August 31, 2010

Alberta Utilities Commission
Attention: Don Popowich
Director of Facilities
Fifth Avenue Place
4th Floor, 425 - 1 Street SW
Calgary, AB T2P 3L8

Dear Mr. Popowich:

Re: Hanna Region Transmission System Development
Application No.: 1606434, Proceeding ID: 768

The Alberta Electric System Operator ("AESO") is writing to request that the Alberta Utilities Commission replace in its entirety the above-noted application submitted on August 4, 2010 with the enclosed revised submission.

As information, paragraphs 6 through 10 of the August 4 submission have been removed in the revised submission since issues involving expansion of the West Brooks 28S substation/approval of the Cassils 324S substation will be addressed in a separate application.

Please address all correspondence concerning this application to:

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Jennifer Hocking
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403-539-2578

Yours truly,

David Michaud

David Michaud
Manager, Regulatory Services

August 31, 2010

Alberta Utilities Commission
Attention: Don Popowich
Director of Facilities
Fifth Avenue Place
4th Floor, 425 - 1 Street SW
Calgary, AB T2P 3L8

Dear Mr. Popowich:

Re: Hanna Region Transmission System Development – Alberta Utilities Commission ("AUC") Approval No. U2010-135 ("Hanna NID Approval")
Application No.: 1606434, Proceeding ID: 768

1. The Alberta Electric System Operator ("AESO") is writing to request that the AUC approve specific amendments to the Hanna NID Approval, issued by the AUC on April 29, 2010, as more particularly described below.

Background

2. The Hanna NID Approval was issued by the AUC as Appendix E to Decision No. 2010-188, in which the AUC determined to approve the Hanna NID as well as the AESO's preferred option to address the identified need.

3. The Hanna NID Approval reflects a two-stage approach to the transmission development. Stage I specifies needs required for 2012 and Stage II specifies needs for 2017. Specific development activities are included in the Hanna NID Approval under each stage.

4. The AESO understands that the two transmission facility owners ("TFOs")[1] are expected to file their respective facility applications ("FAs") with the AUC concerning the Hanna Region Transmission System Development shortly.

Proposed Amendments and Rationale

5. The proposed amendments, and the rationale for each, are set out below.

[1] AltaLink Management Limited ("AltaLink") and ATCO Electric Limited ("ATCO").

Paragraphs 10 and 11 – Stage I – Hanna NID Approval

6. Two specific developments proposed for Stage I were the following:

> *"A 144-kV double circuit line with single side strung from Pemukan 932S substation to Monitor 774S substation."*[2]
>
> *"A 144-kV double circuit line with single side strung from Lanfine 959S substation to Oyen 767S substation."*[3]

7. As set out above, ATCO will be filing its FA shortly. In the course of preparing the FA, ATCO identified some concerns with respect to only having one side strung and has since recommended to the AESO that both sides of the double circuit line be strung (but only one side energized) for the following reasons.

- First, there are significant concerns about weight distribution on the structures should only one side be strung. The structures are only designed to accommodate severe weather events with both sides strung;
- Second, having both sides strung during the Stage I development (the second circuit would be energized at a later date as part of the Stage II development) minimizes impacts to local landowners as construction equipment will not have to cross their land a second time to string the second circuit in the future; and
- Lastly, there will be no need to mobilize construction resources to the same structures a second time during the Stage II development.

8. Accordingly, the AESO respectfully requests that the AUC approve the following specific amendment to the Hanna NID approval:

(a) *Delete* paragraphs 10 and 11 under **Stage I (Needs for 2012)**; and

(b) *Replace with:*

> *"A 144-kV double circuit line with both sides strung from Pemukan 932S substation to Monitor 774S substation."*
>
> *"A 144-kV double circuit line with both sides strung from Lanfine 959S substation to Oyen 767S substation."*

[2] Hanna NID Approval, April 29, 2010, page 2 of 3, Stage 1 (Needs for 2012), paragraph 10.

[3] Hanna NID Approval, April 29, 2010, page 2 of 3, Stage 1 (Needs for 2012), paragraph 11.

Paragraph 13 – Stage I – Hanna NID Approval

9. One of the specific developments proposed for Stage I was the following:

> *"A new 144 kV Cornish Lake 954S substation replacing the existing Rowley 768S substation and connecting in-and-out on the existing 144 kV line 7L25."*[4]

10. During the NID estimate phase, it was determined that there was not sufficient space to convert the existing Rowley substation to a 144 kV, or to connect in-and-out on the existing 144 kV line 7L25.

11. In the course of preparing its FA, which included a site visit by ATCO to the Rowley substation, ATCO determined that, in fact, there was sufficient space available to expand the Rowley 768S substation. As a result, construction of the 144 kV Cornish Lake 954S is no longer required.

12. As set out in the Hanna NID, the AESO conducted a comprehensive and varied Participant Involvement Program ("PIP") which included, among other things, public information sessions, local newspaper advertisements and postal code mail outs.[5] The AESO confirms that the PIP included the area surrounding the Rowley substation and therefore further consultation by the AESO is not required.

13. As part of the consultation undertaken by ATCO in relation to its FA, ATCO will be preparing and issuing consultation packages to the public which references the expansion of the Rowley substation. As such, the AESO does not believe that further consultation is required in respect of this proposed amendment as it relates to the need for transmission development in the Hanna Region.

14. Accordingly, the AESO respectfully requests that the AUC approve the following specific amendment to the Hanna NID approval:

    (a) *Delete* paragraph 13 under **Stage I (Needs for 2012)**; and

    (b) *Replace with:*

> *"Converting the existing 72 kV Rowley 768S to a 144 kV and in-and-out on 7L25."*

[4] Hanna NID Approval, April 29, 2010, page 2 of 3, Stage 1 (Needs for 2012), paragraph 13.

[5] See Page 60 of the Hanna NID for further detail.

Paragraph 14 – Stage I – Hanna NID Approval

15. One of the specific developments proposed for Stage I was the following:

> *"Converting the existing 72 kV Stettler 769S substation to a 144 kV and a new 144 kV line from Nevis 766S substation to Stettler 769S substation."*[6]

16. As set out in Table 8-1 of the Hanna NID, conversion of the existing Stettler 769S substation contemplated the use of a 25 MVA 144/25 kV load transformer and a 33.3 MVA 144/72 kV tie transformer.

17. Given that the larger size transformers would be more useful for meeting the long term load growth in the area than the smaller transformers originally contemplated, the AESO is of the view that the larger transformers should be utilized.

18. Accordingly, the AESO respectfully requests that the AUC approve the following specific amendment to the Hanna NID approval:

    (a) *Delete* paragraph 14 under **Stage I (Needs for 2012)**; and

    (b) *Replace with:*

> *"Converting the existing 72 kV Stettler 769S substation to a 144 kV substation, including a 144 72 kV – 40/50/66 MVA tie transformer and a new 144 kV line from Nevis 766S substation to Settler 769S substation."*

Paragraph 16 – Stage I – Hanna NID Approval

19. One of the specific developments proposed for Stage I was the following:

> *"One new 27-MVAR, 138 kV capacitor bank at Hardisty 377S substation; Two new 30-MVAR, 144 kV capacitor banks at Pemukan 932S substation; Two new 30 MVAR, 144 kV capacitor banks at Lanfine 959S substation; Two new 10 MVAR, 144 kV capacitor banks at Three Hills 770S substation; Two new 10 MVAR/5-MVAR, 144 kV capacitor banks at Stettler 769S substation; One new 5 MVAR, 72 kV capacitor bank at Youngstown 772S substation; One new 10 MVAR, 72 kV capacitor bank at Battle river 757S substation."*[7]

20. In the Hanna NID application filed by the AESO with the AUC, the capacitor bank sizes were incorrectly described for the Three Hills 770S substation and the Stettler 769S substation in the text of the Hanna NID application and in Appendix "G".

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[6] Hanna NID Approval, April 29, 2010, page 2 of 3, Stage 1 (Needs for 2012), paragraph 14.

[7] Hanna NID Approval, April 29, 2010, page 2 of 3, Stage 1 (Needs for 2012), paragraph 16.

21. With respect to the Three Hills 770S substation, the incorrect references can be found at Page 67, Item I-17, Table 8-1 and on the single line diagram on Page 55 of Appendix "G".

22. With respect to the Stettler 769S substation, the incorrect references can be found at Page 67, Item I-16, Table 8-1 and on the single line diagram on Page 54 of Appendix "G".

23. It bears noting that system performance will be unaffected by these proposed minor changes.

24. Accordingly, the AESO respectfully requests that the AUC approve the following specific amendment to the Hanna NID approval:

    (a) *Delete:* paragraph 16 under **Stage I (Needs for 2012)**; and

    (b) *Replace with:*

    "One new 27-MVAR, 138 kV capacitor bank at Hardisty 377S substation; Two new 30-MVAR, 144 kV capacitor banks at Pemukan 932S substation; Two new 30 MVAR, 144 kV capacitor banks at Lanfine 959S substation; ***One new 20*** *MVAR,* ***144*** *kV capacitor bank at Three Hills 770s substation;* ***One new 15*** *MVAR, 144 kV capacitor bank at Stettler 769S substation; One new 5 MVAR, 72 kV capacitor bank at Youngstown 772S substation; One new 10 MVAR, 72 kV capacitor bank at Battle river 757S substation."*

    (For ease of reference, changes have been highlited in bold.)

Paragraph 17 – Stage I – Hanna NID Approval

25. One of the specific developments proposed for Stage I was the following:

    "Three +/- 200 MVAR, 144kV Static V Ar compensators (SVC), each at Hansman Lake 650S substation, Pemukan 932S substation, and Lanfine 959S substation"[8]

26. In the Hanna NID, the AESO stated:

    "The sizes of the SVCs recommended in this application are adequate to maintain voltage under steady state and dynamic conditions. ***However, the final sizes will be determined through technical studies during the facility application stage."***[9] ***(emphasis added)***

[8] Hanna NID Approval, April 29, 2010, page 2 of 3, Stage 1 (Needs for 2012), paragraph 17.

[9] Hanna NID, section 5.1.3

27. In conjunction with the development by the TFOs of their FAs, the AESO has in fact updated the technical studies underlying the Hanna NID. This review has led the AESO to conclude that the size and configuration of the Original Stage I SVCs should be changed.

28. Specifically, the AESO has concluded that:

    (a) SVCs for Stage 1 are required at Hansman Lake 650S substation and Lanfine 959S substation, but *not* at Pemukan 932S substation;

    (b) the appropriate size for the two (2) Stage I SVCs at these locations is – 100/+200 MVAR; and

    (c) these SVCs should be installed on the 240 kV bus at both locations, and not on the 138 kV or 144 kV bus ("Revised Stage I SVCs").

29. The AESO provided the key parameters concerning the Revised Stage I SVCs for use by the TFOs in relation to their FAs. In addition, the AESO has carried out both load flow and transient stability analysis for Category A and B events, and is satisfied that the Revised Stage I SVCs will provide similar system performance and meet the identified need for transmission development for 2012 in the Hanna Region.

30. At the time that the Hanna NID was filed with the AUC, the AESO estimated that the cost of the Original Stage I SVCs would be approximately $69.1 million. The currently estimated cost of the Revised Stage I SVCs is approximately $68.6 million.

31. As to the configuration of the Revised State I SVCs, the AESO notes that they will be of a higher voltage than the Original Stage I SVCs, and will be within the existing Hansman Lake and Lanfine substations (although in different locations).

32. The AUC will appreciate that as part of the consultation undertaken by the TFOs in relation to their FAs, information will be provided in respect of the Hansman Lake and Lanfine substations, reflecting the Revised Stage I SVCs. As such, the AESO does not believe that further consultation is required in respect of the proposed amendment as it relates to the need for transmission development in the Hanna Region.

33. The Original Stage I SVC at Pemukan Substation is not required for the Stage I development. The AESO will consider whether it is required post – 2012, and if so, will seek such further amendment(s) to the Hanna NID Approval as may be necessary in relation to Stage II development (Needs for 2017)[10].

34. Accordingly, the AESO respectfully requests that the AUC approve the following specific amendment to the Hanna NID approval:

[10] The need for which was found to be "reasonably certain" and approved by the AUC in Decision No. 2010-188, and is as well reflected in the Hanna NID Approval.

(a) *Delete* paragraph 17 under **Stage I (Needs for 2012)**; and

(b) *Replace with:*

"Two –100/+200 MVAR, 244kV Static VAR compensators (SVC), each at Hansman Lake 650S substation and Lanfine 959S substation."

Appendix G – Hanna NID Approval

35. As part of the filing of the Hanna NID with the AUC, several single line diagrams were included in Appendix "G" illustrating the proposed configuration of numerous lines included in the proposed development for Stage I.

36. As a result of the development of ATCO's FA, the engineering and design of these lines has progressed and requires an update.

37. Accordingly, the AESO respectfully requests that the AUC approve the following specific amendment to the Hanna NID approval:

(a) *Delete* the following single line diagrams contained in Appendix "G" of the Hanna NID for **Stage I (Needs for 2012)**:

812-SLD-932S
812-SLD-946S
812-SLD-959S
812-SLD-801S
812-SLD-948S
812-SLD-802S
812-SLD-774S
812-SLD-766S
812-SLD-768S
812-SLD-769S
812-SLD-770S
812-SLD-757S
812-SLD-963S
812-SLD-910S
812-SLD-767S
812-SLD-892S
812-SLD-771S
812-SLD-772S; and

(b) *Replace with:*

The single line diagrams attached to this document as "Appendix "A".

Please address all correspondence concerning this application to:

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Jennifer Hocking
Regulatory Legal Counsel
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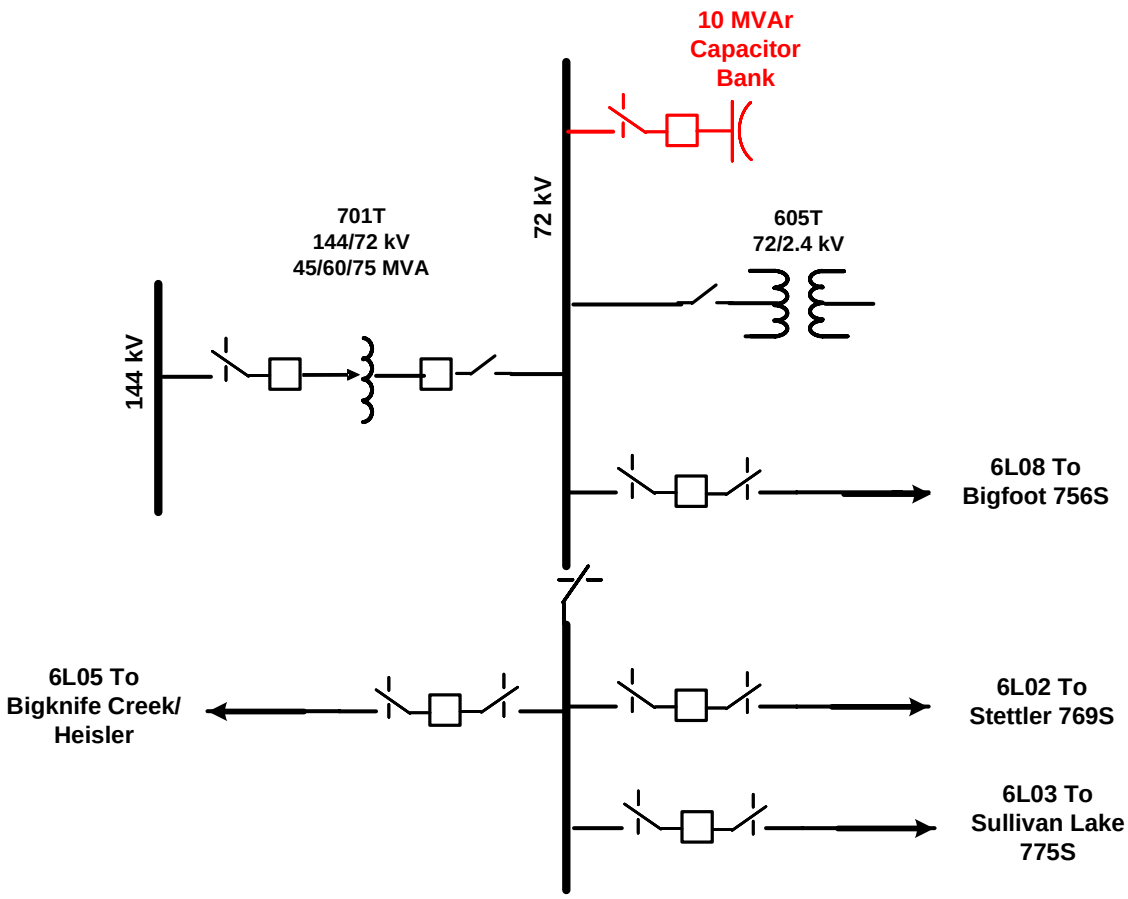
Yours very truly,

Doyle Sullivan, P.Eng.
Director, Regulatory Services

Appendix “A”

The single line diagrams attached to this document are as follows:

812-SLD-757S
812-SLD-766S
812-SLD-767S
812-SLD-768S
812-SLD-769S
812-SLD-770S
812-SLD-771S
812-SLD-772S
812-SLD-774S
812-SLD-801S
812-SLD-802S
812-SLD-892S
812-SLD-910S
812-SLD-932S
812-SLD-946S
812-SLD-948S
812-SLD-959S
812-SLD-963S



Legend

- Circuit Breaker
- Ganged Air Switch (Manual Operation)
- Hookstick Operated 1ph. Disconnect Switch (Solid)
- Salvaged Equipment
- LTC transformer
- Relocated Equipment
- Proposed Additions / changes

Notes:

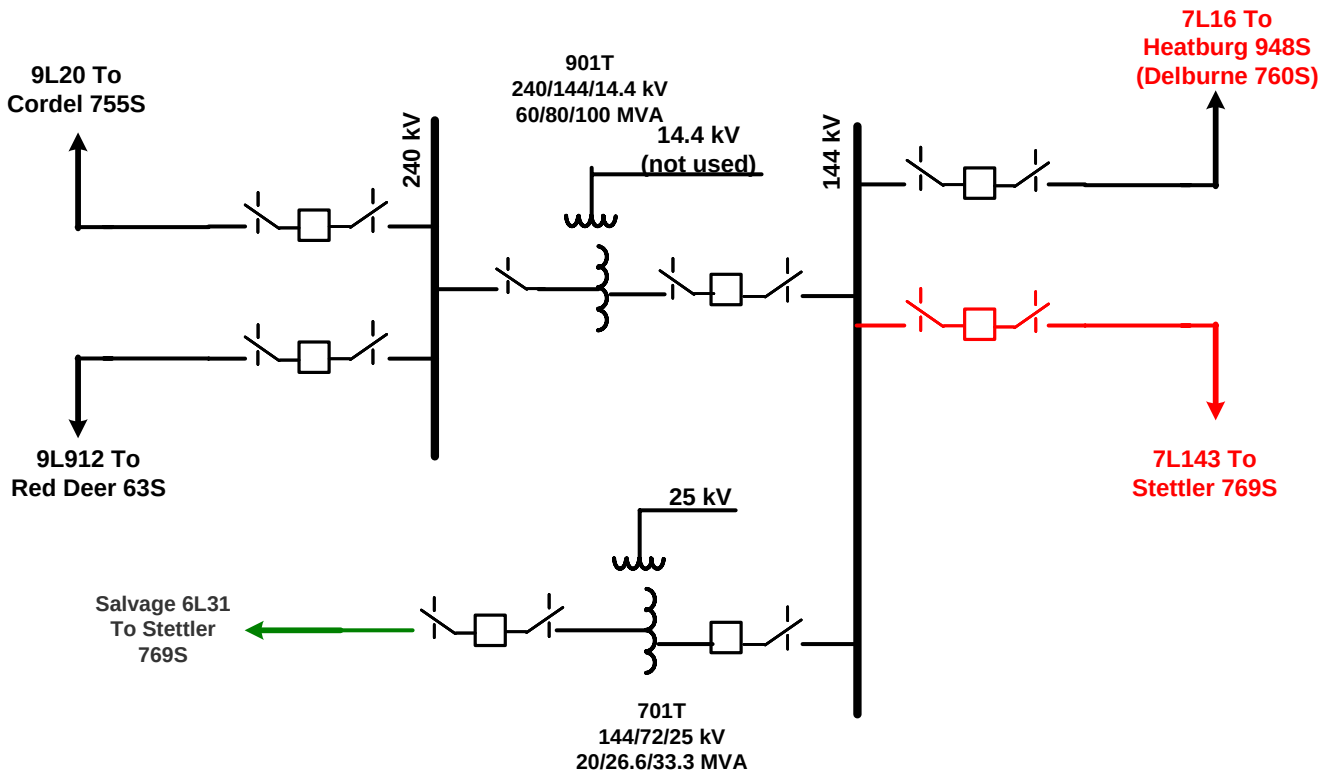
1. This single line diagram provides an illustration of a functional arrangement that would meet the need identified in the needs identification document no. 1605359. The exact routing and configuration of the project proposed by the Transmission Facility Owner (TFO) in its facility application may vary slightly from this configuration based on the more detailed engineering, routing and siting information obtained by the TFO in the preparation of its Facility Application.

aeso ALBERTA ELECTRIC SYSTEM OPERATOR

Battle River 757S

Hanna Region Transmission Development in 2012

812-SLD-757S



Legend

- Circuit Breaker
- LTC transformer
- Ganged Air Switch (Manual Operation)
- Relocated Equipment
- Hookstick Operated 1ph. Disconnect Switch (Solid)
- Proposed Additions / changes
- Salvaged Equipment

Notes:

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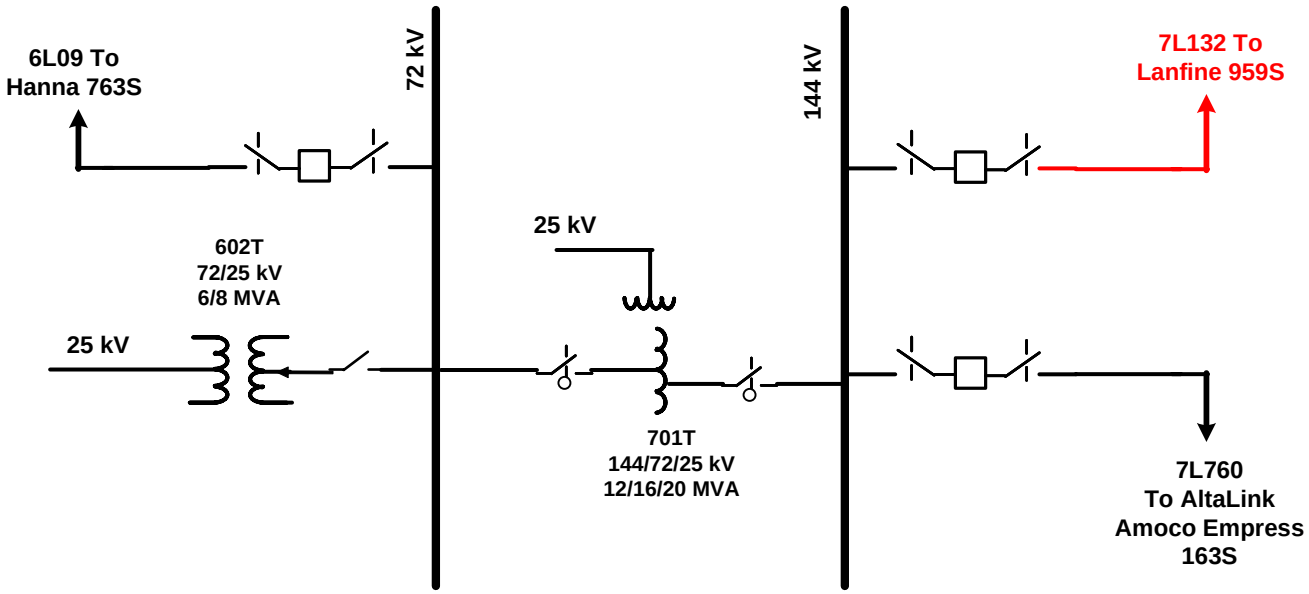
aeso ALBERTA ELECTRIC SYSTEM OPERATOR

Nevis 766S

Hanna Region Transmission Development
In 2012

812-SLD-766S

Note: 7L98 to Monitor 774S
Disconnected to Provide
144 kV Bay for New 7L132 Line



Legend

- Circuit Breaker
- LTC transformer
- Ganged Air Switch (Manual Operation)
- Relocated Equipment
- Hookstick Operated 1ph. Disconnect Switch (Solid)
- Proposed Additions / changes
- Salvaged Equipment

Notes:

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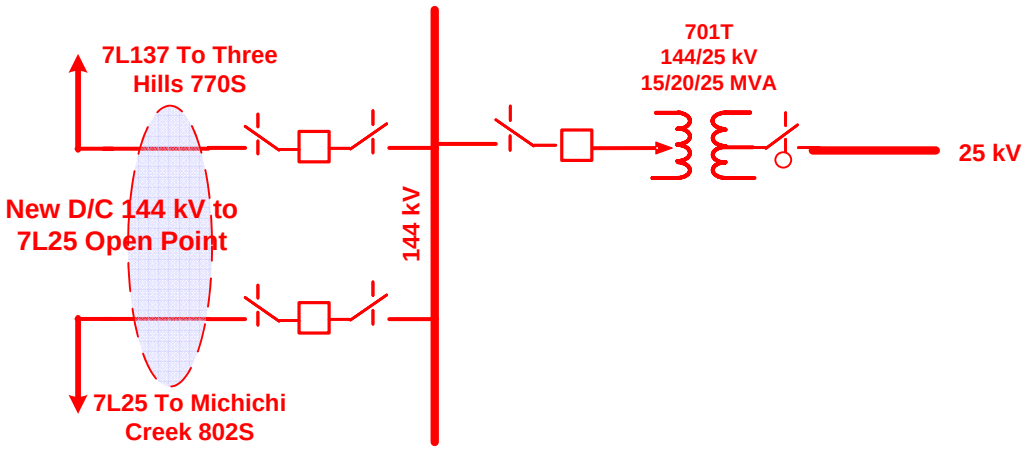
aeso ALBERTA ELECTRIC SYSTEM OPERATOR

Oyen 767S

Hanna Region Transmission Development in 2012

812-SLD-767S



Legend

- Circuit Breaker
- LTC transformer
- Ganged Air Switch (Manual Operation)
- Relocated Equipment
- Hookstick Operated 1ph. Disconnect Switch (Solid)
- Proposed Additions / changes
- Salvaged Equipment

Notes:

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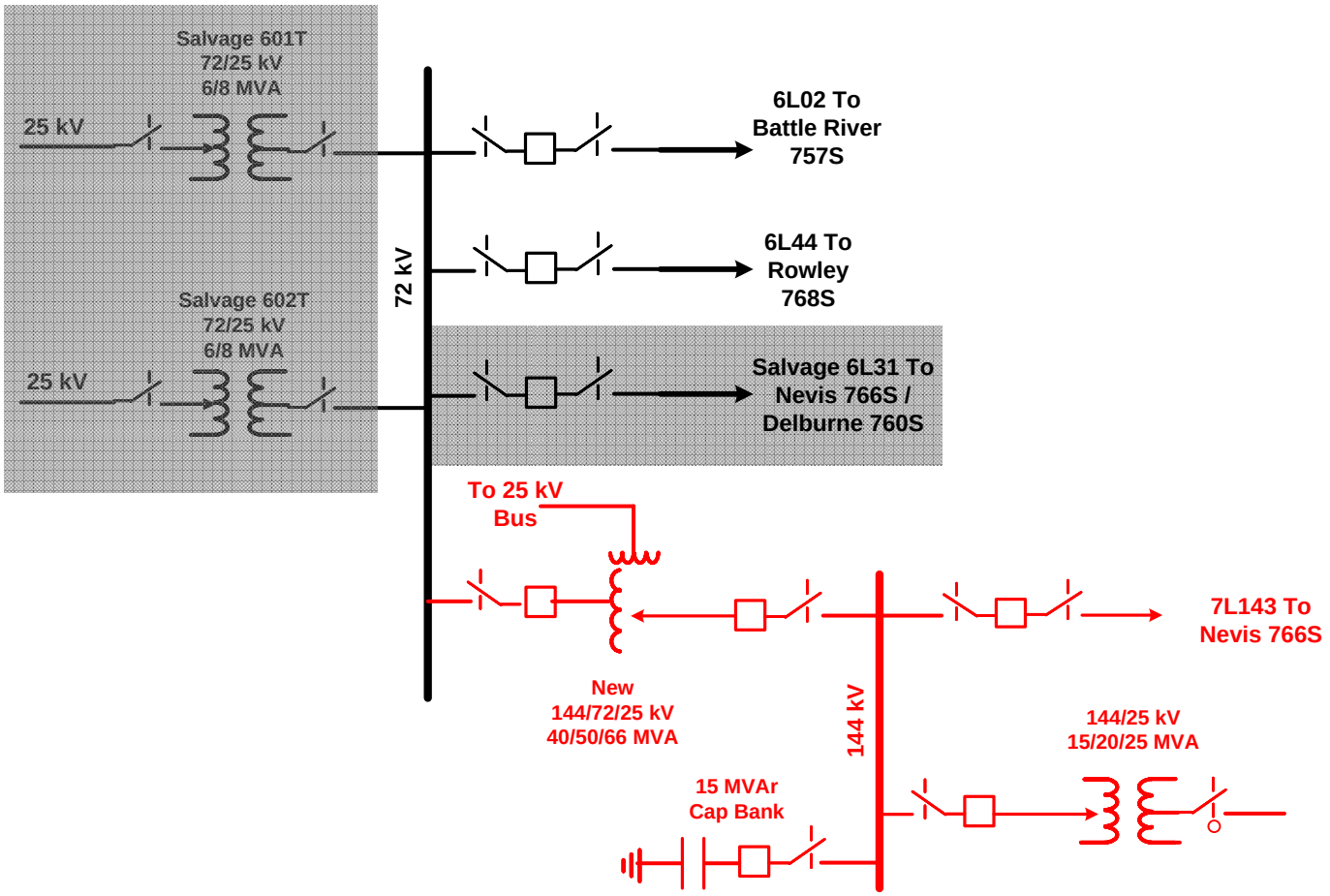
aeso ALBERTA ELECTRIC SYSTEM OPERATOR

Rowley 768S

Hanna Region Transmission Development in 2012

812-SLD-768S



Legend

- Circuit Breaker
- Ganged Air Switch (Manual Operation)
- Hookstick Operated 1ph. Disconnect Switch (Solid)
- Salvaged Equipment
- LTC transformer
- Relocated Equipment
- Proposed Additions / changes

Notes:

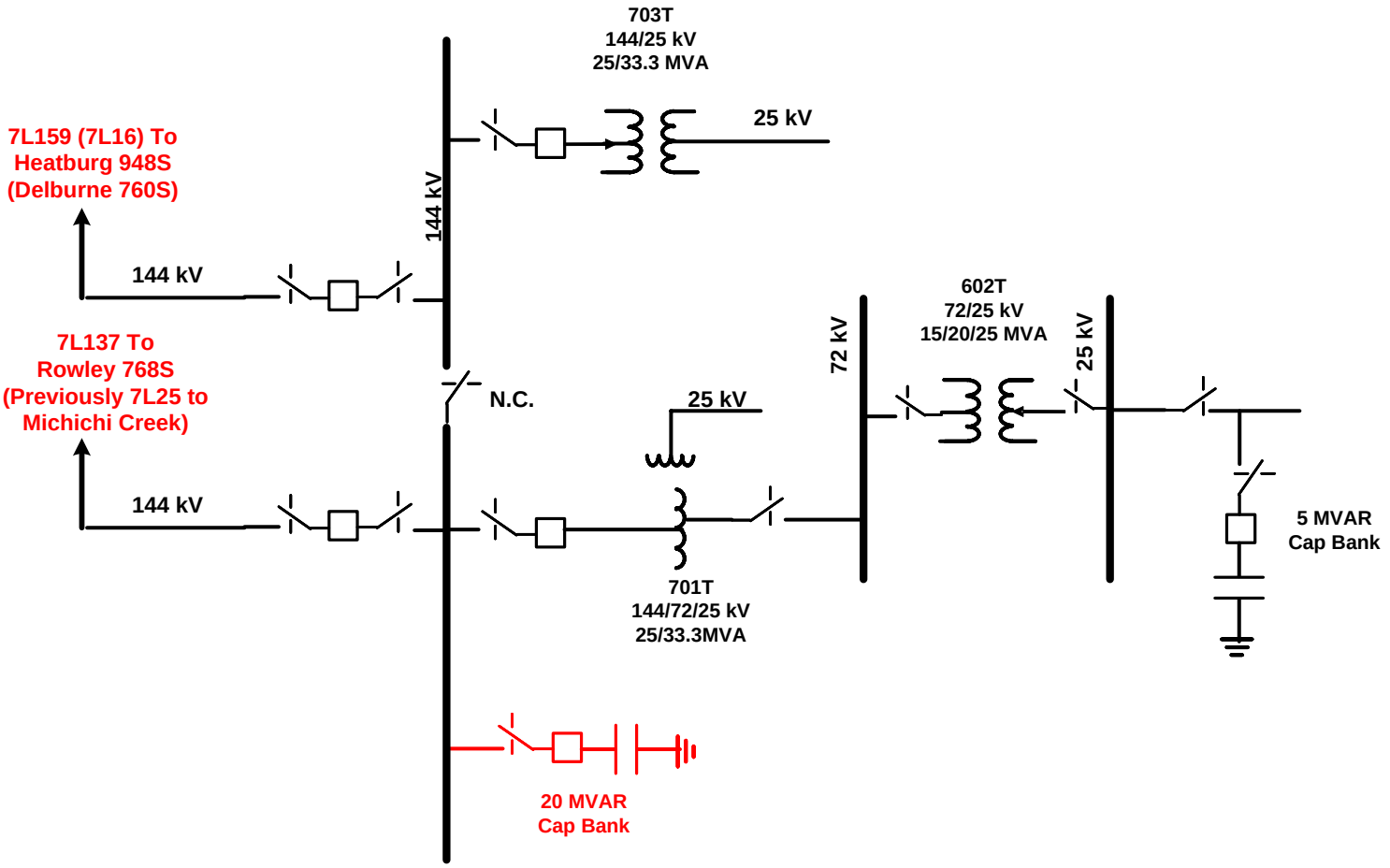
1. This single line diagram provides an illustration of a functional arrangement that would meet the need identified in the needs identification document no. 1605359. The exact routing and configuration of the project proposed by the Transmission Facility Owner (TFO) in its facility application may vary slightly from this configuration based on the more detailed engineering, routing and siting information obtained by the TFO in the preparation of its Facility Application.

aeso ALBERTA ELECTRIC SYSTEM OPERATOR

Stettler 769S

Hanna Region Transmission Development in 2012

812-SLD-769S



Legend

- Circuit Breaker
- LTC transformer
- Ganged Air Switch (Manual Operation)
- Relocated Equipment
- Hookstick Operated 1ph. Disconnect Switch (Solid)
- Proposed Additions / changes
- Salvaged Equipment

Notes:

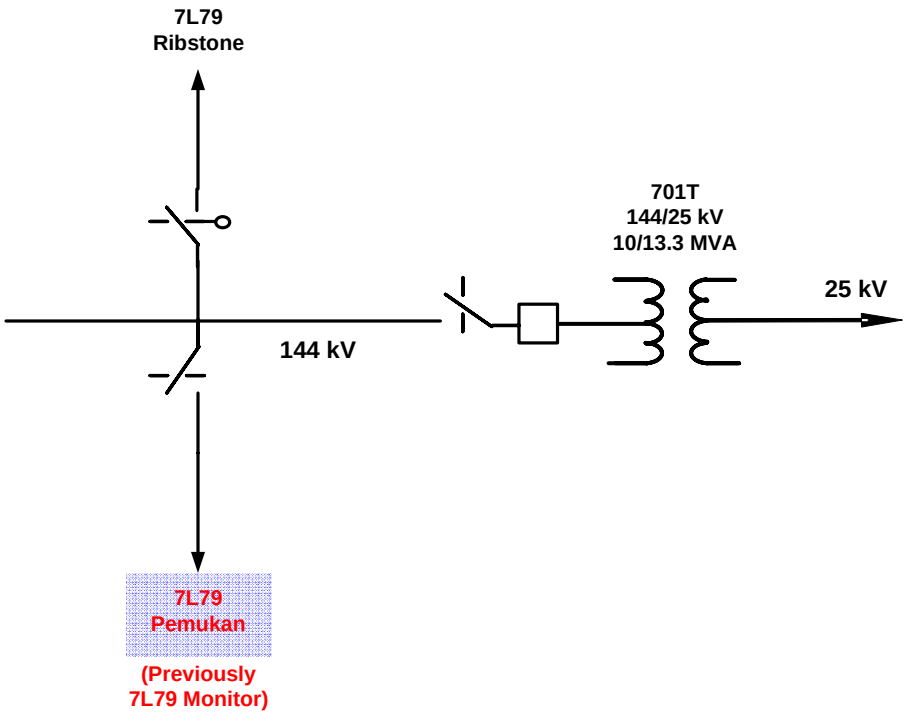
1. This single line diagram provides an illustration of a functional arrangement that would meet the need identified in the needs identification document no. 1605359. The exact routing and configuration of the project proposed by the Transmission Facility Owner (TFO) in its facility application may vary slightly from this configuration based on the more detailed engineering, routing and siting information obtained by the TFO in the preparation of its Facility Application.

aeso ALBERTA ELECTRIC SYSTEM OPERATOR

Three Hills 770S

Hanna Region Transmission Development in 2012

812-SLD-770S



Legend

- Circuit Breaker
- LTC transformer
- Ganged Air Switch (Manual Operation)
- Relocated Equipment
- Hookstick Operated 1ph. Disconnect Switch (Solid)
- Proposed Additions / changes
- Salvaged Equipment

Notes:

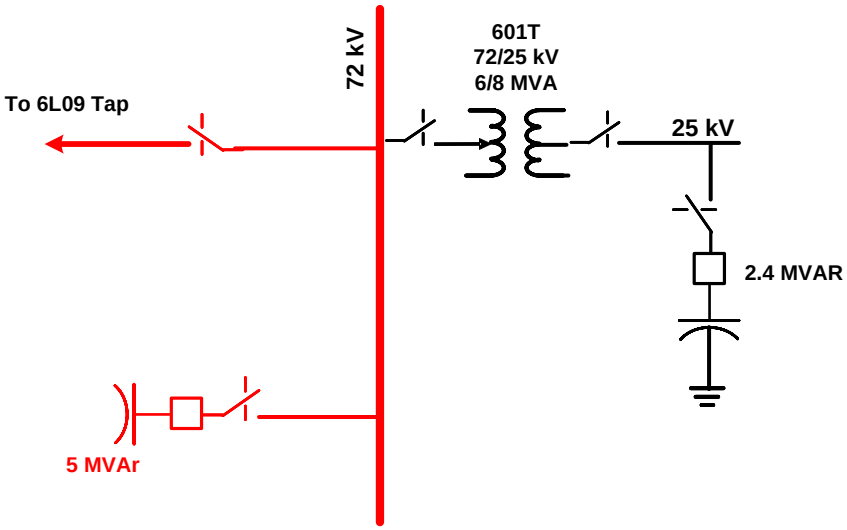
1. This single line diagram provides an illustration of a functional arrangement that would meet the need identified in the needs identification document no. 1605359. The exact routing and configuration of the project proposed by the Transmission Facility Owner (TFO) in its facility application may vary slightly from this configuration based on the more detailed engineering, routing and siting information obtained by the TFO in the preparation of its Facility Application.

aeso ALBERTA ELECTRIC SYSTEM OPERATOR

Veteran 771S

Hanna Region Transmission Development in 2012

812-SLD-771S



Legend

- Circuit Breaker
- Ganged Air Switch (Manual Operation)
- Hookstick Operated 1ph. Disconnect Switch (Solid)
- Salvaged Equipment
- LTC transformer
- Relocated Equipment
- Proposed Additions / changes

Notes:

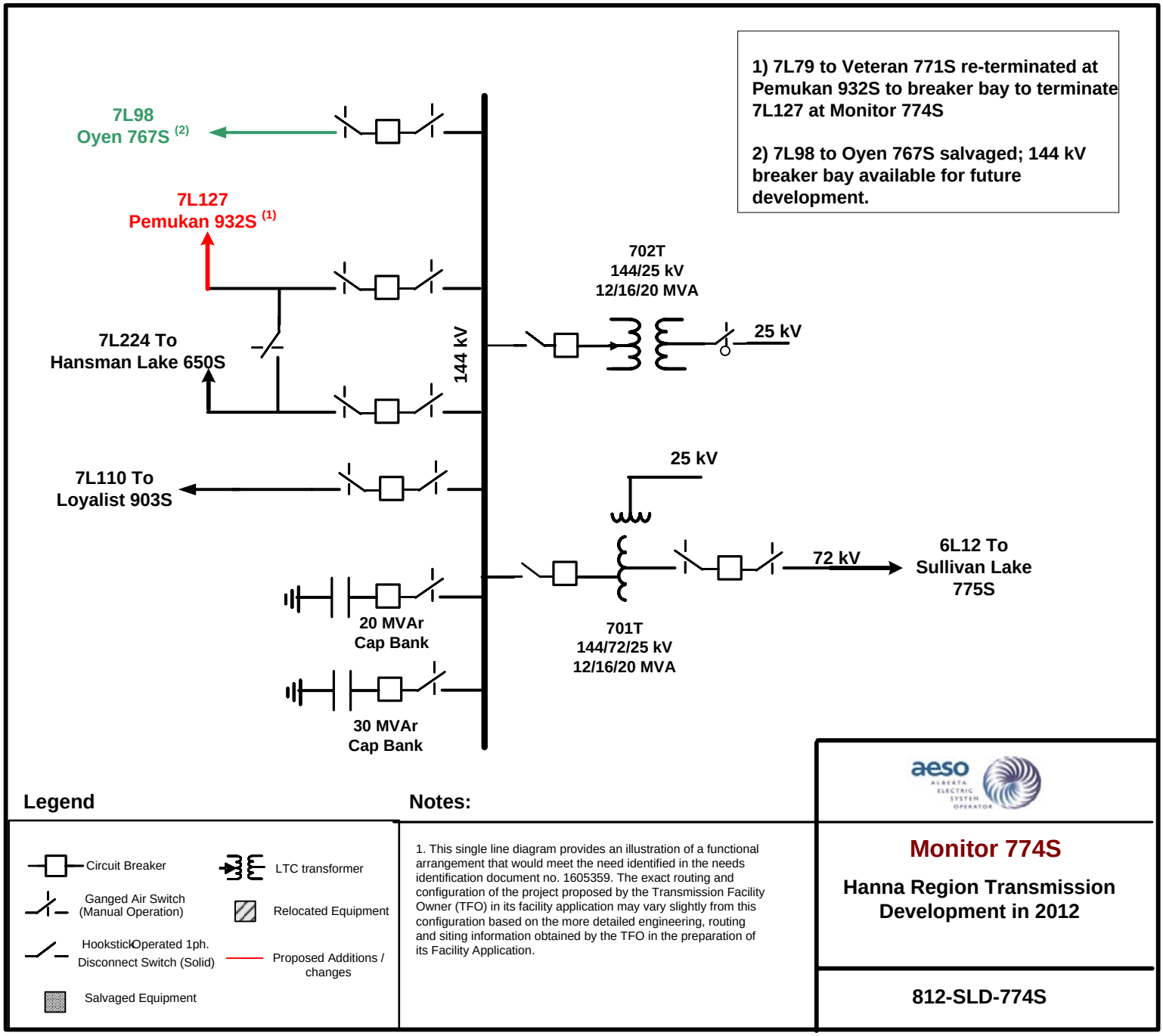
1. This single line diagram provides an illustration of a functional arrangement that would meet the need identified in the needs identification document no. 1605359. The exact routing and configuration of the project proposed by the Transmission Facility Owner (TFO) in its facility application may vary slightly from this configuration based on the more detailed engineering, routing and siting information obtained by the TFO in the preparation of its Facility Application.

aeso ALBERTA ELECTRIC SYSTEM OPERATOR

Youngstown 772S

Hanna Region Transmission Development in 2012

812-SLD-772S



Legend

- Circuit Breaker
- Ganged Air Switch (Manual Operation)
- Hookstick Operated 1ph. Disconnect Switch (Solid)
- Salvaged Equipment
- LTC transformer
- Relocated Equipment
- Proposed Additions / changes

Notes:

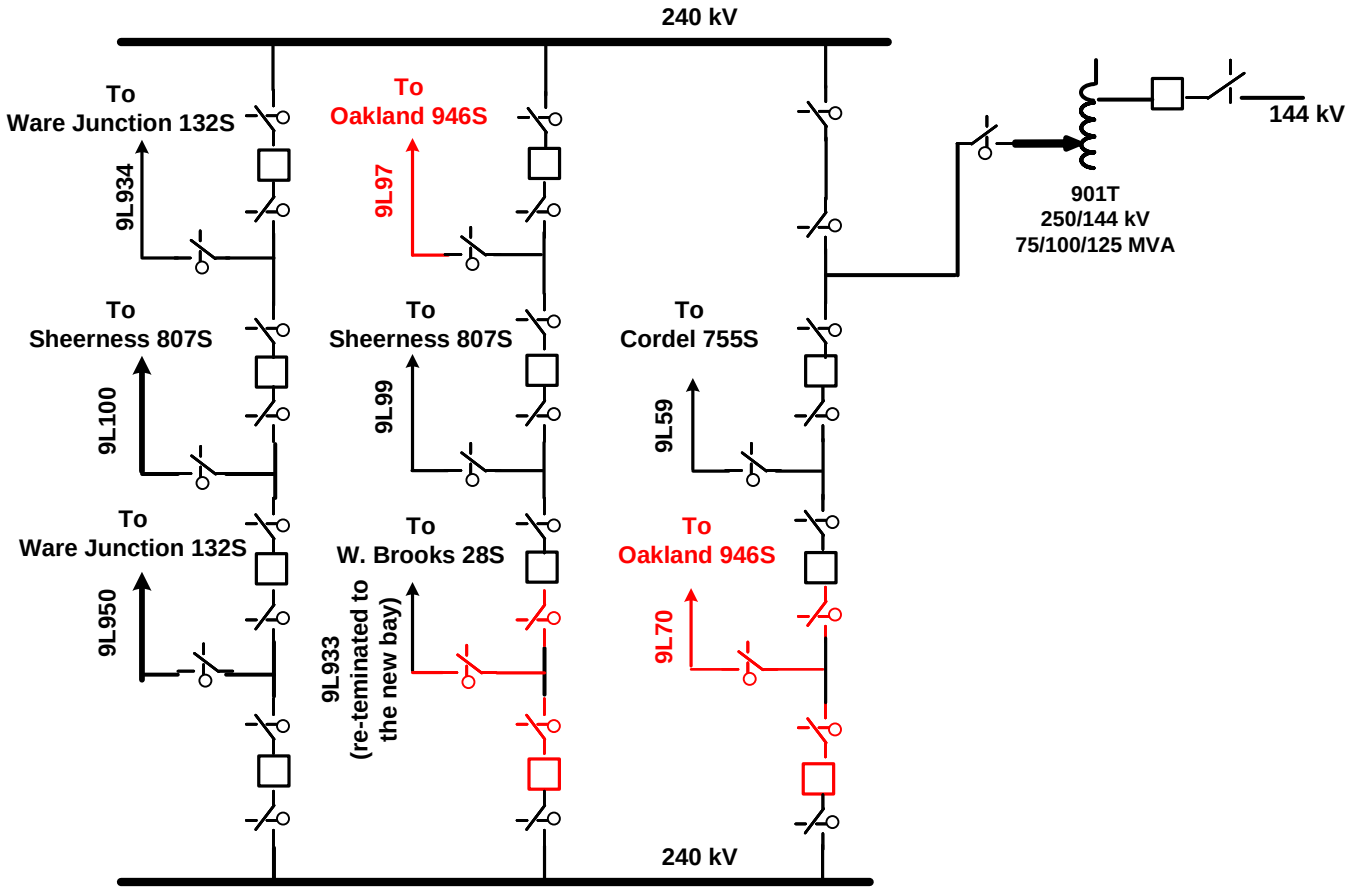
1. This single line diagram provides an illustration of a functional arrangement that would meet the need identified in the needs identification document no. 1605359. The exact routing and configuration of the project proposed by the Transmission Facility Owner (TFO) in its facility application may vary slightly from this configuration based on the more detailed engineering, routing and siting information obtained by the TFO in the preparation of its Facility Application.

aeso ALBERTA ELECTRIC SYSTEM OPERATOR

Monitor 774S

Hanna Region Transmission Development in 2012

812-SLD-774S



Legend

- Circuit Breaker
- Ganged Air Switch (Manual Operation)
- Hookstick Operated 1ph. Disconnect Switch (Solid)
- Motor Operated Disconnect Switch
- LTC transformer
- Proposed Additions / changes

Notes:

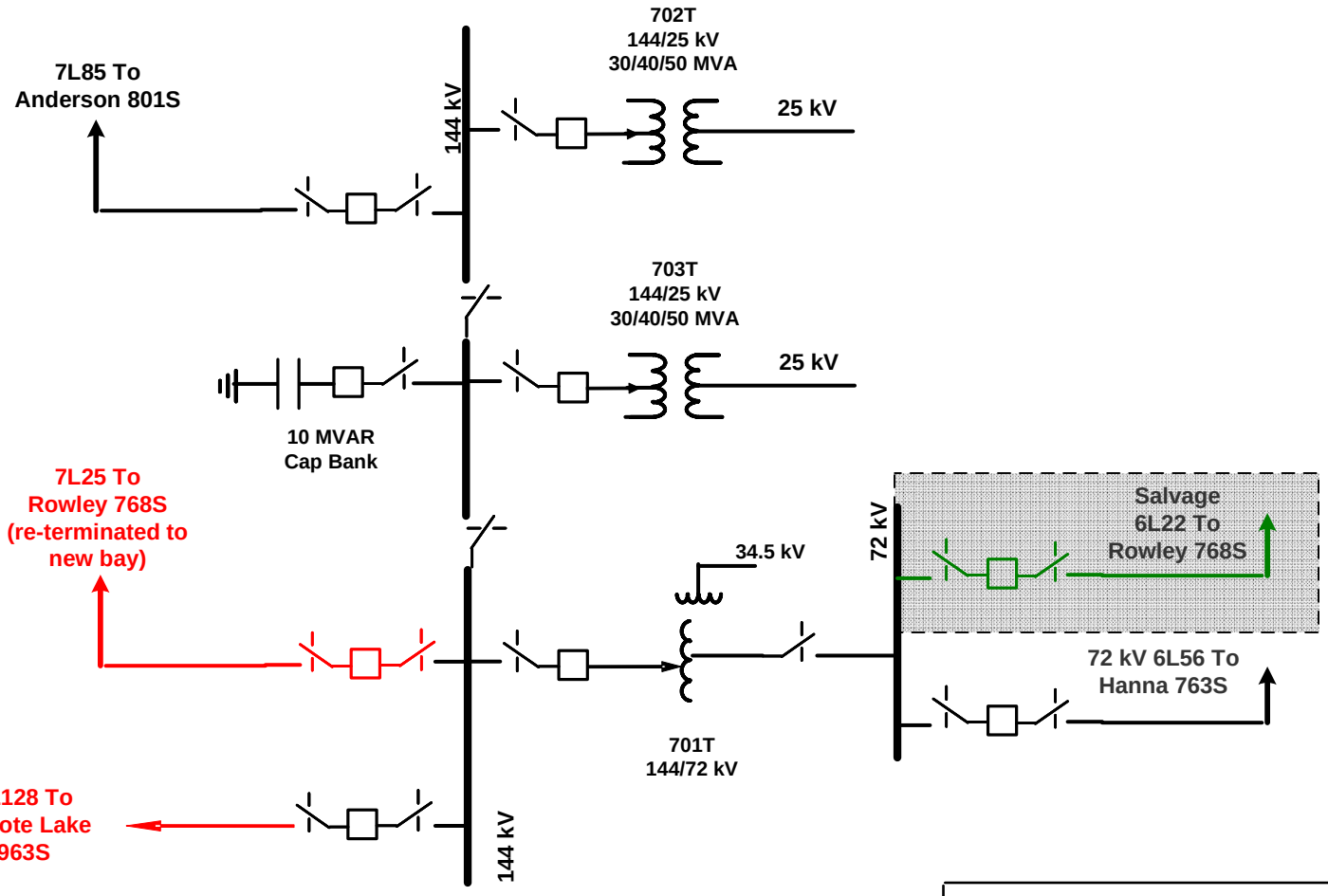
1. This single line diagram provides an illustration of a functional arrangement that would meet the need identified in the needs identification document no. 1605359. The exact routing and configuration of the project proposed by the Transmission Facility Owner (TFO) in its facility application may vary slightly from this configuration based on the more detailed engineering, routing and siting information obtained by the TFO in the preparation of its Facility Application.

aeso ALBERTA ELECTRIC SYSTEM OPERATOR

Anderson 801S

Hanna Region Transmission Development in 2012

812-SLD-801S



Legend

- Circuit Breaker
- Ganged Air Switch (Manual Operation)
- Hookstick Operated 1ph. Disconnect Switch (Solid)
- Salvaged Equipment
- LTC transformer
- Relocated Equipment
- Proposed Additions / changes

Notes:

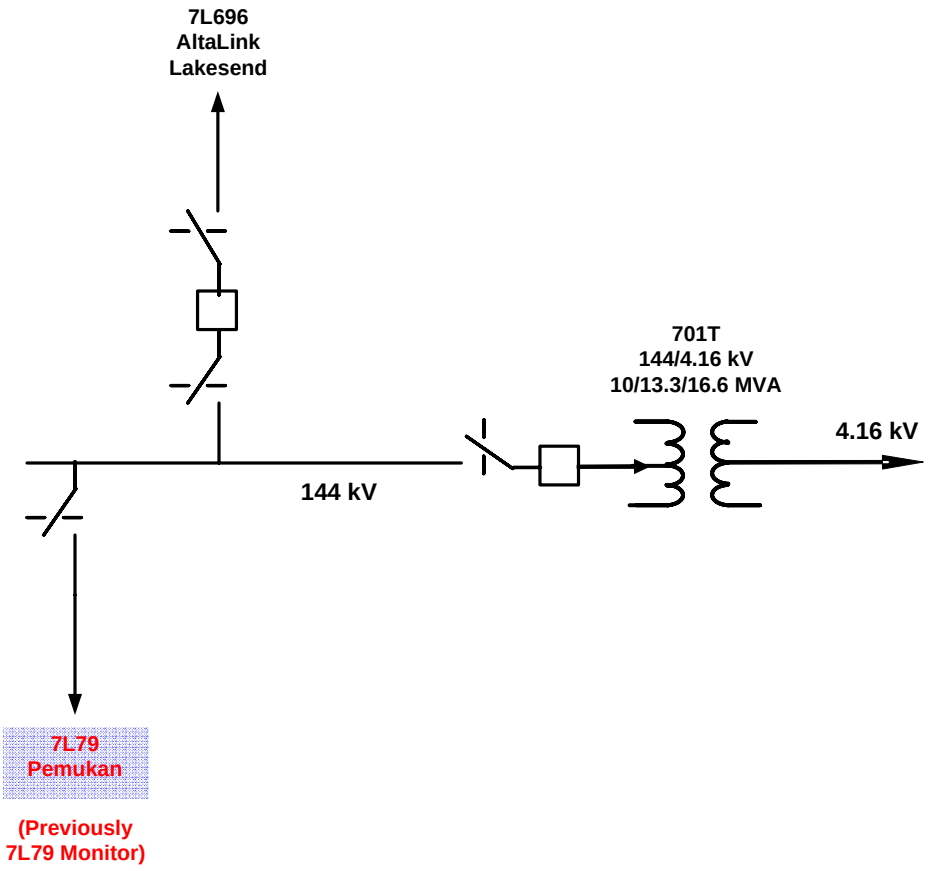
1. This single line diagram provides an illustration of a functional arrangement that would meet the need identified in the needs identification document no. 1605359. The exact routing and configuration of the project proposed by the Transmission Facility Owner (TFO) in its facility application may vary slightly from this configuration based on the more detailed engineering, routing and siting information obtained by the TFO in the preparation of its Facility Application.

aeso ALBERTA ELECTRIC SYSTEM OPERATOR

Michichi Creek 802S

Hanna Region Transmission Development in 2012

812-SLD-802S



Legend

- Circuit Breaker
- LTC transformer
- Ganged Air Switch (Manual Operation)
- Relocated Equipment
- Hookstick Operated 1ph. Disconnect Switch (Solid)
- Proposed Additions / changes
- Salvaged Equipment

Notes:

1. This single line diagram provides an illustration of a functional arrangement that would meet the need identified in the needs identification document no. 1605359. The exact routing and configuration of the project proposed by the Transmission Facility Owner (TFO) in its facility application may vary slightly from this configuration based on the more detailed engineering, routing and siting information obtained by the TFO in the preparation of its Facility Application.

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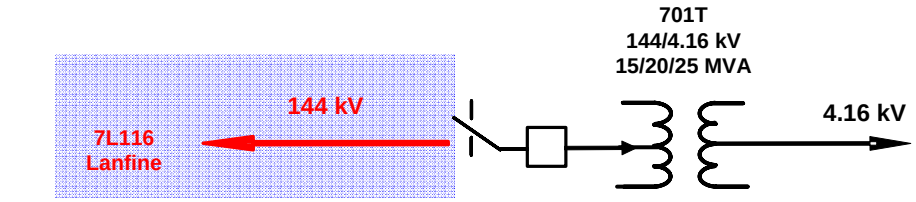
Ribstone 892S

Hanna Region Transmission Development in 2012

812-SLD-892S



(Previously 7LA98 to 7L98 T-Tap)

Legend

- Circuit Breaker
- LTC transformer
- Ganged Air Switch (Manual Operation)
- Relocated Equipment
- Hookstick Operated 1ph. Disconnect Switch (Solid)
- Proposed Additions / changes
- Salvaged Equipment

Notes:

1. This single line diagram provides an illustration of a functional arrangement that would meet the need identified in the needs identification document no. 1605359. The exact routing and configuration of the project proposed by the Transmission Facility Owner (TFO) in its facility application may vary slightly from this configuration based on the more detailed engineering, routing and siting information obtained by the TFO in the preparation of its Facility Application.

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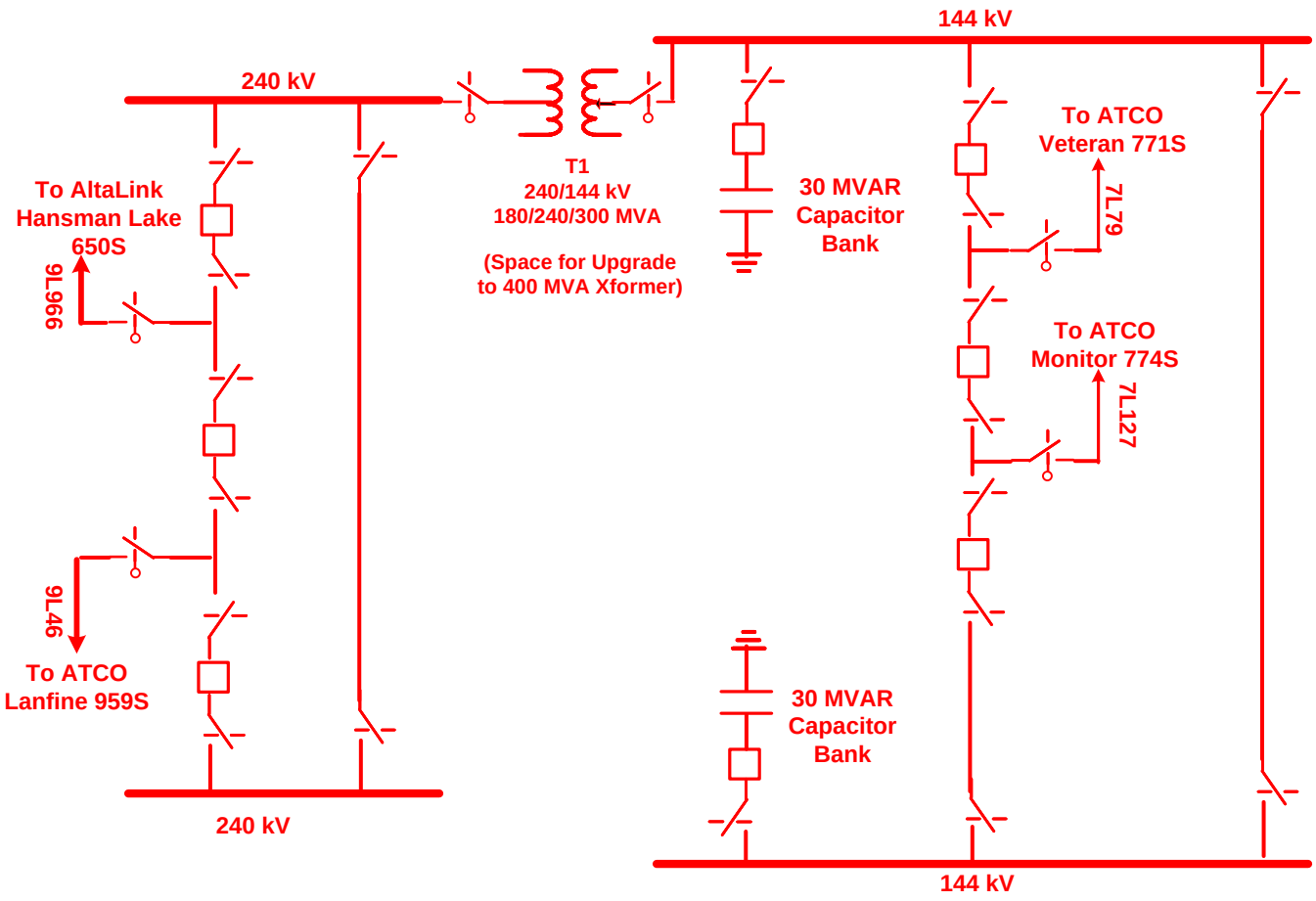
Excel 910S

Hanna Region Transmission Development in 2012

812-SLD-910S



Legend

- Circuit Breaker
- LTC transformer
- Ganged Air Switch (Manual Operation)
- Relocated Equipment
- Hookstick Operated 1ph. Disconnect Switch (Solid)
- Proposed Additions / changes
- Salvaged Equipment

Notes:

1. This single line diagram provides an illustration of a functional arrangement that would meet the need identified in the needs identification document no. 1605359. The exact routing and configuration of the project proposed by the Transmission Facility Owner (TFO) in its facility application may vary slightly from this configuration based on the more detailed engineering, routing and siting information obtained by the TFO in the preparation of its Facility Application.

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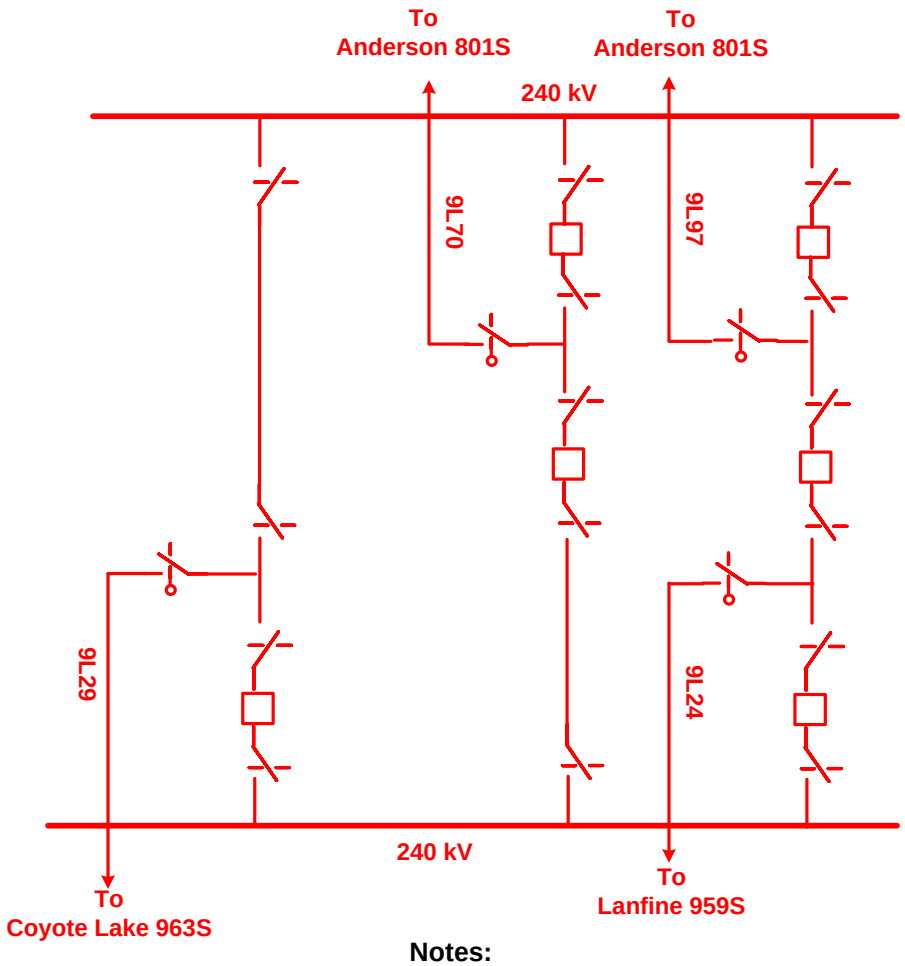
Pemukan 932S

Hanna Region Transmission Development in 2012

812-SLD-932S



Legend

- Circuit Breaker
- Potential Transformer
- Ganged Air Switch (Manual Operation)
- Proposed Additions / changes
- Hookstick Operated 1ph. Disconnect Switch (Solid)
- Motor Operated Disconnect Switch

Notes:

1. This single line diagram provides an illustration of a functional arrangement that would meet the need identified in the needs identification document no. 1605359. The exact routing and configuration of the project proposed by the Transmission Facility Owner (TFO) in its facility application may vary slightly from this configuration based on the more detailed engineering, routing and siting information obtained by the TFO in the preparation of its Facility Application.

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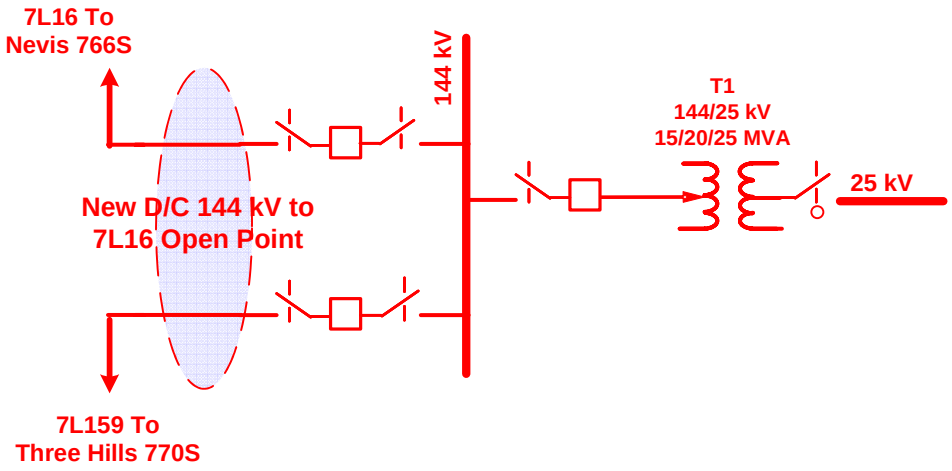
Oakland 946S

Hanna Region Transmission Development in 2012

812-SLD-946S



Legend

- Circuit Breaker
- LTC transformer
- Ganged Air Switch (Manual Operation)
- Relocated Equipment
- Hookstick Operated 1ph. Disconnect Switch (Solid)
- Proposed Additions / changes
- Salvaged Equipment

Notes:

1. This single line diagram provides an illustration of a functional arrangement that would meet the need identified in the needs identification document no. 1605359. The exact routing and configuration of the project proposed by the Transmission Facility Owner (TFO) in its facility application may vary slightly from this configuration based on the more detailed engineering, routing and siting information obtained by the TFO in the preparation of its Facility Application.

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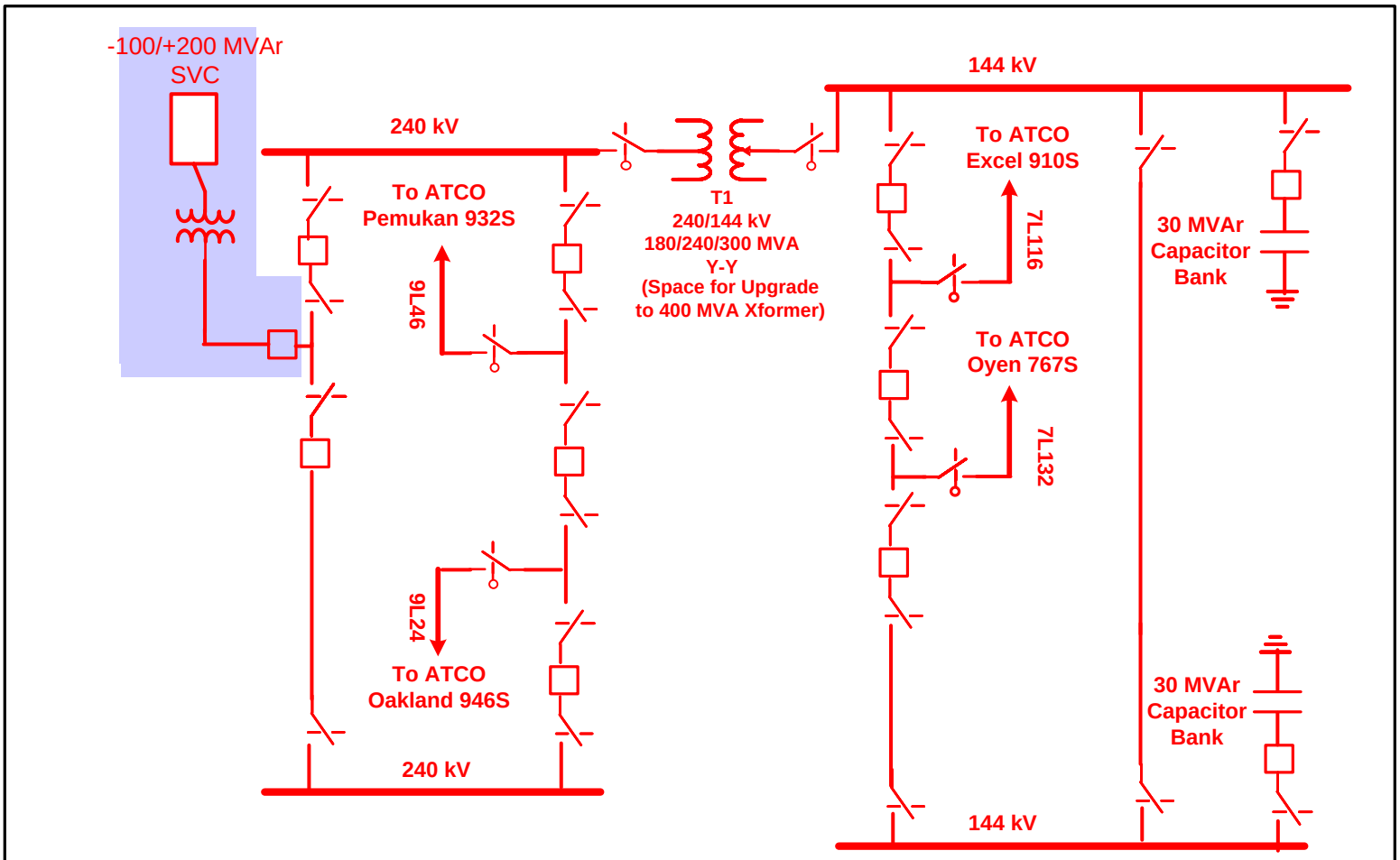
Heatburg 948S

(Near Delbourne 760S)

Hanna Region Transmission Development in 2012

812-SLD-948S



Legend

- Circuit Breaker
- Ganged Air Switch (Manual Operation)
- Hookstick Operated 1ph. Disconnect Switch (Solid)
- Salvaged Equipment
- LTC transformer
- Relocated Equipment
- Proposed Additions / changes

Notes:

1. This single line diagram provides an illustration of a functional arrangement that would meet the need identified in the needs identification document no. 1605359. The exact routing and configuration of the project proposed by the Transmission Facility Owner (TFO) in its facility application may vary slightly from this configuration based on the more detailed engineering, routing and siting information obtained by the TFO in the preparation of its Facility Application.

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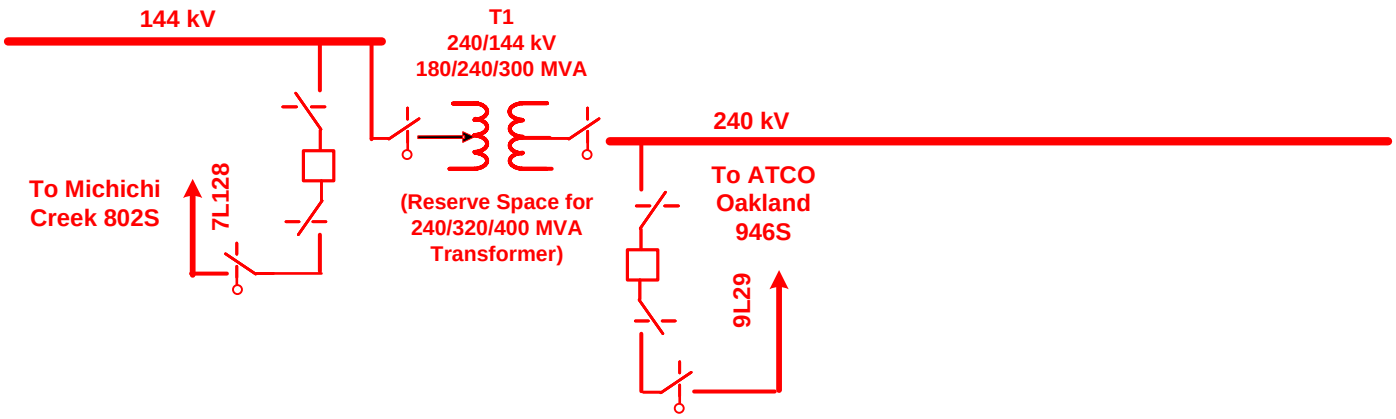
Lanfine 959S

Hanna Region Transmission Development in 2012

812-SLD-959S



Legend

- Circuit Breaker
- LTC transformer
- Ganged Air Switch (Manual Operation)
- Relocated Equipment
- Hookstick Operated 1ph. Disconnect Switch (Solid)
- Proposed Additions / changes
- Salvaged Equipment

Notes:

1. This single line diagram provides an illustration of a functional arrangement that would meet the need identified in the needs identification document no. 1605359. The exact routing and configuration of the project proposed by the Transmission Facility Owner (TFO) in its facility application may vary slightly from this configuration based on the more detailed engineering, routing and siting information obtained by the TFO in the preparation of its Facility Application.

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Coyote Lake 963S

Hanna Region Transmission Development in 2012

812-SLD-963S