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May 13, 2020

New Hampshire Site Evaluation Committee (NHSEC)
Attention: Pamela G. Monroe, Administrator
21 S. Fruit Street, Suite 10
Concord, NH 03301-2429

By email: Pamela.Monroe@sec.nh.gov

Town of Antrim
Attention: Donna Hanson, Town Administrator
P.O. Box 517, 66 Main St.
Antrim, NH 03440

By email: antrimbiz@tds.net

Re: Antrim Wind Energy – Post-Construction Sound Monitoring Report for Winter 2020

Dear Ms. Pamela G. Monroe and Ms. Donna Hanson,

Following conditions of the Antrim Wind Energy (AWE) NHSEC Certificate[1] and the Town Agreement[2], please find attached the report for the Post-Construction Sound Monitoring performed during the winter 2020.

Per AWE NHSEC Certificate's condition and the Town Agreement, we respectfully request that the Town of Antrim maintain a copy of this report *available at the Town Hall for all potential owners and/or developers (Potential Owners and/or Developers) applying for either a: (i) building permit to construct a new residential structure or (ii) planning board approval for the subdivision of land for residential use, within one mile of any wind turbine associated with the Project (New Development)*.

Due to the current COVID-19 situation, please note that we are now only providing an electronic version of this report despite the Certificate/Agreement requiring both paper and electronic copies. Should you require a paper copy now, or later when the COVID-19 situation is resolved, please let us know and we will send one to your attention.

[1] NHSEC Order and Certificate of Site and Facility with Conditions, Docket No. 2015-02, March 17, 2017.
[2] Amended Agreement Between the Town of Antrim New Hampshire and Antrim Wind Energy LLC, Developer/Owner of Antrim Wind Power Project Dated as of March 8th, 2012, amended on January 16, 2018.

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Also, the email indicated to be provided by the applicant (*) in the certificate language reproduced below is comments_antrimwindenergy@transalta.com (note that the Town Agreement has similar language):

> *Further Ordered that, in addition to a copy of the Post-Construction Sound Monitoring Report, the Town of Antrim shall inform any Potential Owner and/or Developer of any New Development that it has the right to obtain from the Applicant or its successors, upon request via email to _____,* additional information regarding expected maximum sound power levels and shadow flicker associated with the Project within the above referenced one mile radius;*

For AWE to be able to provide such information within 14 days to the Potential Owner and/or Developer (within 1 mile of AWE) and the Town of Antrim, the request for additional information must be addressed by email to comments_antrimwindenergy@transalta.com and contain the following:

- Proposed location of the New Development;
- Name and address of the property owner and the Potential Owner and/or Developer (if different than the property owner) pertaining to the New Development (collectively, as applicable, the Property Owner).

In conclusion, we believe the attached report satisfies the AWE NHSEC Certificate's condition and the Town Agreement as well as NHSEC Rule 301.18 while showing compliance with the applicable sound limits.

We wish to reiterate that TransAlta is committed to the safe operation of all its facilities including AWE.

Regards,

TRANSALTA CORPORATION

Jean-François Latour, B. Sc., ASA
Specialist, environment | Wind & Solar Operations

Encl

ACENTECH

Acentech Report #482

Antrim Wind Farm – Post Construction Sound Monitoring Winter 2020

May 12, 2020

Prepared for:
Antrim Wind Energy LLC / TransAlta Corporation
26 Tuttle Hill trail
Antrim, NH 03440

Acentech Project No. 633004

Submitted by:
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EXECUTIVE SUMMARY

The Antrim Wind Project is a wind power generation facility located in Hillsborough County, New Hampshire. The project consists of 9 Siemens SWT 3.2-113 turbines, each with a rotor diameter of 113 meters and rated capacity of 3.2 megawatts (MW), for a total of 28.8 MW. The facility is owned and operated by Antrim Wind Energy LLC (AWE), a subsidiary of TransAlta Corporation. Commercial operation of this project began on December 24, 2019. Acentech has been contracted by AWE to conduct a post construction sound monitoring program for assessment of the facility's sound level compliance.

The Antrim Wind Project is subject to regulations from the New Hampshire Site Evaluation Committee (NHSEC) for facility sound. This includes Rule 301.14(f)(2)a and Rule 301.18 that contain details regarding sound limits and sound study methodology. Rule 301.18 stipulates that post-construction sound monitoring surveys are required to be conducted once within 3 months of commissioning and once during each season thereafter for the first year. This report details the results of the winter 2020 sound level monitoring campaign, which followed the aforementioned NHSEC rules.

Sound levels were continuously measured at five locations previously defined by the project surrounding the facility from March 4, 2020 to March 18, 2020. As required by the NHSEC, Acentech also performed a night of attended sound level measurements at each of the five sites. This was done on the night/morning of March 8th to the 9th, 2020 from approximately 8:30 pm to 1:10 am.

The facility's turbine operational data, local and regional meteorological data, and sound level measurements were all analyzed to identify periods of time when the maximum level of sound from the turbines could be expected at each monitoring location. After identifying the appropriate times for evaluating project compliance, and eliminating transient non-turbine sounds from those periods, and then computing the turbine specific sound levels (total sound – ambient residual sound) it has been found that the project is in compliance with the 1-hour L_{EQ} 40 dBA nighttime project limit. By demonstrating that the identified periods at each location meet the nighttime limit, it follows that the daytime limit of 45 dBA is also met.

The table below provides an overall summary of the sound levels determined for each of the five locations. The highest 1-hour L_{EQ} sound level was identified at Location 1 with a level of 38 dBA. This monitoring location is the nearest to any of the nine turbines. The lowest 1-hour L_{EQ} was identified at Location 5 with a level of 32 dBA, the location farthest away from the turbines. The turbine specific LA_{EQ} sound levels are below the nighttime project limit of 40 dBA at all five monitoring locations, thus demonstrating compliance with the wind project's sound limits.

Summary of Turbine Specific Sound Levels Evaluated at Each Monitoring Location

Location #	1 hour LA_{EQ} (dBA)		Nighttime Sound Limit (dBA)	Daytime Sound Limit (dBA)
	Minimum	Maximum		
1	36	38	40	45
2	37	37	40	45
3	38	38	40	45
4	32	34	40	45
5	32	32	40	45

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1.0 INTRODUCTION

The Antrim Wind Project is situated on approximately 57 acres of land located in Hillsborough County, New Hampshire. The project employs 9 Siemens SWT 3.2-113 turbines, each with a rotor diameter of 113 meters and rated capacity of 3.2 MW, for a total of 28.8 MW. Turbines 1 through 8 are each on 92.5 meter towers and the tower for turbine 9 is 79.5 meters tall. The turbines are on the Tuttle Hill ridgeline spanning southwestward to the northeast slope of Willard Mountain. Figure 1-1 presents a topographic view of the project site showing the nine wind turbines, the project boundaries, and five sound monitoring locations. Commercial operation of this project began on December 24, 2019.

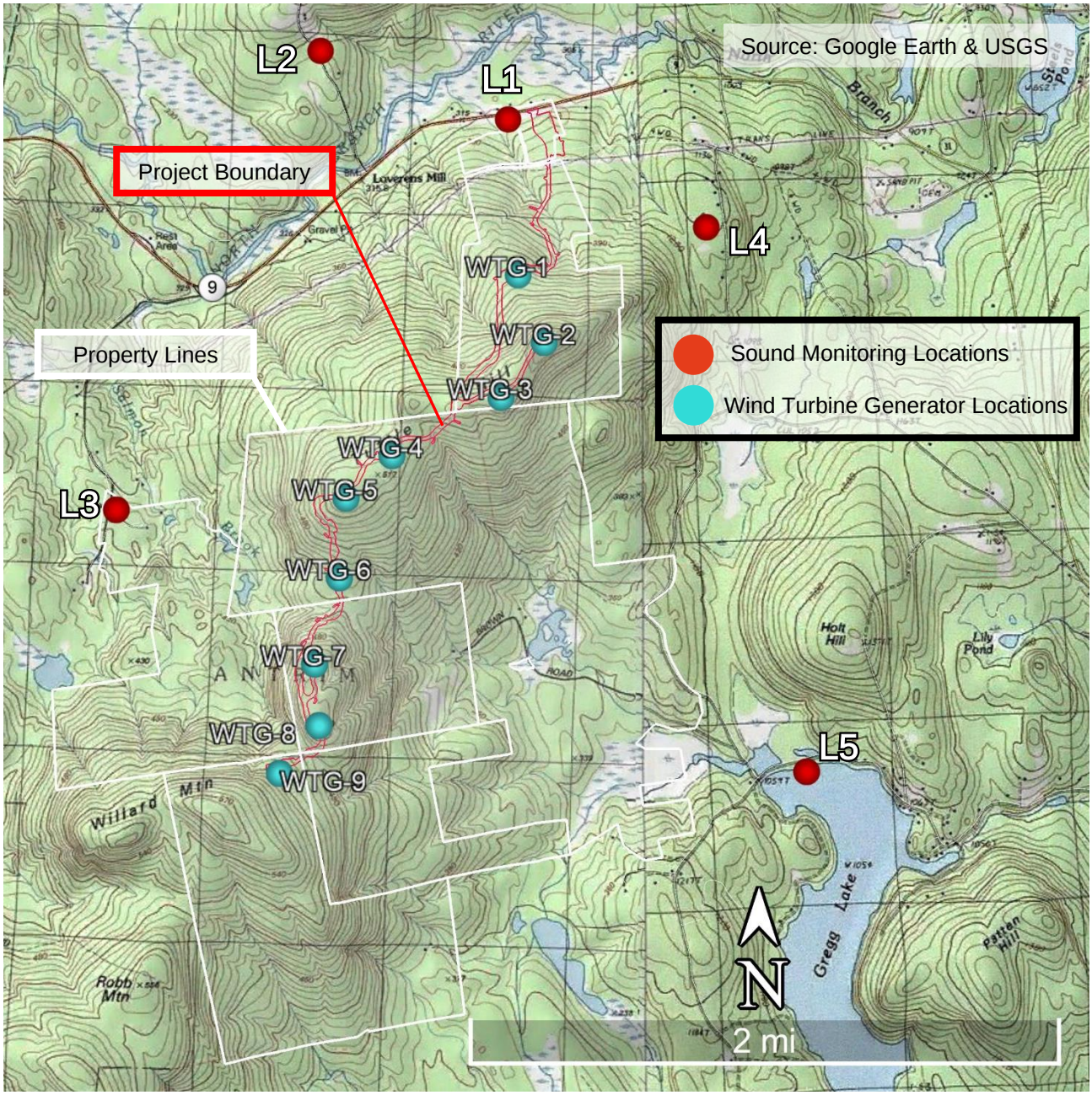


Figure 1-1: Aerial View of the Sound Monitoring Locations Relative to Turbines

1.1 PRE-CONSTRUCTION SOUND STUDY

In 2016, prior to construction, a sound level assessment[1] was conducted by another acoustical consulting firm to determine existing sound levels in the vicinity of the project. Computer modeling was also carried out to predict future sound levels from the project when in operation. A comparison of the worst case operational sound levels associated with the wind turbines were calculated to be in compliance with the New Hampshire Site Evaluation Committee (NHSEC) rules, as well as an agreement with the town of Antrim[2].

1.2 CURRENT SOUND STUDY

The NHSEC rules also include post construction sound monitoring requirements in order to verify compliance with the project sound limits in the winter, spring, summer, and fall seasons of the first year of operation. The current report presents the results of the winter 2020 sound monitoring campaign.

[1] Sound Level Assessment Report – Antrim Wind Project – Antrim, NH, prepared for Antrim Wind Energy LLC, prepared by Epsilon Associates, Inc., February 17, 2016.
[2] Amended Agreement Between the Town of Antrim New Hampshire and Antrim Wind Energy LLC, Developer/Owner of Antrim Wind Power Project Dated as of March 8th, 2012, ref.: Section 11.

2.0 SOUND BASICS

Sounds we hear come from small pressure oscillations, or sound waves, that travel through the air and actuate our hearing mechanism. These airborne pressure oscillations cause the eardrum and small bones of the middle ear to vibrate. These vibrations are transmitted to the fluid-filled cochlea of the inner ear's sensory organ. Sensory hair cells then translate these vibrations into nerve impulses that are transmitted to the brain where they are perceived and interpreted.

Figure 2-1 describes common sound pressure levels in A-weighted decibel levels as they relate to the range of sound humans encounter in the environment. Typical sound sources in our environment can range between 0 dBA (threshold of hearing) and 110 dBA (loud rock band). The threshold of pain is about 140 dBA.

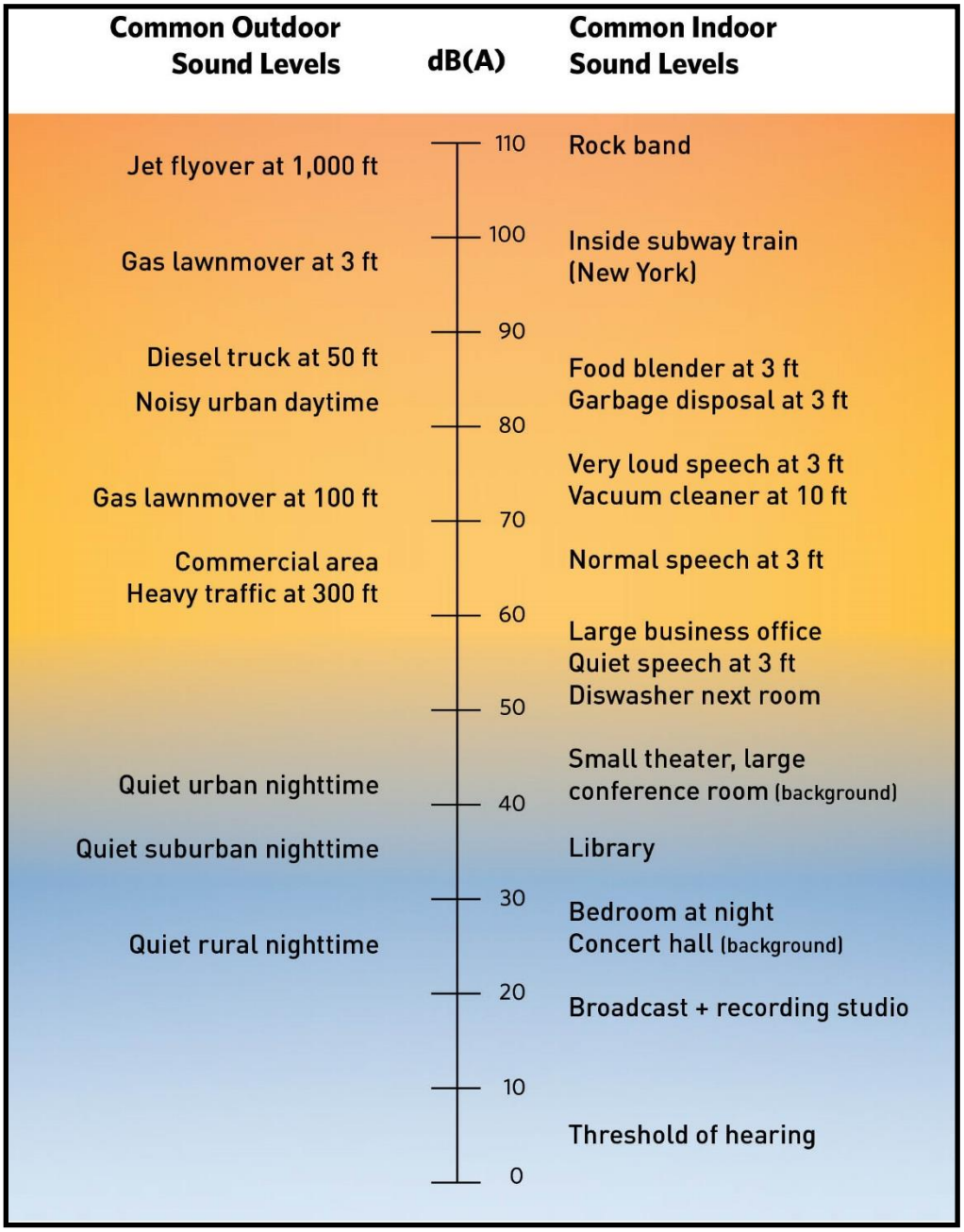


Figure 2-1: Sound Pressure Levels for Various Sound Sources (dBA)

The magnitude of sound waves (pressure oscillations) is described quantitatively by the terms sound pressure level or sound level. The magnitude of a sound is reported in decibels, abbreviated dB. The decibel (dB) is a logarithmic value that is the accepted standard method for reporting the amplitude of sound because it accounts for these large variations in amplitude and reflects the way people perceive changes in sound amplitude. The faintest sound level that can be heard by a young healthy ear is about 0 dB, a moderate sound level is about 50 dB, and a loud sound level is about 100 dB.

Different sounds may have different frequency content. Frequency content of a sound refers to its tonal quality or pitch. When describing sound and its effect on a human population, A-weighted (denoted “dBA”) sound levels are typically used to account for the response of the human ear. The term "A-weighted" refers to a filtering of the sound signal to emphasize frequencies in the middle of the audible spectrum and to de-emphasize low and high frequencies in a manner corresponding to the way the human ear perceives sound.

This filtering network has been established by the American National Standards Institute (ANSI)[3], and can be seen in Figure 2-2. The A-weighted sound level has been found to correlate well with peoples' judgments of the noisiness of different sounds and has been used for many years in the field of environmental acoustics. Another metric used to describe sound is C-weighted (denoted “dBC”) sound levels. C-weighted filtering of the sound signal allows more low-frequency content than A-weighting, better representing the human ear’s “flatter” response at high sound levels. Both A and C-weighted filters can be seen in Figure 2-2.

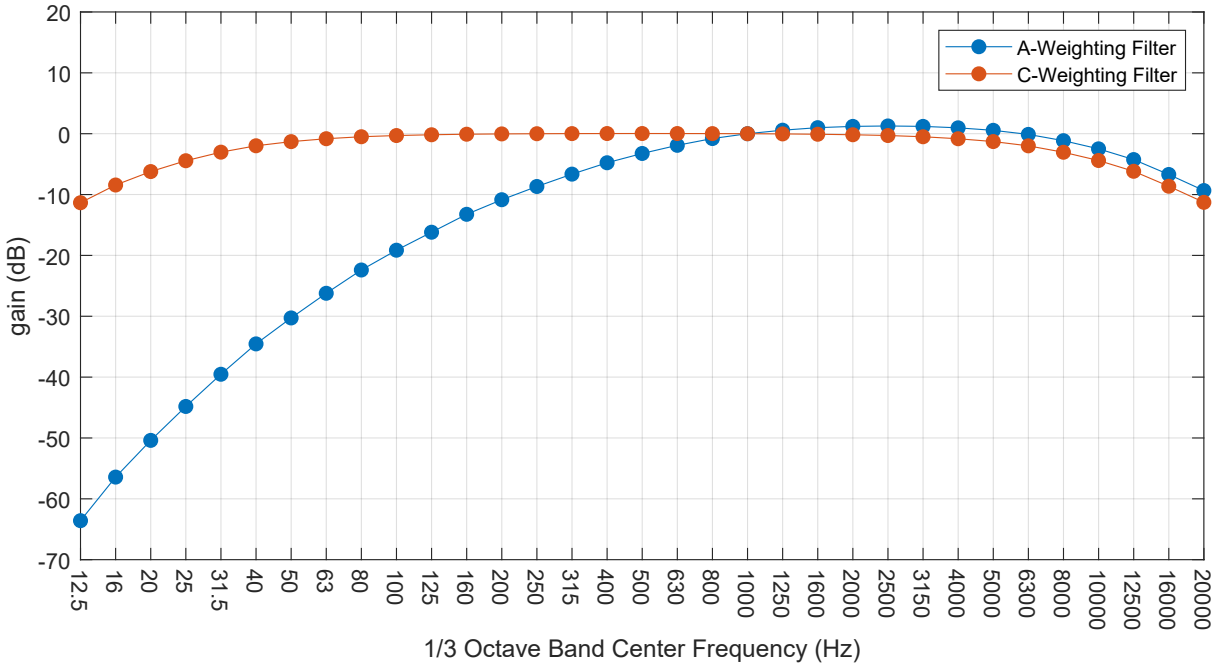


Figure 2-2: A- and C-Weighting Filters

Since sound fluctuates from moment to moment, it is common practice to condense the sound level over a specified period of time into a single value. This study uses two methods for describing variable sounds.

1) L_{EQ} is a number called the Equivalent Continuous Sound Level (L_{EQ}). The Equivalent Continuous sound level is the level of a steady-state (continuous) sound that has the same total (equivalent) energy as the time-varying sound of interest, taken over a specified time period. Thus, the Equivalent Continuous sound level is a single-valued level that expresses the time-averaged total energy of an entire period. It includes both the high sound level single-event ambient sounds and the relatively steady background sounds. Many surveys have shown that the L_{EQ} properly predicts annoyance, and thus this metric is commonly

[3] ANSI S1.42, “Designer Response of Weighting Networks for Acoustical Measurements”, reaffirmed March 2006.

used for community sound measurements, prediction, and impact assessment.

2) Percentile sound (L_n) levels represent statistical values of the measured sound observed during a specified period of time. The "n" designation indicates the percentage of time that the sound level was exceeded in the measurement interval, where n can have a value of 0 to 100 percent. For example, the L_{33} is the sound level which is exceed 33% of the measurement period. Two percentile sound level metrics presented in this report are described below.

   a) L_{90} is the sound level in decibels exceeded 90 percent of the time during the measurement period. The L_{90} is close to the lowest sound level observed, and is often used to represent the ambient sound environment when there are no intermittent sound sources present. The L_{90} in a 1 hour measurement represents the quietest 6 minutes. In other words, to affect the 1 hour L_{90} the sound source must be present for more than 54 minutes. This metric represents the steady or quasi-steady sounds issued from the turbine operation as well as other sources in the environment such as streams, continuous wind in vegetation, etc. The L_{90} is preferred over the minimum sound pressure level L_{MIN} because the latter is dependent on one data point and the L_{90} is based on all the data measured during the noted period.

   b) L_{10} is the sound level in decibels exceeded 10 percent of the time during the measurement period. It is close to the maximum level observed during the measurement period. The L_{10} is often used to quantify the louder sounds that occur more frequently than the maximum sound level. The L_{10} in a 1 hour measurement represents the loudest 6 minutes. This metric represents the level of transient sounds, often caused by automobile traffic, wildlife, etc. In most situations, the L_{10} is not influenced by the turbine operation.

When weighted, the A-weighting or C-weighting is added to the metric, respectively denoted as LA_{EQ}, LA_{10}, LA_{90} and LC_{EQ}, LC_{10}, LC_{90}.

Sound pressure levels can also be quantified on a frequency basis. This is sometimes referred by the layperson as "pitch". The average person has the ability to hear sounds in the range of 20 to 20,000 hertz (Hz); which is the unit for cycles/second. The range of frequencies have been organized into standardized "bins" referred to as octave bands and one-third octave bands. The frequencies for each band are defined by ANSI S1.6-1984 (reaffirmed most recently in April 2011). One-third octave bands have three times as many bins as octave bands as given in Table 2-1. The measurements herein were taken using one-third octave band processing from the frequencies of 12.5 to 20,000 Hz.

Table 2-1: Standard Octave and One-Third Octave Center Frequency Bands

Octave Band Center Frequency (Hz)	1/3 Octave Band Center Frequency (Hz)
	12.5
16	16
	20
	25
31.5	31.5
	40
	50
63	63
	80
	100
125	125
	160
	200
250	250
	315
	400
500	500
	630
	800
1000	1000
	1250
	1600
2000	2000
	2500
	3150
4000	4000
	5000
	6300
8000	8000
	10000
	12500
16000	16000
	20000

3.0 PROJECT SOUND CRITERIA

The Antrim Wind Project is subject to the NHSEC rules including Rule 301.14(f)(2)a. and Rule 301.18 that contain details regarding sound limits and sound study methodology.

3.1 NHSEC SITE RULE 301.18 – SOUND STUDY METHODOLOGY

The NHSEC Rule 301.18 specifies the methodologies for conducting sound studies for wind energy facilities. Sections 301.18(e) through (h) pertain to this post-construction noise compliance monitoring, which includes the following specifications that relate to the present study.

(e) *Post-construction noise compliance monitoring shall include:*

(1) Adherence to the standard of ANSI/ASA S12.9-2013 Part 3, that requires short-term attended measurements to ensure transient noises are removed from the data, and measurements shall include at least one nighttime hour where turbines are operating at full sound power with winds less than 3 meters per second at the microphone;

(2) Unattended long-term monitoring shall also be conducted;

(3) Sound measurements shall be omitted when there is rain, or when temperatures are below instrumentation minima, and shall comply with the following additional specifications:

a. Microphones shall be placed 1 to 2 meters above ground level and at least 7.5 meters from any reflective surface, following the protocols of ANSI/ASA S12.9-2013 Part 3

b. Proper microphone screens shall be required;

c. Microphones shall be field-calibrated before and after measurements; and

d. An anemometer shall be located within close proximity to each microphone;

(4) Monitoring shall involve measurements being made with the turbines in both operating and non-operating modes, and supervisory control and data acquisition system data shall be used to record hub height wind speed and turbine power output;

(5) Locations shall be pre-selected where noise measurements will be taken that shall be the same locations at which predictive sound modeling study measurements were taken pursuant to subsection (c) of Rule 301.18, and the measurements shall be performed at night with winds above 4.5 meters per second at hub height and less than 3 meters per second at ground level;

(6) All sound measurements during post-construction monitoring shall be taken at 0.125-second intervals measuring both fast response and Leq metrics; and

(7) Post-construction monitoring surveys shall be conducted once within 3 months of commissioning and once during each season thereafter for the first year, provided that:

a. Additional surveys shall be conducted at the request of the committee or the administrator.

b. Adjustments to this schedule shall be permitted, subject to review by the committee or the administrator.

(f) Post-construction sound monitoring reports shall include a map or diagram clearly showing the following:

(1) Layout of the project area, including topography, project boundary lines, and property lines;

(2) Locations of the sound measurement points; and

(3) Distance between any sound measurement point and the nearest wind turbine.

(g) For each sound measurement period during post-construction monitoring, reports shall include each of the following measurements:

(1) LA_{EQ}, LA_{10}, and LA_{90}

(2) LC_{EQ}, LC_{10}, and LC_{90}

(h) Noise emissions shall be free of audible tones, and if the presence of a pure tone frequency is detected, a 5 dB penalty shall be added to the measured dBA sound level.

3.2 PROJECT SOUND LIMITS

The NHSEC Site Rule 301.14(f)(2)a provides the following sound limits for the Antrim Wind Project.

"With respect to sound standards, the A-weighted equivalent sound levels produced by the applicant's energy facility during operations shall not exceed the greater of 45 dBA or 5 dBA above background levels, measured at the L_{90} sound level, between the hours of 8:00 a.m. and 8:00 p.m. each day, and the greater of 40 dBA or 5 dBA above background levels, measured at the L_{90} sound level, at all other times during each day, as measured using microphone placement at least 7.5 meters from any surface where reflections may influence measured sound pressure levels, on property that is used in whole or in part for permanent or temporary residential purposes, at a location between the nearest building on the property used for such purposes and the closest wind turbine"

The facility's Certificate is also conditioned upon Antrim Wind Energy's compliance with the terms and conditions contained in the Agreement entitled: "Agreement Between Town of Antrim New Hampshire and Antrim Wind Energy LLC, Developer/Owner of the Antrim Wind Power Project" dated March 8, 2012 ("the Agreement"). The Agreement was amended, effective January 16, 2018, and is incorporated by reference to the Certificate at Appendix V. Paragraph 11 of the Agreement, contains provisions regarding "Noise Restrictions." Nevertheless, both the agreement and NHSEC Site Rule 301.14(f)(2)a have the same sound limits.

To assess compliance in this study the 1 hour L_{EQ} metric is compared to the appropriate daytime and nighttime limits. Times have been identified during the monitoring period that are expected to result in the greatest turbine-related sounds at each location. The limit applies to the turbine specific sound, which can be arrived at by subtracting the ambient environment with no turbine sound from the total sound (ambient + turbine sound), as instructed by ANSI/ASA S12.9-2013 Parts 2 and 3.

The ambient environment used in this study was acquired during periods of time when all nine of the project turbines were off. On the night of March 8, 2020 all 9 turbines were shut down for a period of 30 minutes when the average turbine hub height wind speeds were greater than 9 m/s, a speed at which the turbines would be operating at maximum sound power conditions. Choosing this time to establish the site ambient levels is appropriate because under calm wind conditions the turbines will not operate.

4.0 WIND TURBINE SOUND POWER INFORMATION

The Antrim Wind Project employs 9 Siemens SWT 3.2-113 turbines, each with a rated capacity of 3.2 MW. Table 4-1 presents the published sound power levels for this turbine model at various wind speeds referenced to a height of 10.0 meters above ground level. These values were obtained following standard IEC 61400-11 for sound power measurements. The second row of the table also presents the rated electrical power generation at each wind speed threshold.

Table 4-1: Turbine Sound Power Levels versus Wind Speed [dB(A) re: 1 pW]

Wind Speed (m/s)	3	4	5	6	7	8	9	10	11	12	Up to cut out
Sound Power Level (dBA)	90.7	95.3	99.9	104.7	106.0	106.0	106.0	106.0	106.0	106.0	106.0
Electrical power generation (kW)	60	161	334	594	958	1438	2020	2620	3054	3183	3200

This table is important as it allows one to understand when the highest sound levels from the turbines has occurred based on measured site wind conditions and electrical power production. This table shows that the turbines reach their maximum sound levels when generating at least 958 kW.

5.0 POST CONSTRUCTION SOUND MEASUREMENT PROGRAM

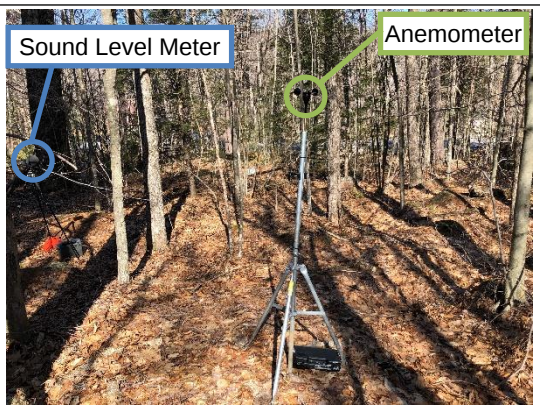
5.1 MONITORING LOCATIONS

Sound monitoring instrumentation was deployed at 5 locations surrounding the wind farm. Table 5-1 presents the global positioning system (GPS) coordinates of each site, along with their orientation to the closest turbines. Locations 3, 4, and 5 each have multiple turbines within the same approximate distance, within 100 meters. When assessing project compliance, the operational data from the closest turbine (or turbines) is considered. Location 1 is due north of the turbines, whereas Locations 2 and 3 are on the west side of the ridgetop. Locations 4 and 5 are east of the project site. Per the NHSEC Rule 301.18, the monitoring locations were the same as the ones chosen for the pre-construction sound study.

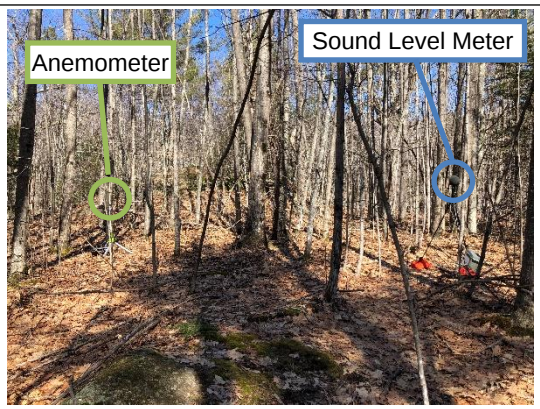
Table 5-1: Sound Monitoring Locations

Location	Latitude	Longitude	Closest Turbine(s)	Approximate Distance (m)	Approximate Direction	Wind Direction for Downwind Conditions (deg)
Location L1: Keene Road	43.07559º	-72.00840º	WTG-1	900	North	177
Location L2: Loveren Mill Road	43.07900º	-72.02130º	WTG-1	1,700	Northwest	139
Location L3: Salmon Brook Road	43.05607º	-72.03515º	WTG-5 WTG-6 WTG-7	1,300 1,300 1,400	West West Northwest	87 107 127
Location L4: Reed Carr Road	43.07008º	-71.99502º	WTG-1 WTG-2	1,100 1,100	East Northeast	255 234
Location L5: Gregg Lake Road	43.04301º	-71.98839º	WTG-2 WTG-3 WTG-6 WTG-7 WTG-8	2,800 2,700 2,800 2,800 2,700	Southeast Southeast East East East	327 321 293 283 276

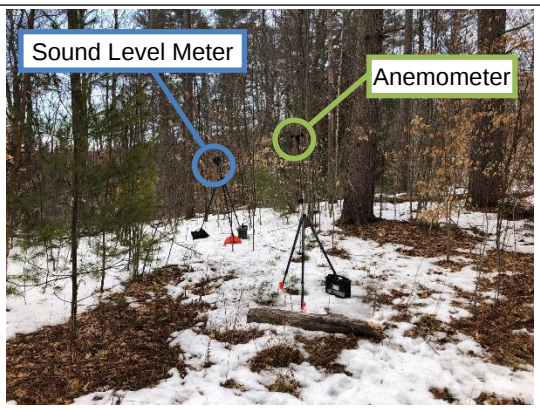
Figure 5-1 presents photographs of the 5 sound monitoring locations.



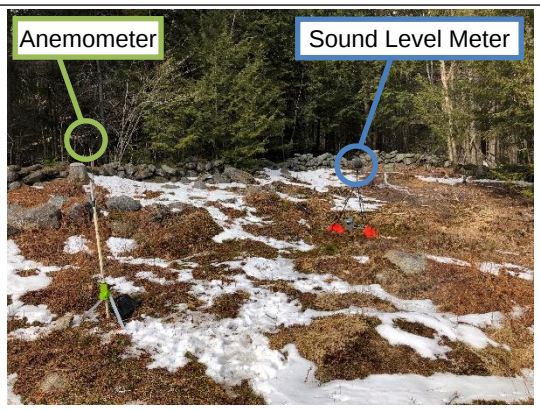
L1: Sound Level Meter and Anemometer



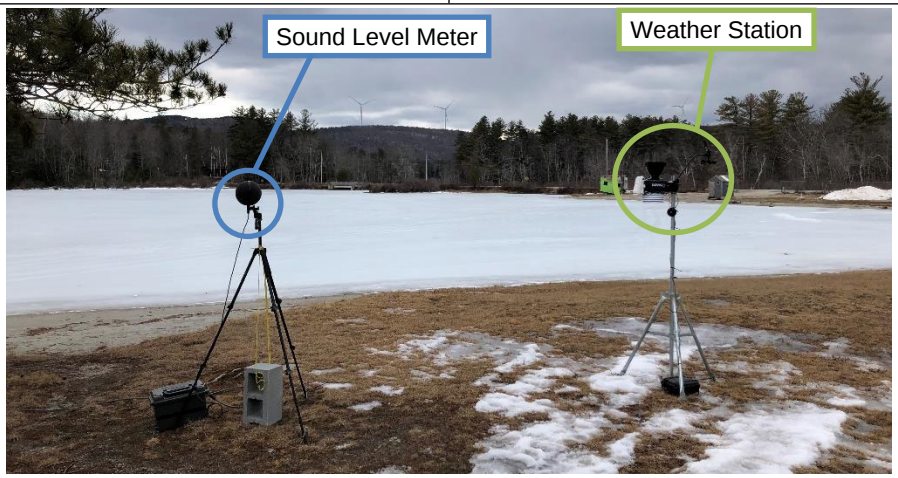
L2: Sound Level Meter and Anemometer



L3: Sound Level Meter and Anemometer



L4: Sound Level Meter and Anemometer



L5: Sound Level Meter and Weather Station

Figure 5-1: Sound Monitoring Installation Photos

5.2 MEASUREMENT EQUIPMENT AND METRICS

In accordance with the NHSEC Site Rule 301.18, Acentech measured the following quantities at each monitoring location.

Sound Measurements

- 1/3 octave band sound pressure levels (SPL) from 12.5 Hz to 20,000 Hz
  - Sound metrics saved every 10 minutes (L_{10}, L_{90}, L_{EQ}) using the meter's fast time response, which analyzes the data with a 0.125 second time constant (or sampling interval)
  - SPL and 1/3 octave amplitudes saved every 0.100 seconds, subject to the meter's fast time constant (i.e. the meter's fast response interrogated every 0.100 seconds)
    - After eliminating transient sounds this data was used to recompile the sound metrics
  - The prescribed L_{EQ} and statistical metrics for the sound study were analyzed with the following conditions eliminated from the measurement data:
    - Ground wind speeds above 3 meters/second near the microphones
    - Temperatures below the instrumentation minimum specifications (14° F for the sound level meter)
    - Periods with rain, sleet, hail or snow
- A Zoom H1n audio recording device was deployed with each sound level meter to record the output from the device for listening purposes in 128 kbps mp3 file formats.

After the prescribed conditions were eliminated from the analysis, the valid data were used to compute values of LA_{EQ}, LA_{10}, LA_{90}, LC_{EQ}, LC_{10}, and LC_{90}. The LA_{EQ} data were then compared to each site's ambient sound levels when the turbines were off to establish the facility only sound levels. These turbine specific sound levels are compared to the sound limits for the project. Acentech also evaluated the data for the existence of

pure tones using methods from ANSI S12.9 Part 4, Annex C (using 1/3 octave band data), and adding the corresponding 5 dB penalty to the final result of any periods with pure tones present. It is noted that no pure tones from the Antrim Wind Project were observed during this winter sound study.

A total of 5 ANSI/IEC Type 1 sound level meters were deployed in the field for sound monitoring. All microphones were outfitted with 7 inch diameter hydrophobic-foam windscreens, ACO Pacific model WS7-80T or RION brand equivalent. Each microphone was mounted to a tripod at approximately 1.5 meters from the ground and connected to an extension cable that lead to the sound level meter inside of a weather resistant case. The sound instrumentation was calibrated in the field using an acoustical calibrator at the beginning and end of the monitoring period. Each piece of equipment was calibrated and certified as accurate by a third party laboratory to NIST traceable standards within the prior 12 months. Table 5-2 lists the sound level measurement instrumentation information used for this study.

Table 5-2: Sound Level Measurement Instrumentation

	Sound Level Meter Equipment	Model	Serial Number
Location 1	Meter	Rion NL-52	998428
	Pre-Amplifier	Rion NH-25	98642
	Microphone	Rion UC-59	15937
Location 2	Meter	Rion NL-52	787182
	Pre-Amplifier	Rion NH-25	87338
	Microphone	Rion UC-59	13956
Location 3	Meter	Rion NL-52	564798
	Pre-Amplifier	Rion NH-25	64923
	Microphone	Rion UC-59	10440
Location 4	Meter	Rion NL-52	787184
	Pre-Amplifier	Rion NH-25	87340
	Microphone	Rion UC-59	13958
Location 5	Meter	Rion NL-52	732170
	Pre-Amplifier	Rion NH-25	32198
	Microphone	Rion UC-59	5362
ALL	Calibrator	Rion NC-74 acoustic calibrator	34773101

Meteorological Measurements

Continuous ground wind speed at all 5 monitoring locations was measured at approximately 2 meters from the ground. MadgeTech Wind101A anemometers were deployed at locations 1 through 4. A Davis Instruments Vantage Pro 2 weather station was deployed to log wind speed, wind direction, temperature, and precipitation at location 5. The data at all locations were saved in 10-minute intervals, which were used to compute hourly averages.

Turbine Operation Data

AWE supplied Acentech with turbine operational data consisting of individual turbine hub height wind speeds, wind directions, and power outputs in ten minute increments. These data were also compiled into hourly averages for comparison to the hourly sound metrics.

5.3 LONG-TERM UNATTENDED MEASUREMENTS

The winter sound monitoring period lasted for a period of two weeks from March 4th to the 18th, 2020. The unattended measurements were carried out in accordance with ANSI S12.9-1992 2013 Part 2 and the NHSEC Rules.

5.4 SHORT-TERM ATTENDED MEASUREMENTS

Acentech performed attended sound monitoring in accordance with the NHSEC Site Rule 301.18. The rule states a post-construction sound study must include attended measurements at each monitoring location for at least one nighttime hour (8:00 pm to 8:00 am) where turbines are operating at full sound power with winds less than 3 meters per second at the microphone and greater than 4.5 meters per second at turbine hub heights.

On the night of March 8, 2020 five Acentech personnel were on site to carry out the attended measurements at the five monitoring locations. During these attended measurements, field personnel identified and recorded by notation all audible sound sources other than turbines (local traffic, resident generated sounds, wildlife, etc.). Turbine operational data and the local wind speed data at each monitoring location confirmed the required conditions for attended monitoring were met.

5.5 MEASUREMENTS DURING TURBINE SHUTDOWN

The NHSEC Site Rule 301.18 also states that monitoring shall include measurements with the turbines in both operating and non-operating modes. On the night of attended measurements on March 8, 2020 all nine turbines were shut down for a period of 30 minutes from 10:30 pm to 11:00 pm. This period was chosen to represent the site ambient sound environment when the hub-height wind speeds were relatively high and therefore under the same conditions required to get turbines at full sound power (conditions at which the compliance assessment is performed). Any transient sound sources such as traffic were eliminated from the ambient measurements in order to quantify the true residual sound levels. These data were used to subtract from the total hourly sound levels (ambient + turbine) to arrive at the turbine specific sound levels.

6.0 WEATHER, TURBINE OPERATION AND SOUND MONITORING DATA

The winter sound monitoring program occurred from March 4, 2020 to March 18, 2020. The weather conditions during this two week period were suitable to conducting the wind turbine sound monitoring. Section 6.1 provides a complete discussion of the weather and turbine operating conditions encountered during the monitoring campaign.

Acentech analyzed all of the turbine, meteorological, and sound level meter data to identify periods appropriate for comparing the facility sound to the limits. These criteria are detailed in Section 6.2.

Sections 6.3 through 6.7 summarize both the attended and unattended data by location. After identifying the appropriate times for evaluating project compliance, and eliminating transient non-turbine sounds from those periods, and then computing the turbine specific sound levels (total sound – ambient residual sound) the project is in compliance with the 1-hour L_{EQ} 40 dBA nighttime project limit. By demonstrating that the identified periods at each location meet the nighttime limit, it follows that the daytime limit of 45 dBA is also met.

Table 6-1 provides an overall summary of the sound levels observed for each of the five locations. The highest 1-hour L_{EQ} sound level was observed at Location 1 with a level of 38 dBA. This monitoring location is the nearest to any of the nine turbines. The lowest 1-hour L_{EQ} was observed at Location 5 with a level of 32 dBA, the location farthest away from the turbines.

Table 6-1: Summary of Turbine Specific Sound Levels Evaluated at Each Monitoring Location

Location #	Full Results in Table	1 hour LA_{EQ} (dBA)	
		Minimum	Maximum
1	Table 6-4	36	38
2	Table 6-7	37	37
3	Table 6-10	38	38
4	Table 6-13	32	34
5	Table 6-16	32	32

Tables of the hourly sound metrics at each location along with the local ground wind speed and closest turbine(s) operating conditions are provided in Appendix B. It should be stated that these levels are provided without any transient sounds excluded. Moreover, the levels shown in Appendix B represent total sound (with the exception of the shutdown period on March 8, 2020 10:00 to 11:00 pm) and not the facility specific sound therefore it is not appropriate to compare those directly to the limits.

6.1 METEOROLOGICAL AND TURBINE OPERATING CONDITIONS

Appendix A presents the meteorological and turbine operating conditions recorded during the winter sound monitoring period from March 4th to the 18th, 2020. Regional precipitation and temperature data from the nearby Jaffrey Airport Silver Ranch National Weather Service station are presented in Figures A-1 and A-2. The wind farm turbine operational data are presented in Figures A-3 and A-4, showing the average of the 9 turbine's hub height wind speed and direction every 10 minutes, as well as the total project power generation. Wind speed, direction, and temperature recorded with the weather station at monitoring location 5 are presented in Figures A-5 and A-6. The greatest winds generally traveled from west to east, which is typical for this area.

A total of 331 hours of sound level data was analyzed at each location beginning from 2:00 pm on March 4, 2020 until 10:00 am March 18, 2020 (one hour was lost due to daylight savings time starting at 2:00 am on March 8th). There were no temperatures below the instrument minimum rating (14° F). Any hours with a trace or more of precipitation were excluded from the data analysis. A few short periods of time before and after the attended measurements were eliminated from the sound data because of Acentech personnel checking on the equipment.

6.2 CRITERIA FOR IDENTIFYING TURBINE ONLY SOUNDS

To identify the proper times for assessing project sound compliance, Acentech analyzed all of the turbine, meteorological, and sound level meter data for maximum facility sound conditions at each monitoring location.

The following conditions are part of the NHSEC site rule 301.18, ANSI S12.9-1992 2013 guidelines, and within the professional judgement by Acentech.

1. Times with local ground wind speed greater than 3 m/s measured by the local anemometers near the sound level meters were excluded.

2. Times with site temperatures below the instrument minimum specification (14° F) were to be excluded. However, the temperatures observed during this monitoring period never went below 14° F.

3. Times with measured or observed precipitation in the area were excluded.

4. Table 4-1 shows that the turbines reach their maximum sound power levels when generating above 958 kW. Hours when the nearest turbine(s) operated above this level were included in the analyses. The 10-minute turbine operational data was inspected for each of these hours to confirm that the maximum sound power levels were met for the entire hour.

5. ANSI S12.9-2013 Part 3 cites another ANSI publication (S12.18-1994) outlining the general method for the outdoor measurement of sound pressure levels. This document states that sound levels from a source should be measured under downwind conditions +/- 45 degrees. Therefore, only times when the monitoring locations were +/- 45 degrees downwind of the closest turbine(s) are included.

    a. Per ANSI S12.18-1994:
    "if the distance between the source and receiver exceeds 30 m and the grazing angle is smaller than 20 degrees, measurements shall only be made with the receiver downwind from the source and when the direction of the wind vector is within an angle +/- 45 degrees of the direction connecting the center of the sound source and center of the specified receiver area."

6. At some locations there were many periods that met the above conditions, but the sound levels were controlled by non-turbine sounds. ANSI S12.9 2013 Part 3 suggests that a steady sound source shouldn't vary by more than 3 decibels over the period of measuring its sound levels. In keeping with this statement, periods in which the LA_{10} and LA_{90} sound levels differed by more than 3 dBA were excluded. If no periods met this criterion, then the difference was expanded to 4 dB or 6 dB and the data was inspected for non-turbine sounds that could be excluded. When the difference between the LA_{10} and LA_{90} is small, it is indicative of steady sound conditions, presumably from the turbines after all other evaluation criteria are met.

7. Attended measurements and audio file examinations were used in certain situations to remove periods with extraneous sound sources that were not part of the turbine sounds, such as traffic, wildlife, etc.

6.3 LOCATION 1 – KEENE ROAD (ROUTE 9)

Sound level and wind measuring equipment was deployed on the side of the driveway at 354 Keene Road approximately 40 meters from the street and 15 meters from the edge of the driveway. These setbacks are similar to other houses along Keene Road. The sound levels at this location were heavily influenced by road traffic. Frequent trucks driving over rumble strips in the pavement produced the highest sound levels. Other sources of sound were wind in the trees, bird calls, and aircraft in the sky. Location 1 is due north of the project site and approximately 900 meters from turbine 1.

At Location 1 there were no periods with local ground winds above 3 m/s. After eliminating periods with regional precipitation there are a total of 291 1-hour periods in the analysis. Table 6-2 summarizes the range of hourly A-weighted and C-weighted sound levels measured at monitoring Location 1. A table of all hourly sound metrics at Location 1 as well as the local ground wind speed and nearest turbine data is provided in Appendix B, Table B-1.

Table 6-2: Location 1 Hourly Sound Level Summary

	A-Weighted Sound Metrics			C-Weighted Sound Metrics		
	LA_{90}	LA_{EQ}	LA_{10}	LC_{90}	LC_{EQ}	LC_{10}
	(dBA)			(dBC)		
Minimum	28	45	36	38	49	45
Maximum	54	63	67	60	67	70
Median	38	57	62	49	62	65
Average	38	56	59	49	60	62

The lowest L_{EQ} values are higher than the lowest L_{10} values. An inspection of the hour in which both of these occurred showed that there were approximately 15 vehicles passing on Route 9, which was enough to effect the L_{EQ} metric but not the L_{10}.

6.3.1 Location 1 Attended Measurements

Acentech personnel were on site for attended measurements at this location from approximately 09:00 pm on March 8th until 1:10 am on March 9th. During this time the 10-minute average wind speeds measured at the turbine hub heights ranged from 9.5 to 13.1 m/s, and the average turbine generation was well above 958 kW. The 10-minute local ground wind speeds at Location 1 were measured between 0.0 and 0.04 m/s. Therefore, the NHSEC conditions for attended measurements were met.

Because Location 1 is so close to a road with frequent vehicle traffic, the sound pressure levels are dominated by this source. Even in the middle of the night during the attended measurements there were cars and trucks passing on the road every few minutes. The peak sound levels from vehicle passes ranged from 50 to 70 dBA. When a vehicle's tires drove over the rumble strips in the pavement, a low frequency tonal sound was observed. No tonal sounds were observed besides the rumble strip sounds.

6.3.2 Location 1 – Evaluation Data

Periods at Location 1 that met the first 5 criteria listed in Section 7.2 for identifying turbine sounds were still significantly affected by vehicle traffic on Route 9. Therefore, the attending notes and recorded audio files were used to identify each individual car pass event and other extraneous non-turbine sounds in the set of hourly data. Those sources were excluded from the analysis by removing their sound levels from the 0.100 second sampled sound level meter data. Each 1-hour L_{90}, L_{EQ}, and L_{10} sound level was then re-calculated from the remaining filtered data. Several hours encountered almost constant non-turbine sounds from birds and traffic on Route 9. According to ANSI S12.9-2013 Part 3, if more than half of the measurement period is excluded, then the entire hour may be omitted.

A figure showing the graphical results of this process for the overall A-weighted sound levels is presented in Figure 6-1. The process was computed for the individual 1/3 octave band amplitudes as well. The resulting LA_{EQ} 1/3 octave band amplitudes did not exhibit any tonal attributes.

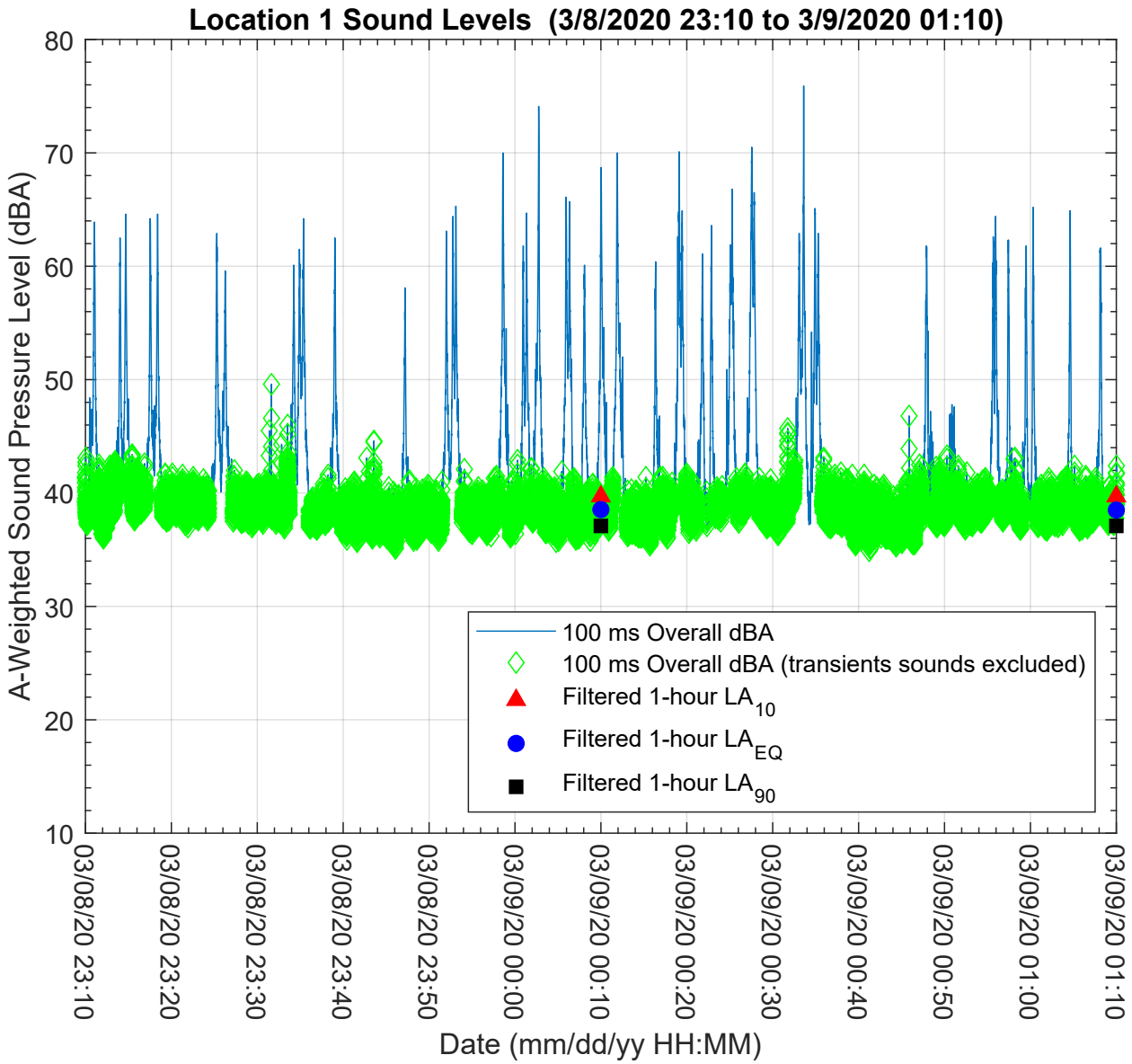


Figure 6-1: Example Exclusion of Non-Turbine Sounds from Monitoring Data at Location 1

A summary of the final sound levels with non-turbine sounds filtered out is presented in Table 6-3. A total of ten 1-hour periods were identified that met the criteria for maximum turbine sounds and had more than half of the hour remaining after the non-turbine sound filtering process.

Table 6-3: Location 1 Periods Identified for Turbine Sound Compliance Evaluation

Time Period		A-Weighted Sound Metrics			C-Weighted Sound Metrics			WTG-1 Average Power Generation	WTG-1 Average Hub Height Wind Speed	WTG-1 Average Hub Height Wind Direction	Local Ground Wind Speed
Start	End	L_{EQ}	L_{10}	L_{90}	L_{EQ}	L_{10}	L_{90}				
		(dBA)			(dBC)			(kW)	(m/s)	(deg)	(m/s)
3/8/2020 23:10	3/9/2020 00:10	39	40	37	53	54	51	2905	11.0	217	0.00
3/9/2020 00:10	3/9/2020 01:10	39	40	37	55	56	52	3054	12.0	215	0.01
3/9/2020 1:00	3/9/2020 2:00	38	40	37	53	55	51	3163	13.2	219	0.05
3/9/2020 2:00	3/9/2020 3:00	38	39	37	55	58	52	2799	10.8	220	0.02
3/9/2020 23:00	3/10/2020 0:00	39	40	37	52	54	50	1645	8.0	212	0.00
3/10/2020 0:00	3/10/2020 1:00	38	39	37	52	54	50	2719	10.5	220	0.00
3/10/2020 1:00	3/10/2020 2:00	39	39	38	54	55	52	2946	11.0	216	0.00
3/10/2020 2:00	3/10/2020 3:00	39	39	38	54	56	52	2655	10.0	212	0.00
3/10/2020 3:00	3/10/2020 4:00	39	40	38	54	56	50	2370	9.6	214	0.00
3/10/2020 4:00	3/10/2020 5:00	39	40	38	52	54	50	2902	11.3	218	0.00

The values in Table 6-3 represent the total sound present, meaning the ambient and the wind turbine project together. The turbine-specific sound levels may be calculated by subtracting the ambient L_{EQ} levels without the turbines present from the total sound L_{EQ} levels. During the planned turbine shutdown period there was traffic on Route 9 for almost the entirety of the 30 minutes. Therefore, this period is not good for establishing the residual ambient sound levels at this location. There were a total of 11 unplanned hours throughout the monitoring period where all 9 turbines were shut down. After filtering out car pass events in each of these periods the lowest hourly LA_{EQ} and LC_{EQ} values observed at Location 1 during unplanned shutdown periods were 33 dBA and 40 dBC. These may be subtracted from the total sound L_{EQ} levels. The results of this calculation yield the turbine-specific sound levels at Location 1 and are presented in Table 6-4. The turbine-specific LA_{EQ} sound levels are below the nighttime project limit of 40 dBA, thus demonstrating compliance with the wind project's sound limits at this location.

Table 6-4: Location 1 Turbine-Specific Sound Levels

Time Period		LA_{EQ}	LC_{EQ}
Start	End	(dBA)	(dBC)
3/8/2020 23:10	3/9/2020 00:10	37	53
3/9/2020 00:10	3/9/2020 01:10	37	54
3/9/2020 01:00	3/9/2020 02:00	37	53
3/9/2020 02:00	3/9/2020 03:00	36	54
3/9/2020 23:00	3/10/2020 00:00	37	52
3/10/2020 00:00	3/10/2020 01:00	37	52
3/10/2020 01:00	3/10/2020 02:00	37	54
3/10/2020 02:00	3/10/2020 03:00	37	54
3/10/2020 03:00	3/10/2020 04:00	38	54
3/10/2020 04:00	3/10/2020 05:00	38	52

6.4 LOCATION 2 – LOVEREN MILL ROAD

Sound level and wind monitoring equipment was deployed approximately 8 meters north of the driveway at 47 Loveren Mill Road, and 18 meters from the road. Location 2 is situated northwest of the project site approximately 1,700 meters from turbine 1 and 670 meters from Route 9. The sound levels at this location were influenced by truck traffic on Route 9, as well as homeowner activities and a barking dog. A neighboring house was under construction during the monitoring period. Nail hammering sounds could be heard in the recorded audio files during daytime hours and on the morning of March 18th when retrieving the sound monitoring equipment. There were no periods with local ground winds above 3 m/s. After eliminating periods with regional precipitation there are a total of 291 1-hour periods in the analysis. Table 6-5 summarizes the range of hourly sound levels measured at monitoring Location 2.

Table 6-5: Location 2 Hourly Sound Level Summary

	A-Weighted Sound Metrics			C-Weighted Sound Metrics		
	LA_{90}	LA_{EQ}	LA_{10}	LC_{90}	LC_{EQ}	LC_{10}
	(dBA)			(dBC)		
Minimum	21	23	25	37	40	41
Maximum	51	56	58	57	63	66
Median	32	37	39	46	50	52
Average	32	38	40	46	50	52

A table of all hourly sound metrics at Location 2 as well as the local ground wind speed and nearest turbine data is provided in Appendix B, Table B-2.

6.4.1 Location 2 – Attended Measurements

Acentech personnel were on site for attended measurements at Location 2 from approximately 09:30 pm on March 8th until 1:10 am on March 9th. During this time the 10-minute average wind speeds measured at the turbine hub heights ranged from 9.5 to 13.1 m/s, and the average turbine generation was well above 958 kW. The 10-minute local ground wind speeds at Location 2 were measured between 0.0 and 0.2 m/s. Therefore, the NHSEC conditions for attended measurements were met.

Road sounds from frequent vehicle traffic on Route 9 were observed, and the maximum sound pressure levels are controlled by this source. Sounds from a large animal in the woods were also noted during attended observations. No tonal sounds were observed besides rumble strip sounds occurring from trucks on Route 9.

6.4.2 Location 2 – Evaluation Data

There were no entire hours at Location 2 that met the turbine power and wind direction criteria listed in Section 6.2. Being located northwest of turbine 1 means that to meet the downwind conditions the wind needs to be traveling from the southeast, which occurred very little during the winter monitoring period. The period from 7:40 pm to 8:50 pm on March 16th had four 10-minute periods that met the turbine power and wind direction thresholds for maximum sound at Location 2. In lieu of a full hour, these four time periods were examined. The audio files for this time period were also examined to identify and exclude non-turbine sounds from the analysis. It is reasonable to assume that had the turbines continued to operate at full sound power level constantly for a full hour that the 1-hour L_{EQ} and statistical levels would be the same as the 40-minute L_{EQ} and L_n values observed. A summary of the sound levels is presented in Table 6-6. The resulting LA_{EQ} 1/3 octave band amplitudes did not exhibit any tonal attributes, thereby avoiding the 5 dB penalty for a pure tone condition.

Table 6-6: Location 2 Periods Identified for Turbine Sound Compliance Evaluation

Time Period		A-Weighted Sound Metrics			C-Weighted Sound Metrics			WTG-1 Average Power Generation	WTG-1 Average Hub Height Wind Speed	WTG-1 Average Hub Height Wind Direction	Local Ground Wind Speed
Start	End	L_{EQ}	L_{10}	L_{90}	L_{EQ}	L_{10}	L_{90}				
		(dBA)			(dBC)			(kW)	(m/s)	(deg)	(m/s)
3/16/2020 19:40*	3/16/2020 20:50*	38	40	34	53	55	51	1073	6.7	112	0.10

*This time period includes forty minutes where all turbine meteorological conditions are met. The corresponding values are a 40-minute sound level. It is reasonable to assume that under constant conditions these are representative of an hour-long period.

The values in Table 6-6 represent the total sound present, meaning the ambient and the wind project together. The turbine-specific sound levels may be calculated by subtracting the ambient L_{EQ} levels without the turbines present from the total sound L_{EQ} levels. The observed LA_{EQ} and LC_{EQ} values at Location 2 during the March 8th turbine shutdown period with transient traffic sounds from Route 9 excluded were 33 dBA and 41 dBC and may be subtracted from the total sound L_{EQ} levels. The results of this calculation yield the turbine-specific sound levels at Location 2 and are presented in Table 6-7. The turbine-specific LA_{EQ} sound levels are below the nighttime project limit of 40 dBA, thus demonstrating compliance with the wind project's sound limits at this location.

Table 6-7: Location 2 Turbine-Specific Sound Levels

Time Period		LA_{EQ}	LC_{EQ}
Start	End	(dBA)	(dBC)
3/16/2020 19:40	3/16/2020 20:50	37	53

6.5 LOCATION 3 – SALMON BROOK ROAD

Sound level and wind monitoring equipment was deployed in the woods approximately 38 meters beyond a locked gate in an area just south of Salmon Brook Road. This location is approximately 1,300 meters from Route 9. Traffic along Route 9, wind noise, birds, and rustling vegetation were all sources that influenced the sound levels at this site. Location 3 is due west of the project site and closest to turbines 5, 6, and 7 at a distance of 1,300 to 1,400 meters. There were no periods with local ground winds above 3 m/s. After removing periods with regional precipitation there are a total of 291 1-hour periods in the analysis. Table 6-8 summarizes the range of hourly sound levels measured at monitoring Location 3. A table of all hourly sound metrics at Location 3 as well as the local ground wind speed and nearest turbine data is provided in Appendix B, Table B-3.

Table 6-8: Location 3 Hourly Sound Level Summary

	A-Weighted Sound Metrics			C-Weighted Sound Metrics		
	LA_{90}	LA_{EQ}	LA_{10}	LC_{90}	LC_{EQ}	LC_{10}
	(dBA)			(dBC)		
Minimum	23	26	27	35	38	39
Maximum	53	57	58	57	60	63
Median	33	37	39	48	50	52
Average	33	37	40	47	50	52

6.5.1 Location 3 – Attended Measurements

Acentech personnel were on site for attended measurements at Location 3 from approximately 09:00 pm on March 8th until 1:10 am on March 9th. During this time the 10-minute average wind speeds measured at the turbine hub heights ranged from 9.5 to 13.1 m/s, and the average turbine generation was well above 958 kW. The 10-minute local ground wind speeds at Location 3 were measured between 0.0 and 0.1 m/s. Therefore, the NHSEC conditions for attended measurements were met.

Road sounds from frequent vehicle traffic on Route 9 were observed, as well as wind in the trees. No tonal sounds were observed.

6.5.2 Location 3 – Evaluation Data

There was one full 1-hour period that met the turbine operational evaluation criteria for maximum sound at Location 3. A summary of the sound levels is presented in Table 6-9. The resulting LA_{EQ} 1/3 octave band amplitudes did not exhibit any tonal attributes, thereby avoiding the 5 dB penalty for a pure tone condition.

Table 6-9 Location 3 Periods Identified for Turbine Sound Compliance Evaluation

Time Period		A-Weighted Sound Metrics			C-Weighted Sound Metrics			Average of WTG-5 WTG-6 WTG-7 Power Generations	Average of WTG-5 WTG-6 WTG-7 Hub Height Wind Speeds	Average of WTG-5 WTG-6 WTG-7 Hub Height Wind Directions	Local Ground Wind Speed
Start	End	L_{EQ}	L_{10}	L_{90}	L_{EQ}	L_{10}	L_{90}				
		(dBA)			(dBC)			(kW)	(m/s)	(deg)	(m/s)
3/16/2020 20:00	3/16/2020 21:00	39	41	34	53	55	50	1536	8.4	99	0.55

The values in Table 6-9 represent the total sound present, meaning the ambient and the wind project together. The turbine-specific sound levels may be calculated by subtracting the ambient L_{EQ} levels without the turbines present from the total sound L_{EQ} levels. The observed LA_{EQ} and LC_{EQ} values at Location 3 during the March 8th turbine shutdown period were 29 dBA and 38 dBC and may be subtracted from the total sound L_{EQ} levels. The results of this calculation yield the turbine-specific sound levels at Location 3 and are presented in Table 6-10. The turbine-specific LA_{EQ} sound level is below the nighttime project limit of 40 dBA, thus demonstrating compliance with the wind project's sound limits at this location.

Table 6-10: Location 3 Turbine-Specific Sound Levels

Time Period		LA_{EQ}	LC_{EQ}
Start	End	(dBA)	(dBC)
3/16/2020 20:00	3/16/2020 21:00	38	52

6.6 LOCATION 4 – REED CARR ROAD

Sound level and wind monitoring equipment was deployed in the backyard of 72 Reed Carr Road. The equipment was placed near a rock wall behind a garden. This location is approximately 850 meters from Route 9. The sound levels at this site were influenced by vehicles on Reed Carr Road and Route 9, bird calls, passing aircraft, and rustling vegetation. Location 4 is due east of the project site closest to turbines 1 and 2 at a distance of approximately 1,100 meters. There were no periods with local ground winds above 3 m/s. After removing periods with regional precipitation there are a total of 291 1-hour periods in the analysis. Table 6-11 summarizes the range of hourly sound levels measured at monitoring Location 4. A table of all hourly sound metrics at Location 4 as well as the local ground wind speed and nearest turbine data is provided in Appendix B, Table B-4.

Table 6-11: Location 4 Hourly Sound Level Summary

	A-Weighted Sound Metrics			C-Weighted Sound Metrics		
	LA_{90}	LA_{EQ}	LA_{10}	LC_{90}	LC_{EQ}	LC_{10}
	(dBA)			(dBC)		
Minimum	18	21	22	33	37	37
Maximum	48	54	59	58	63	66
Median	31	36	37	45	49	51
Average	30	36	38	46	50	51

6.6.1 Location 4 – Attended Measurements

Acentech personnel were on site for attended measurements at Location 4 from approximately 10:00 pm on March 8th until 1:10 am on March 9th. During this time the 10-minute average wind speeds measured at the turbine hub heights ranged from 9.5 to 13.1 m/s, and the average turbine generation was well above 958 kW. The 10-minute local ground wind speeds at Location 4 were measured between 0.0 and 0.4 m/s. Therefore, the NHSEC conditions for attended measurements were met.

Distant vehicle traffic on Route 9 could occasionally be heard at Location 4. Most of the non-turbine sound at this location was due to tree branches rustling in the wind. Even with very little wind at ground level the wind at treetop level was still at times the dominant sound source. No tonal sounds were observed.

6.6.2 Location 4 – Evaluation Data

There were many hours at Location 4 in which the turbine operational data met the conditions for analyzing the maximum sound levels. However, many of those hours contained frequent non-turbine sounds such as rustling trees, distant traffic, bird calls, and local wind sound that significantly affected the hourly LA_{EQ}. There were no periods in which the LA_{10} and LA_{90} sound levels differed by less than 3 dBA. Therefore, the difference was expanded to 4 dBA, which yielded nine 1-hour periods for evaluation. A summary of the sound levels is presented in Table 6-12. The resulting LA_{EQ} 1/3 octave band amplitudes did not exhibit any tonal attributes, thereby avoiding the 5 dB penalty for a pure tone condition.

Table 6-12: Location 4 Periods Identified for Turbine Sound Compliance Evaluation

Time Period		A-Weighted Sound Metrics			C-Weighted Sound Metrics			Average of WTG-1 WTG-2 Power Generations	Average of WTG-1 WTG-2 Hub Height Wind Speeds	Average of WTG-1 WTG-2 Hub Height Wind Directions	Local Ground Wind Speed
Start	End	L_{EQ}	L_{10}	L_{90}	L_{EQ}	L_{10}	L_{90}				
		(dBA)			(dBC)			(kW)	(m/s)	(deg)	(m/s)
3/05/2020 00:00	3/05/2020 01:00	35	37	33	52	54	50	2357	10.2	257	0.02
3/08/2020 20:00	3/08/2020 21:00	35	36	33	50	51	48	2812	11.3	242	0.00
3/09/2020 02:00	3/09/2020 03:00	34	36	32	54	55	52	3000	13.0	229	0.02
3/09/2020 04:00	3/09/2020 05:00	35	36	33	52	53	49	3200	16.4	238	0.07
3/09/2020 08:00	3/09/2020 09:00	35	37	33	52	54	50	3200	14.9	243	0.05
3/09/2020 23:00	3/10/2020 00:00	34	35	32	52	54	48	2273	9.4	221	0.00
3/10/2020 00:00	3/10/2020 01:00	34	36	32	50	52	48	2959	12.0	229	0.04
3/10/2020 01:00	3/10/2020 02:00	34	36	32	52	54	50	3072	12.6	225	0.03
3/10/2020 02:00	3/10/2020 03:00	35	37	33	54	56	51	2920	11.5	222	0.05

The values in Table 6-12 represent the total sound present, meaning the ambient and the wind project together. The turbine-specific sound levels may be calculated by subtracting the ambient L_{EQ} levels without the turbines present from the total sound L_{EQ} levels. The observed LA_{EQ} and LC_{EQ} values at Location 4 during the March 8th turbine shutdown period were 27 dBA and 38 dBC and may be subtracted from the total sound L_{EQ} levels. The results of this calculation yield the turbine-specific sound levels at Location 4 and are presented in Table 6-13. The turbine-specific LA_{EQ} sound levels are all below the nighttime project limit of 40 dBA, thus demonstrating compliance with the wind project's sound limits at this location.

Table 6-13: Location 4 Turbine-Specific Sound Levels

Time Period		LA_{EQ}	LC_{EQ}
Start	End	(dBA)	(dBC)
3/05/2020 00:00	3/05/2020 01:00	34	52
3/08/2020 20:00	3/08/2020 21:00	34	49
3/09/2020 02:00	3/09/2020 03:00	33	54
3/09/2020 04:00	3/09/2020 05:00	34	51
3/09/2020 08:00	3/09/2020 09:00	34	52
3/09/2020 23:00	3/10/2020 00:00	32	52
3/10/2020 00:00	3/10/2020 01:00	33	50
3/10/2020 01:00	3/10/2020 02:00	33	52
3/10/2020 02:00	3/10/2020 03:00	34	53

6.7 LOCATION 5 – GREGG LAKE ROAD

Sound level and weather measurement equipment was deployed towards the end of a park at the Antrim Town Beach on Gregg Lake Road. The sound level meter was approximately 84 meters from Gregg Lake Road. The sound levels at this site were influenced by vehicles on Gregg Lake Road, wildlife sounds (particularly birds), water noise, and wind noise. During warmer temperatures the ice on Gregg Lake began to melt, producing cracking and popping sounds. Location 5 is due east of the project site. Turbines 2, 3, 6, 7, and 8 are all within 2,700 to 2,800 meters away.

There were many times when the local wind speeds were above 3 m/s. After eliminating periods with regional precipitation and high local ground winds there are a total of 215 1-hour periods in the analysis. Table 6-14 summarizes the range of hourly sound levels measured at monitoring Location 5.

Table 6-14: Location 5 Hourly Sound Level Summary

	A-Weighted Sound Metrics			C-Weighted Sound Metrics		
	LA_{90}	LA_{EQ}	LA_{10}	LC_{90}	LC_{EQ}	LC_{10}
	(dBA)			(dBC)		
Minimum	20	23	23	35	38	39
Maximum	53	62	65	63	74	78
Median	31	41	44	48	55	57
Average	32	41	44	48	55	57

A table of all hourly sound metrics at Location 5 as well as the local ground wind speed and nearest turbine data is provided in Appendix B, Table B-5.

6.7.1 Location 5 – Attended Measurements

Acentech personnel were on site for attended measurements at Location 5 from approximately 08:30 pm on March 8th until 1:10 am on March 9th. During this time the 10-minute average wind speeds measured at the turbine hub heights ranged from 9.5 to 13.1 m/s, and the average turbine generation was well above 958 kW.

The 10-minute local ground wind speeds at Location 5 were measured between 0.4 and 2.7 m/s. Therefore, the NHSEC conditions for attended measurements were met.

Vehicles on Gregg Lake Road, wind, wildlife, and aircraft were all noted sound sources during the attended measurements. No tonal sounds were observed.

6.7.2 Location 5 – Evaluation Data

There were many hours at Location 5 in which the turbine operational data met the conditions for analyzing the maximum sound levels. However, many of those hours contained frequent non-turbine sounds such as vehicles on Greg Lake Road, water sounds, bird calls, and local wind sound that significantly affected the hourly LA_{EQ}. There were no periods in which the LA_{10} and LA_{90} sound levels differed by less than 3 or 4 dBA and still met all turbine operational criteria. Therefore, the LA_{10} and LA_{90} sound level difference was expanded to 6 decibels, resulting in one 1-hour period identified for evaluation. The audio file for this hourly data set was examined to identify and exclude transient non-turbine sounds from the analysis.

A summary of the final sound levels is presented in Table 6-15. The resulting LA_{EQ} 1/3 octave band amplitudes did not exhibit any tonal attributes, thereby avoiding the 5 dB penalty for a pure tone condition.

Table 6-15: Location 5 Periods Identified for Turbine Sound Compliance Evaluation

Time Period		A-Weighted Sound Metrics			C-Weighted Sound Metrics			Average of WTG-2 WTG-3 WTG-6 WTG-7 WTG-8 Power Generations	Average of WTG-2 WTG-3 WTG-6 WTG-7 WTG-8 Hub Height Wind Speeds	Average of WTG-2 WTG-3 WTG-6 WTG-7 WTG-8 Hub Height Wind Directions	Local Ground Wind Speed
Start	End	L_{EQ}	L_{10}	L_{90}	L_{EQ}	L_{10}	L_{90}				
		(dBA)			(dBC)			(kW)	(m/s)	(deg)	(m/s)
3/18/2020 05:00	3/18/2020 06:00	33	34	32	53	55	51	2060	9.6	297	1.06

The values in Table 6-15 represent the total sound present, meaning the ambient and the wind project together. The turbine-specific sound levels may be calculated by subtracting the ambient L_{EQ} levels without the turbines present from the total sound L_{EQ} levels. The observed LA_{EQ} and LC_{EQ} values at Location 5 during the March 8th turbine shutdown period were 26 dBA and 38 dBC and may be subtracted from the total sound L_{EQ} levels. The results of this calculation yield the turbine-specific sound levels at Location 5 and are presented in Table 6-16. The turbine-specific LA_{EQ} sound levels are below the nighttime project limit of 40 dBA, thus demonstrating compliance with the wind project's sound limits at this location.

Table 6-16: Location 5 Turbine-Specific Sound Levels

Time Period		LA_{EQ}	LC_{EQ}
Start	End	(dBA)	(dBC)
3/18/2020 05:00	3/18/2020 06:00	32	53

7.0 CONCLUSIONS

As required by the NHSEC Site Rule 301.18 for wind power generating facilities, a post construction sound level compliance evaluation was conducted for the Antrim Wind Farm during the winter 2020 season. The measurements were obtained within the first three months of commercial operation of the wind farm. The data were analyzed and compared to the appropriate limits set forth by the NHSEC and the agreement document with the town of Antrim effective January 16, 2018.

The sound level compliance assessment focused on periods when the maximum level of sound from the turbines could be expected at each of the five monitoring locations. The facility's turbine operational data, local and regional meteorological data, and sound level measurements were all analyzed to identify these periods. After narrowing the evaluation times to these conditions, the data was further examined to exclude periods when non-turbine sounds impacted the environment (i.e. vehicles, bird calls, rustling vegetation). The turbine-only sound levels for which the limits apply were evaluated by subtracting the appropriate ambient sound levels from the total sound (ambient + turbine-only).

The final results of these steps are detailed in Section 6 of this report and show that the turbine-only sound levels under conditions meeting maximum sound were all below the lowest sound limits for the project. This was found to be the case at all five sound monitoring locations, thereby demonstrating the project's sound compliance.

Appendix A

Meteorological and Turbine Operational Charts

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information Service

Current Location: Elev: 1040 ft. Lat: 42.8050° N Lon: -72.0036° W
Station: **JAFFREY MUNICIPAL AIRPORT SILVER RANCH, NH US WBAN: 72616354770 (KAFN)**

Local Climatological Data
Hourly Precipitation
March 2020
Generated on 03/23/2020

National Centers for Environmental Information
151 Patton Avenue
Asheville, North Carolina 28801

Date	For Hour (LST) Ending at																							Date
	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	NOON	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	MID	
01																									01
02			T	0.01	T																	T	T		02
03																		T	0.05	0.01	0.01	T			03
04	0.05									T	T	T		T		T					T	T			04
05			T	T	T																				05
06																0.01	T	T	T	T					06
07																									07
08																									08
09																									09
10														T			T	T	T	0.01					10
11																									11
12						T																		T	12
13	0.01		T	T	0.01	0.03	0.15	0.11	0.09	0.06	0.01	T	0.07	0.02	T	T									13
14																									14
15																									15
16																									16
17				T	T	T	T	T	T				T	T											17
18																									18
19				T	0.10	0.09	0.08	0.06	0.02	T	0.01	T		T											19
20	M	M	T	0.06	0.03	T	M	M	M	M	T	T	T	M	M	T	M	M	M	M	M	M	M	M	20
21	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	21

Maximum Short Duration Precipitation

Time Period (Minutes)	5	10	15	20	30	45	60	80	100	120	150	180
Precipitation (inches)												
Ending Date Time (yyyy-mm-dd hh:mi)												

Hourly, daily, and monthly totals on the Daily Summary page and the Hourly Precipitation Table are shown as reported by the instrumentation at the site. However, NWS does not edit hourly values for its ASOS sites, but may edit the daily and monthly totals for selected sites which will be reflected on the Daily Summary page.

T = Trace
s = Suspect
* = Erroneous
blank = No precipitation observed
M = Missing

Figure A1: National Oceanic & Atmospheric Administration – Local Climatological Data Hourly Precipitation at KAFN Station

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information Service
Current Location: Elev: 1040 ft. Lat: 42.8050° N Lon: -72.0036° W
Station: **JAFFREY MUNICIPAL AIRPORT SILVER RANCH, NH US WBAN: 72616354770 (KAFN)**

Local Climatological Data
Daily Summary
March 2020
Generated on 03/23/2020

National Centers for Environmental Information
151 Patton Avenue
Asheville, North Carolina 28801

Date	Temperature (F)							Degree Days (base 65F)		Sun (LST)		Weather	Precipitation (in)			Pressure (inHg)		Wind	Maximum Wind Speed = MPH / Direction = Degrees			
	Max	Min	Avg	Dep	ARH	ADP	AWB	Heat	Cool	Rise	Set	Weather Type	TLC	Snow Fall	Snow Depth	Avg Stn	Avg SL	Avg Speed	Peak Speed	Peak Dir	Sust. Speed	Sust. Dir
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
01	30	11*	21	-6.5				44	0	0623	1739		0.00			28.87		4.4	21	300	14	290
02	54	16	35	7.2				30	0	0621	1740	RA SN BR UP	0.01			28.82		6.7	25	200	16	200
03	60	34	47	18.9				18	0	0619	1741	RA BR	0.07			28.54		5.4	22	190	15	170
04	47	37	42	13.7				23	0	0618	1742	RA	0.05			28.41		12.3	38	270	26	260
05	47	26	37	8.4				28	0	0616	1743	RA	T			28.84		6.1	23	030	15	270
06	47	23	35	6.1				30	0	0614	1745	RA	0.01			28.84		3.7	20	350	13	050
07	41	23	32	2.9				33	0	0613	1746		0.00			28.95		6.6	27	010	16	340
08	51	23	37	7.6				28	0	0611	1747		0.00			29.15		6.9	21	280	14	270
09	69*	32	51	21.3				14	0	0609	1748		0.00			29.08		7.6	27	200	18	210
10	64	33	49	19.1				16	0	0608	1749	RA	0.01			28.87		6.4	31	220	21	240
11	52	28	40	9.8				25	0	0606	1751		0.00			28.91		3.5	25	340	14	340
12	42	28	35	4.5				30	0	0604	1752	RA	T			29.03		1.8	16	170	12	170
13	55	37	46	15.2				19	0	0602	1753	RA BR	0.56			28.78		7.3	32	290	22	270
14	48	34	41	9.9				24	0	0601	1754		0.00			29.00		8.3	27	240	17	270
15	43	25	34	2.6				31	0	0559	1755		0.00			29.26		5.5	23	340	13	330
16	39	15	27	-4.7				38	0	0557	1757		0.00			29.40		4.1	19	170	13	170
17	45	29	37	5.0				28	0	0555	1758	RA BR UP	T			29.05		6.1	20	220	13	180
18	53	25	39	6.7				26	0	0554	1759		0.00			29.21		3.9	22	300	14	300
19	41	33	37	4.4				28	0	0552	1800	RA SN FG BR	0.36			29.20		2.8	17	160	13	160
20										0550	1801	RA FG BR										
										Monthly Averages | Totals												
				Departure from Normal (1981-2010)																		

Degree Days					Number of days with...									
	Monthly		Season-to-date		Temperature				Precipitation		Snow	Weather	
	Total	Departure	Total	Departure	Max		Min						
Heating					>=90°	<=32°	<=32°	<=0°	>=0.01"	>=0.1"	>=1"	T-Storms	Heavy Fog
Cooling													

Date of 5-sec to 3-sec wind equipment change	Sea Level Pressure			Greatest...		
		Date	Time	24-Hr...		Snow Depth
N/A	Maximum			Precip	Snowfall	
	Minimum					
				Date		

Station Augmentation
Name:N/A Lat: N/A Lon: N/A Elevation: N/A Distance: N/A Elements: N/A Equipment: N/A

Figure A2: National Oceanic & Atmospheric Administration – Local Climatological Data Temperature Summary at KAFN Station

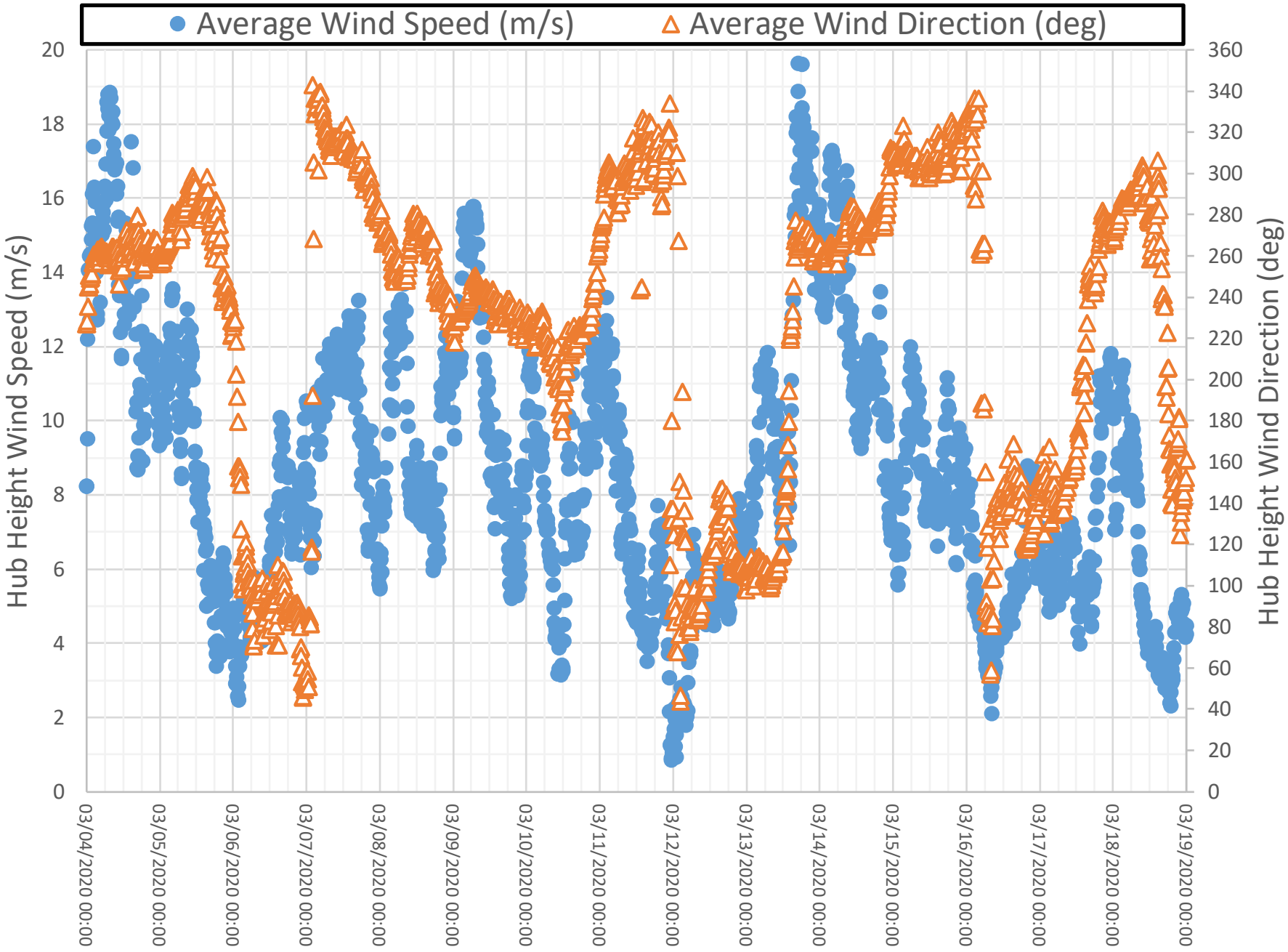


Figure A3: Average Turbine Hub Height Wind Speed and Direction Data

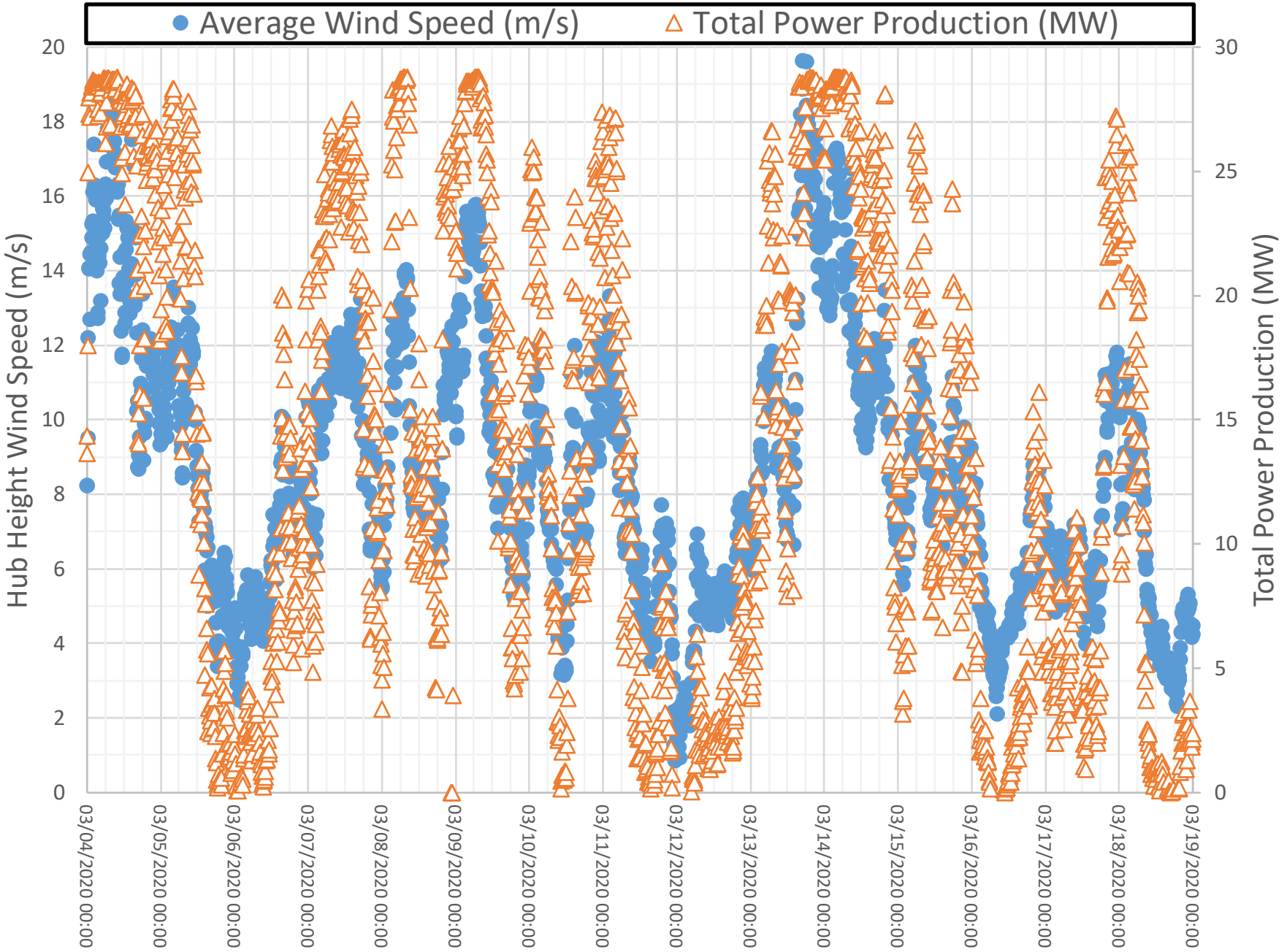


Figure A4: Total Project Power Generation and Average Hub Height Wind Data

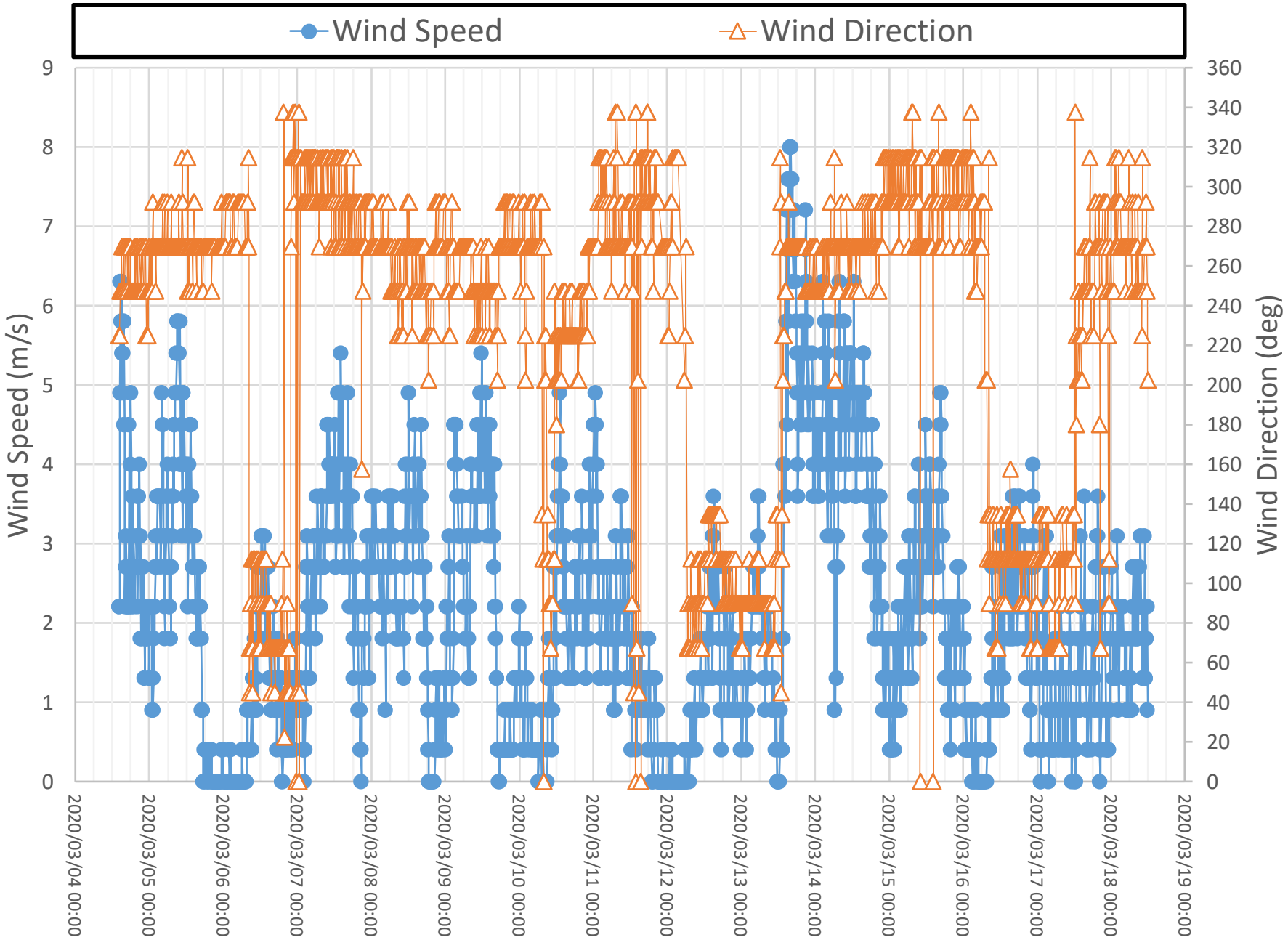


Figure A5: Location 5 Wind Speed and Temperature (Acentech Davis Instruments Weather Station)

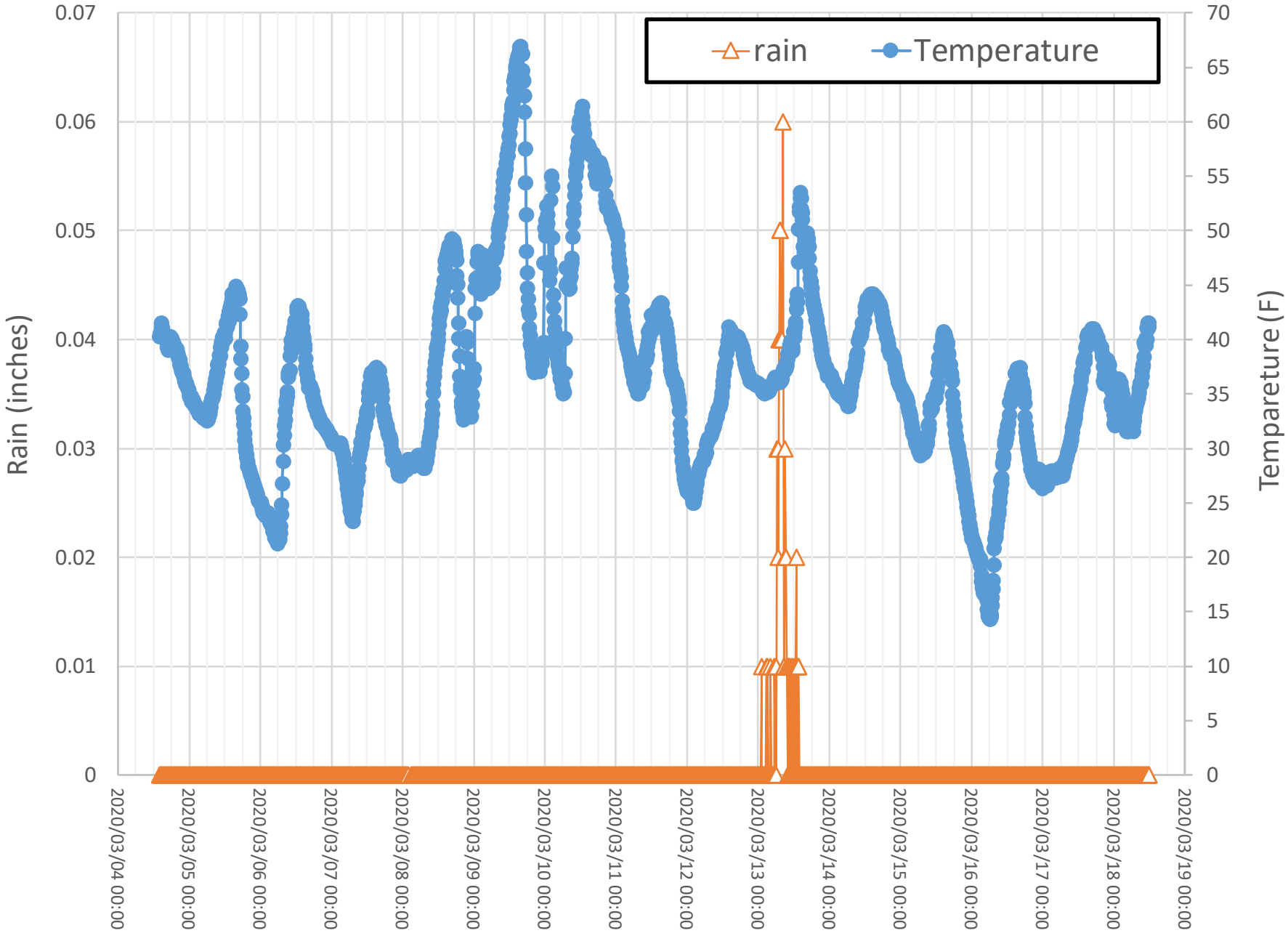


Figure A6: Location 5 Temperature and Rain (Acentech Davis Instruments Weather Station)

Appendix B

Hourly Sound, Local Wind, and Turbine Operational Data

APPENDIX B

Table B-1: Hourly Monitoring Data for Location 1

Time Period		A-Weighted Sound Metrics			C-Weighted Sound Metrics			Local Wind at 2 meters above ground level (m/s)	Regional Precipitation (inches)	Turbine 1		
Start	End	LA_{EQ} (dBA)	LA_{10} (dBA)	LA_{90} (dBA)	LC_{EQ} (dBC)	LC_{10} (dBC)	LC_{90} (dBC)			Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)
3/4/2020 14:00	3/4/2020 15:00	60	64	46	64	67	54	0.84		2986	13	256
3/4/2020 15:00	3/4/2020 16:00	61	65	47	64	68	54	0.62		2656	12	260
3/4/2020 16:00	3/4/2020 17:00	61	65	44	65	67	52	0.29		1646	9	267
3/4/2020 17:00	3/4/2020 18:00	60	65	44	63	67	51	0.28		2214	10	258
3/4/2020 18:00	3/4/2020 19:00	58	63	41	62	66	50	0.36		2270	10	248
3/4/2020 19:00	3/4/2020 20:00	56	61	40	59	63	50	0.50		2317	10	256
3/4/2020 20:00	3/4/2020 21:00	57	62	41	62	65	51	0.67	Trace	2741	11	255
3/4/2020 21:00	3/4/2020 22:00	55	60	39	58	62	49	0.37	Trace	2422	10	255
3/4/2020 22:00	3/4/2020 23:00	54	56	38	60	59	48	0.24		2391	10	256
3/4/2020 23:00	3/5/2020 0:00	49	46	36	53	52	47	0.18		2050	10	248
3/5/2020 0:00	3/5/2020 1:00	50	48	36	55	53	46	0.07		1723	9	249
3/5/2020 1:00	3/5/2020 2:00	49	45	36	54	52	46	0.05		1715	9	252
3/5/2020 2:00	3/5/2020 3:00	50	46	36	55	53	46	0.18	Trace	2114	10	254
3/5/2020 3:00	3/5/2020 4:00	52	47	39	56	55	49	0.38	Trace	2752	11	263
3/5/2020 4:00	3/5/2020 5:00	55	58	38	59	61	49	0.28	Trace	2290	10	270
3/5/2020 5:00	3/5/2020 6:00	56	61	40	60	64	50	0.45		2186	10	271
3/5/2020 6:00	3/5/2020 7:00	59	64	41	63	67	50	0.12		1492	8	266
3/5/2020 7:00	3/5/2020 8:00	61	65	43	65	68	51	0.29		1650	9	271
3/5/2020 8:00	3/5/2020 9:00	60	65	45	63	67	54	0.54		2401	11	278
3/5/2020 9:00	3/5/2020 10:00	60	64	46	64	67	55	0.84		2602	11	293
3/5/2020 10:00	3/5/2020 11:00	59	64	44	64	67	54	0.76		2356	11	295
3/5/2020 11:00	3/5/2020 12:00	58	63	41	62	66	51	0.58		1233	8	291
3/5/2020 12:00	3/5/2020 13:00	59	64	40	63	67	49	0.35		856	7	282
3/5/2020 13:00	3/5/2020 14:00	59	63	39	63	66	48	0.45		959	7	272
3/5/2020 14:00	3/5/2020 15:00	60	64	41	64	67	49	0.36		475	6	285
3/5/2020 15:00	3/5/2020 16:00	60	64	41	64	68	49	0.19	0.01	371	6	279
3/5/2020 16:00	3/5/2020 17:00	60	64	42	63	67	49	0.09	Trace	122	5	273
3/5/2020 17:00	3/5/2020 18:00	60	65	42	63	67	48	0.00	Trace	147	5	261
3/5/2020 18:00	3/5/2020 19:00	58	63	40	62	65	47	0.00	Trace	9	3	280
3/5/2020 19:00	3/5/2020 20:00	57	62	38	62	64	47	0.00	Trace	23	4	256
3/5/2020 20:00	3/5/2020 21:00	56	61	37	59	63	45	0.00		469	6	237
3/5/2020 21:00	3/5/2020 22:00	55	60	35	58	62	45	0.00		336	5	241
3/5/2020 22:00	3/5/2020 23:00	53	57	37	57	59	45	0.00		133	4	237
3/5/2020 23:00	3/6/2020 0:00	51	52	36	53	54	44	0.00		50	4	221
3/6/2020 0:00	3/6/2020 1:00	49	46	34	52	51	42	0.00		63	3	234
3/6/2020 1:00	3/6/2020 2:00	51	46	34	55	51	41	0.00		-9	2	194
3/6/2020 2:00	3/6/2020 3:00	51	45	34	55	52	42	0.00		22	3	148
3/6/2020 3:00	3/6/2020 4:00	54	49	34	59	54	44	0.00		173	4	93
3/6/2020 4:00	3/6/2020 5:00	55	57	38	59	60	46	0.00		72	3	106
3/6/2020 5:00	3/6/2020 6:00	56	60	37	60	63	46	0.00		-10	3	84
3/6/2020 6:00	3/6/2020 7:00	59	64	42	63	67	48	0.00		100	5	59
3/6/2020 7:00	3/6/2020 8:00	60	65	43	64	67	48	0.00		163	5	42
3/6/2020 8:00	3/6/2020 9:00	60	64	39	63	66	47	0.01		71	4	51
3/6/2020 9:00	3/6/2020 10:00	59	64	38	63	66	46	0.03		71	4	50
3/6/2020 10:00	3/6/2020 11:00	60	64	38	64	67	46	0.06		83	4	79
3/6/2020 11:00	3/6/2020 12:00	60	64	38	63	67	46	0.10		227	5	82
3/6/2020 12:00	3/6/2020 13:00	59	63	38	63	66	47	0.18		684	6	71
3/6/2020 13:00	3/6/2020 14:00	60	64	40	65	67	49	0.13		567	6	79
3/6/2020 14:00	3/6/2020 15:00	61	65	44	65	67	50	0.09		1039	8	47
3/6/2020 15:00	3/6/2020 16:00	61	65	46	65	68	52	0.11		1686	9	57
3/6/2020 16:00	3/6/2020 17:00	62	66	46	65	68	52	0.08		1702	9	57
3/6/2020 17:00	3/6/2020 18:00	61	66	46	64	68	52	0.07		1743	9	43
3/6/2020 18:00	3/6/2020 19:00	59	64	42	62	66	49	0.09		1282	8	44
3/6/2020 19:00	3/6/2020 20:00	57	62	39	60	64	47	0.04		815	7	42
3/6/2020 20:00	3/6/2020 21:00	56	62	37	60	64	47	0.03		1217	8	48
3/6/2020 21:00	3/6/2020 22:00	56	61	37	59	63	47	0.06		1494	9	41
3/6/2020 22:00	3/6/2020 23:00	54	58	35	58	61	49	0.11		1407	9	21
3/6/2020 23:00	3/7/2020 0:00	52	54	37	57	59	51	0.37		2304	10	17
3/7/2020 0:00	3/7/2020 1:00	50	49	35	56	56	49	0.20		1756	10	17

These levels represent total sound and not the facility specific sound. Therefore they are not appropriate for direct comparison to the project limits.

APPENDIX B

Table B-1: Hourly Monitoring Data for Location 1

Time Period		A-Weighted Sound Metrics			C-Weighted Sound Metrics			Local Wind at 2 meters above ground level (m/s)	Regional Precipitation (inches)	Turbine 1		
Start	End	LA_{EQ} (dBA)	LA_{10} (dBA)	LA_{90} (dBA)	LC_{EQ} (dBC)	LC_{10} (dBC)	LC_{90} (dBC)			Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)
3/7/2020 1:00	3/7/2020 2:00	48	42	31	53	51	45	0.14		651	7	64
3/7/2020 2:00	3/7/2020 3:00	47	40	30	54	54	46	0.11		832	7	347
3/7/2020 3:00	3/7/2020 4:00	50	46	36	57	57	51	0.32		2263	10	343
3/7/2020 4:00	3/7/2020 5:00	53	50	36	58	58	51	0.43		2021	10	346
3/7/2020 5:00	3/7/2020 6:00	54	56	36	59	60	51	0.62		1896	10	336
3/7/2020 6:00	3/7/2020 7:00	55	60	35	60	63	52	0.19		1738	9	320
3/7/2020 7:00	3/7/2020 8:00	57	62	36	63	64	53	0.45		2533	11	314
3/7/2020 8:00	3/7/2020 9:00	58	63	39	62	66	54	0.43		2523	11	317
3/7/2020 9:00	3/7/2020 10:00	59	63	40	63	66	54	0.51		2764	11	315
3/7/2020 10:00	3/7/2020 11:00	59	63	42	63	66	55	0.74		2540	11	315
3/7/2020 11:00	3/7/2020 12:00	59	64	42	63	67	54	0.83		2564	11	315
3/7/2020 12:00	3/7/2020 13:00	58	63	41	63	66	54	0.84		2054	10	321
3/7/2020 13:00	3/7/2020 14:00	59	63	43	63	66	55	0.97		2637	11	314
3/7/2020 14:00	3/7/2020 15:00	59	63	43	63	66	54	0.91		2579	11	309
3/7/2020 15:00	3/7/2020 16:00	58	63	39	62	66	53	0.67		2377	10	309
3/7/2020 16:00	3/7/2020 17:00	59	63	43	62	66	53	0.72		1504	10	303
3/7/2020 17:00	3/7/2020 18:00	57	63	37	61	65	49	0.24		656	8	312
3/7/2020 18:00	3/7/2020 19:00	58	62	36	61	65	50	0.14		1162	8	300
3/7/2020 19:00	3/7/2020 20:00	56	61	32	60	64	47	0.05		755	7	294
3/7/2020 20:00	3/7/2020 21:00	56	61	31	58	63	44	0.00		241	5	293
3/7/2020 21:00	3/7/2020 22:00	53	58	30	56	60	44	0.02		839	7	280
3/7/2020 22:00	3/7/2020 23:00	52	56	30	55	58	44	0.00		534	6	276
3/7/2020 23:00	3/8/2020 0:00	51	55	30	55	57	43	0.02		239	5	273
3/8/2020 0:00	3/8/2020 1:00	49	45	29	52	52	41	0.01		98	4	269
3/8/2020 1:00	3/8/2020 2:00	47	39	29	51	49	42	0.01		148	4	262
3/8/2020 2:00	3/8/2020 3:00	Daylight Savings Time										
3/8/2020 3:00	3/8/2020 4:00	47	42	32	51	50	46	0.30		2186	10	255
3/8/2020 4:00	3/8/2020 5:00	48	41	33	54	51	46	0.14		2361	10	238
3/8/2020 5:00	3/8/2020 6:00	49	46	33	53	52	47	0.14		2697	11	244
3/8/2020 6:00	3/8/2020 7:00	52	56	36	56	59	48	0.13		3146	12	242
3/8/2020 7:00	3/8/2020 8:00	54	60	38	58	62	50	0.23		3199	13	236
3/8/2020 8:00	3/8/2020 9:00	56	61	37	59	63	50	0.23		2802	12	236
3/8/2020 9:00	3/8/2020 10:00	57	62	36	60	64	47	0.12		1102	8	247
3/8/2020 10:00	3/8/2020 11:00	57	62	38	61	65	47	0.28		721	7	261
3/8/2020 11:00	3/8/2020 12:00	59	64	41	62	66	49	0.28		1072	8	267
3/8/2020 12:00	3/8/2020 13:00	59	63	41	61	66	50	0.42		1314	8	261
3/8/2020 13:00	3/8/2020 14:00	59	63	40	63	66	50	0.29		1402	8	269
3/8/2020 14:00	3/8/2020 15:00	59	63	42	62	66	50	0.34		1270	8	256
3/8/2020 15:00	3/8/2020 16:00	59	64	42	63	66	50	0.27		962	7	262
3/8/2020 16:00	3/8/2020 17:00	59	64	42	62	66	49	0.25		798	7	261
3/8/2020 17:00	3/8/2020 18:00	59	64	40	62	66	47	0.12		538	7	257
3/8/2020 18:00	3/8/2020 19:00	59	64	40	62	66	48	0.02		514	7	245
3/8/2020 19:00	3/8/2020 20:00	59	64	39	64	66	48	0.00		921	7	235
3/8/2020 20:00	3/8/2020 21:00	58	63	40	62	65	49	0.00		2426	10	235
3/8/2020 21:00	3/8/2020 22:00	56	61	38	59	63	49	0.00		2827	11	234
3/8/2020 22:00	3/8/2020 23:00	54	58	37	58	60	42	0.00		1435	11	229
3/8/2020 23:00	3/9/2020 0:00	48	48	37	54	55	49	0.00		2571	11	220
3/9/2020 0:00	3/9/2020 1:00	52	53	37	59	59	53	0.00		2949	12	214
3/9/2020 1:00	3/9/2020 2:00	53	49	37	58	57	51	0.05		3163	13	219
3/9/2020 2:00	3/9/2020 3:00	53	54	37	59	60	52	0.02		2799	11	220
3/9/2020 3:00	3/9/2020 4:00	52	49	37	58	57	52	0.17		3199	14	225
3/9/2020 4:00	3/9/2020 5:00	55	58	38	59	62	51	0.08		3200	15	226
3/9/2020 5:00	3/9/2020 6:00	57	62	39	62	65	51	0.09		3198	15	231
3/9/2020 6:00	3/9/2020 7:00	59	64	41	62	66	51	0.03		3199	16	240
3/9/2020 7:00	3/9/2020 8:00	61	66	46	65	68	53	0.00		3199	15	242
3/9/2020 8:00	3/9/2020 9:00	60	65	42	65	67	52	0.05		3200	14	233
3/9/2020 9:00	3/9/2020 10:00	59	64	40	63	67	51	0.18		3199	14	232
3/9/2020 10:00	3/9/2020 11:00	59	63	41	64	66	52	0.63		3023	12	231
3/9/2020 11:00	3/9/2020 12:00	59	63	42	64	67	53	0.64		2786	11	230

These levels represent total sound and not the facility specific sound. Therefore they are not appropriate for direct comparison to the project limits.

APPENDIX B

Table B-1: Hourly Monitoring Data for Location 1

Time Period		A-Weighted Sound Metrics			C-Weighted Sound Metrics			Local Wind at 2 meters above ground level (m/s)	Regional Precipitation (inches)	Turbine 1		
Start	End	LA_{EQ} (dBA)	LA_{10} (dBA)	LA_{90} (dBA)	LC_{EQ} (dBC)	LC_{10} (dBC)	LC_{90} (dBC)			Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)
3/9/2020 12:00	3/9/2020 13:00	58	63	43	64	67	54	0.86		2461	10	228
3/9/2020 13:00	3/9/2020 14:00	58	63	41	63	66	52	0.62		2121	9	222
3/9/2020 14:00	3/9/2020 15:00	58	63	43	64	68	54	0.59		2352	10	222
3/9/2020 15:00	3/9/2020 16:00	60	64	44	66	69	54	0.69		1788	9	230
3/9/2020 16:00	3/9/2020 17:00	59	64	43	63	67	53	0.48		1471	8	224
3/9/2020 17:00	3/9/2020 18:00	60	64	42	63	67	51	0.12		886	8	232
3/9/2020 18:00	3/9/2020 19:00	60	65	39	63	67	47	0.06		363	6	231
3/9/2020 19:00	3/9/2020 20:00	58	63	39	61	65	47	0.00		703	6	223
3/9/2020 20:00	3/9/2020 21:00	56	61	40	60	63	48	0.00		1227	7	218
3/9/2020 21:00	3/9/2020 22:00	56	61	40	60	63	49	0.00		517	5	221
3/9/2020 22:00	3/9/2020 23:00	56	60	37	61	62	49	0.00		1178	7	222
3/9/2020 23:00	3/10/2020 0:00	50	49	37	55	56	50	0.00		1645	8	212
3/10/2020 0:00	3/10/2020 1:00	51	51	37	58	56	50	0.00		2719	10	220
3/10/2020 1:00	3/10/2020 2:00	50	46	38	57	56	52	0.00		2946	11	216
3/10/2020 2:00	3/10/2020 3:00	54	53	38	60	59	52	0.00		2655	10	212
3/10/2020 3:00	3/10/2020 4:00	52	51	38	58	58	50	0.00		2370	10	214
3/10/2020 4:00	3/10/2020 5:00	57	61	39	63	65	51	0.00		2902	11	218
3/10/2020 5:00	3/10/2020 6:00	58	62	38	63	66	50	0.00		2698	11	218
3/10/2020 6:00	3/10/2020 7:00	60	65	44	64	67	53	0.00		2122	9	207
3/10/2020 7:00	3/10/2020 8:00	61	66	47	65	68	53	0.00		1164	7	202
3/10/2020 8:00	3/10/2020 9:00	61	65	43	65	68	52	0.00		355	5	207
3/10/2020 9:00	3/10/2020 10:00	60	64	37	63	67	48	0.00		11	3	203
3/10/2020 10:00	3/10/2020 11:00	59	63	38	63	67	47	0.00		-4	3	197
3/10/2020 11:00	3/10/2020 12:00	59	64	36	63	67	47	0.00		10	3	179
3/10/2020 12:00	3/10/2020 13:00	58	63	38	63	66	48	0.14		389	5	198
3/10/2020 13:00	3/10/2020 14:00	59	63	43	64	67	56	0.65	Trace	1765	9	215
3/10/2020 14:00	3/10/2020 15:00	58	63	44	64	66	56	0.54		2382	10	210
3/10/2020 15:00	3/10/2020 16:00	60	64	44	65	67	53	0.44		1088	7	216
3/10/2020 16:00	3/10/2020 17:00	60	64	44	65	67	54	0.26	Trace	1026	7	209
3/10/2020 17:00	3/10/2020 18:00	60	64	43	63	66	52	0.06	Trace	723	6	215
3/10/2020 18:00	3/10/2020 19:00	59	64	42	63	66	53	0.00	Trace	988	7	215
3/10/2020 19:00	3/10/2020 20:00	56	61	41	60	64	54	0.05	0.01	1834	8	218
3/10/2020 20:00	3/10/2020 21:00	55	61	41	61	63	55	0.20		2193	10	222
3/10/2020 21:00	3/10/2020 22:00	55	59	40	61	62	53	0.40		2577	11	227
3/10/2020 22:00	3/10/2020 23:00	53	57	38	57	59	48	0.08		1498	8	240
3/10/2020 23:00	3/11/2020 0:00	49	49	39	54	54	48	0.22		2465	11	252
3/11/2020 0:00	3/11/2020 1:00	47	46	39	52	54	48	0.29		2045	10	264
3/11/2020 1:00	3/11/2020 2:00	52	50	39	57	58	49	0.46		1887	10	288
3/11/2020 2:00	3/11/2020 3:00	53	49	39	58	58	51	0.45		2313	11	301
3/11/2020 3:00	3/11/2020 4:00	50	44	37	56	54	49	0.12		1763	9	297
3/11/2020 4:00	3/11/2020 5:00	55	57	38	59	60	49	0.11		1594	9	295
3/11/2020 5:00	3/11/2020 6:00	56	61	38	60	63	47	0.06		725	7	287
3/11/2020 6:00	3/11/2020 7:00	59	64	40	63	67	49	0.08		666	7	284
3/11/2020 7:00	3/11/2020 8:00	60	65	42	65	67	51	0.14		780	7	303
3/11/2020 8:00	3/11/2020 9:00	61	65	42	64	68	51	0.21		739	7	303
3/11/2020 9:00	3/11/2020 10:00	60	64	40	64	67	50	0.14		758	7	292
3/11/2020 10:00	3/11/2020 11:00	59	64	38	64	67	48	0.18		243	5	318
3/11/2020 11:00	3/11/2020 12:00	58	63	35	62	65	45	0.13		164	5	285
3/11/2020 12:00	3/11/2020 13:00	58	63	36	62	65	46	0.16		259	5	295
3/11/2020 13:00	3/11/2020 14:00	58	63	37	63	66	47	0.07		76	4	287
3/11/2020 14:00	3/11/2020 15:00	59	64	35	63	66	46	0.12		81	4	332
3/11/2020 15:00	3/11/2020 16:00	60	65	36	64	68	47	0.16		32	4	331
3/11/2020 16:00	3/11/2020 17:00	60	65	40	64	67	48	0.07		49	4	321
3/11/2020 17:00	3/11/2020 18:00	59	64	36	63	66	46	0.02		102	5	305
3/11/2020 18:00	3/11/2020 19:00	58	63	35	61	65	46	0.04		314	6	316
3/11/2020 19:00	3/11/2020 20:00	56	62	35	60	64	45	0.05		323	6	304
3/11/2020 20:00	3/11/2020 21:00	55	61	34	58	63	44	0.02		142	5	288
3/11/2020 21:00	3/11/2020 22:00	54	58	32	59	61	42	0.03		133	4	306
3/11/2020 22:00	3/11/2020 23:00	52	55	31	58	57	39	0.00		-8	2	330

These levels represent total sound and not the facility specific sound. Therefore they are not appropriate for direct comparison to the project limits.

APPENDIX B

Table B-1: Hourly Monitoring Data for Location 1

Time Period		A-Weighted Sound Metrics			C-Weighted Sound Metrics			Local Wind at 2 meters above ground level (m/s)	Regional Precipitation (inches)	Turbine 1		
Start	End	LA_{EQ} (dBA)	LA_{10} (dBA)	LA_{90} (dBA)	LC_{EQ} (dBC)	LC_{10} (dBC)	LC_{90} (dBC)			Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)
3/11/2020 23:00	3/12/2020 0:00	50	51	33	54	54	39	0.00		-8	1	138
3/12/2020 0:00	3/12/2020 1:00	46	39	32	49	45	38	0.00		-10	2	99
3/12/2020 1:00	3/12/2020 2:00	49	42	32	52	47	39	0.00		-12	3	231
3/12/2020 2:00	3/12/2020 3:00	49	43	32	54	50	40	0.00		-12	3	174
3/12/2020 3:00	3/12/2020 4:00	47	42	32	51	48	40	0.00		-12	3	342
3/12/2020 4:00	3/12/2020 5:00	55	57	34	59	60	42	0.00		-11	2	93
3/12/2020 5:00	3/12/2020 6:00	57	61	34	60	64	44	0.00	Trace	-6	3	82
3/12/2020 6:00	3/12/2020 7:00	59	64	36	62	66	46	0.00		275	5	83
3/12/2020 7:00	3/12/2020 8:00	60	65	39	64	67	48	0.00		138	4	85
3/12/2020 8:00	3/12/2020 9:00	59	64	38	63	66	47	0.00		139	4	79
3/12/2020 9:00	3/12/2020 10:00	59	63	36	62	66	46	0.01		190	4	84
3/12/2020 10:00	3/12/2020 11:00	59	63	35	63	66	45	0.01		84	4	99
3/12/2020 11:00	3/12/2020 12:00	58	63	36	62	66	45	0.02		69	4	103
3/12/2020 12:00	3/12/2020 13:00	59	63	35	64	67	46	0.02		57	4	112
3/12/2020 13:00	3/12/2020 14:00	59	64	39	64	67	47	0.03		25	3	115
3/12/2020 14:00	3/12/2020 15:00	59	63	38	63	66	47	0.17		-2	3	134
3/12/2020 15:00	3/12/2020 16:00	60	64	39	64	67	47	0.14		10	3	159
3/12/2020 16:00	3/12/2020 17:00	60	65	42	64	67	48	0.16		-5	3	156
3/12/2020 17:00	3/12/2020 18:00	60	64	41	63	67	47	0.05		-9	2	168
3/12/2020 18:00	3/12/2020 19:00	58	63	36	62	66	45	0.00		65	3	121
3/12/2020 19:00	3/12/2020 20:00	56	61	34	59	64	45	0.00		259	4	98
3/12/2020 20:00	3/12/2020 21:00	55	61	35	61	63	45	0.00		455	5	102
3/12/2020 21:00	3/12/2020 22:00	55	60	34	59	62	46	0.00		417	5	96
3/12/2020 22:00	3/12/2020 23:00	53	57	32	58	59	43	0.00		260	4	95
3/12/2020 23:00	3/13/2020 0:00	51	50	31	54	53	41	0.00	Trace	205	4	90
3/13/2020 0:00	3/13/2020 1:00	50	44	31	54	50	42	0.00	0.01	154	4	92
3/13/2020 1:00	3/13/2020 2:00	50	50	33	55	52	45	0.00		345	5	96
3/13/2020 2:00	3/13/2020 3:00	52	50	34	56	54	45	0.00	Trace	432	5	90
3/13/2020 3:00	3/13/2020 4:00	52	50	35	56	53	46	0.00	Trace	596	6	98
3/13/2020 4:00	3/13/2020 5:00	55	57	42	60	61	49	0.01	0.01	1424	7	98
3/13/2020 5:00	3/13/2020 6:00	57	62	41	62	64	51	0.03	0.03	1457	8	98
3/13/2020 6:00	3/13/2020 7:00	59	63	43	62	66	52	0.04	0.15	1457	8	97
3/13/2020 7:00	3/13/2020 8:00	60	64	50	63	67	54	0.02	0.11	1198	7	89
3/13/2020 8:00	3/13/2020 9:00	61	65	54	65	67	56	0.01	0.09	1108	7	91
3/13/2020 9:00	3/13/2020 10:00	61	64	50	64	67	54	0.01	0.06	784	6	92
3/13/2020 10:00	3/13/2020 11:00	60	64	50	63	67	54	0.00	0.01	579	6	94
3/13/2020 11:00	3/13/2020 12:00	60	65	45	64	67	51	0.00	Trace	377	5	103
3/13/2020 12:00	3/13/2020 13:00	60	65	46	65	67	53	0.00	0.07	134	4	133
3/13/2020 13:00	3/13/2020 14:00	61	65	49	64	67	57	0.00	0.02	840	6	164
3/13/2020 14:00	3/13/2020 15:00	61	65	49	65	68	57	0.12	Trace	1746	9	216
3/13/2020 15:00	3/13/2020 16:00	62	66	49	65	68	56	0.46	Trace	3009	13	243
3/13/2020 16:00	3/13/2020 17:00	63	67	51	67	70	59	1.41		3163	16	260
3/13/2020 17:00	3/13/2020 18:00	62	66	52	67	69	60	1.29		2426	16	263
3/13/2020 18:00	3/13/2020 19:00	61	65	50	66	69	59	1.42		1882	17	266
3/13/2020 19:00	3/13/2020 20:00	60	64	49	65	68	58	1.31		3193	16	265
3/13/2020 20:00	3/13/2020 21:00	58	62	48	63	66	57	1.28		3150	15	263
3/13/2020 21:00	3/13/2020 22:00	60	64	44	66	70	54	1.46		3050	15	257
3/13/2020 22:00	3/13/2020 23:00	57	61	47	64	67	57	1.24		3134	15	258
3/13/2020 23:00	3/14/2020 0:00	55	59	45	61	64	55	1.07		3160	15	260
3/14/2020 0:00	3/14/2020 1:00	52	55	41	58	62	52	0.82		3058	13	256
3/14/2020 1:00	3/14/2020 2:00	50	48	40	55	55	50	0.47		2991	12	252
3/14/2020 2:00	3/14/2020 3:00	50	49	40	57	57	51	0.60		3190	14	251
3/14/2020 3:00	3/14/2020 4:00	54	56	45	61	63	55	1.17		3198	16	256
3/14/2020 4:00	3/14/2020 5:00	52	52	43	59	60	53	0.56		3187	15	253
3/14/2020 5:00	3/14/2020 6:00	53	54	39	58	60	51	0.45		3051	13	250
3/14/2020 6:00	3/14/2020 7:00	54	57	41	59	60	51	0.38		3146	13	256
3/14/2020 7:00	3/14/2020 8:00	56	62	42	60	64	51	0.49		2851	11	260
3/14/2020 8:00	3/14/2020 9:00	58	63	46	63	66	55	1.04		3088	14	263
3/14/2020 9:00	3/14/2020 10:00	59	64	45	63	66	54	0.70		2718	12	274

These levels represent total sound and not the facility specific sound. Therefore they are not appropriate for direct comparison to the project limits.

APPENDIX B

Table B-1: Hourly Monitoring Data for Location 1

Time Period		A-Weighted Sound Metrics			C-Weighted Sound Metrics			Local Wind at 2 meters above ground level (m/s)	Regional Precipitation (inches)	Turbine 1		
Start	End	LA_{EQ} (dBA)	LA_{10} (dBA)	LA_{90} (dBA)	LC_{EQ} (dBC)	LC_{10} (dBC)	LC_{90} (dBC)			Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)
3/14/2020 10:00	3/14/2020 11:00	60	64	46	63	67	56	0.87		2525	11	280
3/14/2020 11:00	3/14/2020 12:00	59	64	45	64	67	54	0.77		2312	10	275
3/14/2020 12:00	3/14/2020 13:00	59	64	44	62	66	53	0.57		1623	9	274
3/14/2020 13:00	3/14/2020 14:00	59	63	44	62	66	53	0.59		2259	10	282
3/14/2020 14:00	3/14/2020 15:00	58	63	43	62	66	52	0.50		2194	10	257
3/14/2020 15:00	3/14/2020 16:00	59	63	44	62	66	53	0.51		2334	10	261
3/14/2020 16:00	3/14/2020 17:00	58	63	43	62	66	52	0.58		2530	11	263
3/14/2020 17:00	3/14/2020 18:00	58	63	42	61	65	51	0.33		1664	10	274
3/14/2020 18:00	3/14/2020 19:00	57	62	40	62	65	50	0.32		1132	9	274
3/14/2020 19:00	3/14/2020 20:00	56	61	39	60	63	50	0.14		2305	10	274
3/14/2020 20:00	3/14/2020 21:00	54	60	38	59	62	50	0.18		2141	10	273
3/14/2020 21:00	3/14/2020 22:00	54	58	37	57	60	48	0.25		1457	8	271
3/14/2020 22:00	3/14/2020 23:00	51	55	34	54	57	45	0.02		653	7	292
3/14/2020 23:00	3/15/2020 0:00	51	53	32	55	57	45	0.07		662	7	312
3/15/2020 0:00	3/15/2020 1:00	48	45	34	55	54	48	0.15		954	7	305
3/15/2020 1:00	3/15/2020 2:00	45	38	31	49	50	43	0.03		354	6	308
3/15/2020 2:00	3/15/2020 3:00	48	38	32	53	51	44	0.06		438	6	307
3/15/2020 3:00	3/15/2020 4:00	51	39	33	57	51	44	0.03		697	7	314
3/15/2020 4:00	3/15/2020 5:00	46	39	34	53	52	47	0.04		1069	8	310
3/15/2020 5:00	3/15/2020 6:00	51	46	35	57	55	48	0.14		2056	10	311
3/15/2020 6:00	3/15/2020 7:00	50	51	36	56	56	50	0.22		1844	9	304
3/15/2020 7:00	3/15/2020 8:00	54	58	35	58	61	49	0.19		1470	9	310
3/15/2020 8:00	3/15/2020 9:00	55	60	36	59	63	50	0.36		1541	9	300
3/15/2020 9:00	3/15/2020 10:00	56	62	37	60	64	50	0.40		1253	8	299
3/15/2020 10:00	3/15/2020 11:00	57	62	38	61	65	49	0.36		699	7	310
3/15/2020 11:00	3/15/2020 12:00	58	63	37	61	65	49	0.37		643	7	298
3/15/2020 12:00	3/15/2020 13:00	58	63	38	61	65	49	0.37		754	7	297
3/15/2020 13:00	3/15/2020 14:00	58	63	38	62	66	49	0.44		701	7	306
3/15/2020 14:00	3/15/2020 15:00	58	63	40	62	66	50	0.46		962	7	306
3/15/2020 15:00	3/15/2020 16:00	58	63	37	62	66	50	0.47		924	7	311
3/15/2020 16:00	3/15/2020 17:00	57	62	38	62	65	50	0.51		1251	8	308
3/15/2020 17:00	3/15/2020 18:00	57	62	39	60	65	51	0.46		1252	9	299
3/15/2020 18:00	3/15/2020 19:00	56	61	34	61	64	48	0.19		393	7	315
3/15/2020 19:00	3/15/2020 20:00	56	61	33	59	63	49	0.18		1146	8	321
3/15/2020 20:00	3/15/2020 21:00	55	60	30	60	63	46	0.12		623	6	320
3/15/2020 21:00	3/15/2020 22:00	53	57	32	58	61	49	0.19		1297	8	309
3/15/2020 22:00	3/15/2020 23:00	50	50	30	55	55	46	0.08		813	7	313
3/15/2020 23:00	3/16/2020 0:00	50	48	30	55	55	46	0.13		1152	8	317
3/16/2020 0:00	3/16/2020 1:00	49	44	28	55	52	44	0.04		500	7	335
3/16/2020 1:00	3/16/2020 2:00	49	41	29	55	54	45	0.12		524	6	327
3/16/2020 2:00	3/16/2020 3:00	50	42	28	55	52	42	0.03		169	5	340
3/16/2020 3:00	3/16/2020 4:00	50	44	30	55	51	42	0.00		50	4	332
3/16/2020 4:00	3/16/2020 5:00	54	55	31	59	59	42	0.00		25	4	340
3/16/2020 5:00	3/16/2020 6:00	57	61	35	62	64	44	0.00		24	4	334
3/16/2020 6:00	3/16/2020 7:00	59	63	38	62	66	46	0.00		-19	3	342
3/16/2020 7:00	3/16/2020 8:00	60	65	40	64	67	48	0.00		-20	3	232
3/16/2020 8:00	3/16/2020 9:00	59	63	34	62	66	45	0.00		-18	2	59
3/16/2020 9:00	3/16/2020 10:00	59	63	33	64	66	45	0.02		-18	3	143
3/16/2020 10:00	3/16/2020 11:00	57	62	31	61	65	45	0.11		-5	3	141
3/16/2020 11:00	3/16/2020 12:00	57	62	30	62	65	45	0.14		18	4	122
3/16/2020 12:00	3/16/2020 13:00	58	62	34	63	66	46	0.19		5	4	166
3/16/2020 13:00	3/16/2020 14:00	57	62	35	63	65	47	0.20		23	4	156
3/16/2020 14:00	3/16/2020 15:00	57	61	33	62	65	46	0.21		26	4	149
3/16/2020 15:00	3/16/2020 16:00	58	63	32	63	66	47	0.21		24	4	175
3/16/2020 16:00	3/16/2020 17:00	59	63	38	63	66	48	0.16		17	3	165
3/16/2020 17:00	3/16/2020 18:00	58	63	35	63	66	47	0.12		18	3	161
3/16/2020 18:00	3/16/2020 19:00	56	62	32	60	64	45	0.01		31	3	163
3/16/2020 19:00	3/16/2020 20:00	55	60	35	59	63	49	0.17		671	6	113
3/16/2020 20:00	3/16/2020 21:00	54	58	36	58	61	50	0.28		983	7	112

These levels represent total sound and not the facility specific sound. Therefore they are not appropriate for direct comparison to the project limits.

APPENDIX B

Table B-1: Hourly Monitoring Data for Location 1

Time Period		A-Weighted Sound Metrics			C-Weighted Sound Metrics			Local Wind at 2 meters above ground level (m/s)	Regional Precipitation (inches)	Turbine 1		
Start	End	LA_{EQ} (dBA)	LA_{10} (dBA)	LA_{90} (dBA)	LC_{EQ} (dBC)	LC_{10} (dBC)	LC_{90} (dBC)			Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)
3/16/2020 21:00	3/16/2020 22:00	53	54	34	57	57	48	0.09		94	4	142
3/16/2020 22:00	3/16/2020 23:00	51	52	32	56	56	47	0.10		26	4	151
3/16/2020 23:00	3/17/2020 0:00	50	50	32	56	57	48	0.05		153	4	174
3/17/2020 0:00	3/17/2020 1:00	48	42	31	54	53	46	0.04		-5	3	175
3/17/2020 1:00	3/17/2020 2:00	45	36	31	50	49	44	0.00		-17	3	184
3/17/2020 2:00	3/17/2020 3:00	50	40	29	54	50	43	0.00		-4	3	207
3/17/2020 3:00	3/17/2020 4:00	51	44	29	56	50	42	0.00	Trace	-14	2	142
3/17/2020 4:00	3/17/2020 5:00	54	55	33	61	60	46	0.00	Trace	-1	3	192
3/17/2020 5:00	3/17/2020 6:00	56	61	34	60	64	45	0.00	Trace	-10	3	138
3/17/2020 6:00	3/17/2020 7:00	59	64	35	63	67	47	0.00	Trace	-15	2	163
3/17/2020 7:00	3/17/2020 8:00	59	64	36	63	66	47	0.00	Trace	-16	2	171
3/17/2020 8:00	3/17/2020 9:00	59	63	36	64	66	48	0.00	Trace	-13	2	196
3/17/2020 9:00	3/17/2020 10:00	58	63	36	63	66	51	0.00		150	4	160
3/17/2020 10:00	3/17/2020 11:00	59	63	39	64	66	53	0.00		240	4	161
3/17/2020 11:00	3/17/2020 12:00	58	63	37	63	66	52	0.01		363	5	157
3/17/2020 12:00	3/17/2020 13:00	59	63	36	62	66	48	0.00	Trace	83	4	164
3/17/2020 13:00	3/17/2020 14:00	59	64	39	64	67	49	0.01	Trace	218	4	194
3/17/2020 14:00	3/17/2020 15:00	60	64	40	63	67	49	0.06		309	5	197
3/17/2020 15:00	3/17/2020 16:00	60	64	41	63	67	50	0.17		808	6	223
3/17/2020 16:00	3/17/2020 17:00	59	64	40	62	66	48	0.12		264	5	234
3/17/2020 17:00	3/17/2020 18:00	60	64	39	64	67	47	0.00		175	4	232
3/17/2020 18:00	3/17/2020 19:00	58	63	38	61	65	47	0.02		1012	7	239
3/17/2020 19:00	3/17/2020 20:00	56	61	38	60	63	47	0.04		1632	9	256
3/17/2020 20:00	3/17/2020 21:00	54	58	37	58	60	47	0.08		2049	10	271
3/17/2020 21:00	3/17/2020 22:00	54	58	37	60	61	46	0.03		1560	9	264
3/17/2020 22:00	3/17/2020 23:00	53	56	36	59	59	46	0.07		1861	9	262
3/17/2020 23:00	3/18/2020 0:00	52	53	37	57	57	46	0.08		2284	10	265
3/18/2020 0:00	3/18/2020 1:00	48	41	34	51	50	45	0.03		1227	8	263
3/18/2020 1:00	3/18/2020 2:00	51	45	35	55	52	46	0.09		1743	9	268
3/18/2020 2:00	3/18/2020 3:00	50	46	36	55	54	46	0.14		1526	9	282
3/18/2020 3:00	3/18/2020 4:00	51	46	35	58	55	46	0.15		1562	9	279
3/18/2020 4:00	3/18/2020 5:00	55	57	35	59	60	45	0.08		984	8	275
3/18/2020 5:00	3/18/2020 6:00	56	61	36	60	63	47	0.11		1202	8	282
3/18/2020 6:00	3/18/2020 7:00	59	64	39	63	66	49	0.05		1236	8	285
3/18/2020 7:00	3/18/2020 8:00	60	65	39	64	68	48	0.02		718	7	283
3/18/2020 8:00	3/18/2020 9:00	59	64	36	64	67	46	0.04		234	5	287
3/18/2020 9:00	3/18/2020 10:00	59	63	34	63	66	46	0.07		123	4.7	311

These levels represent total sound and not the facility specific sound. Therefore they are not appropriate for direct comparison to the project limits.

APPENDIX B

Table B-2: Hourly Monitoring Data for Location 2

Time Period		A-Weighted Sound Metrics			C-Weighted Sound Metrics			Local Wind at 2 meters above ground level (m/s)	Regional Precipitation (inches)	Turbine 1		
Start	End	LA_{EQ} (dBA)	LA_{10} (dBA)	LA_{90} (dBA)	LC_{EQ} (dBC)	LC_{10} (dBC)	LC_{90} (dBC)			Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)
3/4/2020 14:00	3/4/2020 15:00	45	48	39	56	59	52	0.65		2986	13	256
3/4/2020 15:00	3/4/2020 16:00	44	47	39	55	57	51	0.61		2656	12	260
3/4/2020 16:00	3/4/2020 17:00	43	42	36	53	54	47	0.35		1646	9	267
3/4/2020 17:00	3/4/2020 18:00	48	49	36	54	55	47	0.27		2214	10	258
3/4/2020 18:00	3/4/2020 19:00	45	46	35	53	55	47	0.37		2270	10	248
3/4/2020 19:00	3/4/2020 20:00	43	44	36	53	55	49	0.50		2317	10	256
3/4/2020 20:00	3/4/2020 21:00	41	43	38	53	55	50	0.56	Trace	2741	11	255
3/4/2020 21:00	3/4/2020 22:00	39	41	35	52	54	47	0.25	Trace	2422	10	255
3/4/2020 22:00	3/4/2020 23:00	37	39	34	49	51	46	0.15		2391	10	256
3/4/2020 23:00	3/5/2020 0:00	35	36	32	47	48	44	0.06		2050	10	248
3/5/2020 0:00	3/5/2020 1:00	34	35	31	46	48	44	0.07		1723	9	249
3/5/2020 1:00	3/5/2020 2:00	34	35	30	47	48	44	0.07		1715	9	252
3/5/2020 2:00	3/5/2020 3:00	33	36	31	47	49	44	0.10	Trace	2114	10	254
3/5/2020 3:00	3/5/2020 4:00	37	40	35	50	51	47	0.42	Trace	2752	11	263
3/5/2020 4:00	3/5/2020 5:00	37	39	33	50	52	47	0.32	Trace	2290	10	270
3/5/2020 5:00	3/5/2020 6:00	37	40	34	51	53	47	0.27		2186	10	271
3/5/2020 6:00	3/5/2020 7:00	38	39	34	50	53	47	0.13		1492	8	266
3/5/2020 7:00	3/5/2020 8:00	39	42	35	52	54	48	0.41		1650	9	271
3/5/2020 8:00	3/5/2020 9:00	41	44	37	54	57	50	0.53		2401	11	278
3/5/2020 9:00	3/5/2020 10:00	44	47	38	55	58	51	0.86		2602	11	293
3/5/2020 10:00	3/5/2020 11:00	43	46	37	54	57	50	0.70		2356	11	295
3/5/2020 11:00	3/5/2020 12:00	40	43	35	52	54	49	0.65		1233	8	291
3/5/2020 12:00	3/5/2020 13:00	37	39	33	50	52	46	0.40		856	7	282
3/5/2020 13:00	3/5/2020 14:00	37	39	33	49	51	46	0.39		959	7	272
3/5/2020 14:00	3/5/2020 15:00	35	38	30	48	51	45	0.37		475	6	285
3/5/2020 15:00	3/5/2020 16:00	34	36	30	47	50	43	0.20	0.01	371	6	279
3/5/2020 16:00	3/5/2020 17:00	38	40	30	53	53	43	0.04	Trace	122	5	273
3/5/2020 17:00	3/5/2020 18:00	34	36	30	48	50	42	0.01	Trace	147	5	261
3/5/2020 18:00	3/5/2020 19:00	39	40	32	49	50	43	0.00	Trace	9	3	280
3/5/2020 19:00	3/5/2020 20:00	39	42	33	49	52	42	0.00	Trace	23	4	256
3/5/2020 20:00	3/5/2020 21:00	37	40	32	47	50	42	0.00		469	6	237
3/5/2020 21:00	3/5/2020 22:00	36	38	31	48	50	41	0.00		336	5	241
3/5/2020 22:00	3/5/2020 23:00	35	37	30	44	46	40	0.00		133	4	237
3/5/2020 23:00	3/6/2020 0:00	33	36	30	43	45	40	0.00		50	4	221
3/6/2020 0:00	3/6/2020 1:00	33	36	31	43	45	40	0.00		63	3	234
3/6/2020 1:00	3/6/2020 2:00	35	38	30	44	46	40	0.00		-9	2	194
3/6/2020 2:00	3/6/2020 3:00	36	38	29	46	48	41	0.00		22	3	148
3/6/2020 3:00	3/6/2020 4:00	36	40	30	47	49	42	0.00		173	4	93
3/6/2020 4:00	3/6/2020 5:00	38	41	31	48	50	44	0.00		72	3	106
3/6/2020 5:00	3/6/2020 6:00	39	42	32	49	51	44	0.00		-10	3	84
3/6/2020 6:00	3/6/2020 7:00	43	45	37	52	56	47	0.00		100	5	59
3/6/2020 7:00	3/6/2020 8:00	40	43	34	49	52	45	0.00		163	5	42
3/6/2020 8:00	3/6/2020 9:00	37	40	32	52	56	46	0.02		71	4	51
3/6/2020 9:00	3/6/2020 10:00	36	38	31	47	49	44	0.09		71	4	50
3/6/2020 10:00	3/6/2020 11:00	35	38	31	48	50	44	0.09		83	4	79
3/6/2020 11:00	3/6/2020 12:00	36	39	32	49	51	45	0.15		227	5	82
3/6/2020 12:00	3/6/2020 13:00	38	40	33	51	52	45	0.14		684	6	71
3/6/2020 13:00	3/6/2020 14:00	37	40	33	50	53	46	0.10		567	6	79
3/6/2020 14:00	3/6/2020 15:00	40	42	36	50	52	45	0.30		1039	8	47
3/6/2020 15:00	3/6/2020 16:00	42	44	39	52	53	48	0.33		1686	9	57
3/6/2020 16:00	3/6/2020 17:00	41	44	37	51	53	47	0.18		1702	9	57
3/6/2020 17:00	3/6/2020 18:00	40	43	37	50	53	47	0.25		1743	9	43
3/6/2020 18:00	3/6/2020 19:00	38	40	33	49	51	45	0.13		1282	8	44
3/6/2020 19:00	3/6/2020 20:00	36	38	32	48	50	44	0.15		815	7	42
3/6/2020 20:00	3/6/2020 21:00	35	37	31	47	48	44	0.03		1217	8	48
3/6/2020 21:00	3/6/2020 22:00	35	38	31	47	49	44	0.15		1494	9	41
3/6/2020 22:00	3/6/2020 23:00	32	35	29	47	48	44	0.02		1407	9	21
3/6/2020 23:00	3/7/2020 0:00	36	38	31	50	52	46	0.24		2304	10	17
3/7/2020 0:00	3/7/2020 1:00	33	35	29	48	50	45	0.15		1756	10	17

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APPENDIX B

Table B-2: Hourly Monitoring Data for Location 2

Time Period		A-Weighted Sound Metrics			C-Weighted Sound Metrics			Local Wind at 2 meters above ground level (m/s)	Regional Precipitation (inches)	Turbine 1		
Start	End	LA_{EQ} (dBA)	LA_{10} (dBA)	LA_{90} (dBA)	LC_{EQ} (dBC)	LC_{10} (dBC)	LC_{90} (dBC)			Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)
3/7/2020 1:00	3/7/2020 2:00	28	30	26	44	46	42	0.04		651	7	64
3/7/2020 2:00	3/7/2020 3:00	30	34	25	46	49	43	0.07		832	7	347
3/7/2020 3:00	3/7/2020 4:00	36	39	31	50	52	47	0.28		2263	10	343
3/7/2020 4:00	3/7/2020 5:00	34	37	31	50	51	47	0.21		2021	10	346
3/7/2020 5:00	3/7/2020 6:00	37	41	33	51	53	48	0.37		1896	10	336
3/7/2020 6:00	3/7/2020 7:00	36	39	31	51	53	48	0.33		1738	9	320
3/7/2020 7:00	3/7/2020 8:00	38	40	33	53	54	49	0.56		2533	11	314
3/7/2020 8:00	3/7/2020 9:00	41	43	34	54	56	50	0.70		2523	11	317
3/7/2020 9:00	3/7/2020 10:00	43	46	36	55	57	51	0.84		2764	11	315
3/7/2020 10:00	3/7/2020 11:00	43	46	37	55	57	51	0.82		2540	11	315
3/7/2020 11:00	3/7/2020 12:00	44	47	35	55	58	51	0.84		2564	11	315
3/7/2020 12:00	3/7/2020 13:00	41	43	35	54	56	50	0.70		2054	10	321
3/7/2020 13:00	3/7/2020 14:00	44	47	37	56	58	51	0.93		2637	11	314
3/7/2020 14:00	3/7/2020 15:00	43	46	36	55	58	51	0.86		2579	11	309
3/7/2020 15:00	3/7/2020 16:00	40	43	33	53	55	49	0.65		2377	10	309
3/7/2020 16:00	3/7/2020 17:00	41	44	35	53	55	48	0.65		1504	10	303
3/7/2020 17:00	3/7/2020 18:00	33	37	25	49	51	46	0.18		656	8	312
3/7/2020 18:00	3/7/2020 19:00	30	33	26	48	49	45	0.11		1162	8	300
3/7/2020 19:00	3/7/2020 20:00	29	30	23	47	48	44	0.05		755	7	294
3/7/2020 20:00	3/7/2020 21:00	27	29	23	45	46	41	0.03		241	5	293
3/7/2020 21:00	3/7/2020 22:00	29	30	23	47	48	41	0.01		839	7	280
3/7/2020 22:00	3/7/2020 23:00	28	29	24	45	46	42	0.00		534	6	276
3/7/2020 23:00	3/8/2020 0:00	28	31	26	45	47	42	0.00		239	5	273
3/8/2020 0:00	3/8/2020 1:00	30	30	25	46	48	40	0.00		98	4	269
3/8/2020 1:00	3/8/2020 2:00	29	29	26	43	45	41	0.04		148	4	262
3/8/2020 2:00	3/8/2020 3:00	Daylight Savings Time										
3/8/2020 3:00	3/8/2020 4:00	32	34	29	45	47	43	0.12		2186	10	255
3/8/2020 4:00	3/8/2020 5:00	32	34	29	45	47	43	0.07		2361	10	238
3/8/2020 5:00	3/8/2020 6:00	33	35	30	46	47	44	0.09		2697	11	244
3/8/2020 6:00	3/8/2020 7:00	32	34	30	46	48	44	0.06		3146	12	242
3/8/2020 7:00	3/8/2020 8:00	36	38	32	49	50	46	0.14		3199	13	236
3/8/2020 8:00	3/8/2020 9:00	34	36	31	47	49	45	0.15		2802	12	236
3/8/2020 9:00	3/8/2020 10:00	34	35	31	48	49	45	0.23		1102	8	247
3/8/2020 10:00	3/8/2020 11:00	38	39	30	52	51	46	0.21		721	7	261
3/8/2020 11:00	3/8/2020 12:00	35	37	31	50	51	46	0.29		1072	8	267
3/8/2020 12:00	3/8/2020 13:00	38	40	34	51	53	47	0.46		1314	8	261
3/8/2020 13:00	3/8/2020 14:00	37	40	32	51	52	47	0.41		1402	8	269
3/8/2020 14:00	3/8/2020 15:00	43	41	34	51	53	48	0.53		1270	8	256
3/8/2020 15:00	3/8/2020 16:00	44	43	34	53	54	47	0.46		962	7	262
3/8/2020 16:00	3/8/2020 17:00	44	41	34	51	53	46	0.42		798	7	261
3/8/2020 17:00	3/8/2020 18:00	39	37	32	49	50	44	0.13		538	7	257
3/8/2020 18:00	3/8/2020 19:00	42	38	31	51	51	44	0.03		514	7	245
3/8/2020 19:00	3/8/2020 20:00	50	40	32	52	53	44	0.00		921	7	235
3/8/2020 20:00	3/8/2020 21:00	36	38	33	47	50	44	0.01		2426	10	235
3/8/2020 21:00	3/8/2020 22:00	51	45	33	56	57	44	0.02		2827	11	234
3/8/2020 22:00	3/8/2020 23:00	36	37	32	46	48	40	0.00		1435	11	229
3/8/2020 23:00	3/9/2020 0:00	34	35	32	48	49	44	0.01		2571	11	220
3/9/2020 0:00	3/9/2020 1:00	35	37	33	49	50	46	0.05		2949	12	214
3/9/2020 1:00	3/9/2020 2:00	42	39	33	51	51	46	0.13		3163	13	219
3/9/2020 2:00	3/9/2020 3:00	38	38	32	52	52	47	0.08		2799	11	220
3/9/2020 3:00	3/9/2020 4:00	39	41	36	51	53	49	0.30		3199	14	225
3/9/2020 4:00	3/9/2020 5:00	38	40	35	49	51	47	0.12		3200	15	226
3/9/2020 5:00	3/9/2020 6:00	39	41	36	50	51	47	0.11		3198	15	231
3/9/2020 6:00	3/9/2020 7:00	39	41	36	50	52	47	0.03		3199	16	240
3/9/2020 7:00	3/9/2020 8:00	40	42	37	50	52	47	0.01		3199	15	242
3/9/2020 8:00	3/9/2020 9:00	39	41	36	50	52	47	0.03		3200	14	233
3/9/2020 9:00	3/9/2020 10:00	39	41	36	50	52	47	0.19		3199	14	232
3/9/2020 10:00	3/9/2020 11:00	39	41	35	51	53	47	0.47		3023	12	231
3/9/2020 11:00	3/9/2020 12:00	42	43	36	55	56	49	0.41		2786	11	230

These levels represent total sound and not the facility specific sound. Therefore they are not appropriate for direct comparison to the project limits.

APPENDIX B

Table B-2: Hourly Monitoring Data for Location 2

Time Period		A-Weighted Sound Metrics			C-Weighted Sound Metrics			Local Wind at 2 meters above ground level (m/s)	Regional Precipitation (inches)	Turbine 1		
Start	End	LA_{EQ} (dBA)	LA_{10} (dBA)	LA_{90} (dBA)	LC_{EQ} (dBC)	LC_{10} (dBC)	LC_{90} (dBC)			Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)
3/9/2020 12:00	3/9/2020 13:00	40	43	36	53	55	49	0.63		2461	10	228
3/9/2020 13:00	3/9/2020 14:00	40	43	36	52	55	49	0.68		2121	9	222
3/9/2020 14:00	3/9/2020 15:00	39	42	36	52	54	49	0.43		2352	10	222
3/9/2020 15:00	3/9/2020 16:00	42	44	37	54	56	49	0.66		1788	9	230
3/9/2020 16:00	3/9/2020 17:00	40	42	36	52	54	49	0.39		1471	8	224
3/9/2020 17:00	3/9/2020 18:00	38	40	33	50	53	46	0.14		886	8	232
3/9/2020 18:00	3/9/2020 19:00	38	39	32	50	52	43	0.01		363	6	231
3/9/2020 19:00	3/9/2020 20:00	39	40	32	52	51	43	0.00		703	6	223
3/9/2020 20:00	3/9/2020 21:00	37	39	33	47	48	43	0.00		1227	7	218
3/9/2020 21:00	3/9/2020 22:00	39	41	35	48	50	45	0.00		517	5	221
3/9/2020 22:00	3/9/2020 23:00	38	40	34	47	49	44	0.00		1178	7	222
3/9/2020 23:00	3/10/2020 0:00	33	35	31	46	47	43	0.01		1645	8	212
3/10/2020 0:00	3/10/2020 1:00	34	35	32	46	48	45	0.01		2719	10	220
3/10/2020 1:00	3/10/2020 2:00	34	36	31	48	49	45	0.03		2946	11	216
3/10/2020 2:00	3/10/2020 3:00	34	36	31	48	50	46	0.02		2655	10	212
3/10/2020 3:00	3/10/2020 4:00	33	35	31	48	50	44	0.00		2370	10	214
3/10/2020 4:00	3/10/2020 5:00	36	38	32	48	50	45	0.01		2902	11	218
3/10/2020 5:00	3/10/2020 6:00	36	38	33	48	51	44	0.00		2698	11	218
3/10/2020 6:00	3/10/2020 7:00	39	41	36	50	52	47	0.00		2122	9	207
3/10/2020 7:00	3/10/2020 8:00	41	43	37	51	54	47	0.00		1164	7	202
3/10/2020 8:00	3/10/2020 9:00	42	45	37	52	55	47	0.00		355	5	207
3/10/2020 9:00	3/10/2020 10:00	42	43	35	53	54	47	0.00		11	3	203
3/10/2020 10:00	3/10/2020 11:00	38	40	33	49	51	45	0.01		-4	3	197
3/10/2020 11:00	3/10/2020 12:00	38	41	33	50	53	45	0.04		10	3	179
3/10/2020 12:00	3/10/2020 13:00	39	42	34	52	55	47	0.40		389	5	198
3/10/2020 13:00	3/10/2020 14:00	45	48	40	56	59	53	0.92	Trace	1765	9	215
3/10/2020 14:00	3/10/2020 15:00	44	47	39	55	58	52	0.67		2382	10	210
3/10/2020 15:00	3/10/2020 16:00	42	45	38	53	56	49	0.51		1088	7	216
3/10/2020 16:00	3/10/2020 17:00	41	43	37	52	53	49	0.22	Trace	1026	7	209
3/10/2020 17:00	3/10/2020 18:00	43	45	37	53	53	48	0.10	Trace	723	6	215
3/10/2020 18:00	3/10/2020 19:00	41	45	37	51	52	48	0.01	Trace	988	7	215
3/10/2020 19:00	3/10/2020 20:00	38	40	35	50	52	48	0.11	0.01	1834	8	218
3/10/2020 20:00	3/10/2020 21:00	40	42	36	52	53	49	0.21		2193	10	222
3/10/2020 21:00	3/10/2020 22:00	39	42	36	52	54	49	0.28		2577	11	227
3/10/2020 22:00	3/10/2020 23:00	35	37	32	47	49	45	0.08		1498	8	240
3/10/2020 23:00	3/11/2020 0:00	36	38	33	48	50	46	0.13		2465	11	252
3/11/2020 0:00	3/11/2020 1:00	36	38	33	49	51	47	0.30		2045	10	264
3/11/2020 1:00	3/11/2020 2:00	40	43	33	52	54	48	0.46		1887	10	288
3/11/2020 2:00	3/11/2020 3:00	40	43	34	51	54	47	0.50		2313	11	301
3/11/2020 3:00	3/11/2020 4:00	35	37	31	48	50	45	0.28		1763	9	297
3/11/2020 4:00	3/11/2020 5:00	33	35	30	48	49	45	0.22		1594	9	295
3/11/2020 5:00	3/11/2020 6:00	32	34	30	48	50	44	0.03		725	7	287
3/11/2020 6:00	3/11/2020 7:00	37	38	32	50	53	44	0.08		666	7	284
3/11/2020 7:00	3/11/2020 8:00	37	40	32	51	53	46	0.13		780	7	303
3/11/2020 8:00	3/11/2020 9:00	36	39	32	50	52	46	0.21		739	7	303
3/11/2020 9:00	3/11/2020 10:00	39	39	32	51	51	46	0.28		758	7	292
3/11/2020 10:00	3/11/2020 11:00	35	37	30	50	53	44	0.26		243	5	318
3/11/2020 11:00	3/11/2020 12:00	34	34	29	47	49	43	0.21		164	5	285
3/11/2020 12:00	3/11/2020 13:00	35	38	30	48	50	44	0.27		259	5	295
3/11/2020 13:00	3/11/2020 14:00	35	39	28	50	53	44	0.18		76	4	287
3/11/2020 14:00	3/11/2020 15:00	34	37	26	48	51	44	0.13		81	4	332
3/11/2020 15:00	3/11/2020 16:00	32	36	27	47	49	43	0.12		32	4	331
3/11/2020 16:00	3/11/2020 17:00	36	38	28	48	50	44	0.04		49	4	321
3/11/2020 17:00	3/11/2020 18:00	39	37	25	51	51	43	0.03		102	5	305
3/11/2020 18:00	3/11/2020 19:00	32	34	26	47	49	43	0.03		314	6	316
3/11/2020 19:00	3/11/2020 20:00	29	31	25	47	48	42	0.06		323	6	304
3/11/2020 20:00	3/11/2020 21:00	34	31	25	45	46	41	0.01		142	5	288
3/11/2020 21:00	3/11/2020 22:00	28	30	23	46	49	41	0.04		133	4	306
3/11/2020 22:00	3/11/2020 23:00	29	31	23	43	45	39	0.00		-8	2	330

These levels represent total sound and not the facility specific sound. Therefore they are not appropriate for direct comparison to the project limits.

APPENDIX B

Table B-2: Hourly Monitoring Data for Location 2

Time Period		A-Weighted Sound Metrics			C-Weighted Sound Metrics			Local Wind at 2 meters above ground level (m/s)	Regional Precipitation (inches)	Turbine 1		
Start	End	LA_{EQ} (dBA)	LA_{10} (dBA)	LA_{90} (dBA)	LC_{EQ} (dBC)	LC_{10} (dBC)	LC_{90} (dBC)			Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)
3/11/2020 23:00	3/12/2020 0:00	30	33	26	41	43	38	0.00		-8	1	138
3/12/2020 0:00	3/12/2020 1:00	28	29	26	40	41	37	0.00		-10	2	99
3/12/2020 1:00	3/12/2020 2:00	29	31	26	42	44	39	0.00		-12	3	231
3/12/2020 2:00	3/12/2020 3:00	29	32	26	44	46	40	0.00		-12	3	174
3/12/2020 3:00	3/12/2020 4:00	31	33	26	45	46	40	0.00		-12	3	342
3/12/2020 4:00	3/12/2020 5:00	34	38	27	46	49	41	0.00		-11	2	93
3/12/2020 5:00	3/12/2020 6:00	33	36	26	48	50	42	0.00	Trace	-6	3	82
3/12/2020 6:00	3/12/2020 7:00	37	39	31	50	52	45	0.00		275	5	83
3/12/2020 7:00	3/12/2020 8:00	37	41	31	49	51	46	0.00		138	4	85
3/12/2020 8:00	3/12/2020 9:00	41	37	30	51	53	46	0.00		139	4	79
3/12/2020 9:00	3/12/2020 10:00	34	37	29	49	51	46	0.01		190	4	84
3/12/2020 10:00	3/12/2020 11:00	37	39	30	49	51	45	0.01		84	4	99
3/12/2020 11:00	3/12/2020 12:00	36	38	31	49	51	45	0.01		69	4	103
3/12/2020 12:00	3/12/2020 13:00	36	39	31	50	52	45	0.02		57	4	112
3/12/2020 13:00	3/12/2020 14:00	39	41	32	51	53	46	0.04		25	3	115
3/12/2020 14:00	3/12/2020 15:00	39	41	34	50	52	46	0.05		-2	3	134
3/12/2020 15:00	3/12/2020 16:00	42	44	35	52	53	47	0.06		10	3	159
3/12/2020 16:00	3/12/2020 17:00	40	42	36	50	52	46	0.03		-5	3	156
3/12/2020 17:00	3/12/2020 18:00	38	40	34	49	51	45	0.01		-9	2	168
3/12/2020 18:00	3/12/2020 19:00	35	38	31	47	50	44	0.00		65	3	121
3/12/2020 19:00	3/12/2020 20:00	43	38	30	50	50	44	0.00		259	4	98
3/12/2020 20:00	3/12/2020 21:00	36	38	31	49	51	45	0.00		455	5	102
3/12/2020 21:00	3/12/2020 22:00	36	38	31	49	51	46	0.02		417	5	96
3/12/2020 22:00	3/12/2020 23:00	34	37	28	46	48	43	0.00		260	4	95
3/12/2020 23:00	3/13/2020 0:00	31	33	26	45	47	42	0.00	Trace	205	4	90
3/13/2020 0:00	3/13/2020 1:00	29	32	25	45	47	42	0.00	0.01	154	4	92
3/13/2020 1:00	3/13/2020 2:00	43	48	29	50	52	46	0.00		345	5	96
3/13/2020 2:00	3/13/2020 3:00	43	47	33	50	52	47	0.02	Trace	432	5	90
3/13/2020 3:00	3/13/2020 4:00	43	48	33	50	52	47	0.02	Trace	596	6	98
3/13/2020 4:00	3/13/2020 5:00	46	50	39	53	55	51	0.06	0.01	1424	7	98
3/13/2020 5:00	3/13/2020 6:00	44	46	39	55	56	52	0.07	0.03	1457	8	98
3/13/2020 6:00	3/13/2020 7:00	44	47	40	56	57	53	0.12	0.15	1457	8	97
3/13/2020 7:00	3/13/2020 8:00	54	57	44	57	59	53	0.09	0.11	1198	7	89
3/13/2020 8:00	3/13/2020 9:00	56	58	51	58	59	55	0.04	0.09	1108	7	91
3/13/2020 9:00	3/13/2020 10:00	55	58	46	57	59	53	0.03	0.06	784	6	92
3/13/2020 10:00	3/13/2020 11:00	53	56	47	56	58	53	0.06	0.01	579	6	94
3/13/2020 11:00	3/13/2020 12:00	45	49	38	53	55	50	0.00	Trace	377	5	103
3/13/2020 12:00	3/13/2020 13:00	45	47	40	55	57	52	0.00	0.07	134	4	133
3/13/2020 13:00	3/13/2020 14:00	49	51	43	56	58	54	0.00	0.02	840	6	164
3/13/2020 14:00	3/13/2020 15:00	46	49	42	55	56	52	0.29	Trace	1746	9	216
3/13/2020 15:00	3/13/2020 16:00	47	51	41	56	58	52	0.69	Trace	3009	13	243
3/13/2020 16:00	3/13/2020 17:00	51	55	45	61	64	56	1.10		3163	16	260
3/13/2020 17:00	3/13/2020 18:00	52	56	45	62	65	56	1.31		2426	16	263
3/13/2020 18:00	3/13/2020 19:00	54	56	45	63	65	57	1.28		1882	17	266
3/13/2020 19:00	3/13/2020 20:00	51	54	46	61	64	57	1.27		3193	16	265
3/13/2020 20:00	3/13/2020 21:00	51	54	44	61	64	56	1.17		3150	15	263
3/13/2020 21:00	3/13/2020 22:00	53	57	40	62	66	53	1.14		3050	15	257
3/13/2020 22:00	3/13/2020 23:00	53	56	46	63	65	57	1.23		3134	15	258
3/13/2020 23:00	3/14/2020 0:00	47	50	42	58	61	54	0.89		3160	15	260
3/14/2020 0:00	3/14/2020 1:00	46	49	38	56	59	51	0.64		3058	13	256
3/14/2020 1:00	3/14/2020 2:00	39	41	36	51	53	49	0.32		2991	12	252
3/14/2020 2:00	3/14/2020 3:00	42	46	37	54	57	49	0.49		3190	14	251
3/14/2020 3:00	3/14/2020 4:00	48	50	43	58	61	54	0.96		3198	16	256
3/14/2020 4:00	3/14/2020 5:00	45	47	40	56	58	53	0.63		3187	15	253
3/14/2020 5:00	3/14/2020 6:00	40	43	34	52	55	49	0.33		3051	13	250
3/14/2020 6:00	3/14/2020 7:00	38	40	36	51	53	49	0.31		3146	13	256
3/14/2020 7:00	3/14/2020 8:00	42	45	36	54	56	49	0.56		2851	11	260
3/14/2020 8:00	3/14/2020 9:00	48	52	41	59	62	53	1.10		3088	14	263
3/14/2020 9:00	3/14/2020 10:00	45	49	39	56	59	52	0.83		2718	12	274

These levels represent total sound and not the facility specific sound. Therefore they are not appropriate for direct comparison to the project limits.

APPENDIX B

Table B-2: Hourly Monitoring Data for Location 2

Time Period		A-Weighted Sound Metrics			C-Weighted Sound Metrics			Local Wind at 2 meters above ground level (m/s)	Regional Precipitation (inches)	Turbine 1		
Start	End	LA_{EQ} (dBA)	LA_{10} (dBA)	LA_{90} (dBA)	LC_{EQ} (dBC)	LC_{10} (dBC)	LC_{90} (dBC)			Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)
3/14/2020 10:00	3/14/2020 11:00	46	49	40	57	60	53	0.87		2525	11	280
3/14/2020 11:00	3/14/2020 12:00	43	46	38	55	57	52	0.73		2312	10	275
3/14/2020 12:00	3/14/2020 13:00	42	44	36	54	56	50	0.67		1623	9	274
3/14/2020 13:00	3/14/2020 14:00	43	46	36	55	57	50	0.62		2259	10	282
3/14/2020 14:00	3/14/2020 15:00	40	42	37	53	55	50	0.57		2194	10	257
3/14/2020 15:00	3/14/2020 16:00	42	45	37	55	57	51	0.63		2334	10	261
3/14/2020 16:00	3/14/2020 17:00	42	43	36	55	55	50	0.61		2530	11	263
3/14/2020 17:00	3/14/2020 18:00	39	41	34	54	53	48	0.28		1664	10	274
3/14/2020 18:00	3/14/2020 19:00	41	43	33	53	54	48	0.40		1132	9	274
3/14/2020 19:00	3/14/2020 20:00	35	37	32	50	51	47	0.13		2305	10	274
3/14/2020 20:00	3/14/2020 21:00	36	38	32	50	51	47	0.28		2141	10	273
3/14/2020 21:00	3/14/2020 22:00	35	38	32	49	51	46	0.21		1457	8	271
3/14/2020 22:00	3/14/2020 23:00	31	33	27	46	48	42	0.10		653	7	292
3/14/2020 23:00	3/15/2020 0:00	36	39	25	54	60	42	0.05		662	7	312
3/15/2020 0:00	3/15/2020 1:00	30	32	27	47	49	44	0.09		954	7	305
3/15/2020 1:00	3/15/2020 2:00	25	28	23	43	45	41	0.03		354	6	308
3/15/2020 2:00	3/15/2020 3:00	27	28	24	44	46	41	0.03		438	6	307
3/15/2020 3:00	3/15/2020 4:00	27	30	23	45	47	41	0.06		697	7	314
3/15/2020 4:00	3/15/2020 5:00	27	29	25	46	48	44	0.06		1069	8	310
3/15/2020 5:00	3/15/2020 6:00	34	37	26	48	50	44	0.25		2056	10	311
3/15/2020 6:00	3/15/2020 7:00	36	39	30	49	51	46	0.42		1844	9	304
3/15/2020 7:00	3/15/2020 8:00	36	39	28	49	52	46	0.29		1470	9	310
3/15/2020 8:00	3/15/2020 9:00	41	38	30	51	53	47	0.30		1541	9	300
3/15/2020 9:00	3/15/2020 10:00	35	38	30	50	52	46	0.35		1253	8	299
3/15/2020 10:00	3/15/2020 11:00	40	40	31	54	52	46	0.34		699	7	310
3/15/2020 11:00	3/15/2020 12:00	36	37	30	50	51	46	0.30		643	7	298
3/15/2020 12:00	3/15/2020 13:00	36	39	31	49	52	46	0.47		754	7	297
3/15/2020 13:00	3/15/2020 14:00	39	40	30	55	54	46	0.46		701	7	306
3/15/2020 14:00	3/15/2020 15:00	38	41	31	51	53	47	0.47		962	7	306
3/15/2020 15:00	3/15/2020 16:00	37	39	32	50	52	47	0.45		924	7	311
3/15/2020 16:00	3/15/2020 17:00	38	41	32	51	53	48	0.49		1251	8	308
3/15/2020 17:00	3/15/2020 18:00	38	40	33	51	53	48	0.46		1252	9	299
3/15/2020 18:00	3/15/2020 19:00	34	37	26	48	50	44	0.23		393	7	315
3/15/2020 19:00	3/15/2020 20:00	32	35	25	49	51	44	0.13		1146	8	321
3/15/2020 20:00	3/15/2020 21:00	31	35	24	47	49	43	0.13		623	6	320
3/15/2020 21:00	3/15/2020 22:00	31	34	26	48	50	45	0.21		1297	8	309
3/15/2020 22:00	3/15/2020 23:00	29	32	23	46	48	43	0.10		813	7	313
3/15/2020 23:00	3/16/2020 0:00	33	37	24	48	50	44	0.17		1152	8	317
3/16/2020 0:00	3/16/2020 1:00	25	28	22	45	47	42	0.02		500	7	335
3/16/2020 1:00	3/16/2020 2:00	28	30	24	46	49	43	0.06		524	6	327
3/16/2020 2:00	3/16/2020 3:00	23	25	21	44	47	41	0.00		169	5	340
3/16/2020 3:00	3/16/2020 4:00	23	25	21	43	45	40	0.00		50	4	332
3/16/2020 4:00	3/16/2020 5:00	31	34	24	45	47	41	0.00		25	4	340
3/16/2020 5:00	3/16/2020 6:00	34	37	27	47	50	43	0.00		24	4	334
3/16/2020 6:00	3/16/2020 7:00	37	39	31	49	50	44	0.00		-19	3	342
3/16/2020 7:00	3/16/2020 8:00	38	41	31	49	52	45	0.00		-20	3	232
3/16/2020 8:00	3/16/2020 9:00	31	32	24	47	49	43	0.00		-18	2	59
3/16/2020 9:00	3/16/2020 10:00	32	35	24	48	50	44	0.02		-18	3	143
3/16/2020 10:00	3/16/2020 11:00	33	36	26	49	51	45	0.07		-5	3	141
3/16/2020 11:00	3/16/2020 12:00	36	38	26	49	51	44	0.10		18	4	122
3/16/2020 12:00	3/16/2020 13:00	37	39	29	51	53	46	0.19		5	4	166
3/16/2020 13:00	3/16/2020 14:00	37	37	28	51	53	46	0.16		23	4	156
3/16/2020 14:00	3/16/2020 15:00	36	38	29	50	52	46	0.20		26	4	149
3/16/2020 15:00	3/16/2020 16:00	37	40	29	51	53	46	0.20		24	4	175
3/16/2020 16:00	3/16/2020 17:00	38	40	31	51	53	47	0.10		17	3	165
3/16/2020 17:00	3/16/2020 18:00	37	39	32	51	53	47	0.07		18	3	161
3/16/2020 18:00	3/16/2020 19:00	34	37	30	48	51	45	0.00		31	3	163
3/16/2020 19:00	3/16/2020 20:00	39	41	37	53	55	50	0.07		671	6	113
3/16/2020 20:00	3/16/2020 21:00	39	41	34	53	55	51	0.11		983	7	112

These levels represent total sound and not the facility specific sound. Therefore they are not appropriate for direct comparison to the project limits.

APPENDIX B

Table B-2: Hourly Monitoring Data for Location 2

Time Period		A-Weighted Sound Metrics			C-Weighted Sound Metrics			Local Wind at 2 meters above ground level (m/s)	Regional Precipitation (inches)	Turbine 1		
Start	End	LA_{EQ} (dBA)	LA_{10} (dBA)	LA_{90} (dBA)	LC_{EQ} (dBC)	LC_{10} (dBC)	LC_{90} (dBC)			Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)
3/16/2020 21:00	3/16/2020 22:00	35	37	32	51	53	49	0.02		94	4	142
3/16/2020 22:00	3/16/2020 23:00	37	40	31	51	53	48	0.10		26	4	151
3/16/2020 23:00	3/17/2020 0:00	37	40	32	52	54	49	0.06		153	4	174
3/17/2020 0:00	3/17/2020 1:00	33	35	28	51	53	47	0.02		-5	3	175
3/17/2020 1:00	3/17/2020 2:00	30	32	28	47	49	45	0.00		-17	3	184
3/17/2020 2:00	3/17/2020 3:00	32	35	26	48	50	44	0.00		-4	3	207
3/17/2020 3:00	3/17/2020 4:00	30	33	26	47	48	43	0.01	Trace	-14	2	142
3/17/2020 4:00	3/17/2020 5:00	34	37	30	51	53	47	0.00	Trace	-1	3	192
3/17/2020 5:00	3/17/2020 6:00	34	37	29	49	52	46	0.00	Trace	-10	3	138
3/17/2020 6:00	3/17/2020 7:00	37	39	32	50	53	47	0.00	Trace	-15	2	163
3/17/2020 7:00	3/17/2020 8:00	38	40	33	50	52	47	0.00	Trace	-16	2	171
3/17/2020 8:00	3/17/2020 9:00	36	39	33	51	53	48	0.00	Trace	-13	2	196
3/17/2020 9:00	3/17/2020 10:00	38	40	35	54	56	51	0.00		150	4	160
3/17/2020 10:00	3/17/2020 11:00	40	42	36	54	56	51	0.03		240	4	161
3/17/2020 11:00	3/17/2020 12:00	39	42	35	52	55	49	0.03		363	5	157
3/17/2020 12:00	3/17/2020 13:00	37	40	34	50	52	46	0.00	Trace	83	4	164
3/17/2020 13:00	3/17/2020 14:00	39	41	35	50	52	46	0.04	Trace	218	4	194
3/17/2020 14:00	3/17/2020 15:00	40	42	35	50	52	46	0.05		309	5	197
3/17/2020 15:00	3/17/2020 16:00	38	40	35	49	51	46	0.13		808	6	223
3/17/2020 16:00	3/17/2020 17:00	36	38	33	48	49	44	0.11		264	5	234
3/17/2020 17:00	3/17/2020 18:00	37	39	33	48	50	44	0.02		175	4	232
3/17/2020 18:00	3/17/2020 19:00	39	40	34	49	51	45	0.00		1012	7	239
3/17/2020 19:00	3/17/2020 20:00	36	38	33	50	51	46	0.04		1632	9	256
3/17/2020 20:00	3/17/2020 21:00	33	35	31	49	50	46	0.07		2049	10	271
3/17/2020 21:00	3/17/2020 22:00	35	35	31	49	50	45	0.02		1560	9	264
3/17/2020 22:00	3/17/2020 23:00	33	35	30	48	49	45	0.06		1861	9	262
3/17/2020 23:00	3/18/2020 0:00	33	35	31	47	49	45	0.08		2284	10	265
3/18/2020 0:00	3/18/2020 1:00	31	33	28	46	48	44	0.02		1227	8	263
3/18/2020 1:00	3/18/2020 2:00	30	32	29	47	49	44	0.03		1743	9	268
3/18/2020 2:00	3/18/2020 3:00	36	39	29	48	50	45	0.27		1526	9	282
3/18/2020 3:00	3/18/2020 4:00	34	38	29	47	50	44	0.16		1562	9	279
3/18/2020 4:00	3/18/2020 5:00	32	34	29	45	47	43	0.07		984	8	275
3/18/2020 5:00	3/18/2020 6:00	33	36	30	47	49	44	0.16		1202	8	282
3/18/2020 6:00	3/18/2020 7:00	35	36	30	49	52	44	0.08		1236	8	285
3/18/2020 7:00	3/18/2020 8:00	34	36	30	47	49	44	0.07		718	7	283
3/18/2020 8:00	3/18/2020 9:00	36	36	29	51	52	44	0.09		234	5	287
3/18/2020 9:00	3/18/2020 10:00	32	33	26	48	49	43	0.11		123	4.7	311

These levels represent total sound and not the facility specific sound. Therefore they are not appropriate for direct comparison to the project limits.

APPENDIX B

Table B-3: Hourly Monitoring Data for Location 3

Time Period		A-Weighted Sound Metrics			C-Weighted Sound Metrics			Local Wind at 2 meters above ground level (m/s)	Regional Precipitation (inches)	Turbine 5			Turbine 6			Turbine 7		
Start	End	LA_{EQ} (dBA)	LA_{10} (dBA)	LA_{90} (dBA)	LC_{EQ} (dBC)	LC_{10} (dBC)	LC_{90} (dBC)			Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)	Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)	Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)
3/4/2020 14:00	3/4/2020 15:00	48	52	42	57	60	53	0.62		3165	15.3	193	3186	15.4	273	3144	15.3	273
3/4/2020 15:00	3/4/2020 16:00	49	52	41	57	59	53	0.60		3167	15.3	191	3142	14.6	272	3143	15.0	270
3/4/2020 16:00	3/4/2020 17:00	39	42	35	52	54	48	0.07		2111	10.0	203	1873	9.2	282	2075	10.2	282
3/4/2020 17:00	3/4/2020 18:00	40	44	35	52	54	49	0.13		2750	11.4	192	2536	10.6	275	2734	12.2	274
3/4/2020 18:00	3/4/2020 19:00	40	43	34	53	54	49	0.14		2387	10.5	184	2244	9.8	266	2628	11.4	264
3/4/2020 19:00	3/4/2020 20:00	43	46	36	53	55	51	0.25		2970	12.0	191	2891	11.9	273	2976	12.3	272
3/4/2020 20:00	3/4/2020 21:00	41	45	37	53	55	51	0.32	Trace	3127	12.8	190	2941	11.7	273	3037	12.5	270
3/4/2020 21:00	3/4/2020 22:00	40	43	36	53	54	50	0.15	Trace	3031	11.9	191	2839	11.1	273	3065	12.5	271
3/4/2020 22:00	3/4/2020 23:00	38	41	35	52	53	49	0.06		3051	12.0	193	2741	10.9	274	3032	12.2	273
3/4/2020 23:00	3/5/2020 0:00	35	36	33	50	52	48	0.01		2645	10.6	188	1853	8.9	269	2415	10.4	269
3/5/2020 0:00	3/5/2020 1:00	35	37	33	50	52	48	0.02		2720	10.7	187	1958	9.2	269	2781	11.1	269
3/5/2020 1:00	3/5/2020 2:00	37	39	33	51	53	49	0.06		2699	10.9	189	2242	9.8	271	2781	11.4	270
3/5/2020 2:00	3/5/2020 3:00	38	40	35	52	53	49	0.10	Trace	2780	11.0	193	2692	10.7	274	2931	12.0	272
3/5/2020 3:00	3/5/2020 4:00	41	44	37	52	54	50	0.16	Trace	3131	12.9	200	3132	12.6	279	3174	13.4	278
3/5/2020 4:00	3/5/2020 5:00	39	42	35	52	53	49	0.08	Trace	3015	12.4	208	2932	11.7	285	3117	12.8	287
3/5/2020 5:00	3/5/2020 6:00	38	40	36	52	53	49	0.05		3011	11.7	209	2728	10.8	285	2943	11.8	287
3/5/2020 6:00	3/5/2020 7:00	38	39	34	52	53	49	0.05		2120	9.5	205	1739	8.8	282	2189	10.0	284
3/5/2020 7:00	3/5/2020 8:00	40	43	36	53	54	50	0.10		2577	10.5	210	2348	10.0	286	2653	11.1	288
3/5/2020 8:00	3/5/2020 9:00	46	49	39	55	58	52	0.32		2857	11.6	212	2771	11.5	290	2729	11.5	293
3/5/2020 9:00	3/5/2020 10:00	46	49	41	55	57	52	0.36		2875	12.1	220	2712	11.2	295	3006	12.9	296
3/5/2020 10:00	3/5/2020 11:00	45	48	40	55	56	52	0.38		2744	11.2	223	2467	10.5	298	2853	11.9	298
3/5/2020 11:00	3/5/2020 12:00	42	45	37	52	54	50	0.38		1998	9.2	223	1774	8.6	294	2226	10.0	292
3/5/2020 12:00	3/5/2020 13:00	40	43	35	51	53	48	0.45		1314	7.9	201	1290	7.8	279	1578	8.7	283
3/5/2020 13:00	3/5/2020 14:00	40	43	36	51	52	48	0.35		1497	8.3	214	1464	8.1	290	1754	9.2	297
3/5/2020 14:00	3/5/2020 15:00	37	39	33	48	50	45	0.22		884	6.9	223	956	6.8	294	824	7.3	299
3/5/2020 15:00	3/5/2020 16:00	35	37	30	47	49	43	0.08	0.01	475	5.8	218	413	5.4	297	535	6.3	300
3/5/2020 16:00	3/5/2020 17:00	36	40	29	50	52	44	0.05	Trace	503	6.2	199	460	5.7	282	476	6.1	282
3/5/2020 17:00	3/5/2020 18:00	33	34	28	48	50	42	0.00	Trace	379	5.8	198	269	5.1	278	339	5.7	279
3/5/2020 18:00	3/5/2020 19:00	33	35	29	46	48	42	0.00	Trace	110	4.5	209	8	3.1	294	53	4.0	290
3/5/2020 19:00	3/5/2020 20:00	34	36	30	47	51	42	0.00	Trace	78	4.1	194	-1	3.1	279	106	4.4	278
3/5/2020 20:00	3/5/2020 21:00	31	33	29	45	47	42	0.00		417	5.9	172	343	5.6	253	537	6.4	254
3/5/2020 21:00	3/5/2020 22:00	32	34	30	48	50	43	0.00		320	5.6	178	211	4.8	254	401	6.0	258
3/5/2020 22:00	3/5/2020 23:00	31	32	29	45	47	41	0.00		138	4.5	169	81	4.0	257	174	4.8	252
3/5/2020 23:00	3/6/2020 0:00	30	31	28	44	46	41	0.00		111	4.2	151	0	2.9	241	259	5.5	238
3/6/2020 0:00	3/6/2020 1:00	29	30	28	43	46	39	0.00		125	4.7	151	15	2.9	245	141	4.7	235
3/6/2020 1:00	3/6/2020 2:00	31	33	28	43	45	39	0.00		7	3.1	103	-20	2.0	170	-3	2.8	193
3/6/2020 2:00	3/6/2020 3:00	35	36	29	46	47	41	0.00		127	4.5	59	23	3.6	142	48	3.4	143
3/6/2020 3:00	3/6/2020 4:00	33	37	29	47	50	42	0.00		313	5.6	37	107	4.2	110	246	5.1	115
3/6/2020 4:00	3/6/2020 5:00	35	38	30	48	50	44	0.00		574	5.9	44	105	3.9	113	416	5.4	119
3/6/2020 5:00	3/6/2020 6:00	35	38	29	47	49	43	0.00		369	5.2	34	19	3.3	106	200	4.3	105
3/6/2020 6:00	3/6/2020 7:00	37	39	31	49	52	46	0.00		497	5.8	17	205	4.8	80	268	5.2	86
3/6/2020 7:00	3/6/2020 8:00	35	37	32	49	51	46	0.00		563	6.1	351	188	4.7	64	241	5.2	68
3/6/2020 8:00	3/6/2020 9:00	37	36	30	52	54	44	0.05		212	4.8	350	91	4.2	71	148	4.7	73
3/6/2020 9:00	3/6/2020 10:00	33	36	30	47	48	44	0.24		54	4.1	240	64	4.2	84	84	4.4	83
3/6/2020 10:00	3/6/2020 11:00	34	35	29	47	48	43	0.21		169	4.7	22	180	4.7	100	190	5.0	99
3/6/2020 11:00	3/6/2020 12:00	34	37	30	48	50	45	0.33		376	5.4	19	313	5.3	100	453	5.9	95
3/6/2020 12:00	3/6/2020 13:00	36	38	32	51	54	46	0.34		783	6.5	17	658	6.4	102	971	7.3	100
3/6/2020 13:00	3/6/2020 14:00	36	39	31	50	53	46	0.30		661	6.4	18	746	6.7	100	816	6.9	101
3/6/2020 14:00	3/6/2020 15:00	39	42	35	51	53	48	0.45		714	6.4	229	729	6.5	75	1162	8.1	77
3/6/2020 15:00	3/6/2020 16:00	42	44	39	55	57	52	0.72		1852	8.9	349	1750	8.8	71	2150	10.0	72
3/6/2020 16:00	3/6/2020 17:00	40	43	37	55	57	51	0.42		1686	8.5	349	1485	8.3	74	1894	9.5	76
3/6/2020 17:00	3/6/2020 18:00	43	45	39	54	56	51	0.78		650	6.3	340	1182	7.6	62	2090	9.9	62
3/6/2020 18:00	3/6/2020 19:00	40	43	37	52	54	49	0.56		592	6.1	340	1027	7.2	62	1499	8.6	63
3/6/2020 19:00	3/6/2020 20:00	37	40	34	50	52	47	0.40		406	5.4	337	672	6.4	58	1160	8.0	59
3/6/2020 20:00	3/6/2020 21:00	38	40	35	52	54	49	0.34		727	6.5	340	770	6.7	62	1402	8.5	64
3/6/2020 21:00	3/6/2020 22:00	40	42	35	52	54	48	0.48		458	5.6	332	696	6.4	55	1490	8.7	54
3/6/2020 22:00	3/6/2020 23:00	38	41	34	50	52	48	0.36		1010	7.3	304	330	5.1	31	1025	7.3	32
3/6/2020 23:00	3/7/2020 0:00	42	45	37	53	55	50	0.50		2474	10.4	298	608	5.9	29	1630	8.6	25
3/7/2020 0:00	3/7/2020 1:00	40	43	36	52	54	48	0.55		1979	9.2	297	524	5.6	29	1316	8.0	29

These levels represent total sound and not the facility specific sound. Therefore they are not appropriate for direct comparison to the project limits.

APPENDIX B

Table B-3: Hourly Monitoring Data for Location 3

Time Period		A-Weighted Sound Metrics			C-Weighted Sound Metrics			Local Wind at 2 meters above ground level (m/s)	Regional Precipitation (inches)	Turbine 5			Turbine 6			Turbine 7		
Start	End	LA_{EQ} (dBA)	LA_{10} (dBA)	LA_{90} (dBA)	LC_{EQ} (dBC)	LC_{10} (dBC)	LC_{90} (dBC)			Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)	Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)	Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)
3/7/2020 1:00	3/7/2020 2:00	34	37	31	46	48	44	0.16		1129	7.5	286	102	4.1	23	259	5.2	13
3/7/2020 2:00	3/7/2020 3:00	38	42	30	48	51	44	0.12		1260	7.8	272	321	5.0	289	851	7.0	343
3/7/2020 3:00	3/7/2020 4:00	44	47	38	53	54	50	0.37		2587	10.6	268	973	6.9	340	2271	10.2	345
3/7/2020 4:00	3/7/2020 5:00	44	47	39	52	54	50	0.30		2400	10.1	269	869	6.5	340	2050	9.7	344
3/7/2020 5:00	3/7/2020 6:00	43	47	38	52	54	50	0.28		2977	11.7	260	1766	8.2	330	2534	10.8	337
3/7/2020 6:00	3/7/2020 7:00	41	45	36	52	53	50	0.14		2921	11.4	253	1745	8.2	320	2520	10.6	326
3/7/2020 7:00	3/7/2020 8:00	41	44	36	53	55	51	0.09		3072	12.1	245	2402	9.4	313	2912	11.6	318
3/7/2020 8:00	3/7/2020 9:00	43	45	38	54	56	52	0.18		2783	11.0	248	1684	8.4	312	2736	11.2	318
3/7/2020 9:00	3/7/2020 10:00	44	46	39	54	56	52	0.27		2930	11.7	252	1811	8.5	319	2601	11.0	323
3/7/2020 10:00	3/7/2020 11:00	44	47	39	55	56	52	0.47		2775	11.2	254	1866	8.7	321	2743	11.3	325
3/7/2020 11:00	3/7/2020 12:00	47	50	40	55	57	53	0.64		3096	12.7	250	2419	9.8	322	2675	11.4	326
3/7/2020 12:00	3/7/2020 13:00	43	46	38	54	56	52	0.45		2987	11.8	245	2269	9.4	316	2855	11.8	323
3/7/2020 13:00	3/7/2020 14:00	47	50	41	55	57	53	0.49		3109	12.9	242	2749	10.5	314	2791	11.8	320
3/7/2020 14:00	3/7/2020 15:00	45	49	38	54	56	52	0.44		2791	11.7	243	2337	9.7	314	2638	11.2	317
3/7/2020 15:00	3/7/2020 16:00	44	47	37	54	55	51	0.39		2816	11.6	240	2342	9.5	311	2543	11.1	317
3/7/2020 16:00	3/7/2020 17:00	45	48	38	54	56	51	0.25		3101	13.0	234	2769	11.0	307	2935	12.5	310
3/7/2020 17:00	3/7/2020 18:00	38	42	33	52	53	49	0.08		2348	10.1	238	1964	8.8	309	2534	10.9	313
3/7/2020 18:00	3/7/2020 19:00	34	36	31	51	52	48	0.00		2070	9.2	231	1414	8.0	303	2060	9.7	305
3/7/2020 19:00	3/7/2020 20:00	32	34	27	49	51	47	0.00		1714	8.4	230	1112	7.4	300	1804	9.1	304
3/7/2020 20:00	3/7/2020 21:00	28	29	26	46	48	43	0.00		874	6.9	230	521	6.0	300	938	7.5	304
3/7/2020 21:00	3/7/2020 22:00	30	32	28	47	49	44	0.00		1814	8.9	218	1286	8.0	288	2013	9.7	294
3/7/2020 22:00	3/7/2020 23:00	29	30	27	47	48	44	0.02		782	6.5	211	625	6.6	281	1418	8.3	288
3/7/2020 23:00	3/8/2020 0:00	27	28	26	46	48	43	0.01		303	4.8	211	118	4.1	284	474	5.9	283
3/8/2020 0:00	3/8/2020 1:00	31	31	27	48	50	44	0.04		793	6.5	201	353	5.4	280	1399	8.3	282
3/8/2020 1:00	3/8/2020 2:00	34	37	30	49	51	47	0.07		2206	9.8	198	892	6.8	276	2547	10.7	279
3/8/2020 2:00	3/8/2020 3:00	Daylight Savings Time																
3/8/2020 3:00	3/8/2020 4:00	36	39	31	48	49	46	0.08		3155	13	193	2746	11	270	3198	13	273
3/8/2020 4:00	3/8/2020 5:00	35	38	30	47	49	45	0.11		2946	12	180	2265	10	259	3142	13	261
3/8/2020 5:00	3/8/2020 6:00	38	40	34	49	50	47	0.24		3183	12	185	3106	12	260	3200	14	266
3/8/2020 6:00	3/8/2020 7:00	37	39	33	49	50	47	0.09		3194	13	183	3122	12	258	3197	13	265
3/8/2020 7:00	3/8/2020 8:00	40	42	36	51	52	49	0.24		3200	14	179	3197	13	255	3200	14	260
3/8/2020 8:00	3/8/2020 9:00	39	41	35	51	52	49	0.22		3134	13	179	3047	12	255	3147	13	259
3/8/2020 9:00	3/8/2020 10:00	35	37	31	50	51	48	0.12		1544	8	189	1388	8	268	1974	10	269
3/8/2020 10:00	3/8/2020 11:00	37	41	31	51	52	48	0.18		1428	8	203	1117	8	281	1127	8	281
3/8/2020 11:00	3/8/2020 12:00	39	42	34	51	52	48	0.27		1558	8	202	1506	8	281	1439	9	283
3/8/2020 12:00	3/8/2020 13:00	40	43	35	52	54	49	0.27		1790	9	204	1610	8	288	1421	8	290
3/8/2020 13:00	3/8/2020 14:00	41	43	34	53	53	48	0.37		1590	8	197	1432	8	280	1250	8	274
3/8/2020 14:00	3/8/2020 15:00	39	42	33	50	52	48	0.22		1496	8	205	1142	7	288	1098	8	287
3/8/2020 15:00	3/8/2020 16:00	41	44	34	52	54	48	0.38		1332	8	193	1222	8	276	1427	8	278
3/8/2020 16:00	3/8/2020 17:00	41	45	35	53	54	49	0.31		1576	8	193	1513	8	273	1923	9	274
3/8/2020 17:00	3/8/2020 18:00	35	38	30	49	51	45	0.05		778	7	188	599	6	270	813	7	267
3/8/2020 18:00	3/8/2020 19:00	34	38	29	48	50	45	0.02		1110	8	177	856	7	262	1149	8	260
3/8/2020 19:00	3/8/2020 20:00	34	36	29	48	51	44	0.01		1757	9	171	1013	7	255	1636	9	253
3/8/2020 20:00	3/8/2020 21:00	34	35	32	49	49	46	0.01		3171	12	171	1901	9	248	3035	12	251
3/8/2020 21:00	3/8/2020 22:00	42	36	32	50	50	46	0.01		3200	13	170	2406	10	249	3158	12	250
3/8/2020 22:00	3/8/2020 23:00	31	34	28	45	48	36	0.00		1595	13	164	818	9	247	1443	11	245
3/8/2020 23:00	3/9/2020 0:00	32	32	30	47	48	44	0.02		2717	13	157	1877	9	239	2717	13	238
3/9/2020 0:00	3/9/2020 1:00	34	36	31	48	50	47	0.02		3196	13	154	2308	10	236	3171	13	234
3/9/2020 1:00	3/9/2020 2:00	34	37	31	49	50	47	0.02		3200	13	159	2741	11	239	3192	13	239
3/9/2020 2:00	3/9/2020 3:00	45	38	31	52	51	48	0.02		3190	13	160	2613	10	243	3195	14	241
3/9/2020 3:00	3/9/2020 4:00	36	38	33	50	51	48	0.03		3200	16	165	3197	13	245	3200	17	246
3/9/2020 4:00	3/9/2020 5:00	33	35	32	49	51	48	0.01		3200	15	166	3188	12	244	3200	16	247
3/9/2020 5:00	3/9/2020 6:00	35	36	33	49	51	48	0.01		3198	15	171	3180	12	246	3198	15	252
3/9/2020 6:00	3/9/2020 7:00	36	37	34	50	50	47	0.03		3200	16	180	3199	14	251	3199	16	260
3/9/2020 7:00	3/9/2020 8:00	37	39	34	50	52	48	0.03		3199	16	179	3193	13	251	3199	16	258
3/9/2020 8:00	3/9/2020 9:00	35	37	33	51	52	49	0.00		3199	14	173	2269	9	248	3199	14	251
3/9/2020 9:00	3/9/2020 10:00	37	38	34	51	52	49	0.09		3199	14	173	2575	10	250	3169	13	252
3/9/2020 10:00	3/9/2020 11:00	39	42	36	52	54	50	0.27		2959	12	171	2165	9	255	2657	11	252
3/9/2020 11:00	3/9/2020 12:00	44	47	38	55	56	51	0.59		2676	11	170	2006	9	257	2718	11	250

These levels represent total sound and not the facility specific sound. Therefore they are not appropriate for direct comparison to the project limits.

APPENDIX B

Table B-3: Hourly Monitoring Data for Location 3

Time Period		A-Weighted Sound Metrics			C-Weighted Sound Metrics			Local Wind at 2 meters above ground level (m/s)	Regional Precipitation (inches)	Turbine 5			Turbine 6			Turbine 7		
Start	End	LA_{EQ} (dBA)	LA_{10} (dBA)	LA_{90} (dBA)	LC_{EQ} (dBC)	LC_{10} (dBC)	LC_{90} (dBC)			Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)	Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)	Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)
3/9/2020 12:00	3/9/2020 13:00	42	46	36	53	55	51	0.34		2200	10	167	1611	8	258	2561	11	250
3/9/2020 13:00	3/9/2020 14:00	43	47	37	53	55	50	0.54		1837	9	168	1645	8	247	2276	10	241
3/9/2020 14:00	3/9/2020 15:00	44	48	38	54	55	51	0.61		2689	11	161	2068	9	250	2445	11	248
3/9/2020 15:00	3/9/2020 16:00	43	47	37	53	55	50	0.47		1954	9	163	1784	9	245	2076	9	240
3/9/2020 16:00	3/9/2020 17:00	43	46	37	53	55	50	0.41		2561	11	160	2001	9	246	2430	10	243
3/9/2020 17:00	3/9/2020 18:00	38	41	32	51	52	47	0.13		1932	9	165	1153	7	251	1478	8	247
3/9/2020 18:00	3/9/2020 19:00	35	34	29	50	49	43	0.03		922	7	166	373	5	247	623	6	244
3/9/2020 19:00	3/9/2020 20:00	32	33	30	45	47	43	0.00		1228	8	162	488	5	246	1032	7	243
3/9/2020 20:00	3/9/2020 21:00	31	32	30	44	46	42	0.01		1606	9	158	877	7	241	1451	8	238
3/9/2020 21:00	3/9/2020 22:00	32	34	31	46	48	43	0.00		1208	8	158	527	5	243	1116	7	239
3/9/2020 22:00	3/9/2020 23:00	34	35	32	47	48	45	0.00		2145	9	162	846	6	238	2217	9	242
3/9/2020 23:00	3/10/2020 0:00	33	33	32	46	48	44	0.00		1959	9	156	1086	7	236	2509	10	237
3/10/2020 0:00	3/10/2020 1:00	33	34	32	46	47	45	0.00		3090	12	160	1832	9	241	3093	12	240
3/10/2020 1:00	3/10/2020 2:00	33	33	32	47	48	45	0.01		3199	13	156	2385	10	237	3199	14	237
3/10/2020 2:00	3/10/2020 3:00	33	34	32	47	49	46	0.01		3196	13	153	2058	9	233	3186	13	235
3/10/2020 3:00	3/10/2020 4:00	33	34	32	47	48	45	0.02		2880	12	155	1468	8	232	2862	11	237
3/10/2020 4:00	3/10/2020 5:00	33	34	32	46	48	45	0.00		2683	11	157	1544	8	232	2587	11	240
3/10/2020 5:00	3/10/2020 6:00	34	34	32	47	48	44	0.00		2186	10	155	1132	7	232	2092	10	237
3/10/2020 6:00	3/10/2020 7:00	34	35	33	46	48	45	0.00		1939	9	148	715	6	228	1908	9	231
3/10/2020 7:00	3/10/2020 8:00	36	37	33	50	52	45	0.00		1413	8	141	841	7	223	1479	8	226
3/10/2020 8:00	3/10/2020 9:00	34	37	32	49	52	45	0.00		1125	8	141	865	7	224	1454	8	227
3/10/2020 9:00	3/10/2020 10:00	34	36	31	48	50	45	0.00		547	6	129	211	4	215	647	6	208
3/10/2020 10:00	3/10/2020 11:00	35	36	29	47	48	43	0.04		239	5	133	15	3	232	148	4	207
3/10/2020 11:00	3/10/2020 12:00	36	37	28	48	50	43	0.09		123	4	132	-21	2	197	54	3	200
3/10/2020 12:00	3/10/2020 13:00	38	41	33	50	52	46	0.20		1482	8	132	671	6	227	617	6	215
3/10/2020 13:00	3/10/2020 14:00	46	50	39	55	57	51	0.61	Trace	2763	11	144	2344	10	233	2445	11	230
3/10/2020 14:00	3/10/2020 15:00	45	49	38	54	57	51	0.47		3029	13	146	2248	10	236	2707	11	228
3/10/2020 15:00	3/10/2020 16:00	43	46	36	53	55	49	0.35		2389	11	149	1482	8	236	2000	9	230
3/10/2020 16:00	3/10/2020 17:00	39	42	35	51	53	49	0.19	Trace	2083	9	147	998	7	237	1419	8	231
3/10/2020 17:00	3/10/2020 18:00	40	43	35	51	53	49	0.08	Trace	2271	10	151	1185	7	239	1846	9	233
3/10/2020 18:00	3/10/2020 19:00	40	45	34	51	53	48	0.04	Trace	2675	11	153	1333	8	239	2268	10	233
3/10/2020 19:00	3/10/2020 20:00	39	41	36	52	53	49	0.21	0.01	3080	13	156	2039	9	241	2695	11	237
3/10/2020 20:00	3/10/2020 21:00	43	46	38	54	55	51	0.31		3123	13	157	2527	10	245	2936	12	241
3/10/2020 21:00	3/10/2020 22:00	43	45	37	53	55	51	0.25		3173	14	164	2878	12	250	3107	13	247
3/10/2020 22:00	3/10/2020 23:00	36	38	34	52	53	50	0.07		2612	11	174	2017	9	257	2880	12	255
3/10/2020 23:00	3/11/2020 0:00	38	40	34	52	54	50	0.08		2939	12	190	2628	11	271	3091	12	270
3/11/2020 0:00	3/11/2020 1:00	40	43	35	53	55	51	0.08		2969	12	202	2373	10	281	2863	12	280
3/11/2020 1:00	3/11/2020 2:00	42	44	38	53	55	51	0.09		3003	12	219	2560	11	295	2894	12	292
3/11/2020 2:00	3/11/2020 3:00	41	44	38	52	54	50	0.04		2860	12	230	2417	10	304	2707	11	308
3/11/2020 3:00	3/11/2020 4:00	39	41	36	51	53	49	0.02		2624	11	228	2340	10	304	2753	11	308
3/11/2020 4:00	3/11/2020 5:00	38	40	36	51	53	49	0.02		2479	10	226	2299	10	301	2586	11	304
3/11/2020 5:00	3/11/2020 6:00	37	38	34	50	52	48	0.02		1672	9	215	1784	9	292	2206	10	294
3/11/2020 6:00	3/11/2020 7:00	37	39	34	50	52	47	0.01		1772	9	213	1575	8	288	2202	10	292
3/11/2020 7:00	3/11/2020 8:00	39	39	34	53	53	47	0.00		1029	7	224	954	7	297	1250	8	304
3/11/2020 8:00	3/11/2020 9:00	40	43	36	56	58	53	0.07		1265	8	230	1389	8	302	1794	9	309
3/11/2020 9:00	3/11/2020 10:00	38	41	35	54	55	50	0.07		758	7	232	706	6	303	803	7	304
3/11/2020 10:00	3/11/2020 11:00	35	38	31	48	50	46	0.13		563	6	238	378	5	312	372	6	309
3/11/2020 11:00	3/11/2020 12:00	33	35	29	47	49	44	0.15		214	5	237	121	4	316	131	5	311
3/11/2020 12:00	3/11/2020 13:00	36	40	31	49	51	45	0.24		468	6	244	389	5	315	413	6	321
3/11/2020 13:00	3/11/2020 14:00	38	37	30	52	51	44	0.15		203	5	249	137	4	315	187	5	318
3/11/2020 14:00	3/11/2020 15:00	32	34	29	47	48	43	0.11		98	4	265	6	4	221	49	4	330
3/11/2020 15:00	3/11/2020 16:00	36	40	29	47	49	43	0.14		65	4	239	19	3	311	53	4	314
3/11/2020 16:00	3/11/2020 17:00	39	42	30	51	50	44	0.02		91	4	244	71	4	324	96	4	335
3/11/2020 17:00	3/11/2020 18:00	34	33	28	49	51	45	0.00		188	5	235	195	4	309	207	5	314
3/11/2020 18:00	3/11/2020 19:00	33	36	30	49	51	45	0.00		663	6	245	493	5	316	504	6	321
3/11/2020 19:00	3/11/2020 20:00	33	35	28	49	51	45	0.01		760	7	239	542	6	310	610	7	313
3/11/2020 20:00	3/11/2020 21:00	31	34	28	47	50	44	0.00		522	6	225	488	6	301	638	7	303
3/11/2020 21:00	3/11/2020 22:00	32	35	27	48	51	44	0.00		535	6	243	384	5	314	485	6	320
3/11/2020 22:00	3/11/2020 23:00	29	31	27	44	47	37	0.00		56	3	216	19	3	281	59	3	289

These levels represent total sound and not the facility specific sound. Therefore they are not appropriate for direct comparison to the project limits.

APPENDIX B

Table B-3: Hourly Monitoring Data for Location 3

Time Period		A-Weighted Sound Metrics			C-Weighted Sound Metrics			Local Wind at 2 meters above ground level (m/s)	Regional Precipitation (inches)	Turbine 5			Turbine 6			Turbine 7		
Start	End	LA_{EQ} (dBA)	LA_{10} (dBA)	LA_{90} (dBA)	LC_{EQ} (dBC)	LC_{10} (dBC)	LC_{90} (dBC)			Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)	Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)	Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)
3/11/2020 23:00	3/12/2020 0:00	27	28	26	38	39	35	0.00		-14	1	99	-22	1	162	-10	2	125
3/12/2020 0:00	3/12/2020 1:00	29	30	27	39	41	36	0.00		-13	1	79	-22	1	78	-9	2	88
3/12/2020 1:00	3/12/2020 2:00	30	31	28	40	43	38	0.00		-13	1	260	-23	2	141	-10	2	181
3/12/2020 2:00	3/12/2020 3:00	30	31	28	43	46	39	0.00		-16	2	224	-22	3	86	-16	2	47
3/12/2020 3:00	3/12/2020 4:00	31	29	27	43	44	38	0.00		-14	2	121	-21	2	24	-11	1	58
3/12/2020 4:00	3/12/2020 5:00	28	29	26	42	44	38	0.00		12	3	16	-21	2	105	9	2	99
3/12/2020 5:00	3/12/2020 6:00	33	35	27	47	49	43	0.00	Trace	139	4	9	-8	3	95	97	4	88
3/12/2020 6:00	3/12/2020 7:00	33	36	29	48	50	46	0.00		638	6	21	390	6	98	526	6	98
3/12/2020 7:00	3/12/2020 8:00	34	35	29	49	51	46	0.01		487	6	17	330	6	96	445	6	97
3/12/2020 8:00	3/12/2020 9:00	33	34	28	50	51	45	0.01		357	6	15	227	5	96	304	6	96
3/12/2020 9:00	3/12/2020 10:00	31	33	29	48	50	45	0.09		304	6	23	271	6	103	358	6	100
3/12/2020 10:00	3/12/2020 11:00	34	34	28	48	50	44	0.10		213	5	27	173	5	105	194	5	103
3/12/2020 11:00	3/12/2020 12:00	30	32	28	47	49	44	0.11		253	5	35	183	5	114	308	5	114
3/12/2020 12:00	3/12/2020 13:00	34	33	28	48	50	44	0.06		336	6	42	258	5	116	270	5	118
3/12/2020 13:00	3/12/2020 14:00	34	34	28	49	50	45	0.17		282	5	45	198	5	125	291	5	122
3/12/2020 14:00	3/12/2020 15:00	32	35	28	47	50	44	0.30		264	5	53	201	5	132	275	5	131
3/12/2020 15:00	3/12/2020 16:00	37	41	31	50	51	46	0.55		358	5	76	266	5	152	345	5	147
3/12/2020 16:00	3/12/2020 17:00	33	37	28	47	49	44	0.27		375	6	64	276	5	137	213	5	138
3/12/2020 17:00	3/12/2020 18:00	33	36	28	48	50	44	0.26		329	5	65	200	5	142	295	5	141
3/12/2020 18:00	3/12/2020 19:00	29	31	27	47	49	43	0.03		379	6	47	244	5	123	297	5	122
3/12/2020 19:00	3/12/2020 20:00	32	34	28	47	49	45	0.04		757	7	38	494	6	116	611	6	113
3/12/2020 20:00	3/12/2020 21:00	36	38	33	50	52	47	0.12		957	7	42	848	7	119	1065	8	116
3/12/2020 21:00	3/12/2020 22:00	38	41	34	51	53	48	0.18		1089	8	38	1099	8	116	1320	8	112
3/12/2020 22:00	3/12/2020 23:00	37	39	31	49	51	47	0.13		812	7	39	684	7	117	1027	8	115
3/12/2020 23:00	3/13/2020 0:00	33	36	28	48	49	45	0.09	Trace	723	7	32	533	6	109	776	7	109
3/13/2020 0:00	3/13/2020 1:00	29	30	28	47	49	45	0.02	0.01	557	6	32	385	6	107	513	6	112
3/13/2020 1:00	3/13/2020 2:00	44	50	31	51	53	47	0.05		1095	8	36	740	7	111	969	8	116
3/13/2020 2:00	3/13/2020 3:00	39	42	35	52	54	50	0.09	Trace	1403	8	32	1002	8	110	1396	8	111
3/13/2020 3:00	3/13/2020 4:00	44	46	38	54	56	52	0.21	Trace	1878	9	39	1476	9	116	2042	10	116
3/13/2020 4:00	3/13/2020 5:00	48	49	42	56	57	54	0.27	0.01	2955	12	37	2637	11	114	2951	11	115
3/13/2020 5:00	3/13/2020 6:00	46	48	42	56	58	55	0.32	0.03	3096	12	35	2679	11	112	2951	11	112
3/13/2020 6:00	3/13/2020 7:00	47	49	41	57	58	55	0.45	0.15	3086	12	36	2869	11	113	3086	12	113
3/13/2020 7:00	3/13/2020 8:00	55	57	45	58	60	55	0.28	0.11	3051	12	31	2728	11	110	3063	12	109
3/13/2020 8:00	3/13/2020 9:00	57	58	53	59	60	57	0.17	0.09	2487	10	31	1899	9	108	2108	10	108
3/13/2020 9:00	3/13/2020 10:00	56	58	48	59	60	55	0.07	0.06	2696	10	35	1842	9	110	2284	10	114
3/13/2020 10:00	3/13/2020 11:00	53	55	48	57	58	55	0.17	0.01	2257	9	38	1327	8	113	1965	9	118
3/13/2020 11:00	3/13/2020 12:00	49	50	39	53	55	49	0.06	Trace	1558	8	43	736	7	115	1170	7	119
3/13/2020 12:00	3/13/2020 13:00	46	48	41	56	57	53	0.33	0.07	2741	10	70	758	6	133	1639	8	142
3/13/2020 13:00	3/13/2020 14:00	52	54	43	56	57	52	0.53	0.02	3001	12	96	867	6	172	1433	7	174
3/13/2020 14:00	3/13/2020 15:00	50	52	43	55	56	52	0.16	Trace	2802	12	150	2107	10	238	2508	11	232
3/13/2020 15:00	3/13/2020 16:00	46	49	40	56	58	53	0.46	Trace	3184	15	178	3130	14	261	3180	16	259
3/13/2020 16:00	3/13/2020 17:00	51	54	45	59	61	56	0.63		3181	19	195	3182	18	276	3182	20	274
3/13/2020 17:00	3/13/2020 18:00	50	53	44	58	61	55	0.67		3172	17	194	3170	17	275	3171	18	273
3/13/2020 18:00	3/13/2020 19:00	52	56	45	60	63	55	0.64		3196	19	198	3192	19	278	3195	19	277
3/13/2020 19:00	3/13/2020 20:00	46	49	42	56	58	54	0.26		3198	17	200	3198	16	279	3199	17	278
3/13/2020 20:00	3/13/2020 21:00	46	49	42	57	58	54	0.38		3196	17	197	3196	16	278	3200	16	275
3/13/2020 21:00	3/13/2020 22:00	48	51	43	58	60	55	0.57		3199	17	191	3186	15	272	3191	17	270
3/13/2020 22:00	3/13/2020 23:00	46	49	40	56	58	53	0.39		3181	15	190	3160	14	270	3178	14	269
3/13/2020 23:00	3/14/2020 0:00	47	50	40	56	58	53	0.48		3185	16	193	3160	15	273	3182	15	270
3/14/2020 0:00	3/14/2020 1:00	41	44	38	53	55	51	0.22		3183	15	188	3177	13	268	3181	15	266
3/14/2020 1:00	3/14/2020 2:00	40	43	37	53	55	51	0.16		3196	14	188	3138	13	269	3190	14	267
3/14/2020 2:00	3/14/2020 3:00	41	43	37	52	54	50	0.14		3200	15	188	3182	14	269	3200	15	268
3/14/2020 3:00	3/14/2020 4:00	45	48	41	54	56	52	0.41		3198	18	195	3199	17	274	3198	17	274
3/14/2020 4:00	3/14/2020 5:00	47	49	42	56	57	53	0.41		3199	18	190	3192	17	271	3199	18	270
3/14/2020 5:00	3/14/2020 6:00	45	48	40	55	56	52	0.34		3200	16	187	3193	15	268	3200	16	268
3/14/2020 6:00	3/14/2020 7:00	43	46	39	54	55	52	0.24		3198	16	194	3198	15	274	3198	17	274
3/14/2020 7:00	3/14/2020 8:00	41	44	37	53	55	51	0.22		3191	14	195	3129	13	274	3172	15	274
3/14/2020 8:00	3/14/2020 9:00	45	49	39	56	58	53	0.35		3165	15	201	3164	14	281	3150	14	280
3/14/2020 9:00	3/14/2020 10:00	47	50	42	56	58	54	0.53		2993	14	205	3072	13	284	3099	14	283

These levels represent total sound and not the facility specific sound. Therefore they are not appropriate for direct comparison to the project limits.

APPENDIX B

Table B-3: Hourly Monitoring Data for Location 3

Time Period		A-Weighted Sound Metrics			C-Weighted Sound Metrics			Local Wind at 2 meters above ground level (m/s)	Regional Precipitation (inches)	Turbine 5			Turbine 6			Turbine 7		
Start	End	LA_{EQ} (dBA)	LA_{10} (dBA)	LA_{90} (dBA)	LC_{EQ} (dBC)	LC_{10} (dBC)	LC_{90} (dBC)			Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)	Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)	Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)
3/14/2020 10:00	3/14/2020 11:00	46	49	39	56	57	53	0.43		3024	13	211	2775	11	287	2852	12	288
3/14/2020 11:00	3/14/2020 12:00	43	46	38	54	56	52	0.53		2775	11	201	2650	11	281	2787	12	279
3/14/2020 12:00	3/14/2020 13:00	44	47	38	54	56	52	0.62		2535	10	197	2821	11	277	2680	11	281
3/14/2020 13:00	3/14/2020 14:00	43	46	37	54	56	52	0.62		2448	10	197	2395	10	277	2513	11	277
3/14/2020 14:00	3/14/2020 15:00	43	47	37	54	56	52	0.40		2678	11	197	2372	10	283	2576	11	277
3/14/2020 15:00	3/14/2020 16:00	45	49	39	56	57	53	0.47		2979	12	199	2907	12	280	2991	13	280
3/14/2020 16:00	3/14/2020 17:00	43	46	38	54	56	52	0.26		3097	13	200	3004	12	283	3021	13	285
3/14/2020 17:00	3/14/2020 18:00	41	44	37	53	55	51	0.17		2899	12	203	2914	11	282	2865	12	283
3/14/2020 18:00	3/14/2020 19:00	40	42	35	53	54	51	0.08		2798	11	210	2467	10	286	2845	12	285
3/14/2020 19:00	3/14/2020 20:00	39	42	35	53	54	51	0.05		2940	12	214	2887	12	292	2979	12	292
3/14/2020 20:00	3/14/2020 21:00	36	38	33	52	54	49	0.02		2618	11	207	1964	9	284	2208	10	285
3/14/2020 21:00	3/14/2020 22:00	36	39	33	51	53	48	0.02		2076	9	209	1581	8	285	2038	10	286
3/14/2020 22:00	3/14/2020 23:00	35	37	32	49	51	46	0.01		1484	8	223	1111	7	295	1516	9	298
3/14/2020 23:00	3/15/2020 0:00	35	36	31	49	50	45	0.00		982	7	239	713	6	310	1235	8	318
3/15/2020 0:00	3/15/2020 1:00	35	38	32	49	51	47	0.02		1545	8	240	978	7	310	1375	8	316
3/15/2020 1:00	3/15/2020 2:00	30	33	27	47	49	44	0.00		553	6	239	408	5	306	498	6	312
3/15/2020 2:00	3/15/2020 3:00	32	34	29	47	49	44	0.01		817	7	241	546	6	310	767	7	314
3/15/2020 3:00	3/15/2020 4:00	34	36	29	48	50	45	0.01		1211	8	246	880	7	315	1084	8	324
3/15/2020 4:00	3/15/2020 5:00	35	37	33	50	51	48	0.01		2359	10	241	1700	8	311	2063	10	318
3/15/2020 5:00	3/15/2020 6:00	37	40	34	51	53	48	0.02		2658	10	241	2174	9	309	2852	12	316
3/15/2020 6:00	3/15/2020 7:00	39	42	35	52	54	50	0.08		2797	11	234	2497	10	306	2732	11	311
3/15/2020 7:00	3/15/2020 8:00	38	41	35	51	53	49	0.05		2074	9	238	1684	8	308	2170	10	312
3/15/2020 8:00	3/15/2020 9:00	39	41	35	53	54	50	0.10		2323	10	232	2139	9	303	2489	11	308
3/15/2020 9:00	3/15/2020 10:00	39	42	35	51	53	49	0.15		1522	8	235	1558	8	306	1688	9	313
3/15/2020 10:00	3/15/2020 11:00	43	44	36	55	53	48	0.32		1213	8	237	832	7	313	1090	8	315
3/15/2020 11:00	3/15/2020 12:00	39	42	34	51	52	48	0.32		1193	8	235	1063	7	306	1364	8	314
3/15/2020 12:00	3/15/2020 13:00	39	43	33	51	53	49	0.33		1297	8	234	1161	7	303	1252	8	315
3/15/2020 13:00	3/15/2020 14:00	40	43	34	54	54	49	0.39		1248	8	229	1341	8	300	1693	9	311
3/15/2020 14:00	3/15/2020 15:00	38	41	32	50	51	47	0.33		999	7	248	559	6	318	782	7	316
3/15/2020 15:00	3/15/2020 16:00	37	40	33	50	52	47	0.24		1173	8	244	919	7	310	918	7	314
3/15/2020 16:00	3/15/2020 17:00	40	43	35	52	53	48	0.23		1443	8	242	1204	7	305	1406	8	310
3/15/2020 17:00	3/15/2020 18:00	40	43	35	52	54	50	0.19		2489	10	238	2211	9	309	2459	10	316
3/15/2020 18:00	3/15/2020 19:00	36	38	31	50	52	47	0.07		2137	9	246	1286	7	319	1646	9	326
3/15/2020 19:00	3/15/2020 20:00	34	37	30	49	51	46	0.01		1466	8	252	753	6	321	1200	8	328
3/15/2020 20:00	3/15/2020 21:00	33	37	28	49	51	46	0.04		1077	7	246	548	6	313	971	7	318
3/15/2020 21:00	3/15/2020 22:00	33	36	30	50	52	48	0.01		1668	8	242	1322	8	310	1773	9	316
3/15/2020 22:00	3/15/2020 23:00	32	34	28	48	50	46	0.02		1549	8	248	838	7	316	1134	8	322
3/15/2020 23:00	3/16/2020 0:00	35	38	31	49	51	46	0.06		1794	9	254	1263	7	324	1593	9	334
3/16/2020 0:00	3/16/2020 1:00	34	36	29	47	49	45	0.03		1263	8	259	881	7	327	1308	9	337
3/16/2020 1:00	3/16/2020 2:00	30	32	27	48	50	45	0.01		1047	7	256	515	6	322	956	7	331
3/16/2020 2:00	3/16/2020 3:00	26	28	24	46	48	43	0.00		445	6	262	168	5	331	400	6	336
3/16/2020 3:00	3/16/2020 4:00	27	27	26	46	48	43	0.00		294	5	263	91	5	335	253	5	342
3/16/2020 4:00	3/16/2020 5:00	27	28	25	46	48	43	0.01		275	5	271	-16	3	183	227	5	291
3/16/2020 5:00	3/16/2020 6:00	28	30	26	45	47	42	0.00		193	5	277	-6	4	69	67	5	238
3/16/2020 6:00	3/16/2020 7:00	28	30	26	44	45	41	0.00		-27	4	297	-21	3	136	-20	3	28
3/16/2020 7:00	3/16/2020 8:00	30	33	26	45	47	43	0.00		-29	3	302	-23	4	131	-21	3	45
3/16/2020 8:00	3/16/2020 9:00	31	29	23	46	47	41	0.01		-29	3	81	-23	3	97	-25	3	93
3/16/2020 9:00	3/16/2020 10:00	27	30	23	44	46	42	0.11		-21	4	64	-23	3	136	-18	3	137
3/16/2020 10:00	3/16/2020 11:00	34	30	23	49	48	43	0.21		5	4	57	-6	4	128	-10	4	138
3/16/2020 11:00	3/16/2020 12:00	30	34	24	46	48	44	0.52		22	4	75	2	4	156	17	4	154
3/16/2020 12:00	3/16/2020 13:00	35	36	27	49	50	44	0.53		101	5	78	77	4	158	90	4	142
3/16/2020 13:00	3/16/2020 14:00	37	37	27	50	50	45	0.65		218	5	72	178	5	149	199	5	150
3/16/2020 14:00	3/16/2020 15:00	35	38	27	48	50	45	0.54		345	5	79	184	5	152	227	5	148
3/16/2020 15:00	3/16/2020 16:00	37	39	29	49	50	45	0.57		322	5	84	174	5	158	129	4	170
3/16/2020 16:00	3/16/2020 17:00	35	39	28	49	50	45	0.42		417	6	72	245	5	148	231	5	154
3/16/2020 17:00	3/16/2020 18:00	37	40	30	49	51	46	0.46		647	6	74	372	6	147	310	5	150
3/16/2020 18:00	3/16/2020 19:00	33	36	27	48	50	45	0.32		747	7	65	418	6	136	537	6	138
3/16/2020 19:00	3/16/2020 20:00	39	41	36	52	54	50	0.40		1669	8	47	991	7	123	1124	8	122
3/16/2020 20:00	3/16/2020 21:00	39	41	34	53	55	50	0.55		1964	9	48	1205	8	124	1438	8	124

These levels represent total sound and not the facility specific sound. Therefore they are not appropriate for direct comparison to the project limits.

APPENDIX B

Table B-3: Hourly Monitoring Data for Location 3

Time Period		A-Weighted Sound Metrics			C-Weighted Sound Metrics			Local Wind at 2 meters above ground level (m/s)	Regional Precipitation (inches)	Turbine 5			Turbine 6			Turbine 7		
Start	End	LA_{EQ} (dBA)	LA_{10} (dBA)	LA_{90} (dBA)	LC_{EQ} (dBC)	LC_{10} (dBC)	LC_{90} (dBC)			Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)	Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)	Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)
3/16/2020 21:00	3/16/2020 22:00	39	41	35	52	54	49	0.59		1986	9	60	1132	8	133	1337	8	132
3/16/2020 22:00	3/16/2020 23:00	39	42	32	50	52	46	0.70		1555	8	61	691	6	132	767	7	134
3/16/2020 23:00	3/17/2020 0:00	39	42	34	51	53	48	0.73		1488	8	74	586	6	146	638	6	148
3/17/2020 0:00	3/17/2020 1:00	35	38	29	49	51	46	0.34		1148	7	71	397	6	142	624	7	147
3/17/2020 1:00	3/17/2020 2:00	32	36	28	47	49	44	0.38		699	6	74	188	5	143	323	6	149
3/17/2020 2:00	3/17/2020 3:00	31	33	26	47	49	43	0.20		701	6	74	183	5	144	208	5	149
3/17/2020 3:00	3/17/2020 4:00	29	31	26	47	49	43	0.23	Trace	567	6	68	183	5	135	319	5	142
3/17/2020 4:00	3/17/2020 5:00	34	37	29	48	50	46	0.40	Trace	1090	7	74	380	5	144	461	6	148
3/17/2020 5:00	3/17/2020 6:00	35	38	28	49	51	46	0.29	Trace	824	7	68	255	5	135	469	6	143
3/17/2020 6:00	3/17/2020 7:00	30	32	28	48	50	45	0.09	Trace	696	6	65	153	4	131	380	6	139
3/17/2020 7:00	3/17/2020 8:00	32	33	29	48	50	45	0.04	Trace	754	7	65	235	5	130	418	6	137
3/17/2020 8:00	3/17/2020 9:00	34	35	30	49	51	47	0.20	Trace	1110	7	70	288	5	137	554	6	144
3/17/2020 9:00	3/17/2020 10:00	34	37	31	49	51	47	0.32		1786	8	78	510	6	149	304	5	162
3/17/2020 10:00	3/17/2020 11:00	38	41	33	50	52	47	0.57		1885	8	85	435	5	153	248	5	173
3/17/2020 11:00	3/17/2020 12:00	34	37	28	48	50	44	0.26		908	7	85	203	4	156	137	4	169
3/17/2020 12:00	3/17/2020 13:00	32	34	28	46	49	43	0.08	Trace	294	5	106	23	4	179	115	4	184
3/17/2020 13:00	3/17/2020 14:00	35	39	29	47	49	43	0.07	Trace	752	6	131	282	5	225	247	5	210
3/17/2020 14:00	3/17/2020 15:00	37	41	30	48	50	46	0.12		820	7	131	275	5	218	419	5	212
3/17/2020 15:00	3/17/2020 16:00	36	39	31	48	50	45	0.18		465	6	165	354	5	250	542	6	244
3/17/2020 16:00	3/17/2020 17:00	31	33	29	47	49	44	0.03		418	5	176	339	5	261	401	5	258
3/17/2020 17:00	3/17/2020 18:00	34	36	30	48	50	45	0.02		549	6	175	399	6	254	687	7	255
3/17/2020 18:00	3/17/2020 19:00	37	37	33	50	51	48	0.02		1336	8	177	878	7	258	1685	9	258
3/17/2020 19:00	3/17/2020 20:00	36	38	34	52	53	50	0.04		2522	10	193	1993	9	274	2594	11	273
3/17/2020 20:00	3/17/2020 21:00	35	37	34	51	53	49	0.00		2629	10	209	2286	10	287	2852	11	286
3/17/2020 21:00	3/17/2020 22:00	36	37	33	51	52	48	0.00		2781	11	198	2609	10	277	3059	12	278
3/17/2020 22:00	3/17/2020 23:00	35	36	33	51	52	49	0.01		2544	10	200	2614	10	279	3065	12	279
3/17/2020 23:00	3/18/2020 0:00	34	35	33	49	51	47	0.00		2923	11	203	2504	10	281	2786	11	282
3/18/2020 0:00	3/18/2020 1:00	33	34	30	49	51	47	0.01		1724	8	198	1067	7	280	1523	8	277
3/18/2020 1:00	3/18/2020 2:00	34	35	31	50	52	48	0.00		1941	9	207	1442	8	287	1778	9	285
3/18/2020 2:00	3/18/2020 3:00	36	38	34	50	52	48	0.00		2882	11	213	2419	10	290	2906	12	292
3/18/2020 3:00	3/18/2020 4:00	35	37	33	50	51	48	0.00		2472	10	217	1978	9	294	2262	10	295
3/18/2020 4:00	3/18/2020 5:00	33	35	31	47	49	45	0.00		1667	9	215	1087	8	290	1602	9	295
3/18/2020 5:00	3/18/2020 6:00	35	36	33	50	51	48	0.00		2352	10	221	1426	8	294	2051	10	299
3/18/2020 6:00	3/18/2020 7:00	37	38	34	51	52	49	0.00		2433	10	222	1723	9	297	2403	10	301
3/18/2020 7:00	3/18/2020 8:00	37	39	34	50	52	48	0.00		1820	9	221	1011	7	296	1621	9	300
3/18/2020 8:00	3/18/2020 9:00	36	37	29	50	52	45	0.01		625	6	223	456	6	296	676	7	301
3/18/2020 9:00	3/18/2020 10:00	35	36	28	50	50	45	0.09		301	5.3	235	210	4.8	309	221	5.4	318

These levels represent total sound and not the facility specific sound. Therefore they are not appropriate for direct comparison to the project limits.

APPENDIX B

Table B-4: Hourly Monitoring Data for Location 4

Time Period		A-Weighted Sound Metrics			C-Weighted Sound Metrics			Local Wind at 2 meters above ground level (m/s)	Regional Precipitation (inches)	Turbine 1			Turbine 2		
Start	End	LA_{EQ} (dBA)	LA_{10} (dBA)	LA_{90} (dBA)	LC_{EQ} (dBC)	LC_{10} (dBC)	LC_{90} (dBC)			Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)	Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)
3/4/2020 14:00	3/4/2020 15:00	46	50	39	63	66	55	0.56		2986	13.3	256	3166	15.8	269
3/4/2020 15:00	3/4/2020 16:00	47	51	37	58	61	54	0.40		2656	12.2	260	3120	15.1	271
3/4/2020 16:00	3/4/2020 17:00	38	40	36	52	55	49	0.14		1646	9.2	267	2420	10.8	278
3/4/2020 17:00	3/4/2020 18:00	39	42	34	54	56	49	0.18		2214	10.2	258	2836	11.8	269
3/4/2020 18:00	3/4/2020 19:00	41	44	35	55	57	52	0.29		2270	10.3	248	2821	12.2	262
3/4/2020 19:00	3/4/2020 20:00	42	45	37	55	57	52	0.29		2317	10.3	256	2965	12.3	269
3/4/2020 20:00	3/4/2020 21:00	42	45	37	55	57	53	0.35	Trace	2741	11.5	255	3064	13.1	269
3/4/2020 21:00	3/4/2020 22:00	39	41	36	55	56	52	0.22	Trace	2422	10.4	255	3045	12.4	269
3/4/2020 22:00	3/4/2020 23:00	38	40	35	53	55	51	0.18		2391	10.4	256	3054	12.1	272
3/4/2020 23:00	3/5/2020 0:00	36	38	34	53	54	50	0.09		2050	9.6	248	2959	11.5	264
3/5/2020 0:00	3/5/2020 1:00	35	37	33	52	54	50	0.02		1723	9.0	249	2992	11.5	265
3/5/2020 1:00	3/5/2020 2:00	36	38	33	52	54	49	0.02		1715	9.0	252	2878	11.5	268
3/5/2020 2:00	3/5/2020 3:00	39	41	35	52	54	49	0.10	Trace	2114	9.7	254	3036	12.1	271
3/5/2020 3:00	3/5/2020 4:00	40	43	37	53	55	51	0.20	Trace	2752	11.2	263	3179	13.4	278
3/5/2020 4:00	3/5/2020 5:00	40	43	37	52	54	50	0.12	Trace	2290	10.3	270	3123	13.1	285
3/5/2020 5:00	3/5/2020 6:00	41	44	37	53	55	50	0.19		2186	10.0	271	3109	12.8	285
3/5/2020 6:00	3/5/2020 7:00	38	41	34	52	54	49	0.09		1492	8.5	266	2425	10.4	283
3/5/2020 7:00	3/5/2020 8:00	41	43	36	52	54	49	0.17		1650	8.9	271	2720	11.2	285
3/5/2020 8:00	3/5/2020 9:00	46	49	40	56	58	52	0.43		2401	10.7	278	3066	13.0	291
3/5/2020 9:00	3/5/2020 10:00	46	49	41	55	57	52	0.45		2602	11.1	293	3031	13.1	303
3/5/2020 10:00	3/5/2020 11:00	46	49	40	55	57	51	0.44		2356	10.6	295	3044	13.0	303
3/5/2020 11:00	3/5/2020 12:00	42	45	37	52	54	48	0.38		1233	8.0	291	2291	10.0	300
3/5/2020 12:00	3/5/2020 13:00	37	40	32	49	51	45	0.25		856	7.1	282	1186	7.8	297
3/5/2020 13:00	3/5/2020 14:00	38	42	32	50	52	46	0.33		959	7.3	272	1406	8.2	287
3/5/2020 14:00	3/5/2020 15:00	36	39	31	47	50	44	0.18		475	5.9	285	947	7.3	296
3/5/2020 15:00	3/5/2020 16:00	34	37	28	48	50	42	0.13	0.01	371	5.5	279	545	6.4	295
3/5/2020 16:00	3/5/2020 17:00	38	37	25	50	52	41	0.01	Trace	122	5.4	273	118	5.5	292
3/5/2020 17:00	3/5/2020 18:00	33	33	24	49	49	41	0.01	Trace	147	5.1	261	445	6.1	272
3/5/2020 18:00	3/5/2020 19:00	33	32	22	46	48	40	0.00	Trace	9	3.3	280	145	4.8	290
3/5/2020 19:00	3/5/2020 20:00	32	34	23	47	50	41	0.00	Trace	23	3.6	256	118	4.6	277
3/5/2020 20:00	3/5/2020 21:00	28	30	24	44	46	40	0.00		469	6.0	237	539	6.2	254
3/5/2020 21:00	3/5/2020 22:00	30	30	24	47	49	39	0.00		336	5.5	241	382	5.6	253
3/5/2020 22:00	3/5/2020 23:00	25	27	24	42	44	39	0.00		133	4.4	237	269	5.0	245
3/5/2020 23:00	3/6/2020 0:00	26	29	23	42	44	39	0.00		50	3.7	221	122	4.4	234
3/6/2020 0:00	3/6/2020 1:00	26	28	23	40	43	37	0.00		63	3.4	234	133	4.3	235
3/6/2020 1:00	3/6/2020 2:00	25	27	23	41	44	36	0.00		-9	1.7	194	21	3.2	178
3/6/2020 2:00	3/6/2020 3:00	30	28	23	44	44	38	0.00		22	3.2	148	111	4.3	139
3/6/2020 3:00	3/6/2020 4:00	28	30	24	42	44	38	0.00		173	3.9	93	386	6.0	118
3/6/2020 4:00	3/6/2020 5:00	31	33	27	44	46	40	0.00		72	3.2	106	623	6.4	127
3/6/2020 5:00	3/6/2020 6:00	32	34	27	44	46	41	0.00		-10	2.7	84	380	5.6	116
3/6/2020 6:00	3/6/2020 7:00	39	41	32	51	54	45	0.00		100	4.6	59	381	5.7	91
3/6/2020 7:00	3/6/2020 8:00	35	38	31	48	50	45	0.02		163	4.9	42	355	5.3	62
3/6/2020 8:00	3/6/2020 9:00	37	40	29	50	53	44	0.10		71	4.2	51	140	4.3	60
3/6/2020 9:00	3/6/2020 10:00	35	35	26	46	48	43	0.24		71	4.2	50	44	4.1	64
3/6/2020 10:00	3/6/2020 11:00	30	32	25	44	45	41	0.32		83	4.0	79	196	4.9	105
3/6/2020 11:00	3/6/2020 12:00	34	36	27	44	46	41	0.47		227	4.8	82	330	5.3	100
3/6/2020 12:00	3/6/2020 13:00	41	40	29	48	49	42	0.47		684	6.3	71	835	7.0	92
3/6/2020 13:00	3/6/2020 14:00	36	39	30	47	49	42	0.53		567	5.8	79	762	7.0	100
3/6/2020 14:00	3/6/2020 15:00	36	38	33	47	49	44	0.28		1039	7.6	47	1193	8.0	58
3/6/2020 15:00	3/6/2020 16:00	39	42	35	50	51	47	0.43		1686	9.1	57	2075	9.9	65
3/6/2020 16:00	3/6/2020 17:00	38	43	32	49	52	46	0.32		1702	9.0	57	2017	9.8	64
3/6/2020 17:00	3/6/2020 18:00	38	41	35	51	53	48	0.25		1743	9.2	43	2214	10.1	46
3/6/2020 18:00	3/6/2020 19:00	35	38	31	49	51	45	0.20		1282	8.2	44	1556	8.9	47
3/6/2020 19:00	3/6/2020 20:00	32	34	29	47	49	44	0.09		815	7.3	42	1076	7.8	44
3/6/2020 20:00	3/6/2020 21:00	33	36	29	47	50	44	0.12		1217	8.0	48	1279	8.1	50
3/6/2020 21:00	3/6/2020 22:00	36	39	29	48	50	45	0.30		1494	8.5	41	2306	10.2	41
3/6/2020 22:00	3/6/2020 23:00	34	37	30	48	50	45	0.17		1407	8.7	21	2239	10.1	19
3/6/2020 23:00	3/7/2020 0:00	38	41	34	50	52	47	0.30		2304	10.5	17	2807	11.9	15
3/7/2020 0:00	3/7/2020 1:00	36	39	31	48	50	45	0.27		1756	9.6	17	2667	11.3	15

These levels represent total sound and not the facility specific sound. Therefore they are not appropriate for direct comparison to the project limits.

APPENDIX B

Table B-4: Hourly Monitoring Data for Location 4

Time Period		A-Weighted Sound Metrics			C-Weighted Sound Metrics			Local Wind at 2 meters above ground level (m/s)	Regional Precipitation (inches)	Turbine 1			Turbine 2		
Start	End	LA_{EQ} (dBA)	LA_{10} (dBA)	LA_{90} (dBA)	LC_{EQ} (dBC)	LC_{10} (dBC)	LC_{90} (dBC)			Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)	Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)
3/7/2020 1:00	3/7/2020 2:00	32	35	27	44	46	41	0.11		651	7.0	64	1545	8.9	182
3/7/2020 2:00	3/7/2020 3:00	33	38	28	45	48	42	0.06		832	7.3	347	1936	9.5	346
3/7/2020 3:00	3/7/2020 4:00	40	43	35	49	51	47	0.39		2263	10.2	343	3048	12.9	343
3/7/2020 4:00	3/7/2020 5:00	39	43	34	49	51	47	0.32		2021	9.8	346	2997	12.4	345
3/7/2020 5:00	3/7/2020 6:00	40	42	35	50	51	47	0.37		1896	9.6	336	2810	11.7	335
3/7/2020 6:00	3/7/2020 7:00	38	41	34	49	51	47	0.37		1738	9.2	320	2916	11.4	326
3/7/2020 7:00	3/7/2020 8:00	44	46	40	54	54	50	0.62		2533	10.8	314	3169	13.7	322
3/7/2020 8:00	3/7/2020 9:00	43	45	38	52	54	50	0.56		2523	10.9	317	3123	12.9	324
3/7/2020 9:00	3/7/2020 10:00	41	43	35	51	53	49	0.39		2764	11.3	315	3101	12.8	324
3/7/2020 10:00	3/7/2020 11:00	41	44	37	52	53	49	0.60		2540	10.9	315	3105	13.1	323
3/7/2020 11:00	3/7/2020 12:00	43	46	38	53	55	50	0.61		2564	11.0	315	3064	12.9	322
3/7/2020 12:00	3/7/2020 13:00	41	44	36	52	53	48	0.46		2054	9.8	321	2900	11.7	326
3/7/2020 13:00	3/7/2020 14:00	42	46	37	52	55	49	0.55		2637	11.2	314	3061	13.2	322
3/7/2020 14:00	3/7/2020 15:00	42	45	36	52	54	49	0.56		2579	11.0	309	3125	13.3	317
3/7/2020 15:00	3/7/2020 16:00	41	44	36	51	53	48	0.46		2377	10.4	309	2743	12.4	318
3/7/2020 16:00	3/7/2020 17:00	40	43	34	50	53	47	0.29		1504	10.4	303	727	12.2	314
3/7/2020 17:00	3/7/2020 18:00	39	43	29	49	52	44	0.24		656	8.1	312	2429	10.9	314
3/7/2020 18:00	3/7/2020 19:00	33	36	27	47	48	43	0.03		1162	7.9	300	2531	10.7	310
3/7/2020 19:00	3/7/2020 20:00	33	35	28	46	47	42	0.04		755	6.8	294	2358	10.1	307
3/7/2020 20:00	3/7/2020 21:00	26	29	19	42	45	39	0.03		241	4.9	293	1228	7.7	306
3/7/2020 21:00	3/7/2020 22:00	30	32	26	44	46	41	0.03		839	7.2	280	2291	10.0	299
3/7/2020 22:00	3/7/2020 23:00	30	32	26	43	45	41	0.00		534	6.0	276	2210	9.6	297
3/7/2020 23:00	3/8/2020 0:00	31	34	26	45	47	42	0.03		239	4.6	273	1823	8.4	287
3/8/2020 0:00	3/8/2020 1:00	29	31	22	45	46	40	0.00		98	4.1	269	838	6.9	283
3/8/2020 1:00	3/8/2020 2:00	24	27	22	45	48	42	0.00		148	4.4	262	1092	7.2	277
3/8/2020 2:00	3/8/2020 3:00	Daylight Savings Time													
3/8/2020 3:00	3/8/2020 4:00	32	35	27	50	52	48	0.02		2186	9.6	255	3138	13.4	273
3/8/2020 4:00	3/8/2020 5:00	33	35	31	51	54	48	0.06		2361	9.7	238	3199	12.7	261
3/8/2020 5:00	3/8/2020 6:00	34	36	32	52	54	49	0.04		2697	10.5	244	3200	13.8	270
3/8/2020 6:00	3/8/2020 7:00	35	37	32	52	54	49	0.10		3146	11.9	242	3200	13.8	266
3/8/2020 7:00	3/8/2020 8:00	36	38	32	53	55	50	0.10		3199	13.4	236	3200	15.1	260
3/8/2020 8:00	3/8/2020 9:00	35	38	32	53	55	50	0.15		2802	11.5	236	3162	13.8	261
3/8/2020 9:00	3/8/2020 10:00	36	36	29	49	51	47	0.15		1102	7.7	247	2068	9.6	266
3/8/2020 10:00	3/8/2020 11:00	38	38	27	50	50	44	0.24		721	6.9	261	1244	8.2	280
3/8/2020 11:00	3/8/2020 12:00	35	38	30	48	50	45	0.26		1072	7.7	267	1322	8.3	281
3/8/2020 12:00	3/8/2020 13:00	39	38	31	52	52	46	0.36		1314	8.1	261	1926	9.4	277
3/8/2020 13:00	3/8/2020 14:00	36	39	31	49	51	45	0.38		1402	8.3	269	1774	9.0	284
3/8/2020 14:00	3/8/2020 15:00	36	39	32	49	51	46	0.30		1270	7.9	256	1579	8.6	273
3/8/2020 15:00	3/8/2020 16:00	38	39	30	52	52	45	0.18		962	7.3	262	1314	8.0	271
3/8/2020 16:00	3/8/2020 17:00	37	38	30	51	53	45	0.23		798	6.9	261	1196	7.8	267
3/8/2020 17:00	3/8/2020 18:00	34	36	26	47	48	41	0.11		538	6.6	257	189	7.0	273
3/8/2020 18:00	3/8/2020 19:00	36	33	26	50	49	42	0.04		514	6.7	245	1035	7.5	250
3/8/2020 19:00	3/8/2020 20:00	32	34	27	48	50	43	0.00		921	7.1	235	1965	9.2	245
3/8/2020 20:00	3/8/2020 21:00	35	36	33	50	51	48	0.00		2426	10.2	235	3199	12.5	250
3/8/2020 21:00	3/8/2020 22:00	35	37	33	51	53	49	0.00		2827	11.1	234	1764	13.7	253
3/8/2020 22:00	3/8/2020 23:00	41	35	24	48	51	35	0.02		1435	11.2	229	1606	14.0	242
3/8/2020 23:00	3/9/2020 0:00	33	35	30	51	53	46	0.03		2571	11.4	220	2732	14.2	236
3/9/2020 0:00	3/9/2020 1:00	35	37	33	55	57	51	0.08		2949	11.5	214	3177	14.3	231
3/9/2020 1:00	3/9/2020 2:00	43	41	34	53	54	50	0.31		3163	13.2	219	3200	15.5	238
3/9/2020 2:00	3/9/2020 3:00	34	36	32	54	55	52	0.02		2799	10.8	220	3200	15.3	239
3/9/2020 3:00	3/9/2020 4:00	35	37	33	54	56	52	0.10		3199	14.5	225	3200	18.4	243
3/9/2020 4:00	3/9/2020 5:00	35	36	33	52	53	49	0.07		3200	15.4	226	3200	17.3	249
3/9/2020 5:00	3/9/2020 6:00	34	36	32	51	53	49	0.06		3198	15.3	231	3198	16.9	254
3/9/2020 6:00	3/9/2020 7:00	35	37	33	52	53	49	0.08		3199	15.7	240	3200	17.4	258
3/9/2020 7:00	3/9/2020 8:00	35	37	33	52	54	50	0.05		3199	15.5	242	3199	17.4	258
3/9/2020 8:00	3/9/2020 9:00	35	37	33	52	54	50	0.05		3200	13.7	233	3200	16.1	253
3/9/2020 9:00	3/9/2020 10:00	36	39	32	52	54	50	0.13		3199	13.6	232	3200	15.4	253
3/9/2020 10:00	3/9/2020 11:00	38	40	35	54	56	51	0.46		3023	11.6	231	3172	13.6	250
3/9/2020 11:00	3/9/2020 12:00	40	42	36	56	58	53	0.43		2786	10.7	230	2987	11.8	244

These levels represent total sound and not the facility specific sound. Therefore they are not appropriate for direct comparison to the project limits.

APPENDIX B

Table B-4: Hourly Monitoring Data for Location 4

Time Period		A-Weighted Sound Metrics			C-Weighted Sound Metrics			Local Wind at 2 meters above ground level (m/s)	Regional Precipitation (inches)	Turbine 1			Turbine 2		
Start	End	LA_{EQ} (dBA)	LA_{10} (dBA)	LA_{90} (dBA)	LC_{EQ} (dBC)	LC_{10} (dBC)	LC_{90} (dBC)			Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)	Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)
3/9/2020 12:00	3/9/2020 13:00	41	43	35	55	56	52	0.63		2461	10.1	228	2648	10.7	239
3/9/2020 13:00	3/9/2020 14:00	39	43	34	54	56	50	0.57		2121	9.3	222	2162	9.7	235
3/9/2020 14:00	3/9/2020 15:00	40	44	33	54	56	51	0.60		2352	9.8	222	2182	9.7	234
3/9/2020 15:00	3/9/2020 16:00	37	39	33	53	55	50	0.53		1788	8.8	230	1749	8.6	239
3/9/2020 16:00	3/9/2020 17:00	37	40	31	54	56	50	0.38		1471	7.9	224	2016	9.2	231
3/9/2020 17:00	3/9/2020 18:00	34	36	29	50	52	47	0.08		886	7.6	232	524	9.2	244
3/9/2020 18:00	3/9/2020 19:00	34	32	25	49	49	42	0.01		363	6.4	231	1105	7.3	236
3/9/2020 19:00	3/9/2020 20:00	29	31	24	46	48	41	0.01		703	6.2	223	1577	8.2	235
3/9/2020 20:00	3/9/2020 21:00	31	33	27	47	49	44	0.01		1227	7.5	218	1796	8.4	229
3/9/2020 21:00	3/9/2020 22:00	29	31	26	48	52	44	0.00		517	5.4	221	1307	7.3	231
3/9/2020 22:00	3/9/2020 23:00	32	34	30	49	51	46	0.00		1178	7.0	222	2895	10.8	237
3/9/2020 23:00	3/10/2020 0:00	34	35	32	52	54	48	0.00		1645	8.0	212	2900	10.7	231
3/10/2020 0:00	3/10/2020 1:00	34	36	32	50	52	48	0.04		2719	10.5	220	3200	13.5	239
3/10/2020 1:00	3/10/2020 2:00	34	36	32	52	54	50	0.03		2946	11.0	216	3199	14.2	234
3/10/2020 2:00	3/10/2020 3:00	35	37	33	54	56	51	0.05		2655	10.0	212	3185	13.0	232
3/10/2020 3:00	3/10/2020 4:00	34	36	31	52	56	47	0.01		2370	9.6	214	3037	11.4	236
3/10/2020 4:00	3/10/2020 5:00	34	37	32	49	51	46	0.07		2902	11.3	218	2705	10.3	238
3/10/2020 5:00	3/10/2020 6:00	35	37	33	49	51	45	0.09		2698	10.7	218	2044	9.1	240
3/10/2020 6:00	3/10/2020 7:00	35	36	32	52	53	47	0.04		2122	9.1	207	1818	8.5	228
3/10/2020 7:00	3/10/2020 8:00	35	38	29	50	53	45	0.00		1164	7.0	202	840	5.9	218
3/10/2020 8:00	3/10/2020 9:00	34	36	30	51	53	47	0.01		355	4.7	207	583	5.2	221
3/10/2020 9:00	3/10/2020 10:00	36	36	27	50	53	45	0.01		11	2.9	203	162	3.6	216
3/10/2020 10:00	3/10/2020 11:00	37	35	24	48	48	42	0.05		-4	2.5	197	87	3.5	191
3/10/2020 11:00	3/10/2020 12:00	30	32	22	48	52	43	0.11		10	2.8	179	147	3.6	173
3/10/2020 12:00	3/10/2020 13:00	33	36	23	51	55	43	0.21		389	4.8	198	564	5.5	196
3/10/2020 13:00	3/10/2020 14:00	41	43	32	56	59	52	0.56	Trace	1765	8.6	215	1649	8.2	217
3/10/2020 14:00	3/10/2020 15:00	41	44	36	57	59	54	0.62		2382	10.1	210	2144	9.9	217
3/10/2020 15:00	3/10/2020 16:00	36	39	31	54	57	49	0.23		1088	7.0	216	1012	6.8	223
3/10/2020 16:00	3/10/2020 17:00	36	39	32	53	55	49	0.26	Trace	1026	6.8	209	794	6.3	220
3/10/2020 17:00	3/10/2020 18:00	35	38	31	53	55	49	0.03	Trace	723	6.2	215	703	6.2	227
3/10/2020 18:00	3/10/2020 19:00	38	40	34	55	57	52	0.05	Trace	988	6.9	215	1693	8.5	226
3/10/2020 19:00	3/10/2020 20:00	38	40	35	58	60	55	0.07	0.01	1834	8.5	218	2627	10.8	227
3/10/2020 20:00	3/10/2020 21:00	40	42	37	58	60	56	0.25		2193	9.6	222	2908	12.1	229
3/10/2020 21:00	3/10/2020 22:00	40	42	38	58	60	56	0.29		2577	10.5	227	3138	13.7	237
3/10/2020 22:00	3/10/2020 23:00	36	38	34	55	57	52	0.08		1498	8.3	240	2400	10.3	251
3/10/2020 23:00	3/11/2020 0:00	39	41	35	54	56	52	0.13		2465	10.5	252	3019	12.7	268
3/11/2020 0:00	3/11/2020 1:00	39	41	35	53	55	50	0.13		2045	9.7	264	3016	12.4	279
3/11/2020 1:00	3/11/2020 2:00	44	48	35	53	56	49	0.25		1887	9.8	288	2749	12.4	296
3/11/2020 2:00	3/11/2020 3:00	43	47	37	52	55	48	0.27		2313	10.7	301	2956	12.9	307
3/11/2020 3:00	3/11/2020 4:00	38	41	34	49	51	46	0.10		1763	9.3	297	2851	11.6	304
3/11/2020 4:00	3/11/2020 5:00	38	40	36	49	50	47	0.04		1594	9.0	295	2947	11.8	303
3/11/2020 5:00	3/11/2020 6:00	36	38	32	48	50	44	0.04		725	7.0	287	1562	8.9	297
3/11/2020 6:00	3/11/2020 7:00	35	37	32	50	51	45	0.03		666	6.6	284	1299	8.2	298
3/11/2020 7:00	3/11/2020 8:00	38	40	34	51	52	46	0.06		780	7.1	303	1433	8.5	310
3/11/2020 8:00	3/11/2020 9:00	39	41	35	49	51	46	0.11		739	7.1	303	1598	9.0	308
3/11/2020 9:00	3/11/2020 10:00	40	39	31	60	57	45	0.11		758	7.1	292	1136	8.0	305
3/11/2020 10:00	3/11/2020 11:00	34	37	29	47	50	42	0.20		243	5.3	318	414	6.0	314
3/11/2020 11:00	3/11/2020 12:00	30	33	24	46	47	40	0.15		164	4.7	285	298	5.4	301
3/11/2020 12:00	3/11/2020 13:00	33	35	26	48	48	42	0.20		259	5.2	295	508	6.2	304
3/11/2020 13:00	3/11/2020 14:00	30	32	26	46	48	41	0.08		76	4.4	287	188	5.2	219
3/11/2020 14:00	3/11/2020 15:00	28	31	23	45	48	41	0.08		81	4.1	332	124	4.6	337
3/11/2020 15:00	3/11/2020 16:00	30	31	23	45	47	41	0.05		32	3.9	331	62	4.2	330
3/11/2020 16:00	3/11/2020 17:00	46	32	25	49	49	41	0.01		49	4.0	321	95	4.4	325
3/11/2020 17:00	3/11/2020 18:00	29	30	24	46	48	41	0.01		102	4.5	305	98	5.3	315
3/11/2020 18:00	3/11/2020 19:00	31	34	26	47	50	42	0.02		314	5.9	316	712	6.9	317
3/11/2020 19:00	3/11/2020 20:00	29	33	25	49	54	42	0.01		323	5.6	304	787	7.0	310
3/11/2020 20:00	3/11/2020 21:00	30	33	25	44	46	40	0.01		142	4.6	288	667	6.6	300
3/11/2020 21:00	3/11/2020 22:00	28	30	21	45	48	39	0.01		133	4.4	306	516	6.0	314
3/11/2020 22:00	3/11/2020 23:00	21	23	18	41	45	35	0.00		-8	2.2	330	39	3.0	288

These levels represent total sound and not the facility specific sound. Therefore they are not appropriate for direct comparison to the project limits.

APPENDIX B

Table B-4: Hourly Monitoring Data for Location 4

Time Period		A-Weighted Sound Metrics			C-Weighted Sound Metrics			Local Wind at 2 meters above ground level (m/s)	Regional Precipitation (inches)	Turbine 1			Turbine 2		
Start	End	LA_{EQ} (dBA)	LA_{10} (dBA)	LA_{90} (dBA)	LC_{EQ} (dBC)	LC_{10} (dBC)	LC_{90} (dBC)			Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)	Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)
3/11/2020 23:00	3/12/2020 0:00	21	22	18	37	38	33	0.00		-8	0.7	138	-8	1.1	125
3/12/2020 0:00	3/12/2020 1:00	24	24	20	37	37	33	0.00		-10	1.6	99	-8	1.3	78
3/12/2020 1:00	3/12/2020 2:00	21	23	19	40	43	35	0.00		-12	3.0	231	-9	1.8	287
3/12/2020 2:00	3/12/2020 3:00	22	23	19	42	45	38	0.00		-12	2.7	174	-9	2.2	75
3/12/2020 3:00	3/12/2020 4:00	26	23	19	43	45	39	0.00		-12	2.5	342	-9	2.8	122
3/12/2020 4:00	3/12/2020 5:00	21	23	19	41	43	37	0.00		-11	1.7	93	15	3.2	87
3/12/2020 5:00	3/12/2020 6:00	29	28	20	45	46	39	0.00	Trace	-6	2.8	82	109	4.3	90
3/12/2020 6:00	3/12/2020 7:00	32	34	26	49	51	43	0.00		275	4.6	83	506	6.3	103
3/12/2020 7:00	3/12/2020 8:00	34	36	25	49	51	43	0.00		138	4.0	85	314	5.6	100
3/12/2020 8:00	3/12/2020 9:00	31	33	24	48	49	43	0.02		139	4.0	79	278	5.2	94
3/12/2020 9:00	3/12/2020 10:00	33	33	25	46	48	42	0.14		190	4.4	84	208	5.3	110
3/12/2020 10:00	3/12/2020 11:00	36	31	24	48	46	41	0.18		84	3.7	99	173	5.0	114
3/12/2020 11:00	3/12/2020 12:00	28	30	24	44	45	41	0.21		69	3.7	103	230	5.2	123
3/12/2020 12:00	3/12/2020 13:00	30	33	24	44	46	41	0.18		57	3.5	112	263	5.5	131
3/12/2020 13:00	3/12/2020 14:00	31	35	25	44	46	41	0.37		25	3.4	115	227	5.1	138
3/12/2020 14:00	3/12/2020 15:00	31	34	26	45	47	42	0.36		-2	3.1	134	424	6.0	141
3/12/2020 15:00	3/12/2020 16:00	39	38	26	51	48	42	0.39		10	2.9	159	535	6.3	154
3/12/2020 16:00	3/12/2020 17:00	31	34	25	45	47	41	0.19		-5	3.0	156	372	5.8	149
3/12/2020 17:00	3/12/2020 18:00	29	31	23	47	47	40	0.11		-9	2.2	168	423	6.1	149
3/12/2020 18:00	3/12/2020 19:00	28	29	22	47	46	40	0.04		65	3.2	121	313	5.7	135
3/12/2020 19:00	3/12/2020 20:00	29	32	23	43	45	40	0.05		259	4.2	98	502	6.3	122
3/12/2020 20:00	3/12/2020 21:00	32	34	25	45	47	41	0.09		455	5.1	102	987	7.7	127
3/12/2020 21:00	3/12/2020 22:00	33	35	27	46	48	41	0.15		417	5.0	96	823	7.3	123
3/12/2020 22:00	3/12/2020 23:00	29	32	24	43	45	40	0.13		260	4.4	95	597	6.8	121
3/12/2020 23:00	3/13/2020 0:00	26	29	24	42	44	39	0.07	Trace	205	4.1	90	528	6.5	117
3/13/2020 0:00	3/13/2020 1:00	26	28	23	42	44	39	0.06	0.01	154	4.0	92	643	6.8	120
3/13/2020 1:00	3/13/2020 2:00	40	44	28	45	48	42	0.01		345	5.0	96	1310	8.4	124
3/13/2020 2:00	3/13/2020 3:00	35	37	30	45	46	42	0.05	Trace	432	5.4	90	1213	8.3	118
3/13/2020 3:00	3/13/2020 4:00	36	39	32	45	47	42	0.12	Trace	596	6.0	98	530	9.1	128
3/13/2020 4:00	3/13/2020 5:00	38	40	35	48	50	45	0.18	0.01	1424	7.5	98	-6	11.4	127
3/13/2020 5:00	3/13/2020 6:00	39	41	35	50	52	47	0.30	0.03	1457	7.7	98	1711	11.6	121
3/13/2020 6:00	3/13/2020 7:00	40	43	36	51	53	47	0.41	0.15	1457	7.6	97	2873	11.8	120
3/13/2020 7:00	3/13/2020 8:00	49	52	39	52	53	48	0.31	0.11	1198	7.1	89	2574	10.9	114
3/13/2020 8:00	3/13/2020 9:00	52	54	48	53	55	51	0.13	0.09	1108	6.8	91	2585	10.8	115
3/13/2020 9:00	3/13/2020 10:00	50	54	42	52	54	48	0.14	0.06	784	6.2	92	2568	10.8	119
3/13/2020 10:00	3/13/2020 11:00	47	50	42	50	52	47	0.11	0.01	579	5.6	94	2142	9.9	123
3/13/2020 11:00	3/13/2020 12:00	41	44	36	47	49	45	0.00	Trace	377	4.9	103	1561	8.8	134
3/13/2020 12:00	3/13/2020 13:00	39	41	37	48	50	46	0.01	0.07	134	3.9	133	2271	9.9	153
3/13/2020 13:00	3/13/2020 14:00	43	46	38	53	56	48	0.01	0.02	840	6.1	164	2890	11.9	174
3/13/2020 14:00	3/13/2020 15:00	44	45	41	59	61	54	0.12	Trace	1746	8.8	216	2133	10.1	222
3/13/2020 15:00	3/13/2020 16:00	45	48	40	58	60	56	0.21	Trace	3009	12.6	243	3167	15.5	254
3/13/2020 16:00	3/13/2020 17:00	51	55	46	61	63	58	0.53		3163	15.8	260	3173	18.5	272
3/13/2020 17:00	3/13/2020 18:00	54	57	48	61	64	58	0.76		2426	15.7	263	1539	17.6	277
3/13/2020 18:00	3/13/2020 19:00	53	56	45	61	63	58	0.65		1882	17.5	266	3196	18.4	276
3/13/2020 19:00	3/13/2020 20:00	51	54	46	61	63	58	0.52		3193	16.2	265	3198	18.5	280
3/13/2020 20:00	3/13/2020 21:00	50	53	43	60	62	57	0.55		3150	15.4	263	3185	17.4	276
3/13/2020 21:00	3/13/2020 22:00	54	59	39	62	66	56	0.70		3050	14.9	257	3162	16.7	270
3/13/2020 22:00	3/13/2020 23:00	52	56	41	61	64	57	0.81		3134	15.1	258	3183	17.0	271
3/13/2020 23:00	3/14/2020 0:00	48	51	42	59	62	57	0.48		3160	15.0	260	3176	17.1	272
3/14/2020 0:00	3/14/2020 1:00	44	48	38	57	59	54	0.32		3058	12.8	256	3179	14.7	267
3/14/2020 1:00	3/14/2020 2:00	39	41	36	55	57	53	0.13		2991	12.0	252	3196	14.0	265
3/14/2020 2:00	3/14/2020 3:00	41	44	37	56	58	53	0.25		3190	13.6	251	3200	15.9	265
3/14/2020 3:00	3/14/2020 4:00	48	51	42	59	61	56	0.49		3198	15.8	256	3199	19.0	271
3/14/2020 4:00	3/14/2020 5:00	44	47	41	58	60	56	0.28		3187	14.9	253	3199	18.0	267
3/14/2020 5:00	3/14/2020 6:00	41	44	37	57	59	55	0.25		3051	13.4	250	3173	15.7	264
3/14/2020 6:00	3/14/2020 7:00	42	45	39	56	58	54	0.12		3146	13.1	256	3198	16.1	272
3/14/2020 7:00	3/14/2020 8:00	42	44	37	56	57	53	0.17		2851	11.4	260	3174	13.9	275
3/14/2020 8:00	3/14/2020 9:00	49	52	43	59	61	55	0.65		3088	13.6	263	3177	15.8	278
3/14/2020 9:00	3/14/2020 10:00	46	49	38	56	58	53	0.50		2718	11.7	274	2967	13.3	289

These levels represent total sound and not the facility specific sound. Therefore they are not appropriate for direct comparison to the project limits.

APPENDIX B

Table B-4: Hourly Monitoring Data for Location 4

Time Period		A-Weighted Sound Metrics			C-Weighted Sound Metrics			Local Wind at 2 meters above ground level (m/s)	Regional Precipitation (inches)	Turbine 1			Turbine 2		
Start	End	LA_{EQ} (dBA)	LA_{10} (dBA)	LA_{90} (dBA)	LC_{EQ} (dBC)	LC_{10} (dBC)	LC_{90} (dBC)			Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)	Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)
3/14/2020 10:00	3/14/2020 11:00	47	51	41	57	59	54	0.59		2525	10.9	280	2978	13.4	294
3/14/2020 11:00	3/14/2020 12:00	44	47	38	55	57	52	0.42		2312	10.3	275	2888	11.8	288
3/14/2020 12:00	3/14/2020 13:00	43	46	38	54	56	52	0.46		1623	8.8	274	2331	10.2	281
3/14/2020 13:00	3/14/2020 14:00	43	47	36	54	56	50	0.51		2259	10.1	282	2300	10.6	294
3/14/2020 14:00	3/14/2020 15:00	40	43	36	53	55	51	0.39		2194	9.8	257	2531	10.8	273
3/14/2020 15:00	3/14/2020 16:00	52	43	36	57	56	52	0.32		2334	10.4	261	2801	11.8	273
3/14/2020 16:00	3/14/2020 17:00	40	43	36	54	55	51	0.22		2530	11.0	263	2917	12.4	278
3/14/2020 17:00	3/14/2020 18:00	39	42	34	52	54	48	0.13		1664	9.9	274	1520	11.3	288
3/14/2020 18:00	3/14/2020 19:00	41	43	35	53	54	49	0.14		1132	9.3	274	2792	11.6	284
3/14/2020 19:00	3/14/2020 20:00	38	40	34	52	54	49	0.05		2305	10.2	274	3070	12.8	289
3/14/2020 20:00	3/14/2020 21:00	38	40	35	52	54	49	0.10		2141	9.9	273	3023	12.3	287
3/14/2020 21:00	3/14/2020 22:00	36	39	32	50	52	47	0.08		1457	8.4	271	2456	10.5	288
3/14/2020 22:00	3/14/2020 23:00	32	36	28	46	48	42	0.02		653	6.7	292	1581	8.9	304
3/14/2020 23:00	3/15/2020 0:00	32	35	27	45	47	42	0.02		662	6.8	312	1271	8.3	320
3/15/2020 0:00	3/15/2020 1:00	34	36	30	46	48	43	0.02		954	7.5	305	2105	9.7	313
3/15/2020 1:00	3/15/2020 2:00	27	31	22	43	46	39	0.01		354	5.6	308	926	7.3	316
3/15/2020 2:00	3/15/2020 3:00	30	33	24	43	46	40	0.02		438	6.0	307	1258	8.0	314
3/15/2020 3:00	3/15/2020 4:00	31	34	26	44	46	40	0.02		697	6.7	314	1563	8.7	321
3/15/2020 4:00	3/15/2020 5:00	33	36	30	45	46	43	0.04		1069	8.0	310	2276	10.1	316
3/15/2020 5:00	3/15/2020 6:00	38	41	33	48	51	44	0.11		2056	9.9	311	3018	12.5	316
3/15/2020 6:00	3/15/2020 7:00	37	40	34	48	50	46	0.12		1844	9.4	304	2964	12.1	312
3/15/2020 7:00	3/15/2020 8:00	39	42	33	49	50	46	0.13		1470	8.6	310	2529	11.0	314
3/15/2020 8:00	3/15/2020 9:00	39	41	35	49	51	47	0.17		1541	8.9	300	2781	11.2	308
3/15/2020 9:00	3/15/2020 10:00	36	39	32	50	53	46	0.21		1253	8.3	299	1993	9.7	309
3/15/2020 10:00	3/15/2020 11:00	38	39	32	51	54	44	0.27		699	7.0	310	906	7.4	317
3/15/2020 11:00	3/15/2020 12:00	37	38	31	51	54	45	0.21		643	6.8	298	1133	8.0	309
3/15/2020 12:00	3/15/2020 13:00	39	42	31	51	54	44	0.20		754	7.0	297	1182	8.0	309
3/15/2020 13:00	3/15/2020 14:00	41	42	32	56	56	45	0.28		701	6.9	306	1072	7.7	312
3/15/2020 14:00	3/15/2020 15:00	37	40	31	52	55	46	0.24		962	7.4	306	1452	8.3	315
3/15/2020 15:00	3/15/2020 16:00	37	39	31	49	50	45	0.22		924	7.4	311	1453	8.4	319
3/15/2020 16:00	3/15/2020 17:00	38	41	33	49	51	45	0.16		1251	8.1	308	1901	9.3	315
3/15/2020 17:00	3/15/2020 18:00	38	41	34	49	51	47	0.18		1252	8.9	299	1812	11.2	308
3/15/2020 18:00	3/15/2020 19:00	35	39	28	46	49	43	0.04		393	7.3	315	1933	9.5	320
3/15/2020 19:00	3/15/2020 20:00	33	36	29	47	49	44	0.02		1146	7.9	321	1780	9.0	325
3/15/2020 20:00	3/15/2020 21:00	31	34	24	45	48	41	0.02		623	6.3	320	1086	7.6	323
3/15/2020 21:00	3/15/2020 22:00	35	38	29	47	49	44	0.11		1297	8.4	309	2551	10.5	316
3/15/2020 22:00	3/15/2020 23:00	29	32	25	44	46	42	0.02		813	7.3	313	1451	8.4	321
3/15/2020 23:00	3/16/2020 0:00	31	34	24	45	48	41	0.03		1152	8.0	317	1767	9.1	323
3/16/2020 0:00	3/16/2020 1:00	30	33	25	44	46	41	0.04		500	6.6	335	1113	7.8	337
3/16/2020 1:00	3/16/2020 2:00	33	37	27	45	48	42	0.03		524	6.2	327	1243	7.7	329
3/16/2020 2:00	3/16/2020 3:00	25	28	21	43	46	39	0.01		169	5.0	340	713	6.8	341
3/16/2020 3:00	3/16/2020 4:00	21	23	20	42	45	39	0.01		50	4.1	332	525	6.2	339
3/16/2020 4:00	3/16/2020 5:00	22	24	19	43	45	39	0.00		25	3.7	340	456	6.1	347
3/16/2020 5:00	3/16/2020 6:00	24	25	20	43	46	40	0.00		24	4.0	334	177	5.3	293
3/16/2020 6:00	3/16/2020 7:00	27	28	20	48	50	42	0.00		-19	3.0	342	-11	4.1	14
3/16/2020 7:00	3/16/2020 8:00	30	30	21	45	47	42	0.00		-20	2.5	232	-11	3.1	14
3/16/2020 8:00	3/16/2020 9:00	34	35	19	44	46	41	0.02		-18	2.1	59	-11	2.9	88
3/16/2020 9:00	3/16/2020 10:00	31	34	22	44	46	41	0.20		-18	3.1	143	-5	3.9	153
3/16/2020 10:00	3/16/2020 11:00	30	32	22	45	46	41	0.24		-5	3.4	141	46	4.6	145
3/16/2020 11:00	3/16/2020 12:00	32	34	24	45	48	41	0.38		18	3.9	122	108	4.8	133
3/16/2020 12:00	3/16/2020 13:00	38	37	24	51	48	42	0.52		5	3.6	166	104	4.6	160
3/16/2020 13:00	3/16/2020 14:00	32	35	23	46	48	42	0.49		23	3.8	156	227	5.2	152
3/16/2020 14:00	3/16/2020 15:00	34	35	23	46	47	42	0.43		26	3.7	149	423	5.9	154
3/16/2020 15:00	3/16/2020 16:00	33	36	23	46	48	43	0.38		24	3.6	175	424	5.8	160
3/16/2020 16:00	3/16/2020 17:00	34	37	25	47	47	42	0.39		17	3.3	165	678	6.7	154
3/16/2020 17:00	3/16/2020 18:00	33	36	26	46	48	42	0.31		18	3.3	161	494	6.9	156
3/16/2020 18:00	3/16/2020 19:00	28	32	23	43	45	41	0.15		31	3.0	163	856	7.4	149
3/16/2020 19:00	3/16/2020 20:00	35	38	29	46	48	44	0.32		671	5.8	113	1740	9.2	134
3/16/2020 20:00	3/16/2020 21:00	38	41	33	47	49	45	0.52		983	6.6	112	1937	9.6	135

These levels represent total sound and not the facility specific sound. Therefore they are not appropriate for direct comparison to the project limits.

APPENDIX B

Table B-4: Hourly Monitoring Data for Location 4

Time Period		A-Weighted Sound Metrics			C-Weighted Sound Metrics			Local Wind at 2 meters above ground level (m/s)	Regional Precipitation (inches)	Turbine 1			Turbine 2		
Start	End	LA_{EQ} (dBA)	LA_{10} (dBA)	LA_{90} (dBA)	LC_{EQ} (dBC)	LC_{10} (dBC)	LC_{90} (dBC)			Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)	Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)
3/16/2020 21:00	3/16/2020 22:00	36	39	32	47	49	43	0.44		94	3.9	142	1919	9.5	147
3/16/2020 22:00	3/16/2020 23:00	31	34	25	44	46	42	0.19		26	3.6	151	1676	8.7	149
3/16/2020 23:00	3/17/2020 0:00	31	33	24	46	49	43	0.18		153	3.8	174	1645	8.6	159
3/17/2020 0:00	3/17/2020 1:00	29	32	24	45	47	42	0.16		-5	3.1	175	1429	8.4	156
3/17/2020 1:00	3/17/2020 2:00	27	29	24	43	44	41	0.01		-17	2.6	184	1205	8.3	161
3/17/2020 2:00	3/17/2020 3:00	27	29	22	44	46	42	0.07		-4	3.1	207	963	7.7	162
3/17/2020 3:00	3/17/2020 4:00	25	28	22	42	44	40	0.06	Trace	-14	2.4	142	676	6.9	154
3/17/2020 4:00	3/17/2020 5:00	31	32	27	46	48	43	0.05	Trace	-1	3.1	192	1112	7.8	162
3/17/2020 5:00	3/17/2020 6:00	29	30	24	46	48	42	0.02	Trace	-10	2.7	138	573	6.3	151
3/17/2020 6:00	3/17/2020 7:00	30	32	26	49	50	43	0.01	Trace	-15	2.1	163	773	7.0	152
3/17/2020 7:00	3/17/2020 8:00	31	32	28	46	47	43	0.03	Trace	-16	2.5	171	783	7.0	155
3/17/2020 8:00	3/17/2020 9:00	36	35	29	47	49	45	0.02	Trace	-13	2.5	196	1125	7.8	159
3/17/2020 9:00	3/17/2020 10:00	33	35	31	48	50	46	0.16		150	4.3	160	1580	8.5	165
3/17/2020 10:00	3/17/2020 11:00	35	37	32	49	51	47	0.16		240	4.5	161	1568	8.5	169
3/17/2020 11:00	3/17/2020 12:00	34	37	29	49	51	46	0.12		363	5.0	157	1160	7.9	170
3/17/2020 12:00	3/17/2020 13:00	31	32	25	47	49	43	0.03	Trace	83	3.7	164	422	6.0	175
3/17/2020 13:00	3/17/2020 14:00	30	32	27	48	51	45	0.01	Trace	218	4.5	194	303	5.3	200
3/17/2020 14:00	3/17/2020 15:00	33	35	29	49	51	46	0.11		309	4.8	197	413	5.4	204
3/17/2020 15:00	3/17/2020 16:00	34	37	31	50	52	46	0.18		808	6.4	223	811	6.6	233
3/17/2020 16:00	3/17/2020 17:00	30	33	27	46	48	43	0.02		264	4.7	234	727	6.5	252
3/17/2020 17:00	3/17/2020 18:00	31	33	28	47	49	43	0.02		175	4.4	232	555	6.1	252
3/17/2020 18:00	3/17/2020 19:00	38	37	33	51	53	48	0.02		1012	7.3	239	2006	9.2	258
3/17/2020 19:00	3/17/2020 20:00	37	39	34	53	55	49	0.03		1632	8.7	256	2713	11.1	272
3/17/2020 20:00	3/17/2020 21:00	40	43	37	52	54	49	0.05		2049	9.6	271	3069	12.2	285
3/17/2020 21:00	3/17/2020 22:00	36	37	32	50	52	47	0.01		1560	8.8	264	2788	11.1	279
3/17/2020 22:00	3/17/2020 23:00	38	41	33	51	53	48	0.03		1861	9.2	262	2987	11.9	279
3/17/2020 23:00	3/18/2020 0:00	36	38	33	51	53	49	0.04		2284	10.1	265	3013	12.0	281
3/18/2020 0:00	3/18/2020 1:00	34	36	31	51	53	47	0.05		1227	7.7	263	2257	10.1	278
3/18/2020 1:00	3/18/2020 2:00	36	38	33	50	52	47	0.01		1743	9.0	268	2935	11.5	283
3/18/2020 2:00	3/18/2020 3:00	38	41	31	50	52	46	0.11		1526	8.9	282	2677	11.1	293
3/18/2020 3:00	3/18/2020 4:00	36	40	30	50	53	45	0.12		1562	8.7	279	2427	11.0	292
3/18/2020 4:00	3/18/2020 5:00	32	34	29	47	49	45	0.01		984	7.6	275	1960	9.6	292
3/18/2020 5:00	3/18/2020 6:00	35	37	31	48	51	45	0.03		1202	7.9	282	2445	10.5	296
3/18/2020 6:00	3/18/2020 7:00	35	36	32	50	53	46	0.01		1236	8.1	285	2300	10.4	298
3/18/2020 7:00	3/18/2020 8:00	33	36	30	49	51	45	0.01		718	6.7	283	1553	9.1	297
3/18/2020 8:00	3/18/2020 9:00	40	40	29	49	51	44	0.02		234	5.1	287	581	6.5	300
3/18/2020 9:00	3/18/2020 10:00	37	34	26	47	49	42	0.06		123	4.7	311	240	5.2	308

These levels represent total sound and not the facility specific sound. Therefore they are not appropriate for direct comparison to the project limits.

APPENDIX B

Table B-5: Hourly Monitoring Data for Location 5

Time Period		A-Weighted Sound Metrics			C-Weighted Sound Metrics			Local Wind at 2 meters above ground level (m/s)	Regional Precipitation (inches)	Turbine 2			Turbine 3			Turbine 6			Turbine 7			Turbine 8		
Start	End	LA_{EQ} (dBA)	LA_{10} (dBA)	LA_{90} (dBA)	LC_{EQ} (dBC)	LC_{10} (dBC)	LC_{90} (dBC)			Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)	Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)	Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)	Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)	Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)
3/4/2020 14:00	3/4/2020 15:00	Sound level meter was not setup until almost 15:00						4.62		3166	15.8	269	3132	15.1	265	3186	15.4	273	3144	15.3	273	3160	15.4	279
3/4/2020 15:00	3/4/2020 16:00	54	58	44	69	72	58	5.46		3120	15.1	271	3138	15.3	266	3142	14.6	272	3143	15.0	270	3143	14.8	275
3/4/2020 16:00	3/4/2020 17:00	44	47	35	58	60	52	2.80		2420	10.8	278	2447	10.8	273	1873	9.2	282	2075	10.2	282	1970	9.9	286
3/4/2020 17:00	3/4/2020 18:00	46	48	34	60	61	52	2.76		2836	11.8	269	2694	11.2	263	2536	10.6	275	2734	12.2	274	2808	12.0	279
3/4/2020 18:00	3/4/2020 19:00	48	50	35	63	63	52	3.33		2821	12.2	262	2517	10.8	256	2244	9.8	266	2628	11.4	264	2568	10.8	270
3/4/2020 19:00	3/4/2020 20:00	43	46	36	58	60	54	2.69		2965	12.3	269	2934	12.1	264	2891	11.9	273	2976	12.3	272	2850	11.7	278
3/4/2020 20:00	3/4/2020 21:00	46	49	36	60	63	54	3.30	Trace	3064	13.1	269	3105	12.8	263	2941	11.7	273	3037	12.5	270	3034	12.5	277
3/4/2020 21:00	3/4/2020 22:00	41	45	36	57	59	54	2.32	Trace	3045	12.4	269	3021	12.0	264	2839	11.1	273	3065	12.5	271	3009	12.0	278
3/4/2020 22:00	3/4/2020 23:00	39	43	34	56	58	53	2.03		3054	12.1	272	3114	12.3	267	2741	10.9	274	3032	12.2	273	3051	12.2	279
3/4/2020 23:00	3/5/2020 0:00	37	39	34	55	57	53	1.96		2959	11.5	264	2752	10.7	259	1853	8.9	269	2415	10.4	269	2720	10.8	275
3/5/2020 0:00	3/5/2020 1:00	38	40	34	55	57	53	1.83		2992	11.5	265	2814	10.7	259	1958	9.2	269	2781	11.1	269	2868	11.2	275
3/5/2020 1:00	3/5/2020 2:00	37	40	34	55	57	52	1.77		2878	11.5	268	2863	11.2	262	2242	9.8	271	2781	11.4	270	2722	11.2	276
3/5/2020 2:00	3/5/2020 3:00	44	47	36	59	61	53	3.14	Trace	3036	12.1	271	2923	11.2	267	2692	10.7	274	2931	12.0	272	3039	12.3	279
3/5/2020 3:00	3/5/2020 4:00	46	49	36	60	62	54	3.37	Trace	3179	13.4	278	3152	12.9	274	3132	12.6	279	3174	13.4	278	3174	13.2	286
3/5/2020 4:00	3/5/2020 5:00	49	53	39	62	65	54	3.57	Trace	3123	13.1	285	3149	13.4	283	2932	11.7	285	3117	12.8	287	3107	12.6	291
3/5/2020 5:00	3/5/2020 6:00	45	49	36	59	61	54	3.04		3109	12.8	285	3152	12.9	283	2728	10.8	285	2943	11.8	287	3007	11.6	291
3/5/2020 6:00	3/5/2020 7:00	46	48	35	61	60	53	2.75		2425	10.4	283	2603	10.5	278	1739	8.8	282	2189	10.0	284	2177	9.6	289
3/5/2020 7:00	3/5/2020 8:00	47	50	37	60	62	53	3.13		2720	11.2	285	2729	11.3	284	2348	10.0	286	2653	11.1	288	2482	10.5	292
3/5/2020 8:00	3/5/2020 9:00	53	57	42	67	71	56	4.84		3066	13.0	291	2952	12.1	292	2771	11.5	290	2729	11.5	293	2564	10.6	295
3/5/2020 9:00	3/5/2020 10:00	55	59	46	69	73	58	5.52		3031	13.1	303	2939	12.3	297	2712	11.2	295	3006	12.9	296	2895	12.1	300
3/5/2020 10:00	3/5/2020 11:00	52	56	41	66	69	55	4.46		3044	13.0	303	3027	12.6	304	2467	10.5	298	2853	11.9	298	2857	11.7	302
3/5/2020 11:00	3/5/2020 12:00	50	54	38	63	66	54	4.00		2291	10.0	300	2266	10.0	298	1774	8.6	294	2226	10.0	292	2062	9.4	297
3/5/2020 12:00	3/5/2020 13:00	47	51	34	60	63	50	3.42		1186	7.8	297	941	7.5	298	1290	7.8	279	1578	8.7	283	1760	8.7	288
3/5/2020 13:00	3/5/2020 14:00	48	51	37	60	64	52	3.66		1406	8.2	287	1525	8.4	282	1464	8.1	290	1754	9.2	297	1542	8.5	302
3/5/2020 14:00	3/5/2020 15:00	45	48	31	58	60	48	2.84		947	7.3	296	1044	7.5	295	956	6.8	294	824	7.3	299	714	6.8	294
3/5/2020 15:00	3/5/2020 16:00	39	42	28	52	54	45	2.08	0.01	545	6.4	295	524	6.1	292	413	5.4	297	535	6.3	300	513	6.0	305
3/5/2020 16:00	3/5/2020 17:00	42	44	29	56	57	46	2.04	Trace	118	5.5	292	351	5.4	279	460	5.7	282	476	6.1	282	425	5.8	287
3/5/2020 17:00	3/5/2020 18:00	36	38	24	51	52	41	0.44	Trace	445	6.1	272	433	5.7	265	269	5.1	278	339	5.7	279	256	5.2	281
3/5/2020 18:00	3/5/2020 19:00	32	33	24	45	48	40	0.20	Trace	145	4.8	290	142	4.6	285	8	3.1	294	53	4.0	290	26	3.5	292
3/5/2020 19:00	3/5/2020 20:00	36	38	25	49	51	40	0.23	Trace	118	4.6	277	112	4.1	267	-1	3.1	279	106	4.4	278	91	4.1	281
3/5/2020 20:00	3/5/2020 21:00	32	32	26	47	47	40	0.08		539	6.2	254	450	5.6	243	343	5.6	253	537	6.4	254	558	6.5	262
3/5/2020 21:00	3/5/2020 22:00	36	35	25	52	52	39	0.00		382	5.6	253	338	5.1	244	211	4.8	254	401	6.0	258	410	5.9	264
3/5/2020 22:00	3/5/2020 23:00	35	28	25	50	44	38	0.00		269	5.0	245	224	4.4	234	81	4.0	257	174	4.8	252	210	4.9	255
3/5/2020 23:00	3/6/2020 0:00	27	29	25	42	44	39	0.16		122	4.4	234	224	5.1	216	0	2.9	241	259	5.5	238	306	5.9	243
3/6/2020 0:00	3/6/2020 1:00	27	29	26	41	43	38	0.07		133	4.3	235	81	3.9	214	15	2.9	245	141	4.7	235	154	4.9	247
3/6/2020 1:00	3/6/2020 2:00	27	28	25	41	42	37	0.06		21	3.2	178	14	3.2	172	-20	2.0	170	-3	2.8	193	32	3.6	183
3/6/2020 2:00	3/6/2020 3:00	30	29	26	42	42	38	0.08		111	4.3	139	112	4.3	133	23	3.6	142	48	3.4	143	74	4.2	144
3/6/2020 3:00	3/6/2020 4:00	27	27	26	40	42	38	0.00		386	6.0	118	371	6.2	113	107	4.2	110	246	5.1	115	226	5.3	122
3/6/2020 4:00	3/6/2020 5:00	28	30	26	41	42	38	0.00		623	6.4	127	647	6.9	123	105	3.9	113	416	5.4	119	415	5.6	125
3/6/2020 5:00	3/6/2020 6:00	30	31	28	43	46	41	0.00		380	5.6	116	392	6.0	114	19	3.3	106	200	4.3	105	211	4.4	110
3/6/2020 6:00	3/6/2020 7:00	43	41	31	59	55	44	0.07		381	5.7	91	417	6.0	91	205	4.8	80	268	5.2	86	245	5.1	87
3/6/2020 7:00	3/6/2020 8:00	40	40	32	52	53	47	0.24		355	5.3	62	472	6.0	61	188	4.7	64	241	5.2	68	214	5.1	66
3/6/2020 8:00	3/6/2020 9:00	42	43	29	55	57	45	0.40		140	4.3	60	207	4.8	59	91	4.2	71	148	4.7	73	80	4.4	68
3/6/2020 9:00	3/6/2020 10:00	38	40	31	51	54	46	0.95		44	4.1	64	24	4.0	67	64	4.2	84	84	4.4	83	61	4.3	79
3/6/2020 10:00	3/6/2020 11:00	39	42	26	51	54	44	1.46		196	4.9	105	205	4.9	88	180	4.7	100	190	5.0	99	143	4.7	103
3/6/2020 11:00	3/6/2020 12:00	40	44	27	52	55	43	2.14		330	5.3	100	361	5.6	98	313	5.3	100	453	5.9	95	501	6.0	96
3/6/2020 12:00	3/6/2020 13:00	45	49	31	57	61	45	2.82		835	7.0	92	758	7.0	87	658	6.4	102	971	7.3	100	806	7.0	109
3/6/2020 13:00	3/6/2020 14:00	45	47	29	58	60	44	2.30		762	7.0	100	847	7.4	93	746	6.7	100	816	6.9	101	830	7.1	106
3/6/2020 14:00	3/6/2020 15:00	42	45	32	54	57	44	2.14		1193	8.0	58	830	7.2	58	729	6.5	75	1162	8.1	77	982	7.7	84
3/6/2020 15:00	3/6/2020 16:00	41	43	34	52	54	46	1.40		2075	9.9	65	2106	10.1	60	1750	8.8	71	2150	10.0	72	1981	9.7	73
3/6/2020 16:00	3/6/2020 17:00	41	43	33	53	55	46	1.59		2017	9.8	64	2007	9.9	59	1485	8.3	74	1894	9.5	76	1966	9.6	75
3/6/2020 17:00	3/6/2020 18:00	39	40	32	50	52	46	1.24		2214	10.1	46	1681	9.1	44	1182	7.6	62	2090	9.9	62	1955	9.5	61
3/6/2020 18:00	3/6/2020 19:00	37	39	32	50	52	45	1.23		1556	8.9	47	1255	8.2	45	1027	7.2	62	1499	8.6	63	1453	8.6	63
3/6/2020 19:00	3/6/2020 20:00	34	35	27	48	51	43	0.43		1076	7.8	44	827	7.0	43	672	6.4	58	1160	8.0	59	1040	7.8	59
3/6/2020 20:00	3/6/2020 21:00	37	37	29	52	50	44	0.58		1279	8.1	50	1261	8.2	46	770	6.7	62	1402	8.5	64	1206	8.1	63
3/6/2020 21:00	3/6/2020 22:00	37	39	30	51	51	44	0.80		2306	10.2	41	1646	8.7	39	696	6.4	55	1490	8.7	54	1289	8.2	53
3/6/2020 22:00	3/6/2020 23:00	35	37	30	49	51	46	0.86		2239	10.1	19	1515	8.5	13	330	5.1	31	1025	7.3	32	1460	8.2	29
3/6/2020 23:00	3/7/2020 0:00	45	47	35	57	58	50	1.32		2807	11.9	15	2654	11.4	7	608	5.9	29	1630	8.6	25	1787	9.0	27
3/7/2020 0:00	3/7/2020 1:00	43	44	41	55	55	53	0.97		2667	11.3	15	2247	10.3	127	524	5.6	29	1316	8.0	29	1584	8.4	27

These levels represent total sound and not the facility specific sound. Therefore they are not appropriate for direct comparison to the project limits.

APPENDIX B

Table B-5: Hourly Monitoring Data for Location 5

Time Period		A-Weighted Sound Metrics			C-Weighted Sound Metrics			Local Wind at 2 meters above ground level (m/s)	Regional Precipitation (inches)	Turbine 2			Turbine 3			Turbine 6			Turbine 7			Turbine 8		
Start	End	LA_{EQ} (dBA)	LA_{10} (dBA)	LA_{90} (dBA)	LC_{EQ} (dBC)	LC_{10} (dBC)	LC_{90} (dBC)			Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)	Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)	Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)	Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)	Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)
3/7/2020 1:00	3/7/2020 2:00	42	43	29	54	54	46	0.81		1545	8.9	182	1106	8.0	354	102	4.1	23	259	5.2	13	461	5.8	11
3/7/2020 2:00	3/7/2020 3:00	39	37	28	52	53	45	0.70		1936	9.5	346	1755	9.1	339	321	5.0	289	851	7.0	343	484	5.8	348
3/7/2020 3:00	3/7/2020 4:00	46	49	37	58	61	52	2.38		3048	12.9	343	3092	13.2	338	973	6.9	340	2271	10.2	345	1606	8.4	347
3/7/2020 4:00	3/7/2020 5:00	47	51	35	59	61	51	2.36		2997	12.4	345	3025	12.2	337	869	6.5	340	2050	9.7	344	1354	7.9	345
3/7/2020 5:00	3/7/2020 6:00	47	51	37	60	62	53	2.56		2810	11.7	335	2967	12.0	330	1766	8.2	330	2534	10.8	337	2325	10.0	336
3/7/2020 6:00	3/7/2020 7:00	48	52	36	61	63	53	2.68		2916	11.4	326	3180	13.2	322	1745	8.2	320	2520	10.6	326	2865	11.2	327
3/7/2020 7:00	3/7/2020 8:00	50	53	39	63	65	55	3.13		3169	13.7	322	3191	13.9	318	2402	9.4	313	2912	11.6	318	3049	11.8	320
3/7/2020 8:00	3/7/2020 9:00	49	53	37	62	65	54	2.96		3123	12.9	324	3181	14.4	320	1684	8.4	312	2736	11.2	318	2857	11.1	320
3/7/2020 9:00	3/7/2020 10:00	51	56	39	64	67	55	3.58		3101	12.8	324	3162	13.8	320	1811	8.5	319	2601	11.0	323	2730	11.0	325
3/7/2020 10:00	3/7/2020 11:00	53	57	43	66	69	56	3.97		3105	13.1	323	3177	14.1	321	1866	8.7	321	2743	11.3	325	2857	11.5	327
3/7/2020 11:00	3/7/2020 12:00	53	57	41	65	68	56	3.92		3064	12.9	322	3154	14.0	321	2419	9.8	322	2675	11.4	326	2793	11.8	327
3/7/2020 12:00	3/7/2020 13:00	51	55	38	63	66	54	3.28		2900	11.7	326	2983	12.0	321	2269	9.4	316	2855	11.8	323	2977	11.9	327
3/7/2020 13:00	3/7/2020 14:00	54	58	41	66	70	56	4.13		3061	13.2	322	3137	13.4	319	2749	10.5	314	2791	11.8	320	2865	11.7	322
3/7/2020 14:00	3/7/2020 15:00	54	58	43	66	70	56	4.46		3125	13.3	317	3169	13.5	317	2337	9.7	314	2638	11.2	317	2648	11.1	319
3/7/2020 15:00	3/7/2020 16:00	49	53	36	61	65	54	3.28		2743	12.4	318	2988	12.3	313	2342	9.5	311	2543	11.1	317	2711	11.3	319
3/7/2020 16:00	3/7/2020 17:00	51	55	37	62	66	54	3.30		727	12.2	314	3166	14.1	306	2769	11.0	307	2935	12.5	310	2944	12.5	315
3/7/2020 17:00	3/7/2020 18:00	49	53	39	61	65	54	3.58		2429	10.9	314	2367	10.8	312	1964	8.8	309	2534	10.9	313	2796	11.3	316
3/7/2020 18:00	3/7/2020 19:00	40	44	31	55	57	52	2.00		2531	10.7	310	2374	10.3	307	1414	8.0	303	2060	9.7	305	1939	9.2	306
3/7/2020 19:00	3/7/2020 20:00	40	44	31	54	57	50	2.03		2358	10.1	307	2324	9.9	304	1112	7.4	300	1804	9.1	304	2149	9.5	307
3/7/2020 20:00	3/7/2020 21:00	29	30	24	49	52	45	0.52		1228	7.7	306	1081	7.5	304	521	6.0	300	938	7.5	304	1039	7.5	305
3/7/2020 21:00	3/7/2020 22:00	35	38	28	52	54	47	1.72		2291	10.0	299	2383	10.1	296	1286	8.0	288	2013	9.7	294	2180	9.6	297
3/7/2020 22:00	3/7/2020 23:00	41	44	34	54	56	50	2.54		2210	9.6	297	1887	8.9	293	625	6.6	281	1418	8.3	288	1639	8.3	292
3/7/2020 23:00	3/8/2020 0:00	41	45	31	53	57	48	2.48		1823	8.4	287	1399	7.5	284	118	4.1	284	474	5.9	283	751	6.4	290
3/8/2020 0:00	3/8/2020 1:00	45	48	38	57	59	52	3.28		838	6.9	283	754	6.6	278	353	5.4	280	1399	8.3	282	1544	8.2	287
3/8/2020 1:00	3/8/2020 2:00	44	48	36	58	60	55	3.12		1092	7.2	277	1484	8.0	273	892	6.8	276	2547	10.7	279	2680	10.7	285
3/8/2020 2:00	3/8/2020 3:00											Daylight Savings Time												
3/8/2020 3:00	3/8/2020 4:00	41	45	33	56	59	52	2.30		3138	13.4	273	3158	12.4	266	2746	11	270	3198	13	273	3197	13.0	279
3/8/2020 4:00	3/8/2020 5:00	40	43	31	55	57	51	2.21		3199	12.7	261	3111	11.8	252	2265	10	259	3142	13	261	3176	12.8	269
3/8/2020 5:00	3/8/2020 6:00	45	49	34	58	60	52	2.94		3200	13.8	270	3199	12.7	262	3106	12	260	3200	14	266	3200	13.7	275
3/8/2020 6:00	3/8/2020 7:00	43	46	35	57	59	53	3.07		3200	13.8	266	3200	12.8	259	3122	12	258	3197	13	265	3197	13.5	274
3/8/2020 7:00	3/8/2020 8:00	42	46	34	57	60	53	2.86		3200	15.1	260	3200	14.2	252	3197	13	255	3200	14	260	3201	14.7	268
3/8/2020 8:00	3/8/2020 9:00	39	42	33	56	58	54	1.88		3162	13.8	261	3109	12.8	253	3047	12	255	3147	13	259	3153	13.4	266
3/8/2020 9:00	3/8/2020 10:00	38	41	32	54	56	51	2.13		2068	9.6	266	1687	8.6	260	1388	8	268	1974	10	269	2170	9.8	275
3/8/2020 10:00	3/8/2020 11:00	40	43	30	55	57	50	2.23		1244	8.2	280	1342	8.2	276	1117	8	281	1127	8	281	1317	8.2	284
3/8/2020 11:00	3/8/2020 12:00	45	48	33	57	60	50	3.30		1322	8.3	281	1198	7.9	277	1506	8	281	1439	9	283	1694	8.7	287
3/8/2020 12:00	3/8/2020 13:00	50	54	37	63	65	53	3.80		1926	9.4	277	1752	9.0	277	1610	8	288	1421	8	290	1204	7.9	295
3/8/2020 13:00	3/8/2020 14:00	48	51	34	60	63	51	3.57		1774	9.0	284	1159	7.7	281	1432	8	280	1250	8	274	1443	8.2	276
3/8/2020 14:00	3/8/2020 15:00	45	49	35	58	61	50	3.48		1579	8.6	273	1460	8.3	270	1142	7	288	1098	8	287	848	7.0	289
3/8/2020 15:00	3/8/2020 16:00	47	51	35	59	63	50	3.58		1314	8.0	271	1283	7.7	264	1222	8	276	1427	8	278	1366	7.9	284
3/8/2020 16:00	3/8/2020 17:00	45	49	33	57	60	50	3.07		1196	7.8	267	1487	8.2	258	1513	8	273	1923	9	274	1646	8.6	283
3/8/2020 17:00	3/8/2020 18:00	37	40	27	51	54	45	1.98		189	7.0	273	731	6.7	258	599	6	270	813	7	267	779	6.6	271
3/8/2020 18:00	3/8/2020 19:00	40	41	26	54	54	45	0.80		1035	7.5	250	990	7.1	243	856	7	262	1149	8	260	1220	7.8	264
3/8/2020 19:00	3/8/2020 20:00	41	41	27	54	56	44	0.00		1965	9.2	245	1846	8.5	239	1013	7	255	1636	9	253	1664	8.4	258
3/8/2020 20:00	3/8/2020 21:00	48	46	30	56	57	49	0.26		3199	12.5	250	3199	11.8	243	1901	9	248	3035	12	251	2999	11.3	256
3/8/2020 21:00	3/8/2020 22:00	38	35	30	55	53	49	0.93		1764	13.7	253	3200	13.0	241	2406	10	249	3158	12	250	3170	12.3	256
3/8/2020 22:00	3/8/2020 23:00	29	31	25	47	51	35	0.67		1606	14.0	242	1553	12.9	236	818	9	247	1443	11	245	1566	12.0	250
3/8/2020 23:00	3/9/2020 0:00	32	33	28	49	51	45	0.88		2732	14.2	236	2399	10.2	224	1877	9	239	2717	13	238	2722	13.0	243
3/9/2020 0:00	3/9/2020 1:00	36	38	31	53	55	50	1.40		3177	14.3	231	2460	9.7	220	2308	10	236	3171	13	234	3143	12.5	238
3/9/2020 1:00	3/9/2020 2:00	39	42	32	54	56	51	2.03		3200	15.5	238	3178	12.9	228	2741	11	239	3192	13	239	3194	13.3	245
3/9/2020 2:00	3/9/2020 3:00	40	36	32	54	56	52	1.96		3200	15.3	239	3167	13.0	230	2613	10	243	3195	14	241	3200	14.3	247
3/9/2020 3:00	3/9/2020 4:00	49	52	42	63	65	56	4.33		3200	18.4	243	3200	17.1	235	3197	13	245	3200	17	246	3200	17.1	252
3/9/2020 4:00	3/9/2020 5:00	47	51	39	61	64	54	3.24		3200	17.3	249	3200	16.4	240	3188	12	244	3200	16	247	3200	16.5	255
3/9/2020 5:00	3/9/2020 6:00	42	45	36	56	58	52	3.04		3198	16.9	254	3198	16.0	246	3180	12	246	3198	15	252	3198	15.3	259
3/9/2020 6:00	3/9/2020 7:00	45	46	34	60	59	52	2.13		3200	17.4	258	3200	16.6	252	3199	14	251	3199	16	260	3199	16.6	267
3/9/2020 7:00	3/9/2020 8:00	41	43	33	55	57	52	1.96		3199	17.4	258	3199	16.7	251	3193	13	251	3199	16	258	3199	16.2	265
3/9/2020 8:00	3/9/2020 9:00	42	41	33	55	57	53	3.66		3200	16.1	253	3199	15.4	247	2269	9	248	3199	14	251	3199	14.5	258
3/9/2020 9:00	3/9/2020 10:00	45	48	38	58	61	54	3.43		3200	15.4	253	3200	14.7	247	2575	10	250	3169	13	252	3142	13.3	259
3/9/2020 10:00	3/9/2020 11:00	47	51	37	61	64	55	3.71		3172	13.6	250	3127	12.5	243	2165	9	255	2657	11	252	2549	10.2	258
3/9/2020 11:00	3/9/2020 12:00	48	52	38	62	65	54	4.22		2987	11.8	244	2772	11.1	239	2006	9	257	2718	11	250	2460	9.9	257

These levels represent total sound and not the facility specific sound. Therefore they are not appropriate for direct comparison to the project limits.

APPENDIX B

Table B-5: Hourly Monitoring Data for Location 5

Time Period		A-Weighted Sound Metrics			C-Weighted Sound Metrics			Local Wind at 2 meters above ground level (m/s)	Regional Precipitation (inches)	Turbine 2			Turbine 3			Turbine 6			Turbine 7			Turbine 8		
Start	End	LA_{EQ} (dBA)	LA_{10} (dBA)	LA_{90} (dBA)	LC_{EQ} (dBC)	LC_{10} (dBC)	LC_{90} (dBC)			Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)	Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)	Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)	Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)	Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)
3/9/2020 12:00	3/9/2020 13:00	50	53	39	63	66	54	4.18		2648	10.7	239	1921	8.8	235	1611	8	258	2561	11	250	1707	8.4	258
3/9/2020 13:00	3/9/2020 14:00	51	55	39	64	67	53	4.14		2162	9.7	235	1494	8.0	233	1645	8	247	2276	10	241	1619	8.2	248
3/9/2020 14:00	3/9/2020 15:00	48	52	38	61	65	53	4.04		2182	9.7	234	1706	8.5	228	2068	9	250	2445	11	248	1918	8.8	252
3/9/2020 15:00	3/9/2020 16:00	48	52	37	62	65	52	3.48		1749	8.6	239	1069	6.8	230	1784	9	245	2076	9	240	1709	8.3	247
3/9/2020 16:00	3/9/2020 17:00	46	50	34	61	63	51	1.89		2016	9.2	231	1172	7.1	226	2001	9	246	2430	10	243	2085	9.2	249
3/9/2020 17:00	3/9/2020 18:00	40	45	29	55	60	48	0.24		524	9.2	244	1137	7.0	232	1153	7	251	1478	8	247	1243	7.4	249
3/9/2020 18:00	3/9/2020 19:00	35	39	26	52	52	42	0.40		1105	7.3	236	514	5.0	232	373	5	247	623	6	244	638	5.9	248
3/9/2020 19:00	3/9/2020 20:00	40	43	28	50	52	43	0.47		1577	8.2	235	520	4.7	232	488	5	246	1032	7	243	1207	7.4	247
3/9/2020 20:00	3/9/2020 21:00	36	38	28	49	48	42	0.50		1796	8.4	229	549	5.0	221	877	7	241	1451	8	238	1410	7.5	240
3/9/2020 21:00	3/9/2020 22:00	40	42	28	47	50	43	0.48		1307	7.3	231	612	5.4	225	527	5	243	1116	7	239	1044	6.6	240
3/9/2020 22:00	3/9/2020 23:00	38	37	30	53	52	46	0.87		2895	10.8	237	2115	8.7	230	846	6	238	2217	9	242	2450	9.7	248
3/9/2020 23:00	3/10/2020 0:00	31	32	29	47	48	45	1.32		2900	10.7	231	1488	7.1	222	1086	7	236	2509	10	237	2760	10.2	241
3/10/2020 0:00	3/10/2020 1:00	35	37	29	49	51	46	1.25		3200	13.5	239	2635	10.0	228	1832	9	241	3093	12	240	3186	12.7	246
3/10/2020 1:00	3/10/2020 2:00	33	34	30	50	51	48	0.74		3199	14.2	234	2289	8.4	219	2385	10	237	3199	14	237	3200	14.0	243
3/10/2020 2:00	3/10/2020 3:00	32	34	30	50	51	48	1.14		3185	13.0	232	1885	8.0	219	2058	9	233	3186	13	235	3162	12.8	241
3/10/2020 3:00	3/10/2020 4:00	33	34	29	50	52	46	0.82		3037	11.4	236	1703	7.9	223	1468	8	232	2862	11	237	2956	11.2	245
3/10/2020 4:00	3/10/2020 5:00	30	31	29	46	48	44	0.54		2705	10.3	238	1386	7.2	225	1544	8	232	2587	11	240	2561	10.3	248
3/10/2020 5:00	3/10/2020 6:00	34	33	28	47	48	43	0.40		2044	9.1	240	1249	7.2	225	1132	7	232	2092	10	237	1988	9.1	247
3/10/2020 6:00	3/10/2020 7:00	42	42	28	59	52	43	0.33		1818	8.5	228	1177	6.8	216	715	6	228	1908	9	231	1938	8.7	236
3/10/2020 7:00	3/10/2020 8:00	40	42	29	49	53	43	0.37		840	5.9	218	1032	7.0	207	841	7	223	1479	8	226	1310	7.2	222
3/10/2020 8:00	3/10/2020 9:00	37	40	28	49	52	44	0.00		583	5.2	221	1013	7.1	208	865	7	224	1454	8	227	1176	6.6	224
3/10/2020 9:00	3/10/2020 10:00	41	41	27	49	52	44	0.95		162	3.6	216	592	5.5	198	211	4	215	647	6	208	326	4.3	211
3/10/2020 10:00	3/10/2020 11:00	40	43	26	54	55	44	0.94		87	3.5	191	235	4.3	188	15	3	232	148	4	207	138	3.8	205
3/10/2020 11:00	3/10/2020 12:00	35	37	24	49	51	43	2.34		147	3.6	173	204	4.2	174	-21	2	197	54	3	200	89	3.6	186
3/10/2020 12:00	3/10/2020 13:00	39	43	29	54	56	46	2.82		564	5.5	196	1041	6.8	192	671	6	227	617	6	215	383	4.8	210
3/10/2020 13:00	3/10/2020 14:00	47	50	36	62	64	51	3.69	Trace	1649	8.2	217	2319	10.4	209	2344	10	233	2445	11	230	1562	8.3	237
3/10/2020 14:00	3/10/2020 15:00	50	53	38	65	68	52	2.76		2144	9.9	217	2771	11.9	210	2248	10	236	2707	11	228	1934	8.8	233
3/10/2020 15:00	3/10/2020 16:00	43	46	35	58	60	50	2.07		1012	6.8	223	1468	8.1	212	1482	8	236	2000	9	230	1158	7.0	234
3/10/2020 16:00	3/10/2020 17:00	41	44	32	55	57	48	1.96	Trace	794	6.3	220	1600	8.4	209	998	7	237	1419	8	231	704	6.0	238
3/10/2020 17:00	3/10/2020 18:00	39	42	33	54	56	49	1.60	Trace	703	6.2	227	733	6.2	218	1185	7	239	1846	9	233	1309	7.5	238
3/10/2020 18:00	3/10/2020 19:00	38	41	33	54	56	50	2.32	Trace	1693	8.5	226	662	6.2	218	1333	8	239	2268	10	233	1752	8.2	237
3/10/2020 19:00	3/10/2020 20:00	41	45	35	56	58	52	2.79	0.01	2627	10.8	227	1197	7.6	221	2039	9	241	2695	11	237	2259	9.4	239
3/10/2020 20:00	3/10/2020 21:00	45	48	36	60	62	53	2.68		2908	12.1	229	2109	9.5	223	2527	10	245	2936	12	241	2473	10.2	243
3/10/2020 21:00	3/10/2020 22:00	43	47	35	59	61	53	1.77		3138	13.7	237	2930	12.3	232	2878	12	250	3107	13	247	2909	11.4	253
3/10/2020 22:00	3/10/2020 23:00	38	40	34	56	58	53	2.56		2400	10.3	251	2369	10.0	245	2017	9	257	2880	12	255	2719	10.8	261
3/10/2020 23:00	3/11/2020 0:00	45	46	35	59	59	54	2.94		3019	12.7	268	2987	12.1	263	2628	11	271	3091	12	270	3057	12.2	276
3/11/2020 0:00	3/11/2020 1:00	46	50	35	59	61	54	4.40		3016	12.4	279	2903	11.7	276	2373	10	281	2863	12	280	2923	11.9	287
3/11/2020 1:00	3/11/2020 2:00	52	55	40	64	67	55	3.13		2749	12.4	296	2951	12.8	294	2560	11	295	2894	12	292	2945	12.2	296
3/11/2020 2:00	3/11/2020 3:00	48	52	36	60	63	53	1.58		2956	12.9	307	3001	12.7	305	2417	10	304	2707	11	308	2612	10.9	310
3/11/2020 3:00	3/11/2020 4:00	41	44	34	55	57	52	2.30		2851	11.6	304	2757	11.3	303	2340	10	304	2753	11	308	2611	10.9	311
3/11/2020 4:00	3/11/2020 5:00	43	48	35	57	59	51	1.84		2947	11.8	303	2701	11.1	301	2299	10	301	2586	11	304	2700	11.2	307
3/11/2020 5:00	3/11/2020 6:00	40	44	32	54	56	49	2.24		1562	8.9	297	1730	9.1	293	1784	9	292	2206	10	294	2331	10.1	297
3/11/2020 6:00	3/11/2020 7:00	44	46	32	59	59	48	1.78		1299	8.2	298	1597	8.7	290	1575	8	288	2202	10	292	2048	9.6	296
3/11/2020 7:00	3/11/2020 8:00	40	43	31	54	56	48	1.91		1433	8.5	310	1092	7.5	304	954	7	297	1250	8	304	1221	7.8	306
3/11/2020 8:00	3/11/2020 9:00	46	48	32	56	58	50	2.32		1598	9.0	308	1648	9.1	305	1389	8	302	1794	9	309	1876	9.3	307
3/11/2020 9:00	3/11/2020 10:00	42	47	32	54	58	48	2.98		1136	8.0	305	992	7.6	300	706	6	303	803	7	304	711	6.8	310
3/11/2020 10:00	3/11/2020 11:00	43	46	31	54	58	46	2.17		414	6.0	314	493	6.3	304	378	5	312	372	6	309	391	5.8	309
3/11/2020 11:00	3/11/2020 12:00	39	44	26	52	56	43	2.32		298	5.4	301	292	5.3	305	121	4	316	131	5	311	105	4.4	310
3/11/2020 12:00	3/11/2020 13:00	41	45	28	53	57	45	1.62		508	6.2	304	493	6.1	305	389	5	315	413	6	321	435	5.7	320
3/11/2020 13:00	3/11/2020 14:00	39	42	25	53	55	44	1.19		188	5.2	219	259	5.1	314	137	4	315	187	5	318	189	4.7	322
3/11/2020 14:00	3/11/2020 15:00	39	40	23	53	55	43	1.06		124	4.6	337	168	4.6	327	6	4	221	49	4	330	36	3.9	323
3/11/2020 15:00	3/11/2020 16:00	35	39	22	49	52	41	1.40		62	4.2	330	113	4.4	323	19	3	311	53	4	314	36	3.8	313
3/11/2020 16:00	3/11/2020 17:00	40	38	25	50	53	42	1.19		95	4.4	325	109	4.3	315	71	4	324	96	4	335	62	4.0	333
3/11/2020 17:00	3/11/2020 18:00	35	37	24	50	52	43	0.80		98	5.3	315	250	5.1	305	195	4	309	207	5	314	220	5.0	310
3/11/2020 18:00	3/11/2020 19:00	39	40	25	51	53	44	1.17		712	6.9	317	773	7.1	314	493	5	316	504	6	321	575	6.3	319
3/11/2020 19:00	3/11/2020 20:00	41	44	26	51	53	46	0.37		787	7.0	310	975	7.4	308	542	6	310	610	7	313	734	6.7	312
3/11/2020 20:00	3/11/2020 21:00	34	36	24	48	50	44	0.98		667	6.6	300	827	6.8	296	488	6	301	638	7	303	789	6.6	303
3/11/2020 21:00	3/11/2020 22:00	33	36	23	49	52	43	0.00		516	6.0	314	664	6.7	313	384	5	314	485	6	320	424	5.6	315
3/11/2020 22:00	3/11/2020 23:00	29	29	20	42	44	37	0.06		39	3.0	288	68	3.4	281	19	3	281	59	3	289	77	3.4	291

These levels represent total sound and not the facility specific sound. Therefore they are not appropriate for direct comparison to the project limits.

APPENDIX B

Table B-5: Hourly Monitoring Data for Location 5

Time Period		A-Weighted Sound Metrics			C-Weighted Sound Metrics			Local Wind at 2 meters above ground level (m/s)	Regional Precipitation (inches)	Turbine 2			Turbine 3			Turbine 6			Turbine 7			Turbine 8		
Start	End	LA_{EQ} (dBA)	LA_{10} (dBA)	LA_{90} (dBA)	LC_{EQ} (dBC)	LC_{10} (dBC)	LC_{90} (dBC)			Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)	Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)	Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)	Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)	Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)
3/11/2020 23:00	3/12/2020 0:00	29	27	22	38	40	35	0.00		-8	1.1	125	-17	1.2	113	-22	1	162	-10	2	125	-13	1.1	136
3/12/2020 0:00	3/12/2020 1:00	28	25	22	38	39	35	0.13		-8	1.3	78	-20	1.3	76	-22	1	78	-9	2	88	-15	1.8	101
3/12/2020 1:00	3/12/2020 2:00	26	23	21	38	40	36	0.06		-9	1.8	287	-20	1.3	191	-23	2	141	-10	2	181	-15	1.0	185
3/12/2020 2:00	3/12/2020 3:00	29	29	24	44	46	40	0.00		-9	2.2	75	-21	2.4	87	-22	3	86	-16	2	47	-16	2.1	43
3/12/2020 3:00	3/12/2020 4:00	29	30	25	45	47	42	0.00		-9	2.8	122	-21	2.6	68	-21	2	24	-11	1	58	-12	1.7	76
3/12/2020 4:00	3/12/2020 5:00	26	27	24	42	45	40	0.00		15	3.2	87	9	3.1	82	-21	2	105	9	2	99	5	2.4	103
3/12/2020 5:00	3/12/2020 6:00	31	30	23	46	47	40	0.08	Trace	109	4.3	90	107	4.3	84	-8	3	95	97	4	88	84	4.0	90
3/12/2020 6:00	3/12/2020 7:00	43	43	27	59	52	44	0.13		506	6.3	103	495	6.5	97	390	6	98	526	6	98	424	6.1	101
3/12/2020 7:00	3/12/2020 8:00	37	40	28	49	51	45	0.41		314	5.6	100	336	5.7	93	330	6	96	445	6	97	395	6.0	99
3/12/2020 8:00	3/12/2020 9:00	35	38	27	50	52	46	0.88		278	5.2	94	227	5.1	88	227	5	96	304	6	96	259	5.4	98
3/12/2020 9:00	3/12/2020 10:00	37	39	26	49	51	45	0.82		208	5.3	110	251	5.4	98	271	6	103	358	6	100	274	5.5	103
3/12/2020 10:00	3/12/2020 11:00	36	37	25	52	56	44	1.14		173	5.0	114	153	4.9	104	173	5	105	194	5	103	141	4.8	105
3/12/2020 11:00	3/12/2020 12:00	41	40	27	55	53	44	1.14		230	5.2	123	228	5.3	116	183	5	114	308	5	114	227	5.3	118
3/12/2020 12:00	3/12/2020 13:00	39	38	27	53	52	44	1.55		263	5.5	131	250	5.5	122	258	5	116	270	5	118	237	5.4	128
3/12/2020 13:00	3/12/2020 14:00	39	42	26	51	55	44	1.91		227	5.1	138	307	5.4	127	198	5	125	291	5	122	219	5.1	126
3/12/2020 14:00	3/12/2020 15:00	42	44	28	55	57	45	2.32		424	6.0	141	398	6.1	132	201	5	132	275	5	131	289	5.3	141
3/12/2020 15:00	3/12/2020 16:00	45	50	30	55	59	45	2.67		535	6.3	154	517	6.5	148	266	5	152	345	5	147	502	6.2	155
3/12/2020 16:00	3/12/2020 17:00	44	49	28	54	58	45	2.23		372	5.8	149	429	6.2	145	276	5	137	213	5	138	263	5.2	146
3/12/2020 17:00	3/12/2020 18:00	39	43	26	52	55	44	0.88		423	6.1	149	457	6.4	143	200	5	142	295	5	141	350	5.6	151
3/12/2020 18:00	3/12/2020 19:00	35	36	24	50	51	42	1.48		313	5.7	135	330	5.8	129	244	5	123	297	5	122	242	5.2	129
3/12/2020 19:00	3/12/2020 20:00	40	44	25	51	55	42	1.71		502	6.3	122	588	6.9	118	494	6	116	611	6	113	541	6.5	120
3/12/2020 20:00	3/12/2020 21:00	39	42	28	51	55	44	1.58		987	7.7	127	988	7.9	121	848	7	119	1065	8	116	815	7.2	122
3/12/2020 21:00	3/12/2020 22:00	39	43	29	52	57	43	1.27		823	7.3	123	1046	8.0	116	1099	8	116	1320	8	112	1028	7.7	117
3/12/2020 22:00	3/12/2020 23:00	34	34	24	46	50	39	1.07		597	6.8	121	560	6.8	115	684	7	117	1027	8	115	935	7.6	120
3/12/2020 23:00	3/13/2020 0:00	30	33	24	45	48	38	0.90	Trace	528	6.5	117	549	6.7	110	533	6	109	776	7	109	689	6.9	115
3/13/2020 0:00	3/13/2020 1:00	26	27	23	41	43	38	0.87	0.01	643	6.8	120	704	7.1	113	385	6	107	513	6	112	499	6.3	117
3/13/2020 1:00	3/13/2020 2:00	34	37	25	45	48	40	1.13		1310	8.4	124	1308	8.6	117	740	7	111	969	8	116	1024	7.7	123
3/13/2020 2:00	3/13/2020 3:00	30	33	26	44	46	40	1.50	Trace	1213	8.3	118	1230	8.4	111	1002	8	110	1396	8	111	1362	8.6	118
3/13/2020 3:00	3/13/2020 4:00	36	39	30	49	52	42	2.00	Trace	530	9.1	128	576	9.4	122	1476	9	116	2042	10	116	1905	9.6	122
3/13/2020 4:00	3/13/2020 5:00	42	45	35	53	57	45	2.56	0.01	-6	11.4	127	-18	12.5	124	2637	11	114	2951	11	115	2841	11.2	120
3/13/2020 5:00	3/13/2020 6:00	45	49	36	57	61	47	2.94	0.03	1711	11.6	121	1735	12.1	115	2679	11	112	2951	11	112	2857	11.3	118
3/13/2020 6:00	3/13/2020 7:00	48	52	35	61	64	48	2.22	0.15	2873	11.8	120	3034	12.3	113	2869	11	113	3086	12	113	3094	12.4	120
3/13/2020 7:00	3/13/2020 8:00	46	48	40	54	57	48	1.60	0.11	2574	10.9	114	2632	11.0	109	2728	11	110	3063	12	109	3011	11.7	115
3/13/2020 8:00	3/13/2020 9:00	48	50	43	53	55	48	1.78	0.09	2585	10.8	115	2594	10.9	109	1899	9	108	2108	10	108	2073	9.6	114
3/13/2020 9:00	3/13/2020 10:00	47	49	40	52	54	47	1.87	0.06	2568	10.8	119	2573	10.8	114	1842	9	110	2284	10	114	2307	10.1	121
3/13/2020 10:00	3/13/2020 11:00	44	46	38	59	63	47	1.09	0.01	2142	9.9	123	2232	10.3	118	1327	8	113	1965	9	118	2087	9.7	125
3/13/2020 11:00	3/13/2020 12:00	38	39	32	47	49	43	0.44	Trace	1561	8.8	134	1485	8.8	128	736	7	115	1170	7	119	1139	7.7	127
3/13/2020 12:00	3/13/2020 13:00	37	40	32	49	51	46	0.28	0.07	2271	9.9	153	2422	10.5	151	758	6	133	1639	8	142	2100	9.1	153
3/13/2020 13:00	3/13/2020 14:00	39	40	34	48	50	46	1.63	0.02	2890	11.9	174	3032	12.4	171	867	6	172	1433	7	174	2343	9.6	177
3/13/2020 14:00	3/13/2020 15:00	47	50	38	62	63	49	5.46	Trace	2133	10.1	222	2397	10.8	215	2107	10	238	2508	11	232	2023	9.4	236
3/13/2020 15:00	3/13/2020 16:00	56	60	42	69	72	57	6.72	Trace	3167	15.5	254	3132	14.4	250	3130	14	261	3180	16	259	3176	15.4	266
3/13/2020 16:00	3/13/2020 17:00	62	65	53	74	78	63	7.23		3173	18.5	272	3181	18.7	268	3182	18	276	3182	20	274	3182	19.6	283
3/13/2020 17:00	3/13/2020 18:00	61	65	51	73	77	62	6.54		1539	17.6	277	3167	17.3	271	3170	17	275	3171	18	273	3174	17.0	279
3/13/2020 18:00	3/13/2020 19:00	59	62	50	71	74	61	4.62		3196	18.4	276	3183	18.4	273	3192	19	278	3195	19	277	3195	18.9	284
3/13/2020 19:00	3/13/2020 20:00	54	58	44	66	69	58	5.00		3198	18.5	280	3199	17.7	276	3198	16	279	3199	17	278	3199	16.8	285
3/13/2020 20:00	3/13/2020 21:00	54	58	45	66	69	59	5.64		3185	17.4	276	3195	17.1	272	3196	16	278	3200	16	275	3199	16.2	283
3/13/2020 21:00	3/13/2020 22:00	58	62	48	71	74	60	5.68		3162	16.7	270	3143	16.4	265	3186	15	272	3191	17	270	3198	16.9	279
3/13/2020 22:00	3/13/2020 23:00	54	58	45	67	70	59	4.91		3183	17.0	271	3164	15.8	266	3160	14	270	3178	14	269	3191	14.6	275
3/13/2020 23:00	3/14/2020 0:00	53	57	44	65	68	58	4.20		3176	17.1	272	3177	16.8	267	3160	15	273	3182	15	270	3182	15.3	276
3/14/2020 0:00	3/14/2020 1:00	50	54	40	63	65	56	4.33		3179	14.7	267	3181	13.9	262	3177	13	268	3181	15	266	3185	15.0	273
3/14/2020 1:00	3/14/2020 2:00	50	53	40	62	64	56	4.10		3196	14.0	265	3180	13.6	260	3138	13	269	3190	14	267	3188	14.2	274
3/14/2020 2:00	3/14/2020 3:00	48	52	40	61	64	56	5.00		3200	15.9	265	3200	15.2	260	3182	14	269	3200	15	268	3197	14.4	274
3/14/2020 3:00	3/14/2020 4:00	54	58	44	66	69	57	5.00		3199	19.0	271	3199	18.2	267	3199	17	274	3198	17	274	3198	16.9	281
3/14/2020 4:00	3/14/2020 5:00	53	57	41	66	69	57	4.07		3199	18.0	267	3198	17.7	263	3192	17	271	3199	18	270	3198	17.4	278
3/14/2020 5:00	3/14/2020 6:00	53	57	39	66	68	57	4.20		3173	15.7	264	3192	15.6	259	3193	15	268	3200	16	268	3201	16.3	277
3/14/2020 6:00	3/14/2020 7:00	52	56	42	64	67	57	2.38		3198	16.1	272	3198	15.8	268	3198	15	274	3198	17	274	3198	16.3	282
3/14/2020 7:00	3/14/2020 8:00	46	50	35	60	62	55	4.47		3174	13.9	275	3163	13.5	271	3129	13	274	3172	15	274	3182	14.6	282
3/14/2020 8:00	3/14/2020 9:00	54	58	40	67	70	57	4.38		3177	15.8	278	3174	15.7	275	3164	14	281	3150	14	280	3150	14.7	287
3/14/2020 9:00	3/14/2020 10:00	53	56	42	65	68	57	4.77		2967	13.3	289	2805	12.6	286	3072	13	284	3099	14	283	3132	14.6	291

These levels represent total sound and not the facility specific sound. Therefore they are not appropriate for direct comparison to the project limits.

APPENDIX B

Table B-5: Hourly Monitoring Data for Location 5

Time Period		A-Weighted Sound Metrics			C-Weighted Sound Metrics			Local Wind at 2 meters above ground level (m/s)	Regional Precipitation (inches)	Turbine 2			Turbine 3			Turbine 6			Turbine 7			Turbine 8		
Start	End	LA_{EQ} (dBA)	LA_{10} (dBA)	LA_{90} (dBA)	LC_{EQ} (dBC)	LC_{10} (dBC)	LC_{90} (dBC)			Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)	Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)	Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)	Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)	Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)
3/14/2020 10:00	3/14/2020 11:00	54	57	43	66	69	57	4.86		2978	13.4	294	2762	12.3	293	2775	11	287	2852	12	288	2715	11.4	294
3/14/2020 11:00	3/14/2020 12:00	53	57	43	65	68	57	5.20		2888	11.8	288	2591	10.9	282	2650	11	281	2787	12	279	2959	11.6	286
3/14/2020 12:00	3/14/2020 13:00	54	58	44	66	69	57	4.93		2331	10.2	281	2162	9.8	271	2821	11	277	2680	11	281	2807	11.2	286
3/14/2020 13:00	3/14/2020 14:00	53	57	42	65	68	56	4.29		2300	10.6	294	1903	9.4	282	2395	10	277	2513	11	277	2425	10.6	284
3/14/2020 14:00	3/14/2020 15:00	51	55	39	62	65	55	4.82		2531	10.8	273	2452	10.4	267	2372	10	283	2576	11	277	2418	10.6	282
3/14/2020 15:00	3/14/2020 16:00	52	56	42	64	67	57	4.78		2801	11.8	273	2705	11.4	270	2907	12	280	2991	13	280	2864	11.9	287
3/14/2020 16:00	3/14/2020 17:00	54	57	43	65	68	57	4.41		2917	12.4	278	2815	11.6	275	3004	12	283	3021	13	285	2883	12.0	292
3/14/2020 17:00	3/14/2020 18:00	51	55	40	63	66	55	3.42		1520	11.3	288	2920	11.9	281	2914	11	282	2865	12	283	2843	11.7	289
3/14/2020 18:00	3/14/2020 19:00	46	51	36	59	61	54	3.58		2792	11.6	284	2966	12.1	282	2467	10	286	2845	12	285	2859	11.7	290
3/14/2020 19:00	3/14/2020 20:00	49	53	36	61	64	55	2.80		3070	12.8	289	2968	12.1	287	2887	12	292	2979	12	292	2961	12.1	297
3/14/2020 20:00	3/14/2020 21:00	44	47	34	58	60	53	2.40		3023	12.3	287	2799	11.4	284	1964	9	284	2208	10	285	2222	9.9	288
3/14/2020 21:00	3/14/2020 22:00	44	48	34	57	60	52	2.52		2456	10.5	288	2367	10.3	284	1581	8	285	2038	10	286	1950	9.2	292
3/14/2020 22:00	3/14/2020 23:00	39	43	29	54	57	47	1.27		1581	8.9	304	1539	8.8	301	1111	7	295	1516	9	298	1526	8.4	301
3/14/2020 23:00	3/15/2020 0:00	48	41	29	59	56	46	1.50		1271	8.3	320	1430	8.5	317	713	6	310	1235	8	318	1235	7.9	319
3/15/2020 0:00	3/15/2020 1:00	36	38	30	53	55	49	0.72		2105	9.7	313	2099	9.8	311	978	7	310	1375	8	316	1451	8.3	317
3/15/2020 1:00	3/15/2020 2:00	35	34	24	50	51	43	1.06		926	7.3	316	856	7.3	312	408	5	306	498	6	312	518	6.1	312
3/15/2020 2:00	3/15/2020 3:00	36	36	28	51	52	46	1.34		1258	8.0	314	1296	8.4	313	546	6	310	767	7	314	799	6.9	316
3/15/2020 3:00	3/15/2020 4:00	37	38	25	51	54	44	1.70		1563	8.7	321	1400	8.6	318	880	7	315	1084	8	324	1122	7.7	322
3/15/2020 4:00	3/15/2020 5:00	39	43	31	54	56	50	1.96		2276	10.1	316	2382	10.4	314	1700	8	311	2063	10	318	1991	9.4	318
3/15/2020 5:00	3/15/2020 6:00	43	46	31	56	59	50	2.32		3018	12.5	316	3095	12.6	315	2174	9	309	2852	12	316	2984	11.7	319
3/15/2020 6:00	3/15/2020 7:00	43	47	34	57	59	52	2.22		2964	12.1	312	3073	12.0	310	2497	10	306	2732	11	311	3079	11.6	312
3/15/2020 7:00	3/15/2020 8:00	45	49	34	58	60	52	2.03		2529	11.0	314	2663	11.4	312	1684	8	308	2170	10	312	2377	10.1	313
3/15/2020 8:00	3/15/2020 9:00	46	49	34	58	60	52	3.06		2781	11.2	308	2829	11.2	307	2139	9	303	2489	11	308	2729	10.7	310
3/15/2020 9:00	3/15/2020 10:00	46	51	35	59	62	51	2.60		1993	9.7	309	2133	9.8	306	1558	8	306	1688	9	313	1855	9.1	311
3/15/2020 10:00	3/15/2020 11:00	46	51	32	58	61	48	2.47		906	7.4	317	1180	8.1	312	832	7	313	1090	8	315	1233	7.9	316
3/15/2020 11:00	3/15/2020 12:00	44	48	30	56	59	48	3.48		1133	8.0	309	1240	8.4	303	1063	7	306	1364	8	314	1407	8.3	318
3/15/2020 12:00	3/15/2020 13:00	48	52	35	59	62	51	3.07		1182	8.0	309	1401	8.3	303	1161	7	303	1252	8	315	1237	8.1	312
3/15/2020 13:00	3/15/2020 14:00	49	52	32	61	64	50	3.26		1072	7.7	312	1466	8.3	305	1341	8	300	1693	9	311	1647	8.6	316
3/15/2020 14:00	3/15/2020 15:00	48	52	34	60	63	50	2.76		1452	8.3	315	1629	8.7	313	559	6	318	782	7	316	877	7.0	315
3/15/2020 15:00	3/15/2020 16:00	46	50	35	59	62	50	3.12		1453	8.4	319	1873	9.3	318	919	7	310	918	7	314	787	6.9	312
3/15/2020 16:00	3/15/2020 17:00	47	52	35	60	63	51	4.16		1901	9.3	315	2053	9.7	312	1204	7	305	1406	8	310	1407	8.3	311
3/15/2020 17:00	3/15/2020 18:00	52	56	40	63	67	55	2.84		1812	11.2	308	2973	11.7	303	2211	9	309	2459	10	316	2598	10.5	317
3/15/2020 18:00	3/15/2020 19:00	48	50	32	58	61	49	1.70		1933	9.5	320	2209	10.1	315	1286	7	319	1646	9	326	1473	8.4	325
3/15/2020 19:00	3/15/2020 20:00	38	41	29	53	55	48	1.46		1780	9.0	325	1921	9.7	324	753	6	321	1200	8	328	1234	7.9	327
3/15/2020 20:00	3/15/2020 21:00	37	40	26	52	55	47	2.04		1086	7.6	323	1227	8.2	321	548	6	313	971	7	318	1131	7.4	319
3/15/2020 21:00	3/15/2020 22:00	40	44	30	55	57	50	1.47		2551	10.5	316	2312	10.3	314	1322	8	310	1773	9	316	2050	9.3	316
3/15/2020 22:00	3/15/2020 23:00	36	40	27	52	54	48	2.17		1451	8.4	321	1590	9.1	319	838	7	316	1134	8	322	1225	7.9	320
3/15/2020 23:00	3/16/2020 0:00	41	45	29	55	57	48	1.78		1767	9.1	323	2037	9.8	323	1263	7	324	1593	9	334	1518	8.7	331
3/16/2020 0:00	3/16/2020 1:00	38	42	28	52	56	46	1.32		1113	7.8	337	1333	8.5	332	881	7	327	1308	9	337	1153	8.0	333
3/16/2020 1:00	3/16/2020 2:00	36	38	25	52	53	46	0.47		1243	7.7	329	1476	8.5	324	515	6	322	956	7	331	970	7.3	328
3/16/2020 2:00	3/16/2020 3:00	24	26	21	46	48	42	0.60		713	6.8	341	561	6.8	333	168	5	331	400	6	336	244	5.4	336
3/16/2020 3:00	3/16/2020 4:00	23	24	20	44	46	41	0.13		525	6.2	339	500	6.2	333	91	5	335	253	5	342	90	4.8	344
3/16/2020 4:00	3/16/2020 5:00	27	24	20	43	45	40	0.37		456	6.1	347	375	5.7	338	-16	3	183	227	5	291	44	4.0	68
3/16/2020 5:00	3/16/2020 6:00	31	24	20	44	44	40	0.00		177	5.3	293	148	4.7	340	-6	4	69	67	5	238	-21	3.3	120
3/16/2020 6:00	3/16/2020 7:00	43	41	21	58	57	41	0.00		-11	4.1	14	-27	3.6	63	-21	3	136	-20	3	28	-22	2.5	31
3/16/2020 7:00	3/16/2020 8:00	34	34	23	45	47	42	0.24		-11	3.1	14	-27	3.1	12	-23	4	131	-21	3	45	-22	2.1	49
3/16/2020 8:00	3/16/2020 9:00	37	40	21	48	47	42	0.60		-11	2.9	88	-33	2.8	95	-23	3	97	-25	3	93	-20	3.2	94
3/16/2020 9:00	3/16/2020 10:00	44	42	23	49	51	42	1.48		-5	3.9	153	-22	3.7	159	-23	3	136	-18	3	137	-18	3.6	146
3/16/2020 10:00	3/16/2020 11:00	38	41	21	51	54	43	1.50		46	4.6	145	18	4.4	148	-6	4	128	-10	4	138	-9	4.1	151
3/16/2020 11:00	3/16/2020 12:00	32	35	21	47	50	43	1.68		108	4.8	133	108	5.0	131	2	4	156	17	4	154	37	4.1	160
3/16/2020 12:00	3/16/2020 13:00	42	47	21	54	59	43	1.93		104	4.6	160	115	4.4	155	77	4	158	90	4	142	97	4.6	147
3/16/2020 13:00	3/16/2020 14:00	40	44	22	52	56	44	2.41		227	5.2	152	290	5.5	154	178	5	149	199	5	150	231	5.1	152
3/16/2020 14:00	3/16/2020 15:00	45	48	23	56	60	44	2.40		423	5.9	154	381	6.0	151	184	5	152	227	5	148	252	5.1	152
3/16/2020 15:00	3/16/2020 16:00	44	48	27	57	60	45	2.30		424	5.8	160	487	6.4	160	174	5	158	129	4	170	319	5.3	169
3/16/2020 16:00	3/16/2020 17:00	42	46	27	55	59	45	2.81		678	6.7	154	708	7.0	146	245	5	148	231	5	154	396	5.6	159
3/16/2020 17:00	3/16/2020 18:00	50	55	30	58	62	47	2.68		494	6.9	156	826	7.4	150	372	6	147	310	5	150	491	6.0	156
3/16/2020 18:00	3/16/2020 19:00	44	47	27	56	59	44	3.05		856	7.4	149	877	7.7	144	418	6	136	537	6	138	516	6.3	147
3/16/2020 19:00	3/16/2020 20:00	45	49	33	56	60	47	2.67		1740	9.2	134	1563	9.0	127	991	7	123	1124	8	122	972	7.6	129
3/16/2020 20:00	3/16/2020 21:00	43	47	33	55	59	47	1.96		1937	9.6	135	1543	9.1	129	1205	8	124	1438	8	124	1138	7.9	131

These levels represent total sound and not the facility specific sound. Therefore they are not appropriate for direct comparison to the project limits.

APPENDIX B

Table B-5: Hourly Monitoring Data for Location 5

Time Period		A-Weighted Sound Metrics			C-Weighted Sound Metrics			Local Wind at 2 meters above ground level (m/s)	Regional Precipitation (inches)	Turbine 2			Turbine 3			Turbine 6			Turbine 7			Turbine 8		
Start	End	LA_{EQ} (dBA)	LA_{10} (dBA)	LA_{90} (dBA)	LC_{EQ} (dBC)	LC_{10} (dBC)	LC_{90} (dBC)			Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)	Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)	Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)	Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)	Mean Power Generation (kW)	Mean Hub Height Wind Speed (m/s)	Mean Hub Height Wind Direction (deg)
3/16/2020 21:00	3/16/2020 22:00	40	43	27	54	56	44	1.57		1919	9.5	147	1934	9.7	142	1132	8	133	1337	8	132	1117	7.8	139
3/16/2020 22:00	3/16/2020 23:00	32	35	23	47	50	41	2.60		1676	8.7	149	1593	8.8	144	691	6	132	767	7	134	567	6.2	142
3/16/2020 23:00	3/17/2020 0:00	44	47	29	56	59	45	1.96		1645	8.6	159	1565	8.6	155	586	6	146	638	6	148	1237	7.7	158
3/17/2020 0:00	3/17/2020 1:00	34	37	25	48	51	42	1.47		1429	8.4	156	1450	8.7	152	397	6	142	624	7	147	909	7.0	157
3/17/2020 1:00	3/17/2020 2:00	31	35	23	47	50	41	0.29		1205	8.3	161	1208	8.3	157	188	5	143	323	6	149	553	6.1	157
3/17/2020 2:00	3/17/2020 3:00	25	25	23	43	44	40	2.38		963	7.7	162	907	7.6	158	183	5	144	208	5	149	362	5.4	155
3/17/2020 3:00	3/17/2020 4:00	36	40	25	50	53	42	1.18	Trace	676	6.9	154	728	7.2	150	183	5	135	319	5	142	407	5.7	149
3/17/2020 4:00	3/17/2020 5:00	29	29	25	45	46	41	0.86	Trace	1112	7.8	162	1317	8.4	158	380	5	144	461	6	148	750	6.7	157
3/17/2020 5:00	3/17/2020 6:00	32	31	26	47	48	43	0.68	Trace	573	6.3	151	673	6.8	149	255	5	135	469	6	143	781	6.7	154
3/17/2020 6:00	3/17/2020 7:00	41	38	26	57	53	43	0.82	Trace	773	7.0	152	805	7.3	148	153	4	131	380	6	139	461	5.8	147
3/17/2020 7:00	3/17/2020 8:00	37	36	28	49	50	45	1.31	Trace	783	7.0	155	889	7.6	150	235	5	130	418	6	137	457	5.8	145
3/17/2020 8:00	3/17/2020 9:00	36	39	29	50	53	45	0.88	Trace	1125	7.8	159	1272	8.4	156	288	5	137	554	6	144	694	6.5	154
3/17/2020 9:00	3/17/2020 10:00	32	34	29	48	50	45	0.72		1580	8.5	165	1742	9.1	161	510	6	149	304	5	162	1082	7.4	164
3/17/2020 10:00	3/17/2020 11:00	34	36	29	49	52	45	1.26		1568	8.5	169	1785	9.0	165	435	5	153	248	5	173	1244	7.6	168
3/17/2020 11:00	3/17/2020 12:00	41	39	28	50	52	45	0.52		1160	7.9	170	1217	8.2	167	203	4	156	137	4	169	553	6.2	166
3/17/2020 12:00	3/17/2020 13:00	36	36	25	46	49	41	0.50	Trace	422	6.0	175	431	6.3	173	23	4	179	115	4	184	217	5.0	180
3/17/2020 13:00	3/17/2020 14:00	32	35	24	46	49	42	1.39	Trace	303	5.3	200	759	6.7	195	282	5	225	247	5	210	174	4.5	208
3/17/2020 14:00	3/17/2020 15:00	35	37	28	50	52	44	2.04		413	5.4	204	699	6.6	197	275	5	218	419	5	212	314	5.1	210
3/17/2020 15:00	3/17/2020 16:00	38	42	30	52	55	46	2.22		811	6.6	233	621	6.1	230	354	5	250	542	6	244	382	5.2	245
3/17/2020 16:00	3/17/2020 17:00	41	44	28	53	56	45	0.81		727	6.5	252	567	5.9	248	339	5	261	401	5	258	448	5.5	266
3/17/2020 17:00	3/17/2020 18:00	35	37	29	49	51	46	1.16		555	6.1	252	458	5.6	245	399	6	254	687	7	255	660	6.1	261
3/17/2020 18:00	3/17/2020 19:00	40	41	33	54	56	50	1.70		2006	9.2	258	1665	8.4	251	878	7	258	1685	9	258	1960	9.0	264
3/17/2020 19:00	3/17/2020 20:00	41	44	35	56	58	53	2.87		2713	11.1	272	2638	10.7	267	1993	9	274	2594	11	273	2583	10.7	279
3/17/2020 20:00	3/17/2020 21:00	44	48	34	57	59	53	0.52		3069	12.2	285	3052	11.9	282	2286	10	287	2852	11	286	2824	10.9	291
3/17/2020 21:00	3/17/2020 22:00	36	35	32	54	56	52	2.15		2788	11.1	279	2673	10.7	274	2609	10	277	3059	12	278	3021	11.8	284
3/17/2020 22:00	3/17/2020 23:00	39	43	34	55	57	52	0.94		2987	11.9	279	2946	11.3	275	2614	10	279	3065	12	279	3121	11.9	286
3/17/2020 23:00	3/18/2020 0:00	34	34	32	53	55	51	0.88		3013	12.0	281	3028	11.8	277	2504	10	281	2786	11	282	2802	11.2	287
3/18/2020 0:00	3/18/2020 1:00	34	35	30	53	56	49	2.07		2257	10.1	278	2060	9.5	273	1067	7	280	1523	8	277	1604	8.4	283
3/18/2020 1:00	3/18/2020 2:00	35	36	32	52	54	50	1.77		2935	11.5	283	2793	10.9	280	1442	8	287	1778	9	285	1779	8.9	291
3/18/2020 2:00	3/18/2020 3:00	40	44	32	55	57	51	1.78		2677	11.1	293	2809	11.3	290	2419	10	290	2906	12	292	2969	11.7	295
3/18/2020 3:00	3/18/2020 4:00	40	42	32	55	56	51	2.13		2427	11.0	292	2556	11.0	289	1978	9	294	2262	10	295	2152	9.8	298
3/18/2020 4:00	3/18/2020 5:00	36	38	31	52	54	49	1.66		1960	9.6	292	2080	9.7	289	1087	8	290	1602	9	295	1495	8.7	298
3/18/2020 5:00	3/18/2020 6:00	36	36	32	54	55	51	1.06		2445	10.5	296	2481	10.2	294	1426	8	294	2051	10	299	1896	9.2	303
3/18/2020 6:00	3/18/2020 7:00	43	43	32	59	57	52	1.40		2300	10.4	298	2413	10.3	296	1723	9	297	2403	10	301	2232	9.9	304
3/18/2020 7:00	3/18/2020 8:00	43	45	33	56	57	52	2.37		1553	9.1	297	1592	8.9	294	1011	7	296	1621	9	300	1417	8.5	303
3/18/2020 8:00	3/18/2020 9:00	40	43	29	53	56	46	2.06		581	6.5	300	565	6.4	296	456	6	296	676	7	301	599	6.4	303
3/18/2020 9:00	3/18/2020 10:00	42	46	28	53	57	45	2.43		240	5.2	308	243	5.1	300	210	4.8	309	221	5.4	318	179	4.9	309

These levels represent total sound and not the facility specific sound. Therefore they are not appropriate for direct comparison to the project limits.