EKLUTNA TRANSITION PLAN EXTENSION AGREEMENT

REVISED EXHIBIT B

(Effective _____, 2016)

With the addition of the new Eklutna Generation Station (EGS) between Plant 2 and the Eklutna Hydroelectric Power Plant, the existing wheeling formulas for the Eklutna wheeling project need to be revised. While a large part of the project remains unchanged, some formulas are modified to account for the presence of EGS.

New Wheeling Formulas

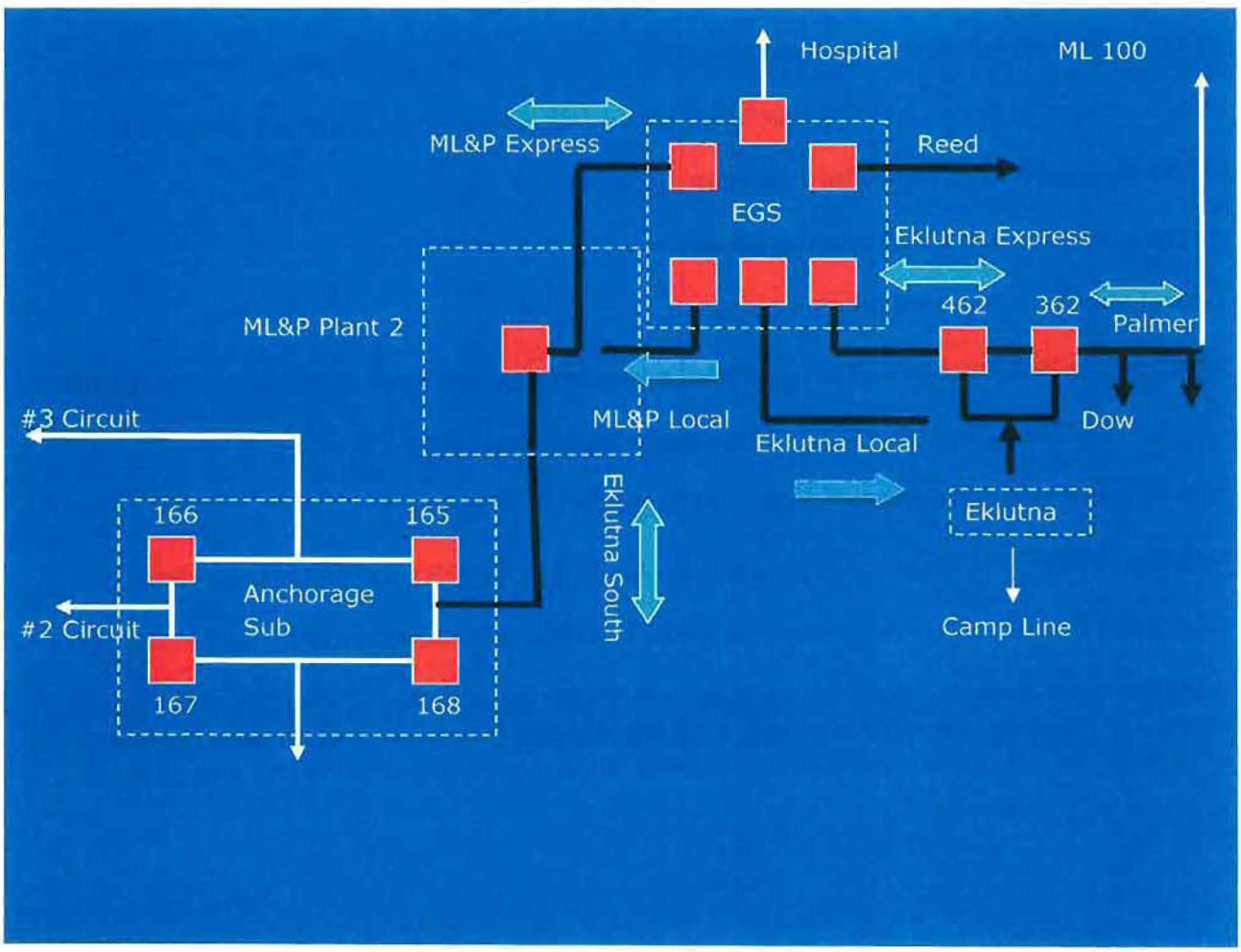

Figure 1: Simplified Eklutna Project Line Diagram

Date: 12/13/17 Exh # 149
Regulatory Commission of Alaska
U-16-094 By: APS U-17-008
Northern Lights Realtime & Reporting, Inc.
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AMLP

ML&P = Eklutna $South_{OUT}$ – Bkr $167/168_{OUT}$ + ML&P Contract Path Purchases - $ML\&P_{NPE}$

CEA

CEA = $BKR167/168_{OUT}$ + CEA Contract Path Purchases – CEA_{SCH}

MEA

MEA = $ML\&P_{Local}$ + Reed + Palmer + Dow + MEA Contract Path Purchases – MEA_{SCH}

Eklutna $South_{OUT}$ = Metered flow from Plant 2 Switchyard to Anchorage Substation

Bkr $167/168_{OUT}$ = Metered flow from Anchorage Substation to CEA University Substation

ML&P Contract Path Purchases = ML&P purchased power using Eklutna Project Lines as a contract path

CEA Contract Path Purchases = CEA purchased power using Eklutna Project Lines as a contract path

$ML\&P_{Local}$ = Metered flow on MEA Substations on the ML&P local Eklutna Project Line between Briggs & EGS

Reed = Metered flow on MEA Reed Substation

Palmer = Metered flow on MEA Palmer Substation

Dow = Metered flow on MEA Dow Substation

MEA Contract Path Purchases = MEA purchased power using Eklutna Project Lines as a contract path

CEA_{SCH} = CEA Scheduled Project Energy from Eklutna Hydro Power Plant

MEA_{SCH} = MEA Scheduled Project Energy from Eklutna Hydro Power Plant

$ML\&P_{NPE}$ = Eklutna Net Project Energy –Line loss – AWWU Energy –MTA Cell Site - CEA_{SCH} - MEA_{SCH}

Eklutna Net Project Energy = $BKR462_{OUT}$ – $BKR462_{IN}$ + $BKR362_{OUT}$ - $BKR362_{IN}$+ AWWU Gen + Twin Peaks

Using the above wheeling calculation formulas, each Project owner will be billed quarterly for their line usage. The Project will receive the owners' wheeling payment as revenue. The wheeling revenue will be allocated to the owners, based on ownership shares, after all quarterly wheeling bills have been paid.

This is an example how to calculate the wheeling charges using the fourth quarter of 2015 data.

	Month Total (MWh)			Multiplier	(kWh)			Total(kWh)
	OCT	NOV	DEC		OCT	NOV	DEC	
EKLUTNA SOUTH OUT	17,502	9,793	10,412	1,000	17,501,689	9,792,543	10,412,275	37,706,507
167/168 OUT	1,389	0	0	1,000	1,388,800	0	100	1,388,900
PALMER WHEEL	3,764	15,259	15,240	1,000	3,764,230	15,259,090	15,239,736	34,263,056
Dow	1,503	1,780	1,977	1,000	1,502,746	1,779,508	1,976,979	5,259,233
Palmer	1,164	1,373	1,544	1,000	1,163,733	1,372,548	1,544,166	4,080,447
ML&P Local	12,836	14,448	15,189	1,000	12,835,552	14,448,239	15,189,187	42,472,979
Eklutna Local	0	0	0	1,000	0	0	0	0
Reed	1,802	2,068	2,247	1,000	1,802,493	2,067,853	2,247,261	6,117,707
EGS								
HOSPITAL								
ML&P NPE					8,428,488	9,896,715	12,260,044	30,585,247
CEA SCH					3,127,000	3,739,000	3,461,000	10,327,000
MEA SCH					2,237,000	2,146,000	2,487,000	6,870,000
CEA Contract Path Purchases	0	0	0	1000	0	0	0	0
ML&P to MEA Sales	0	0	0	1000	0	0	0	0
MEA to ML&P Sales	0	0	0	1000	0	0	0	0

ML&P

ML&P1	ML&P2	$ML\&P_{NPE}$
36,317,607	0	(30,585,247)

ML&P1 - Eklutna South $_{OUT}$ - Bkr 167/168 $_{OUT}$
ML&P2 - ML&P Contract Path Purchases
$ML\&P_{NPE}$ - Eklutna Net Project Energy –Line loss – AWWU Energy –MTA Cell Site - CEA_{SCH} - MEA_{SCH}

Total kWh Wheeled 5,732,360
Total Owed **$1,719.71**

Wheeling rate of $0.0003/kWh

CEA

CEA1	CEA2	CEA_{SCH}
1,388,900	0	(10,327,000)

CEA1 - BKR167/168 $_{OUT}$
CEA2 - CEA Contract Path Purchases
CEA_{SCH} - NET CEA's scheduled Eklutna Project Power

Total kWh Wheeled 0
Total Owed **$0.00**

MEA

MEA1	MEA2	MEA3	MEA_{SCH}
42,472,979	15,457,387	0	(6,870,000)

MEA1 - Metered flow on MEA Substations on the ML&P local Eklutna Project Line between Briggs & EGS
MEA2 - Reed + Palmer+ Dow
MEA3- MEA Contract Path Purchases
MEA_{SCH} - NET MEA's scheduled Eklutna Project Power

Total kWh Wheeled 51,060,366
Total Owed **$15,318.11**

Total Revenue **$17,037.82**

ML&P Share (16/30) **$9,086.84**
CEA Share (9/30) **$5,111.35**
MEA Share (5/30) **$2,839.64**