

APPENDIX C

EDTI Cost Estimates

AACEI Class 4

A. Kennedale Option 1A: Replace the 72 kV transmission lines 72CK12 and 72CK13

| AESO Project Name & No. | City of Edmonton Transmission Reinforcement | | | P7078 | TRANSMISSION PROJECT ESTIMATE SUMMARY |
|----------------------------------|---|--------------------|-------------|-----------------------|--|
| Prepared by: | EDTI | | | | |
| AACE Class: | 4 | Estimate Basis | NID | | |
| High Range | 50% | Low Range | -30% | | |
| Date of Estimate: | October 31, 2023 | Base Year \$ | 2023 | | |
| In Service Date | 2029 | In Service Year \$ | 2029 | | |
| | SYSTEM | PARTICIPANT | TOTAL | | |
| ASSUMPTIONS | | | | | |
| TRANSMISSION LINE | | | | | |
| Material | \$ - | \$ - | \$ - | \$ - | |
| Labour | \$ 440,000 | \$ - | \$ - | \$ 440,000 | |
| Supply & Install | \$ 116,448,102 | \$ - | \$ - | \$ 116,448,102 | |
| TOTAL TRANSMISSION LINE | \$ 116,888,102 | \$ - | \$ - | \$ 116,888,102 | |
| SUBSTATION | | | | | |
| Material | \$ 964,941 | \$ - | \$ - | \$ 964,941 | |
| Labour | \$ 1,886,990 | \$ - | \$ - | \$ 1,886,990 | |
| Supply & Install | \$ 3,761,039 | \$ - | \$ - | \$ 3,761,039 | |
| TOTAL SUBSTATION | \$ 6,612,970 | \$ - | \$ - | \$ 6,612,970 | |
| TELECOMMUNICATION | | | | | |
| Material | \$ - | \$ - | \$ - | \$ - | |
| Labour | \$ - | \$ - | \$ - | \$ - | |
| Supply & Install | \$ - | \$ - | \$ - | \$ - | |
| TOTAL TELECOMMUNICATIONS | \$ - | \$ - | \$ - | \$ - | |
| OWNERS | | | | | |
| Pre-SP Cost | \$ 234,102 | \$ - | \$ - | \$ 234,102 | |
| Service Proposal | \$ 2,055,126 | \$ - | \$ - | \$ 2,055,126 | |
| Facility Applications | \$ 6,165,377 | \$ - | \$ - | \$ 6,165,377 | |
| Regulatory & Compliance | \$ - | \$ - | \$ - | \$ - | |
| Land Rights - Easements | \$ - | \$ - | \$ - | \$ - | |
| Land - Damage Claims | \$ - | \$ - | \$ - | \$ - | |
| Land - Acquisitions | \$ - | \$ - | \$ - | \$ - | |
| Land - Other | \$ - | \$ - | \$ - | \$ - | |
| TOTAL OWNERS COST | \$ 8,454,604 | \$ - | \$ - | \$ 8,454,604 | |
| DISTRIBUTED | | | | | |
| Procurement Management | \$ 1,913,411 | \$ - | \$ - | \$ 1,913,411 | |
| Project Management | \$ 3,037,172 | \$ - | \$ - | \$ 3,037,172 | |
| Construction Management | \$ 3,324,024 | \$ - | \$ - | \$ 3,324,024 | |
| Contingency | \$ 70,309,606 | \$ - | \$ - | \$ 70,309,606 | |
| Escalation | \$ 21,226,740 | \$ - | \$ - | \$ 21,226,740 | |
| TOTAL DISTRIBUTED | \$ 99,810,952 | \$ - | \$ - | \$ 99,810,952 | |
| SALVAGE | | | | | |
| Transmission Line Labour | \$ 3,427,267 | \$ - | \$ - | \$ 3,427,267 | |
| Substation Labour | \$ - | \$ - | \$ - | \$ - | |
| Telecom Labour | \$ - | \$ - | \$ - | \$ - | |
| Land Remediation and Reclamation | \$ - | \$ - | \$ - | \$ - | |
| TOTAL SALVAGE | \$ 3,427,267 | \$ - | \$ - | \$ 3,427,267 | |
| OTHER COSTS | | | | | |
| AFUDC | \$ 22,003,425 | \$ - | \$ - | \$ 22,003,425 | |
| E&S | \$ 3,000,000 | \$ - | \$ - | \$ 3,000,000 | |
| TOTAL OTHER | \$ 25,003,425 | \$ - | \$ - | \$ 25,003,425 | |
| TOTAL PROJECT | \$ 260,197,320 | \$ - | \$ - | \$ 260,197,320 | |

B. Kennedale Option 2A: Add a 240 kV substation connected to the 240 kV transmission line 915L and reconfigure the 72 kV network

| AESO Project Name & No. | | City of Edmonton Transmission Reinforcement | | P7078 | TRANSMISSION PROJECT ESTIMATE SUMMARY |
|----------------------------------|-----------|---|--------------------|----------|--|
| Prepared by: | | EDTI | | | |
| AACE Class: | | 4 | Estimate Basis | NID | |
| High Range | | 50% | Low Range | -30% | |
| Date of Estimate: | | October 31, 2023 | Base Year \$ | 2023 | |
| In Service Date | | 2029 | In Service Year \$ | 2029 | |
| | | SYSTEM | PARTICIPANT | TOTAL | |
| TRANSMISSION LINE | | | | | ASSUMPTIONS |
| Material | \$ | - | \$ | - | |
| Labour | \$ | 5,125,000 | \$ | - | 5,125,000 |
| Supply & Install | \$ | 39,105,518 | \$ | - | 39,105,518 |
| TOTAL TRANSMISSION LINE | \$ | 44,230,518 | \$ | - | 44,230,518 |
| SUBSTATION | | | | | |
| Material | \$ | 34,140,916 | \$ | - | 34,140,916 |
| Labour | \$ | 10,198,319 | \$ | - | 10,198,319 |
| Supply & Install | \$ | 23,003,101 | \$ | - | 23,003,101 |
| TOTAL SUBSTATION | \$ | 67,342,336 | \$ | - | 67,342,336 |
| TELECOMMUNICATION | | | | | |
| Material | \$ | 134,000 | \$ | - | 134,000 |
| Labour | \$ | 190,000 | \$ | - | 190,000 |
| Supply & Install | \$ | - | \$ | - | - |
| TOTAL TELECOMMUNICATIONS | \$ | 324,000 | \$ | - | 324,000 |
| OWNERS | | | | | |
| Pre-SP Cost | \$ | 234,102 | \$ | - | 234,102 |
| Service Proposal | \$ | 1,500,000 | \$ | - | 1,500,000 |
| Facility Applications | \$ | 5,500,000 | \$ | - | 5,500,000 |
| Regulatory & Compliance | \$ | - | \$ | - | - |
| Land Rights - Easements | \$ | 16,152,000 | \$ | - | 16,152,000 |
| Land - Damage Claims | \$ | - | \$ | - | - |
| Land - Acquisitions | \$ | 10,000,000 | \$ | - | 10,000,000 |
| Land - Other | \$ | - | \$ | - | - |
| TOTAL OWNERS COST | \$ | 33,386,102 | \$ | - | 33,386,102 |
| DISTRIBUTED | | | | | |
| Procurement Management | \$ | 1,242,919 | \$ | - | 1,242,919 |
| Project Management | \$ | 6,848,196 | \$ | - | 6,848,196 |
| Construction Management | \$ | 11,279,649 | \$ | - | 11,279,649 |
| Contingency | \$ | 31,979,632 | \$ | - | 31,979,632 |
| Escalation | \$ | 22,197,020 | \$ | - | 22,197,020 |
| TOTAL DISTRIBUTED | \$ | 73,547,417 | \$ | - | 73,547,417 |
| SALVAGE | | | | | |
| Transmission Line Labour | \$ | 6,788,959 | \$ | - | 6,788,959 |
| Substation Labour | \$ | - | \$ | - | - |
| Telecom Labour | \$ | - | \$ | - | - |
| Land Remediation and Reclamation | \$ | - | \$ | - | - |
| TOTAL SALVAGE | \$ | 6,788,959 | \$ | - | 6,788,959 |
| OTHER COSTS | | | | | |
| AFUDC | \$ | 36,373,404 | \$ | - | 36,373,404 |
| E&S | \$ | 3,000,000 | \$ | - | 3,000,000 |
| TOTAL OTHER | \$ | 39,373,404 | \$ | - | 39,373,404 |
| TOTAL PROJECT | \$ | 264,992,737 | \$ | - | 264,992,737 |

B. Kennedale Option 2A (AML Scope): Cut into the existing 240 kV transmission line 915L to connect the proposed substation to 915L via an-in-and-out configuration

| AESO Project Name & No. | City of Edmonton Transmission Reinforcement | | P7078 | TRANSMISSION PROJECT ESTIMATE SUMMARY |
|----------------------------------|---|--------------------|---------------------|--|
| Prepared by: | AltaLink Management Ltd. | | | |
| AACE Class: | 4 | Estimate Basis | NID | |
| High Range | 30% | Low Range | -30% | |
| Date of Estimate: | November 30, 2023 | Base Year \$ | 2023 | |
| In Service Date | 2027 | In Service Year \$ | 2027 | |
| | SYSTEM | PARTICIPANT | TOTAL | ASSUMPTIONS |
| TRANSMISSION LINE | | | | |
| Material | \$ 543,547 | \$ - | \$ 543,547 | |
| Labour | \$ 1,158,242 | \$ - | \$ 1,158,242 | |
| Supply & Install | \$ - | \$ - | \$ - | |
| TOTAL TRANSMISSION LINE | \$ 1,701,789 | \$ - | \$ 1,701,789 | |
| SUBSTATION | | | | |
| Material | \$ 70,110 | \$ - | \$ 70,110 | |
| Labour | \$ 497,806 | \$ - | \$ 497,806 | |
| Supply & Install | \$ - | \$ - | \$ - | |
| TOTAL SUBSTATION | \$ 567,916 | \$ - | \$ 567,916 | |
| TELECOMMUNICATION | | | | |
| Material | \$ - | \$ - | \$ - | |
| Labour | \$ 42,000 | \$ - | \$ 42,000 | |
| Supply & Install | \$ - | \$ - | \$ - | |
| TOTAL TELECOMMUNICATIONS | \$ 42,000 | \$ - | \$ 42,000 | |
| OWNERS | | | | |
| Pre-SP Cost | \$ 79,371 | \$ - | \$ 79,371 | |
| Service Proposal | \$ 77,362 | \$ - | \$ 77,362 | |
| Facility Applications | \$ 774,217 | \$ - | \$ 774,217 | |
| Regulatory & Compliance | \$ 2,267 | \$ - | \$ 2,267 | |
| Land Rights - Easements | \$ 31,881 | \$ - | \$ 31,881 | |
| Land - Damage Claims | \$ - | \$ - | \$ - | |
| Land - Acquisitions | \$ - | \$ - | \$ - | |
| Land - Other | \$ - | \$ - | \$ - | |
| TOTAL OWNERS COST | \$ 965,098 | \$ - | \$ 965,098 | |
| DISTRIBUTED | | | | |
| Procurement Management | \$ 41,226 | \$ - | \$ 41,226 | |
| Project Management | \$ 585,668 | \$ - | \$ 585,668 | |
| Construction Management | \$ 314,223 | \$ - | \$ 314,223 | |
| Contingency | \$ 415,695 | \$ - | \$ 415,695 | |
| Escalation | \$ 267,557 | \$ - | \$ 267,557 | |
| TOTAL DISTRIBUTED | \$ 1,624,369 | \$ - | \$ 1,624,369 | |
| SALVAGE | | | | |
| Transmission Line Labour | \$ 32,100 | \$ - | \$ 32,100 | |
| Substation Labour | \$ - | \$ - | \$ - | |
| Telecom Labour | \$ - | \$ - | \$ - | |
| Land Remediation and Reclamation | \$ - | \$ - | \$ - | |
| TOTAL SALVAGE | \$ 32,100 | \$ - | \$ 32,100 | |
| OTHER COSTS | | | | |
| AFUDC | \$ 350,726 | \$ - | \$ 350,726 | |
| E&S | \$ 445,559 | \$ - | \$ 445,559 | |
| TOTAL OTHER | \$ 796,286 | \$ - | \$ 796,286 | |
| TOTAL PROJECT | \$ 5,729,558 | \$ - | \$ 5,729,558 | |

C. Kennedale Option 2B: Add a 240 kV substation connected to the 240 kV transmission line 240CV5 and reconfigure the 72 kV network

| AESO Project Name & No. | City of Edmonton Transmission Reinforcement | | | P7078 | TRANSMISSION PROJECT ESTIMATE SUMMARY |
|----------------------------------|---|--------------------|-------------|-----------------------|--|
| Prepared by: | EDTI | | | | |
| AACE Class: | 4 | Estimate Basis | | NID | |
| High Range | 50% | Low Range | | -30% | |
| Date of Estimate: | October 31, 2023 | Base Year \$ | | 2023 | |
| In Service Date | 2029 | In Service Year \$ | | 2029 | |
| | SYSTEM | PARTICIPANT | | TOTAL | ASSUMPTIONS |
| TRANSMISSION LINE | | | | | |
| Material | \$ - | \$ - | \$ - | \$ - | |
| Labour | \$ 675,000 | \$ - | \$ - | \$ 675,000 | |
| Supply & Install | \$ 50,485,490 | \$ - | \$ - | \$ 50,485,490 | |
| TOTAL TRANSMISSION LINE | \$ 51,160,490 | \$ - | \$ - | \$ 51,160,490 | |
| SUBSTATION | | | | | |
| Material | \$ 26,150,619 | \$ - | \$ - | \$ 26,150,619 | |
| Labour | \$ 8,247,272 | \$ - | \$ - | \$ 8,247,272 | |
| Supply & Install | \$ 32,053,064 | \$ - | \$ - | \$ 32,053,064 | |
| TOTAL SUBSTATION | \$ 66,450,954 | \$ - | \$ - | \$ 66,450,954 | |
| TELECOMMUNICATION | | | | | |
| Material | \$ 208,986 | \$ - | \$ - | \$ 208,986 | |
| Labour | \$ - | \$ - | \$ - | \$ - | |
| Supply & Install | \$ - | \$ - | \$ - | \$ - | |
| TOTAL TELECOMMUNICATIONS | \$ 208,986 | \$ - | \$ - | \$ 208,986 | |
| OWNERS | | | | | |
| Pre-SP Cost | \$ 234,102 | \$ - | \$ - | \$ 234,102 | |
| Service Proposal | \$ 1,865,040 | \$ - | \$ - | \$ 1,865,040 | |
| Facility Applications | \$ 5,500,000 | \$ - | \$ - | \$ 5,500,000 | |
| Regulatory & Compliance | \$ - | \$ - | \$ - | \$ - | |
| Land Rights - Easements | \$ 29,323,200 | \$ - | \$ - | \$ 29,323,200 | |
| Land - Damage Claims | \$ - | \$ - | \$ - | \$ - | |
| Land - Acquisitions | \$ 10,000,000 | \$ - | \$ - | \$ 10,000,000 | |
| Land - Other | \$ - | \$ - | \$ - | \$ - | |
| TOTAL OWNERS COST | \$ 46,922,342 | \$ - | \$ - | \$ 46,922,342 | |
| DISTRIBUTED | | | | | |
| Procurement Management | \$ 1,242,919 | \$ - | \$ - | \$ 1,242,919 | |
| Project Management | \$ 6,620,252 | \$ - | \$ - | \$ 6,620,252 | |
| Construction Management | \$ 6,918,102 | \$ - | \$ - | \$ 6,918,102 | |
| Contingency | \$ 45,861,813 | \$ - | \$ - | \$ 45,861,813 | |
| Escalation | \$ 20,530,235 | \$ - | \$ - | \$ 20,530,235 | |
| TOTAL DISTRIBUTED | \$ 81,173,320 | \$ - | \$ - | \$ 81,173,320 | |
| SALVAGE | | | | | |
| Transmission Line Labour | \$ 8,040,453 | \$ - | \$ - | \$ 8,040,453 | |
| Substation Labour | \$ - | \$ - | \$ - | \$ - | |
| Telecom Labour | \$ - | \$ - | \$ - | \$ - | |
| Land Remediation and Reclamation | \$ - | \$ - | \$ - | \$ - | |
| TOTAL SALVAGE | \$ 8,040,453 | \$ - | \$ - | \$ 8,040,453 | |
| OTHER COSTS | | | | | |
| AFUDC | \$ 12,615,803 | \$ - | \$ - | \$ 12,615,803 | |
| E&S | \$ 3,000,000 | \$ - | \$ - | \$ 3,000,000 | |
| TOTAL OTHER | \$ 15,615,803 | \$ - | \$ - | \$ 15,615,803 | |
| TOTAL PROJECT | \$ 269,572,349 | \$ - | \$ - | \$ 269,572,349 | |

D. Kennedale Option 4: Add a 240 kV Substation connected to the 240 kV transmission line 915L, reconfigure the 72 kV network, and decommission the Kennedale substation

| AESO Project Name & No. | City of Edmonton Transmission Reinforcement | | P7078 | TRANSMISSION PROJECT ESTIMATE SUMMARY |
|----------------------------------|---|--------------------|-----------------------|--|
| Prepared by: | EDTI | | | |
| AACE Class: | 4 | Estimate Basis | NID | |
| High Range | 50% | Low Range | -30% | |
| Date of Estimate: | October 31, 2023 | Base Year \$ | 2023 | |
| In Service Date | 2027 | In Service Year \$ | 2027 | |
| | SYSTEM | PARTICIPANT | TOTAL | ASSUMPTIONS |
| TRANSMISSION LINE | | | | |
| Material | \$ - | \$ - | \$ - | |
| Labour | \$ 4,350,000 | \$ - | \$ 4,350,000 | |
| Supply & Install | \$ 31,377,997 | \$ - | \$ 31,377,997 | |
| TOTAL TRANSMISSION LINE | \$ 35,727,997 | \$ - | \$ 35,727,997 | |
| SUBSTATION | | | | |
| Material | \$ 47,422,589 | \$ - | \$ 47,422,589 | |
| Labour | \$ 11,306,960 | \$ - | \$ 11,306,960 | |
| Supply & Install | \$ 62,385,532 | \$ - | \$ 62,385,532 | |
| TOTAL SUBSTATION | \$ 121,115,081 | \$ - | \$ 121,115,081 | |
| TELECOMMUNICATION | | | | |
| Material | \$ 234,000 | \$ - | \$ 234,000 | |
| Labour | \$ 260,000 | \$ - | \$ 260,000 | |
| Supply & Install | \$ 510,000 | \$ - | \$ 510,000 | |
| TOTAL TELECOMMUNICATIONS | \$ 1,004,000 | \$ - | \$ 1,004,000 | |
| OWNERS | | | | |
| Pre-SP Cost | \$ 234,102 | \$ - | \$ 234,102 | |
| Service Proposal | \$ 1,200,000 | \$ - | \$ 1,200,000 | |
| Facility Applications | \$ 5,000,000 | \$ - | \$ 5,000,000 | |
| Regulatory & Compliance | \$ - | \$ - | \$ - | |
| Land Rights - Easements | \$ 8,961,600 | \$ - | \$ 8,961,600 | |
| Land - Damage Claims | \$ - | \$ - | \$ - | |
| Land - Acquisitions | \$ 10,000,000 | \$ - | \$ 10,000,000 | |
| Land - Other | \$ - | \$ - | \$ - | |
| TOTAL OWNERS COST | \$ 25,395,702 | \$ - | \$ 25,395,702 | |
| DISTRIBUTED | | | | |
| Procurement Management | \$ 1,026,439 | \$ - | \$ 1,026,439 | |
| Project Management | \$ 5,506,215 | \$ - | \$ 5,506,215 | |
| Construction Management | \$ 9,214,773 | \$ - | \$ 9,214,773 | |
| Contingency | \$ 31,670,867 | \$ - | \$ 31,670,867 | |
| Escalation | \$ 14,715,554 | \$ - | \$ 14,715,554 | |
| TOTAL DISTRIBUTED | \$ 62,133,849 | \$ - | \$ 62,133,849 | |
| SALVAGE | | | | |
| Transmission Line Labour | \$ 8,040,453 | \$ - | \$ 8,040,453 | |
| Substation Labour | \$ 1,400,000 | \$ - | \$ 1,400,000 | |
| Telecom Labour | \$ - | \$ - | \$ - | |
| Land Remediation and Reclamation | \$ - | \$ - | \$ - | |
| TOTAL SALVAGE | \$ 9,440,453 | \$ - | \$ 9,440,453 | |
| OTHER COSTS | | | | |
| AFUDC | \$ 12,860,021 | \$ - | \$ 12,860,021 | |
| E&S | \$ 3,000,000 | \$ - | \$ 3,000,000 | |
| TOTAL OTHER | \$ 15,860,021 | \$ - | \$ 15,860,021 | |
| TOTAL PROJECT | \$ 270,677,104 | \$ - | \$ 270,677,104 | |

B. Kennedale Option 4 (AML Scope): Cut into the existing 240 kV transmission line 915L to connect the proposed substation to 915L via an-in-and-out configuration

| AESO Project Name & No. | City of Edmonton Transmission Reinforcement | | P7078 | TRANSMISSION PROJECT ESTIMATE SUMMARY |
|----------------------------------|---|--------------------|---------------------|--|
| Prepared by: | AltaLink Management Ltd. | | | |
| AACE Class: | 4 | Estimate Basis | NID | |
| High Range | 30% | Low Range | -30% | |
| Date of Estimate: | November 30, 2023 | Base Year \$ | 2023 | |
| In Service Date | 2027 | In Service Year \$ | 2027 | |
| | SYSTEM | PARTICIPANT | TOTAL | ASSUMPTIONS |
| TRANSMISSION LINE | | | | |
| Material | \$ 543,547 | \$ - | \$ 543,547 | |
| Labour | \$ 1,158,242 | \$ - | \$ 1,158,242 | |
| Supply & Install | \$ - | \$ - | \$ - | |
| TOTAL TRANSMISSION LINE | \$ 1,701,789 | \$ - | \$ 1,701,789 | |
| SUBSTATION | | | | |
| Material | \$ 70,110 | \$ - | \$ 70,110 | |
| Labour | \$ 497,806 | \$ - | \$ 497,806 | |
| Supply & Install | \$ - | \$ - | \$ - | |
| TOTAL SUBSTATION | \$ 567,916 | \$ - | \$ 567,916 | |
| TELECOMMUNICATION | | | | |
| Material | \$ - | \$ - | \$ - | |
| Labour | \$ 42,000 | \$ - | \$ 42,000 | |
| Supply & Install | \$ - | \$ - | \$ - | |
| TOTAL TELECOMMUNICATIONS | \$ 42,000 | \$ - | \$ 42,000 | |
| OWNERS | | | | |
| Pre-SP Cost | \$ 79,371 | \$ - | \$ 79,371 | |
| Service Proposal | \$ 77,362 | \$ - | \$ 77,362 | |
| Facility Applications | \$ 774,217 | \$ - | \$ 774,217 | |
| Regulatory & Compliance | \$ 2,267 | \$ - | \$ 2,267 | |
| Land Rights - Easements | \$ 31,881 | \$ - | \$ 31,881 | |
| Land - Damage Claims | \$ - | \$ - | \$ - | |
| Land - Acquisitions | \$ - | \$ - | \$ - | |
| Land - Other | \$ - | \$ - | \$ - | |
| TOTAL OWNERS COST | \$ 965,098 | \$ - | \$ 965,098 | |
| DISTRIBUTED | | | | |
| Procurement Management | \$ 41,226 | \$ - | \$ 41,226 | |
| Project Management | \$ 585,668 | \$ - | \$ 585,668 | |
| Construction Management | \$ 314,223 | \$ - | \$ 314,223 | |
| Contingency | \$ 415,695 | \$ - | \$ 415,695 | |
| Escalation | \$ 267,557 | \$ - | \$ 267,557 | |
| TOTAL DISTRIBUTED | \$ 1,624,369 | \$ - | \$ 1,624,369 | |
| SALVAGE | | | | |
| Transmission Line Labour | \$ 32,100 | \$ - | \$ 32,100 | |
| Substation Labour | \$ - | \$ - | \$ - | |
| Telecom Labour | \$ - | \$ - | \$ - | |
| Land Remediation and Reclamation | \$ - | \$ - | \$ - | |
| TOTAL SALVAGE | \$ 32,100 | \$ - | \$ 32,100 | |
| OTHER COSTS | | | | |
| AFUDC | \$ 350,726 | \$ - | \$ 350,726 | |
| E&S | \$ 445,559 | \$ - | \$ 445,559 | |
| TOTAL OTHER | \$ 796,286 | \$ - | \$ 796,286 | |
| TOTAL PROJECT | \$ 5,729,558 | \$ - | \$ 5,729,558 | |