
Subject: Scenario 17

Sergio,
Here is the Scenario 17 case. It does not have the second circuit between Brown and Comanche as I said before, it is just on the diagram. Again, the series cap sizes can be re-evaluated for the HHGT and the McCamey - Kendall 2-ckt line.

If there are any questions or concerns, please let me know.

Thanks.

Madan Gaudi
Transmission Manager,
FEJ/JB, NEXTera Energy Resources (Formerly, FPL Energy)

700 Universe Blvd., Juno Beach, FL 33408
Desk: 561 694-4133 Cell: 561 301-3004

Elizabeth Ray

From: Gaudi, Madan [Madan.Gaudi@nexteraenergy.com]
Sent: Friday, June 11, 2010 10:02 AM
To: Sergio Garza
Cc: WYBIERALA, PETER
Subject: Scenario 17
Attachments: case17Fi.sav

Sergio,
Here is the Scenario 17 case. It does not have the second circuit between Brown and Comanche as I said before, it is just on the diagram. Again, the series cap sizes can be re-evaluated for the HHGT and the McCamey - Kendall 2-ckt line.

If there are any questions or concerns, please let me know.

Thanks.

Madan Gaudi
Transmission Manager,
FEJ/JB, NEXTera Energy Resources (Formerly, FPL Energy)
700 Universe Blvd., Juno Beach, FL 33408
Desk: 561 694-4133 Cell: 561 301-3004

Elizabeth Ray

From: Jonathan Greene
Sent: Monday, June 21, 2010 10:48 AM
To: Sergio Garza; Lance Wenmohs; Wayne Hicks; Dennis Palafox; Sara Morgenroth; Curtis Symank; Ray Pfefferkorn
Cc: Ferdie Rodriguez; Stuart Nelson
Subject: RE: response to ercot - draft
Attachments: ERCOT G-N Alternatives Study_DRAFT.docx

Sergio,

Attached is a summary of the lengths and constraints for each of the alternatives discussed last week. This was developed with input from TLD and Siting and Certification.

Please let me know if you have any questions. I'll try to fill in the blanks on the draft response you just sent out.

Thanks,
Jonathan

From: Sergio Garza
Sent: Monday, June 21, 2010 10:18 AM
To: Lance Wenmohs; Jonathan Greene; Wayne Hicks; Dennis Palafox; Sara Morgenroth; Curtis Symank; Ray Pfefferkorn
Cc: Ferdie Rodriguez; Stuart Nelson
Subject: response to ercot - draft

Following up on our meeting from last week, attached is a **draft** response to ERCOT's request.

If you would please start sending me your comments and edits, that would be appreciated. I would like to send to ERCOT in the next day or two.

Thanks,
Sergio

Assumptions:

- Each alternative is a single circuit 345-kV transmission line

1) Gillespie – Newton

a) ALTERNATIVES

b) FEASIBILITY

c) LENGTHS

d) CONSTRAINTS

2) Kendall – Trading Post (AE) – Lytton (AE)

a) ALTERNATIVES

i) There are potentially three alternatives for the Kendall to Trading Post to Lytton circuit.

(1) Parallel existing 138-kV transmission circuits for the majority of length between Kendall and Trading Post and Trading Post to Lytton. The new circuit could potentially be built either Single Circuit (SC) or Double Circuit (DC) as it does not impact the existing 138-kV facilities. The following is a list of circuits which could potentially parallel the new circuit.

(a) Kendall to Trading Post: Follow along existing Kendall – Mountain Top (T342) – Miller Creek (T426) – Phillips Johnson City (T124) – Paleface (T124) – Bee Creek (T323/T458) – Lakeway (T179) – Trading Post.

(b) As an alternative to following Bee Creek to Lakeway to Trading Post, a more direct route may be constructed between Bee Creek and Trading Post, thus eliminating the paralleling of the line between Bee Creek and Lakeway. However, this will entail routing the line through the densely populated Austin areas of Lakeway and Bee Caves.

(c) Trading Post to Lytton: Trading Post – Cedar Valley (T315) – Friendship (T358) – Rutherford (T360) – Buda (T316) – Turnersville (T380) – Lytton (T382)

(2) Rebuild some of the existing 138-kV transmission circuits with new a new double circuit 138/345-kV line from Kendall to Trading Post to Lytton. This alternative requires rebuilding some of the existing 138-kV circuits with a new 345-kV circuit on the same structures. This alternative provides for only one new circuit to be built. The same facilities as listed above may be used for part of the line. However, between Paleface and Trading Post, the existing circuits will not accommodate a second circuit on existing facilities; this section must be new, either paralleling existing circuits or a new route must be established.

(3) Route a new line between Kendall to Trading Post to Lytton. This alternative allows for the potential for either SC or DC construction.

b) FEASIBILITY

(1) Austin Energy (AE) must be involved as AE owns Trading Post and Lytton substations. Paralleling the existing facilities would not involve PEC outside of acquiring ROW boundaries for paralleling.

(2) PEC owns some of the circuits listed above. PEC will be directly involved if the existing transmission circuits are to be rebuilt DC 138/345-kV. Austin Energy (AE) must be involved as AE owns Trading Post and Lytton substations.

(3) Austin Energy (AE) must be involved as AE owns Trading Post and Lytton substations. PEC and AE may be involved if existing circuits are rebuilt or parallel new 345-kV circuit.

c) LENGTH

(1) Refer to Table 1

d) CONSTRAINTS

(1) Refer to Table 2 and Table 3

3) Kendall – Leander (PEC) – Hutto (Oncor)

a) ALTERNATIVES

i) There are potentially three alternatives for the Kendall to Leander to Lytton circuit.

(1) Parallel existing 138-kV transmission circuits for the majority of length between Kendall and Leander and Leander to Hutto. The new circuit could potentially be built either Single Circuit (SC) or Double Circuit (DC) as it does not impact the existing 138-kV facilities. The following is a list of circuits which could potentially parallel the new circuit.

(a) Kendall to Leander: Follow along existing Kendall – Mountain Top (T342) – Miller Creek (T426) – Phillips Johnson City (T124) – Paleface (T124) – Starcke (T196) – Morman Mills (T159) – Lago Vista (T414) – Nameless – Leander (T327)

(b) Kendall to Leander: As an alternative to following Paleface to Starcke to Morman Mills to Lago Vista, a more direct route may be constructed. However, this would entail routing across Lake Travis in a densely populated area.

(c) Leander to Hutto: Potentially, existing Oncor facilities may be followed from Leander – Chief Brady – Hutto. This must be discussed with Oncor.

(2) Rebuild some existing 138-kV transmission circuits with new a new double circuit 138/345-kV line from Kendall to Leander to Hutto. This alternative requires rebuilding some of the existing 138-kV circuits with a new 345-kV circuit on the same structures. This alternative provides for only one new circuit to be built. The same facilities as listed above may be used. Oncor would need to validate the potential of routing along current facilities.

(3) Route a new line between Kendall to Leander to Hutto. This alternative allows for the potential for either SC or DC construction.

b) FEASIBILITY

(1) Paralleling the existing facilities would not involve PEC outside of acquiring ROW boundaries for paralleling. However, PEC must be involved on the substation side as PEC owns the Leander substation. Oncor must be involved as it owns the Hutto substation.

(2) PEC owns some of the circuits listed above. PEC will be directly involved if the existing transmission circuits are to be rebuilt DC 138/345-kV. Oncor must be involved if facilities are constructed using Oncor facilities. Oncor will be involved for work at the Hutto substation.

(3) PEC and Oncor will be involved for work at Leander (PEC) and Hutto (Oncor) substations.

c) LENGTH
(1) Refer to Table 1

d) CONSTRAINTS
(1) Refer to Table 2 and Table 3

4) Big Hill – Kendall – Cagnon (CPS)

a) ALTERNATIVES
i) The Big Hill to Kendall transmission line is a CREZ CCN project that is expected to be filed at the PUCT by July 28, 2010. There are a number of routes of varying length that will be provided as alternatives to meet the current CREZ criteria.
ii) The Kendall to Cagnon transmission line is an existing DC 138/345-kVtransmission line owned by both LCRA and CPS. LCRA owns the section in Kendall County and CPS owns the section in Bexar County. The existing line is 50 miles in length.
(1) Parallel existing DC 138/345-kV transmission circuits between Kendall and Cagnon. The new circuit could potentially be built either Single Circuit (SC) or Double Circuit (DC) as it does not impact the existing 138/345-kV facilities.
(2) Reconductor the 138-kV side between Kendall and Cagnon 345-kV capable and rebuild a new 138-kV transmission circuit parallel to the existing Kendall to Cagnon facilities. This alternative will require new ROW be purchased alongside the existing easement to build the SC 138-kV line. CPS would also need to validate the potential of reconductoring and/or rebuilding the existing circuits.
(3) Route a new line between Kendall to Cagnon. This alternative allows for the potential for either SC or DC construction. CPS must be involved regarding construction within Bexar County.

b) FEASIBILITY
i) Big Hill to Kendall: CREZ CCN application will be filed July 28, 2010.
ii) Kendall to Cagnon: CPS will be involved for work contained within Bexar County.

c) LENGTH
(1) Refer to Table 1

d) CONSTRAINTS
(1) Refer to Table 2 and Table 3

5) Kendall – Trading Post (AE) – Newton (Oncor)

a) ALTERNATIVES
i) There are potentially three alternatives for the Kendall to Trading Post to Newton circuit.
(1) Parallel existing 138-kV transmission circuits for the majority of length between Kendall and Trading Post and Trading Post to Newton. The new circuit could potentially be built either Single Circuit (SC) or Double Circuit (DC) as it does not impact the existing 138-kV facilities. The following is a list of circuits which could potentially parallel the new circuit.
(a) Kendall to Trading Post: Follow along existing Kendall – Mountain Top (T342) – Miller Creek (T426) – Phillips Johnson City (T124) – Paleface (T124) – Bee Cave (T323) – Lakeway – Trading Post

(b) Trading Post to Newton: Follow along existing circuits Trading Post – Lakeway – Bee Cave (T323) – Paleface – Starcke (T196) – Morman Mills (T159) – Fairland (T414) – Burnet (T218) – Lampasas (T219) – Newton (T154).

(c) Trading Post to Newton: As an alternative to following Paleface to Starcke to Morman Mills to Lampasas to Newton, a more direct route may be constructed. However, this would entail routing across Lake Travis in a densely populated area.

(2) Rebuild some existing 138-kV transmission circuits with new a new double circuit 138/345-kV line from Kendall to Trading Post to Newton. This alternative requires rebuilding some of the existing 138-kV circuits with a new 345-kV circuit on the same structures. This alternative provides for only one new circuit to be built. The same facilities as listed above may be used.

(3) Route a new line between Kendall to Trading Post to Newton. This alternative allows for the potential for either SC or DC construction.

b) FEASIBILITY

(1) Paralleling the existing facilities would not involve PEC outside of acquiring ROW boundaries for paralleling. AE must be involved as AE owns the Trading Post substation. Oncor must be involved as it owns the Newton substation.

(2) PEC owns some of the circuits listed above. PEC will be directly involved if the existing transmission circuits are to be rebuilt DC 138/345-kV. AE must be involved as AE owns the Trading Post substation. Oncor must be involved as it owns the Newton substation.

(3) AE and Oncor will be involved for work at Trading Post (AE) and Newton (Oncor) substations.

c) LENGTH

(1) Refer to Table 1

d) CONSTRAINTS

(1) Refer to Table 2 and Table 3

TABLE 1: LENGTH

Alt	SubFrom	SubTo	Straight Line Length (miles)	Feasible Length (miles)	Parallel Existing Circuits Length (miles)	Notes
a	Kendall	Trading Post	59	62	69	Potential to parallel PEC facilities
	Trading Post	Lytton	28	38	37	Potential to parallel PEC/AE facilites
	Total		87	98	106	
b	Kendall	Leander	75	82	105	Potential to parallel PEC facilites
	Leander	Hutto	17	18	20	Potential to parallel Oncor facilities
	Total		92	100	125	
c	[illegible]	Kendall	124	130	135	[illegible]
	Kendall	Cagnon	41	50	50	CPS owns CPS Tie to Cagnon
	Total		164	180	185	
d	Kendall	Trading Post	59	62	69	Potential to parallel PEC facilities
	Trading Post	Newton	54	67	89	
	Total		113	127	158	

TABLE 2: CONSTRAINTS (QUANTITATIVE)

	Gillespie - Newton (LCRA Preferred Route)	Kendall - Trading Post - Lytton	Kendall - Leander - Hutto	Big Hill - Kendall - Cagnon	Kendall - Trading Post - Newton
Potential Length	85.47 miles	90-105 miles	90-125 miles	185-195 miles[1]	115-160 miles
Length Parallel to Existing Transmission	34.72 miles	up to 65 miles	up to 100 miles	up to 60 miles	up to 150 miles
Habitable Structures	40	190	310	17	270
Parks	0	1	3	1	1
Pipeline Crossings	6	2	4	9	5
138-kV Crossings	5	6	7	8	8
345-kV Crossings	0	4 (2 DC)	0	1	1
FM Crossings	4	9	7	12	7
Highway Crossings	5	5	4	6	5
FAA Airports	0	0	0	0	0
Length across Open Waters	0.11 miles	0 miles	0.35 miles	0.08	0.42 miles
Length Across Known Habitat	0	0	0	0	0
Length Across Potential T&E Habitat	0	Unknown	Unknown	0	Unknown
Number of River Crossings	4	0	3	4	3

TABLE 3: CONSTRAINTS (QUALITATIVE)

Criteria – Newton	Kendall – Trading Post – Lytton	Kendall – Leander – Hutto	Big Hill – Kendall – Cagnon	Kendall – Trading Post – Newton
Densely Populated Areas ○ Kingsland ○ Buchanan Dam area ○ Llano ○ Burnet ○ Lampasas	Densely Populated Areas • Blanco • Hays County • Dripping Springs • Travis County • Austin • Wimberley • Kyle • Buda	Densely Populated Areas • Blanco • Johnson City • Hays County • Travis County • Austin • Lago Vista • Jonestown • Williamson County • Leander • Round Rock • Georgetown • Hutto	Densely Populated Areas • Junction • Mason • Menard • Kerrville • Fredericksburg • Boerne • Helotes • San Antonio	Densely Populated Areas • Blanco • Dripping Springs • Austin • Lago Vista • Marble Falls • Burnet • Bertram • Liberty Hill • Lampasas • Kempner
Historical and Recreation ○ Enchanted Rock State Natural Area ○ Lake Buchanan recreation areas ○ Colorado Bend State Park	Historical and Recreation • Pedernales Falls State Park • Hamilton Pool – Travis County	Historical and Recreation • Pedernales Falls State Park • Lake Travis recreation areas • Lago Vista	Historical and Recreation • Ft. Lancaster	Historical and Recreation • Pedernales Falls State Park • Lake Travis recreation areas • Hamilton Pool – Travis County
Environmental ○ Colorado River ○ Limited crossings near Buchanan Dam ○ Potential Golden Cheek Warbler and Black Capped Vireo habitat	Environmental • Balcones Canyonlands Conservation Plan (BCCP) in western Travis County • City of Austin Water Quality Protection Land • Karst habitat • Watershed Management Region • Potential Golden Cheek Warbler and Black Capped Vireo habitat	Environmental • Balcones Canyonlands Conservation Plan (BCCP) in western Travis County • Balcones Canyonlands National Wildlife Refuge (BCNWR) in western Travis and eastern Burnet counties • Colorado River • Limited crossings along Lake Travis • Williamson County Regional HCP	Environmental • Potential Golden Cheek Warbler and Black Capped Vireo habitat	Environmental • Colorado River • Lake Travis • Limited crossings along Lake Travis • Balcones Canyonlands Conservation Plan (BCCP) • Balcones Canyonlands National Wildlife Refuge (BCNWR) in western Travis and eastern Burnet counties • Karst habitat • Potential Golden Cheek

		• LCRA Parks • Karst habitat • Potential Golden Cheek Warbler and Black Capped Vireo habitat		Warbler and Black Capped Vireo habitat
Newton Substation ○ Limited options entering substation ○ Neighborhood congestion ○ Lampasas River crossing	Trading Post Substation • Residential and commercial construction Lytton Substation	Leander Substation • Residential and commercial construction Hutto Substation • Residential and commercial congestion		Trading Post Substation • Residential and commercial construction Newton Substation • Limited options entering substation • Neighborhood congestion • Lampasas River crossing
Other Utility Involvement ○ Oncor for work at Newton	Other Utility Involvement • Austin Energy (AE) for work at Trading Post and Lytton	Other Utility Involvement • Pedernales Electric Cooperative (PEC) • Oncor for work at Hutto • Potentially Austin Energy	Other Utility Involvement • City Public Services of San Antonio (CPS)	Other Utility Involvement • Austin Energy for work at Trading Post • Oncor for work at Newton • Potentially PEC

Elizabeth Ray

From: Sergio Garza
Sent: Monday, August 23, 2010 2:20 PM
To: 'Woodfin, Dan'; 'Lasher, Warren'
Cc: Sergio Garza
Attachments: Letter to ERCOT 08232010.pdf; Attachment 1A.pdf; Attachment 1B.PDF

Importance: High

Warren and Dan,

Please see attached letter <<Letter to ERCOT 08232010.pdf>> . The other two attachments are supporting /reference documents.

Thanks
Sergio

Tracking:

August 23, 2010

Mr. Dan Woodfin
Mr. Warren Lasher
Electric Reliability Council of Texas (ERCOT)

Dear Warren and Dan,

I would like to thank you for responding to my letter dated June 22, 2010 addressed to Dan Woodfin regarding ideas for alternatives to the Gillespie to Newton CREZ project (letter attached). Following my letter to Dan, when you, Stuart Nelson, and I met in July 01, 2010, I discussed with you details associated with the set of alternatives that LCRA TSC requested ERCOT to review in my June 22 letter. Specifically, in alternatives 3a and 3b of my letter we requested that ERCOT review a set of configurations that include the use of the existing private 345 kV transmission line owned by NextEra that connects at the Kendall station and does not include the PUC-approved CREZ McCamey D to Kendall 345 kV double circuit transmission line. Regarding this alternative, at that meeting, we both agreed that ERCOT would study configurations associated with the private line. The information detailing the configurations for these specific alternatives I provided to you at that July 01 meeting is attached.

Our understanding on what studies were being requested by LCRA TSC was subsequently validated on August 02, 2010 in an ERCOT response to concerns expressed by the Kimble County Commissioner's court regarding the McCamey D to Kendall to Gillespie project (reference Docket No. 38354 item No. 593).

Lastly, at our Monday, August 16, 2010 meeting, after completing your review, you and Dana Showalter shared with me that all the alternatives I had specified in my June 22, 2010 letter, including alternatives 3a and 3b (use of the existing NextEra 345 kV transmission line) as noted, had been reviewed by ERCOT. At that meeting you communicated to me that the alternatives that utilized the NextEra transmission line were not effective in achieving the CREZ performance objectives.

Although I do not know the policy in place or required to allow this transmission line to cost-effectively be included in TCOS, I thought it was important for ERCOT to review this alternative because the public has been asking for its study and the transmission line owner had approached LCRA TSC on this matter.

I look forward to reviewing the ERCOT study results associated with these alternatives in the recently opened Docket No. 38577. LCRA TSC plans to file related information and communication.

Respectfully,
Sergio Garza, Manager, System Planning and Protection
Lower Colorado River Authority

June 22, 2010

Mr. Dan Woodfin
Director, System Planning
Electric Reliability Council of Texas (ERCOT)

Dear Dan,

At the June 11, 2010 ERCOT Regional Planning Group (RPG) meeting you solicited ideas from the RPG participants associated with the June 01 request from Commissioner Smitherman regarding the CREZ Transmission Plan (CTP) Gillespie – Newton 345 kV transmission line project.

As you know, to develop comparable alternatives for a project, one first has to understand the basic function and value of the project for which alternatives are required. Assuming the objective continues to be the recommendation of a plan that is most beneficial and cost-effective to the customers (CREZ Rule 25.174), looking at what we have today and focusing solely on CREZ needs, in the April 2008 CREZ Transmission Optimization Study (CTOS) report, ERCOT stated the CREZ function and value of the 345 kV transmission path between the Kendall and Newton stations; however, the discussion did not include, in detail, the reason for connecting this specific 345 kV transmission path to the Gillespie station. Albeit, ERCOT stated in the report that many configurations were considered in the CTOS assessment. Further, based on earlier discussions between ERCOT and Transmission Service Providers including LCRA TSC, the value of connecting the Gillespie station to the 345 kV transmission source from the CREZ' was evaluated. In an August 2006 report provided to ERCOT by LCRA TSC, it was noted that the Kendall and Gillespie stations presently connect a total of fourteen 138 and 69 kV transmission lines and serve as area hubs for local area transmission service. A station with this characteristic is ideal for integrating a major 345 kV source such as CREZ to electric load. In fact, this connection was explored and discussed in the initial CREZ study report published by ERCOT in December 2006.

Although LCRA TSC has not done a full CREZ analysis similar to that conducted by ERCOT for the CTOS, based on available information and load flow studies conducted by LCRA TSC, it appears that two key CREZ functions of the Gillespie to Newton 345 kV transmission line are to:

- provide an alternate transmision path for maintaining reliable west to southeast power transfers (i.e., this Gillespie to Newton transmission line reduces slight N-1 overloads anticipated for the 345 kV transmission path east of Killeen by diverting power flow to the south along the central part of the Hill Country); and,
- integrate as much load as possible from the south to the CREZ thus helping stabilize the performance of the southern paths. Based on a load flow model results, nearly 250 MW of the power flow power is absorbed by the 138 kV circuits out of the Gillespie station.

Based on the present 138 kV hub configuration of the Gillespie station, these results are not surprising. So an alternative project, at minimum, needs to: 1) provide an acceptable alternate path for similar west to southeast power flows resulting in an overall wind generation

curtailment of approximately 2 percent – a CTP design criteria for the over 18,000 MW of wind generation in the Commission-selected CTP and, 2) provide similar levels of load integration as that offered by the Gillespie station.

Coming up with an alternative project that provides similar function and level of value to the CREZ Scenario 2 as the Gillespie to Newton 345 kV transmission line while keeping other CTP criteria such as level of wind integration, cost, schedule, and wind generation curtailment levels in check, is a challenging task in a plan that includes over 100 projects. Especially if the alternative project affects other CTP projects – some of which are already in progress or completed. Not knowing if ERCOT considered these possible alternatives in great detail during the CTOS development, LCRA TSC offers the suggestions below for ERCOT's consideration in addressing the Commission's request.

1) Rebuild (circuit impedance and capacity) of existing 138 kV corridors and rebuild and voltage conversion of existing 69 kV transmission corridors between the Lampasas/Newton station area and the Gillespie station area. There are several paths that may be considered. This might include installing a 345/138 kV autotransformer at either the Lampasas or Newton stations. This could include the use of phase shifters to direct west to southeast power flow to the south.
2) Install the second 345 kV circuit between the new Brown and existing Comanche Switch stations. A similar connection was studied by ERCOT in the December 2006 study but dismissed due to resulting overloads in the underlying 138 kV facilities near the Comanche Switch station area. The current CTP may provide improved performance of this connection.
3) Utilize the existing private transmission line between the Kendall station and a connection point on the Twin Buttes to Brown // Red Creek to Comanche 345 kV double circuit where these cross each other. Previous informal discussion with ERCOT regarding this private transmission line has indicated a potentially more desirable point of power injection at Bluff Creek – its alternate connection to the Kendall station.
    a. A configuration that includes the private line connection at the Kendall station with a connection to Twin Buttes to Brown // Red Creek to Comanche 345 kV double circuit via a new 345 kV station located where these lines cross each other. The private line between the new station and the Bluff Creek station would then be operated normally open.
    b. A configuration of the private line as discussed above that may result in a reconfiguration of the McCamey D to Kendall 345 kV double circuit transmission line. This reconfiguration involves the connection of McCamey D to the new station between Brown and Red Creek instead of the Kendall station.
    c. Suggestion b. above with one circuit extended to the Cagnon station.
4) Construct a new 345 kV line between the Kendall and Zorn stations to increase load integration via the west-south CREZ transmission connection. The exiting transmission line consists of a 345/138 kV double circuit with load-serving stations and switching stations connected to the 138 kV circuit.
5) Construct a new 345 kV line between the Kendall and the Cagnon stations to increase load integration via the west-south CREZ transmission connection. A segment of the exiting

transmission line consists of a 345/138 kV double circuit with load-serving stations and switching stations connected to the 138 kV circuit.

Assuming that comparable alternative solutions exist and that these may have the possibility of impacting the configuration and need of not only area CREZ projects but other CREZ projects as well, I will call you this week to see if you are interested in immediately meeting with LCRA TSC representatives and others to further discus these and other possible options. LCRA TSC is scheduled to file an application to amend its CCN for the construction of the Kendall to McCamey D and the Kendall to Gillespie 345 kV transmission line projects on July 28th and these projects may be two of the immediate area projects impacted due to changes to the Commission-approved CTP. Further, a comparable alternative resulting from this re-assessment requested by the Commission may trigger a Scope Change process for, among others, the McCamey D to Kendall and Kendall to Gillespie transmission line projects. Therefore, this is one reason of why time is of essence in us working together to meet this challenge as quickly as possible.

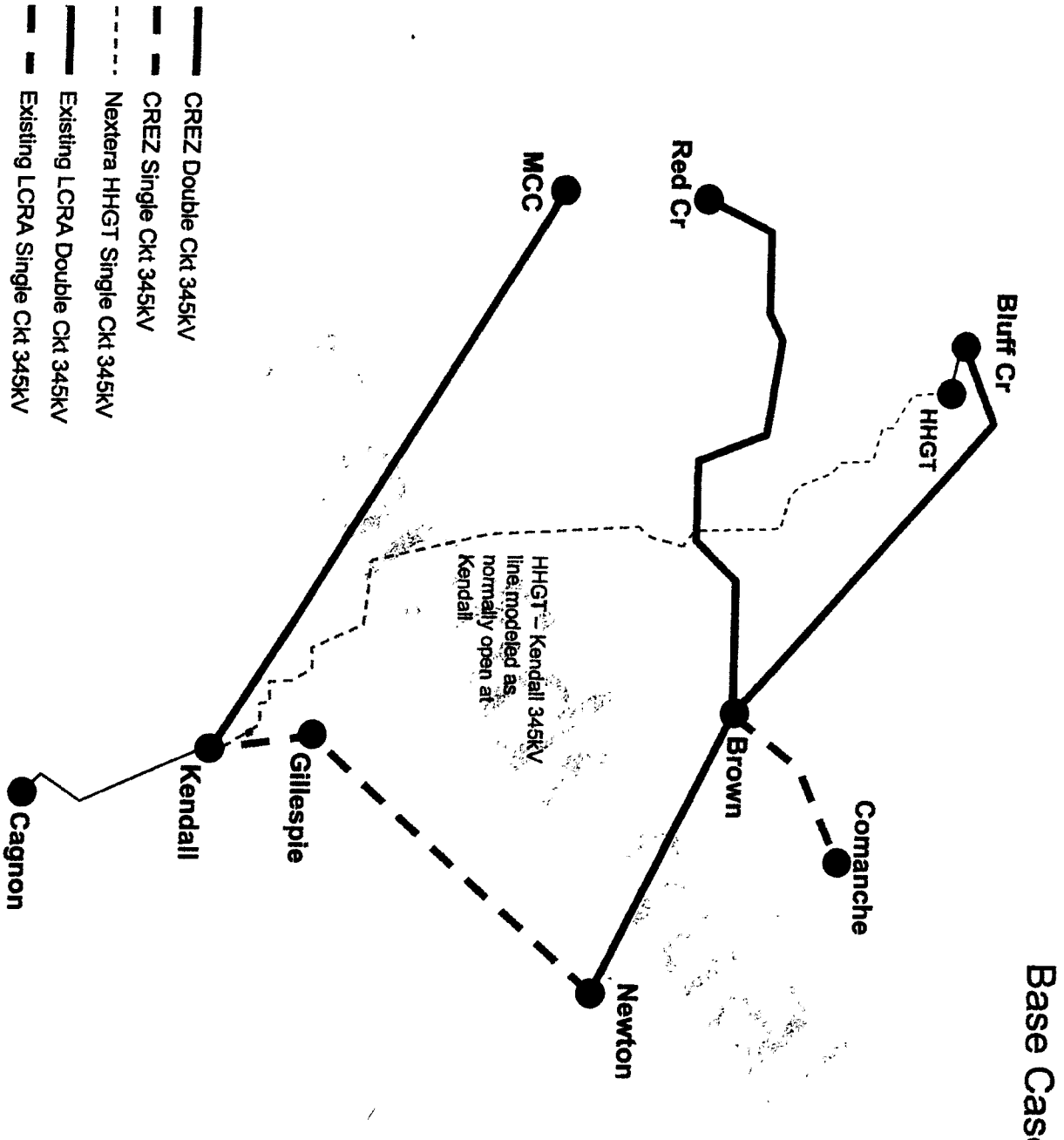
LCRA TSC has high respect for not only ERCOT's role in ensuring the reliability of the electric grid in Texas but also for ensuring the CTP meets the requirements of CREZ Rule 27.174 and would be glad to assist ERCOT in meeting this CREZ challenge.

Lastly, in a separate letter LCRA TSC is responding to an ERCOT staff request for input regarding the feasibility of constructing other alternatives that include 345 kV transmission lines in the Hill Country near Austin.

Respectfully,

Sergio Garza, Manager, System Planning and Protection
Lower Colorado River Authority

cc: Ross Phillips, LCRA
Stuart Nelson, LCRA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CREZ Single Ckt 345kV
Nextera HHGT Single Ckt 345kV
Existing LCRA Double Ckt 345kV
Existing LCRA Single Ckt 345kV
MCC
Red Cr
Bluff Cr
HHGT
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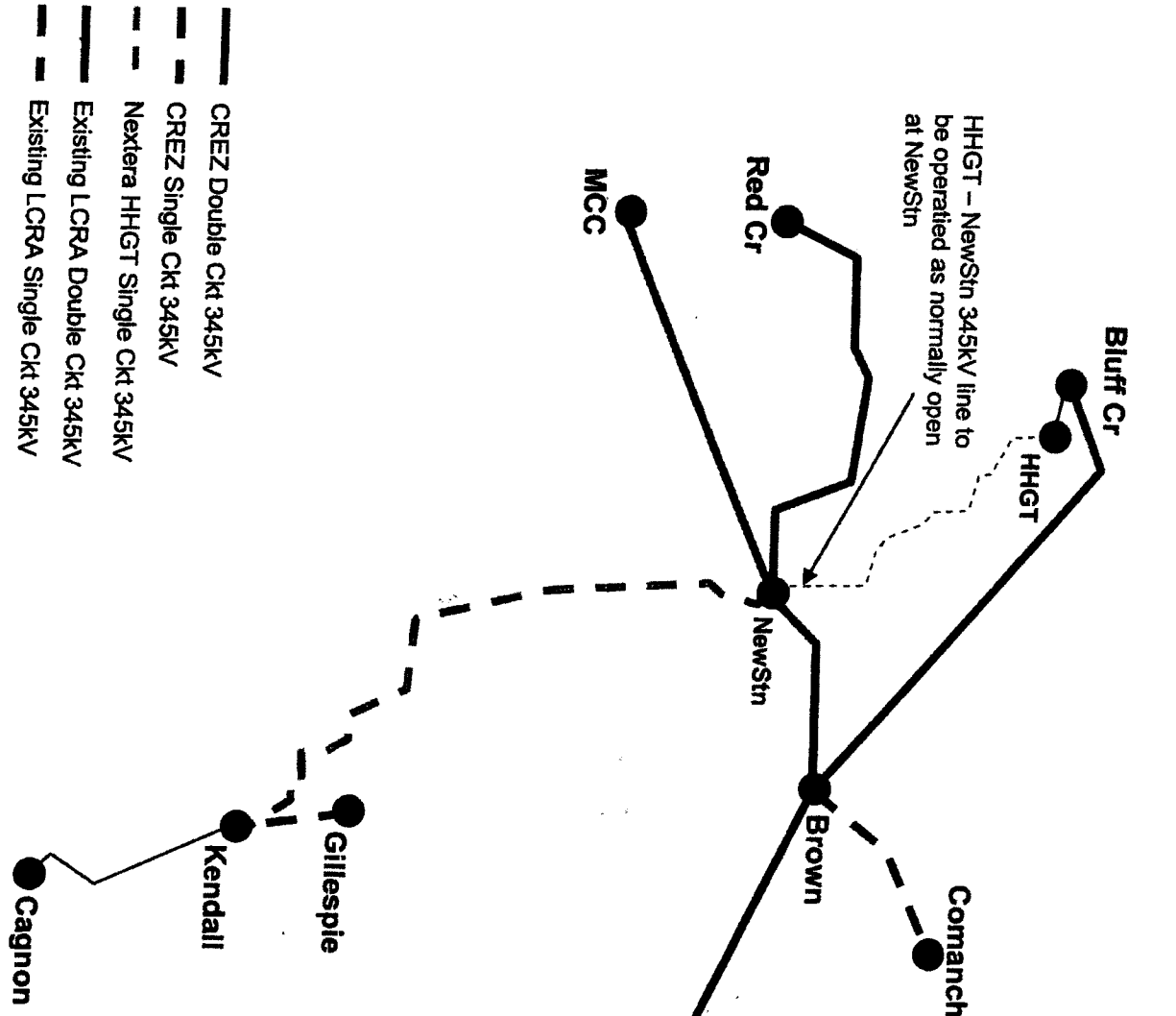
Comanche
Newton
Gillespie
Kendall
Cagnon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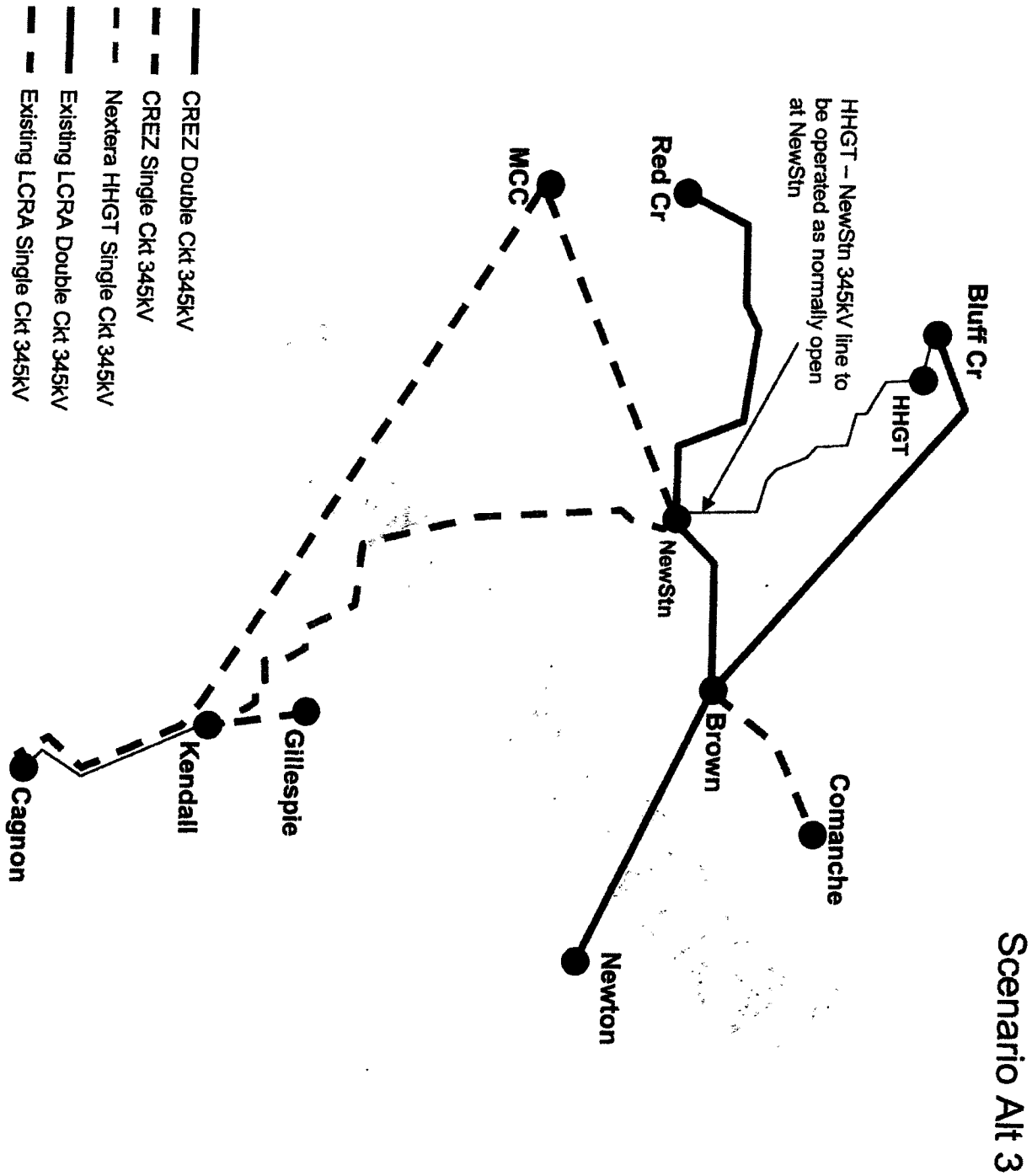
HHGT
HHGT – NewStn 345kV line to be operatied as normally open at NewStn
Red Cr
MCC
NewStn
Brown
Comanche
Newton
Gillespie
Kendall
Cagnon
CREZ Double Ckt 345kV
CREZ Single Ckt 345kV
Nextera HHGT Single Ckt 345kV
Existing LCRA Double Ckt 345kV
Existing LCRA Single Ckt 345kV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CREZ Single Ckt 345kV
Nextera HHGT Single Ckt 345kV
Existing LCRA Double Ckt 345kV
Existing LCRA Single Ckt 345kV
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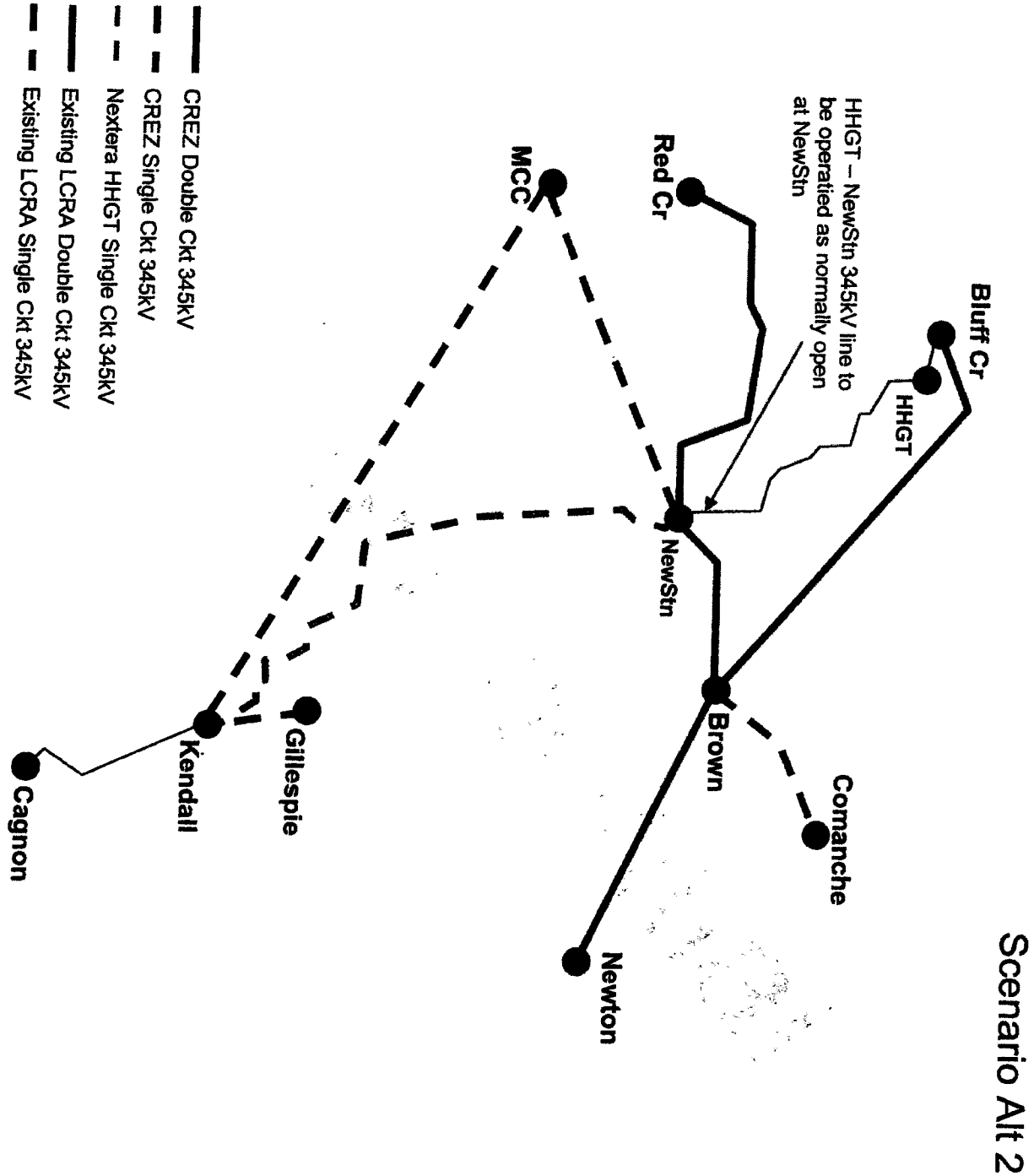
HHGT
Red Cr
MCC
NewStn
Brown
Comanche
Newton
Gillespie
Kendall
Cagnon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HHGT – NewStn 345kV line to be operatied as normally open at NewStn
Bluff Cr
HHGT
Red Cr
MCC
NewStn
Brown
Comanche
Newton
Gillespie
Kendall
Cagnon
CREZ Double Ckt 345kV
CREZ Single Ckt 345kV
Nextera HHGT Single Ckt 345kV
Existing LCRA Double Ckt 345kV
Existing LCRA Single Ckt 345kV

Elizabeth Ray

From: Sergio Garza
Sent: Wednesday, June 30, 2010 7:58 PM
To: Ross Phillips; Stuart Nelson
Subject: Fwd: More Study Alternatives
Attachments: LCRA-HHGT Presentation3.ppt; ATT00001.htm; Case Comparisons_r3.xls; ATT00002.htm

Please call me in the AM at my cell ([redacted]) re: this email from FPL.

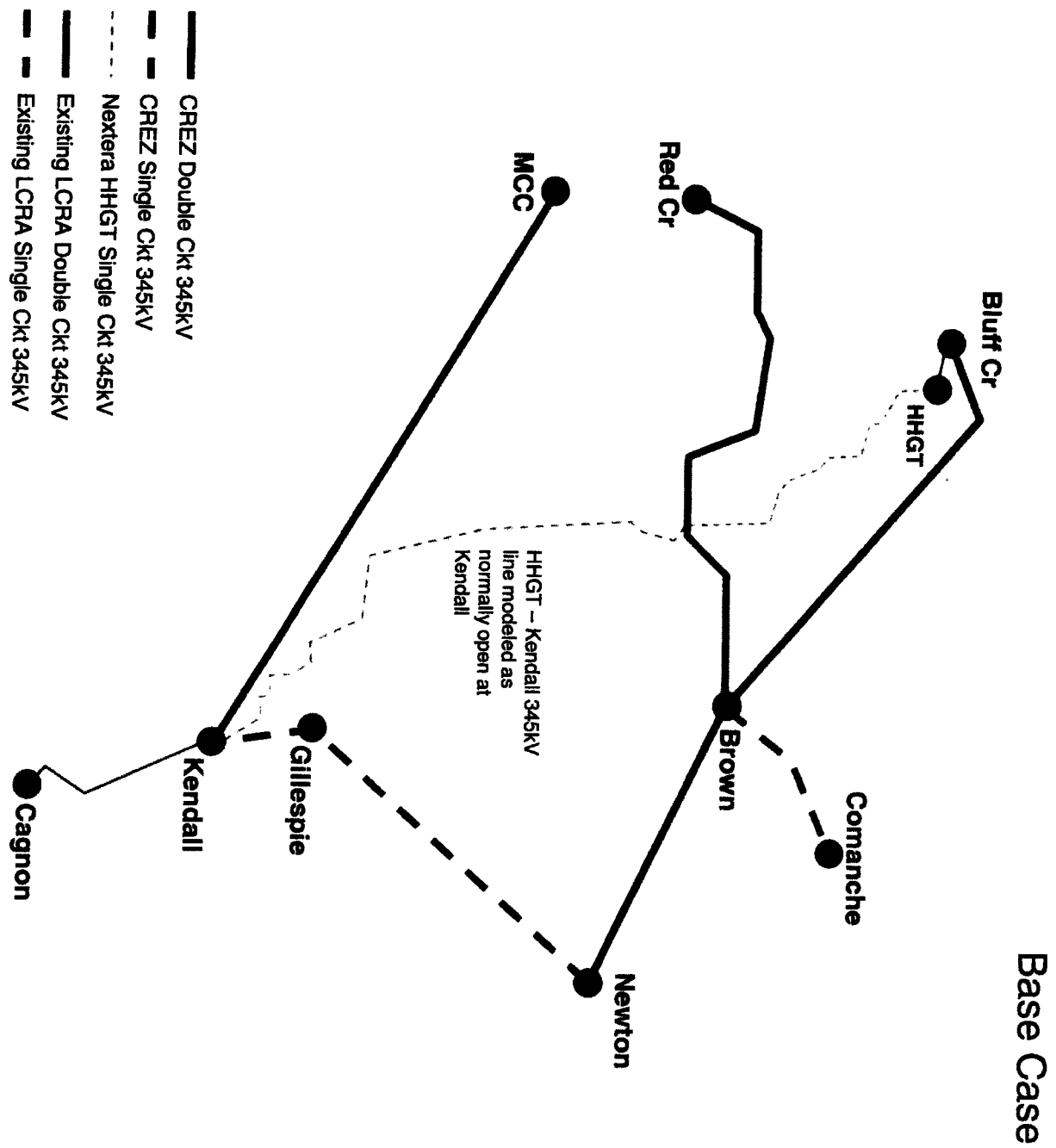
[redacted] and don't know if I can make office tomorrow

Sent from my smartphone, please excuse the brevity and forgive typos.

Sergio Garza

Begin forwarded message:

> **From:** "Gaudi, Madan" <Madan.Gaudi@nexteraenergy.com>
> **To:** "Sergio Garza" <Sergio.Garza@LCRA.ORG>
> **Cc:** "WYBIERALA, PETER" <PETER.WYBIERALA@nexteraenergy.com>, "Nair, Sunil" <snair@rwbeck.com>
> **Subject: More Study Alternatives**
>
> Hi Sergio,
>
> Here is a description of all the alternatives that we have studied or are currently studying. The results of Scenario 4 and 5 should be concluded in a day or so and will be sent to you.
>
> As you and Peter discussed, the production cost studies were done for N-1 contingencies as identified by R. W. Beck from the operational point of view.
>
> Madan Gaudi
> Transmission Manager,
> FEJ/JB, NEXTera Energy Resources (Formerly, FPL Energy)
> 700 Universe Blvd., Juno Beach, FL 33408
> Desk: 561 694-4133 Cell: [redacted]


Base Case
Bluff Cr
HHGT
Red Cr
MCC
Brown
Comanche
Newton
Gillespie
Kendall
Cagnon
HHGT – Kendall 345kV line modeled as normally open at Kendall
CREZ Double Ckt 345kV
CREZ Single Ckt 345kV
Nextera HHGT Single Ckt 345kV
Existing LCRA Double Ckt 345kV
Existing LCRA Single Ckt 345kV