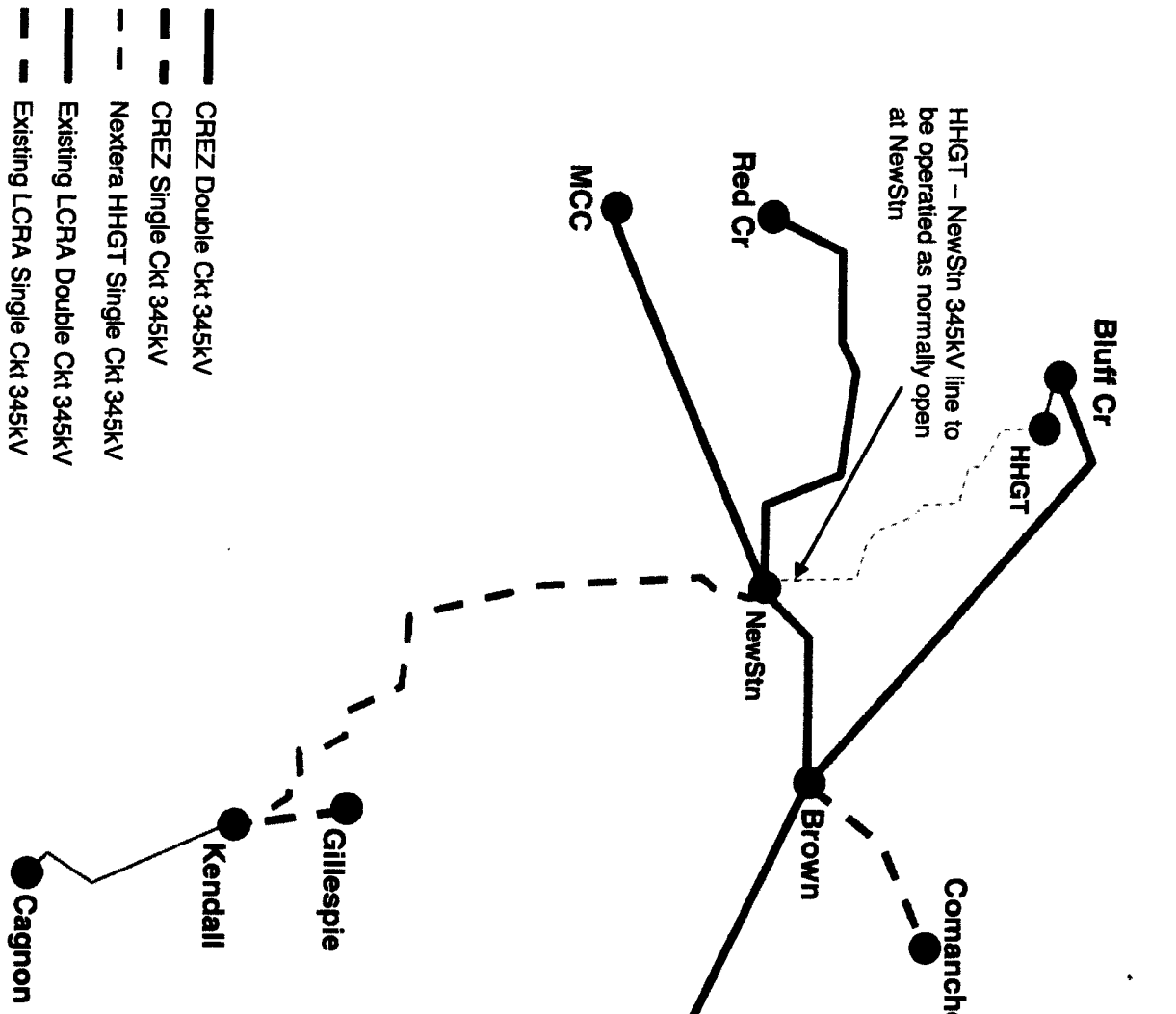
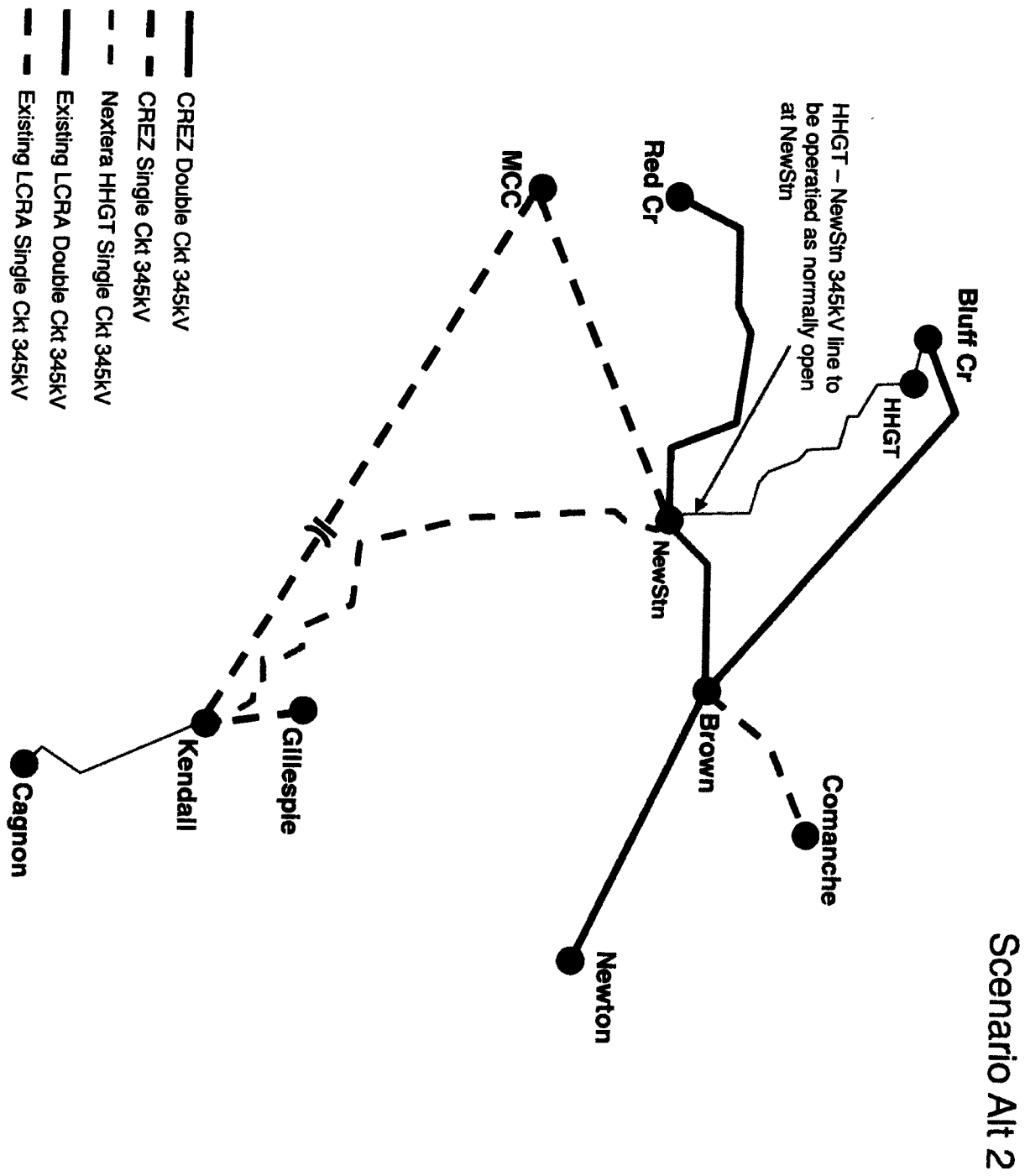
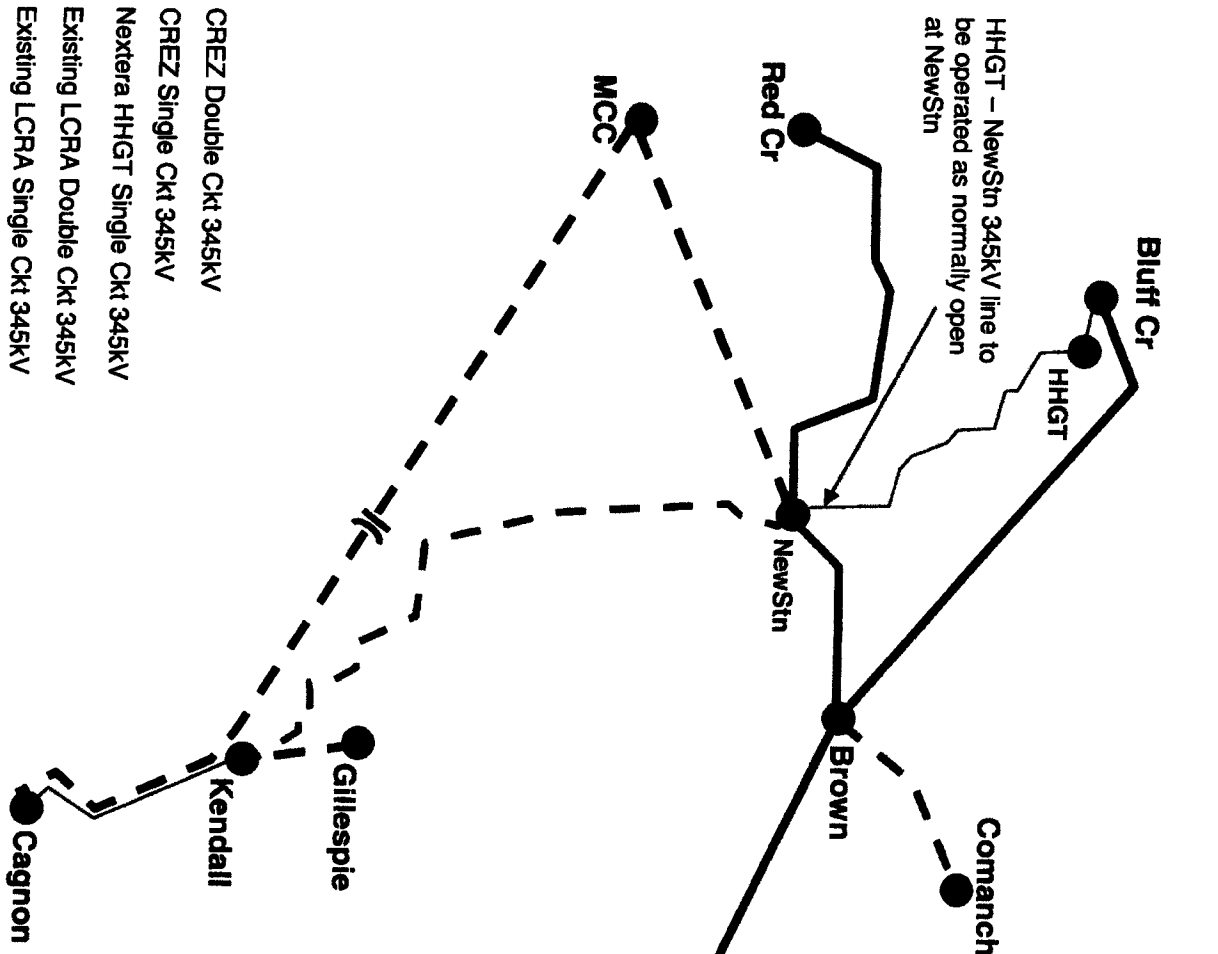
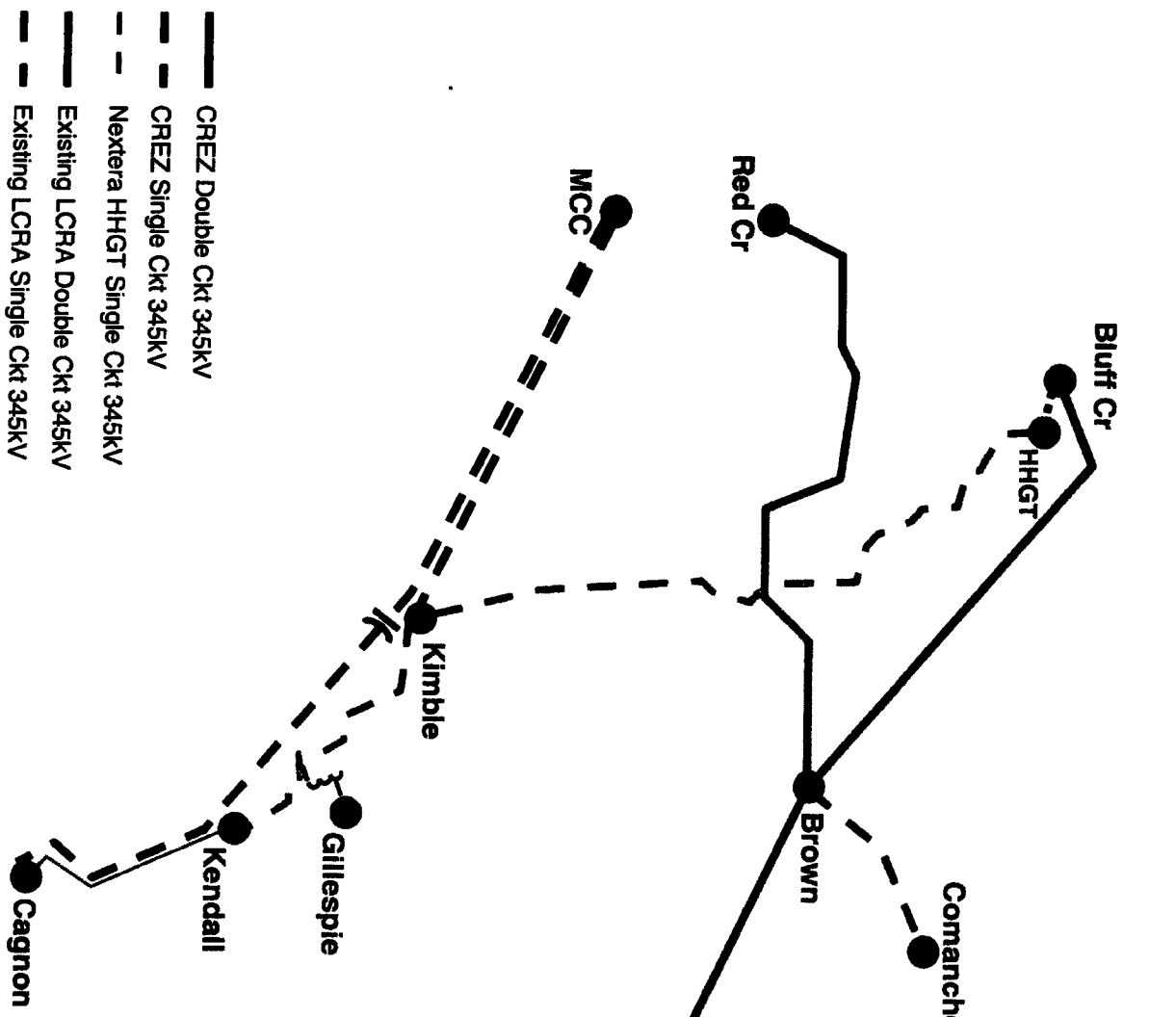
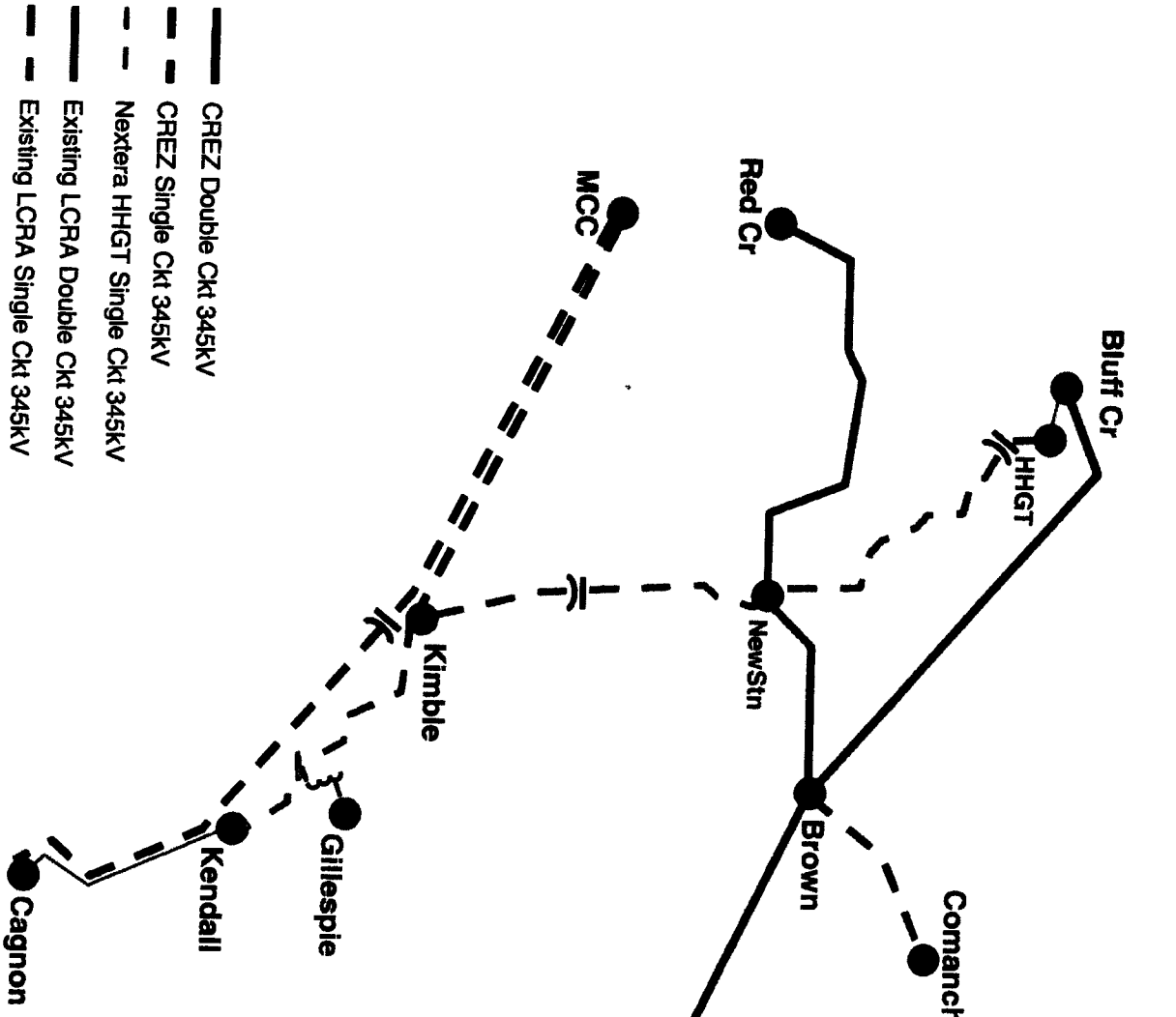

Scenario 17 (Alt 1)
Bluff Cr
HHGT
HHGT – NewStn 345kV line to be operatied as normally open at NewStn
Red Cr
MCC
NewStn
Brown
Comanche
Newton
Gillespie
Kendall
Cagnon
CREZ Double Ckt 345kV
CREZ Single Ckt 345kV
Nextera HHGT Single Ckt 345kV
Existing LCRA Double Ckt 345kV
Existing LCRA Single Ckt 345kV


Scenario Alt 2
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


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


Scenario Alt 4
Bluff Cr
HHGT
Red Cr
MCC
Kimble
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


Scenario Alt 5
CREZ Double Ckt 345kV
CREZ Single Ckt 345kV
Nextera HHGT Single Ckt 345kV
Existing LCRA Double Ckt 345kV
Existing LCRA Single Ckt 345kV
Bluff Cr
HHGT
Red Cr
MCC
NewStn
Kimble
Brown
Comanche
Newton
Gillespie
Kendall
Cagnon

CONFIDENTIAL

Comparison of Alternatives

Case	Description	LMP Annual Average ($)	Production Cost (K$)	Generator Revenue (K$)	Wind Energy Curtailment (%)	Annual Energy Losses	Wind Energy Generated (GWH)	ERCOT Demand Energy (GWH)	Capital Cost	Annualized Cost ($MM) Difference (Total Divided by 7)	Annual Savings($MM) Based on LMP Difference	Remarks
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	0.71%	2.97%	68,929	343,100	536	-	-	None
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. HHGT series compensated at 35%.	60.31	19,878,107	20,364,457	1.48%	3.03%	68,398	343,100	212 + HHGT Cost	TBD	-3	No need to build Newton - Gillespie. McCamey - NewStn R-O-W need is about half the length of McCamey D - Kendall
Alternative 2	One of the McCamey - Kendall circuits taken to Kendall instead of NewStn. McCamey - Kendall series compensated for 50%.	59.47	19,823,297	20,061,150	0.75%	2.99%	68,903	343,100	379.5 + HHGT Cost	TBD	285	No need to build Newton - Gillespie. This alternative has the same capability as CREZ
Alternative 3	One of the McCamey - Kendall circuits taken to Cagnon instead of NewStn. McCamey - Cagnon series compensated for 50%.	58.16	19,730,728	19,697,352	0.33%	3.06%	69,191	343,100	402.5 + HHGT Cost	TBD	734	No need to build Newton - Gillespie. Use the #2 ckt spot on Kendall-Cagnon. This alternative provides large amount of savings.
Alternative 4	One of the McCamey - Kendall circuits taken to Kimble instead of NewStn. The other ckt goes to Cagnon w/ 50% series comp. An auto is added on the HHGT to feed the Wolf Cr/Gillespie area.	This alternative is being studied. The results are expected to be comparable to Alt 3.										No need to build Newton - Gillespie or Kendall - Gillespie. Use the #2 ckt spot on Kendall- Cagnon. This alternative provides large amount of savings.
Alternative 5	Enhance Alt 4 by connecting HHGT and other circuits at New Stn and adding 50% series compensation to top two sections of HHGT.	This alternative is also being studied.										No need to build Newton - Gillespie or Kendall - Gillespie. Use the #2 ckt spot on Kendall- Cagnon. This alternative provides large amount of savings.

Elizabeth Ray

From: Sergio Garza
Sent: Friday, June 25, 2010 8:10 AM
To: 'Gaudi, Madan'
Subject: RE: Comparison of Alternatives

Madan

In your table, table what does "Annual Savings($MM) Based on LMP Difference" mean?

Sergio

From: Gaudi, Madan [mailto:Madan.Gaudi@nexteraenergy.com]
Sent: Wednesday, June 23, 2010 4:22 PM
To: Sergio Garza
Cc: WYBIERALA, PETER; Bagnall, Jan
Subject: Comparison of Alternatives

Hi Sergio,
Please review and look for improvements before sharing with Stuart Nelson or ERCOT.
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: Sergio Garza
Sent: Wednesday, June 23, 2010 6:16 PM
To: Gaudi, Madan
Subject: RE: Comparison of Alternatives

Madan-

I am out of the office and will return on Friday 6/25.

Sergio

From: Gaudi, Madan [Madan.Gaudi@nexteraenergy.com]
Sent: Wednesday, June 23, 2010 4:21 PM
To: Sergio Garza
Cc: WYBIERALA, PETER; Bagnall, Jan
Subject: Comparison of Alternatives

Hi Sergio,
Please review and look for improvements before sharing with Stuart Nelson or ERCOT.
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: Sergio Garza
Sent: Tuesday, June 22, 2010 3:24 PM
To: 'Woodfin, Dan'
Cc: Ross Phillips; Stuart Nelson
Subject: Response to request at RPG Meeting
Attachments: ATT94009.PDF

Importance: High

Dan,

Per your request at the June 11 RPG meeting regarding ideas for alternative projects to the Gillespie-Newton TL, please see LCRA TSC's response.

I will call you this week to see when we can meet to discuss further and go over associated details.

Thanks,
Sergio

Tracking:

Recipient	Delivery
'Woodfin, Dan'	
Ross Phillips	Delivered: 6/22/2010 3:24 PM
Stuart Nelson	Delivered: 6/22/2010 3:24 PM

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

Elizabeth Ray

From: Sergio Garza
Sent: Monday, June 21, 2010 12:51 PM
To: Stuart Nelson; Ross Phillips
Subject: FW: Summary of Options
Attachments: LCRA-HHGT Presentation2.pdf; Case Comparisons_r1.doc

fyi

From: Gaudi, Madan [mailto: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

Sergio,

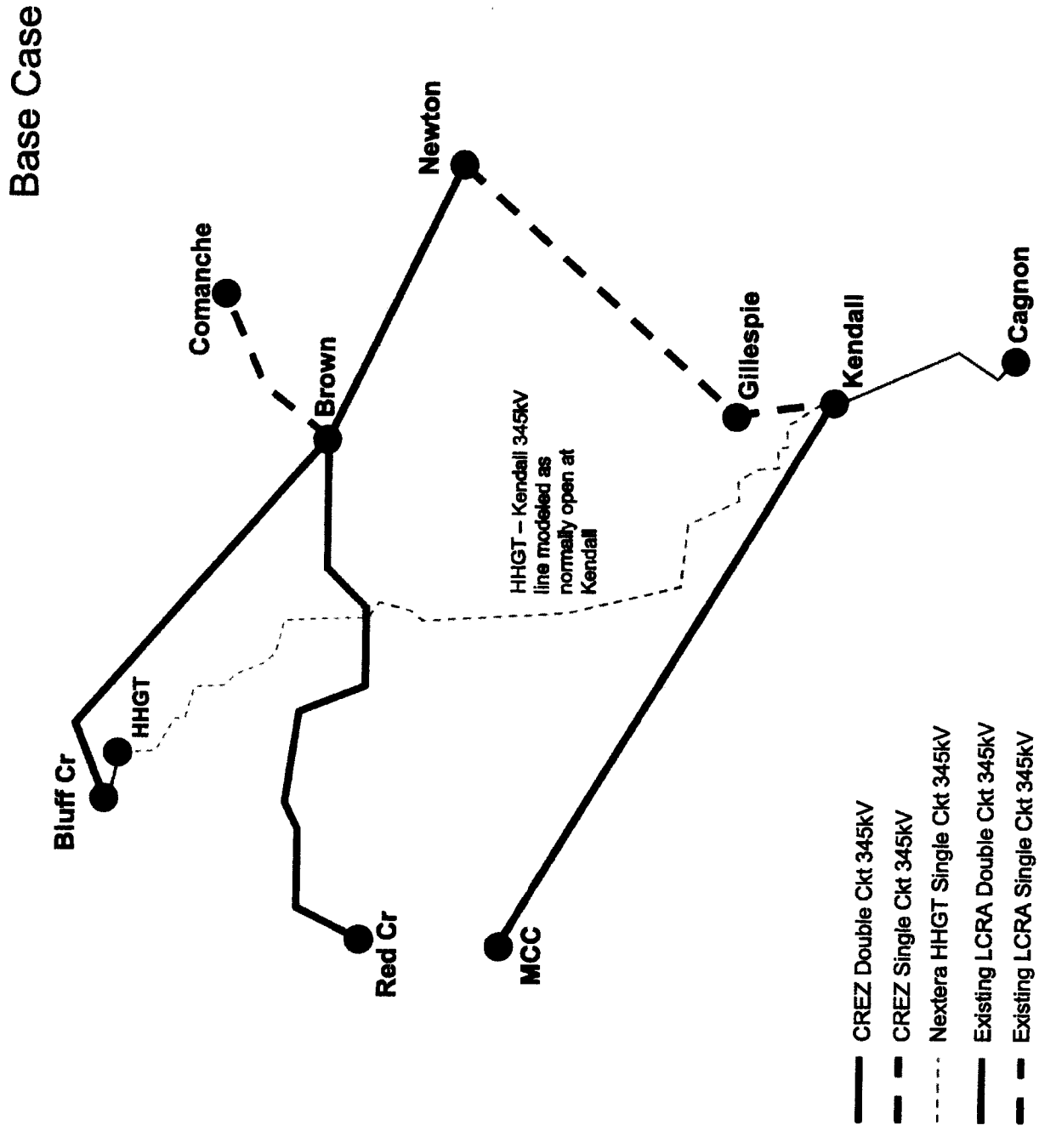
Here is a summary of the final results of various study cases and their comparisons. Attached also are the corresponding network diagrams on the West to South interface.

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.

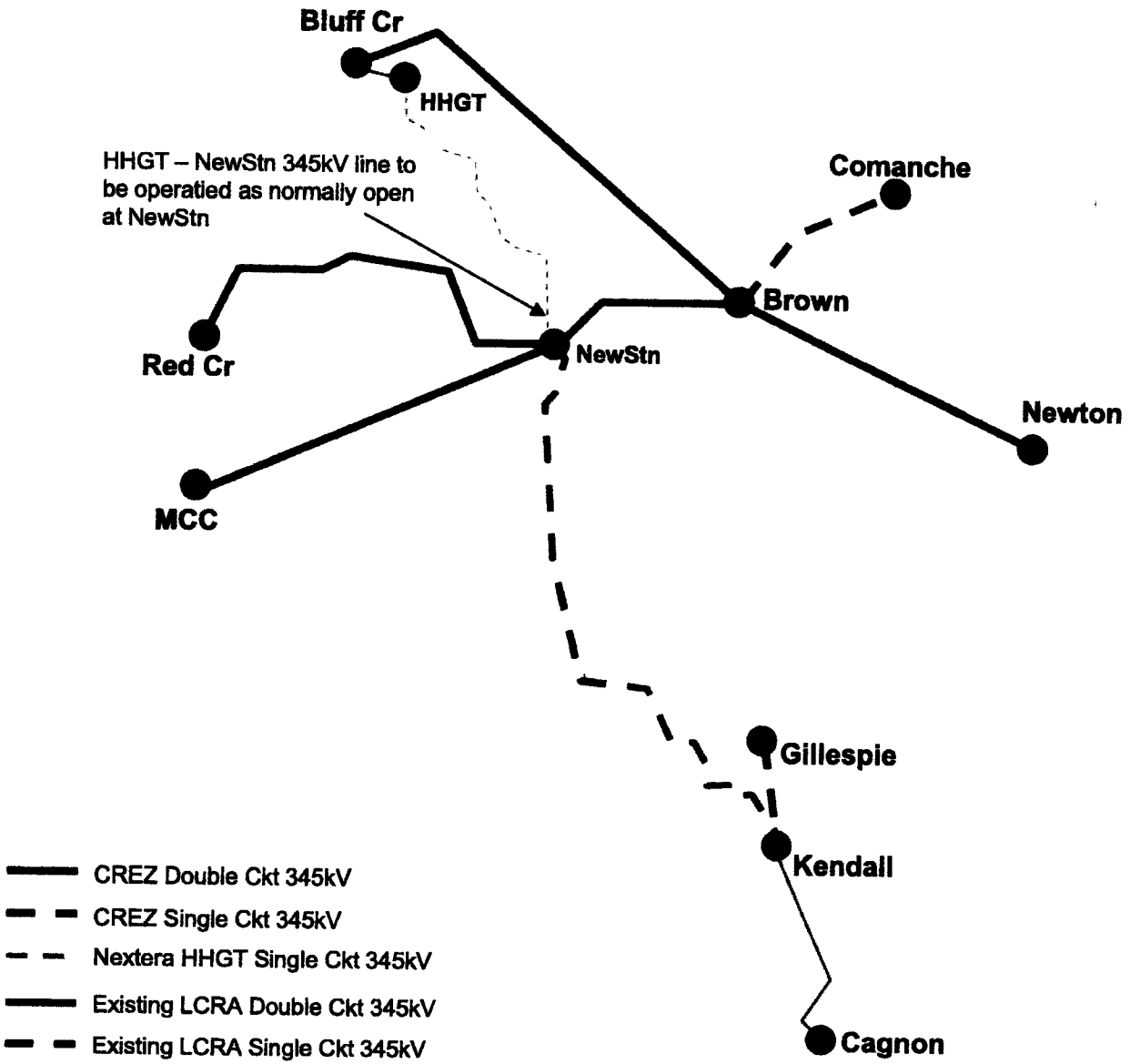
We are ready to share with you all the details of these studies. Please let me know if you are ready for that too.

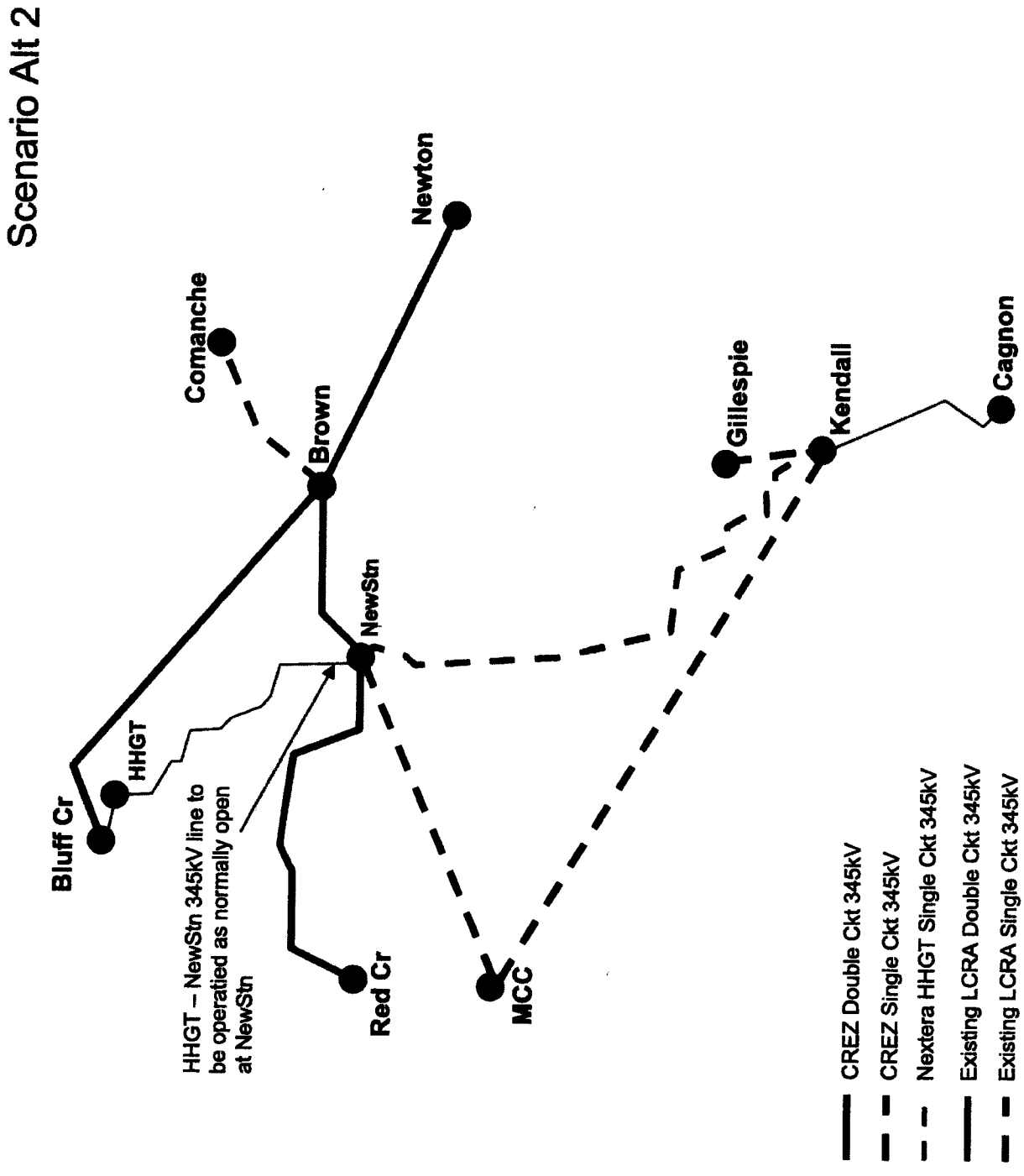
Thanks.

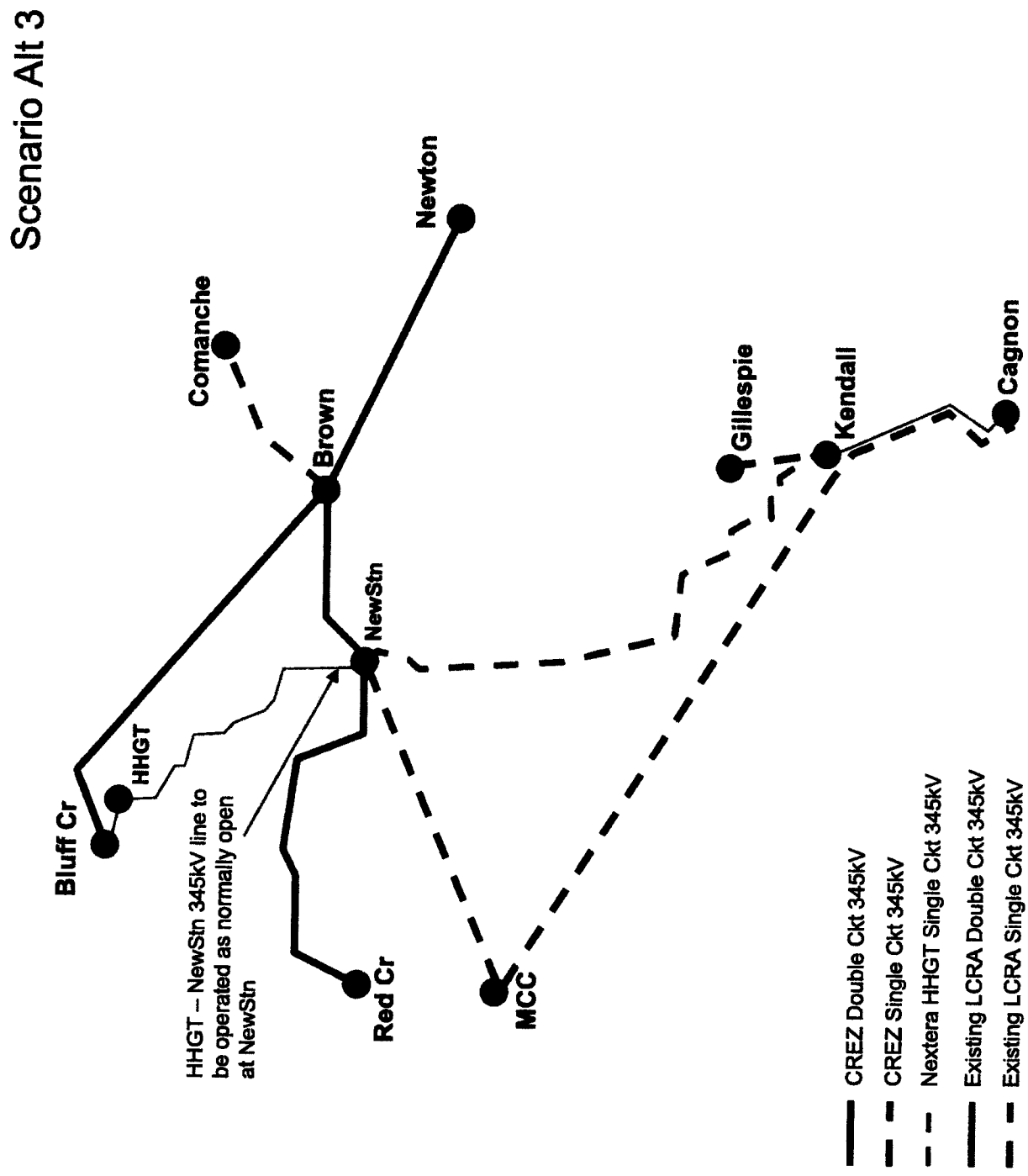
Madan Gaudi
Transmission Manager,
FEJ/JB, NEXTera Energy Resources (Formerly, FPL Energy)
700 Universe Blvd., Juno Beach, FL 33408
Desk: 561 694-4133 Cell: 561 301-3004


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
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


Scenario Alt 3
Bluff Cr
HHGT
HHGT – NewStn 345kV line to be operated as normally open at NewStn
Red Cr
Comanche
Brown
Newton
NewStn
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

Elizabeth Ray

From: Sergio Garza
Sent: Monday, June 21, 2010 12:32 PM
To: 'Gaudi, Madan'
Cc: 'WYBIERALA, PETER'; 'Bagnall, Jan'; 'Nair, Sunil'; Stuart Nelson
Subject: RE: Summary of Options

2 PM CST is ok with me.

From: Gaudi, Madan [mailto: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

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

Elizabeth Ray

From: Sergio Garza
Sent: Friday, June 18, 2010 1:59 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: Sergio Garza
Sent: Friday, June 18, 2010 7:59 AM
To: 'Gaudi, Madan'
Cc: 'WYBIERALA, PETER'
Subject: RE: Summary of Options

I am not available at nine. Let's do the late PM call.

From: Gaudi, Madan [mailto: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: Sergio Garza
Sent: Friday, June 18, 2010 7:54 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: Sergio Garza
Sent: Friday, June 18, 2010 7:52 AM
To: Ross Phillips; Stuart Nelson
Subject: RE: CREZ study

Importance: High
Sensitivity: Confidential

Ross-

This is to update you on continuing reviews associated with the CREZ study discussed below. After meeting with the transmission line owner on June 11, and input from LCRA transmission line design engineers, pending data validation later, the line's rating of 1200 MVA is no longer a concern from a planning perspective. The transmission line owner also clarified my initial modeling concerns associated with the configuration that was studied and this too is no longer a concern.

Regarding, the limit associated with the Killeen-Salado area, this can be mitigated in several ways.

Beyond this preliminary internal assessment, ERCOT should further evaluate this as a potential alternative.

Sergio

-----Original Message-----
From: Sergio Garza
Sent: Thursday, June 03, 2010 11:01 PM
To: Ross Phillips; Stuart Nelson
Subject: CREZ study
Importance: High
Sensitivity: Confidential

Following up on conversation from Tuesday:

Comparing the approved ERCOT Scenario 2 CTP and the change we discussed (that I will call in this note "Scenario 17"), it appears that in the Scenario 17 configuration, the line from the New 345 kV Station to Kendall with a rating of slightly over 1200 MW becomes the immediate limit. This is not an ideal planning solution -putting something in place that is a bottleneck from day one! If you would recall, in its CTO study and in its 2006 study, ERCOT stated that a path that extended from the west to the southeast was key to the success of CREZ.

Also, not to my surprise, the configuration in Scenario 17 tends to push less power south towards Kendall and more along the Brown-Killen-Salado path and creates and overload of the Killen-Salado 345 kV TL as well. Also, not an ideal planning solution for similar reason as before.

Please note that we ran very simple steady state load flow tests and did not consider any of the economic merit of Scenario 17 (we do not have these tools). Also, I focused on the performance of the 345 kV network only. However, one thing to note is that ERCOT placed significant value on the fact that the Scenario 2 CTP would be easily expandable to a larger wind generation scenario in the future. It was a "selling point" for the Scenario 2 CTP in my

opinion. It is clear to me that Scenario 17 does not offer that expandability for larger build out of wind generation without significant new TL construction.

I would not support placing at risk progress on the approved CTP for studying the merits of Scenario 17.

Please call me if you have any questions.

Sergio

Elizabeth Ray

From: Sergio Garza
Sent: Tuesday, June 15, 2010 3:49 PM
To: 'Gaudi, Madan'
Cc: 'WYBIERALA, PETER'
Subject: RE: ERCOT SCED CREZ Capacity Update

Madan-

Sorry in getting back with until now. I have been on meetings.

We talked about the scope of the study(ies) already. I have nothing to add at this time. I leave it up to you to ensure that the consultant models per our discussion.

Sergio

From: Gaudi, Madan [mailto: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

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

Elizabeth Ray

From: Sergio Garza
Sent: Monday, June 14, 2010 12:02 PM
To: 'Gaudi, Madan'
Cc: 'WYBIERALA, PETER'
Subject: RE: Can we talk on the phone today?

I am available now until 1:30 PM – I have a meeting that runs from 1:30 to 5

From: Gaudi, Madan [mailto: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: Sergio Garza
Sent: Sunday, June 13, 2010 7:30 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.

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

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?

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

Subject: Meeting this Friday with LCRA
Location: CR_BTC_A127

Start: Fri 6/11/2010 7:30 AM
End: Fri 6/11/2010 8:30 AM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Organizer: Sergio Garza
Required Attendees: WYBIERALA, PETER; Gaudi, Madan

Peter-

My address is:
6800 Burleson Road
Bldg B-310
Austin, Texas 78744

Elizabeth Ray

From: Sergio Garza
Sent: Thursday, June 03, 2010 11:01 PM
To: Ross Phillips; Stuart Nelson
Subject: CREZ study

Importance: High
Sensitivity: Confidential

Following up on conversation from Tuesday:

Comparing the approved ERCOT Scenario 2 CTP and the change we discussed (that I will call in this note "Scenario 17"), it appears that in the Scenario 17 configuration, the line from the New 345 kV Station to Kendall with a rating of slightly over 1200 MW becomes the immediate limit. This is not an ideal planning solution -putting something in place that is a bottleneck from day one! If you would recall, in its CTO study and in its 2006 study, ERCOT stated that a path that extended from the west to the southeast was key to the success of CREZ.

Also, not to my surprise, the configuration in Scenario 17 tends to push less power south towards Kendall and more along the Brown-Killen-Salado path and creates and overload of the Killen-Salado 345 kV TL as well. Also, not an ideal planning solution for similar reason as before.

Please note that we ran very simple steady state load flow tests and did not consider any of the economic merit of Scenario 17 (we do not have these tools). Also, I focused on the performance of the 345 kV network only. However, one thing to note is that ERCOT placed significant value on the fact that the Scenario 2 CTP would be easily expandable to a larger wind generation scenario in the future. It was a "selling point" for the Scenario 2 CTP in my opinion. It is clear to me that Scenario 17 does not offer that expandability for larger build out of wind generation without significant new TL construction.

I would not support placing at risk progress on the approved CTP for studying the merits of Scenario 17.

Please call me if you have any questions.

Sergio

Elizabeth Ray

From: Sergio Garza
Sent: Tuesday, June 01, 2010 8:28 AM
To: 'Woodfin, Dan'
Subject: RE: Nextera Line on Map

Dan-

I have been told that the NextEra line map data we have was acquired from FPL via a confidentially agreement for our CCN work. I will not be able to release this data to ERCOT.

Sergio

From: Woodfin, Dan [mailto:dwoodfin@ercot.com]
Sent: Friday, May 28, 2010 5:00 PM
To: Sergio Garza
Subject: Nextera Line on Map

Our drafting guy had put the Nextera line on the ERCOT map, but I'm pretty sure he hasn't situated it correctly. Did they provide a map as a part of their interconnection study which shows it from a geographic perspective? Is it in an electronic format that you can send? I don't want it to be any more geographically accurate than the other lines on our map, but I also don't want to just show it as a straight line.

Elizabeth Ray

From: Sergio Garza
Sent: Friday, May 28, 2010 6:52 PM
To: Woodfin, Dan
Subject: RE: Nextera Line on Map

Dan-

Yes, we have something fairly accurate that I can send you on Tuesday when I get back to the office. Let me know if you need this before Tuesday and I can find someone to get it to you.

Sergio

From: Woodfin, Dan [dwoodfin@ercot.com]
Sent: Friday, May 28, 2010 5:00 PM
To: Sergio Garza
Subject: Nextera Line on Map

Our drafting guy had put the Nextera line on the ERCOT map, but I'm pretty sure he hasn't situated it correctly. Did they provide a map as a part of their interconnection study which shows it from a geographic perspective? Is it in an electronic format that you can send? I don't want it to be any more geographically accurate than the other lines on our map, but I also don't want to just show it as a straight line.

Elizabeth Ray

From: Stuart Nelson
Sent: Tuesday, June 22, 2010 8:54 AM
To: Gaudi, Madan; Sergio Garza
Cc: WYBIERALA, PETER; Bagnall, Jan; Nair, Sunil
Subject: Confidential
Attachments: Letter_to_ERCOT_June 2010_R1.doc

Attached is a draft of the letter we plan to send to ERCOT by close of business today. Note: we will remove the confidential heading in the draft sent to ERCOT. Please let us know if you have any comments before we send the document to ERCOT.

From: Gaudi, Madan [mailto: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

Confidential

June 22, 2010

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 a 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.

Confidential

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.

Confidential

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.

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

Elizabeth Ray

From: Stuart Nelson
Sent: Tuesday, June 08, 2010 11:36 AM
To: Sergio Garza
Subject: FW: Contact info
Attachments: PETER WYBIERALA.vcf

Peter should be here in Austin this week. Nextera is bringing RW Beck into the review.

From: Hayden, Jolly [mailto:Jolly.Hayden@nexteraenergy.com]
Sent: Tuesday, June 08, 2010 11:33 AM
To: Stuart Nelson
Subject: Contact info

Stuart,

Per my vm. Call to discuss

PETER WYBIERALA
FPL Energy, LLC
Transmission Business Director FPLE
FPLE BM - Transmission

(561) 304-5356 Work
PETER.WYBIERALA@nexteraenergy.com
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Juno Beach, FL 33408

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Vice President - Transmission Development
NextEra Energy Resources
20 Greenway Plaza, Suite 600
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Houston: 713-374-1517
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J. Jolly Hayden
President

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President

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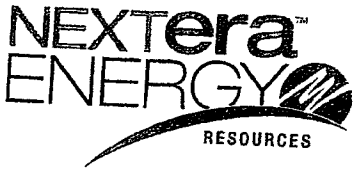
512.296 1833 mobile
512.236.0484 facsimile
Mike.Grable@Lonestar-Transmission com



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561.691.7744 facsimile
ed.tancer@ustransmissionholdings.com

Elizabeth Ray

From: Stuart Nelson
Sent: Tuesday, June 08, 2010 9:54 AM
To: Sergio Garza
Subject: FW: Contact for Stuart
Attachments: PETER WYBIERALA.vcf

Attached is the contact information for the individual that did the studies that we discussed.

-----Original Message-----
From: Tancer, Ed [mailto:ed.tancer@ustransmissionholdings.com]
Sent: Tuesday, June 08, 2010 8:47 AM
To: Stuart Nelson
Subject: Fw: Contact for Stuart

Stuart,

It was great to see you and Ross last week. Attached is the contact person for Sergio to talk with. Look forward to seeing you soon.

Best Regards,

Ed

----- Original Message -----
From: Hayden, Jolly
To: Tancer, Ed
Sent: Mon Jun 07 08:58:12 2010
Subject: Contact for Stuart

Pete is in Jan's grp and is over ERCOT. He will be in Austin later in week. Will have details later today.

On plane now heading your way.

J. Jolly Hayden
Vice President
NextEra Energy Resources
713.374.1517

Elizabeth Ray

Full Name: PETER WYBIERALA
Last Name: WYBIERALA
First Name: PETER
Job Title: Transmission Business Director FPLE
Company: FPL Energy, LLC

Business Address: Juno Beach Office
700 Universe Blvd FEB/JB
Juno Beach, FL 33408

Business: (561) 304-5356

E-mail: PETER.WYBIERALA@nexteraenergy.com
E-mail Display As: PETER WYBIERALA (PETER.WYBIERALA@nexteraenergy.com)

Elizabeth Ray

From: Wayne Hicks
Sent: Monday, June 21, 2010 2:19 PM
To: Sergio Garza
Subject: ERCOT Letter
Attachments: Response to ERCOT request June 2010 (2).docx

Sergio – My edits are in red.

Wayne Hicks, P.E.
Substation Engineering Supervisor
512-369-4588

June 22, 2010

Warren:

This information is in response to a conference call discussion we had on June 15 regarding alternatives to the Kendall-Gillespie-Newton project per the PUC request. ERCOT staff asked for the feasibility of the following alternatives:

1. Kendall-Trading Post-Lytton with new auto at Trading Post;
2. Kendall-Leander-Hutto with new auto at Leander;
3. Replace one Big Hill-Kendall line with one Big Hill-not Kendall-Cagnon line; and,
4. Kendall-Trading Post-Newton with new auto at Trading Post

For this review, we assumed that ERCOT is considering single circuit-double circuit capable transmission lines. After a preliminary review on the feasibility of connecting CREZ-related 345 kV transmission lines to the Central Texas area, we have the following feedback to your request:

1. Kendall-Trading Post-Lytton with new auto at Trading Post

It appears that a 345-kV transmission line between the existing Kendall- Trading Post- Lytton Springs 345 kV stations is feasible. However, since the south part of Austin lies in its path, a straight line assumption between the Trading Post and Lytton Springs stations is not realistic. We recommend that you use an approximate length of ___ miles for this connection. This line length will provide flexibility for transmission line routing options.

Regarding substation feasibility, although the immediate area out of the 345 KV Kendall station is congested, there is adequate space at the existing Kendall station to accommodate an additional 345 kV transmission line termination. The Trading Post station is owned by Austin Energy. LCRA TSC has no information regarding the amount of land at Trading Post that Austin Energy has available for expansion. Trading Post is located in close proximity to a growing high-end subdivision and a newly developed golf course. Additional land in the vicinity of Trading Post may be difficult to obtain. The Lytton Springs station is jointly owned by Austin Energy and LCRA TSC. Lytton Springs has adequate space to accommodate the termination of two additional 345 kV circuits.

2. Kendall-Leander-Hutto with new auto at Leander

Regarding substation feasibility Kendall has adequate space. The existing Leander Station does not have adequate land for a 345-kV yard, but it could be expanded. Leander Station is owned by Pedernales Electric Cooperative (PEC) and is located in a rapidly developing area near a new freeway, so available land may not continue to be available for much longer. Andice Station, which is also owned by PEC, is located only about 10 miles north of Leander and offers better prospects for 345-kV station development. The Hutto Station is owned by Oncor. The station does have space for two additional line terminations, but Oncor should be contacted to verify the future plans for these vacant terminals.

3. Replace one Big Hill-Kendall line with one Big Hill-not Kendall-Cagnon line

The existing Kendall Station has adequate space to terminate an additional new circuit to CPS Cagnon. LCRA TSC has no information indicating whether there is adequate space at the Cagnon Station for additional 345-kV terminations.

4. Kendall-Trading Post-Newton with new auto at Trading Post

Regarding substation feasibility, although the immediate area out of the 345 KV Kendall station is congested, there is adequate space at the existing Kendall station to accommodate an additional 345 kV transmission line termination. The Trading Post station is owned by Austin Energy. LCRA TSC has no information regarding the amount of land at Trading Post that Austin Energy has available for expansion. Trading Post is located in close

proximity to a growing high-end subdivision and a newly developed golf course. Additional land in the vicinity of Trading Post may be difficult to obtain.

ERCOT also solicited other ideas to consider as alternative projects for the Gillespie-Newton 345 kV transmission line project.

Consideration to single circuit 345 kV transmission line construction may provide additional options. This general area includes existing lower voltage (138 kV) transmission lines whose existing rights-of-way may provide additional routing options if used as 345/138-kV transmission lines. Existing corridors that may be explored includes the LCRA TSC existing Kendall to Paleface 138 kV transmission line corridor.
In addition, not knowing if ERCOT considered these possible alternatives in great detail during the CTO Study development, LCRA TSC offers the suggestions below for ERCOT's consideration in addressing the Commission's request.

1) Upgrade (circuit impedance and capacity) and voltage conversion of existing 138 and 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) Construct a new 63-mile 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 at the 138 kV.

Lastly, we assume that ERCOT will utilize the same cost estimates as it did for the other system improvements identified in the April 2008 CTO Study dated April 2008.

Thanks for the opportunity to contribute to this effort and please let me know if you have any additional questions.

June 22, 2010

Warren:

This information is in response to a conference call discussion we had on June 15 regarding alternatives to the Kendall-Gillespie-Newton project per the PUC request. ERCOT staff asked for the feasibility of the following alternatives:

1. Kendall-Trading Post-Lytton with new auto at Trading Post;
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4. Kendall-Trading Post-Newton with new auto at Trading Post

For this review, we assumed that ERCOT is considering single circuit-double circuit capable transmission lines. After a preliminary review on the feasibility of connecting CREZ-related 345 kV transmission lines to the Central Texas area, we have the following feedback to your request:

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Regarding substation feasibility, although the immediate area out of the 345 KV Kendall station is congested, there is adequate space at the existing Kendall station to accommodate an additional 345 kV transmission line termination. The Trading Post station is owned by Austin Energy. LCRA TSC has no information regarding the amount of land at Trading Post that Austin Energy has available for expansion. Trading Post is located in close proximity to a growing high-end subdivision and a newly developed golf course. Additional land in the vicinity of Trading Post may be difficult to obtain. The Lytton Springs station is jointly owned by Austin Energy and LCRA TSC. Lytton Springs has adequate space to accommodate the termination of two additional 345 kV circuits.

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Lastly, we assume that ERCOT will utilize the same cost estimates as it did for the other system improvements identified in the April 2008 CTO Study dated April 2008.

Thanks for the opportunity to contribute to this effort and please let me know if you have any additional questions.

Elizabeth Ray

From: Woodfin, Dan [dwoodfin@ercot.com]
Sent: Friday, May 28, 2010 5:00 PM
To: Sergio Garza
Subject: Nextera Line on Map

Our drafting guy had put the Nextera line on the ERCOT map, but I'm pretty sure he hasn't situated it correctly. Did they provide a map as a part of their interconnection study which shows it from a geographic perspective? Is it in an electronic format that you can send? I don't want it to be any more geographically accurate than the other lines on our map, but I also don't want to just show it as a straight line.

1400
-1100

- Rockwood
Oct - Sept. 2008

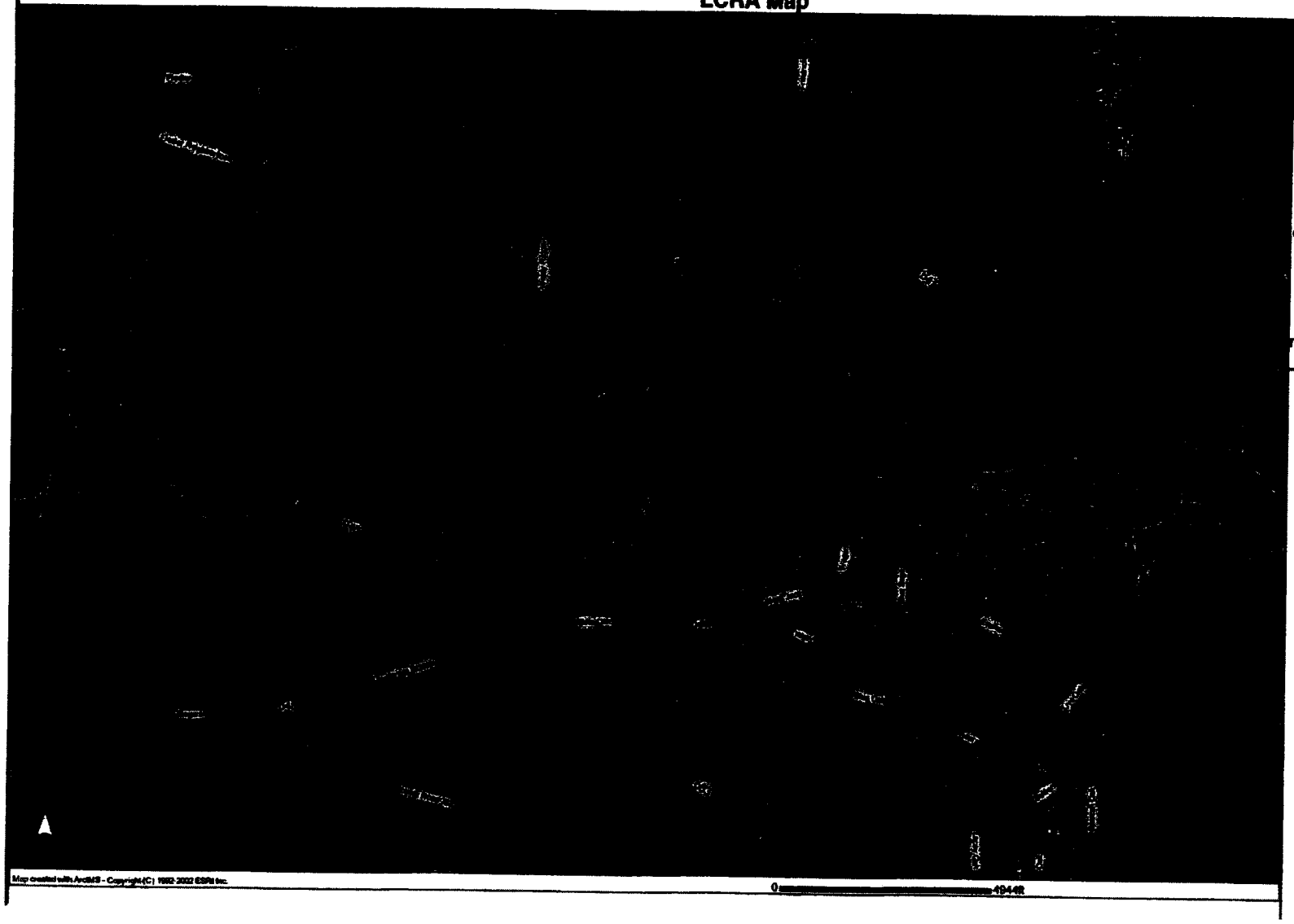
339648
5280
64 miles

3 2
1760
040
2 1760
3

60-90 miles

60 x 1.5 = 90 million
60 x 1.88 = 113 million
90 x = 169 million
90 x 1.5 = 135 million
15 million

LCRA Map



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