

## Various Indoor and Outdoor Sound Levels

Noise levels from "Study of Acoustic and EMF Levels from Solor PV Projects", Massachusetts Clean Energy Center, December 17, 2012

Additional noises relevant to proposed text amendment

AS AMENDED FOR THE JULY 5, 2018 ELUC MEETING

Outdoor Sound Levels	Sound Pressure ( $\mu\text{Pa}$ )	Sound Level (dBA)	Indoor Sound Levels
	6,324,555	110	Rock Band at 5m
Jet Over-Flight at 300 m		105	
	2,000,000	100	Inside New York Subway Train
Gas Lawn Mower at 1 m		95	
	632,456	90	Food Blender at 1 m
Diesel Truck at 15 m		85	
Noisy Urban Area--Daytime	200,000	80	Garbage Disposal at 1 m
		75	Shouting at 1 m
Gas Lawn Mower at 30 m	63,246	70	Vacuum Cleaner at 3 m
Suburban Commercial Area		65	Normal Speech at 1 m
SMA Inverter Model SC 2750EV at 10 m (32.8 ft)		64.3	
Quiet Urban Area -- Daytime	20,000	60	
		55	Quiet Conversation at 1 m
Average measured ambient (background) noise levels for the California Ridge Wind Farm - Daytime (pre-development)		52	
*IPCB Maximum Sound Emitted to Class A Land - Daytime		51.7	
Quiet Urban Area--Nighttime	6,325	50	Dishwasher Next Room
*IPCB Long Term Background Ambient Noise Level (Leq) for Land Use Category 3 (Moderate Residential Area) - Daytime		47	
		45	
Average measured ambient (background) noise levels for the California Ridge Wind Farm - nighttime (pre-development)		44	
*IPCB Long Term Background Ambient Noise Level (Leq) for Land Use Category 3 (Moderate Residential Area) - Nighttime		41.3	
**Calculated sound level from SMA Inverter at 515 feet		40.38	
*IPCB Long Term Background Ambient Noise Level (Leq) for Land Use Category 4 (Quiet Residential Area) - Daytime		40	
Suburban Area--Nighttime	2,000	40	Empty Theater or Library
*IPCB Maximum Sound Emitted to Class A Land - Nighttime		37.5	
*IPCB Long Term Background Ambient Noise Level (Leq) for Land Use Category 4 (Quiet Residential Area) - Nighttime		35	
		35	
*IPCB Long Term Background Ambient Noise Level (Leq) for Land Use Category 5 (Rural Area) - Daytime		34	
Rural Area--Nighttime	632	30	Quiet Bedroom at Night
*IPCB Long Term Background Ambient Noise Level (Leq) for Land Use Category 5 (Rural Area) - Nighttime		28.8	
		25	Empty Concert Hall
Rustling Leaves	200	20	Average Whisper
		15	Broadcast and Recording Studios
	63	10	
		5	Human Breathing
Reference Pressure Level	20	0	Threshold of Hearing

\* Online Noise Criterion calculator used: [https://apps.engineeringtoolbox.com/noise-criterion-nc-a\\_21.html](https://apps.engineeringtoolbox.com/noise-criterion-nc-a_21.html)

\*\* Online sound calculator used: <http://hyperphysics.phy-astr.gsu.edu/hbase/Acoustic/isprob2.html>