

**Request No. 1.a:**

Provide a schedule of the calculation of the 12-month average line loss, by month, for the period under review.

**Response:**

Please note that Blue Grass Energy provides service for one direct-serve customer. There is no line loss for that particular customer. Line loss is computed by taking the total kWh for the system less the kWh totals for that customer.

Please see the following pages for the calculation of the 12-month average line loss, by month, for November 1, 2018 through October 31, 2020.

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PSC Case No. 2021-00059  
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Month	Purchases	Sales	Office Use	Line Loss	Percent Line Loss
Balance Forward	1,342,777,104	1,274,240,458	1,100,678	67,435,968	5.022%
Less 11/2017	99,979,278	87,633,344	103,054	12,242,880	
Plus 11/2018	112,162,289	94,897,527	134,593	17,130,169	
For 11/2018	1,354,960,115	1,281,504,641	1,132,217	72,323,257	5.338%
Less 12/2017	136,375,804	106,446,190	140,262	29,789,352	
Plus 12/2018	123,832,188	113,601,669	144,171	10,086,348	
For 12/2018	1,342,416,499	1,288,660,120	1,136,126	52,620,253	3.920%
Less 1/2018	159,531,454	148,088,399	174,081	11,268,974	
Plus 1/2019	144,480,095	119,850,653	170,940	24,458,502	
For 1/2019	1,327,365,140	1,260,422,374	1,132,985	65,809,781	4.958%
Less 2/2018	106,221,213	134,644,210	130,449	(28,553,446)	
Plus 2/2019	109,763,004	134,046,612	133,929	(24,417,537)	
For 2/2019	1,330,906,931	1,259,824,776	1,136,465	69,945,690	5.255%
Less 3/2018	115,121,223	96,662,637	125,377	18,333,209	
Plus 3/2019	115,571,974	108,020,826	136,152	7,414,996	
For 3/2019	1,331,357,682	1,271,182,965	1,147,240	59,027,477	4.434%
Less 4/2018	93,494,750	104,212,585	102,635	(10,820,470)	
Plus 4/2019	80,825,147	94,011,636	85,776	(13,272,265)	
For 4/2019	1,318,688,079	1,260,982,016	1,130,381	56,575,682	4.290%
Less 5/2018	98,874,671	84,454,068	93,865	14,326,738	
Plus 5/2019	90,266,973	77,490,048	82,748	12,694,177	
For 5/2019	1,310,080,381	1,254,017,996	1,119,264	54,943,121	4.194%
Less 6/2018	107,387,350	99,648,456	89,637	7,649,257	
Plus 6/2019	95,943,122	89,325,445	81,998	6,535,679	
For 6/2019	1,298,636,153	1,243,694,985	1,111,625	53,829,543	4.145%
Less 7/2018	113,979,077	106,999,211	100,557	6,879,309	
Plus 7/2019	118,657,150	101,874,330	91,056	16,691,764	
For 7/2019	1,303,314,226	1,238,570,104	1,102,124	63,641,998	4.883%
Less 8/2018	112,539,959	106,201,013	99,455	6,239,491	
Plus 8/2019	113,822,736	111,258,950	89,388	2,474,398	
For 8/2019	1,304,597,003	1,243,628,041	1,092,057	59,876,905	4.590%
Less 9/2018	99,290,378	106,679,823	91,958	(7,481,403)	
Plus 9/2019	106,015,259	106,489,355	85,059	(559,155)	
For 9/2019	1,311,321,884	1,243,437,573	1,085,158	66,799,153	5.094%
Less 10/2018	94,618,108	91,232,054	96,345	3,289,709	
Plus 10/2019	84,596,261	94,262,529	83,334	(9,749,602)	
For 10/2019	1,301,300,037	1,246,468,048	1,072,147	53,759,842	4.131%
Less 11/2018	112,162,289	94,897,527	134,593	17,130,169	
Plus 11/2019	111,547,391	92,017,587	122,313	19,407,491	
For 11/2019	1,300,685,139	1,243,588,108	1,059,867	56,037,164	4.308%
Less 12/2018	123,832,188	113,601,669	144,171	10,086,348	
Plus 12/2019	120,754,594	110,040,988	130,757	10,582,849	
For 12/2019	1,297,607,545	1,240,027,427	1,046,453	56,533,665	4.357%

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Less 1/2019	144,480,095	119,850,653	170,940	24,458,502	
Plus 1/2020	122,460,915	112,022,545	130,425	10,307,945	
For 1/2020	<u>1,275,588,365</u>	<u>1,232,199,319</u>	<u>1,005,938</u>	<u>42,383,108</u>	3.323%
Less 2/2019	109,763,004	134,046,612	133,929	(24,417,537)	
Plus 2/2020	120,222,525	120,097,963	119,328	5,234	
For 2/2020	<u>1,286,047,886</u>	<u>1,218,250,670</u>	<u>991,337</u>	<u>66,805,879</u>	5.195%
Less 3/2019	115,571,974	108,020,826	136,152	7,414,996	
Plus 3/2020	95,837,724	105,845,112	102,467	(10,109,855)	
For 3/2020	<u>1,266,313,636</u>	<u>1,216,074,956</u>	<u>957,652</u>	<u>49,281,028</u>	3.892%
Less 4/2019	80,825,147	94,011,636	85,776	(13,272,265)	
Plus 4/2020	82,971,872	87,602,286	89,405	(4,719,819)	
For 4/2020	<u>1,268,460,361</u>	<u>1,209,665,606</u>	<u>961,281</u>	<u>57,833,474</u>	4.559%
Less 5/2019	90,266,973	77,490,048	82,748	12,694,177	
Plus 5/2020	86,890,047	77,389,743	82,009	9,418,295	
For 5/2020	<u>1,265,083,435</u>	<u>1,209,565,301</u>	<u>960,542</u>	<u>54,557,592</u>	4.313%
Less 6/2019	95,943,122	89,325,445	81,998	6,535,679	
Plus 6/2020	99,143,695	87,435,208	75,045	11,633,442	
For 6/2020	<u>1,268,284,008</u>	<u>1,207,675,064</u>	<u>953,589</u>	<u>59,655,355</u>	4.704%
Less 7/2019	118,657,150	101,874,330	91,056	16,691,764	
Plus 7/2020	123,404,873	102,067,525	86,202	21,251,146	
For 7/2020	<u>1,273,031,731</u>	<u>1,207,868,259</u>	<u>948,735</u>	<u>64,214,737</u>	5.044%
Less 8/2019	113,822,736	111,258,950	89,388	2,474,398	
Plus 8/2020	110,490,033	112,883,663	83,439	(2,477,069)	
For 8/2020	<u>1,269,699,028</u>	<u>1,209,492,972</u>	<u>942,786</u>	<u>59,263,270</u>	4.668%
Less 9/2019	106,015,259	106,489,355	85,059	(559,155)	
Plus 9/2020	90,385,754	102,503,210	76,576	(12,194,032)	
For 9/2020	<u>1,254,069,523</u>	<u>1,205,506,827</u>	<u>934,303</u>	<u>47,628,393</u>	3.798%
Less 10/2019	84,596,261	94,262,529	83,334	(9,749,602)	
Plus 10/2020	81,969,864	79,488,212	72,929	2,408,723	
For 10/2020	<u>1,251,443,126</u>	<u>1,190,732,510</u>	<u>923,898</u>	<u>59,786,718</u>	4.777%

Average Line Loss for the Period from November 1, 2018 to October 31, 2020 is 4.528%

**Request No. 1.b:**

Describe the measures that have been taken to reduce line loss during the period under review.

**Response:**

Blue Grass Energy is continuing to upgrade and/or replace aging conductor with in many cases, larger wire size conductor as total system demand increases. Blue Grass continues to replace aging direct bury cable with low loss underground cable.

Blue Grass continues its program of Right-of-Way clearing and is on a six year cycle. In addition, line inspection occurs on a bi-annual basis and those inspectors identify any ROW issues that have occurred since the last ROW trimming.

All meters are AMI type meters and most have usage readings collected and stored on a daily basis. This allows Blue Grass to better identify power diversion.

Blue Grass uses electronic data query and physical observation to identify and de-energize and/or remove transformers serving inactive accounts.

New transformers purchased are more energy efficient than ones being replaced and Blue Grass makes a concerted effort to "right size" transformers thereby reducing line loss.