## QUANTUM BIOPOWER, LLC

## RESPONSE TO THE CONNECTICUT SITING COUNCIL

CONNECTICUT SITING COUNCIL REVIEW OF THE TEN-YEAR FORECAST OF CONNECTICUT ELECTRIC LOADS AND RESOURCES. 2021 FORECAST REPORTS - ELECTRIC GENERATING **FACILITIES** 

April 27, 2021

Melanie A. Bachman, Executive Director Connecticut Siting Council Ten Franklin Square New Britain, CT 06051



Executive Director Bachman:

This is in response to the Siting Council's Connecticut Siting Council Review of the Ten-Year Forecast of Connecticut Electric Loads and Resources. 2021 Forecast Reports – Electric Generating Facilities issued on March 26, 2021 and pursuant to Connecticut General Statutes (CGS) §16-50r. Quantum Biopower, LLC constructed, built and operates a one megawatt (or 1.2 megawatt?) anaerobic digestion facility located in Southington, Connecticut.

Quantum Biopower is operates a 1.2MW Combined Heat and Power Unit that is fueled from methane created from recycled food waste through its anaerobic digestion process. Quantum processes 40,000 tons per year of food waste created methane under natural conditions. Quantum's facility is both an energy generating facility and a critical recycling facility designed to tackle the State of Connecticut's food waste recycling needs.

Following are Quantum Biopower's responses to questions posed in the Notice:

(1) A tabulation of estimated peak loads, resources and margins for each year

Please see the attached Appendix A

(2) data on energy use and peak loads for the five preceding calendar years

Please see the attached Appendix A

(3) a list of existing generating facilities in service

Anaerobic Digestion facility and CHP – 49 DePaolo Drive, Southington, CT 06489

(4) a list of scheduled generating facilities for which property has been acquired, for which certificates have been issued and for which certificate applications have been filed

None.

## **APPENDIX A**

2018     Apr     551     826     337       2018     May     445     1038     319       2018     Jun     487     1086     362       2018     Jul     665     1044     505       2018     Aug     134     819     93       2018     Sep     492     1151     374       2018     Oct     798     1155     589       2018     Nov     607     1117     414       2018     Dec     582     875     355       2019     Jan     625     971     359       2019     Jan     625     971     359       2019     Mar     789     1125     544       2019     Mar     789     1125     544       2019     Mar     789     1125     544       2019     Mar     789     1017     408       2019     Jun     589     1017     408       2019	Date		Monthly Average CHP Generation (KW)	Peak Load on CHP (KW)	Monthly Margin to Grid (KW)
2018     May     445     1038     319       2018     Jun     487     1086     362       2018     Jul     665     1044     505       2018     Aug     134     819     93       2018     Sep     492     1151     374       2018     Oct     798     1155     589       2018     Nov     607     1117     414       2018     Dec     582     875     355       2019     Jan     625     971     359       2019     Jan     625     971     359       2019     Jan     625     971     359       2019     Mar     789     1125     544       2019     Mar     789     1125     544       2019     May     934     1188     711       2019     May     934     1188     711       2019     Jul     607     916     406       2019	2018	Apr	551		
2018     Jun     487     1086     362       2018     Jul     665     1044     505       2018     Aug     134     819     93       2018     Sep     492     1151     374       2018     Oct     798     1155     589       2018     Nov     607     1117     414       2018     Dec     582     875     355       2019     Jan     625     971     359       2019     Jan     625     971     359       2019     Mar     789     1125     544       2019     Mar     789     1125     544       2019     May     934     1188     711       2019     May     934     1188     711       2019     Jul     607     916     406       2019     Jul     607     916     406       2019     Jul     607     916     406       2019	2018	May	445		
2018     Jul     665     1044     505       2018     Aug     134     819     93       2018     Sep     492     1151     374       2018     Oct     798     1155     589       2018     Nov     607     1117     414       2018     Dec     582     875     355       2019     Jan     625     971     359       2019     Jan     625     971     359       2019     Mar     789     1125     544       2019     Mar     789     1125     544       2019     May     934     1188     711       2019     May     934     1188     711       2019     Jul     607     916     406       2019     Jul     607     916     406       2019     Jul     607     916     406       2019     Aug     591     886     386       2019	2018	Jun	487	1086	
2018     Sep     492     1151     374       2018     Oct     798     1155     589       2018     Nov     607     1117     414       2018     Dec     582     875     355       2019     Jan     625     971     359       2019     Feb     808     1104     545       2019     Mar     789     1125     544       2019     Apr     727     1066     518       2019     May     934     1188     711       2019     Jun     589     1017     408       2019     Jul     607     916     406       2019     Nov     926     1147     659       2019	2018	Jul	665	1044	
2018     Oct     798     1155     589       2018     Nov     607     1117     414       2018     Dec     582     875     355       2019     Jan     625     971     359       2019     Feb     808     1104     545       2019     Mar     789     1125     544       2019     Mar     789     1125     544       2019     Apr     727     1066     518       2019     May     934     1188     711       2019     May     934     1188     711       2019     Jun     589     1017     408       2019     Jul     607     916     406       2019     Jul     607     916     406       2019     Aug     591     886     386       2019     Sep     579     762     370       2019     Oct     693     1028     493       2019	2018	Aug	134	819	93
2018     Nov     607     1117     414       2018     Dec     582     875     355       2019     Jan     625     971     359       2019     Feb     808     1104     545       2019     Mar     789     1125     544       2019     Mar     789     1125     544       2019     Apr     727     1066     518       2019     May     934     1188     711       2019     Jun     589     1017     408       2019     Jul     607     916     406       2019     Jul     607     916     406       2019     Aug     591     886     386       2019     Aug     591     886     386       2019     Oct     693     1028     493       2019     Nov     926     1147     659       2019     Nov     926     1147     659       2019	2018	Sep	492	1151	374
2018     Dec     582     875     355       2019     Jan     625     971     359       2019     Feb     808     1104     545       2019     Mar     789     1125     544       2019     Apr     727     1066     518       2019     May     934     1188     711       2019     Jun     589     1017     408       2019     Jul     607     916     406       2019     Jul     607     916     406       2019     Aug     591     886     386       2019     Sep     579     762     370       2019     Oct     693     1028     493       2019     Oct     693     1028     493       2019     Nov     926     1147     659       2019     Nov     926     1147     659       2019     Dec     606     890     346       2020	2018	Oct	798	1155	589
2019   Jan   625   971   359     2019   Feb   808   1104   545     2019   Mar   789   1125   544     2019   Apr   727   1066   518     2019   May   934   1188   711     2019   Jun   589   1017   408     2019   Jul   607   916   406     2019   Jul   607   916   406     2019   Aug   591   886   386     2019   Sep   579   762   370     2019   Oct   693   1028   493     2019   Nov   926   1147   659     2019   Dec   606   890   346     2020   Jan   751   847   458     2020   Feb   690   876   396     2020   Mar   458   711   249     2020   Mar   458   711   249     2020   Jul   200	2018	Nov	607	1117	414
2019     Feb     808     1104     545       2019     Mar     789     1125     544       2019     Apr     727     1066     518       2019     May     934     1188     711       2019     Jun     589     1017     408       2019     Jul     607     916     406       2019     Aug     591     886     386       2019     Sep     579     762     370       2019     Oct     693     1028     493       2019     Nov     926     1147     659       2019     Dec     606     890     346       2020     Jan     751     847     458       2020     Feb     690     876     396       2020     Mar     458     711     249       2020     Mar     458     711     249       2020     May     394     807     238       2020	2018	Dec	582	875	355
2019   Mar   789   1125   544     2019   Apr   727   1066   518     2019   May   934   1188   711     2019   Jun   589   1017   408     2019   Jul   607   916   406     2019   Aug   591   886   386     2019   Sep   579   762   370     2019   Oct   693   1028   493     2019   Nov   926   1147   659     2019   Dec   606   890   346     2020   Jan   751   847   458     2020   Feb   690   876   396     2020   Mar   458   711   249     2020   Apr   752   985   483     2020   May   394   807   238     2020   Jul   200   652   116     2020   Jul   200   652   116     2020   Aug   710	2019	Jan	625	971	359
2019     Apr     727     1066     518       2019     May     934     1188     711       2019     Jun     589     1017     408       2019     Jul     607     916     406       2019     Aug     591     886     386       2019     Sep     579     762     370       2019     Oct     693     1028     493       2019     Nov     926     1147     659       2019     Dec     606     890     346       2020     Jan     751     847     458       2020     Feb     690     876     396       2020     Mar     458     711     249       2020     Apr     752     985     483       2020     May     394     807     238       2020     Jul     200     652     116       2020     Aug     710     1041     500       2020	2019	Feb	808	1104	545
2019   May   934   1188   711     2019   Jun   589   1017   408     2019   Jul   607   916   406     2019   Aug   591   886   386     2019   Sep   579   762   370     2019   Oct   693   1028   493     2019   Nov   926   1147   659     2019   Dec   606   890   346     2020   Jan   751   847   458     2020   Feb   690   876   396     2020   Mar   458   711   249     2020   Apr   752   985   483     2020   May   394   807   238     2020   Jul   200   652   116     2020   Jul   200   652   116     2020   Aug   710   1041   500     2020   Sep   505   787   301     2020   Nov   591   <	2019	Mar	789	1125	544
2019   Jun   589   1017   408     2019   Jul   607   916   406     2019   Aug   591   886   386     2019   Sep   579   762   370     2019   Oct   693   1028   493     2019   Nov   926   1147   659     2019   Dec   606   890   346     2020   Jan   751   847   458     2020   Feb   690   876   396     2020   Mar   458   711   249     2020   Apr   752   985   483     2020   May   394   807   238     2020   Jun   151   679   151     2020   Jul   200   652   116     2020   Aug   710   1041   500     2020   Sep   505   787   301     2020   Nov   591   836   345	2019	Apr	727	1066	518
2019   Jul   607   916   406     2019   Aug   591   886   386     2019   Sep   579   762   370     2019   Oct   693   1028   493     2019   Nov   926   1147   659     2019   Dec   606   890   346     2020   Jan   751   847   458     2020   Feb   690   876   396     2020   Mar   458   711   249     2020   Apr   752   985   483     2020   May   394   807   238     2020   Jun   151   679   151     2020   Jul   200   652   116     2020   Aug   710   1041   500     2020   Sep   505   787   301     2020   Nov   591   836   345	2019	May	934	1188	711
2019   Aug   591   886   386     2019   Sep   579   762   370     2019   Oct   693   1028   493     2019   Nov   926   1147   659     2019   Dec   606   890   346     2020   Jan   751   847   458     2020   Feb   690   876   396     2020   Mar   458   711   249     2020   Apr   752   985   483     2020   May   394   807   238     2020   Jul   151   679   151     2020   Jul   200   652   116     2020   Aug   710   1041   500     2020   Sep   505   787   301     2020   Oct   568   905   333     2020   Nov   591   836   345	2019	Jun	589	1017	408
2019   Sep   579   762   370     2019   Oct   693   1028   493     2019   Nov   926   1147   659     2019   Dec   606   890   346     2020   Jan   751   847   458     2020   Feb   690   876   396     2020   Mar   458   711   249     2020   Apr   752   985   483     2020   May   394   807   238     2020   Jun   151   679   151     2020   Jul   200   652   116     2020   Aug   710   1041   500     2020   Sep   505   787   301     2020   Oct   568   905   333     2020   Nov   591   836   345	2019	Jul	607	916	406
2019   Oct   693   1028   493     2019   Nov   926   1147   659     2019   Dec   606   890   346     2020   Jan   751   847   458     2020   Feb   690   876   396     2020   Mar   458   711   249     2020   Apr   752   985   483     2020   May   394   807   238     2020   Jun   151   679   151     2020   Jul   200   652   116     2020   Aug   710   1041   500     2020   Sep   505   787   301     2020   Oct   568   905   333     2020   Nov   591   836   345	2019	Aug	591	886	386
2019   Nov   926   1147   659     2019   Dec   606   890   346     2020   Jan   751   847   458     2020   Feb   690   876   396     2020   Mar   458   711   249     2020   Apr   752   985   483     2020   May   394   807   238     2020   Jun   151   679   151     2020   Jul   200   652   116     2020   Aug   710   1041   500     2020   Sep   505   787   301     2020   Oct   568   905   333     2020   Nov   591   836   345	2019	Sep	579	762	370
2019   Dec   606   890   346     2020   Jan   751   847   458     2020   Feb   690   876   396     2020   Mar   458   711   249     2020   Apr   752   985   483     2020   May   394   807   238     2020   Jun   151   679   151     2020   Jul   200   652   116     2020   Aug   710   1041   500     2020   Sep   505   787   301     2020   Oct   568   905   333     2020   Nov   591   836   345	2019	Oct	693	1028	493
2020   Jan   751   847   458     2020   Feb   690   876   396     2020   Mar   458   711   249     2020   Apr   752   985   483     2020   May   394   807   238     2020   Jun   151   679   151     2020   Jul   200   652   116     2020   Aug   710   1041   500     2020   Sep   505   787   301     2020   Oct   568   905   333     2020   Nov   591   836   345	2019	Nov	926	1147	659
2020   Feb   690   876   396     2020   Mar   458   711   249     2020   Apr   752   985   483     2020   May   394   807   238     2020   Jun   151   679   151     2020   Jul   200   652   116     2020   Aug   710   1041   500     2020   Sep   505   787   301     2020   Oct   568   905   333     2020   Nov   591   836   345	2019	Dec	606	890	346
2020   Mar   458   711   249     2020   Apr   752   985   483     2020   May   394   807   238     2020   Jun   151   679   151     2020   Jul   200   652   116     2020   Aug   710   1041   500     2020   Sep   505   787   301     2020   Oct   568   905   333     2020   Nov   591   836   345	2020	Jan	751	847	458
2020   Apr   752   985   483     2020   May   394   807   238     2020   Jun   151   679   151     2020   Jul   200   652   116     2020   Aug   710   1041   500     2020   Sep   505   787   301     2020   Oct   568   905   333     2020   Nov   591   836   345	2020	Feb	690	876	396
2020   May   394   807   238     2020   Jun   151   679   151     2020   Jul   200   652   116     2020   Aug   710   1041   500     2020   Sep   505   787   301     2020   Oct   568   905   333     2020   Nov   591   836   345	2020	Mar	458	711	249
2020 Jun 151 679 151   2020 Jul 200 652 116   2020 Aug 710 1041 500   2020 Sep 505 787 301   2020 Oct 568 905 333   2020 Nov 591 836 345	2020	Apr	752	985	483
2020 Jul 200 652 116   2020 Aug 710 1041 500   2020 Sep 505 787 301   2020 Oct 568 905 333   2020 Nov 591 836 345	2020	May	394	807	238
2020 Aug 710 1041 500   2020 Sep 505 787 301   2020 Oct 568 905 333   2020 Nov 591 836 345	2020	Jun	151	679	151
2020 Sep 505 787 301   2020 Oct 568 905 333   2020 Nov 591 836 345	2020	Jul	200	652	
2020 Oct 568 905 333 2020 Nov 591 836 345	2020	Aug	710	1041	500
2020 Nov 591 836 345	2020	Sep	505	787	301
	2020	Oct	568	905	333
2020 Dec 467 768 252	2020	Nov	591	836	345
	2020	Dec	467	768	252