

AESO Transmission Capability Map 2024 Assessment

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1. Introduction

This 2024 assessment calculated the transmission capability values published in the AESO Transmission Capability Map.

1.1 Study Objectives

The objectives of this assessment are to:

1. Estimate the additional generation capability that could be connected at different locations on the existing transmission system,
2. Indicate the level of complexity expected in the AESO Connection Process, and
3. Assist market participants in making informed business decisions for generation capacity and location siting in a way that facilitates transmission system optimization.

1.2 Application of the Results

The assessment is based on the existing transmission system with historical data and does not consider future load, generation, and transmission system developments and operations. Also, the capability values are based on category A thermal congestion and could be further limited by contingencies, other constraints, or other connection projects. Therefore, **the capability values are indicative and are not guaranteed in the AESO Connection Process**. The AESO Connection Process is the official process to facilitate market participants' requests for new or altered system access services on Alberta's transmission system.

Summarizing the study objectives, the capability estimation is an indication of the level of complexity to assist market participants. The level of complexity is indicated by comparing the project size to the estimated capability:

1. Locations with little capability or a capability smaller than the project size will likely result in a complex connection request, and
2. Locations with capabilities higher than the project size are the favorable locations to consider.

Given the study objectives and how the results should be applied; the results should not be used as an input into other engineering work products.

1.3 Capability Map Disclaimer

The AESO makes no representations, warranties, or guarantees, whether express or implied, as to the accuracy, reliability, completeness, currency, or non-infringement of the map and associated information, or its fitness for any particular purpose. While the AESO has made every attempt to ensure that the information is timely and accurate, the AESO is not responsible for any errors or omissions in the map and associated information. The AESO is not responsible for any losses or costs incurred by you or any other person as a result of the use, conversion, publication, transmission, installation, or improvements to the map and associated information, even if such losses or costs are foreseeable.

2. Study Scope

The scope of this assessment was selected based on the study objectives.

2.1 Study Period

This assessment was a historical assessment that studied the 2023 calendar year. It provides an indication of the transmission capability based on the existing system over the previous year.

2.2 Connection Type

This assessment studied generation capability.

2.3 Study Area

The assessment covered the South and Central East planning regions¹. This includes the planning areas of Medicine Hat (4), Lloydminster (13), Wainwright (32), Alliance/Battle River (36), Provost (37), Hanna (42), Sheerness (43), Strathmore/Blackie (45), High River (46), Brooks (47), Empress (48), Stavely (49), Vauxhall (52), Fort Macleod (53), Lethbridge (54), Glenwood (55), and Vegreville (56). The study area was selected based on connection project interest – these planning areas have a significant portion of the active connection projects.

2.4 Study Location

This assessment studied the transmission capability for each substation and transmission line in the study area. For substations, it was studied at each transmission bus with a voltage equal to or greater than 69 kV. For transmission lines, it was studied at each terminal of the transmission line. The transmission line results are the same for either a T-tap or in-and-out configuration. The capability was calculated independently at each location and does not consider potential generating unit connections at other locations.

3. Study Assumptions and Criteria

This section discusses the study assumptions, system model and reliability standards applied in the assessment. The information used in the assessment is based on the historical performance of the transmission system and will change over time. The AESO addresses this evolving system by regularly updating the assessment.

3.1 Capability Map Assumptions

The capability map was calculated using the following assumptions and historical data.

3.1.1 Study Year

The transmission capability was calculated by studying each hour in the 2023 calendar year. The study used hourly historical data.

¹ The AESO Planning Areas are available on the [AESO website](#).

3.1.2 Transmission System Model

The interconnected electric system was modelled as per the installed transmission system on December 31, 2023. Connection and system projects energizing after December 31, 2023 were not included in the model.

3.1.3 Transmission Facility Ratings

The transmission facility ratings were provided by the respective Transmission Facility Owners (TFOs). The facility ratings as per December 31, 2023 were used in the assessment.

3.1.4 Demand

The demand was modelled using the hourly historical metered demand for each measurement point. The hourly historical demand was assigned to its corresponding buses in the transmission system model.

3.1.5 Merit Order

The generating units were dispatched using hourly historical merit order data for each pool asset. The merit order determined the hourly pool asset dispatch and the hourly dispatch was assigned to its corresponding generating units in the transmission system model. For some pool assets, the historical merit order data was modified to account for non-dispatchable generating units and generating units connected behind a measurement point.

3.1.6 Interties

The Alberta Interconnected Electric System is connected to British Columbia via Western Electricity Coordinating Council (WECC) Path 1; to Saskatchewan via WECC Path 2; and to Montana via WECC Path 83. The interties were dispatched using the hourly historical schedule. In addition, the dispatches were constrained to each intertie's hourly historical available transfer capability.

3.1.7 High-Voltage Direct Current (HVDC) Power Order

The HVDC power orders on Western Alberta Transmission Line (WATL) and Eastern Alberta Transmission Line (EATL) were selected to minimize the hourly pool price. This assumption minimizes the transmission system losses while respecting transmission constraints.

3.1.8 Project Inclusion

Since the transmission system was modelled as per December 31, 2023, the transmission facilities for projects that energized during 2023 were modelled in every hour. However, since the demand and merit order use historical data, projects that energized during 2023 were effectively not included until they energized and had metered energy. Thus, their impact on a substation's capability may not be completely captured.

Connection and system projects energizing after December 31 were not included in the studies.

3.2 Criteria

The Transmission Planning (TPL) Standards, which are part of the Alberta Reliability Standards², ensure the transmission system is planned to meet specific performance requirements. Although this assessment

² A complete description of the standards are available on the [AESO website](#).

was not completed to fulfil the requirements of the TPL Standards, the TPL Standards were used to inform the performance criteria.

The assessment utilized a direct current (DC) power flow solver and therefore can assess thermal but not voltage and stability performance criteria. Studying only the thermal performance criteria was considered acceptable given the assessment's objective – to indicate the level of complexity expected in the AESO Connection Process and to assist market participants in making informed business decisions for generation capacity and location siting in a way that facilitates transmission system optimization.

Category A, also referred to as N-0, represents a normal system condition with all elements in service. For Category A, all equipment must be within its applicable thermal rating, electric supply to load cannot be interrupted, and generating units cannot be removed from service. The voltage criteria and stability criteria were not assessed.

Category B, C, and D were not considered in this assessment.

4. Methodology

This section details the methodology used in this assessment.

4.1 DC Power Flow Solver

The assessment uses a DC power flow solver. The DC power flow solver simplifies the power flow equations to enable large studies across many hours. The main assumptions of the DC power flow solver used in this assessment are: (i) bus voltages are 1.0 per unit (p.u.); and (ii) the power flow equations are linear.

4.2 Process Overview

The methodology for calculating transmission capability has three main steps:

1. **Create power flow cases:** The first step is to create an historical hourly representation of the power system.
2. **Calculate capabilities:** The second step is to calculate the hourly capability at each location using the hourly cases created in step one.
3. **Summarize capabilities:** The final step is to convert the hourly, location specific capabilities calculated in step two into the location specific capability.

Each of these steps are explained in detail in following sections.

4.2.1 Create Power Flow Cases

The first step was to create an historical hourly representation of the power system – a case was created for each hour (8,760) in the study year. This step combined the historical data in Section 3, a model of the power system and a cost minimization optimization problem.

The optimization problem:

1. Models the historical demand to its corresponding buses in the transmission system model.
2. Dispatches the most economical generating units using merit order data to minimize cost.
3. Optimizes the HVDC power order to minimize cost. Adjusting the HVDC power order to minimize losses reduces the dispatch on the marginal generating unit, which in turn minimizes the cost.

4. Solves the DC power flow equations (equality constraints) while respecting the continuous facility ratings (inequality constraints).
5. Allows the power flow results to influence the economic dispatch. The optimization redispaches the generating units or HVDC power order away from the minimum cost point to respect the continuous facility ratings in the most economical manner. This is the equivalent to constrained down generation or transmission must run.

4.2.2 Calculate Capabilities

The second step was to calculate the hourly capability at each location using the hourly cases created in step one. A generation maximization optimization problem was solved for each location in each hour.

The optimization problem:

1. Maximizes the incremental generation at a specific location.
2. Balances supply and demand by adding incremental load across the Alberta Interconnected Electric System (AIES).
3. Solves the DC power flow equations and ensures that the facilities rated 69 kV and above, which are effective to the incremental generation connection point and are outside of the incremental generation connection point, do not exceed their continuous facility rating.
4. Allows the power flow results to constrain the incremental generation.

4.2.3 Summarize Capability

The final step is to convert the hourly, location specific capabilities calculated in step two into the location specific capability.

The capability varies hour-to-hour depending on the surrounding system. The hourly capability results can be sorted to create a duration curve. This curve illustrates the range and capability available as a percentage of time. A project applying for a value below the minimum capability observed on the curve would not introduce Category A (N-0) congestion into the historical system. However, a project applying for a value on the duration curve would expect congestion for the corresponding percentage of time.

The 0.5 percentile was selected as the capability³. In other words, connecting a generating unit at this value would result in N-0 congestion for 0.5 per cent of the historical hours. This provides an indication of the capability while planning for a congestion-free system.

5. Transmission Capability Results

Transmission capability was calculated for each transmission bus and each transmission line in the study area. The substation capability results are provided in Attachment A, the transmission line capability results are provided in Attachment B and the generation assets that energized in 2023 are provided in Attachment C. Since the assessment did not consider Category B criteria, the transmission line capability results apply for both T-tap and In-and-Out configurations.

³ Additionally, in some locations, the capability may be affected by the Most Severe Single Contingency (MSSC) limit and hence the capability may be reduced.

Overall, since more projects have energized after the publication of the 2023 Transmission Capability Assessment results, the capability in the South and Central East regions have decreased. The capability in the South region has decreased more than the capability in the Central East region primarily due to some additional transmission elements in the Central region constraining the generation integration capability in the South region.

6. Conclusions

The assessment estimated the additional generation capability that could be connected at different locations on the existing transmission system for substations and transmission lines in the South and Central East planning regions. The transmission capability can be used to indicate the level of complexity expected in the AESO Connection Process, and to assist market participants in making informed business decisions for generation capacity and location siting in a way that facilitates transmission system optimization.

Attachment A – Substation Capability

Name	Facility Code	TFO ⁴	Planning Area	Bus Number	Voltage (kV)	Capability (MW) ⁵
Al Rothbauer	321S	AltaLink	04-Medicine Hat	976	138	210
Amoco Empress	163S	AltaLink	48-Empress	262	240	20
Amoco Empress	163S	AltaLink	48-Empress	267	138	17
Anderson	801S	ATCO	43-Sheerness	1484	240	272
Anderson	801S	ATCO	43-Sheerness	1485	144	11
Ardenville Wind Farm	418S	AltaLink	53-Fort Macleod	739	138	40
Badlands	981S	ATCO	43-Sheerness	1632	138	5
Bassano	435S	AltaLink	47-Brooks	399	138	71
Battle River	757S	ATCO	36-Alliance/Battle River	1489	240	410
Battle River	757S	ATCO	36-Alliance/Battle River	1491	144	304
Battle River	757S	ATCO	36-Alliance/Battle River	1469	240	118
Battle River	757S	ATCO	36-Alliance/Battle River	1492	72	99
Battle Sands	594S	AltaLink	32-Wainwright	609	138	92
Bauer	918S	ATCO	13-Lloydminster	1113	144	108
Big Knife Creek	843S	ATCO	36-Alliance/Battle River	1401	72	59
Big Valley	778S	ATCO	42-Hanna	1442	72	9
Bigfoot	756S	ATCO	36-Alliance/Battle River	1498	72	49
Bindloss	914S	ATCO	48-Empress	1454	144	19
Black Diamond	392S	AltaLink	46-High River	238	138	49
Black Diamond	392S	AltaLink	46-High River	241	69	18
Blackie	253S	AltaLink	45-Strathmore/Blackie	253	138	35
Blackspring Ridge	485S	AltaLink	49-Stavelly	736	240	166
Blue Trail	528S	AltaLink	53-Fort Macleod	328	138	39

⁴ Some substations with T-tap lines listed in this table may not be owned by the TFOs and hence the capability in those substations may not be accessible to all market participants.

⁵ Equipment limitations within or downstream of the connection-point substation were not considered in the capability calculations. Hence, the actual capabilities may be lower than the values shown in the table.

Name	Facility Code	TFO ⁴	Planning Area	Bus Number	Voltage (kV)	Capability (MW) ⁵
Bowmanton	244S	AltaLink	04-Medicine Hat	669	240	395
Bowmanton	244S	AltaLink	04-Medicine Hat	659	138	265
Bowmanton	244S	AltaLink	04-Medicine Hat	645	138	0
Bowron	674S	City of Lethbridge	54-Lethbridge	698	138	18
Briker	880S	ATCO	13-Lloydminster	1314	144	101
Brooks	121S	AltaLink	47-Brooks	256	138	0
Buffalo Bird	601S	ATCO	42-Hanna	996	138	95
Buffalo Creek	526S	AltaLink	32-Wainwright	79	138	121
Bullpound	803S	ATCO	43-Sheerness	1463	144	6
Bullshead	523S	AltaLink	04-Medicine Hat	271	138	211
Burdett	368S	AltaLink	52-Vauxhall	269	138	2
Carseland	525S	AltaLink	45-Strathmore/Blaikie	252	138	50
Cassils	324S	AltaLink	47-Brooks	918	240	382
Castle River	239S	AltaLink	53-Fort Macleod	234	138	72
Castle Rock Ridge	205S	AltaLink	53-Fort Macleod	221	240	355
Castor	759S	ATCO	42-Hanna	1404	72	57
Cavalier		AltaLink	45-Strathmore/Blaikie	247	138	13
Cavendish	893S	ATCO	48-Empress	1456	144	19
Chappice Lake	649S	AltaLink	04-Medicine Hat	320	138	0
Chestermere	419S	AltaLink	6-Calgary	949	138	36
Chin Chute	315S	AltaLink	54-Lethbridge	406	138	10
Chinook	181S	City of Lethbridge	54-Lethbridge	367	138	18
Clipper	656S	AltaLink	32-Wainwright	484	138	85
Coalbanks	111S	City of Lethbridge	54-Lethbridge	679	138	18
Coaldale	254S	AltaLink	54-Lethbridge	690	138	10
Coleman	799S	AltaLink	53-Fort Macleod	232	138	156
Conrad	135S	AltaLink	52-Vauxhall	291	138	2
Cordel	755S	ATCO	36-Alliance/Battle River	1499	240	411
Coronation	773S	ATCO	42-Hanna	1465	72	17
Cowley Ridge	322S	AltaLink	53-Fort Macleod	264	69	7
Coyote Lake	963S	ATCO	43-Sheerness	1447	240	180
Coyote Lake	963S	ATCO	43-Sheerness	1421	144	110
Cutting Lake	227S	AltaLink	47-Brooks	445	138	0
Cypress	562S	AltaLink	48-Empress	677	240	20
Cypress	562S	AltaLink	48-Empress	674	138	17
Drywood	415S	AltaLink	55-Glenwood	233	138	116
Drywood	415S	AltaLink	55-Glenwood	226	69	74
Duchess	339S	AltaLink	47-Brooks	250	138	0

Name	Facility Code	TFO ⁴	Planning Area	Bus Number	Voltage (kV)	Capability (MW) ⁵
East Stavely	928S	AltaLink	49-Stavely	279	138	15
Edgerton	899S	AltaLink	37-Provost	362	138	157
Elkwater	264S	AltaLink	04-Medicine Hat	477	240	402
Empress	394S	AltaLink	48-Empress	266	138	17
Empress Liquids	164S	AltaLink	48-Empress	263	138	18
Enchant	447S	AltaLink	52-Vauxhall	286	138	0
Excel	910S	ATCO	42-Hanna	1459	144	92
Fidler	312S	AltaLink	53-Fort Macleod	751	240	356
Fidler	312S	AltaLink	53-Fort Macleod	752	138	214
Fincastle	336S	AltaLink	52-Vauxhall	31	138	2
Foothills	237S	AltaLink	46-High River	617	240	310
Foothills	237S	AltaLink	46-High River	640	138	145
Fort Macleod	15S	AltaLink	53-Fort Macleod	237	138	19
Garden City	226S	AltaLink	55-Glenwood	251	138	18
Garden Plain	1045S	ATCO	42-Hanna	542002	240	336
Ghost Pine	114S	ATCO	42-Hanna	603	144	17
Gleichen	179S	AltaLink	45-Strathmore/Blackie	254	138	16
Glenwood	229S	AltaLink	55-Glenwood	245	69	28
Goose Lake	103S	AltaLink	53-Fort Macleod	346	240	354
Goose Lake	103S	AltaLink	53-Fort Macleod	296	138	330
Granlea	1024S	AltaLink	04-Medicine Hat	994	240	266
Granum	604S	AltaLink	49-Stavely	894	138	13
Grizzly Bear	708S	ATCO	13-Lloydminster	1308	138	7
Halkirk	615S	ATCO	42-Hanna	1435	240	118
Halsbury	306S	AltaLink	48-Empress	798	240	30
Hanna	763S	ATCO	42-Hanna	1408	72	31
Hansman Lake	650S	AltaLink	37-Provost	649	240	431
Hansman Lake	650S	AltaLink	37-Provost	648	138	417
Hardisty	377S	AltaLink	32-Wainwright	73	138	216
Hartell	512S	AltaLink	46-High River	243	138	49
Hays	421S	AltaLink	52-Vauxhall	401	138	0
Hayter	277S	AltaLink	37-Provost	220	138	187
Heatburg	948S	ATCO	42-Hanna	1429	144	22
Heisler	764S	ATCO	36-Alliance/Battle River	1464	144	127
Heisler	764S	ATCO	36-Alliance/Battle River	1400	72	40
High River	65S	AltaLink	46-High River	242	138	82
High River	65S	AltaLink	46-High River	236	69	23
Highland	572S	ATCO	42-Hanna	549045	138	25
Hilda	662S	AltaLink	48-Empress	540004	138	0

Name	Facility Code	TFO ⁴	Planning Area	Bus Number	Voltage (kV)	Capability (MW) ⁵
Hill	751S	ATCO	13-Lloydminster	1393	144	173
Hillridge	139S	AltaLink	54-Lethbridge	389	138	8
HRT Express	329S	AltaLink	32-Wainwright	37	138	94
Hughenden	213S	AltaLink	37-Provost	75	138	134
Hull	257S	AltaLink	52-Vauxhall	2400	138	7
Hussar	431S	AltaLink	45-Strathmore/Blaikie	315	138	13
Irish Creek	706S	ATCO	13-Lloydminster	1377	144	145
Jarrow	252S	AltaLink	32-Wainwright	72	138	97
Jenner	275S	AltaLink	48-Empress	260	240	30
Jenner	275S	AltaLink	48-Empress	292	138	30
Kettle's Hill	383S	AltaLink	53-Fort Macleod	402	138	113
Killarney Lake	267S	AltaLink	37-Provost	219	138	157
Kitscoty	705S	ATCO	13-Lloydminster	1387	144	153
Lakesend	508S	AltaLink	42-Hanna	716	138	87
Lakeview	593S	City of Lethbridge	54-Lethbridge	697	138	18
Lanes Lake	973S	ATCO	42-Hanna	1418	240	118
Lanfine	959S	ATCO	42-Hanna	1438	240	305
Lanfine	959S	ATCO	42-Hanna	19438	144	178
Little Bow	991S	AltaLink	49-Stavelly	549026	240	1
Lloydminster	716S	ATCO	13-Lloydminster	1455	144	165
Loyalist	903S	ATCO	42-Hanna	1458	144	86
Lundbreck	513S	AltaLink	53-Fort Macleod	347	69	7
Macdonald	146S	City of Lethbridge	54-Lethbridge	696	138	18
Magcan	142S	AltaLink	46-High River	240	138	79
Magrath	225S	AltaLink	55-Glenwood	694	138	18
Magrath	225S	AltaLink	55-Glenwood	693	69	16
Mannix Mine	765S	ATCO	36-Alliance/Battle River	1488	72	58
Marion Lake	873S	ATCO	42-Hanna	1437	72	79
McBride Lake	240S	AltaLink	53-Fort Macleod	901	138	20
Metiskow	648S	AltaLink	37-Provost	74	138	415
Metiskow	648S	AltaLink	37-Provost	87	240	386
Michichi Creek	802S	ATCO	42-Hanna	1448	144	37
Michichi Creek	802S	ATCO	42-Hanna	1449	72	38
Milo	356S	AltaLink	47-Brooks	943	240	541
Monarch	492S	AltaLink	54-Lethbridge	400	138	18
Monitor	774S	ATCO	42-Hanna	1471	144	222
Monitor	774S	ATCO	42-Hanna	1472	72	24
Murray Lake	326S	AltaLink	04-Medicine Hat	838	240	406

Name	Facility Code	TFO ⁴	Planning Area	Bus Number	Voltage (kV)	Capability (MW) ⁵
Namaka	428S	AltaLink	45-Strathmore/Blackie	340	138	13
Nevis	766S	ATCO	42-Hanna	1422	240	366
Nevis	766S	ATCO	42-Hanna	1423	144	42
Newell	2075S	AltaLink	47-Brooks	1012	240	390
Nilrem	574S	AltaLink	32-Wainwright	1427	240	335
Nilrem	574S	AltaLink	32-Wainwright	19427	138	270
North Holden	395S	AltaLink	56-Vegreville	68	138	29
North Lethbridge	370S	AltaLink	54-Lethbridge	167	240	244
North Lethbridge	370S	AltaLink	54-Lethbridge	692	138	18
Oakland	946S	ATCO	43-Sheerness	1440	240	260
Okotoks	678S	AltaLink	46-High River	239	138	83
Oldman River	806S	AltaLink	53-Fort Macleod	230	138	65
Oyen	767S	ATCO	42-Hanna	1474	144	40
Oyen	767S	ATCO	42-Hanna	1475	72	28
Paintearth Creek	863S	ATCO	36-Alliance/Battle River	1403	240	422
Peace Butte	404S	AltaLink	04-Medicine Hat	284	138	111
Peigan	59S	AltaLink	53-Fort Macleod	165	240	350
Peigan	59S	AltaLink	53-Fort Macleod	166	138	207
Pemukan	932S	ATCO	42-Hanna	1419	240	472
Pemukan	932S	ATCO	42-Hanna	19419	144	234
Picture Butte	120S	AltaLink	54-Lethbridge	451	240	170
Pincher Creek	396S	AltaLink	53-Fort Macleod	224	138	153
Pincher Creek	396S	AltaLink	53-Fort Macleod	223	69	54
Provost	545S	AltaLink	37-Provost	86	138	130
Queenstown	504S	AltaLink	45-Strathmore/Blackie	333	138	26
Rangeland Yarrow	995S	AltaLink	55-Glenwood	228	69	24
Rattlesnake Ridge	719S	AltaLink	04-Medicine Hat	873	138	2
Raymond Reservoir	313S	AltaLink	55-Glenwood	413	69	9
Red Coat	967S	AltaLink	54-Lethbridge	1630	138	11
Ribstone Creek	892S	ATCO	42-Hanna	1477	144	104
Richdale	776S	ATCO	42-Hanna	1478	72	20
Riverbend	618S	AltaLink	54-Lethbridge	699	138	18
Rosyth	296S	AltaLink	32-Wainwright	373	138	77
Rowley	768S	ATCO	42-Hanna	1436	144	29
Russell	632S	AltaLink	53-Fort Macleod	656	138	154
Saddlebrook	303S	AltaLink	46-High River	557240	138	79
Sand Hills Sub	341S	AltaLink	48-Empress	111	138	17

Name	Facility Code	TFO ⁴	Planning Area	Bus Number	Voltage (kV)	Capability (MW) ⁵
Sandy Point	204S	AltaLink	48-Empress	53	138	17
Sedalia	363S	ATCO	42-Hanna	831	240	169
Sedgewick	137S	AltaLink	32-Wainwright	78	138	96
Shamrock	1018S	AltaLink	04-Medicine Hat	990	240	113
Sheerness	807S	ATCO	43-Sheerness	1481	240	65
Sheerness	807S	ATCO	43-Sheerness	1486	240	65
Shell Waterton	502S	AltaLink	55-Glenwood	231	69	45
Soderglen	243S	AltaLink	53-Fort Macleod	358	138	44
Spring Coulee	385S	AltaLink	55-Glenwood	246	69	19
St. Paul	707S	ATCO	56-Vegreville	1372	144	151
Stavely	349S	AltaLink	49-Stavely	235	138	15
Stettler	769S	ATCO	42-Hanna	1428	144	45
Stettler	769S	ATCO	42-Hanna	1439	72	56
Stirling	67S	AltaLink	55-Glenwood	293	138	11
Stirling	67S	AltaLink	55-Glenwood	280	69	12
Strathmore	151S	AltaLink	45-Strathmore/Blaekie	259	138	11
Strome	223S	AltaLink	56-Vegreville	76	138	60
Suffield	895S	AltaLink	04-Medicine Hat	270	138	0
Sullivan Lake	775S	ATCO	42-Hanna	1406	72	50
Summerview	354S	AltaLink	53-Fort Macleod	336	138	17
Sunken Lake	221S	AltaLink	37-Provost	112	138	87
Taber	83S	AltaLink	52-Vauxhall	272	138	5
Taber Wind Farm	134S	AltaLink	52-Vauxhall	343	138	2
Taylor Hydro Plant		AltaLink	55-Glenwood	670	69	16
Three Hills	770S	ATCO	42-Hanna	1433	144	19
Tilley	498S	AltaLink	47-Brooks	275	138	0
Tinchebray	972S	ATCO	36-Alliance/Battle River	1431	240	227
Travers	554S	AltaLink	49-Stavely	737	240	251
Tucuman	478S	AltaLink	32-Wainwright	483	138	244
Uplands	241S	City of Lethbridge	54-Lethbridge	691	138	18
Vauxhall	158S	AltaLink	52-Vauxhall	274	138	16
Vegreville	709S	ATCO	56-Vegreville	1367	144	17
Vermilion	710S	ATCO	13-Lloydminster	1383	144	178
Veteran	771S	ATCO	42-Hanna	1470	144	109
Vilna	777S	ATCO	56-Vegreville	1357	144	35
Vulcan	255S	AltaLink	49-Stavely	244	138	17
Wainwright	51S	AltaLink	32-Wainwright	297	138	109
Wardlow	230S	AltaLink	48-Empress	344	138	30
Ware Junction	132S	AltaLink	47-Brooks	225	240	329
Warner	344S	AltaLink	55-Glenwood	278	69	12
Waterton	379S	AltaLink	55-Glenwood	227	69	66
Watt Lake	956S	ATCO	56-Vegreville	1361	144	23

Name	Facility Code	TFO ⁴	Planning Area	Bus Number	Voltage (kV)	Capability (MW) ⁵
West Brooks	28S	AltaLink	47-Brooks	430	240	381
West Brooks	28S	AltaLink	47-Brooks	276	138	201
Westfield	107S	AltaLink	52-Vauxhall	277	138	2
Wheatcrest	1039S	AltaLink	52-Vauxhall	549039	138	0
Wheatland	609S	ATCO	43-Sheerness	759	144	5
Whitbylake	819S	ATCO	56-Vegreville	1350	144	39
Whitla	251S	AltaLink	04-Medicine Hat	662	240	407
Windrise	1063S	AltaLink	53-Fort Macleod	549031	138	30
Windy Flats	138S	AltaLink	53-Fort Macleod	746	240	349
Windy Flats	138S	AltaLink	53-Fort Macleod	654	138	207
Windy Flats	138S	AltaLink	53-Fort Macleod	745	138	203
Windy Point	112S	AltaLink	53-Fort Macleod	543	138	65
Wintering Hills	804S	ATCO	43-Sheerness	1460	144	5
Woolchester	1019S	AltaLink	04-Medicine Hat	549003	240	224
Wyndham	269S	AltaLink	45-Strathmore/Blackie	5251	138	50
Youngstown	772S	ATCO	42-Hanna	1476	72	21
Youngstown Express	2037S	ATCO	42-Hanna	1480	72	17

Attachment B – Transmission Line Capability

Line Name	Voltage (kV)	Substation Name	Facility Code	Planning Area	TFO	Capability (MW) ⁶
1002L	240	Amoco Empress	163S	48-Empress	AltaLink	20
1002L	240	Jenner	275S	48-Empress	AltaLink	30
1005AL	240	Little Bow	991S	49-Stavely	AltaLink	1
1005L	240	Picture Butte	120S	54-Lethbridge	AltaLink	1
1005L	240	Milo	356S	47-Brooks	AltaLink	1
100L	138	Tilley	498S	47-Brooks	AltaLink	0
100L	138	Suffield	895S	04-Medicine Hat	AltaLink	0
1011L	240	Amoco Empress	163S	48-Empress	AltaLink	20
1011L	240	Cypress	562S	48-Empress	AltaLink	20
1034L	240	Bowmanton	244S	04-Medicine Hat	AltaLink	395
1034L	240	Cassils	324S	47-Brooks	AltaLink	382
1035L	240	Newell	2075S	47-Brooks	AltaLink	390
1035L	240	Bowmanton	244S	04-Medicine Hat	AltaLink	395
1036L	240	Milo	356S	47-Brooks	AltaLink	165
1036L	240	Travers	554S	49-Stavely	AltaLink	251
1037L	240	Windy Flats	138S	53-Fort Macleod	AltaLink	349
1037L	240	Foothills	237S	46-High River	AltaLink	310
1038L	240	Windy Flats	138S	53-Fort Macleod	AltaLink	349
1038L	240	Foothills	237S	46-High River	AltaLink	310
1041L	240	North Lethbridge	370S	54-Lethbridge	AltaLink	244
1041L	240	Travers	554S	49-Stavely	AltaLink	251
1042L	240	Blackspring Ridge	485S	49-Stavely	AltaLink	166
1042L	240	Travers	554S	49-Stavely	AltaLink	166
1047L	240	Nilrem	574S	32-Wainwright	AltaLink	335
1047L	240	Hansman Lake	650S	37-Provost	AltaLink	431
1048L	240	Windy Flats	138S	53-Fort Macleod	AltaLink	349
1048L	240	Peigan	59S	53-Fort Macleod	AltaLink	350
1049L	240	Windy Flats	138S	53-Fort Macleod	AltaLink	349
1049L	240	Peigan	59S	53-Fort Macleod	AltaLink	350
1051L	240	West Brooks	28S	47-Brooks	AltaLink	381
1051L	240	Cassils	324S	47-Brooks	AltaLink	382
1052L	240	West Brooks	28S	47-Brooks	AltaLink	381
1052L	240	Cassils	324S	47-Brooks	AltaLink	382
1053L	240	Ware Junction	132S	47-Brooks	AltaLink	329
1053L	240	Cassils	324S	47-Brooks	AltaLink	382
1071L	240	Castle Rock Ridge	205S	53-Fort Macleod	AltaLink	355
1071L	240	Fidler	312S	53-Fort Macleod	AltaLink	356
1072L	240	Goose Lake	103S	53-Fort Macleod	AltaLink	354
1072L	240	Castle Rock Ridge	205S	53-Fort Macleod	AltaLink	355
1074AL	240	Woolchester	1019S	04-Medicine Hat	AltaLink	224
1074L	240	Bowmanton	244S	04-Medicine Hat	AltaLink	224
1074L	240	Elkwater	264S	04-Medicine Hat	AltaLink	224
1075L	240	Ware Junction	132S	47-Brooks	AltaLink	329
1075L	240	West Brooks	28S	47-Brooks	AltaLink	374
1087L	240	Newell	2075S	47-Brooks	AltaLink	317
1087L	240	Cassils	324S	47-Brooks	AltaLink	382
1088L	240	Newell	2075S	47-Brooks	AltaLink	390
1088L	240	Cassils	324S	47-Brooks	AltaLink	382

⁶ The T-tap connection capability for transmission lines will vary along the line depending on the T-tap location. As the T-tap location nears each substation, the T-tap capability approaches the MW value shown.

1106L	240	Foothills	237S	46-High River	AltaLink	310
1106L	240		SS-65	6-Calgary	Enmax	466
1107L	240	Foothills	237S	46-High River	AltaLink	310
1107L	240		SS-65	6-Calgary	Enmax	466
1148L	240	Shamrock	1018S	04-Medicine Hat	AltaLink	113
1148L	240	Whitla	251S	04-Medicine Hat	AltaLink	113
13L/158L	69	Black Diamond	392S	46-High River	AltaLink	18
13L/158L	69	High River	65S	46-High River	AltaLink	18
161L	138	Vulcan	255S	49-Stavely	AltaLink	17
161L	138	Queenstown	504S	45-Strathmore/Blackie	AltaLink	26
162L	69	Glenwood	229S	55-Glenwood	AltaLink	28
162L	69	Drywood	415S	55-Glenwood	AltaLink	36
164L	138	Goose Lake	103S	53-Fort Macleod	AltaLink	99
164L	138	Drywood	415S	55-Glenwood	AltaLink	116
170L	138	Coleman	799S	53-Fort Macleod	AltaLink	156
170L	138	Russell	632S	53-Fort Macleod	AltaLink	154
172EL	138	Hillridge	139S	54-Lethbridge	AltaLink	8
172L	138	Chinook	181S	54-Lethbridge	City of Lethbridge	18
172L	138	Coaldale	254S	54-Lethbridge	AltaLink	10
172L	138	Coaldale	254S	54-Lethbridge	AltaLink	10
172L	138	North Lethbridge	370S	54-Lethbridge	AltaLink	18
172L	138	North Lethbridge	370S	54-Lethbridge	AltaLink	18
172L	138	Taber	83S	52-Vauxhall	AltaLink	5
174L	138	Bardo	197S	31-Wetaskiwin	AltaLink	35
174L	138	North Holden	395S	56-Vegreville	AltaLink	29
180AL	138	Granum	604S	49-Stavely	AltaLink	13
180L	138	Fort Macleod	15S	53-Fort Macleod	AltaLink	12
180L	138	Vulcan	255S	49-Stavely	AltaLink	17
180L	138	East Stavely	928S	49-Stavely	AltaLink	15
180L	138	East Stavely	928S	49-Stavely	AltaLink	15
185AL	69	Drywood	415S	55-Glenwood	AltaLink	24
185AL	69	Rangeland Yarrow	995S	55-Glenwood	AltaLink	24
185L	69	Waterton	379S	55-Glenwood	AltaLink	65
185L	69	Waterton	379S	55-Glenwood	AltaLink	65
185L	69	Pincher Creek	396S	53-Fort Macleod	AltaLink	48
185L	69	Drywood	415S	55-Glenwood	AltaLink	49
197L	138	Stavely	349S	49-Stavely	AltaLink	15
197L	138	East Stavely	928S	49-Stavely	AltaLink	15
207L	138	Coalbanks	111S	54-Lethbridge	City of Lethbridge	18
207L	138	North Lethbridge	370S	54-Lethbridge	AltaLink	18
225AL	69	Raymond Reservoir	313S	55-Glenwood	AltaLink	9
225L	69	Magrath	225S	55-Glenwood	AltaLink	16
225L	69	Magrath	225S	55-Glenwood	AltaLink	16
225L	69	Glenwood	229S	55-Glenwood	AltaLink	24
225L	69	Spring Coulee	385S	55-Glenwood	AltaLink	17
225L	69	Spring Coulee	385S	55-Glenwood	AltaLink	17
225L	69	Stirling	67S	55-Glenwood	AltaLink	4
300L/725BL	138	McBride Lake	240S	53-Fort Macleod	AltaLink	20
398L	138	Hayter	277S	37-Provost	AltaLink	186
398L	138	Provost	545S	37-Provost	AltaLink	130
408L	138	Jarrow	252S	32-Wainwright	AltaLink	67
408L	138	Wainwright	51S	32-Wainwright	AltaLink	94
412L	138	Pincher Creek	396S	53-Fort Macleod	AltaLink	153
412L	138	Russell	632S	53-Fort Macleod	AltaLink	154
413L	138	Castle River	239S	53-Fort Macleod	AltaLink	72
413L	138	Russell	632S	53-Fort Macleod	AltaLink	72
434L	138	Foothills	237S	46-High River	AltaLink	145
434L	138	High River	65S	46-High River	AltaLink	82

463AL	138	Monarch	492S	54-Lethbridge	AltaLink	18
463L	138	Fort Macleod	15S	53-Fort Macleod	AltaLink	19
463L	138	Chinook	181S	54-Lethbridge	City of Lethbridge	18
472AL	138	Sunken Lake	221S	37-Provost	AltaLink	87
472L	138	Hughenden	213S	37-Provost	AltaLink	133
472L	138	Metiskow	648S	37-Provost	AltaLink	143
491L	138	Jarrow	252S	32-Wainwright	AltaLink	97
497L	138	Windrise	1063S	53-Fort Macleod	AltaLink	30
497L	138	Windy Flats	138S	53-Fort Macleod	AltaLink	31
507L	138	Hull	257S	52-Vauxhall	AltaLink	7
507L	138	Taber	83S	52-Vauxhall	AltaLink	5
508L	69	Warner	344S	55-Glenwood	AltaLink	12
508L	69	Stirling	67S	55-Glenwood	AltaLink	12
514BL	69	Cowley Ridge	322S	53-Fort Macleod	AltaLink	7
514L	69	Pincher Creek	396S	53-Fort Macleod	AltaLink	7
514L	69	Lundbreck	513S	53-Fort Macleod	AltaLink	7
591L	69	Waterton	379S	55-Glenwood	AltaLink	45
591L	69	Shell Waterton	502S	55-Glenwood	AltaLink	45
600L	138	Peace Butte	404S	04-Medicine Hat	AltaLink	111
600L	138	Bullshead	523S	04-Medicine Hat	AltaLink	109
601L	138	Wardlow	230S	48-Empress	AltaLink	30
601L	138	Jenner	275S	48-Empress	AltaLink	30
603L	138	Windy Flats	138S	53-Fort Macleod	AltaLink	44
603L	138	Soderglen	243S	53-Fort Macleod	AltaLink	44
607AL	138	Taber Wind Farm	134S	52-Vauxhall	AltaLink	2
607L	138	Conrad	135S	52-Vauxhall	AltaLink	2
607L	138	Fincastle	336S	52-Vauxhall	AltaLink	2
608AL	138	Blue Trail	528S	53-Fort Macleod	AltaLink	39
608L	138	Windy Flats	138S	53-Fort Macleod	AltaLink	39
608L	138	Ardenville Wind Farm	418S	53-Fort Macleod	AltaLink	40
610L	138	Fincastle	336S	52-Vauxhall	AltaLink	2
610L	138	Taber	83S	52-Vauxhall	AltaLink	1
612L	138	Fincastle	336S	52-Vauxhall	AltaLink	2
612L	138	Burdett	368S	52-Vauxhall	AltaLink	2
613L	138	Goose Lake	103S	53-Fort Macleod	AltaLink	116
613L	138	Pincher Creek	396S	53-Fort Macleod	AltaLink	153
616AL	138	Kettle's Hill	383S	53-Fort Macleod	AltaLink	113
616L	138	Goose Lake	103S	53-Fort Macleod	AltaLink	141
616L	138	Peigan	59S	53-Fort Macleod	AltaLink	98
624L	138	Fidler	312S	53-Fort Macleod	AltaLink	17
624L	138	Summerview	354S	53-Fort Macleod	AltaLink	17
646L	138	Foothills	237S	46-High River	AltaLink	145
646L	138	Okotoks	678S	46-High River	AltaLink	83
658AL	138	Hilda	662S	48-Empress	AltaLink	0
658L	138	Cypress	562S	48-Empress	AltaLink	1
658L	138	Chappice Lake	649S	04-Medicine Hat	AltaLink	0
666L	138	West Brooks	28S	47-Brooks	AltaLink	98
666L	138	Tilley	498S	47-Brooks	AltaLink	0
667L	138	Macdonald	146S	54-Lethbridge	City of Lethbridge	18
667L	138	North Lethbridge	370S	54-Lethbridge	AltaLink	18
668L	138	Empress	394S	48-Empress	AltaLink	17
668L	138	Cypress	562S	48-Empress	AltaLink	17
669L	138	Amoco Empress	163S	48-Empress	AltaLink	17
669L	138	Cypress	562S	48-Empress	AltaLink	17
674L	138	Bowmanton	244S	04-Medicine Hat	AltaLink	0
674L	138	Chappice Lake	649S	04-Medicine Hat	AltaLink	0
675L	138	Bowmanton	244S	04-Medicine Hat	AltaLink	265
675L	138	Al Rothbauer	321S	04-Medicine Hat	AltaLink	210

676L	138	Bowmanton	244S	04-Medicine Hat	AltaLink	265
676L	138	Bullshead	523S	04-Medicine Hat	AltaLink	211
679L	138	Tucuman	478S	32-Wainwright	AltaLink	164
679L	138	Nilrem	574S	32-Wainwright	AltaLink	224
680L	138	Tucuman	478S	32-Wainwright	AltaLink	164
680L	138	Nilrem	574S	32-Wainwright	AltaLink	224
681L	138	Hardisty	377S	32-Wainwright	AltaLink	216
681L	138	Tucuman	478S	32-Wainwright	AltaLink	209
691L	138	Chestermere	419S	6-Calgary	AltaLink	36
691L	138	Janet	74S	6-Calgary	AltaLink	35
696L/7L696	138	Lakesend	508S	42-Hanna	AltaLink	87
696L/7L696	138	Ribstone Creek	892S	42-Hanna	ATCO	85
6L02	69	Battle River	757S	36-Alliance/Battle River	ATCO	56
6L02	69	Mannix Mine	765S	36-Alliance/Battle River	ATCO	55
6L02	69	Mannix Mine	765S	36-Alliance/Battle River	ATCO	55
6L02	69	Stettler	769S	42-Hanna	ATCO	56
6L02	69	Marion Lake	873S	42-Hanna	ATCO	78
6L02	69	Marion Lake	873S	42-Hanna	ATCO	78
6L03	69	Battle River	757S	36-Alliance/Battle River	ATCO	49
6L03	69	Sullivan Lake	775S	42-Hanna	ATCO	50
6L05	69	Battle River	757S	36-Alliance/Battle River	ATCO	58
6L05	69	Heisler	764S	36-Alliance/Battle River	ATCO	40
6L05	69	Big Knife Creek	843S	36-Alliance/Battle River	ATCO	59
6L05	69	Big Knife Creek	843S	36-Alliance/Battle River	ATCO	59
6L08	69	Bigfoot	756S	36-Alliance/Battle River	ATCO	49
6L08	69	Battle River	757S	36-Alliance/Battle River	ATCO	48
6L09	69	Hanna	763S	42-Hanna	ATCO	17
6L09	69	Oyen	767S	42-Hanna	ATCO	18
6L09	69	Youngstown	772S	42-Hanna	ATCO	21
6L09	69	Youngstown	772S	42-Hanna	ATCO	21
6L09	69	Richdale	776S	42-Hanna	ATCO	20
6L09	69	Richdale	776S	42-Hanna	ATCO	20
6L12	69	Sullivan Lake	775S	42-Hanna	ATCO	18
6L15	69	Hanna	763S	42-Hanna	ATCO	27
6L15	69	Sullivan Lake	775S	42-Hanna	ATCO	16
6L17	69	Castor	759S	42-Hanna	ATCO	57
6L21	69	Youngstown Express	2037S	42-Hanna	ATCO	17
6L25	69	Coronation	773S	42-Hanna	ATCO	17
6L44	69	Stettler	769S	42-Hanna	ATCO	9
6L44	69	Big Valley	778S	42-Hanna	ATCO	9
6L56	69	Hanna	763S	42-Hanna	ATCO	16
6L56	69	Michichi Creek	802S	42-Hanna	ATCO	33
701L	138	Strome	223S	56-Vegreville	AltaLink	60
701L	138	North Holden	395S	56-Vegreville	AltaLink	28
701L/7L701	138	Strome	223S	56-Vegreville	AltaLink	60
702L	138	Sedgewick	137S	32-Wainwright	AltaLink	96
702L	138	Hardisty	377S	32-Wainwright	AltaLink	64
702L/7L702	138	Sedgewick	137S	32-Wainwright	AltaLink	96
702L/7L702	138	Battle River	757S	36-Alliance/Battle River	ATCO	112
703BL	138	HRT Express	329S	32-Wainwright	AltaLink	94
703L	138	Hughenden	213S	37-Provost	AltaLink	134
703L	138	Hardisty	377S	32-Wainwright	AltaLink	92
704L	138	Tucuman	478S	32-Wainwright	AltaLink	76
704L	138	Wainwright	51S	32-Wainwright	AltaLink	68
715AL	138	Hansman Lake	650S	37-Provost	AltaLink	105
715L	138	Provost	545S	37-Provost	AltaLink	130
722L	138	Westfield	107S	52-Vauxhall	AltaLink	2
722L	138	Burdett	368S	52-Vauxhall	AltaLink	2

725AL	138	Riverbend	618S	54-Lethbridge	AltaLink	18
725L	138	Coalbanks	111S	54-Lethbridge	City of Lethbridge	18
725L	138	Fort Macleod	15S	53-Fort Macleod	AltaLink	19
725L	138	Bowron	674S	54-Lethbridge	City of Lethbridge	18
725L	138	Bowron	674S	54-Lethbridge	City of Lethbridge	18
727A1L	138	Saddlebrook	303S	46-High River	AltaLink	79
727AL	138	Magcan	142S	46-High River	AltaLink	79
727L	138	High River	65S	46-High River	AltaLink	82
727L	138	Okotoks	678S	46-High River	AltaLink	83
733L	138	Strathmore	151S	45-Strathmore/Blackie	AltaLink	11
733L	138	Gleichen	179S	45-Strathmore/Blackie	AltaLink	16
733L	138	Namaka	428S	45-Strathmore/Blackie	AltaLink	13
733L	138	Namaka	428S	45-Strathmore/Blackie	AltaLink	13
734L	138	Uplands	241S	54-Lethbridge	City of Lethbridge	18
734L	138	North Lethbridge	370S	54-Lethbridge	AltaLink	18
748L	138	Killarney Lake	267S	37-Provost	AltaLink	134
748L	138	Hayter	277S	37-Provost	AltaLink	187
749AL	138	Killarney Lake	267S	37-Provost	AltaLink	157
749L	138	Metiskow	648S	37-Provost	AltaLink	133
749L	138	Edgerton	899S	37-Provost	AltaLink	157
749L/7L749	138	Edgerton	899S	37-Provost	AltaLink	146
753L	138	Blackie	253S	45-Strathmore/Blackie	AltaLink	35
753L	138	High River	65S	46-High River	AltaLink	82
760AL	138	Empress Liquids	164S	48-Empress	AltaLink	18
760L	138	Amoco Empress	163S	48-Empress	AltaLink	17
760L	138	Amoco Empress	163S	48-Empress	AltaLink	17
760L	138	Empress	394S	48-Empress	AltaLink	17
763A1L	138	Wheatcrest	1039S	52-Vauxhall	AltaLink	0
763AL	138	Enchant	447S	52-Vauxhall	AltaLink	0
763L	138	Vauxhall	158S	52-Vauxhall	AltaLink	16
763L	138	Vauxhall	158S	52-Vauxhall	AltaLink	16
763L	138	Hull	257S	52-Vauxhall	AltaLink	7
763L	138	West Brooks	28S	47-Brooks	AltaLink	33
765L	138	Strathmore	151S	45-Strathmore/Blackie	AltaLink	11
765L	138	Chestermere	419S	6-Calgary	AltaLink	11
769AL	138	Clipper	656S	32-Wainwright	AltaLink	85
769BL	138	Battle Sands	594S	32-Wainwright	AltaLink	92
769L	138	Rosyth	296S	32-Wainwright	AltaLink	77
769L	138	Hardisty	377S	32-Wainwright	AltaLink	92
770L	138	Coaldale	254S	54-Lethbridge	AltaLink	10
770L	138	North Lethbridge	370S	54-Lethbridge	AltaLink	18
782L	138	Wyndham	269S	45-Strathmore/Blackie	AltaLink	50
782L	138	Carseland	525S	45-Strathmore/Blackie	AltaLink	50
786L	138	Coleman	799S	53-Fort Macleod	AltaLink	124
794L/7L794	138	Lac La Biche	157S	27-Athabasca/Lac La Biche	AltaLink	68
794L/7L794	138	Whitbylake	819S	56-Vegreville	ATCO	39
795L	138	Brooks	121S	47-Brooks	AltaLink	0
795L	138	Hays	421S	52-Vauxhall	AltaLink	0
7L110	138	Monitor	774S	42-Hanna	ATCO	86
7L110	138	Loyalist	903S	42-Hanna	ATCO	86
7L116	138	Excel	910S	42-Hanna	ATCO	92
7L116	138	Lanfine	959S	42-Hanna	ATCO	92
7L117	138	Irish Creek	706S	13-Lloydminster	ATCO	117
7L117	138	Vermilion	710S	13-Lloydminster	ATCO	121
7L127	138	Monitor	774S	42-Hanna	ATCO	222
7L127	138	Pemukan	932S	42-Hanna	ATCO	233
7L128	138	Michichi Creek	802S	42-Hanna	ATCO	37

7L128	138	Coyote Lake	963S	43-Sheerness	ATCO	27
7L129	138	Buffalo Creek	526S	32-Wainwright	AltaLink	121
7L129	138	Vermilion	710S	13-Lloydminster	ATCO	103
7L130	138	Kitscoty	705S	13-Lloydminster	ATCO	153
7L130	138	Vermilion	710S	13-Lloydminster	ATCO	118
7L132	138	Oyen	767S	42-Hanna	ATCO	40
7L132	138	Lanfine	959S	42-Hanna	ATCO	121
7L137	138	Rowley	768S	42-Hanna	ATCO	29
7L137	138	Three Hills	770S	42-Hanna	ATCO	19
7L139	138	St. Paul	707S	56-Vegreville	ATCO	131
7L139	138	Whitbylake	819S	56-Vegreville	ATCO	39
7L14	138	Kitscoty	705S	13-Lloydminster	ATCO	147
7L14	138	Hill	751S	13-Lloydminster	ATCO	147
7L143	138	Nevis	766S	42-Hanna	ATCO	42
7L143	138	Stettler	769S	42-Hanna	ATCO	45
7L153	138	Wheatland	609S	43-Sheerness	ATCO	5
7L153	138	Wintering Hills	804S	43-Sheerness	ATCO	5
7L159	138	Three Hills	770S	42-Hanna	ATCO	19
7L159	138	Heatburg	948S	42-Hanna	ATCO	16
7L16	138	Nevis	766S	42-Hanna	ATCO	19
7L16	138	Heatburg	948S	42-Hanna	ATCO	22
7L171	138	Michichi Creek	802S	42-Hanna	ATCO	5
7L171	138	Wintering Hills	804S	43-Sheerness	ATCO	5
7L224	138	Hansman Lake	650S	37-Provost	AltaLink	81
7L224	138	Monitor	774S	42-Hanna	ATCO	144
7L238	138	Buffalo Bird	601S	42-Hanna	ATCO	95
7L238	138	Lanfine	959S	42-Hanna	ATCO	95
7L25	138	Rowley	768S	42-Hanna	ATCO	29
7L25	138	Michichi Creek	802S	42-Hanna	ATCO	37
7L42	138	Lloydminster	716S	13-Lloydminster	ATCO	165
7L42	138	Hill	751S	13-Lloydminster	ATCO	158
7L50	138	Buffalo Creek	526S	32-Wainwright	AltaLink	71
7L50	138	Battle River	757S	36-Alliance/Battle River	ATCO	115
7L53	138	Bonnyville	700S	28-Cold Lake	ATCO	84
7L53	138	Irish Creek	706S	13-Lloydminster	ATCO	136
7L65	138	Vegreville	709S	56-Vegreville	ATCO	17
7L65	138	Vermilion	710S	13-Lloydminster	ATCO	7
7L70	138	Bonnyville	700S	28-Cold Lake	ATCO	107
7L70	138	St. Paul	707S	56-Vegreville	ATCO	151
7L701	138	Battle River	757S	36-Alliance/Battle River	ATCO	173
7L749	138	Lloydminster	716S	13-Lloydminster	ATCO	108
7L760	138	Oyen	767S	42-Hanna	ATCO	40
7L77	138	North Holden	395S	56-Vegreville	AltaLink	29
7L77	138	Vegreville	709S	56-Vegreville	ATCO	17
7L79	138	Veteran	771S	42-Hanna	ATCO	109
7L79	138	Veteran	771S	42-Hanna	ATCO	109
7L79	138	Ribstone Creek	892S	42-Hanna	ATCO	104
7L79	138	Pemukan	932S	42-Hanna	ATCO	107
7L85	138	Anderson	801S	43-Sheerness	ATCO	11
7L85	138	Bullpound	803S	43-Sheerness	ATCO	6
7L85	138	Bullpound	803S	43-Sheerness	ATCO	6
7L85	138	Wintering Hills	804S	43-Sheerness	ATCO	5
7L85AL	138	Badlands	981S	43-Sheerness	ATCO	5
7L92	138	Vegreville	709S	56-Vegreville	ATCO	17
7L92	138	Vilna	777S	56-Vegreville	ATCO	35
7L92	138	Vilna	777S	56-Vegreville	ATCO	35
7L92	138	Whitbylake	819S	56-Vegreville	ATCO	39
7LA128	138	Highland	572S	42-Hanna	AltaLink	25

7LA129	138	Bauer	918S	13-Lloydminster	ATCO	108
7LA159	138	Ghost Pine	114S	42-Hanna	ATCO	17
7LA53	138	Lindbergh	969S	28-Cold Lake	ATCO	79
7LA65	138	Grizzly Bear	708S	13-Lloydminster	ATCO	7
7LA701	138	Heisler	764S	36-Alliance/Battle River	ATCO	127
7LA760	138	Bindloss	914S	48-Empress	ATCO	19
7LA92	138	Watt Lake	956S	56-Vegreville	ATCO	23
7LB749	138	Briker	880S	13-Lloydminster	ATCO	101
7LB760	138	Cavendish	893S	48-Empress	ATCO	19
812AL	138	Hartell	512S	46-High River	AltaLink	49
812L	138	Black Diamond	392S	46-High River	AltaLink	49
812L	138	High River	65S	46-High River	AltaLink	48
813L	138	Macdonald	146S	54-Lethbridge	City of Lethbridge	18
813L	138	Uplands	241S	54-Lethbridge	City of Lethbridge	18
814L	138	Brooks	121S	47-Brooks	AltaLink	0
814L	138	West Brooks	28S	47-Brooks	AltaLink	147
820AL	138	Chin Chute	315S	54-Lethbridge	AltaLink	10
820BL	138	Red Coat	967S	54-Lethbridge	AltaLink	11
820L	138	Coaldale	254S	54-Lethbridge	AltaLink	10
820L	138	Stirling	67S	55-Glenwood	AltaLink	11
821L	138	Vauxhall	158S	52-Vauxhall	AltaLink	16
821L	138	Hays	421S	52-Vauxhall	AltaLink	0
823L	138	Macdonald	146S	54-Lethbridge	City of Lethbridge	18
823L	138	Lakeview	593S	54-Lethbridge	City of Lethbridge	18
824L	138	Lakeview	593S	54-Lethbridge	City of Lethbridge	18
824L	138	Riverbend	618S	54-Lethbridge	AltaLink	18
827L	138	Brooks	121S	47-Brooks	AltaLink	0
827L	138	West Brooks	28S	47-Brooks	AltaLink	147
830L	138	Cypress	562S	48-Empress	AltaLink	1
831AL	138	Cutting Lake	227S	47-Brooks	AltaLink	0
831L	138	Brooks	121S	47-Brooks	AltaLink	0
831L	138	Duchess	339S	47-Brooks	AltaLink	0
850L	138	Carseland	525S	45-Strathmore/Blackie	AltaLink	50
850L	138	Okotoks	678S	46-High River	AltaLink	49
851L	138	Blackie	253S	45-Strathmore/Blackie	AltaLink	35
851L	138	Carseland	525S	45-Strathmore/Blackie	AltaLink	50
853AL	138	Bassano	435S	47-Brooks	AltaLink	71
853L	138	West Brooks	28S	47-Brooks	AltaLink	67
853L	138	Queenstown	504S	45-Strathmore/Blackie	AltaLink	26
863L	138	Magrath	225S	55-Glenwood	AltaLink	18
863L	138	Riverbend	618S	54-Lethbridge	AltaLink	18
869L	138	Amoco Empress	163S	48-Empress	AltaLink	17
869L	138	Sandy Point	204S	48-Empress	AltaLink	17
871L	138	Amoco Empress	163S	48-Empress	AltaLink	17
871L	138	Sand Hills Sub	341S	48-Empress	AltaLink	17
876L	138	Gleichen	179S	45-Strathmore/Blackie	AltaLink	16
876L	138	Blackie	253S	45-Strathmore/Blackie	AltaLink	35
879AL	138	Rattlesnake Ridge	719S	04-Medicine Hat	AltaLink	2
879L	138	Bowmanton	244S	04-Medicine Hat	AltaLink	0
879L	138	Burdett	368S	52-Vauxhall	AltaLink	2
880L	138	Al Rothbauer	321S	04-Medicine Hat	AltaLink	154
880L	138	Bullshead	523S	04-Medicine Hat	AltaLink	124
885L	138	Metiskow	648S	37-Provost	AltaLink	409
885L	138	Hansman Lake	650S	37-Provost	AltaLink	417
886L	138	Namaka	428S	45-Strathmore/Blackie	AltaLink	13
886L	138	Hussar	431S	45-Strathmore/Blackie	AltaLink	13
891L	138	Garden City	226S	55-Glenwood	AltaLink	18
892L	138	Bowmanton	244S	04-Medicine Hat	AltaLink	0

892L	138	Suffield	895S	04-Medicine Hat	AltaLink	0
893AL	138	Windy Point	112S	53-Fort Macleod	AltaLink	65
893L	138	Fidler	312S	53-Fort Macleod	AltaLink	93
893L	138	Oldman River	806S	53-Fort Macleod	AltaLink	65
912L	240	Red Deer	63S	35-Red Deer	AltaLink	267
912L	240	Nevis	766S	42-Hanna	ATCO	366
923L	240	Newell	2075S	47-Brooks	AltaLink	352
923L	240	Milo	356S	47-Brooks	AltaLink	466
924L	240	Langdon	102S	6-Calgary	AltaLink	304
924L	240	Milo	356S	47-Brooks	AltaLink	466
927L	240	Langdon	102S	6-Calgary	AltaLink	333
927L	240	Milo	356S	47-Brooks	AltaLink	466
931L	240	Ware Junction	132S	47-Brooks	AltaLink	329
931L	240	West Brooks	28S	47-Brooks	AltaLink	374
933L/9L933	240	Ware Junction	132S	47-Brooks	AltaLink	329
933L/9L933	240	Anderson	801S	43-Sheerness	ATCO	272
934L/9L934	240	Ware Junction	132S	47-Brooks	AltaLink	274
934L/9L934	240	Anderson	801S	43-Sheerness	ATCO	272
935L	240	Cassils	324S	47-Brooks	AltaLink	362
935L	240	Milo	356S	47-Brooks	AltaLink	458
940L	240	Picture Butte	120S	54-Lethbridge	AltaLink	170
940L	240	North Lethbridge	370S	54-Lethbridge	AltaLink	225
944L	240	Ware Junction	132S	47-Brooks	AltaLink	329
944L	240	Jenner	275S	48-Empress	AltaLink	30
945L	240	Jenner	275S	48-Empress	AltaLink	30
945L	240	Cypress	562S	48-Empress	AltaLink	20
948L/9L948	240	Hansman Lake	650S	37-Provost	AltaLink	305
948L/9L948	240	Paintearth Creek	863S	36-Alliance/Battle River	ATCO	403
949L	240	Jenner	275S	48-Empress	AltaLink	30
949L	240	Halsbury	306S	48-Empress	AltaLink	30
950L/9L950	240	Ware Junction	132S	47-Brooks	AltaLink	275
950L/9L950	240	Anderson	801S	43-Sheerness	ATCO	272
951L	240	Ware Junction	132S	47-Brooks	AltaLink	329
951L	240	Jenner	275S	48-Empress	AltaLink	30
953L/9L953	240	Nilrem	574S	32-Wainwright	AltaLink	335
953L/9L953	240	Cordel	755S	36-Alliance/Battle River	ATCO	411
954L	240	Metiskow	648S	37-Provost	AltaLink	386
954L	240	Hansman Lake	650S	37-Provost	AltaLink	385
955L	240	Goose Lake	103S	53-Fort Macleod	AltaLink	354
955L	240	Peigan	59S	53-Fort Macleod	AltaLink	350
956L	240	Goose Lake	103S	53-Fort Macleod	AltaLink	354
956L	240	Peigan	59S	53-Fort Macleod	AltaLink	350
964AL	240	Granlea	1024S	04-Medicine Hat	AltaLink	266
964L	240	Whitla	251S	04-Medicine Hat	AltaLink	266
964L	240	Murray Lake	326S	04-Medicine Hat	AltaLink	266
965L	240	Bowmanton	244S	04-Medicine Hat	AltaLink	395
965L	240	Murray Lake	326S	04-Medicine Hat	AltaLink	406
966L/9L966	240	Hansman Lake	650S	37-Provost	AltaLink	365
966L/9L966	240	Pemukan	932S	42-Hanna	ATCO	466
967L	240	Windy Flats	138S	53-Fort Macleod	AltaLink	349
967L	240	North Lethbridge	370S	54-Lethbridge	AltaLink	244
968L	240	Windy Flats	138S	53-Fort Macleod	AltaLink	349
968L	240	North Lethbridge	370S	54-Lethbridge	AltaLink	244
983L	240	Whitla	251S	04-Medicine Hat	AltaLink	407
983L	240	Elkwater	264S	04-Medicine Hat	AltaLink	402
994L	240	Goose Lake	103S	53-Fort Macleod	AltaLink	354
994L	240	Fidler	312S	53-Fort Macleod	AltaLink	356
9L100	240	Anderson	801S	43-Sheerness	ATCO	65

9L100	240	Sheerness	807S	43-Sheerness	ATCO	65
9L16	240	Cordel	755S	36-Alliance/Battle River	ATCO	212
9L16	240	Tinchebray	972S	36-Alliance/Battle River	ATCO	227
9L20	240	Cordel	755S	36-Alliance/Battle River	ATCO	411
9L20	240	Nevis	766S	36-Alliance/Battle River	ATCO	279
9L24	240	Oakland	946S	43-Sheerness	ATCO	260
9L24	240	Lanfine	959S	42-Hanna	ATCO	305
9L27	240	Cordel	755S	36-Alliance/Battle River	ATCO	411
9L27	240	Paintearth Creek	863S	36-Alliance/Battle River	ATCO	422
9L29	240	Oakland	946S	43-Sheerness	ATCO	260
9L29	240	Coyote Lake	963S	43-Sheerness	ATCO	180
9L46	240	Pemukan	932S	42-Hanna	ATCO	169
9L46	240	Lanfine	959S	42-Hanna	ATCO	169
9L46AL	240	Sedalia	363S	42-Hanna	ATCO	169
9L59	240	Anderson	801S	43-Sheerness	ATCO	272
9L59	240	Tinchebray	972S	36-Alliance/Battle River	ATCO	227
9L59AL	240	Garden Plain	1045S	42-Hanna	ATCO	336
9L70	240	Anderson	801S	43-Sheerness	ATCO	272
9L70	240	Oakland	946S	43-Sheerness	ATCO	260
9L79	240	Cordel	755S	36-Alliance/Battle River	ATCO	118
9L79	240	Battle River	757S	36-Alliance/Battle River	ATCO	118
9L80	240	Cordel	755S	36-Alliance/Battle River	ATCO	411
9L80	240	Battle River	757S	36-Alliance/Battle River	ATCO	410
9L93	240	Halkirk	615S	42-Hanna	ATCO	118
9L93	240	Tinchebray	972S	36-Alliance/Battle River	ATCO	118
9L97	240	Anderson	801S	43-Sheerness	ATCO	272
9L97	240	Oakland	946S	43-Sheerness	ATCO	260
9L99	240	Anderson	801S	43-Sheerness	ATCO	66
9L99	240	Sheerness	807S	43-Sheerness	ATCO	65
9LA93	240	Lanes Lake	973S	42-Hanna	ATCO	118
CHD-1	69	Magrath	225S	55-Glenwood	AltaLink	16
CHD-1	69	Taylor Hydro Plant		55-Glenwood	AltaLink	16
PCES01L	138	Namaka	428S	45-Strathmore/Blackie	AltaLink	13
PCES01L	138	Cavalier		45-Strathmore/Blackie	AltaLink	13

Attachment C – Generation Assets Energized in 2023

Asset	Maximum Capability (MW)	Area	Region
Buffalo Atlee 1 (BFL1)	18	48-Empress	South
Buffalo Atlee 2 (BFL2)	16	48-Empress	South
Buffalo Atlee 3 (BFL3)	18	48-Empress	South
Buffalo Atlee 4 (BFL4)	10	48-Empress	South
Cascade 1 (CAS1)	450	29-Hinton/Edson	Central West
Cascade 2 (CAS2)	450	29-Hinton/Edson	Central West
Chappice Lake (CHP1)	14	4-Medicine Hat	South
Deerfoot (DFT1)	37	6-Calgary	Calgary
Empress Solar Park (EMP1)	39	48-Empress	South
eReserve4 (ERV4)	20	32-Wainwright	Central East
eReserve5 Hughenden (ERV5)	20	37-Provost	Central East
eReserve6 (ERV6)	20	32-Wainwright	Central East
eReserve7 (ERV7)	20	20-Grande Prairie	North West
eReserve8 (ERV8)	20	20-Grande Prairie	North West
eReserve9 (ERV9)	20	20-Grande Prairie	North West
Fox Coulee Solar (FCS1)	75	42-Hanna	Central East
High River 2 (HRV2)	10	46-High River	South
Jenner 1 (JNR1)	122	48-Empress	South
Jenner 2 (JNR2)	71	48-Empress	South
Joffre Solar 1 (JFS1)	25	35-Red Deer	Central West
Joffre Solar 2 (JFS2)	22	35-Red Deer	Central West
Michichi Creek (MCH1)	14	42-Hanna	Central East
Paintearth Wind Project (PAW1)	198	42-Hanna	Central East
Saddlebrook Solar (SDL1)	81	46-High River	South
Sharp Hill Wind (SHH1)	297	42-Hanna	Central East
Sollair Solar Energy Plant (SLR1)	75	57-Airdrie	Calgary
Spring Coulee (SGC1)	30	55-Glenwood	South
Stavely (STV1)	17	49-Stavely	South
Stirling Wind (SWP1)	113	54-Lethbridge	South
Wembley (WEM1)	19	20-Grande Prairie	North West
Wheatcrest (WCR1)	50	52-Vauxhall	South
Wilson Creek (WLC1)	9	30-Drayton Valley	Central West
Youngstown Solar (YNG1)	6	42-Hanna	Central East
	Total: 2406		