# APPENDIX R

# SOUND LEVEL CALCULATIONS

NRG El Segundo Repower Project
Sound Level Calculation
Worst-case residential view along 45th Street, Manhattan Beach

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Receptor Location | 12234 | 1556 | 115 | | **54.7** | 65.3 | 63.4 | 61.0 | 56.8 | 52.1 | 47.6 | 46.0 | 35.0 | 4.5 |
| | | | | | | 25.9 | 37.2 | 44.9 | 48.2 | 48.9 | 47.6 | 47.2 | 36.0 | 3.4 |
| Summary | | | | | | | | | | | | | | |
| Stack, Unit 5 SPL | | | | 2519.9 | 41.9 | 50.7 | 46.5 | 50.0 | 47.2 | 39.9 | 30.0 | 17.1 | -3.8 | -59.8 |
| Stack, Unit 7 SPL | | | | 2226.3 | 43.3 | 51.9 | 47.7 | 51.2 | 48.6 | 41.3 | 31.7 | 19.2 | -0.4 | -51.9 |
| Combustion Turbine (CT) Inlet Unit 5 SPL | | | | 2478.6 | 23.9 | 35.9 | 39.7 | 32.2 | 30.4 | 18.1 | 2.2 | -5.6 | -9.3 | -50.7 |
| CT Inlet Unit 7 SPL | | | | 2183.9 | 25.4 | 37.1 | 40.9 | 33.4 | 31.8 | 19.6 | 8.9 | 1.6 | -0.9 | -37.8 |
| CT Compartment Unit 5 SPL | | | | 2495.3 | 39.7 | 46.8 | 48.6 | 43.1 | 40.3 | 36.0 | 32.1 | 34.3 | 18.5 | -24.1 |
| CT Compartment Unit 7 SPL | | | | 2205.8 | 41.4 | 48.0 | 49.8 | 44.3 | 41.7 | 37.4 | 33.8 | 36.4 | 21.9 | -16.4 |
| CT Generator Unit 5 SPL | | | | 2487.0 | 40.7 | 43.9 | 43.6 | 42.1 | 40.4 | 39.0 | 36.1 | 31.3 | 15.6 | -30.9 |
| CT Generator Unit 7 SPL | | | | 2191.9 | 40.4 | 45.0 | 44.8 | 43.4 | 41.7 | 40.5 | 32.9 | 28.5 | 14.0 | -28.0 |
| CT Exhaust Duct Unit 5 SPL | | | | 2499.8 | 36.9 | 50.8 | 47.6 | 45.1 | 37.3 | 35.0 | 31.1 | 25.2 | 13.4 | -27.2 |
| CT Exhaust Duct Unit 7 SPL | | | | 2204.9 | 37.2 | 52.0 | 48.8 | 46.3 | 38.7 | 36.4 | 27.8 | 22.4 | 11.9 | -24.3 |
| HRSG Transition, Unit 5 SPL | | | | 2506.3 | 42.2 | 58.8 | 54.6 | 50.0 | 45.3 | 39.9 | 35.0 | 28.2 | 11.4 | -39.4 |
| HRSG Transition, Unit 7 SPL | | | | 2210.3 | 43.7 | 59.9 | 55.7 | 51.3 | 46.6 | 41.4 | 36.8 | 30.4 | 14.8 | -31.5 |
| HRSG Boiler, Unit 5 SPL | | | | 2515.2 | 37.9 | 54.8 | 49.5 | 46.0 | 41.3 | 34.9 | 31.0 | 24.1 | 7.3 | -44.6 |
| HRSG Boiler, Unit 7 SPL | | | | 2220.9 | 39.4 | 55.9 | 50.7 | 47.2 | 42.6 | 36.4 | 32.7 | 26.3 | 10.7 | -36.8 |
| CT Transformer, Unit 5 SPL | | | | 2421.6 | 36.3 | 36.1 | 41.9 | 43.4 | 37.7 | 36.3 | 28.5 | 19.8 | 4.3 | -39.1 |
| CT Transformer, Unit 7 SPL | | | | 2130.6 | 37.8 | 37.3 | 43.1 | 44.6 | 39.0 | 37.8 | 30.2 | 22.0 | 7.8 | -31.3 |
| ST Transformer, Unit 6 SPL | | | | 2273.6 | 37.1 | 36.7 | 42.5 | 44.0 | 38.3 | 37.1 | 29.4 | 20.9 | 6.1 | -35.2 |
| ST Package, Unit 6 SPL | | | | 2308.3 | 44.1 | 49.5 | 55.3 | 52.9 | 47.2 | 41.9 | 36.2 | 29.6 | 11.7 | -29.1 |
| Generator Package, Unit 6 SPL | | | | 2297.5 | 44.1 | 49.6 | 55.4 | 52.9 | 47.2 | 42.0 | 36.2 | 29.7 | 11.8 | -28.8 |
| Major Pumps, Unit 5 SPL | | | | 2524.2 | 37.7 | 36.7 | 42.5 | 40.0 | 38.2 | 35.8 | 32.9 | 28.1 | 16.2 | -25.9 |
| Major Pumps, Unit 6 SPL | | | | 2362.6 | 41.6 | 40.3 | 46.1 | 43.6 | 41.9 | 39.6 | 36.9 | 32.2 | 21.0 | -18.6 |
| Major Pumps, Unit 7 SPL | | | | 2229.8 | 39.3 | 37.9 | 43.7 | 41.2 | 39.5 | 37.3 | 34.6 | 30.2 | 19.6 | -18.0 |
| Gas Compressor 1 SPL | | | | 1509.7 | 43.8 | 39.4 | 35.3 | 40.0 | 38.5 | 35.7 | 37.6 | 40.2 | 30.7 | 1.0 |
| Gas Compressor 2 SPL | | | | 1483.4 | 44.1 | 39.6 | 35.4 | 40.1 | 38.7 | 35.9 | 37.8 | 40.5 | 31.1 | 1.7 |
| Fin Fan Cooler 1 SPL | | | | 1508.7 | 33.0 | 41.4 | 41.3 | 40.0 | 36.5 | 30.7 | 26.6 | 17.2 | 6.7 | -22.0 |
| Fin Fan Cooler 2 SPL | | | | 1482.3 | 33.2 | 41.6 | 41.4 | 40.1 | 36.7 | 30.9 | 26.8 | 17.5 | 7.1 | -21.2 |
| | | | | | | | | | | | | | | |
| | | | | **2340.6** | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 5 | 9798 | 930 | 270 | 2519.9 | | | | | | | | | | |
| Mitigated Lw | | | | | | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 2519.9 | | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 9 | 20 | 58 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| **Stack, Unit 5 SPL** | | | | **2519.9** | **41.9** | **51** | **47** | **50** | **47** | **40** | **30** | **17** | **-4** | **-60** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 7 | 10087 | 988 | 270 | 2226.3 | | | | | | | | | | |
| Mitigated Lw | | | | | **116.0** | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 2226.3 | | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 8 | 18 | 51 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| **Stack, Unit 7 SPL** | | | | **2226.3** | **43.3** | **52** | **48** | **51** | **49** | **41** | **32** | **19** | **0** | **-52** |
| | | | | | | | | | | | | | | |
| Combustion Turbine (CT) Inlet, Unit 5 | 9798 | 1100 | 75 | 2478.6 | | | | | | | | | | |
| Standard Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Mitigation - Silencer Upgrade | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Upgraded Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Distance Correction | | | | 2478.6 | | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 9 | 20 | 57 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 5 | 5 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Combustion Turbine (CT) Inlet Unit 5 SPL** | | | | **2478.6** | **23.9** | **36** | **40** | **32** | **30** | **18** | **2** | **-6** | **-9** | **-51** |
| | | | | | | | | | | | | | | |
| CT Inlet, Unit 7 | 10087 | 1158 | 75 | 2183.9 | | | | | | | | | | |
| Standard Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Mitigation - Silencer Upgrade | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Upgraded Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Distance Correction | | | | 2183.9 | | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 1 | 1 | 2 | 3 | 5 | 8 | 17 | 50 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Inlet Unit 7 SPL** | | | | **2183.9** | **25.4** | **37** | **41** | **33** | **32** | **20** | **9** | **2** | **-1** | **-38** |

NRG El Segundo Repower Project
Sound Level Calculation
Closest Residence along 45th Street, Manhattan Beach

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Receptor Location | 12234 | 1006 | 50 | | **55.3** | 65.6 | 63.6 | 61.3 | 57.1 | 52.5 | 48.2 | 47.2 | 37.1 | 9.5 |
| | | | | | | 26.2 | 37.4 | 45.2 | 48.5 | 49.3 | 48.2 | 48.4 | 38.1 | 8.4 |
| Summary | | | | | | | | | | | | | | |
| Stack, Unit 5 SPL | | | | 2447.1 | 42.2 | 51.0 | 46.8 | 50.3 | 47.6 | 40.2 | 30.4 | 17.6 | -3.0 | -57.8 |
| Stack, Unit 7 SPL | | | | 2158.3 | 43.6 | 52.2 | 48.0 | 51.5 | 48.9 | 41.7 | 32.1 | 19.8 | 0.4 | -50.1 |
| Combustion Turbine (CT) Inlet Unit 5 SPL | | | | 2437.9 | 24.1 | 36.0 | 39.8 | 32.3 | 30.6 | 18.3 | 2.4 | -5.3 | -8.9 | -49.6 |
| CT Inlet Unit 7 SPL | | | | 2152.5 | 25.5 | 37.2 | 41.0 | 33.5 | 31.9 | 19.7 | 9.1 | 1.8 | -0.5 | -36.9 |
| CT Compartment Unit 5 SPL | | | | 2436.0 | 40.0 | 47.0 | 48.8 | 43.3 | 40.6 | 36.3 | 32.4 | 34.7 | 19.2 | -22.5 |
| CT Compartment Unit 7 SPL | | | | 2147.6 | 41.8 | 48.2 | 50.0 | 44.6 | 41.9 | 37.8 | 34.1 | 36.8 | 22.6 | -14.8 |
| CT Generator Unit 5 SPL | | | | 2436.6 | 41.0 | 44.0 | 43.8 | 42.3 | 40.6 | 39.3 | 36.4 | 31.7 | 16.2 | -29.5 |
| CT Generator Unit 7 SPL | | | | 2150.0 | 40.6 | 45.2 | 45.0 | 43.6 | 41.9 | 40.7 | 33.1 | 28.8 | 14.5 | -26.9 |
| CT Exhaust Duct Unit 5 SPL | | | | 2436.0 | 37.3 | 51.0 | 47.8 | 45.3 | 37.6 | 35.3 | 31.4 | 25.7 | 14.2 | -25.5 |
| CT Exhaust Duct Unit 7 SPL | | | | 2147.7 | 37.5 | 52.2 | 49.0 | 46.6 | 38.9 | 36.8 | 28.1 | 22.8 | 12.6 | -22.8 |
| HRSG Transition, Unit 5 SPL | | | | 2436.3 | 42.6 | 59.0 | 54.8 | 50.3 | 45.6 | 40.3 | 35.4 | 28.7 | 12.2 | -37.5 |
| HRSG Transition, Unit 7 SPL | | | | 2147.2 | 44.0 | 60.2 | 56.0 | 51.6 | 46.9 | 41.8 | 37.1 | 30.8 | 15.6 | -29.8 |
| HRSG Boiler, Unit 5 SPL | | | | 2438.0 | 38.3 | 55.0 | 49.8 | 46.3 | 41.6 | 35.3 | 31.4 | 24.7 | 8.1 | -42.6 |
| HRSG Boiler, Unit 7 SPL | | | | 2148.0 | 39.7 | 56.2 | 51.0 | 47.6 | 42.9 | 36.8 | 33.1 | 26.8 | 11.6 | -34.8 |
| CT Transformer, Unit 5 SPL | | | | 2381.3 | 36.5 | 36.3 | 42.0 | 43.5 | 37.8 | 36.5 | 28.7 | 20.1 | 4.8 | -38.1 |
| CT Transformer, Unit 7 SPL | | | | 2100.4 | 38.0 | 37.4 | 43.2 | 44.8 | 39.2 | 38.0 | 30.4 | 22.2 | 8.1 | -30.5 |
| ST Transformer, Unit 6 SPL | | | | 2238.0 | 37.2 | 36.8 | 42.6 | 44.2 | 38.5 | 37.3 | 29.6 | 21.2 | 6.5 | -34.2 |
| ST Package, Unit 6 SPL | | | | 2234.2 | 44.5 | 49.8 | 55.6 | 53.2 | 47.5 | 42.3 | 36.6 | 30.2 | 12.5 | -27.1 |
| Generator Package, Unit 6 SPL | | | | 2234.1 | 44.5 | 49.8 | 55.6 | 53.2 | 47.5 | 42.3 | 36.6 | 30.2 | 12.5 | -27.1 |
| Major Pumps, Unit 5 SPL | | | | 2438.4 | 38.2 | 37.0 | 42.8 | 40.3 | 38.6 | 36.3 | 33.4 | 28.7 | 17.1 | -23.6 |
| Major Pumps, Unit 6 SPL | | | | 2304.3 | 41.9 | 40.6 | 46.4 | 43.9 | 42.2 | 39.9 | 37.2 | 32.7 | 21.7 | -17.0 |
| Major Pumps, Unit 7 SPL | | | | 2147.6 | 39.8 | 38.2 | 44.0 | 41.6 | 39.9 | 37.8 | 35.1 | 30.8 | 20.6 | -15.8 |
| Gas Compressor 1 SPL | | | | 1338.9 | 45.4 | 40.5 | 36.4 | 41.1 | 39.7 | 37.0 | 39.0 | 41.9 | 33.1 | 6.0 |
| Gas Compressor 2 SPL | | | | 1309.1 | 45.7 | 40.7 | 36.6 | 41.3 | 39.9 | 37.2 | 39.2 | 42.2 | 33.6 | 6.8 |
| Fin Fan Cooler 1 SPL | | | | 1338.7 | 34.3 | 42.5 | 42.4 | 41.1 | 37.7 | 32.0 | 28.0 | 18.9 | 9.1 | -17.0 |
| Fin Fan Cooler 2 SPL | | | | 1308.9 | 34.5 | 42.7 | 42.6 | 41.3 | 37.9 | 32.2 | 28.2 | 19.2 | 9.6 | -16.2 |
| | | | | | | | | | | | | | | |
| | | | | **2281.7** | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 5 | 9798 | 930 | 270 | 2447.1 | | | | | | | | | | |
| Mitigated Lw | | | | | | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 2447.1 | | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 9 | 20 | 56 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| **Stack, Unit 5 SPL** | | | | **2447.1** | **42.2** | **51** | **47** | **50** | **48** | **40** | **30** | **18** | **-3** | **-58** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 7 | 10087 | 988 | 270 | 2158.3 | | | | | | | | | | |
| Mitigated Lw | | | | | **116.0** | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 2158.3 | | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 1 | 1 | 2 | 3 | 5 | 8 | 17 | 50 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| **Stack, Unit 7 SPL** | | | | **2158.3** | **43.6** | **52** | **48** | **52** | **49** | **42** | **32** | **20** | **0** | **-50** |
| | | | | | | | | | | | | | | |
| Combustion Turbine (CT) Inlet, Unit 5 | 9798 | 1100 | 75 | 2437.9 | | | | | | | | | | |
| Standard Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Mitigation - Silencer Upgrade | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Upgraded Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Distance Correction | | | | 2437.9 | | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 9 | 19 | 56 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 5 | 5 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Combustion Turbine (CT) Inlet Unit 5 SPL** | | | | **2437.9** | **24.1** | **36** | **40** | **32** | **31** | **18** | **2** | **-5** | **-9** | **-50** |
| | | | | | | | | | | | | | | |
| CT Inlet, Unit 7 | 10087 | 1158 | 75 | 2152.5 | | | | | | | | | | |
| Standard Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Mitigation - Silencer Upgrade | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Upgraded Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Distance Correction | | | | 2152.5 | | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 1 | 1 | 2 | 3 | 5 | 8 | 17 | 50 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 85 Feet West of Nominal Accoustic Center of Gas Compressors

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Receptor Location | 10920 | 760 | 25 | | **77.4** | 75.4 | 73.9 | 73.4 | 70.9 | 67.7 | 69.0 | 73.4 | 70.0 | 61.7 |
| | | | | | | 36.0 | 47.7 | 57.3 | 62.3 | 64.5 | 69.0 | 74.6 | 71.0 | 60.6 |
| Summary | | | | | | | | | | | | | | |
| Stack, Unit 5 SPL | | | | 1161.0 | 50.1 | 57.8 | 53.7 | 57.4 | 55.1 | 48.4 | 39.6 | 28.8 | 13.8 | -21.7 |
| Stack, Unit 7 SPL | | | | 897.7 | 52.6 | 60.1 | 56.0 | 59.8 | 57.5 | 51.0 | 42.4 | 32.0 | 18.1 | -13.4 |
| Combustion Turbine (CT) Inlet Unit 5 SPL | | | | 1173.4 | 31.5 | 42.7 | 46.6 | 39.3 | 38.0 | 26.3 | 11.5 | 5.7 | 7.6 | -14.1 |
| CT Inlet Unit 7 SPL | | | | 924.6 | 34.0 | 44.8 | 48.7 | 41.5 | 40.3 | 28.8 | 19.1 | 13.6 | 16.6 | -1.3 |
| CT Compartment Unit 5 SPL | | | | 1151.9 | 49.9 | 53.8 | 55.7 | 50.5 | 48.2 | 44.5 | 41.7 | 45.9 | 35.9 | 13.6 |
| CT Compartment Unit 7 SPL | | | | 883.9 | 53.0 | 56.2 | 58.1 | 52.9 | 50.7 | 47.2 | 44.5 | 49.2 | 40.4 | 22.0 |
| CT Generator Unit 5 SPL | | | | 1161.6 | 50.1 | 50.8 | 50.7 | 49.4 | 48.1 | 47.4 | 45.6 | 42.8 | 32.8 | 6.3 |
| CT Generator Unit 7 SPL | | | | 907.7 | 50.2 | 53.0 | 52.9 | 51.7 | 50.4 | 49.9 | 43.2 | 40.9 | 31.9 | 9.3 |
| CT Exhaust Duct Unit 5 SPL | | | | 1147.5 | 46.1 | 57.9 | 54.8 | 52.5 | 45.2 | 43.6 | 40.7 | 36.9 | 31.0 | 10.7 |
| CT Exhaust Duct Unit 7 SPL | | | | 885.5 | 47.0 | 60.2 | 57.1 | 54.9 | 47.7 | 46.2 | 38.5 | 35.2 | 30.3 | 14.0 |
| HRSG Transition, Unit 5 SPL | | | | 1141.8 | 51.0 | 65.9 | 61.8 | 57.6 | 53.2 | 48.6 | 44.8 | 40.0 | 29.1 | -1.1 |
| HRSG Transition, Unit 7 SPL | | | | 877.6 | 53.7 | 68.3 | 64.2 | 60.0 | 55.8 | 51.3 | 47.6 | 43.3 | 33.5 | 7.3 |
| HRSG Boiler, Unit 5 SPL | | | | 1138.1 | 46.8 | 62.0 | 56.8 | 53.6 | 49.3 | 43.7 | 40.8 | 36.1 | 25.1 | -6.0 |
| HRSG Boiler, Unit 7 SPL | | | | 868.0 | 49.6 | 64.4 | 59.3 | 56.1 | 51.9 | 46.4 | 43.7 | 39.4 | 29.6 | 2.6 |
| CT Transformer, Unit 5 SPL | | | | 1121.1 | 44.9 | 43.1 | 49.0 | 50.8 | 45.4 | 44.8 | 38.0 | 31.2 | 21.4 | -2.5 |
| CT Transformer, Unit 7 SPL | | | | 881.3 | 47.3 | 45.2 | 51.2 | 53.0 | 47.7 | 47.2 | 40.6 | 34.2 | 25.4 | 5.1 |
| ST Transformer, Unit 6 SPL | | | | 995.5 | 46.1 | 44.1 | 50.1 | 51.9 | 46.6 | 46.0 | 39.3 | 32.7 | 23.4 | 1.4 |
| ST Package, Unit 6 SPL | | | | 946.1 | 53.7 | 57.6 | 63.5 | 61.3 | 56.0 | 51.5 | 46.8 | 42.4 | 30.3 | 10.0 |
| Generator Package, Unit 6 SPL | | | | 957.5 | 53.6 | 57.5 | 63.4 | 61.2 | 55.9 | 51.4 | 46.7 | 42.2 | 30.1 | 9.7 |
| Major Pumps, Unit 5 SPL | | | | 1130.7 | 47.6 | 44.0 | 49.9 | 47.7 | 46.3 | 44.7 | 42.9 | 40.1 | 34.2 | 13.2 |
| Major Pumps, Unit 6 SPL | | | | 1028.8 | 51.7 | 47.9 | 53.8 | 51.6 | 50.3 | 48.7 | 46.9 | 44.3 | 38.9 | 19.4 |
| Major Pumps, Unit 7 SPL | | | | 856.7 | 50.8 | 46.5 | 52.4 | 50.2 | 49.0 | 47.5 | 45.9 | 43.5 | 38.8 | 21.9 |
| Gas Compressor 1 SPL | | | | 86.4 | 74.1 | 64.6 | 60.6 | 65.6 | 64.5 | 62.5 | 65.4 | 70.3 | 66.9 | 58.6 |
| Gas Compressor 2 SPL | | | | 86.4 | 74.1 | 64.6 | 60.6 | 65.6 | 64.5 | 62.5 | 65.4 | 70.3 | 66.9 | 58.6 |
| Fin Fan Cooler 1 SPL | | | | 89.7 | 59.6 | 66.3 | 66.3 | 65.2 | 62.2 | 57.2 | 54.1 | 47.0 | 42.6 | 35.2 |
| Fin Fan Cooler 2 SPL | | | | 89.7 | 59.6 | 66.3 | 66.3 | 65.2 | 62.2 | 57.2 | 54.1 | 47.0 | 42.6 | 35.2 |
| | | | | | | | | | | | | | | |
| | | | | **1010.8** | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 5 | 9798 | 930 | 270 | 1161.0 | | | | | | | | | | |
| Mitigated Lw | | | | | | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 1161.0 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 27 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| **Stack, Unit 5 SPL** | | | | **1161.0** | **50.1** | **58** | **54** | **57** | **55** | **48** | **40** | **29** | **14** | **-22** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 7 | 10087 | 988 | 270 | 897.7 | | | | | | | | | | |
| Mitigated Lw | | | | | **116.0** | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 897.7 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 21 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| **Stack, Unit 7 SPL** | | | | **897.7** | **52.6** | **60** | **56** | **60** | **58** | **51** | **42** | **32** | **18** | **-13** |
| | | | | | | | | | | | | | | |
| Combustion Turbine (CT) Inlet, Unit 5 | 9798 | 1100 | 75 | 1173.4 | | | | | | | | | | |
| Standard Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Mitigation - Silencer Upgrade | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Upgraded Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Distance Correction | | | | 1173.4 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 27 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 5 | 5 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Combustion Turbine (CT) Inlet Unit 5 SPL** | | | | **1173.4** | **31.5** | **43** | **47** | **39** | **38** | **26** | **11** | **6** | **8** | **-14** |
| | | | | | | | | | | | | | | |
| CT Inlet, Unit 7 | 10087 | 1158 | 75 | 924.6 | | | | | | | | | | |
| Standard Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Mitigation - Silencer Upgrade | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 85 Feet West of Nominal Accoustic Center of Gas Compressors

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Upgraded Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Distance Correction | | | | 924.6 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 21 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Inlet Unit 7 SPL** | | | | **924.6** | **34.0** | **45** | **49** | **42** | **40** | **29** | **19** | **14** | **17** | **-1** |
| | | | | | | | | | | | | | | |
| CT Compartment, Unit 5 | 9798 | 1020 | 45 | 1151.9 | | | | | | | | | | |
| Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Distance Correction | | | | 1151.9 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 27 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Compartment Unit 5 SPL** | | | | **1151.9** | **49.9** | **54** | **56** | **51** | **48** | **45** | **42** | **46** | **36** | **14** |
| | | | | | | | | | | | | | | |
| Combustion Turbine Compartment, Unit | 10087 | 1055 | 45 | 883.9 | | | | | | | | | | |
| Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Distance Correction | | | | 883.9 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 20 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Compartment Unit 7 SPL** | | | | **883.9** | **53.0** | **56** | **58** | **53** | **51** | **47** | **45** | **49** | **40** | **22** |
| | | | | | | | | | | | | | | |
| CT Generator, Unit 5 | 9798 | 1060 | 45 | 1161.6 | | | | | | | | | | |
| Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Distance Correction | | | | 1161.6 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 27 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Generator Unit 5 SPL** | | | | **1161.6** | **50.1** | **51** | **51** | **49** | **48** | **47** | **46** | **43** | **33** | **6** |
| | | | | | | | | | | | | | | |
| CT Generator, Unit 7 | 10087 | 1120 | 45 | 907.7 | | | | | | | | | | |
| Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Distance Correction | | | | 907.7 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 21 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 5 | 5 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Generator Unit 7 SPL** | | | | **907.7** | **50.2** | **53** | **53** | **52** | **50** | **50** | **43** | **41** | **32** | **9** |
| | | | | | | | | | | | | | | |
| CT Exhaust Duct, Unit 5 | 9798 | 1000 | 38 | 1147.5 | | | | | | | | | | |
| Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Distance Correction | | | | 1147.5 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 26 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Exhaust Duct Unit 5 SPL** | | | | **1147.5** | **46.1** | **58** | **55** | **53** | **45** | **44** | **41** | **37** | **31** | **11** |
| | | | | | | | | | | | | | | |
| CT Exhaust Duct, Unit 7 | 10087 | 1060 | 38 | 885.5 | | | | | | | | | | |
| Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Distance Correction | | | | 885.5 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 85 Feet West of Nominal Accoustic Center of Gas Compressors

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 20 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 5 | 5 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Exhaust Duct Unit 7 SPL** | | | | **885.5** | **47.0** | **60** | **57** | **55** | **48** | **46** | **39** | **35** | **30** | **14** |
| | | | | | | | | | | | | | | |
| HRSG Transition, Unit 5 | 9798 | 970 | 50 | 1141.8 | | | | | | | | | | |
| Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Mitigation - Acoustic Shroud | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Distance Correction | | | | 1141.8 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 26 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **HRSG Transition, Unit 5 SPL** | | | | **1141.8** | **51.0** | **66** | **62** | **58** | **53** | **49** | **45** | **40** | **29** | **-1** |
| | | | | | | | | | | | | | | |
| HRSG Transition, Unit 7 | 10087 | 1035 | 50 | 877.6 | | | | | | | | | | |
| Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Mitigation - Acoustic Shroud | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Distance Correction | | | | 877.6 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 20 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **HRSG Transition, Unit 7 SPL** | | | | **877.6** | **53.7** | **68** | **64** | **60** | **56** | **51** | **48** | **43** | **33** | **7** |
| | | | | | | | | | | | | | | |
| HRSG Boiler, Unit 5 | 9798 | 930 | 112 | 1138.1 | | | | | | | | | | |
| Lw | | | | | **107.6** | 121 | 116 | 113 | 109 | 104 | 102 | 99 | 93 | 79 |
| Mitigation - Increase Boiler Casing Thickness | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **107.6** | 121 | 116 | 113 | 109 | 104 | 102 | 99 | 93 | 79 |
| Distance Correction | | | | 1138.1 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 26 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **HRSG Boiler, Unit 5 SPL** | | | | **1138.1** | **46.8** | **62** | **57** | **54** | **49** | **44** | **41** | **36** | **25** | **-6** |
| | | | | | | | | | | | | | | |
| HRSG Boiler, Unit 7 | 10087 | 988 | 112 | 868.0 | | | | | | | | | | |
| Lw | | | | | **107.6** | 121 | 116 | 113 | 109 | 104 | 102 | 99 | 93 | 79 |
| Mitigation - Increase Boiler Casing Thickness | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **107.6** | 121 | 116 | 113 | 109 | 104 | 102 | 99 | 93 | 79 |
| Distance Correction | | | | 868.0 | | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 20 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **HRSG Boiler, Unit 7 SPL** | | | | **868.0** | **49.6** | **64** | **59** | **56** | **52** | **46** | **44** | **39** | **30** | **3** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| CT Transformer, Unit 5 | 9855 | 1110 | 40 | 1121.1 | | | | | | | | | | |
| Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Distance Correction | | | | 1121.1 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 26 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Transformer, Unit 5 SPL** | | | | **1121.1** | **44.9** | **43** | **49** | **51** | **45** | **45** | **38** | **31** | **21** | **-2** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| CT Transformer, Unit 7 | 10140 | 1170 | 40 | 881.3 | | | | | | | | | | |
| Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Distance Correction | | | | 881.3 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 20 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 85 Feet West of Nominal Accoustic Center of Gas Compressors

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Transformer, Unit 7 SPL** | | | | **881.3** | **47.3** | **45** | **51** | **53** | **48** | **47** | **41** | **34** | **25** | **5** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| ST Transformer, Unit 6 | 10000 | 1140 | 40 | 995.5 | | | | | | | | | | |
| Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Distance Correction | | | | 995.5 | | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 1 | 2 | 4 | 8 | 23 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **ST Transformer, Unit 6 SPL** | | | | **995.5** | **46.1** | **44** | **50** | **52** | **47** | **46** | **39** | **33** | **23** | **1** |
| | | | | | | | | | | | | | | |
| ST Package, Unit 6 | 10000 | 980 | 40 | 946.1 | | | | | | | | | | |
| Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Distance Correction | | | | 946.1 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 8 | 22 |
| Directivity | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **ST Package, Unit 6 SPL** | | | | **946.1** | **53.7** | **58** | **64** | **61** | **56** | **52** | **47** | **42** | **30** | **10** |
| | | | | | | | | | | | | | | |
| Generator Package, Unit 6 | 10000 | 1025 | 40 | 957.5 | | | | | | | | | | |
| Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Distance Correction | | | | 957.5 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 1 | 2 | 4 | 8 | 22 |
| Directivity | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Generator Package, Unit 6 SPL** | | | | **957.5** | **53.6** | **57** | **63** | **61** | **56** | **51** | **47** | **42** | **30** | **10** |
| | | | | | | | | | | | | | | |
| Major Pumps, Unit 5 | 9798 | 900 | 30 | 1130.7 | | | | | | | | | | |
| Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| 1 Major Pump per Unit | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| Distance Correction | | | | 1130.7 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 26 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Major Pumps, Unit 5 SPL** | | | | **1130.7** | **47.6** | **44** | **50** | **48** | **46** | **45** | **43** | **40** | **34** | **13** |
| | | | | | | | | | | | | | | |
| Major Pumps, Unit 6 | 9930 | 1040 | 30 | 1028.8 | | | | | | | | | | |
| Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| 2 Major Pumps per Unit | | | | | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Total Lw | | | | | **112.9** | 106 | 112 | 110 | 109 | 108 | 107 | 106 | 105 | 101 |
| Distance Correction | | | | 1028.8 | | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 1 | 2 | 4 | 8 | 24 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Major Pumps, Unit 6 SPL** | | | | **1028.8** | **51.7** | **48** | **54** | **52** | **50** | **49** | **47** | **44** | **39** | **19** |
| | | | | | | | | | | | | | | |
| Major Pumps, Unit 7 | 10087 | 960 | 30 | 856.7 | | | | | | | | | | |
| Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| 1 Major Pump per Unit | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| Distance Correction | | | | 856.7 | | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 20 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Major Pumps, Unit 7 SPL** | | | | **856.7** | **50.8** | **46** | **52** | **50** | **49** | **48** | **46** | **44** | **39** | **22** |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 85 Feet West of Nominal Accoustic Center of Gas Compressors

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Gas Compressor 1 (North) | 10905 | 845 | 28.5 | 86.4 | | | | | | | | | | |
| Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Distance Correction | | | | 86.4 | | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| **Gas Compressor 1 SPL** | | | | **86.4** | **74.1** | **65** | **61** | **66** | **65** | **62** | **65** | **70** | **67** | **59** |
| | | | | | | | | | | | | | | |
| Gas Compressor 2 (South) | 10935 | 845 | 28.5 | 86.4 | | | | | | | | | | |
| Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Distance Correction | | | | 86.4 | | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| **Gas Compressor 2 SPL** | | | | **86.4** | **74.1** | **65** | **61** | **66** | **65** | **62** | **65** | **70** | **67** | **59** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Fin Fan Cooler 1 | 10905 | 845 | 49.5 | 89.7 | | | | | | | | | | |
| Fan Lw | | | | | **96.5** | 103 | 103 | 102 | 99 | 94 | 91 | 84 | 80 | 74 |
| Distance Correction | | | | 89.7 | | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Fin Fan Cooler 1 SPL** | | | | **89.7** | **59.6** | **66** | **66** | **65** | **62** | **57** | **54** | **47** | **43** | **35** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Fin Fan Cooler 2 | 10935 | 845 | 49.5 | 89.7 | | | | | | | | | | |
| Fan Lw | | | | | **96.5** | 103 | 103 | 102 | 99 | 94 | 91 | 84 | 80 | 74 |
| Distance Correction | | | | 89.7 | | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Fin Fan Cooler 2 SPL** | | | | **89.7** | **59.6** | **66** | **66** | **65** | **62** | **57** | **54** | **47** | **43** | **35** |
| | | | | | | | | | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ATMOSPHERIC ABSORPTION (dB/100 meters - 75% of EEI Values) | 0.08 | 0.11 | 0.17 | 0.27 | 0.45 | 0.70 | 1.20 | 2.62 | 7.56 |

NRG El Segundo Repower Project
Sound Level Calculation
Closest Residence along 45th Street, Manhattan Beach

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Inlet Unit 7 SPL** | | | | **2152.5** | **25.5** | **37** | **41** | **34** | **32** | **20** | **9** | **2** | **0** | **-37** |
| | | | | | | | | | | | | | | |
| CT Compartment, Unit 5 | 9798 | 1020 | 45 | 2436.0 | | | | | | | | | | |
| Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Distance Correction | | | | 2436.0 | | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 9 | 19 | 56 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Compartment Unit 5 SPL** | | | | **2436.0** | **40.0** | **47** | **49** | **43** | **41** | **36** | **32** | **35** | **19** | **-23** |
| | | | | | | | | | | | | | | |
| Combustion Turbine Compartment, Unit | 10087 | 1055 | 45 | 2147.6 | | | | | | | | | | |
| Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Distance Correction | | | | 2147.6 | | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 1 | 1 | 2 | 3 | 5 | 8 | 17 | 49 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Compartment Unit 7 SPL** | | | | **2147.6** | **41.8** | **48** | **50** | **45** | **42** | **38** | **34** | **37** | **23** | **-15** |
| | | | | | | | | | | | | | | |
| CT Generator, Unit 5 | 9798 | 1060 | 45 | 2436.6 | | | | | | | | | | |
| Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Distance Correction | | | | 2436.6 | | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 9 | 19 | 56 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Generator Unit 5 SPL** | | | | **2436.6** | **41.0** | **44** | **44** | **42** | **41** | **39** | **36** | **32** | **16** | **-30** |
| | | | | | | | | | | | | | | |
| CT Generator, Unit 7 | 10087 | 1120 | 45 | 2150.0 | | | | | | | | | | |
| Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Distance Correction | | | | 2150.0 | | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 1 | 1 | 2 | 3 | 5 | 8 | 17 | 50 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 5 | 5 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Generator Unit 7 SPL** | | | | **2150.0** | **40.6** | **45** | **45** | **44** | **42** | **41** | **33** | **29** | **15** | **-27** |
| | | | | | | | | | | | | | | |
| CT Exhaust Duct, Unit 5 | 9798 | 1000 | 38 | 2436.0 | | | | | | | | | | |
| Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Distance Correction | | | | 2436.0 | | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 9 | 19 | 56 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Exhaust Duct Unit 5 SPL** | | | | **2436.0** | **37.3** | **51** | **48** | **45** | **38** | **35** | **31** | **26** | **14** | **-26** |
| | | | | | | | | | | | | | | |
| CT Exhaust Duct, Unit 7 | 10087 | 1060 | 38 | 2147.7 | | | | | | | | | | |
| Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Distance Correction | | | | 2147.7 | | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 1 | 1 | 2 | 3 | 5 | 8 | 17 | 49 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 5 | 5 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Exhaust Duct Unit 7 SPL** | | | | **2147.7** | **37.5** | **52** | **49** | **47** | **39** | **37** | **28** | **23** | **13** | **-23** |
| | | | | | | | | | | | | | | |
| HRSG Transition, Unit 5 | 9798 | 970 | 50 | 2436.3 | | | | | | | | | | |
| Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Mitigation - Acoustic Shroud | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |

NRG El Segundo Repower Project
Sound Level Calculation
Closest Residence along 45th Street, Manhattan Beach

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Distance Correction | | | | 2436.3 | | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 9 | 19 | 56 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **HRSG Transition, Unit 5 SPL** | | | | **2436.3** | **42.6** | **59** | **55** | **50** | **46** | **40** | **35** | **29** | **12** | **-38** |
| | | | | | | | | | | | | | | |
| HRSG Transition, Unit 7 | 10087 | 1035 | 50 | 2147.2 | | | | | | | | | | |
| Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Mitigation - Acoustic Shroud | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Distance Correction | | | | 2147.2 | | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 1 | 1 | 2 | 3 | 5 | 8 | 17 | 49 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **HRSG Transition, Unit 7 SPL** | | | | **2147.2** | **44.0** | **60** | **56** | **52** | **47** | **42** | **37** | **31** | **16** | **-30** |
| | | | | | | | | | | | | | | |
| HRSG Boiler, Unit 5 | 9798 | 930 | 112 | 2438.0 | | | | | | | | | | |
| Lw | | | | | **107.6** | 121 | 116 | 113 | 109 | 104 | 102 | 99 | 93 | 79 |
| Mitigation - Increase Boiler Casing Thickness | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **107.6** | 121 | 116 | 113 | 109 | 104 | 102 | 99 | 93 | 79 |
| Distance Correction | | | | 2438.0 | | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 9 | 19 | 56 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **HRSG Boiler, Unit 5 SPL** | | | | **2438.0** | **38.3** | **55** | **50** | **46** | **42** | **35** | **31** | **25** | **8** | **-43** |
| | | | | | | | | | | | | | | |
| HRSG Boiler, Unit 7 | 10087 | 988 | 112 | 2148.0 | | | | | | | | | | |
| Lw | | | | | **107.6** | 121 | 116 | 113 | 109 | 104 | 102 | 99 | 93 | 79 |
| Mitigation - Increase Boiler Casing Thickness | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **107.6** | 121 | 116 | 113 | 109 | 104 | 102 | 99 | 93 | 79 |
| Distance Correction | | | | 2148.0 | | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 1 | 1 | 2 | 3 | 5 | 8 | 17 | 49 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **HRSG Boiler, Unit 7 SPL** | | | | **2148.0** | **39.7** | **56** | **51** | **48** | **43** | **37** | **33** | **27** | **12** | **-35** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| CT Transformer, Unit 5 | 9855 | 1110 | 40 | 2381.3 | | | | | | | | | | |
| Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Distance Correction | | | | 2381.3 | | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 9 | 19 | 55 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Transformer, Unit 5 SPL** | | | | **2381.3** | **36.5** | **36** | **42** | **44** | **38** | **37** | **29** | **20** | **5** | **-38** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| CT Transformer, Unit 7 | 10140 | 1170 | 40 | 2100.4 | | | | | | | | | | |
| Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Distance Correction | | | | 2100.4 | | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 1 | 1 | 2 | 3 | 4 | 8 | 17 | 48 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Transformer, Unit 7 SPL** | | | | **2100.4** | **38.0** | **37** | **43** | **45** | **39** | **38** | **30** | **22** | **8** | **-31** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| ST Transformer, Unit 6 | 10000 | 1140 | 40 | 2238.0 | | | | | | | | | | |
| Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Distance Correction | | | | 2238.0 | | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 8 | 18 | 52 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **ST Transformer, Unit 6 SPL** | | | | **2238.0** | **37.2** | **37** | **43** | **44** | **38** | **37** | **30** | **21** | **6** | **-34** |
| | | | | | | | | | | | | | | |
| ST Package, Unit 6 | 10000 | 980 | 40 | 2234.2 | | | | | | | | | | |

NRG El Segundo Repower Project
Sound Level Calculation
Closest Residence along 45th Street, Manhattan Beach

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Distance Correction | | | | 2234.2 | | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 8 | 18 | 51 |
| Directivity | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **ST Package, Unit 6 SPL** | | | | **2234.2** | **44.5** | **50** | **56** | **53** | **48** | **42** | **37** | **30** | **13** | **-27** |
| | | | | | | | | | | | | | | |
| Generator Package, Unit 6 | 10000 | 1025 | 40 | 2234.1 | | | | | | | | | | |
| Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Distance Correction | | | | 2234.1 | | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 8 | 18 | 51 |
| Directivity | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Generator Package, Unit 6 SPL** | | | | **2234.1** | **44.5** | **50** | **56** | **53** | **48** | **42** | **37** | **30** | **13** | **-27** |
| | | | | | | | | | | | | | | |
| Major Pumps, Unit 5 | 9798 | 900 | 30 | 2438.4 | | | | | | | | | | |
| Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| 1 Major Pump per Unit | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| Distance Correction | | | | 2438.4 | | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 9 | 19 | 56 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Major Pumps, Unit 5 SPL** | | | | **2438.4** | **38.2** | **37** | **43** | **40** | **39** | **36** | **33** | **29** | **17** | **-24** |
| | | | | | | | | | | | | | | |
| Major Pumps, Unit 6 | 9930 | 1040 | 30 | 2304.3 | | | | | | | | | | |
| Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| 2 Major Pumps per Unit | | | | | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Total Lw | | | | | **112.9** | 106 | 112 | 110 | 109 | 108 | 107 | 106 | 105 | 101 |
| Distance Correction | | | | 2304.3 | | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 8 | 18 | 53 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Major Pumps, Unit 6 SPL** | | | | **2304.3** | **41.9** | **41** | **46** | **44** | **42** | **40** | **37** | **33** | **22** | **-17** |
| | | | | | | | | | | | | | | |
| Major Pumps, Unit 7 | 10087 | 960 | 30 | 2147.6 | | | | | | | | | | |
| Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| 1 Major Pump per Unit | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| Distance Correction | | | | 2147.6 | | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 1 | 1 | 2 | 3 | 5 | 8 | 17 | 49 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Major Pumps, Unit 7 SPL** | | | | **2147.6** | **39.8** | **38** | **44** | **42** | **40** | **38** | **35** | **31** | **21** | **-16** |
| | | | | | | | | | | | | | | |
| Gas Compressor 1 (North) | 10905 | 845 | 28.5 | 1338.9 | | | | | | | | | | |
| Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Distance Correction | | | | 1338.9 | | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 3 | 5 | 11 | 31 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| **Gas Compressor 1 SPL** | | | | **1338.9** | **45.4** | **40** | **36** | **41** | **40** | **37** | **39** | **42** | **33** | **6** |
| | | | | | | | | | | | | | | |
| Gas Compressor 2 (South) | 10935 | 845 | 28.5 | 1309.1 | | | | | | | | | | |
| Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Distance Correction | | | | 1309.1 | | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 3 | 5 | 10 | 30 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |

NRG El Segundo Repower Project
Sound Level Calculation
Closest Residence along 45th Street, Manhattan Beach

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Gas Compressor 2 SPL** | | | | **1309.1** | **45.7** | **41** | **37** | **41** | **40** | **37** | **39** | **42** | **34** | **7** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Fin Fan Cooler 1 | 10905 | 845 | 49.5 | 1338.7 | | | | | | | | | | |
| Fan Lw | | | | | **96.5** | 103 | 103 | 102 | 99 | 94 | 91 | 84 | 80 | 74 |
| Distance Correction | | | | 1338.7 | | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 3 | 5 | 11 | 31 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Fin Fan Cooler 1 SPL** | | | | **1338.7** | **34.3** | **42** | **42** | **41** | **38** | **32** | **28** | **19** | **9** | **-17** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Fin Fan Cooler 2 | 10935 | 845 | 49.5 | 1308.9 | | | | | | | | | | |
| Fan Lw | | | | | **96.5** | 103 | 103 | 102 | 99 | 94 | 91 | 84 | 80 | 74 |
| Distance Correction | | | | 1308.9 | | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 3 | 5 | 10 | 30 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Fin Fan Cooler 2 SPL** | | | | **1308.9** | **34.5** | **43** | **43** | **41** | **38** | **32** | **28** | **19** | **10** | **-16** |
| | | | | | | | | | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ATMOSPHERIC ABSORPTION (dB/100 meters - 75% of EEI Values) | 0.08 | 0.11 | 0.17 | 0.27 | 0.45 | 0.70 | 1.20 | 2.62 | 7.56 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 85 Feet West of Nominal Accoustic Center of Gas Compressors

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Receptor Location | 10920 | 760 | 25 | | **77.4** | 75.4 | 73.9 | 73.4 | 70.9 | 67.7 | 69.0 | 73.4 | 70.0 | 61.7 |
| | | | | | | 36.0 | 47.7 | 57.3 | 62.3 | 64.5 | 69.0 | 74.6 | 71.0 | 60.6 |
| Summary | | | | | | | | | | | | | | |
| Stack, Unit 5 SPL | | | | 1161.0 | 50.1 | 57.8 | 53.7 | 57.4 | 55.1 | 48.4 | 39.6 | 28.8 | 13.8 | -21.7 |
| Stack, Unit 7 SPL | | | | 897.7 | 52.6 | 60.1 | 56.0 | 59.8 | 57.5 | 51.0 | 42.4 | 32.0 | 18.1 | -13.4 |
| Combustion Turbine (CT) Inlet Unit 5 SPL | | | | 1173.4 | 31.5 | 42.7 | 46.6 | 39.3 | 38.0 | 26.3 | 11.5 | 5.7 | 7.6 | -14.1 |
| CT Inlet Unit 7 SPL | | | | 924.6 | 34.0 | 44.8 | 48.7 | 41.5 | 40.3 | 28.8 | 19.1 | 13.6 | 16.6 | -1.3 |
| CT Compartment Unit 5 SPL | | | | 1151.9 | 49.9 | 53.8 | 55.7 | 50.5 | 48.2 | 44.5 | 41.7 | 45.9 | 35.9 | 13.6 |
| CT Compartment Unit 7 SPL | | | | 883.9 | 53.0 | 56.2 | 58.1 | 52.9 | 50.7 | 47.2 | 44.5 | 49.2 | 40.4 | 22.0 |
| CT Generator Unit 5 SPL | | | | 1161.6 | 50.1 | 50.8 | 50.7 | 49.4 | 48.1 | 47.4 | 45.6 | 42.8 | 32.8 | 6.3 |
| CT Generator Unit 7 SPL | | | | 907.7 | 50.2 | 53.0 | 52.9 | 51.7 | 50.4 | 49.9 | 43.2 | 40.9 | 31.9 | 9.3 |
| CT Exhaust Duct Unit 5 SPL | | | | 1147.5 | 46.1 | 57.9 | 54.8 | 52.5 | 45.2 | 43.6 | 40.7 | 36.9 | 31.0 | 10.7 |
| CT Exhaust Duct Unit 7 SPL | | | | 885.5 | 47.0 | 60.2 | 57.1 | 54.9 | 47.7 | 46.2 | 38.5 | 35.2 | 30.3 | 14.0 |
| HRSG Transition, Unit 5 SPL | | | | 1141.8 | 51.0 | 65.9 | 61.8 | 57.6 | 53.2 | 48.6 | 44.8 | 40.0 | 29.1 | -1.1 |
| HRSG Transition, Unit 7 SPL | | | | 877.6 | 53.7 | 68.3 | 64.2 | 60.0 | 55.8 | 51.3 | 47.6 | 43.3 | 33.5 | 7.3 |
| HRSG Boiler, Unit 5 SPL | | | | 1138.1 | 46.8 | 62.0 | 56.8 | 53.6 | 49.3 | 43.7 | 40.8 | 36.1 | 25.1 | -6.0 |
| HRSG Boiler, Unit 7 SPL | | | | 868.0 | 49.6 | 64.4 | 59.3 | 56.1 | 51.9 | 46.4 | 43.7 | 39.4 | 29.6 | 2.6 |
| CT Transformer, Unit 5 SPL | | | | 1121.1 | 44.9 | 43.1 | 49.0 | 50.8 | 45.4 | 44.8 | 38.0 | 31.2 | 21.4 | -2.5 |
| CT Transformer, Unit 7 SPL | | | | 881.3 | 47.3 | 45.2 | 51.2 | 53.0 | 47.7 | 47.2 | 40.6 | 34.2 | 25.4 | 5.1 |
| ST Transformer, Unit 6 SPL | | | | 995.5 | 46.1 | 44.1 | 50.1 | 51.9 | 46.6 | 46.0 | 39.3 | 32.7 | 23.4 | 1.4 |
| ST Package, Unit 6 SPL | | | | 946.1 | 53.7 | 57.6 | 63.5 | 61.3 | 56.0 | 51.5 | 46.8 | 42.4 | 30.3 | 10.0 |
| Generator Package, Unit 6 SPL | | | | 957.5 | 53.6 | 57.5 | 63.4 | 61.2 | 55.9 | 51.4 | 46.7 | 42.2 | 30.1 | 9.7 |
| Major Pumps, Unit 5 SPL | | | | 1130.7 | 47.6 | 44.0 | 49.9 | 47.7 | 46.3 | 44.7 | 42.9 | 40.1 | 34.2 | 13.2 |
| Major Pumps, Unit 6 SPL | | | | 1028.8 | 51.7 | 47.9 | 53.8 | 51.6 | 50.3 | 48.7 | 46.9 | 44.3 | 38.9 | 19.4 |
| Major Pumps, Unit 7 SPL | | | | 856.7 | 50.8 | 46.5 | 52.4 | 50.2 | 49.0 | 47.5 | 45.9 | 43.5 | 38.8 | 21.9 |
| Gas Compressor 1 SPL | | | | 86.4 | 74.1 | 64.6 | 60.6 | 65.6 | 64.5 | 62.5 | 65.4 | 70.3 | 66.9 | 58.6 |
| Gas Compressor 2 SPL | | | | 86.4 | 74.1 | 64.6 | 60.6 | 65.6 | 64.5 | 62.5 | 65.4 | 70.3 | 66.9 | 58.6 |
| Fin Fan Cooler 1 SPL | | | | 89.7 | 59.6 | 66.3 | 66.3 | 65.2 | 62.2 | 57.2 | 54.1 | 47.0 | 42.6 | 35.2 |
| Fin Fan Cooler 2 SPL | | | | 89.7 | 59.6 | 66.3 | 66.3 | 65.2 | 62.2 | 57.2 | 54.1 | 47.0 | 42.6 | 35.2 |
| | | | | | | | | | | | | | | |
| | | | | **1010.8** | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 5 | 9798 | 930 | 270 | 1161.0 | | | | | | | | | | |
| Mitigated Lw | | | | | | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 1161.0 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 27 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| **Stack, Unit 5 SPL** | | | | **1161.0** | **50.1** | **58** | **54** | **57** | **55** | **48** | **40** | **29** | **14** | **-22** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 7 | 10087 | 988 | 270 | 897.7 | | | | | | | | | | |
| Mitigated Lw | | | | | **116.0** | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 897.7 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 21 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| **Stack, Unit 7 SPL** | | | | **897.7** | **52.6** | **60** | **56** | **60** | **58** | **51** | **42** | **32** | **18** | **-13** |
| | | | | | | | | | | | | | | |
| Combustion Turbine (CT) Inlet, Unit 5 | 9798 | 1100 | 75 | 1173.4 | | | | | | | | | | |
| Standard Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Mitigation - Silencer Upgrade | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Upgraded Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Distance Correction | | | | 1173.4 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 27 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 5 | 5 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Combustion Turbine (CT) Inlet Unit 5 SPL** | | | | **1173.4** | **31.5** | **43** | **47** | **39** | **38** | **26** | **11** | **6** | **8** | **-14** |
| | | | | | | | | | | | | | | |
| CT Inlet, Unit 7 | 10087 | 1158 | 75 | 924.6 | | | | | | | | | | |
| Standard Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Mitigation - Silencer Upgrade | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 1/3rds way toward gas compressors

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Receptor Location | 10306 | 740 | 25 | | **71.9** | 80.4 | 78.7 | 76.5 | 72.7 | 68.9 | 65.3 | 64.3 | 58.6 | 47.3 |
| | | | | | | 41.0 | 52.5 | 60.4 | 64.1 | 65.7 | 65.3 | 65.5 | 59.6 | 46.2 |
| Summary | | | | | | | | | | | | | | |
| Stack, Unit 5 SPL | | | | 595.1 | 56.5 | 63.7 | 59.7 | 63.5 | 61.4 | 55.0 | 46.6 | 36.7 | 24.1 | -2.9 |
| Stack, Unit 7 SPL | | | | 411.7 | 60.0 | 67.0 | 62.9 | 66.8 | 64.7 | 58.5 | 50.2 | 40.5 | 28.8 | 4.6 |
| Combustion Turbine (CT) Inlet Unit 5 SPL | | | | 624.6 | 37.5 | 48.3 | 52.2 | 45.1 | 43.9 | 32.6 | 18.1 | 13.1 | 17.4 | 4.0 |
| CT Inlet Unit 7 SPL | | | | 474.5 | 40.3 | 50.7 | 54.7 | 47.6 | 46.4 | 35.2 | 25.8 | 21.1 | 26.0 | 14.9 |
| CT Compartment Unit 5 SPL | | | | 580.4 | 57.6 | 59.9 | 61.9 | 56.8 | 54.6 | 51.3 | 48.8 | 53.9 | 46.4 | 32.7 |
| CT Compartment Unit 7 SPL | | | | 384.2 | 61.9 | 63.6 | 65.5 | 60.4 | 58.3 | 55.1 | 52.8 | 58.2 | 51.6 | 40.8 |
| CT Generator Unit 5 SPL | | | | 600.7 | 57.1 | 56.6 | 56.6 | 55.4 | 54.3 | 53.9 | 52.5 | 50.6 | 43.0 | 24.9 |
| CT Generator Unit 7 SPL | | | | 439.0 | 57.5 | 59.4 | 59.3 | 58.3 | 57.1 | 56.9 | 50.6 | 48.9 | 42.0 | 26.4 |
| CT Exhaust Duct Unit 5 SPL | | | | 570.8 | 53.4 | 64.1 | 61.0 | 58.9 | 51.7 | 50.4 | 48.0 | 45.1 | 41.7 | 30.1 |
| CT Exhaust Duct Unit 7 SPL | | | | 388.0 | 55.0 | 67.5 | 64.4 | 62.4 | 55.2 | 54.0 | 46.7 | 44.1 | 41.5 | 32.6 |
| HRSG Transition, Unit 5 SPL | | | | 558.2 | 58.2 | 72.3 | 68.2 | 64.1 | 59.9 | 55.6 | 52.2 | 48.4 | 39.9 | 18.5 |
| HRSG Transition, Unit 7 SPL | | | | 368.3 | 62.2 | 75.9 | 71.9 | 67.8 | 63.7 | 59.5 | 56.2 | 52.7 | 45.1 | 26.5 |
| HRSG Boiler, Unit 5 SPL | | | | 549.3 | 54.1 | 68.4 | 63.4 | 60.3 | 56.1 | 50.8 | 48.4 | 44.5 | 36.2 | 13.9 |
| HRSG Boiler, Unit 7 SPL | | | | 342.1 | 58.6 | 72.6 | 67.5 | 64.5 | 60.4 | 55.2 | 52.9 | 49.4 | 41.9 | 22.8 |
| CT Transformer, Unit 5 SPL | | | | 583.5 | 51.4 | 48.9 | 54.8 | 56.7 | 51.5 | 51.2 | 44.8 | 38.9 | 31.4 | 15.6 |
| CT Transformer, Unit 7 SPL | | | | 461.2 | 53.6 | 51.0 | 56.9 | 58.8 | 53.7 | 53.4 | 47.1 | 41.4 | 34.4 | 20.4 |
| ST Transformer, Unit 6 SPL | | | | 503.8 | 52.8 | 50.2 | 56.1 | 58.0 | 52.9 | 52.6 | 46.2 | 40.4 | 33.3 | 18.7 |
| ST Package, Unit 6 SPL | | | | 389.2 | 62.3 | 65.4 | 71.4 | 69.3 | 64.2 | 60.0 | 55.7 | 52.1 | 42.4 | 30.6 |
| Generator Package, Unit 6 SPL | | | | 418.4 | 61.6 | 64.8 | 70.8 | 68.7 | 63.6 | 59.3 | 55.0 | 51.4 | 41.6 | 29.3 |
| Major Pumps, Unit 5 SPL | | | | 532.6 | 55.8 | 50.7 | 56.6 | 54.5 | 53.4 | 52.1 | 50.7 | 48.9 | 45.6 | 33.5 |
| Major Pumps, Unit 6 SPL | | | | 481.0 | 59.9 | 54.6 | 60.6 | 58.5 | 57.3 | 56.0 | 54.7 | 52.9 | 49.9 | 38.6 |
| Major Pumps, Unit 7 SPL | | | | 310.5 | 61.2 | 55.4 | 61.4 | 59.3 | 58.2 | 57.1 | 55.8 | 54.4 | 52.0 | 43.3 |
| Gas Compressor 1 SPL | | | | 608.1 | 54.9 | 47.5 | 43.5 | 48.3 | 47.2 | 44.8 | 47.4 | 51.4 | 45.8 | 29.6 |
| Gas Compressor 2 SPL | | | | 637.7 | 54.4 | 47.1 | 43.0 | 47.9 | 46.7 | 44.4 | 46.9 | 50.9 | 45.2 | 28.6 |
| Fin Fan Cooler 1 SPL | | | | 608.6 | 42.2 | 49.5 | 49.5 | 48.3 | 45.2 | 39.8 | 36.4 | 28.4 | 21.8 | 6.6 |
| Fin Fan Cooler 2 SPL | | | | 638.2 | 41.7 | 49.1 | 49.0 | 47.9 | 44.7 | 39.4 | 35.9 | 27.9 | 21.1 | 5.5 |
| | | | | | | | | | | | | | | |
| | | | | **480.3** | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 5 | 9798 | 930 | 270 | 595.1 | | | | | | | | | | |
| Mitigated Lw | | | | | | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 595.1 | | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 5 | 14 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| **Stack, Unit 5 SPL** | | | | **595.1** | **56.5** | **64** | **60** | **64** | **61** | **55** | **47** | **37** | **24** | **-3** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 7 | 10087 | 988 | 270 | 411.7 | | | | | | | | | | |
| Mitigated Lw | | | | | **116.0** | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 411.7 | | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 9 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| **Stack, Unit 7 SPL** | | | | **411.7** | **60.0** | **67** | **63** | **67** | **65** | **58** | **50** | **41** | **29** | **5** |
| | | | | | | | | | | | | | | |
| Combustion Turbine (CT) Inlet, Unit 5 | 9798 | 1100 | 75 | 624.6 | | | | | | | | | | |
| Standard Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Mitigation - Silencer Upgrade | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Upgraded Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Distance Correction | | | | 624.6 | | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 5 | 14 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 5 | 5 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Combustion Turbine (CT) Inlet Unit 5 SPL** | | | | **624.6** | **37.5** | **48** | **52** | **45** | **44** | **33** | **18** | **13** | **17** | **4** |
| | | | | | | | | | | | | | | |
| CT Inlet, Unit 7 | 10087 | 1158 | 75 | 474.5 | | | | | | | | | | |
| Standard Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Mitigation - Silencer Upgrade | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 1/3rds way toward gas compressors

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Upgraded Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Distance Correction | | | | 474.5 | | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 4 | 11 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Inlet Unit 7 SPL** | | | | **474.5** | **40.3** | **51** | **55** | **48** | **46** | **35** | **26** | **21** | **26** | **15** |
| | | | | | | | | | | | | | | |
| CT Compartment, Unit 5 | 9798 | 1020 | 45 | 580.4 | | | | | | | | | | |
| Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Distance Correction | | | | 580.4 | | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 5 | 13 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Compartment Unit 5 SPL** | | | | **580.4** | **57.6** | **60** | **62** | **57** | **55** | **51** | **49** | **54** | **46** | **33** |
| | | | | | | | | | | | | | | |
| Combustion Turbine Compartment, Unit | 10087 | 1055 | 45 | 384.2 | | | | | | | | | | |
| Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Distance Correction | | | | 384.2 | | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 9 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Compartment Unit 7 SPL** | | | | **384.2** | **61.9** | **64** | **66** | **60** | **58** | **55** | **53** | **58** | **52** | **41** |
| | | | | | | | | | | | | | | |
| CT Generator, Unit 5 | 9798 | 1060 | 45 | 600.7 | | | | | | | | | | |
| Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Distance Correction | | | | 600.7 | | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 5 | 14 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Generator Unit 5 SPL** | | | | **600.7** | **57.1** | **57** | **57** | **55** | **54** | **54** | **52** | **51** | **43** | **25** |
| | | | | | | | | | | | | | | |
| CT Generator, Unit 7 | 10087 | 1120 | 45 | 439.0 | | | | | | | | | | |
| Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Distance Correction | | | | 439.0 | | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 4 | 10 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 5 | 5 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Generator Unit 7 SPL** | | | | **439.0** | **57.5** | **59** | **59** | **58** | **57** | **57** | **51** | **49** | **42** | **26** |
| | | | | | | | | | | | | | | |
| CT Exhaust Duct, Unit 5 | 9798 | 1000 | 38 | 570.8 | | | | | | | | | | |
| Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Distance Correction | | | | 570.8 | | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 5 | 13 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Exhaust Duct Unit 5 SPL** | | | | **570.8** | **53.4** | **64** | **61** | **59** | **52** | **50** | **48** | **45** | **42** | **30** |
| | | | | | | | | | | | | | | |
| CT Exhaust Duct, Unit 7 | 10087 | 1060 | 38 | 388.0 | | | | | | | | | | |
| Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Distance Correction | | | | 388.0 | | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 1/3rds way toward gas compressors

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 9 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 5 | 5 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Exhaust Duct Unit 7 SPL** | | | | **388.0** | **55.0** | **67** | **64** | **62** | **55** | **54** | **47** | **44** | **41** | **33** |
| | | | | | | | | | | | | | | |
| HRSG Transition, Unit 5 | 9798 | 970 | 50 | 558.2 | | | | | | | | | | |
| Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Mitigation - Acoustic Shroud | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Distance Correction | | | | 558.2 | | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 4 | 13 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **HRSG Transition, Unit 5 SPL** | | | | **558.2** | **58.2** | **72** | **68** | **64** | **60** | **56** | **52** | **48** | **40** | **19** |
| | | | | | | | | | | | | | | |
| HRSG Transition, Unit 7 | 10087 | 1035 | 50 | 368.3 | | | | | | | | | | |
| Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Mitigation - Acoustic Shroud | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Distance Correction | | | | 368.3 | | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 8 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **HRSG Transition, Unit 7 SPL** | | | | **368.3** | **62.2** | **76** | **72** | **68** | **64** | **60** | **56** | **53** | **45** | **27** |
| | | | | | | | | | | | | | | |
| HRSG Boiler, Unit 5 | 9798 | 930 | 112 | 549.3 | | | | | | | | | | |
| Lw | | | | | **107.6** | 121 | 116 | 113 | 109 | 104 | 102 | 99 | 93 | 79 |
| Mitigation - Increase Boiler Casing Thickness | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **107.6** | 121 | 116 | 113 | 109 | 104 | 102 | 99 | 93 | 79 |
| Distance Correction | | | | 549.3 | | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 4 | 13 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **HRSG Boiler, Unit 5 SPL** | | | | **549.3** | **54.1** | **68** | **63** | **60** | **56** | **51** | **48** | **45** | **36** | **14** |
| | | | | | | | | | | | | | | |
| HRSG Boiler, Unit 7 | 10087 | 988 | 112 | 342.1 | | | | | | | | | | |
| Lw | | | | | **107.6** | 121 | 116 | 113 | 109 | 104 | 102 | 99 | 93 | 79 |
| Mitigation - Increase Boiler Casing Thickness | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **107.6** | 121 | 116 | 113 | 109 | 104 | 102 | 99 | 93 | 79 |
| Distance Correction | | | | 342.1 | | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 8 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **HRSG Boiler, Unit 7 SPL** | | | | **342.1** | **58.6** | **73** | **68** | **64** | **60** | **55** | **53** | **49** | **42** | **23** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| CT Transformer, Unit 5 | 9855 | 1110 | 40 | 583.5 | | | | | | | | | | |
| Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Distance Correction | | | | 583.5 | | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 5 | 13 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Transformer, Unit 5 SPL** | | | | **583.5** | **51.4** | **49** | **55** | **57** | **52** | **51** | **45** | **39** | **31** | **16** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| CT Transformer, Unit 7 | 10140 | 1170 | 40 | 461.2 | | | | | | | | | | |
| Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Distance Correction | | | | 461.2 | | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 4 | 11 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 1/3rds way toward gas compressors

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Transformer, Unit 7 SPL** | | | | **461.2** | **53.6** | **51** | **57** | **59** | **54** | **53** | **47** | **41** | **34** | **20** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| ST Transformer, Unit 6 | 10000 | 1140 | 40 | 503.8 | | | | | | | | | | |
| Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Distance Correction | | | | 503.8 | | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 4 | 12 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **ST Transformer, Unit 6 SPL** | | | | **503.8** | **52.8** | **50** | **56** | **58** | **53** | **53** | **46** | **40** | **33** | **19** |
| | | | | | | | | | | | | | | |
| ST Package, Unit 6 | 10000 | 980 | 40 | 389.2 | | | | | | | | | | |
| Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Distance Correction | | | | 389.2 | | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 9 |
| Directivity | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **ST Package, Unit 6 SPL** | | | | **389.2** | **62.3** | **65** | **71** | **69** | **64** | **60** | **56** | **52** | **42** | **31** |
| | | | | | | | | | | | | | | |
| Generator Package, Unit 6 | 10000 | 1025 | 40 | 418.4 | | | | | | | | | | |
| Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Distance Correction | | | | 418.4 | | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 10 |
| Directivity | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Generator Package, Unit 6 SPL** | | | | **418.4** | **61.6** | **65** | **71** | **69** | **64** | **59** | **55** | **51** | **42** | **29** |
| | | | | | | | | | | | | | | |
| Major Pumps, Unit 5 | 9798 | 900 | 30 | 532.6 | | | | | | | | | | |
| Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| 1 Major Pump per Unit | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| Distance Correction | | | | 532.6 | | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 4 | 12 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Major Pumps, Unit 5 SPL** | | | | **532.6** | **55.8** | **51** | **57** | **55** | **53** | **52** | **51** | **49** | **46** | **34** |
| | | | | | | | | | | | | | | |
| Major Pumps, Unit 6 | 9930 | 1040 | 30 | 481.0 | | | | | | | | | | |
| Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| 2 Major Pumps per Unit | | | | | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Total Lw | | | | | **112.9** | 106 | 112 | 110 | 109 | 108 | 107 | 106 | 105 | 101 |
| Distance Correction | | | | 481.0 | | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 4 | 11 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Major Pumps, Unit 6 SPL** | | | | **481.0** | **59.9** | **55** | **61** | **58** | **57** | **56** | **55** | **53** | **50** | **39** |
| | | | | | | | | | | | | | | |
| Major Pumps, Unit 7 | 10087 | 960 | 30 | 310.5 | | | | | | | | | | |
| Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| 1 Major Pump per Unit | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| Distance Correction | | | | 310.5 | | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 7 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Major Pumps, Unit 7 SPL** | | | | **310.5** | **61.2** | **55** | **61** | **59** | **58** | **57** | **56** | **54** | **52** | **43** |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 1/3rds way toward gas compressors

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Gas Compressor 1 (North) | 10905 | 845 | 28.5 | 608.1 | | | | | | | | | | |
| Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Distance Correction | | | | 608.1 | | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 5 | 14 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| **Gas Compressor 1 SPL** | | | | **608.1** | **54.9** | **48** | **43** | **48** | **47** | **45** | **47** | **51** | **46** | **30** |
| | | | | | | | | | | | | | | |
| Gas Compressor 2 (South) | 10935 | 845 | 28.5 | 637.7 | | | | | | | | | | |
| Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Distance Correction | | | | 637.7 | | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 5 | 15 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| **Gas Compressor 2 SPL** | | | | **637.7** | **54.4** | **47** | **43** | **48** | **47** | **44** | **47** | **51** | **45** | **29** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Fin Fan Cooler 1 | 10905 | 845 | 49.5 | 608.6 | | | | | | | | | | |
| Fan Lw | | | | | **96.5** | 103 | 103 | 102 | 99 | 94 | 91 | 84 | 80 | 74 |
| Distance Correction | | | | 608.6 | | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 5 | 14 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Fin Fan Cooler 1 SPL** | | | | **608.6** | **42.2** | **50** | **49** | **48** | **45** | **40** | **36** | **28** | **22** | **7** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Fin Fan Cooler 2 | 10935 | 845 | 49.5 | 638.2 | | | | | | | | | | |
| Fan Lw | | | | | **96.5** | 103 | 103 | 102 | 99 | 94 | 91 | 84 | 80 | 74 |
| Distance Correction | | | | 638.2 | | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 5 | 15 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Fin Fan Cooler 2 SPL** | | | | **638.2** | **41.7** | **49** | **49** | **48** | **45** | **39** | **36** | **28** | **21** | **6** |
| | | | | | | | | | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ATMOSPHERIC ABSORPTION (dB/100 meters - 75% of EEI Values) | 0.08 | 0.11 | 0.17 | 0.27 | 0.45 | 0.70 | 1.20 | 2.62 | 7.56 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 85 Feet West of Nominal Accoustic Center of Gas Compressors

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Upgraded Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Distance Correction | | | | 924.6 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 21 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Inlet Unit 7 SPL** | | | | **924.6** | **34.0** | **45** | **49** | **42** | **40** | **29** | **19** | **14** | **17** | **-1** |
| | | | | | | | | | | | | | | |
| CT Compartment, Unit 5 | 9798 | 1020 | 45 | 1151.9 | | | | | | | | | | |
| Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Distance Correction | | | | 1151.9 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 27 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Compartment Unit 5 SPL** | | | | **1151.9** | **49.9** | **54** | **56** | **51** | **48** | **45** | **42** | **46** | **36** | **14** |
| | | | | | | | | | | | | | | |
| Combustion Turbine Compartment, Unit | 10087 | 1055 | 45 | 883.9 | | | | | | | | | | |
| Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Distance Correction | | | | 883.9 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 20 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Compartment Unit 7 SPL** | | | | **883.9** | **53.0** | **56** | **58** | **53** | **51** | **47** | **45** | **49** | **40** | **22** |
| | | | | | | | | | | | | | | |
| CT Generator, Unit 5 | 9798 | 1060 | 45 | 1161.6 | | | | | | | | | | |
| Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Distance Correction | | | | 1161.6 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 27 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Generator Unit 5 SPL** | | | | **1161.6** | **50.1** | **51** | **51** | **49** | **48** | **47** | **46** | **43** | **33** | **6** |
| | | | | | | | | | | | | | | |
| CT Generator, Unit 7 | 10087 | 1120 | 45 | 907.7 | | | | | | | | | | |
| Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Distance Correction | | | | 907.7 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 21 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 5 | 5 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Generator Unit 7 SPL** | | | | **907.7** | **50.2** | **53** | **53** | **52** | **50** | **50** | **43** | **41** | **32** | **9** |
| | | | | | | | | | | | | | | |
| CT Exhaust Duct, Unit 5 | 9798 | 1000 | 38 | 1147.5 | | | | | | | | | | |
| Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Distance Correction | | | | 1147.5 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 26 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Exhaust Duct Unit 5 SPL** | | | | **1147.5** | **46.1** | **58** | **55** | **53** | **45** | **44** | **41** | **37** | **31** | **11** |
| | | | | | | | | | | | | | | |
| CT Exhaust Duct, Unit 7 | 10087 | 1060 | 38 | 885.5 | | | | | | | | | | |
| Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Distance Correction | | | | 885.5 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 85 Feet West of Nominal Accoustic Center of Gas Compressors

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 20 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 5 | 5 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Exhaust Duct Unit 7 SPL** | | | | **885.5** | **47.0** | **60** | **57** | **55** | **48** | **46** | **39** | **35** | **30** | **14** |
| | | | | | | | | | | | | | | |
| HRSG Transition, Unit 5 | 9798 | 970 | 50 | 1141.8 | | | | | | | | | | |
| Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Mitigation - Acoustic Shroud | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Distance Correction | | | | 1141.8 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 26 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **HRSG Transition, Unit 5 SPL** | | | | **1141.8** | **51.0** | **66** | **62** | **58** | **53** | **49** | **45** | **40** | **29** | **-1** |
| | | | | | | | | | | | | | | |
| HRSG Transition, Unit 7 | 10087 | 1035 | 50 | 877.6 | | | | | | | | | | |
| Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Mitigation - Acoustic Shroud | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Distance Correction | | | | 877.6 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 20 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **HRSG Transition, Unit 7 SPL** | | | | **877.6** | **53.7** | **68** | **64** | **60** | **56** | **51** | **48** | **43** | **33** | **7** |
| | | | | | | | | | | | | | | |
| HRSG Boiler, Unit 5 | 9798 | 930 | 112 | 1138.1 | | | | | | | | | | |
| Lw | | | | | **107.6** | 121 | 116 | 113 | 109 | 104 | 102 | 99 | 93 | 79 |
| Mitigation - Increase Boiler Casing Thickness | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **107.6** | 121 | 116 | 113 | 109 | 104 | 102 | 99 | 93 | 79 |
| Distance Correction | | | | 1138.1 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 26 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **HRSG Boiler, Unit 5 SPL** | | | | **1138.1** | **46.8** | **62** | **57** | **54** | **49** | **44** | **41** | **36** | **25** | **-6** |
| | | | | | | | | | | | | | | |
| HRSG Boiler, Unit 7 | 10087 | 988 | 112 | 868.0 | | | | | | | | | | |
| Lw | | | | | **107.6** | 121 | 116 | 113 | 109 | 104 | 102 | 99 | 93 | 79 |
| Mitigation - Increase Boiler Casing Thickness | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **107.6** | 121 | 116 | 113 | 109 | 104 | 102 | 99 | 93 | 79 |
| Distance Correction | | | | 868.0 | | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 20 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **HRSG Boiler, Unit 7 SPL** | | | | **868.0** | **49.6** | **64** | **59** | **56** | **52** | **46** | **44** | **39** | **30** | **3** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| CT Transformer, Unit 5 | 9855 | 1110 | 40 | 1121.1 | | | | | | | | | | |
| Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Distance Correction | | | | 1121.1 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 26 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Transformer, Unit 5 SPL** | | | | **1121.1** | **44.9** | **43** | **49** | **51** | **45** | **45** | **38** | **31** | **21** | **-2** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| CT Transformer, Unit 7 | 10140 | 1170 | 40 | 881.3 | | | | | | | | | | |
| Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Distance Correction | | | | 881.3 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 20 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 85 Feet West of Nominal Accoustic Center of Gas Compressors

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Transformer, Unit 7 SPL** | | | | **881.3** | **47.3** | **45** | **51** | **53** | **48** | **47** | **41** | **34** | **25** | **5** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| ST Transformer, Unit 6 | 10000 | 1140 | 40 | 995.5 | | | | | | | | | | |
| Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Distance Correction | | | | 995.5 | | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 1 | 2 | 4 | 8 | 23 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **ST Transformer, Unit 6 SPL** | | | | **995.5** | **46.1** | **44** | **50** | **52** | **47** | **46** | **39** | **33** | **23** | **1** |
| | | | | | | | | | | | | | | |
| ST Package, Unit 6 | 10000 | 980 | 40 | 946.1 | | | | | | | | | | |
| Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Distance Correction | | | | 946.1 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 8 | 22 |
| Directivity | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **ST Package, Unit 6 SPL** | | | | **946.1** | **53.7** | **58** | **64** | **61** | **56** | **52** | **47** | **42** | **30** | **10** |
| | | | | | | | | | | | | | | |
| Generator Package, Unit 6 | 10000 | 1025 | 40 | 957.5 | | | | | | | | | | |
| Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Distance Correction | | | | 957.5 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 1 | 2 | 4 | 8 | 22 |
| Directivity | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Generator Package, Unit 6 SPL** | | | | **957.5** | **53.6** | **57** | **63** | **61** | **56** | **51** | **47** | **42** | **30** | **10** |
| | | | | | | | | | | | | | | |
| Major Pumps, Unit 5 | 9798 | 900 | 30 | 1130.7 | | | | | | | | | | |
| Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| 1 Major Pump per Unit | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| Distance Correction | | | | 1130.7 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 26 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Major Pumps, Unit 5 SPL** | | | | **1130.7** | **47.6** | **44** | **50** | **48** | **46** | **45** | **43** | **40** | **34** | **13** |
| | | | | | | | | | | | | | | |
| Major Pumps, Unit 6 | 9930 | 1040 | 30 | 1028.8 | | | | | | | | | | |
| Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| 2 Major Pumps per Unit | | | | | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Total Lw | | | | | **112.9** | 106 | 112 | 110 | 109 | 108 | 107 | 106 | 105 | 101 |
| Distance Correction | | | | 1028.8 | | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 1 | 2 | 4 | 8 | 24 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Major Pumps, Unit 6 SPL** | | | | **1028.8** | **51.7** | **48** | **54** | **52** | **50** | **49** | **47** | **44** | **39** | **19** |
| | | | | | | | | | | | | | | |
| Major Pumps, Unit 7 | 10087 | 960 | 30 | 856.7 | | | | | | | | | | |
| Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| 1 Major Pump per Unit | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| Distance Correction | | | | 856.7 | | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 20 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Major Pumps, Unit 7 SPL** | | | | **856.7** | **50.8** | **46** | **52** | **50** | **49** | **48** | **46** | **44** | **39** | **22** |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 85 Feet West of Nominal Accoustic Center of Gas Compressors

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Gas Compressor 1 (North) | 10905 | 845 | 28.5 | 86.4 | | | | | | | | | | |
| Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Distance Correction | | | | 86.4 | | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| **Gas Compressor 1 SPL** | | | | **86.4** | **74.1** | **65** | **61** | **66** | **65** | **62** | **65** | **70** | **67** | **59** |
| | | | | | | | | | | | | | | |
| Gas Compressor 2 (South) | 10935 | 845 | 28.5 | 86.4 | | | | | | | | | | |
| Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Distance Correction | | | | 86.4 | | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| **Gas Compressor 2 SPL** | | | | **86.4** | **74.1** | **65** | **61** | **66** | **65** | **62** | **65** | **70** | **67** | **59** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Fin Fan Cooler 1 | 10905 | 845 | 49.5 | 89.7 | | | | | | | | | | |
| Fan Lw | | | | | **96.5** | 103 | 103 | 102 | 99 | 94 | 91 | 84 | 80 | 74 |
| Distance Correction | | | | 89.7 | | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Fin Fan Cooler 1 SPL** | | | | **89.7** | **59.6** | **66** | **66** | **65** | **62** | **57** | **54** | **47** | **43** | **35** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Fin Fan Cooler 2 | 10935 | 845 | 49.5 | 89.7 | | | | | | | | | | |
| Fan Lw | | | | | **96.5** | 103 | 103 | 102 | 99 | 94 | 91 | 84 | 80 | 74 |
| Distance Correction | | | | 89.7 | | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Fin Fan Cooler 2 SPL** | | | | **89.7** | **59.6** | **66** | **66** | **65** | **62** | **57** | **54** | **47** | **43** | **35** |
| | | | | | | | | | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ATMOSPHERIC ABSORPTION (dB/100 meters - 75% of EEI Values) | 0.08 | 0.11 | 0.17 | 0.27 | 0.45 | 0.70 | 1.20 | 2.62 | 7.56 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 2/3rds of way toward gas compressors

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Receptor Location | 10612 | 750 | 25 | | **69.2** | 76.4 | 74.6 | 72.6 | 68.9 | 65.1 | 62.1 | 63.1 | 57.9 | 45.5 |
| | | | | | | 37.0 | 48.4 | 56.5 | 60.3 | 61.9 | 62.1 | 64.3 | 58.9 | 44.4 |
| Summary | | | | | | | | | | | | | | |
| Stack, Unit 5 SPL | | | | 868.9 | 52.9 | 60.4 | 56.3 | 60.1 | 57.8 | 51.4 | 42.7 | 32.4 | 18.6 | -12.5 |
| Stack, Unit 7 SPL | | | | 626.3 | 56.1 | 63.3 | 59.2 | 63.1 | 60.9 | 54.5 | 46.1 | 36.1 | 23.4 | -4.0 |
| Combustion Turbine (CT) Inlet Unit 5 SPL | | | | 887.5 | 34.2 | 45.2 | 49.1 | 41.9 | 40.6 | 29.2 | 14.5 | 9.1 | 12.3 | -5.1 |
| CT Inlet Unit 7 SPL | | | | 666.8 | 37.2 | 47.7 | 51.6 | 44.5 | 43.3 | 31.9 | 22.4 | 17.4 | 21.5 | 7.5 |
| CT Compartment Unit 5 SPL | | | | 857.8 | 53.3 | 56.5 | 58.4 | 53.2 | 51.0 | 47.5 | 44.8 | 49.5 | 40.8 | 22.9 |
| CT Compartment Unit 7 SPL | | | | 607.5 | 57.1 | 59.5 | 61.5 | 56.3 | 54.2 | 50.8 | 48.4 | 53.4 | 45.8 | 31.7 |
| CT Generator Unit 5 SPL | | | | 871.3 | 53.2 | 53.3 | 53.3 | 52.1 | 50.8 | 50.3 | 48.7 | 46.3 | 37.6 | 15.5 |
| CT Generator Unit 7 SPL | | | | 642.6 | 53.8 | 56.0 | 56.0 | 54.8 | 53.7 | 53.3 | 46.8 | 44.8 | 37.1 | 18.4 |
| CT Exhaust Duct Unit 5 SPL | | | | 851.6 | 49.3 | 60.5 | 57.5 | 55.3 | 48.0 | 46.6 | 43.9 | 40.6 | 35.9 | 20.1 |
| CT Exhaust Duct Unit 7 SPL | | | | 609.8 | 50.7 | 63.5 | 60.4 | 58.3 | 51.1 | 49.8 | 42.3 | 39.4 | 35.8 | 23.6 |
| HRSG Transition, Unit 5 SPL | | | | 843.6 | 54.1 | 68.6 | 64.5 | 60.4 | 56.1 | 51.7 | 48.0 | 43.7 | 34.1 | 8.4 |
| HRSG Transition, Unit 7 SPL | | | | 597.9 | 57.5 | 71.7 | 67.6 | 63.5 | 59.3 | 55.0 | 51.5 | 47.6 | 39.0 | 17.0 |
| HRSG Boiler, Unit 5 SPL | | | | 838.2 | 49.9 | 64.7 | 59.6 | 56.4 | 52.2 | 46.7 | 44.1 | 39.8 | 30.2 | 3.6 |
| HRSG Boiler, Unit 7 SPL | | | | 583.0 | 53.5 | 67.9 | 62.8 | 59.7 | 55.5 | 50.2 | 47.8 | 43.9 | 35.4 | 12.6 |
| CT Transformer, Unit 5 SPL | | | | 838.4 | 47.8 | 45.7 | 51.6 | 53.4 | 48.2 | 47.7 | 41.1 | 34.8 | 26.2 | 6.6 |
| CT Transformer, Unit 7 SPL | | | | 632.0 | 50.6 | 48.2 | 54.1 | 56.0 | 50.8 | 50.5 | 44.0 | 38.0 | 30.3 | 13.8 |
| ST Transformer, Unit 6 SPL | | | | 725.9 | 49.2 | 47.0 | 52.9 | 54.7 | 49.5 | 49.1 | 42.6 | 36.5 | 28.3 | 10.4 |
| ST Package, Unit 6 SPL | | | | 654.0 | 57.4 | 60.9 | 66.8 | 64.7 | 59.5 | 55.1 | 50.6 | 46.6 | 35.8 | 20.0 |
| Generator Package, Unit 6 SPL | | | | 671.1 | 57.1 | 60.6 | 66.6 | 64.4 | 59.2 | 54.9 | 50.4 | 46.3 | 35.4 | 19.3 |
| Major Pumps, Unit 5 SPL | | | | 827.7 | 51.1 | 46.8 | 52.7 | 50.5 | 49.3 | 47.8 | 46.2 | 44.0 | 39.4 | 22.9 |
| Major Pumps, Unit 6 SPL | | | | 741.1 | 55.3 | 50.8 | 56.7 | 54.6 | 53.3 | 51.9 | 50.4 | 48.2 | 44.0 | 28.9 |
| Major Pumps, Unit 7 SPL | | | | 565.5 | 55.2 | 50.2 | 56.1 | 54.0 | 52.8 | 51.5 | 50.1 | 48.2 | 44.8 | 32.3 |
| Gas Compressor 1 SPL | | | | 308.0 | 62.0 | 53.5 | 49.5 | 54.4 | 53.3 | 51.1 | 53.9 | 58.4 | 54.1 | 42.5 |
| Gas Compressor 2 SPL | | | | 336.7 | 61.2 | 52.7 | 48.7 | 53.6 | 52.5 | 50.3 | 53.1 | 57.6 | 53.1 | 41.0 |
| Fin Fan Cooler 1 SPL | | | | 309.0 | 48.5 | 55.5 | 55.4 | 54.4 | 51.3 | 46.1 | 42.9 | 35.4 | 30.1 | 19.4 |
| Fin Fan Cooler 2 SPL | | | | 337.6 | 47.7 | 54.7 | 54.7 | 53.6 | 50.5 | 45.3 | 42.1 | 34.5 | 29.1 | 18.0 |
| | | | | | | | | | | | | | | |
| | | | | **727.7** | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 5 | 9798 | 930 | 270 | 868.9 | | | | | | | | | | |
| Mitigated Lw | | | | | | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 868.9 | | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 20 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| **Stack, Unit 5 SPL** | | | | **868.9** | **52.9** | **60** | **56** | **60** | **58** | **51** | **43** | **32** | **19** | **-12** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 7 | 10087 | 988 | 270 | 626.3 | | | | | | | | | | |
| Mitigated Lw | | | | | **116.0** | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 626.3 | | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 5 | 14 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| **Stack, Unit 7 SPL** | | | | **626.3** | **56.1** | **63** | **59** | **63** | **61** | **55** | **46** | **36** | **23** | **-4** |
| | | | | | | | | | | | | | | |
| Combustion Turbine (CT) Inlet, Unit 5 | 9798 | 1100 | 75 | 887.5 | | | | | | | | | | |
| Standard Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Mitigation - Silencer Upgrade | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Upgraded Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Distance Correction | | | | 887.5 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 20 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 5 | 5 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Combustion Turbine (CT) Inlet Unit 5 SPL** | | | | **887.5** | **34.2** | **45** | **49** | **42** | **41** | **29** | **14** | **9** | **12** | **-5** |
| | | | | | | | | | | | | | | |
| CT Inlet, Unit 7 | 10087 | 1158 | 75 | 666.8 | | | | | | | | | | |
| Standard Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Mitigation - Silencer Upgrade | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 1000 feet south of gas compressors

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Receptor Location | 11460 | 760 | 25 | | **62.1** | 69.4 | 67.6 | 65.5 | 61.7 | 57.6 | 55.0 | 56.5 | 50.6 | 35.1 |
| | | | | | | 30.0 | 41.4 | 49.4 | 53.1 | 54.4 | 55.0 | 57.7 | 51.6 | 34.0 |
| Summary | | | | | | | | | | | | | | |
| Stack, Unit 5 SPL | | | | 1688.5 | 46.3 | 54.4 | 50.2 | 53.9 | 51.4 | 44.5 | 35.2 | 23.6 | 6.3 | -37.1 |
| Stack, Unit 7 SPL | | | | 1413.2 | 48.1 | 56.0 | 51.9 | 55.6 | 53.2 | 46.4 | 37.3 | 26.2 | 10.1 | -29.2 |
| Combustion Turbine (CT) Inlet Unit 5 SPL | | | | 1697.2 | 27.9 | 39.4 | 43.2 | 35.9 | 34.3 | 22.4 | 7.1 | 0.5 | 0.2 | -29.4 |
| CT Inlet Unit 7 SPL | | | | 1430.4 | 29.7 | 40.9 | 44.8 | 37.5 | 36.1 | 24.3 | 14.2 | 8.0 | 8.8 | -16.7 |
| CT Compartment Unit 5 SPL | | | | 1682.3 | 45.1 | 50.4 | 52.3 | 46.9 | 44.4 | 40.5 | 37.2 | 40.7 | 28.4 | -1.9 |
| CT Compartment Unit 7 SPL | | | | 1404.5 | 47.4 | 52.1 | 53.9 | 48.6 | 46.2 | 42.5 | 39.4 | 43.3 | 32.2 | 6.0 |
| CT Generator Unit 5 SPL | | | | 1689.0 | 45.6 | 47.4 | 47.2 | 45.9 | 44.4 | 43.5 | 41.2 | 37.6 | 25.3 | -9.1 |
| CT Generator Unit 7 SPL | | | | 1419.6 | 45.4 | 49.0 | 48.8 | 47.5 | 46.1 | 45.3 | 38.3 | 35.1 | 24.0 | -6.4 |
| CT Exhaust Duct Unit 5 SPL | | | | 1679.3 | 41.8 | 54.5 | 51.3 | 49.0 | 41.5 | 39.5 | 36.3 | 31.7 | 23.4 | -4.9 |
| CT Exhaust Duct Unit 7 SPL | | | | 1405.5 | 42.2 | 56.1 | 52.9 | 50.6 | 43.2 | 41.5 | 33.4 | 29.2 | 22.2 | -2.0 |
| HRSG Transition, Unit 5 SPL | | | | 1675.4 | 46.9 | 62.5 | 58.3 | 54.0 | 49.5 | 44.6 | 40.3 | 34.7 | 21.5 | -16.8 |
| HRSG Transition, Unit 7 SPL | | | | 1400.5 | 48.8 | 64.1 | 60.0 | 55.7 | 51.3 | 46.5 | 42.4 | 37.3 | 25.2 | -8.9 |
| HRSG Boiler, Unit 5 SPL | | | | 1672.9 | 42.6 | 58.5 | 53.3 | 50.0 | 45.5 | 39.6 | 36.3 | 30.7 | 17.5 | -21.7 |
| HRSG Boiler, Unit 7 SPL | | | | 1394.5 | 44.6 | 60.1 | 55.0 | 51.7 | 47.3 | 41.5 | 38.5 | 33.3 | 21.3 | -13.7 |
| CT Transformer, Unit 5 SPL | | | | 1642.8 | 40.8 | 39.7 | 45.5 | 47.2 | 41.7 | 40.8 | 33.5 | 26.0 | 13.9 | -17.8 |
| CT Transformer, Unit 7 SPL | | | | 1382.3 | 42.6 | 41.2 | 47.1 | 48.8 | 43.4 | 42.6 | 35.6 | 28.5 | 17.5 | -10.3 |
| ST Transformer, Unit 6 SPL | | | | 1508.7 | 41.7 | 40.4 | 46.3 | 48.0 | 42.5 | 41.7 | 34.6 | 27.2 | 15.7 | -14.0 |
| ST Package, Unit 6 SPL | | | | 1476.6 | 49.1 | 53.6 | 59.5 | 57.2 | 51.7 | 46.9 | 41.8 | 36.6 | 22.2 | -6.1 |
| Generator Package, Unit 6 SPL | | | | 1483.9 | 49.0 | 53.6 | 59.4 | 57.1 | 51.7 | 46.9 | 41.8 | 36.5 | 22.1 | -6.3 |
| Major Pumps, Unit 5 SPL | | | | 1667.9 | 43.0 | 40.5 | 46.4 | 44.0 | 42.5 | 40.6 | 38.3 | 34.8 | 26.6 | -2.5 |
| Major Pumps, Unit 6 SPL | | | | 1555.4 | 46.9 | 44.2 | 50.0 | 47.7 | 46.2 | 44.4 | 42.2 | 38.8 | 31.1 | 3.7 |
| Major Pumps, Unit 7 SPL | | | | 1387.5 | 45.3 | 42.2 | 48.0 | 45.8 | 44.4 | 42.6 | 40.5 | 37.4 | 30.4 | 5.5 |
| Gas Compressor 1 SPL | | | | 561.5 | 55.8 | 48.2 | 44.2 | 49.1 | 47.9 | 45.6 | 48.2 | 52.3 | 46.9 | 31.4 |
| Gas Compressor 2 SPL | | | | 531.8 | 56.4 | 48.7 | 44.7 | 49.5 | 48.4 | 46.1 | 48.7 | 52.9 | 47.6 | 32.6 |
| Fin Fan Cooler 1 SPL | | | | 562.0 | 42.9 | 50.2 | 50.2 | 49.0 | 45.9 | 40.6 | 37.1 | 29.3 | 22.9 | 8.4 |
| Fin Fan Cooler 2 SPL | | | | 532.4 | 43.4 | 50.7 | 50.6 | 49.5 | 46.4 | 41.1 | 37.7 | 29.9 | 23.6 | 9.5 |
| | | | | | | | | | | | | | | |
| | | | | **1534.4** | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 5 | 9798 | 930 | 270 | 1688.5 | | | | | | | | | | |
| Mitigated Lw | | | | | | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 1688.5 | | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 1 | 1 | 1 | 2 | 4 | 6 | 13 | 39 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| **Stack, Unit 5 SPL** | | | | **1688.5** | **46.3** | **54** | **50** | **54** | **51** | **44** | **35** | **24** | **6** | **-37** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 7 | 10087 | 988 | 270 | 1413.2 | | | | | | | | | | |
| Mitigated Lw | | | | | **116.0** | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 1413.2 | | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 3 | 5 | 11 | 33 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| **Stack, Unit 7 SPL** | | | | **1413.2** | **48.1** | **56** | **52** | **56** | **53** | **46** | **37** | **26** | **10** | **-29** |
| | | | | | | | | | | | | | | |
| Combustion Turbine (CT) Inlet, Unit 5 | 9798 | 1100 | 75 | 1697.2 | | | | | | | | | | |
| Standard Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Mitigation - Silencer Upgrade | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Upgraded Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Distance Correction | | | | 1697.2 | | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 1 | 1 | 1 | 2 | 4 | 6 | 14 | 39 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 5 | 5 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Combustion Turbine (CT) Inlet Unit 5 SPL** | | | | **1697.2** | **27.9** | **39** | **43** | **36** | **34** | **22** | **7** | **1** | **0** | **-29** |
| | | | | | | | | | | | | | | |
| CT Inlet, Unit 7 | 10087 | 1158 | 75 | 1430.4 | | | | | | | | | | |
| Standard Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Mitigation - Silencer Upgrade | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 1000 feet south of gas compressors

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Upgraded Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Distance Correction | | | | 1430.4 | | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 3 | 5 | 11 | 33 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Inlet Unit 7 SPL** | | | | **1430.4** | **29.7** | **41** | **45** | **37** | **36** | **24** | **14** | **8** | **9** | **-17** |
| | | | | | | | | | | | | | | |
| CT Compartment, Unit 5 | 9798 | 1020 | 45 | 1682.3 | | | | | | | | | | |
| Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Distance Correction | | | | 1682.3 | | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 1 | 1 | 1 | 2 | 4 | 6 | 13 | 39 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Compartment Unit 5 SPL** | | | | **1682.3** | **45.1** | **50** | **52** | **47** | **44** | **41** | **37** | **41** | **28** | **-2** |
| | | | | | | | | | | | | | | |
| Combustion Turbine Compartment, Unit | 10087 | 1055 | 45 | 1404.5 | | | | | | | | | | |
| Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Distance Correction | | | | 1404.5 | | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 3 | 5 | 11 | 32 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Compartment Unit 7 SPL** | | | | **1404.5** | **47.4** | **52** | **54** | **49** | **46** | **42** | **39** | **43** | **32** | **6** |
| | | | | | | | | | | | | | | |
| CT Generator, Unit 5 | 9798 | 1060 | 45 | 1689.0 | | | | | | | | | | |
| Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Distance Correction | | | | 1689.0 | | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 1 | 1 | 1 | 2 | 4 | 6 | 13 | 39 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Generator Unit 5 SPL** | | | | **1689.0** | **45.6** | **47** | **47** | **46** | **44** | **43** | **41** | **38** | **25** | **-9** |
| | | | | | | | | | | | | | | |
| CT Generator, Unit 7 | 10087 | 1120 | 45 | 1419.6 | | | | | | | | | | |
| Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Distance Correction | | | | 1419.6 | | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 3 | 5 | 11 | 33 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 5 | 5 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Generator Unit 7 SPL** | | | | **1419.6** | **45.4** | **49** | **49** | **48** | **46** | **45** | **38** | **35** | **24** | **-6** |
| | | | | | | | | | | | | | | |
| CT Exhaust Duct, Unit 5 | 9798 | 1000 | 38 | 1679.3 | | | | | | | | | | |
| Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Distance Correction | | | | 1679.3 | | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 1 | 1 | 1 | 2 | 4 | 6 | 13 | 39 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Exhaust Duct Unit 5 SPL** | | | | **1679.3** | **41.8** | **54** | **51** | **49** | **41** | **40** | **36** | **32** | **23** | **-5** |
| | | | | | | | | | | | | | | |
| CT Exhaust Duct, Unit 7 | 10087 | 1060 | 38 | 1405.5 | | | | | | | | | | |
| Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Distance Correction | | | | 1405.5 | | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 1000 feet south of gas compressors

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 3 | 5 | 11 | 32 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 5 | 5 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Exhaust Duct Unit 7 SPL** | | | | **1405.5** | **42.2** | **56** | **53** | **51** | **43** | **41** | **33** | **29** | **22** | **-2** |
| | | | | | | | | | | | | | | |
| HRSG Transition, Unit 5 | 9798 | 970 | 50 | 1675.4 | | | | | | | | | | |
| Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Mitigation - Acoustic Shroud | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Distance Correction | | | | 1675.4 | | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 1 | 1 | 1 | 2 | 4 | 6 | 13 | 39 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **HRSG Transition, Unit 5 SPL** | | | | **1675.4** | **46.9** | **62** | **58** | **54** | **49** | **45** | **40** | **35** | **21** | **-17** |
| | | | | | | | | | | | | | | |
| HRSG Transition, Unit 7 | 10087 | 1035 | 50 | 1400.5 | | | | | | | | | | |
| Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Mitigation - Acoustic Shroud | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Distance Correction | | | | 1400.5 | | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 3 | 5 | 11 | 32 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **HRSG Transition, Unit 7 SPL** | | | | **1400.5** | **48.8** | **64** | **60** | **56** | **51** | **46** | **42** | **37** | **25** | **-9** |
| | | | | | | | | | | | | | | |
| HRSG Boiler, Unit 5 | 9798 | 930 | 112 | 1672.9 | | | | | | | | | | |
| Lw | | | | | **107.6** | 121 | 116 | 113 | 109 | 104 | 102 | 99 | 93 | 79 |
| Mitigation - Increase Boiler Casing Thickness | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **107.6** | 121 | 116 | 113 | 109 | 104 | 102 | 99 | 93 | 79 |
| Distance Correction | | | | 1672.9 | | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 1 | 1 | 1 | 2 | 4 | 6 | 13 | 39 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **HRSG Boiler, Unit 5 SPL** | | | | **1672.9** | **42.6** | **58** | **53** | **50** | **45** | **40** | **36** | **31** | **18** | **-22** |
| | | | | | | | | | | | | | | |
| HRSG Boiler, Unit 7 | 10087 | 988 | 112 | 1394.5 | | | | | | | | | | |
| Lw | | | | | **107.6** | 121 | 116 | 113 | 109 | 104 | 102 | 99 | 93 | 79 |
| Mitigation - Increase Boiler Casing Thickness | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **107.6** | 121 | 116 | 113 | 109 | 104 | 102 | 99 | 93 | 79 |
| Distance Correction | | | | 1394.5 | | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 3 | 5 | 11 | 32 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **HRSG Boiler, Unit 7 SPL** | | | | **1394.5** | **44.6** | **60** | **55** | **52** | **47** | **42** | **38** | **33** | **21** | **-14** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| CT Transformer, Unit 5 | 9855 | 1110 | 40 | 1642.8 | | | | | | | | | | |
| Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Distance Correction | | | | 1642.8 | | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 1 | 1 | 1 | 2 | 3 | 6 | 13 | 38 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Transformer, Unit 5 SPL** | | | | **1642.8** | **40.8** | **40** | **46** | **47** | **42** | **41** | **34** | **26** | **14** | **-18** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| CT Transformer, Unit 7 | 10140 | 1170 | 40 | 1382.3 | | | | | | | | | | |
| Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Distance Correction | | | | 1382.3 | | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 3 | 5 | 11 | 32 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 1000 feet south of gas compressors

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Transformer, Unit 7 SPL** | | | | **1382.3** | **42.6** | **41** | **47** | **49** | **43** | **43** | **36** | **28** | **17** | **-10** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| ST Transformer, Unit 6 | 10000 | 1140 | 40 | 1508.7 | | | | | | | | | | |
| Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Distance Correction | | | | 1508.7 | | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 3 | 6 | 12 | 35 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **ST Transformer, Unit 6 SPL** | | | | **1508.7** | **41.7** | **40** | **46** | **48** | **43** | **42** | **35** | **27** | **16** | **-14** |
| | | | | | | | | | | | | | | |
| ST Package, Unit 6 | 10000 | 980 | 40 | 1476.6 | | | | | | | | | | |
| Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Distance Correction | | | | 1476.6 | | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 3 | 5 | 12 | 34 |
| Directivity | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **ST Package, Unit 6 SPL** | | | | **1476.6** | **49.1** | **54** | **59** | **57** | **52** | **47** | **42** | **37** | **22** | **-6** |
| | | | | | | | | | | | | | | |
| Generator Package, Unit 6 | 10000 | 1025 | 40 | 1483.9 | | | | | | | | | | |
| Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Distance Correction | | | | 1483.9 | | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 3 | 5 | 12 | 34 |
| Directivity | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Generator Package, Unit 6 SPL** | | | | **1483.9** | **49.0** | **54** | **59** | **57** | **52** | **47** | **42** | **36** | **22** | **-6** |
| | | | | | | | | | | | | | | |
| Major Pumps, Unit 5 | 9798 | 900 | 30 | 1667.9 | | | | | | | | | | |
| Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| 1 Major Pump per Unit | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| Distance Correction | | | | 1667.9 | | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 1 | 1 | 1 | 2 | 4 | 6 | 13 | 38 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Major Pumps, Unit 5 SPL** | | | | **1667.9** | **43.0** | **41** | **46** | **44** | **43** | **41** | **38** | **35** | **27** | **-3** |
| | | | | | | | | | | | | | | |
| Major Pumps, Unit 6 | 9930 | 1040 | 30 | 1555.4 | | | | | | | | | | |
| Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| 2 Major Pumps per Unit | | | | | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Total Lw | | | | | **112.9** | 106 | 112 | 110 | 109 | 108 | 107 | 106 | 105 | 101 |
| Distance Correction | | | | 1555.4 | | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 3 | 6 | 12 | 36 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Major Pumps, Unit 6 SPL** | | | | **1555.4** | **46.9** | **44** | **50** | **48** | **46** | **44** | **42** | **39** | **31** | **4** |
| | | | | | | | | | | | | | | |
| Major Pumps, Unit 7 | 10087 | 960 | 30 | 1387.5 | | | | | | | | | | |
| Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| 1 Major Pump per Unit | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| Distance Correction | | | | 1387.5 | | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 3 | 5 | 11 | 32 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Major Pumps, Unit 7 SPL** | | | | **1387.5** | **45.3** | **42** | **48** | **46** | **44** | **43** | **41** | **37** | **30** | **6** |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 1000 feet south of gas compressors

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Gas Compressor 1 (North) | 10905 | 845 | 28.5 | 561.5 | | | | | | | | | | |
| Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Distance Correction | | | | 561.5 | | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 4 | 13 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| **Gas Compressor 1 SPL** | | | | **561.5** | **55.8** | **48** | **44** | **49** | **48** | **46** | **48** | **52** | **47** | **31** |
| | | | | | | | | | | | | | | |
| Gas Compressor 2 (South) | 10935 | 845 | 28.5 | 531.8 | | | | | | | | | | |
| Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Distance Correction | | | | 531.8 | | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 4 | 12 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| **Gas Compressor 2 SPL** | | | | **531.8** | **56.4** | **49** | **45** | **50** | **48** | **46** | **49** | **53** | **48** | **33** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Fin Fan Cooler 1 | 10905 | 845 | 49.5 | 562.0 | | | | | | | | | | |
| Fan Lw | | | | | **96.5** | 103 | 103 | 102 | 99 | 94 | 91 | 84 | 80 | 74 |
| Distance Correction | | | | 562.0 | | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 4 | 13 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Fin Fan Cooler 1 SPL** | | | | **562.0** | **42.9** | **50** | **50** | **49** | **46** | **41** | **37** | **29** | **23** | **8** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Fin Fan Cooler 2 | 10935 | 845 | 49.5 | 532.4 | | | | | | | | | | |
| Fan Lw | | | | | **96.5** | 103 | 103 | 102 | 99 | 94 | 91 | 84 | 80 | 74 |
| Distance Correction | | | | 532.4 | | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 4 | 12 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Fin Fan Cooler 2 SPL** | | | | **532.4** | **43.4** | **51** | **51** | **50** | **46** | **41** | **38** | **30** | **24** | **10** |
| | | | | | | | | | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ATMOSPHERIC ABSORPTION (dB/100 meters - 75% of EEI Values) | 0.08 | 0.11 | 0.17 | 0.27 | 0.45 | 0.70 | 1.20 | 2.62 | 7.56 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 270 Feet West of Nominal Accoustic Center

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Receptor Location | 10000 | 730 | 25 | | **75.0** | 83.2 | 81.7 | 79.5 | 75.6 | 71.9 | 68.5 | 67.3 | 62.2 | 52.8 |
| | | | | | | 43.8 | 55.5 | 63.4 | 67.0 | 68.7 | 68.5 | 68.5 | 63.2 | 51.7 |
| Summary | | | | | | | | | | | | | | |
| Stack, Unit 5 SPL | | | | 375.3 | 60.8 | 67.8 | 63.7 | 67.7 | 65.5 | 59.3 | 51.1 | 41.5 | 29.9 | 6.2 |
| Stack, Unit 7 SPL | | | | 366.3 | 61.0 | 68.0 | 63.9 | 67.9 | 65.8 | 59.6 | 51.3 | 41.7 | 30.1 | 6.6 |
| Combustion Turbine (CT) Inlet Unit 5 SPL | | | | 424.5 | 41.1 | 51.7 | 55.6 | 48.6 | 47.4 | 36.2 | 21.9 | 17.2 | 22.4 | 12.0 |
| CT Inlet Unit 7 SPL | | | | 439.6 | 41.1 | 51.4 | 55.3 | 48.2 | 47.1 | 35.9 | 26.5 | 21.9 | 27.0 | 16.3 |
| CT Compartment Unit 5 SPL | | | | 354.0 | 62.7 | 64.3 | 66.2 | 61.2 | 59.1 | 55.9 | 53.6 | 59.1 | 52.5 | 42.2 |
| CT Compartment Unit 7 SPL | | | | 337.0 | 63.2 | 64.7 | 66.7 | 61.6 | 59.5 | 56.3 | 54.1 | 59.6 | 53.1 | 43.0 |
| CT Generator Unit 5 SPL | | | | 387.4 | 61.5 | 60.5 | 60.4 | 59.4 | 58.3 | 58.0 | 56.8 | 55.2 | 48.5 | 33.6 |
| CT Generator Unit 7 SPL | | | | 400.1 | 58.4 | 60.2 | 60.2 | 59.1 | 58.0 | 57.7 | 51.4 | 49.8 | 43.1 | 28.1 |
| CT Exhaust Duct Unit 5 SPL | | | | 337.5 | 58.6 | 68.7 | 65.7 | 63.6 | 56.5 | 55.3 | 53.1 | 50.5 | 48.1 | 40.0 |
| CT Exhaust Duct Unit 7 SPL | | | | 341.5 | 56.2 | 68.6 | 65.6 | 63.5 | 56.4 | 55.2 | 47.9 | 45.4 | 42.9 | 34.8 |
| HRSG Transition, Unit 5 SPL | | | | 314.7 | 63.6 | 77.3 | 73.3 | 69.2 | 65.1 | 60.9 | 57.7 | 54.2 | 46.9 | 29.1 |
| HRSG Transition, Unit 7 SPL | | | | 318.1 | 63.5 | 77.2 | 73.2 | 69.1 | 65.0 | 60.8 | 57.6 | 54.1 | 46.7 | 29.0 |
| HRSG Boiler, Unit 5 SPL | | | | 297.3 | 59.9 | 73.8 | 68.8 | 65.7 | 61.6 | 56.5 | 54.2 | 50.8 | 43.5 | 25.0 |
| HRSG Boiler, Unit 7 SPL | | | | 285.8 | 60.3 | 74.2 | 69.1 | 66.1 | 62.0 | 56.8 | 54.6 | 51.2 | 43.9 | 25.6 |
| CT Transformer, Unit 5 SPL | | | | 407.0 | 54.8 | 52.1 | 58.0 | 59.9 | 54.8 | 54.6 | 48.3 | 42.7 | 35.9 | 22.8 |
| CT Transformer, Unit 7 SPL | | | | 462.0 | 53.6 | 50.9 | 56.9 | 58.8 | 53.7 | 53.4 | 47.1 | 41.4 | 34.4 | 20.4 |
| ST Transformer, Unit 6 SPL | | | | 410.3 | 54.7 | 52.0 | 57.9 | 59.9 | 54.7 | 54.5 | 48.2 | 42.6 | 35.8 | 22.6 |
| ST Package, Unit 6 SPL | | | | 250.4 | 66.4 | 69.3 | 75.3 | 73.2 | 68.2 | 64.0 | 59.8 | 56.4 | 47.4 | 37.6 |
| Generator Package, Unit 6 SPL | | | | 295.4 | 64.9 | 67.9 | 73.8 | 71.8 | 66.7 | 62.5 | 58.3 | 54.8 | 45.6 | 35.1 |
| Major Pumps, Unit 5 SPL | | | | 264.1 | 62.8 | 56.8 | 62.8 | 60.8 | 59.7 | 58.5 | 57.3 | 55.9 | 53.8 | 45.8 |
| Major Pumps, Unit 6 SPL | | | | 317.8 | 64.0 | 58.2 | 64.2 | 62.1 | 61.0 | 59.9 | 58.6 | 57.1 | 54.8 | 46.0 |
| Major Pumps, Unit 7 SPL | | | | 246.0 | 63.5 | 57.5 | 63.4 | 61.4 | 60.3 | 59.2 | 58.0 | 56.6 | 54.6 | 46.9 |
| Gas Compressor 1 SPL | | | | 912.3 | 50.2 | 43.9 | 39.8 | 44.7 | 43.4 | 40.9 | 43.2 | 46.8 | 39.9 | 19.1 |
| Gas Compressor 2 SPL | | | | 942.1 | 49.9 | 43.6 | 39.6 | 44.4 | 43.1 | 40.6 | 42.9 | 46.4 | 39.3 | 18.1 |
| Fin Fan Cooler 1 SPL | | | | 912.6 | 38.2 | 45.9 | 45.8 | 44.7 | 41.4 | 35.9 | 32.2 | 23.8 | 15.9 | -3.9 |
| Fin Fan Cooler 2 SPL | | | | 942.4 | 37.9 | 45.6 | 45.6 | 44.4 | 41.1 | 35.6 | 31.9 | 23.4 | 15.3 | -4.9 |
| | | | | | | | | | | | | | | |
| | | | | **346.9** | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 5 | 9798 | 930 | 270 | 375.3 | | | | | | | | | | |
| Mitigated Lw | | | | | | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 375.3 | | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 9 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| **Stack, Unit 5 SPL** | | | | **375.3** | **60.8** | **68** | **64** | **68** | **66** | **59** | **51** | **41** | **30** | **6** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 7 | 10087 | 988 | 270 | 366.3 | | | | | | | | | | |
| Mitigated Lw | | | | | **116.0** | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 366.3 | | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 8 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| **Stack, Unit 7 SPL** | | | | **366.3** | **61.0** | **68** | **64** | **68** | **66** | **60** | **51** | **42** | **30** | **7** |
| | | | | | | | | | | | | | | |
| Combustion Turbine (CT) Inlet, Unit 5 | 9798 | 1100 | 75 | 424.5 | | | | | | | | | | |
| Standard Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Mitigation - Silencer Upgrade | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Upgraded Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Distance Correction | | | | 424.5 | | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 10 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 5 | 5 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Combustion Turbine (CT) Inlet Unit 5 SPL** | | | | **424.5** | **41.1** | **52** | **56** | **49** | **47** | **36** | **22** | **17** | **22** | **12** |
| | | | | | | | | | | | | | | |
| CT Inlet, Unit 7 | 10087 | 1158 | 75 | 439.6 | | | | | | | | | | |
| Standard Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Mitigation - Silencer Upgrade | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Upgraded Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Distance Correction | | | | 439.6 | | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 4 | 10 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 85 Feet West of Nominal Accoustic Center of Gas Compressors

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Receptor Location | 10920 | 760 | 25 | | **77.4** | 75.4 | 73.9 | 73.4 | 70.9 | 67.7 | 69.0 | 73.4 | 70.0 | 61.7 |
| | | | | | | 36.0 | 47.7 | 57.3 | 62.3 | 64.5 | 69.0 | 74.6 | 71.0 | 60.6 |
| Summary | | | | | | | | | | | | | | |
| Stack, Unit 5 SPL | | | | 1161.0 | 50.1 | 57.8 | 53.7 | 57.4 | 55.1 | 48.4 | 39.6 | 28.8 | 13.8 | -21.7 |
| Stack, Unit 7 SPL | | | | 897.7 | 52.6 | 60.1 | 56.0 | 59.8 | 57.5 | 51.0 | 42.4 | 32.0 | 18.1 | -13.4 |
| Combustion Turbine (CT) Inlet Unit 5 SPL | | | | 1173.4 | 31.5 | 42.7 | 46.6 | 39.3 | 38.0 | 26.3 | 11.5 | 5.7 | 7.6 | -14.1 |
| CT Inlet Unit 7 SPL | | | | 924.6 | 34.0 | 44.8 | 48.7 | 41.5 | 40.3 | 28.8 | 19.1 | 13.6 | 16.6 | -1.3 |
| CT Compartment Unit 5 SPL | | | | 1151.9 | 49.9 | 53.8 | 55.7 | 50.5 | 48.2 | 44.5 | 41.7 | 45.9 | 35.9 | 13.6 |
| CT Compartment Unit 7 SPL | | | | 883.9 | 53.0 | 56.2 | 58.1 | 52.9 | 50.7 | 47.2 | 44.5 | 49.2 | 40.4 | 22.0 |
| CT Generator Unit 5 SPL | | | | 1161.6 | 50.1 | 50.8 | 50.7 | 49.4 | 48.1 | 47.4 | 45.6 | 42.8 | 32.8 | 6.3 |
| CT Generator Unit 7 SPL | | | | 907.7 | 50.2 | 53.0 | 52.9 | 51.7 | 50.4 | 49.9 | 43.2 | 40.9 | 31.9 | 9.3 |
| CT Exhaust Duct Unit 5 SPL | | | | 1147.5 | 46.1 | 57.9 | 54.8 | 52.5 | 45.2 | 43.6 | 40.7 | 36.9 | 31.0 | 10.7 |
| CT Exhaust Duct Unit 7 SPL | | | | 885.5 | 47.0 | 60.2 | 57.1 | 54.9 | 47.7 | 46.2 | 38.5 | 35.2 | 30.3 | 14.0 |
| HRSG Transition, Unit 5 SPL | | | | 1141.8 | 51.0 | 65.9 | 61.8 | 57.6 | 53.2 | 48.6 | 44.8 | 40.0 | 29.1 | -1.1 |
| HRSG Transition, Unit 7 SPL | | | | 877.6 | 53.7 | 68.3 | 64.2 | 60.0 | 55.8 | 51.3 | 47.6 | 43.3 | 33.5 | 7.3 |
| HRSG Boiler, Unit 5 SPL | | | | 1138.1 | 46.8 | 62.0 | 56.8 | 53.6 | 49.3 | 43.7 | 40.8 | 36.1 | 25.1 | -6.0 |
| HRSG Boiler, Unit 7 SPL | | | | 868.0 | 49.6 | 64.4 | 59.3 | 56.1 | 51.9 | 46.4 | 43.7 | 39.4 | 29.6 | 2.6 |
| CT Transformer, Unit 5 SPL | | | | 1121.1 | 44.9 | 43.1 | 49.0 | 50.8 | 45.4 | 44.8 | 38.0 | 31.2 | 21.4 | -2.5 |
| CT Transformer, Unit 7 SPL | | | | 881.3 | 47.3 | 45.2 | 51.2 | 53.0 | 47.7 | 47.2 | 40.6 | 34.2 | 25.4 | 5.1 |
| ST Transformer, Unit 6 SPL | | | | 995.5 | 46.1 | 44.1 | 50.1 | 51.9 | 46.6 | 46.0 | 39.3 | 32.7 | 23.4 | 1.4 |
| ST Package, Unit 6 SPL | | | | 946.1 | 53.7 | 57.6 | 63.5 | 61.3 | 56.0 | 51.5 | 46.8 | 42.4 | 30.3 | 10.0 |
| Generator Package, Unit 6 SPL | | | | 957.5 | 53.6 | 57.5 | 63.4 | 61.2 | 55.9 | 51.4 | 46.7 | 42.2 | 30.1 | 9.7 |
| Major Pumps, Unit 5 SPL | | | | 1130.7 | 47.6 | 44.0 | 49.9 | 47.7 | 46.3 | 44.7 | 42.9 | 40.1 | 34.2 | 13.2 |
| Major Pumps, Unit 6 SPL | | | | 1028.8 | 51.7 | 47.9 | 53.8 | 51.6 | 50.3 | 48.7 | 46.9 | 44.3 | 38.9 | 19.4 |
| Major Pumps, Unit 7 SPL | | | | 856.7 | 50.8 | 46.5 | 52.4 | 50.2 | 49.0 | 47.5 | 45.9 | 43.5 | 38.8 | 21.9 |
| Gas Compressor 1 SPL | | | | 86.4 | 74.1 | 64.6 | 60.6 | 65.6 | 64.5 | 62.5 | 65.4 | 70.3 | 66.9 | 58.6 |
| Gas Compressor 2 SPL | | | | 86.4 | 74.1 | 64.6 | 60.6 | 65.6 | 64.5 | 62.5 | 65.4 | 70.3 | 66.9 | 58.6 |
| Fin Fan Cooler 1 SPL | | | | 89.7 | 59.6 | 66.3 | 66.3 | 65.2 | 62.2 | 57.2 | 54.1 | 47.0 | 42.6 | 35.2 |
| Fin Fan Cooler 2 SPL | | | | 89.7 | 59.6 | 66.3 | 66.3 | 65.2 | 62.2 | 57.2 | 54.1 | 47.0 | 42.6 | 35.2 |
| | | | | | | | | | | | | | | |
| | | | | **1010.8** | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 5 | 9798 | 930 | 270 | 1161.0 | | | | | | | | | | |
| Mitigated Lw | | | | | | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 1161.0 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 27 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| **Stack, Unit 5 SPL** | | | | **1161.0** | **50.1** | **58** | **54** | **57** | **55** | **48** | **40** | **29** | **14** | **-22** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 7 | 10087 | 988 | 270 | 897.7 | | | | | | | | | | |
| Mitigated Lw | | | | | **116.0** | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 897.7 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 21 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| **Stack, Unit 7 SPL** | | | | **897.7** | **52.6** | **60** | **56** | **60** | **58** | **51** | **42** | **32** | **18** | **-13** |
| | | | | | | | | | | | | | | |
| Combustion Turbine (CT) Inlet, Unit 5 | 9798 | 1100 | 75 | 1173.4 | | | | | | | | | | |
| Standard Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Mitigation - Silencer Upgrade | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Upgraded Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Distance Correction | | | | 1173.4 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 27 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 5 | 5 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Combustion Turbine (CT) Inlet Unit 5 SPL** | | | | **1173.4** | **31.5** | **43** | **47** | **39** | **38** | **26** | **11** | **6** | **8** | **-14** |
| | | | | | | | | | | | | | | |
| CT Inlet, Unit 7 | 10087 | 1158 | 75 | 924.6 | | | | | | | | | | |
| Standard Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Mitigation - Silencer Upgrade | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 2/3rds of way toward gas compressors

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Receptor Location | 10612 | 750 | 25 | | **69.2** | 76.4 | 74.6 | 72.6 | 68.9 | 65.1 | 62.1 | 63.1 | 57.9 | 45.5 |
| | | | | | | 37.0 | 48.4 | 56.5 | 60.3 | 61.9 | 62.1 | 64.3 | 58.9 | 44.4 |
| Summary | | | | | | | | | | | | | | |
| Stack, Unit 5 SPL | | | | 868.9 | 52.9 | 60.4 | 56.3 | 60.1 | 57.8 | 51.4 | 42.7 | 32.4 | 18.6 | -12.5 |
| Stack, Unit 7 SPL | | | | 626.3 | 56.1 | 63.3 | 59.2 | 63.1 | 60.9 | 54.5 | 46.1 | 36.1 | 23.4 | -4.0 |
| Combustion Turbine (CT) Inlet Unit 5 SPL | | | | 887.5 | 34.2 | 45.2 | 49.1 | 41.9 | 40.6 | 29.2 | 14.5 | 9.1 | 12.3 | -5.1 |
| CT Inlet Unit 7 SPL | | | | 666.8 | 37.2 | 47.7 | 51.6 | 44.5 | 43.3 | 31.9 | 22.4 | 17.4 | 21.5 | 7.5 |
| CT Compartment Unit 5 SPL | | | | 857.8 | 53.3 | 56.5 | 58.4 | 53.2 | 51.0 | 47.5 | 44.8 | 49.5 | 40.8 | 22.9 |
| CT Compartment Unit 7 SPL | | | | 607.5 | 57.1 | 59.5 | 61.5 | 56.3 | 54.2 | 50.8 | 48.4 | 53.4 | 45.8 | 31.7 |
| CT Generator Unit 5 SPL | | | | 871.3 | 53.2 | 53.3 | 53.3 | 52.1 | 50.8 | 50.3 | 48.7 | 46.3 | 37.6 | 15.5 |
| CT Generator Unit 7 SPL | | | | 642.6 | 53.8 | 56.0 | 56.0 | 54.8 | 53.7 | 53.3 | 46.8 | 44.8 | 37.1 | 18.4 |
| CT Exhaust Duct Unit 5 SPL | | | | 851.6 | 49.3 | 60.5 | 57.5 | 55.3 | 48.0 | 46.6 | 43.9 | 40.6 | 35.9 | 20.1 |
| CT Exhaust Duct Unit 7 SPL | | | | 609.8 | 50.7 | 63.5 | 60.4 | 58.3 | 51.1 | 49.8 | 42.3 | 39.4 | 35.8 | 23.6 |
| HRSG Transition, Unit 5 SPL | | | | 843.6 | 54.1 | 68.6 | 64.5 | 60.4 | 56.1 | 51.7 | 48.0 | 43.7 | 34.1 | 8.4 |
| HRSG Transition, Unit 7 SPL | | | | 597.9 | 57.5 | 71.7 | 67.6 | 63.5 | 59.3 | 55.0 | 51.5 | 47.6 | 39.0 | 17.0 |
| HRSG Boiler, Unit 5 SPL | | | | 838.2 | 49.9 | 64.7 | 59.6 | 56.4 | 52.2 | 46.7 | 44.1 | 39.8 | 30.2 | 3.6 |
| HRSG Boiler, Unit 7 SPL | | | | 583.0 | 53.5 | 67.9 | 62.8 | 59.7 | 55.5 | 50.2 | 47.8 | 43.9 | 35.4 | 12.6 |
| CT Transformer, Unit 5 SPL | | | | 838.4 | 47.8 | 45.7 | 51.6 | 53.4 | 48.2 | 47.7 | 41.1 | 34.8 | 26.2 | 6.6 |
| CT Transformer, Unit 7 SPL | | | | 632.0 | 50.6 | 48.2 | 54.1 | 56.0 | 50.8 | 50.5 | 44.0 | 38.0 | 30.3 | 13.8 |
| ST Transformer, Unit 6 SPL | | | | 725.9 | 49.2 | 47.0 | 52.9 | 54.7 | 49.5 | 49.1 | 42.6 | 36.5 | 28.3 | 10.4 |
| ST Package, Unit 6 SPL | | | | 654.0 | 57.4 | 60.9 | 66.8 | 64.7 | 59.5 | 55.1 | 50.6 | 46.6 | 35.8 | 20.0 |
| Generator Package, Unit 6 SPL | | | | 671.1 | 57.1 | 60.6 | 66.6 | 64.4 | 59.2 | 54.9 | 50.4 | 46.3 | 35.4 | 19.3 |
| Major Pumps, Unit 5 SPL | | | | 827.7 | 51.1 | 46.8 | 52.7 | 50.5 | 49.3 | 47.8 | 46.2 | 44.0 | 39.4 | 22.9 |
| Major Pumps, Unit 6 SPL | | | | 741.1 | 55.3 | 50.8 | 56.7 | 54.6 | 53.3 | 51.9 | 50.4 | 48.2 | 44.0 | 28.9 |
| Major Pumps, Unit 7 SPL | | | | 565.5 | 55.2 | 50.2 | 56.1 | 54.0 | 52.8 | 51.5 | 50.1 | 48.2 | 44.8 | 32.3 |
| Gas Compressor 1 SPL | | | | 308.0 | 62.0 | 53.5 | 49.5 | 54.4 | 53.3 | 51.1 | 53.9 | 58.4 | 54.1 | 42.5 |
| Gas Compressor 2 SPL | | | | 336.7 | 61.2 | 52.7 | 48.7 | 53.6 | 52.5 | 50.3 | 53.1 | 57.6 | 53.1 | 41.0 |
| Fin Fan Cooler 1 SPL | | | | 309.0 | 48.5 | 55.5 | 55.4 | 54.4 | 51.3 | 46.1 | 42.9 | 35.4 | 30.1 | 19.4 |
| Fin Fan Cooler 2 SPL | | | | 337.6 | 47.7 | 54.7 | 54.7 | 53.6 | 50.5 | 45.3 | 42.1 | 34.5 | 29.1 | 18.0 |
| | | | | | | | | | | | | | | |
| | | | | **727.7** | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 5 | 9798 | 930 | 270 | 868.9 | | | | | | | | | | |
| Mitigated Lw | | | | | | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 868.9 | | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 20 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| **Stack, Unit 5 SPL** | | | | **868.9** | **52.9** | **60** | **56** | **60** | **58** | **51** | **43** | **32** | **19** | **-12** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 7 | 10087 | 988 | 270 | 626.3 | | | | | | | | | | |
| Mitigated Lw | | | | | **116.0** | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 626.3 | | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 5 | 14 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| **Stack, Unit 7 SPL** | | | | **626.3** | **56.1** | **63** | **59** | **63** | **61** | **55** | **46** | **36** | **23** | **-4** |
| | | | | | | | | | | | | | | |
| Combustion Turbine (CT) Inlet, Unit 5 | 9798 | 1100 | 75 | 887.5 | | | | | | | | | | |
| Standard Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Mitigation - Silencer Upgrade | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Upgraded Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Distance Correction | | | | 887.5 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 20 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 5 | 5 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Combustion Turbine (CT) Inlet Unit 5 SPL** | | | | **887.5** | **34.2** | **45** | **49** | **42** | **41** | **29** | **14** | **9** | **12** | **-5** |
| | | | | | | | | | | | | | | |
| CT Inlet, Unit 7 | 10087 | 1158 | 75 | 666.8 | | | | | | | | | | |
| Standard Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Mitigation - Silencer Upgrade | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 2/3rds of way toward gas compressors

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Upgraded Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Distance Correction | | | | 666.8 | | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 5 | 15 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Inlet Unit 7 SPL** | | | | **666.8** | **37.2** | **48** | **52** | **45** | **43** | **32** | **22** | **17** | **22** | **7** |
| | | | | | | | | | | | | | | |
| CT Compartment, Unit 5 | 9798 | 1020 | 45 | 857.8 | | | | | | | | | | |
| Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Distance Correction | | | | 857.8 | | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 20 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Compartment Unit 5 SPL** | | | | **857.8** | **53.3** | **56** | **58** | **53** | **51** | **47** | **45** | **50** | **41** | **23** |
| | | | | | | | | | | | | | | |
| Combustion Turbine Compartment, Unit | 10087 | 1055 | 45 | 607.5 | | | | | | | | | | |
| Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Distance Correction | | | | 607.5 | | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 5 | 14 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Compartment Unit 7 SPL** | | | | **607.5** | **57.1** | **60** | **61** | **56** | **54** | **51** | **48** | **53** | **46** | **32** |
| | | | | | | | | | | | | | | |
| CT Generator, Unit 5 | 9798 | 1060 | 45 | 871.3 | | | | | | | | | | |
| Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Distance Correction | | | | 871.3 | | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 20 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Generator Unit 5 SPL** | | | | **871.3** | **53.2** | **53** | **53** | **52** | **51** | **50** | **49** | **46** | **38** | **15** |
| | | | | | | | | | | | | | | |
| CT Generator, Unit 7 | 10087 | 1120 | 45 | 642.6 | | | | | | | | | | |
| Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Distance Correction | | | | 642.6 | | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 5 | 15 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 5 | 5 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Generator Unit 7 SPL** | | | | **642.6** | **53.8** | **56** | **56** | **55** | **54** | **53** | **47** | **45** | **37** | **18** |
| | | | | | | | | | | | | | | |
| CT Exhaust Duct, Unit 5 | 9798 | 1000 | 38 | 851.6 | | | | | | | | | | |
| Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Distance Correction | | | | 851.6 | | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 20 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Exhaust Duct Unit 5 SPL** | | | | **851.6** | **49.3** | **61** | **57** | **55** | **48** | **47** | **44** | **41** | **36** | **20** |
| | | | | | | | | | | | | | | |
| CT Exhaust Duct, Unit 7 | 10087 | 1060 | 38 | 609.8 | | | | | | | | | | |
| Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Distance Correction | | | | 609.8 | | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 2/3rds of way toward gas compressors

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 5 | 14 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 5 | 5 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Exhaust Duct Unit 7 SPL** | | | | **609.8** | **50.7** | **63** | **60** | **58** | **51** | **50** | **42** | **39** | **36** | **24** |
| | | | | | | | | | | | | | | |
| HRSG Transition, Unit 5 | 9798 | 970 | 50 | 843.6 | | | | | | | | | | |
| Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Mitigation - Acoustic Shroud | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Distance Correction | | | | 843.6 | | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 19 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **HRSG Transition, Unit 5 SPL** | | | | **843.6** | **54.1** | **69** | **65** | **60** | **56** | **52** | **48** | **44** | **34** | **8** |
| | | | | | | | | | | | | | | |
| HRSG Transition, Unit 7 | 10087 | 1035 | 50 | 597.9 | | | | | | | | | | |
| Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Mitigation - Acoustic Shroud | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Distance Correction | | | | 597.9 | | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 5 | 14 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **HRSG Transition, Unit 7 SPL** | | | | **597.9** | **57.5** | **72** | **68** | **63** | **59** | **55** | **52** | **48** | **39** | **17** |
| | | | | | | | | | | | | | | |
| HRSG Boiler, Unit 5 | 9798 | 930 | 112 | 838.2 | | | | | | | | | | |
| Lw | | | | | **107.6** | 121 | 116 | 113 | 109 | 104 | 102 | 99 | 93 | 79 |
| Mitigation - Increase Boiler Casing Thickness | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **107.6** | 121 | 116 | 113 | 109 | 104 | 102 | 99 | 93 | 79 |
| Distance Correction | | | | 838.2 | | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 19 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **HRSG Boiler, Unit 5 SPL** | | | | **838.2** | **49.9** | **65** | **60** | **56** | **52** | **47** | **44** | **40** | **30** | **4** |
| | | | | | | | | | | | | | | |
| HRSG Boiler, Unit 7 | 10087 | 988 | 112 | 583.0 | | | | | | | | | | |
| Lw | | | | | **107.6** | 121 | 116 | 113 | 109 | 104 | 102 | 99 | 93 | 79 |
| Mitigation - Increase Boiler Casing Thickness | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **107.6** | 121 | 116 | 113 | 109 | 104 | 102 | 99 | 93 | 79 |
| Distance Correction | | | | 583.0 | | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 5 | 13 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **HRSG Boiler, Unit 7 SPL** | | | | **583.0** | **53.5** | **68** | **63** | **60** | **56** | **50** | **48** | **44** | **35** | **13** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| CT Transformer, Unit 5 | 9855 | 1110 | 40 | 838.4 | | | | | | | | | | |
| Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Distance Correction | | | | 838.4 | | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 19 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Transformer, Unit 5 SPL** | | | | **838.4** | **47.8** | **46** | **52** | **53** | **48** | **48** | **41** | **35** | **26** | **7** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| CT Transformer, Unit 7 | 10140 | 1170 | 40 | 632.0 | | | | | | | | | | |
| Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Distance Correction | | | | 632.0 | | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 5 | 15 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 2/3rds of way toward gas compressors

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Transformer, Unit 7 SPL** | | | | **632.0** | **50.6** | **48** | **54** | **56** | **51** | **50** | **44** | **38** | **30** | **14** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| ST Transformer, Unit 6 | 10000 | 1140 | 40 | 725.9 | | | | | | | | | | |
| Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Distance Correction | | | | 725.9 | | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 6 | 17 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **ST Transformer, Unit 6 SPL** | | | | **725.9** | **49.2** | **47** | **53** | **55** | **50** | **49** | **43** | **36** | **28** | **10** |
| | | | | | | | | | | | | | | |
| ST Package, Unit 6 | 10000 | 980 | 40 | 654.0 | | | | | | | | | | |
| Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Distance Correction | | | | 654.0 | | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 5 | 15 |
| Directivity | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **ST Package, Unit 6 SPL** | | | | **654.0** | **57.4** | **61** | **67** | **65** | **59** | **55** | **51** | **47** | **36** | **20** |
| | | | | | | | | | | | | | | |
| Generator Package, Unit 6 | 10000 | 1025 | 40 | 671.1 | | | | | | | | | | |
| Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Distance Correction | | | | 671.1 | | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 5 | 15 |
| Directivity | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Generator Package, Unit 6 SPL** | | | | **671.1** | **57.1** | **61** | **67** | **64** | **59** | **55** | **50** | **46** | **35** | **19** |
| | | | | | | | | | | | | | | |
| Major Pumps, Unit 5 | 9798 | 900 | 30 | 827.7 | | | | | | | | | | |
| Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| 1 Major Pump per Unit | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| Distance Correction | | | | 827.7 | | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 19 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Major Pumps, Unit 5 SPL** | | | | **827.7** | **51.1** | **47** | **53** | **51** | **49** | **48** | **46** | **44** | **39** | **23** |
| | | | | | | | | | | | | | | |
| Major Pumps, Unit 6 | 9930 | 1040 | 30 | 741.1 | | | | | | | | | | |
| Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| 2 Major Pumps per Unit | | | | | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Total Lw | | | | | **112.9** | 106 | 112 | 110 | 109 | 108 | 107 | 106 | 105 | 101 |
| Distance Correction | | | | 741.1 | | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 6 | 17 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Major Pumps, Unit 6 SPL** | | | | **741.1** | **55.3** | **51** | **57** | **55** | **53** | **52** | **50** | **48** | **44** | **29** |
| | | | | | | | | | | | | | | |
| Major Pumps, Unit 7 | 10087 | 960 | 30 | 565.5 | | | | | | | | | | |
| Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| 1 Major Pump per Unit | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| Distance Correction | | | | 565.5 | | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 5 | 13 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Major Pumps, Unit 7 SPL** | | | | **565.5** | **55.2** | **50** | **56** | **54** | **53** | **52** | **50** | **48** | **45** | **32** |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 2/3rds of way toward gas compressors

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Gas Compressor 1 (North) | 10905 | 845 | 28.5 | 308.0 | | | | | | | | | | |
| Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Distance Correction | | | | 308.0 | | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 7 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| **Gas Compressor 1 SPL** | | | | **308.0** | **62.0** | **53** | **49** | **54** | **53** | **51** | **54** | **58** | **54** | **42** |
| | | | | | | | | | | | | | | |
| Gas Compressor 2 (South) | 10935 | 845 | 28.5 | 336.7 | | | | | | | | | | |
| Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Distance Correction | | | | 336.7 | | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 8 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| **Gas Compressor 2 SPL** | | | | **336.7** | **61.2** | **53** | **49** | **54** | **53** | **50** | **53** | **58** | **53** | **41** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Fin Fan Cooler 1 | 10905 | 845 | 49.5 | 309.0 | | | | | | | | | | |
| Fan Lw | | | | | **96.5** | 103 | 103 | 102 | 99 | 94 | 91 | 84 | 80 | 74 |
| Distance Correction | | | | 309.0 | | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 7 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Fin Fan Cooler 1 SPL** | | | | **309.0** | **48.5** | **55** | **55** | **54** | **51** | **46** | **43** | **35** | **30** | **19** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Fin Fan Cooler 2 | 10935 | 845 | 49.5 | 337.6 | | | | | | | | | | |
| Fan Lw | | | | | **96.5** | 103 | 103 | 102 | 99 | 94 | 91 | 84 | 80 | 74 |
| Distance Correction | | | | 337.6 | | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 8 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Fin Fan Cooler 2 SPL** | | | | **337.6** | **47.7** | **55** | **55** | **54** | **50** | **45** | **42** | **35** | **29** | **18** |
| | | | | | | | | | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ATMOSPHERIC ABSORPTION (dB/100 meters - 75% of EEI Values) | 0.08 | 0.11 | 0.17 | 0.27 | 0.45 | 0.70 | 1.20 | 2.62 | 7.56 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 85 Feet West of Nominal Accoustic Center of Gas Compressors

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Upgraded Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Distance Correction | | | | 924.6 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 21 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Inlet Unit 7 SPL** | | | | **924.6** | **34.0** | **45** | **49** | **42** | **40** | **29** | **19** | **14** | **17** | **-1** |
| | | | | | | | | | | | | | | |
| CT Compartment, Unit 5 | 9798 | 1020 | 45 | 1151.9 | | | | | | | | | | |
| Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Distance Correction | | | | 1151.9 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 27 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Compartment Unit 5 SPL** | | | | **1151.9** | **49.9** | **54** | **56** | **51** | **48** | **45** | **42** | **46** | **36** | **14** |
| | | | | | | | | | | | | | | |
| Combustion Turbine Compartment, Unit | 10087 | 1055 | 45 | 883.9 | | | | | | | | | | |
| Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Distance Correction | | | | 883.9 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 20 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Compartment Unit 7 SPL** | | | | **883.9** | **53.0** | **56** | **58** | **53** | **51** | **47** | **45** | **49** | **40** | **22** |
| | | | | | | | | | | | | | | |
| CT Generator, Unit 5 | 9798 | 1060 | 45 | 1161.6 | | | | | | | | | | |
| Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Distance Correction | | | | 1161.6 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 27 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Generator Unit 5 SPL** | | | | **1161.6** | **50.1** | **51** | **51** | **49** | **48** | **47** | **46** | **43** | **33** | **6** |
| | | | | | | | | | | | | | | |
| CT Generator, Unit 7 | 10087 | 1120 | 45 | 907.7 | | | | | | | | | | |
| Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Distance Correction | | | | 907.7 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 21 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 5 | 5 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Generator Unit 7 SPL** | | | | **907.7** | **50.2** | **53** | **53** | **52** | **50** | **50** | **43** | **41** | **32** | **9** |
| | | | | | | | | | | | | | | |
| CT Exhaust Duct, Unit 5 | 9798 | 1000 | 38 | 1147.5 | | | | | | | | | | |
| Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Distance Correction | | | | 1147.5 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 26 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Exhaust Duct Unit 5 SPL** | | | | **1147.5** | **46.1** | **58** | **55** | **53** | **45** | **44** | **41** | **37** | **31** | **11** |
| | | | | | | | | | | | | | | |
| CT Exhaust Duct, Unit 7 | 10087 | 1060 | 38 | 885.5 | | | | | | | | | | |
| Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Distance Correction | | | | 885.5 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 85 Feet West of Nominal Accoustic Center of Gas Compressors

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 20 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 5 | 5 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Exhaust Duct Unit 7 SPL** | | | | **885.5** | **47.0** | **60** | **57** | **55** | **48** | **46** | **39** | **35** | **30** | **14** |
| | | | | | | | | | | | | | | |
| HRSG Transition, Unit 5 | 9798 | 970 | 50 | 1141.8 | | | | | | | | | | |
| Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Mitigation - Acoustic Shroud | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Distance Correction | | | | 1141.8 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 26 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **HRSG Transition, Unit 5 SPL** | | | | **1141.8** | **51.0** | **66** | **62** | **58** | **53** | **49** | **45** | **40** | **29** | **-1** |
| | | | | | | | | | | | | | | |
| HRSG Transition, Unit 7 | 10087 | 1035 | 50 | 877.6 | | | | | | | | | | |
| Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Mitigation - Acoustic Shroud | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Distance Correction | | | | 877.6 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 20 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **HRSG Transition, Unit 7 SPL** | | | | **877.6** | **53.7** | **68** | **64** | **60** | **56** | **51** | **48** | **43** | **33** | **7** |
| | | | | | | | | | | | | | | |
| HRSG Boiler, Unit 5 | 9798 | 930 | 112 | 1138.1 | | | | | | | | | | |
| Lw | | | | | **107.6** | 121 | 116 | 113 | 109 | 104 | 102 | 99 | 93 | 79 |
| Mitigation - Increase Boiler Casing Thickness | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **107.6** | 121 | 116 | 113 | 109 | 104 | 102 | 99 | 93 | 79 |
| Distance Correction | | | | 1138.1 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 26 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **HRSG Boiler, Unit 5 SPL** | | | | **1138.1** | **46.8** | **62** | **57** | **54** | **49** | **44** | **41** | **36** | **25** | **-6** |
| | | | | | | | | | | | | | | |
| HRSG Boiler, Unit 7 | 10087 | 988 | 112 | 868.0 | | | | | | | | | | |
| Lw | | | | | **107.6** | 121 | 116 | 113 | 109 | 104 | 102 | 99 | 93 | 79 |
| Mitigation - Increase Boiler Casing Thickness | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **107.6** | 121 | 116 | 113 | 109 | 104 | 102 | 99 | 93 | 79 |
| Distance Correction | | | | 868.0 | | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 20 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **HRSG Boiler, Unit 7 SPL** | | | | **868.0** | **49.6** | **64** | **59** | **56** | **52** | **46** | **44** | **39** | **30** | **3** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| CT Transformer, Unit 5 | 9855 | 1110 | 40 | 1121.1 | | | | | | | | | | |
| Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Distance Correction | | | | 1121.1 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 26 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Transformer, Unit 5 SPL** | | | | **1121.1** | **44.9** | **43** | **49** | **51** | **45** | **45** | **38** | **31** | **21** | **-2** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| CT Transformer, Unit 7 | 10140 | 1170 | 40 | 881.3 | | | | | | | | | | |
| Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Distance Correction | | | | 881.3 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 20 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 85 Feet West of Nominal Accoustic Center of Gas Compressors

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Transformer, Unit 7 SPL** | | | | **881.3** | **47.3** | **45** | **51** | **53** | **48** | **47** | **41** | **34** | **25** | **5** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| ST Transformer, Unit 6 | 10000 | 1140 | 40 | 995.5 | | | | | | | | | | |
| Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Distance Correction | | | | 995.5 | | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 1 | 2 | 4 | 8 | 23 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **ST Transformer, Unit 6 SPL** | | | | **995.5** | **46.1** | **44** | **50** | **52** | **47** | **46** | **39** | **33** | **23** | **1** |
| | | | | | | | | | | | | | | |
| ST Package, Unit 6 | 10000 | 980 | 40 | 946.1 | | | | | | | | | | |
| Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Distance Correction | | | | 946.1 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 8 | 22 |
| Directivity | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **ST Package, Unit 6 SPL** | | | | **946.1** | **53.7** | **58** | **64** | **61** | **56** | **52** | **47** | **42** | **30** | **10** |
| | | | | | | | | | | | | | | |
| Generator Package, Unit 6 | 10000 | 1025 | 40 | 957.5 | | | | | | | | | | |
| Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Distance Correction | | | | 957.5 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 1 | 2 | 4 | 8 | 22 |
| Directivity | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Generator Package, Unit 6 SPL** | | | | **957.5** | **53.6** | **57** | **63** | **61** | **56** | **51** | **47** | **42** | **30** | **10** |
| | | | | | | | | | | | | | | |
| Major Pumps, Unit 5 | 9798 | 900 | 30 | 1130.7 | | | | | | | | | | |
| Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| 1 Major Pump per Unit | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| Distance Correction | | | | 1130.7 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 26 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Major Pumps, Unit 5 SPL** | | | | **1130.7** | **47.6** | **44** | **50** | **48** | **46** | **45** | **43** | **40** | **34** | **13** |
| | | | | | | | | | | | | | | |
| Major Pumps, Unit 6 | 9930 | 1040 | 30 | 1028.8 | | | | | | | | | | |
| Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| 2 Major Pumps per Unit | | | | | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Total Lw | | | | | **112.9** | 106 | 112 | 110 | 109 | 108 | 107 | 106 | 105 | 101 |
| Distance Correction | | | | 1028.8 | | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 1 | 2 | 4 | 8 | 24 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Major Pumps, Unit 6 SPL** | | | | **1028.8** | **51.7** | **48** | **54** | **52** | **50** | **49** | **47** | **44** | **39** | **19** |
| | | | | | | | | | | | | | | |
| Major Pumps, Unit 7 | 10087 | 960 | 30 | 856.7 | | | | | | | | | | |
| Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| 1 Major Pump per Unit | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| Distance Correction | | | | 856.7 | | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 20 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Major Pumps, Unit 7 SPL** | | | | **856.7** | **50.8** | **46** | **52** | **50** | **49** | **48** | **46** | **44** | **39** | **22** |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 1/3rds way toward gas compressors

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Summary | | | | | | | | | | | | | | |
| Stack, Unit 5 SPL | | | | 595.1 | 44.5 | 51.7 | 47.7 | 51.5 | 49.4 | 43.0 | 34.6 | 24.7 | 12.1 | -14.9 |
| Stack, Unit 7 SPL | | | | 411.7 | 48.0 | 55.0 | 50.9 | 54.8 | 52.7 | 46.5 | 38.2 | 28.5 | 16.8 | -7.4 |
| Combustion Turbine (CT) Inlet Unit 5 SPL | | | | 624.6 | 37.8 | 48.3 | 52.2 | 45.1 | 43.9 | 32.6 | 23.1 | 18.1 | 22.4 | 9.0 |
| CT Inlet Unit 7 SPL | | | | 474.5 | 40.3 | 50.7 | 54.7 | 47.6 | 46.4 | 35.2 | 25.8 | 21.1 | 26.0 | 14.9 |
| CT Compartment Unit 5 SPL | | | | 580.4 | 37.6 | 39.9 | 41.9 | 36.8 | 34.6 | 31.3 | 28.8 | 33.9 | 26.4 | 12.7 |
| CT Compartment Unit 7 SPL | | | | 384.2 | 41.9 | 43.6 | 45.5 | 40.4 | 38.3 | 35.1 | 32.8 | 38.2 | 31.6 | 20.8 |
| CT Generator Unit 5 SPL | | | | 600.7 | 46.1 | 45.6 | 45.6 | 44.4 | 43.3 | 42.9 | 41.5 | 39.6 | 32.0 | 13.9 |
| CT Generator Unit 7 SPL | | | | 439.0 | 49.3 | 48.4 | 48.3 | 47.3 | 46.1 | 45.9 | 44.6 | 42.9 | 36.0 | 20.4 |
| CT Exhaust Duct Unit 5 SPL | | | | 570.8 | 43.4 | 54.1 | 51.0 | 48.9 | 41.7 | 40.4 | 38.0 | 35.1 | 31.7 | 20.1 |
| CT Exhaust Duct Unit 7 SPL | | | | 388.0 | 47.3 | 57.5 | 54.4 | 52.4 | 45.2 | 44.0 | 41.7 | 39.1 | 36.5 | 27.6 |
| HRSG Transition, Unit 5 SPL | | | | 558.2 | 48.2 | 62.3 | 58.2 | 54.1 | 49.9 | 45.6 | 42.2 | 38.4 | 29.9 | 8.5 |
| HRSG Transition, Unit 7 SPL | | | | 368.3 | 30.3 | 61.9 | 49.9 | 33.8 | 21.7 | 15.5 | 15.2 | 25.7 | 16.1 | -8.5 |
| HRSG Boiler, Unit 5 SPL | | | | 549.3 | 39.1 | 51.4 | 47.4 | 44.3 | 39.1 | 36.8 | 35.4 | 24.5 | 17.2 | -5.1 |
| HRSG Boiler, Unit 7 SPL | | | | 342.1 | 43.5 | 55.6 | 51.5 | 48.5 | 43.4 | 41.2 | 39.9 | 29.4 | 22.9 | 3.8 |
| CT Transformer, Unit 5 SPL | | | | 583.5 | 45.4 | 42.9 | 48.8 | 50.7 | 45.5 | 45.2 | 38.8 | 32.9 | 25.4 | 9.6 |
| CT Transformer, Unit 7 SPL | | | | 461.2 | 47.6 | 45.0 | 50.9 | 52.8 | 47.7 | 47.4 | 41.1 | 35.4 | 28.4 | 14.4 |
| ST Transformer, Unit 6 SPL | | | | 505.1 | 46.8 | 44.2 | 50.1 | 52.0 | 46.9 | 46.6 | 40.2 | 34.4 | 27.2 | 12.6 |
| ST Package, Unit 6 SPL | | | | 390.7 | 46.3 | 49.4 | 55.4 | 53.3 | 48.2 | 44.0 | 39.7 | 36.1 | 26.4 | 14.5 |
| Generator Package, Unit 6 SPL | | | | 418.4 | 45.6 | 48.8 | 54.8 | 52.7 | 47.6 | 43.3 | 39.0 | 35.4 | 25.6 | 13.3 |
| Major Pumps, Unit 5 SPL | | | | 532.6 | 37.8 | 32.7 | 38.6 | 36.5 | 35.4 | 34.1 | 32.7 | 30.9 | 27.6 | 15.5 |
| Major Pumps, Unit 6 SPL | | | | 481.0 | 41.9 | 36.6 | 42.6 | 40.5 | 39.3 | 38.0 | 36.7 | 34.9 | 31.9 | 20.6 |
| Major Pumps, Unit 7 SPL | | | | 310.5 | 43.2 | 37.4 | 43.4 | 41.3 | 40.2 | 39.1 | 37.8 | 36.4 | 34.0 | 25.3 |
| Gas Compressor 1 SPL | | | | 608.1 | 36.9 | 29.5 | 25.5 | 30.3 | 29.2 | 26.8 | 29.4 | 33.4 | 27.8 | 11.6 |
| Gas Compressor 2 SPL | | | | 637.7 | 36.4 | 29.1 | 25.0 | 29.9 | 28.7 | 26.4 | 28.9 | 32.9 | 27.2 | 10.6 |
| Fin Fan Cooler 1 SPL | | | | 608.6 | 34.2 | 41.5 | 41.5 | 40.3 | 37.2 | 31.8 | 28.4 | 20.4 | 13.8 | -1.4 |
| Fin Fan Cooler 2 SPL | | | | 638.2 | 33.7 | 41.1 | 41.0 | 39.9 | 36.7 | 31.4 | 27.9 | 19.9 | 13.1 | -2.5 |
| | | | | | | | | | | | | | | |
| | | | | **480.5** | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 5 | 9798 | 930 | 270 | 595.1 | | | | | | | | | | |
| Mitigated Lw | | | | | | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 595.1 | | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 5 | 14 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| Silencer (Assume -12 2BA) | | | | | | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| **Stack, Unit 5 SPL** | | | | **595.1** | **44.5** | **52** | **48** | **52** | **49** | **43** | **35** | **25** | **12** | **-15** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 7 | 10087 | 988 | 270 | 411.7 | | | | | | | | | | |
| Mitigated Lw | | | | | **116.0** | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 411.7 | | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 9 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| Silencer (Assume -12 2BA) | | | | | | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| **Stack, Unit 7 SPL** | | | | **411.7** | **48.0** | **55** | **51** | **55** | **53** | **46** | **38** | **29** | **17** | **-7** |
| | | | | | | | | | | | | | | |
| Combustion Turbine (CT) Inlet, Unit 5 | 9798 | 1100 | 75 | 624.6 | | | | | | | | | | |
| Standard Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Mitigation - Silencer Upgrade | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Upgraded Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Distance Correction | | | | 624.6 | | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 5 | 14 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Combustion Turbine (CT) Inlet Unit 5 SPL** | | | | **624.6** | **37.8** | **48** | **52** | **45** | **44** | **33** | **23** | **18** | **22** | **9** |
| | | | | | | | | | | | | | | |
| CT Inlet, Unit 7 | 10087 | 1158 | 75 | 474.5 | | | | | | | | | | |
| Standard Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Mitigation - Silencer Upgrade | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 1/3rds way toward gas compressors

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Upgraded Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Distance Correction | | | | 474.5 | | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 4 | 11 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Inlet Unit 7 SPL** | | | | **474.5** | **40.3** | **51** | **55** | **48** | **46** | **35** | **26** | **21** | **26** | **15** |
| | | | | | | | | | | | | | | |
| CT Compartment, Unit 5 | 9798 | 1020 | 45 | 580.4 | | | | | | | | | | |
| Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Distance Correction | | | | 580.4 | | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 5 | 13 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume 20 dBA) | | | | | | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| **CT Compartment Unit 5 SPL** | | | | **580.4** | **37.6** | **40** | **42** | **37** | **35** | **31** | **29** | **34** | **26** | **13** |
| | | | | | | | | | | | | | | |
| Combustion Turbine Compartment, Unit | 10087 | 1055 | 45 | 384.2 | | | | | | | | | | |
| Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Distance Correction | | | | 384.2 | | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 9 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume 20 dBA) | | | | | | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| **CT Compartment Unit 7 SPL** | | | | **384.2** | **41.9** | **44** | **46** | **40** | **38** | **35** | **33** | **38** | **32** | **21** |
| | | | | | | | | | | | | | | |
| CT Generator, Unit 5 | 9798 | 1060 | 45 | 600.7 | | | | | | | | | | |
| Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Distance Correction | | | | 600.7 | | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 5 | 14 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier (Assume -11 dBA) | | | | | | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| **CT Generator Unit 5 SPL** | | | | **600.7** | **46.1** | **46** | **46** | **44** | **43** | **43** | **41** | **40** | **32** | **14** |
| | | | | | | | | | | | | | | |
| CT Generator, Unit 7 | 10087 | 1120 | 45 | 439.0 | | | | | | | | | | |
| Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Distance Correction | | | | 439.0 | | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 4 | 10 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier (Assume -11 dBA) | | | | | | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| **CT Generator Unit 7 SPL** | | | | **439.0** | **49.3** | **48** | **48** | **47** | **46** | **46** | **45** | **43** | **36** | **20** |
| | | | | | | | | | | | | | | |
| CT Exhaust Duct, Unit 5 | 9798 | 1000 | 38 | 570.8 | | | | | | | | | | |
| Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Distance Correction | | | | 570.8 | | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 5 | 13 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Acoustical Shroud (Assume -10 dBA) | | | | | | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| **CT Exhaust Duct Unit 5 SPL** | | | | **570.8** | **43.4** | **54** | **51** | **49** | **42** | **40** | **38** | **35** | **32** | **20** |
| | | | | | | | | | | | | | | |
| CT Exhaust Duct, Unit 7 | 10087 | 1060 | 38 | 388.0 | | | | | | | | | | |
| Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Distance Correction | | | | 388.0 | | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 1/3rds way toward gas compressors

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 9 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Acoustical Shroud (Assume -10 dBA) | | | | | | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| **CT Exhaust Duct Unit 7 SPL** | | | | **388.0** | **47.3** | **57** | **54** | **52** | **45** | **44** | **42** | **39** | **36** | **28** |
| | | | | | | | | | | | | | | |
| HRSG Transition, Unit 5 | 9798 | 970 | 50 | 558.2 | | | | | | | | | | |
| Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Mitigation - Acoustic Shroud | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Distance Correction | | | | 558.2 | | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 4 | 13 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Acoustical Shroud (Assume -10 dBA) | | | | | | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| **HRSG Transition, Unit 5 SPL** | | | | **558.2** | **48.2** | **62** | **58** | **54** | **50** | **46** | **42** | **38** | **30** | **9** |
| | | | | | | | | | | | | | | |
| HRSG Transition, Unit 7 | 10087 | 1035 | 50 | 368.3 | | | | | | | | | | |
| Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Mitigation - Acoustic Shroud | | | | | | 4 | 12 | 24 | 32 | 34 | 31 | 17 | 19 | 25 |
| Mitigated Lw | | | | | **90.2** | 121 | 109 | 93 | 81 | 75 | 75 | 86 | 78 | 59 |
| Distance Correction | | | | 368.3 | | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 8 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Acoustical Shroud (Assume -10 dBA) | | | | | | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| **HRSG Transition, Unit 7 SPL** | | | | **368.3** | **30.3** | **62** | **50** | **34** | **22** | **16** | **15** | **26** | **16** | **-8** |
| | | | | | | | | | | | | | | |
| HRSG Boiler, Unit 5 | 9798 | 930 | 112 | 549.3 | | | | | | | | | | |
| Lw | | | | | **107.6** | 121 | 116 | 113 | 109 | 104 | 102 | 99 | 93 | 79 |
| Mitigation - Increase Boiler Casing Thickness | | | | | | 9 | 8 | 8 | 9 | 6 | 5 | 12 | 11 | 11 |
| Mitigated Lw | | | | | **100.5** | 112 | 108 | 105 | 100 | 98 | 97 | 87 | 82 | 68 |
| Distance Correction | | | | 549.3 | | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 4 | 13 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier (Assume -8 dB) | | | | | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| **HRSG Boiler, Unit 5 SPL** | | | | **549.3** | **39.1** | **51** | **47** | **44** | **39** | **37** | **35** | **25** | **17** | **-5** |
| | | | | | | | | | | | | | | |
| HRSG Boiler, Unit 7 | 10087 | 988 | 112 | 342.1 | | | | | | | | | | |
| Lw | | | | | **107.6** | 121 | 116 | 113 | 109 | 104 | 102 | 99 | 93 | 79 |
| Mitigation - Increase Boiler Casing Thickness | | | | | | 9 | 8 | 8 | 9 | 6 | 5 | 12 | 11 | 11 |
| Mitigated Lw | | | | | **100.5** | 112 | 108 | 105 | 100 | 98 | 97 | 87 | 82 | 68 |
| Distance Correction | | | | 342.1 | | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 8 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier (Assume -8 dB) | | | | | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| **HRSG Boiler, Unit 7 SPL** | | | | **342.1** | **43.5** | **56** | **52** | **48** | **43** | **41** | **40** | **29** | **23** | **4** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| CT Transformer, Unit 5 | 9855 | 1110 | 40 | 583.5 | | | | | | | | | | |
| Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Distance Correction | | | | 583.5 | | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 5 | 13 |
| Barrier (Fire Wall, assume 6 dBA) | | | | | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| **CT Transformer, Unit 5 SPL** | | | | **583.5** | **45.4** | **43** | **49** | **51** | **46** | **45** | **39** | **33** | **25** | **10** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| CT Transformer, Unit 7 | 10140 | 1170 | 40 | 461.2 | | | | | | | | | | |
| Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Distance Correction | | | | 461.2 | | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 4 | 11 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 1/3rds way toward gas compressors

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Barrier (Fire Wall, assume 6 dBA) | | | | | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| **CT Transformer, Unit 7 SPL** | | | | **461.2** | **47.6** | **45** | **51** | **53** | **48** | **47** | **41** | **35** | **28** | **14** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| ST Transformer, Unit 6 | 10000 | 1140 | 63 | 505.1 | | | | | | | | | | |
| Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Distance Correction | | | | 505.1 | | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 4 | 12 |
| Barrier (Fire Wall, assume 6 dBA) | | | | | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| **ST Transformer, Unit 6 SPL** | | | | **505.1** | **46.8** | **44** | **50** | **52** | **47** | **47** | **40** | **34** | **27** | **13** |
| | | | | | | | | | | | | | | |
| ST Package, Unit 6 | 10000 | 980 | 63 | 390.7 | | | | | | | | | | |
| Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Distance Correction | | | | 390.7 | | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 9 |
| Directivity | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -16 dBA) | | | | | | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| **ST Package, Unit 6 SPL** | | | | **390.7** | **46.3** | **49** | **55** | **53** | **48** | **44** | **40** | **36** | **26** | **14** |
| | | | | | | | | | | | | | | |
| Generator Package, Unit 6 | 10000 | 1025 | 40 | 418.4 | | | | | | | | | | |
| Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Distance Correction | | | | 418.4 | | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 10 |
| Directivity | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -16 dBA) | | | | | | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| **Generator Package, Unit 6 SPL** | | | | **418.4** | **45.6** | **49** | **55** | **53** | **48** | **43** | **39** | **35** | **26** | **13** |
| | | | | | | | | | | | | | | |
| Major Pumps, Unit 5 | 9798 | 900 | 30 | 532.6 | | | | | | | | | | |
| Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| 1 Major Pump per Unit | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| Distance Correction | | | | 532.6 | | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 4 | 12 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -18 dBA) | | | | | | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| **Major Pumps, Unit 5 SPL** | | | | **532.6** | **37.8** | **33** | **39** | **37** | **35** | **34** | **33** | **31** | **28** | **16** |
| | | | | | | | | | | | | | | |
| Major Pumps, Unit 6 | 9930 | 1040 | 30 | 481.0 | | | | | | | | | | |
| Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| 2 Major Pumps per Unit | | | | | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Total Lw | | | | | **112.9** | 106 | 112 | 110 | 109 | 108 | 107 | 106 | 105 | 101 |
| Distance Correction | | | | 481.0 | | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 4 | 11 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -18 dBA) | | | | | | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| **Major Pumps, Unit 6 SPL** | | | | **481.0** | **41.9** | **37** | **43** | **40** | **39** | **38** | **37** | **35** | **32** | **21** |
| | | | | | | | | | | | | | | |
| Major Pumps, Unit 7 | 10087 | 960 | 30 | 310.5 | | | | | | | | | | |
| Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| 1 Major Pump per Unit | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| Distance Correction | | | | 310.5 | | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 7 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -18 dBA) | | | | | | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| **Major Pumps, Unit 7 SPL** | | | | **310.5** | **43.2** | **37** | **43** | **41** | **40** | **39** | **38** | **36** | **34** | **25** |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 1/3rds way toward gas compressors

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Gas Compressor 1 (North) | 10905 | 845 | 28.5 | 608.1 | | | | | | | | | | |
| Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Distance Correction | | | | 608.1 | | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 5 | 14 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -16 dBA) | | | | | | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| **Gas Compressor 1 SPL** | | | | **608.1** | **36.9** | **30** | **25** | **30** | **29** | **27** | **29** | **33** | **28** | **12** |
| | | | | | | | | | | | | | | |
| Gas Compressor 2 (South) | 10935 | 845 | 28.5 | 637.7 | | | | | | | | | | |
| Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Distance Correction | | | | 637.7 | | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 5 | 15 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -30 dBA) | | | | | | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| **Gas Compressor 2 SPL** | | | | **637.7** | **36.4** | **29** | **25** | **30** | **29** | **26** | **29** | **33** | **27** | **11** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Fin Fan Cooler 1 | 10905 | 845 | 49.5 | 608.6 | | | | | | | | | | |
| Fan Lw | | | | | **96.5** | 103 | 103 | 102 | 99 | 94 | 91 | 84 | 80 | 74 |
| Distance Correction | | | | 608.6 | | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 5 | 14 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| **Fin Fan Cooler 1 SPL** | | | | **608.6** | **34.2** | **42** | **41** | **40** | **37** | **32** | **28** | **20** | **14** | **-1** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Fin Fan Cooler 2 | 10935 | 845 | 49.5 | 638.2 | | | | | | | | | | |
| Fan Lw | | | | | **96.5** | 103 | 103 | 102 | 99 | 94 | 91 | 84 | 80 | 74 |
| Distance Correction | | | | 638.2 | | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 5 | 15 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| **Fin Fan Cooler 2 SPL** | | | | **638.2** | **33.7** | **41** | **41** | **40** | **37** | **31** | **28** | **20** | **13** | **-2** |
| | | | | | | | | | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ATMOSPHERIC ABSORPTION (dB/100 meters - 75% of EEI Values) | 0.08 | 0.11 | 0.17 | 0.27 | 0.45 | 0.70 | 1.20 | 2.62 | 7.56 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 85 Feet West of Nominal Accoustic Center of Gas Compressors

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Gas Compressor 1 (North) | 10905 | 845 | 28.5 | 86.4 | | | | | | | | | | |
| Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Distance Correction | | | | 86.4 | | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| **Gas Compressor 1 SPL** | | | | **86.4** | **74.1** | **65** | **61** | **66** | **65** | **62** | **65** | **70** | **67** | **59** |
| | | | | | | | | | | | | | | |
| Gas Compressor 2 (South) | 10935 | 845 | 28.5 | 86.4 | | | | | | | | | | |
| Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Distance Correction | | | | 86.4 | | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| **Gas Compressor 2 SPL** | | | | **86.4** | **74.1** | **65** | **61** | **66** | **65** | **62** | **65** | **70** | **67** | **59** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Fin Fan Cooler 1 | 10905 | 845 | 49.5 | 89.7 | | | | | | | | | | |
| Fan Lw | | | | | **96.5** | 103 | 103 | 102 | 99 | 94 | 91 | 84 | 80 | 74 |
| Distance Correction | | | | 89.7 | | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Fin Fan Cooler 1 SPL** | | | | **89.7** | **59.6** | **66** | **66** | **65** | **62** | **57** | **54** | **47** | **43** | **35** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Fin Fan Cooler 2 | 10935 | 845 | 49.5 | 89.7 | | | | | | | | | | |
| Fan Lw | | | | | **96.5** | 103 | 103 | 102 | 99 | 94 | 91 | 84 | 80 | 74 |
| Distance Correction | | | | 89.7 | | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Fin Fan Cooler 2 SPL** | | | | **89.7** | **59.6** | **66** | **66** | **65** | **62** | **57** | **54** | **47** | **43** | **35** |
| | | | | | | | | | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ATMOSPHERIC ABSORPTION (dB/100 meters - 75% of EEI Values) | 0.08 | 0.11 | 0.17 | 0.27 | 0.45 | 0.70 | 1.20 | 2.62 | 7.56 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 1000 feet south of gas compressors

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Receptor Location | 11460 | 760 | 25 | | **62.1** | 69.4 | 67.6 | 65.5 | 61.7 | 57.6 | 55.0 | 56.5 | 50.6 | 35.1 |
| | | | | | | 30.0 | 41.4 | 49.4 | 53.1 | 54.4 | 55.0 | 57.7 | 51.6 | 34.0 |
| Summary | | | | | | | | | | | | | | |
| Stack, Unit 5 SPL | | | | 1688.5 | 46.3 | 54.4 | 50.2 | 53.9 | 51.4 | 44.5 | 35.2 | 23.6 | 6.3 | -37.1 |
| Stack, Unit 7 SPL | | | | 1413.2 | 48.1 | 56.0 | 51.9 | 55.6 | 53.2 | 46.4 | 37.3 | 26.2 | 10.1 | -29.2 |
| Combustion Turbine (CT) Inlet Unit 5 SPL | | | | 1697.2 | 27.9 | 39.4 | 43.2 | 35.9 | 34.3 | 22.4 | 7.1 | 0.5 | 0.2 | -29.4 |
| CT Inlet Unit 7 SPL | | | | 1430.4 | 29.7 | 40.9 | 44.8 | 37.5 | 36.1 | 24.3 | 14.2 | 8.0 | 8.8 | -16.7 |
| CT Compartment Unit 5 SPL | | | | 1682.3 | 45.1 | 50.4 | 52.3 | 46.9 | 44.4 | 40.5 | 37.2 | 40.7 | 28.4 | -1.9 |
| CT Compartment Unit 7 SPL | | | | 1404.5 | 47.4 | 52.1 | 53.9 | 48.6 | 46.2 | 42.5 | 39.4 | 43.3 | 32.2 | 6.0 |
| CT Generator Unit 5 SPL | | | | 1689.0 | 45.6 | 47.4 | 47.2 | 45.9 | 44.4 | 43.5 | 41.2 | 37.6 | 25.3 | -9.1 |
| CT Generator Unit 7 SPL | | | | 1419.6 | 45.4 | 49.0 | 48.8 | 47.5 | 46.1 | 45.3 | 38.3 | 35.1 | 24.0 | -6.4 |
| CT Exhaust Duct Unit 5 SPL | | | | 1679.3 | 41.8 | 54.5 | 51.3 | 49.0 | 41.5 | 39.5 | 36.3 | 31.7 | 23.4 | -4.9 |
| CT Exhaust Duct Unit 7 SPL | | | | 1405.5 | 42.2 | 56.1 | 52.9 | 50.6 | 43.2 | 41.5 | 33.4 | 29.2 | 22.2 | -2.0 |
| HRSG Transition, Unit 5 SPL | | | | 1675.4 | 46.9 | 62.5 | 58.3 | 54.0 | 49.5 | 44.6 | 40.3 | 34.7 | 21.5 | -16.8 |
| HRSG Transition, Unit 7 SPL | | | | 1400.5 | 48.8 | 64.1 | 60.0 | 55.7 | 51.3 | 46.5 | 42.4 | 37.3 | 25.2 | -8.9 |
| HRSG Boiler, Unit 5 SPL | | | | 1672.9 | 42.6 | 58.5 | 53.3 | 50.0 | 45.5 | 39.6 | 36.3 | 30.7 | 17.5 | -21.7 |
| HRSG Boiler, Unit 7 SPL | | | | 1394.5 | 44.6 | 60.1 | 55.0 | 51.7 | 47.3 | 41.5 | 38.5 | 33.3 | 21.3 | -13.7 |
| CT Transformer, Unit 5 SPL | | | | 1642.8 | 40.8 | 39.7 | 45.5 | 47.2 | 41.7 | 40.8 | 33.5 | 26.0 | 13.9 | -17.8 |
| CT Transformer, Unit 7 SPL | | | | 1382.3 | 42.6 | 41.2 | 47.1 | 48.8 | 43.4 | 42.6 | 35.6 | 28.5 | 17.5 | -10.3 |
| ST Transformer, Unit 6 SPL | | | | 1508.7 | 41.7 | 40.4 | 46.3 | 48.0 | 42.5 | 41.7 | 34.6 | 27.2 | 15.7 | -14.0 |
| ST Package, Unit 6 SPL | | | | 1476.6 | 49.1 | 53.6 | 59.5 | 57.2 | 51.7 | 46.9 | 41.8 | 36.6 | 22.2 | -6.1 |
| Generator Package, Unit 6 SPL | | | | 1483.9 | 49.0 | 53.6 | 59.4 | 57.1 | 51.7 | 46.9 | 41.8 | 36.5 | 22.1 | -6.3 |
| Major Pumps, Unit 5 SPL | | | | 1667.9 | 43.0 | 40.5 | 46.4 | 44.0 | 42.5 | 40.6 | 38.3 | 34.8 | 26.6 | -2.5 |
| Major Pumps, Unit 6 SPL | | | | 1555.4 | 46.9 | 44.2 | 50.0 | 47.7 | 46.2 | 44.4 | 42.2 | 38.8 | 31.1 | 3.7 |
| Major Pumps, Unit 7 SPL | | | | 1387.5 | 45.3 | 42.2 | 48.0 | 45.8 | 44.4 | 42.6 | 40.5 | 37.4 | 30.4 | 5.5 |
| Gas Compressor 1 SPL | | | | 561.5 | 55.8 | 48.2 | 44.2 | 49.1 | 47.9 | 45.6 | 48.2 | 52.3 | 46.9 | 31.4 |
| Gas Compressor 2 SPL | | | | 531.8 | 56.4 | 48.7 | 44.7 | 49.5 | 48.4 | 46.1 | 48.7 | 52.9 | 47.6 | 32.6 |
| Fin Fan Cooler 1 SPL | | | | 562.0 | 42.9 | 50.2 | 50.2 | 49.0 | 45.9 | 40.6 | 37.1 | 29.3 | 22.9 | 8.4 |
| Fin Fan Cooler 2 SPL | | | | 532.4 | 43.4 | 50.7 | 50.6 | 49.5 | 46.4 | 41.1 | 37.7 | 29.9 | 23.6 | 9.5 |
| | | | | | | | | | | | | | | |
| | | | | **1534.4** | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 5 | 9798 | 930 | 270 | 1688.5 | | | | | | | | | | |
| Mitigated Lw | | | | | | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 1688.5 | | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 1 | 1 | 1 | 2 | 4 | 6 | 13 | 39 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| **Stack, Unit 5 SPL** | | | | **1688.5** | **46.3** | **54** | **50** | **54** | **51** | **44** | **35** | **24** | **6** | **-37** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 7 | 10087 | 988 | 270 | 1413.2 | | | | | | | | | | |
| Mitigated Lw | | | | | **116.0** | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 1413.2 | | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 3 | 5 | 11 | 33 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| **Stack, Unit 7 SPL** | | | | **1413.2** | **48.1** | **56** | **52** | **56** | **53** | **46** | **37** | **26** | **10** | **-29** |
| | | | | | | | | | | | | | | |
| Combustion Turbine (CT) Inlet, Unit 5 | 9798 | 1100 | 75 | 1697.2 | | | | | | | | | | |
| Standard Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Mitigation - Silencer Upgrade | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Upgraded Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Distance Correction | | | | 1697.2 | | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 1 | 1 | 1 | 2 | 4 | 6 | 14 | 39 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 5 | 5 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Combustion Turbine (CT) Inlet Unit 5 SPL** | | | | **1697.2** | **27.9** | **39** | **43** | **36** | **34** | **22** | **7** | **1** | **0** | **-29** |
| | | | | | | | | | | | | | | |
| CT Inlet, Unit 7 | 10087 | 1158 | 75 | 1430.4 | | | | | | | | | | |
| Standard Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Mitigation - Silencer Upgrade | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 270 Feet West of Nominal Accoustic Center

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Receptor Location | 10000 | 730 | 25 | | **75.0** | 83.2 | 81.7 | 79.5 | 75.6 | 71.9 | 68.5 | 67.3 | 62.2 | 52.8 |
| | | | | | | 43.8 | 55.5 | 63.4 | 67.0 | 68.7 | 68.5 | 68.5 | 63.2 | 51.7 |
| Summary | | | | | | | | | | | | | | |
| Stack, Unit 5 SPL | | | | 375.3 | 60.8 | 67.8 | 63.7 | 67.7 | 65.5 | 59.3 | 51.1 | 41.5 | 29.9 | 6.2 |
| Stack, Unit 7 SPL | | | | 366.3 | 61.0 | 68.0 | 63.9 | 67.9 | 65.8 | 59.6 | 51.3 | 41.7 | 30.1 | 6.6 |
| Combustion Turbine (CT) Inlet Unit 5 SPL | | | | 424.5 | 41.1 | 51.7 | 55.6 | 48.6 | 47.4 | 36.2 | 21.9 | 17.2 | 22.4 | 12.0 |
| CT Inlet Unit 7 SPL | | | | 439.6 | 41.1 | 51.4 | 55.3 | 48.2 | 47.1 | 35.9 | 26.5 | 21.9 | 27.0 | 16.3 |
| CT Compartment Unit 5 SPL | | | | 354.0 | 62.7 | 64.3 | 66.2 | 61.2 | 59.1 | 55.9 | 53.6 | 59.1 | 52.5 | 42.2 |
| CT Compartment Unit 7 SPL | | | | 337.0 | 63.2 | 64.7 | 66.7 | 61.6 | 59.5 | 56.3 | 54.1 | 59.6 | 53.1 | 43.0 |
| CT Generator Unit 5 SPL | | | | 387.4 | 61.5 | 60.5 | 60.4 | 59.4 | 58.3 | 58.0 | 56.8 | 55.2 | 48.5 | 33.6 |
| CT Generator Unit 7 SPL | | | | 400.1 | 58.4 | 60.2 | 60.2 | 59.1 | 58.0 | 57.7 | 51.4 | 49.8 | 43.1 | 28.1 |
| CT Exhaust Duct Unit 5 SPL | | | | 337.5 | 58.6 | 68.7 | 65.7 | 63.6 | 56.5 | 55.3 | 53.1 | 50.5 | 48.1 | 40.0 |
| CT Exhaust Duct Unit 7 SPL | | | | 341.5 | 56.2 | 68.6 | 65.6 | 63.5 | 56.4 | 55.2 | 47.9 | 45.4 | 42.9 | 34.8 |
| HRSG Transition, Unit 5 SPL | | | | 314.7 | 63.6 | 77.3 | 73.3 | 69.2 | 65.1 | 60.9 | 57.7 | 54.2 | 46.9 | 29.1 |
| HRSG Transition, Unit 7 SPL | | | | 318.1 | 63.5 | 77.2 | 73.2 | 69.1 | 65.0 | 60.8 | 57.6 | 54.1 | 46.7 | 29.0 |
| HRSG Boiler, Unit 5 SPL | | | | 297.3 | 59.9 | 73.8 | 68.8 | 65.7 | 61.6 | 56.5 | 54.2 | 50.8 | 43.5 | 25.0 |
| HRSG Boiler, Unit 7 SPL | | | | 285.8 | 60.3 | 74.2 | 69.1 | 66.1 | 62.0 | 56.8 | 54.6 | 51.2 | 43.9 | 25.6 |
| CT Transformer, Unit 5 SPL | | | | 407.0 | 54.8 | 52.1 | 58.0 | 59.9 | 54.8 | 54.6 | 48.3 | 42.7 | 35.9 | 22.8 |
| CT Transformer, Unit 7 SPL | | | | 462.0 | 53.6 | 50.9 | 56.9 | 58.8 | 53.7 | 53.4 | 47.1 | 41.4 | 34.4 | 20.4 |
| ST Transformer, Unit 6 SPL | | | | 410.3 | 54.7 | 52.0 | 57.9 | 59.9 | 54.7 | 54.5 | 48.2 | 42.6 | 35.8 | 22.6 |
| ST Package, Unit 6 SPL | | | | 250.4 | 66.4 | 69.3 | 75.3 | 73.2 | 68.2 | 64.0 | 59.8 | 56.4 | 47.4 | 37.6 |
| Generator Package, Unit 6 SPL | | | | 295.4 | 64.9 | 67.9 | 73.8 | 71.8 | 66.7 | 62.5 | 58.3 | 54.8 | 45.6 | 35.1 |
| Major Pumps, Unit 5 SPL | | | | 264.1 | 62.8 | 56.8 | 62.8 | 60.8 | 59.7 | 58.5 | 57.3 | 55.9 | 53.8 | 45.8 |
| Major Pumps, Unit 6 SPL | | | | 317.8 | 64.0 | 58.2 | 64.2 | 62.1 | 61.0 | 59.9 | 58.6 | 57.1 | 54.8 | 46.0 |
| Major Pumps, Unit 7 SPL | | | | 246.0 | 63.5 | 57.5 | 63.4 | 61.4 | 60.3 | 59.2 | 58.0 | 56.6 | 54.6 | 46.9 |
| Gas Compressor 1 SPL | | | | 912.3 | 50.2 | 43.9 | 39.8 | 44.7 | 43.4 | 40.9 | 43.2 | 46.8 | 39.9 | 19.1 |
| Gas Compressor 2 SPL | | | | 942.1 | 49.9 | 43.6 | 39.6 | 44.4 | 43.1 | 40.6 | 42.9 | 46.4 | 39.3 | 18.1 |
| Fin Fan Cooler 1 SPL | | | | 912.6 | 38.2 | 45.9 | 45.8 | 44.7 | 41.4 | 35.9 | 32.2 | 23.8 | 15.9 | -3.9 |
| Fin Fan Cooler 2 SPL | | | | 942.4 | 37.9 | 45.6 | 45.6 | 44.4 | 41.1 | 35.6 | 31.9 | 23.4 | 15.3 | -4.9 |
| | | | | | | | | | | | | | | |
| | | | | **346.9** | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 5 | 9798 | 930 | 270 | 375.3 | | | | | | | | | | |
| Mitigated Lw | | | | | | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 375.3 | | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 9 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| **Stack, Unit 5 SPL** | | | | **375.3** | **60.8** | **68** | **64** | **68** | **66** | **59** | **51** | **41** | **30** | **6** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 7 | 10087 | 988 | 270 | 366.3 | | | | | | | | | | |
| Mitigated Lw | | | | | **116.0** | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 366.3 | | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 8 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| **Stack, Unit 7 SPL** | | | | **366.3** | **61.0** | **68** | **64** | **68** | **66** | **60** | **51** | **42** | **30** | **7** |
| | | | | | | | | | | | | | | |
| Combustion Turbine (CT) Inlet, Unit 5 | 9798 | 1100 | 75 | 424.5 | | | | | | | | | | |
| Standard Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Mitigation - Silencer Upgrade | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Upgraded Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Distance Correction | | | | 424.5 | | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 10 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 5 | 5 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Combustion Turbine (CT) Inlet Unit 5 SPL** | | | | **424.5** | **41.1** | **52** | **56** | **49** | **47** | **36** | **22** | **17** | **22** | **12** |
| | | | | | | | | | | | | | | |
| CT Inlet, Unit 7 | 10087 | 1158 | 75 | 439.6 | | | | | | | | | | |
| Standard Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Mitigation - Silencer Upgrade | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Upgraded Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Distance Correction | | | | 439.6 | | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 4 | 10 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 1000 feet south of gas compressors

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Receptor Location | 11460 | 760 | 25 | | **48.0** | 57.1 | 55.0 | 53.3 | 49.4 | 45.5 | 41.4 | 39.7 | 33.1 | 17.3 |
| | | | | | | 17.7 | 28.8 | 37.2 | 40.8 | 42.3 | 41.4 | 40.9 | 34.1 | 16.2 |
| Summary | | | | | | | | | | | | | | |
| Stack, Unit 5 SPL | | | | 1688.5 | 34.3 | 42.4 | 38.2 | 41.9 | 39.4 | 32.5 | 23.2 | 11.6 | -5.7 | -49.1 |
| Stack, Unit 7 SPL | | | | 1413.2 | 36.1 | 44.0 | 39.9 | 43.6 | 41.2 | 34.4 | 25.3 | 14.2 | -1.9 | -41.2 |
| Combustion Turbine (CT) Inlet Unit 5 SPL | | | | 1697.2 | 28.0 | 39.4 | 43.2 | 35.9 | 34.3 | 22.4 | 12.1 | 5.5 | 5.2 | -24.4 |
| CT Inlet Unit 7 SPL | | | | 1430.4 | 29.7 | 40.9 | 44.8 | 37.5 | 36.1 | 24.3 | 14.2 | 8.0 | 8.8 | -16.7 |
| CT Compartment Unit 5 SPL | | | | 1682.3 | 25.1 | 30.4 | 32.3 | 26.9 | 24.4 | 20.5 | 17.2 | 20.7 | 8.4 | -21.9 |
| CT Compartment Unit 7 SPL | | | | 1404.5 | 27.4 | 32.1 | 33.9 | 28.6 | 26.2 | 22.5 | 19.4 | 23.3 | 12.2 | -14.0 |
| CT Generator Unit 5 SPL | | | | 1689.0 | 34.6 | 36.4 | 36.2 | 34.9 | 33.4 | 32.5 | 30.2 | 26.6 | 14.3 | -20.1 |
| CT Generator Unit 7 SPL | | | | 1419.6 | 36.7 | 38.0 | 37.8 | 36.5 | 35.1 | 34.3 | 32.3 | 29.1 | 18.0 | -12.4 |
| CT Exhaust Duct Unit 5 SPL | | | | 1679.3 | 31.8 | 44.5 | 41.3 | 39.0 | 31.5 | 29.5 | 26.3 | 21.7 | 13.4 | -14.9 |
| CT Exhaust Duct Unit 7 SPL | | | | 1405.5 | 33.8 | 46.1 | 42.9 | 40.6 | 33.2 | 31.5 | 28.4 | 24.2 | 17.2 | -7.0 |
| HRSG Transition, Unit 5 SPL | | | | 1675.4 | 36.9 | 52.5 | 48.3 | 44.0 | 39.5 | 34.6 | 30.3 | 24.7 | 11.5 | -26.8 |
| HRSG Transition, Unit 7 SPL | | | | 1400.5 | 16.8 | 50.1 | 38.0 | 21.7 | 9.3 | 2.5 | 1.4 | 10.3 | -3.8 | -43.9 |
| HRSG Boiler, Unit 5 SPL | | | | 1672.9 | 27.6 | 41.5 | 37.3 | 34.0 | 28.5 | 25.6 | 23.3 | 10.7 | -1.5 | -40.7 |
| HRSG Boiler, Unit 7 SPL | | | | 1394.5 | 29.6 | 43.1 | 39.0 | 35.7 | 30.3 | 27.5 | 25.5 | 13.3 | 2.3 | -32.7 |
| CT Transformer, Unit 5 SPL | | | | 1642.8 | 34.8 | 33.7 | 39.5 | 41.2 | 35.7 | 34.8 | 27.5 | 20.0 | 7.9 | -23.8 |
| CT Transformer, Unit 7 SPL | | | | 1382.3 | 36.6 | 35.2 | 41.1 | 42.8 | 37.4 | 36.6 | 29.6 | 22.5 | 11.5 | -16.3 |
| ST Transformer, Unit 6 SPL | | | | 1509.1 | 35.7 | 34.4 | 40.3 | 42.0 | 36.5 | 35.7 | 28.6 | 21.2 | 9.7 | -20.0 |
| ST Package, Unit 6 SPL | | | | 1477.0 | 33.1 | 37.6 | 43.5 | 41.2 | 35.7 | 30.9 | 25.8 | 20.5 | 6.2 | -22.1 |
| Generator Package, Unit 6 SPL | | | | 1483.9 | 33.0 | 37.6 | 43.4 | 41.1 | 35.7 | 30.9 | 25.8 | 20.5 | 6.1 | -22.3 |
| Major Pumps, Unit 5 SPL | | | | 1667.9 | 25.0 | 22.5 | 28.4 | 26.0 | 24.5 | 22.6 | 20.3 | 16.8 | 8.6 | -20.5 |
| Major Pumps, Unit 6 SPL | | | | 1555.4 | 28.9 | 26.2 | 32.0 | 29.7 | 28.2 | 26.4 | 24.2 | 20.8 | 13.1 | -14.3 |
| Major Pumps, Unit 7 SPL | | | | 1387.5 | 27.3 | 24.2 | 30.0 | 27.8 | 26.4 | 24.6 | 22.5 | 19.4 | 12.4 | -12.5 |
| Gas Compressor 1 SPL | | | | 561.5 | 37.8 | 30.2 | 26.2 | 31.1 | 29.9 | 27.6 | 30.2 | 34.3 | 28.9 | 13.4 |
| Gas Compressor 2 SPL | | | | 531.8 | 38.4 | 30.7 | 26.7 | 31.5 | 30.4 | 28.1 | 30.7 | 34.9 | 29.6 | 14.6 |
| Fin Fan Cooler 1 SPL | | | | 562.0 | 34.9 | 42.2 | 42.2 | 41.0 | 37.9 | 32.6 | 29.1 | 21.3 | 14.9 | 0.4 |
| Fin Fan Cooler 2 SPL | | | | 532.4 | 35.4 | 42.7 | 42.6 | 41.5 | 38.4 | 33.1 | 29.7 | 21.9 | 15.6 | 1.5 |
| | | | | | | | | | | | | | | |
| | | | | **1534.5** | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 5 | 9798 | 930 | 270 | 1688.5 | | | | | | | | | | |
| Mitigated Lw | | | | | | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 1688.5 | | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 1 | 1 | 1 | 2 | 4 | 6 | 13 | 39 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| Silencer (Assume -12 2BA) | | | | | | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| **Stack, Unit 5 SPL** | | | | **1688.5** | **34.3** | **42** | **38** | **42** | **39** | **32** | **23** | **12** | **-6** | **-49** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 7 | 10087 | 988 | 270 | 1413.2 | | | | | | | | | | |
| Mitigated Lw | | | | | **116.0** | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 1413.2 | | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 3 | 5 | 11 | 33 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| Silencer (Assume -12 2BA) | | | | | | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| **Stack, Unit 7 SPL** | | | | **1413.2** | **36.1** | **44** | **40** | **44** | **41** | **34** | **25** | **14** | **-2** | **-41** |
| | | | | | | | | | | | | | | |
| Combustion Turbine (CT) Inlet, Unit 5 | 9798 | 1100 | 75 | 1697.2 | | | | | | | | | | |
| Standard Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Mitigation - Silencer Upgrade | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Upgraded Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Distance Correction | | | | 1697.2 | | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 1 | 1 | 1 | 2 | 4 | 6 | 14 | 39 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Combustion Turbine (CT) Inlet Unit 5 SPL** | | | | **1697.2** | **28.0** | **39** | **43** | **36** | **34** | **22** | **12** | **6** | **5** | **-24** |
| | | | | | | | | | | | | | | |
| CT Inlet, Unit 7 | 10087 | 1158 | 75 | 1430.4 | | | | | | | | | | |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 2/3rds of way toward gas compressors

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Receptor Location | 10612 | 750 | 25 | | **55.3** | 63.8 | 61.6 | 60.0 | 56.2 | 52.8 | 48.9 | 47.0 | 41.4 | 28.4 |
| | | | | | | 24.4 | 35.4 | 43.9 | 47.6 | 49.6 | 48.9 | 48.2 | 42.4 | 27.3 |
| Summary | | | | | | | | | | | | | | |
| Stack, Unit 5 SPL | | | | 868.9 | 40.9 | 48.4 | 44.3 | 48.1 | 45.8 | 39.4 | 30.7 | 20.4 | 6.6 | -24.5 |
| Stack, Unit 7 SPL | | | | 626.3 | 44.1 | 51.3 | 47.2 | 51.1 | 48.9 | 42.5 | 34.1 | 24.1 | 11.4 | -16.0 |
| Combustion Turbine (CT) Inlet Unit 5 SPL | | | | 887.5 | 34.4 | 45.2 | 49.1 | 41.9 | 40.6 | 29.2 | 19.5 | 14.1 | 17.3 | -0.1 |
| CT Inlet Unit 7 SPL | | | | 666.8 | 37.2 | 47.7 | 51.6 | 44.5 | 43.3 | 31.9 | 22.4 | 17.4 | 21.5 | 7.5 |
| CT Compartment Unit 5 SPL | | | | 857.8 | 33.3 | 36.5 | 38.4 | 33.2 | 31.0 | 27.5 | 24.8 | 29.5 | 20.8 | 2.9 |
| CT Compartment Unit 7 SPL | | | | 607.5 | 37.1 | 39.5 | 41.5 | 36.3 | 34.2 | 30.8 | 28.4 | 33.4 | 25.8 | 11.7 |
| CT Generator Unit 5 SPL | | | | 871.3 | 42.2 | 42.3 | 42.3 | 41.1 | 39.8 | 39.3 | 37.7 | 35.3 | 26.6 | 4.5 |
| CT Generator Unit 7 SPL | | | | 642.6 | 45.5 | 45.0 | 45.0 | 43.8 | 42.7 | 42.3 | 40.8 | 38.8 | 31.1 | 12.4 |
| CT Exhaust Duct Unit 5 SPL | | | | 851.6 | 39.3 | 50.5 | 47.5 | 45.3 | 38.0 | 36.6 | 33.9 | 30.6 | 25.9 | 10.1 |
| CT Exhaust Duct Unit 7 SPL | | | | 609.8 | 42.8 | 53.5 | 50.4 | 48.3 | 41.1 | 39.8 | 37.3 | 34.4 | 30.8 | 18.6 |
| HRSG Transition, Unit 5 SPL | | | | 843.6 | 44.1 | 58.6 | 54.5 | 50.4 | 46.1 | 41.7 | 38.0 | 33.7 | 24.1 | -1.6 |
| HRSG Transition, Unit 7 SPL | | | | 597.9 | 25.6 | 57.7 | 45.6 | 29.5 | 17.3 | 11.0 | 10.5 | 20.6 | 10.0 | -18.0 |
| HRSG Boiler, Unit 5 SPL | | | | 838.2 | 34.9 | 47.7 | 43.6 | 40.4 | 35.2 | 32.7 | 31.1 | 19.8 | 11.2 | -15.4 |
| HRSG Boiler, Unit 7 SPL | | | | 583.0 | 38.5 | 50.9 | 46.8 | 43.7 | 38.5 | 36.2 | 34.8 | 23.9 | 16.4 | -6.4 |
| CT Transformer, Unit 5 SPL | | | | 838.4 | 41.8 | 39.7 | 45.6 | 47.4 | 42.2 | 41.7 | 35.1 | 28.8 | 20.2 | 0.6 |
| CT Transformer, Unit 7 SPL | | | | 632.0 | 44.6 | 42.2 | 48.1 | 50.0 | 44.8 | 44.5 | 38.0 | 32.0 | 24.3 | 7.8 |
| ST Transformer, Unit 6 SPL | | | | 726.7 | 43.2 | 40.9 | 46.9 | 48.7 | 43.5 | 43.1 | 36.6 | 30.5 | 22.3 | 4.4 |
| ST Package, Unit 6 SPL | | | | 654.9 | 41.3 | 44.9 | 50.8 | 48.7 | 43.5 | 39.1 | 34.6 | 30.6 | 19.8 | 3.9 |
| Generator Package, Unit 6 SPL | | | | 671.1 | 41.1 | 44.6 | 50.6 | 48.4 | 43.2 | 38.9 | 34.4 | 30.3 | 19.4 | 3.3 |
| Major Pumps, Unit 5 SPL | | | | 827.7 | 33.1 | 28.8 | 34.7 | 32.5 | 31.3 | 29.8 | 28.2 | 26.0 | 21.4 | 4.9 |
| Major Pumps, Unit 6 SPL | | | | 741.1 | 37.3 | 32.8 | 38.7 | 36.6 | 35.3 | 33.9 | 32.4 | 30.2 | 26.0 | 10.9 |
| Major Pumps, Unit 7 SPL | | | | 565.5 | 37.2 | 32.2 | 38.1 | 36.0 | 34.8 | 33.5 | 32.1 | 30.2 | 26.8 | 14.3 |
| Gas Compressor 1 SPL | | | | 308.0 | 44.0 | 35.5 | 31.5 | 36.4 | 35.3 | 33.1 | 35.9 | 40.4 | 36.1 | 24.5 |
| Gas Compressor 2 SPL | | | | 336.7 | 43.2 | 34.7 | 30.7 | 35.6 | 34.5 | 32.3 | 35.1 | 39.6 | 35.1 | 23.0 |
| Fin Fan Cooler 1 SPL | | | | 309.0 | 40.5 | 47.5 | 47.4 | 46.4 | 43.3 | 38.1 | 34.9 | 27.4 | 22.1 | 11.4 |
| Fin Fan Cooler 2 SPL | | | | 337.6 | 39.7 | 46.7 | 46.7 | 45.6 | 42.5 | 37.3 | 34.1 | 26.5 | 21.1 | 10.0 |
| | | | | | | | | | | | | | | |
| | | | | **727.7** | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 5 | 9798 | 930 | 270 | 868.9 | | | | | | | | | | |
| Mitigated Lw | | | | | | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 868.9 | | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 20 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| Silencer (Assume -12 2BA) | | | | | | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| **Stack, Unit 5 SPL** | | | | **868.9** | **40.9** | **48** | **44** | **48** | **46** | **39** | **31** | **20** | **7** | **-24** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 7 | 10087 | 988 | 270 | 626.3 | | | | | | | | | | |
| Mitigated Lw | | | | | **116.0** | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 626.3 | | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 5 | 14 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| Silencer (Assume -12 2BA) | | | | | | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| **Stack, Unit 7 SPL** | | | | **626.3** | **44.1** | **51** | **47** | **51** | **49** | **43** | **34** | **24** | **11** | **-16** |
| | | | | | | | | | | | | | | |
| Combustion Turbine (CT) Inlet, Unit 5 | 9798 | 1100 | 75 | 887.5 | | | | | | | | | | |
| Standard Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Mitigation - Silencer Upgrade | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Upgraded Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Distance Correction | | | | 887.5 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 20 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Combustion Turbine (CT) Inlet Unit 5 SPL** | | | | **887.5** | **34.4** | **45** | **49** | **42** | **41** | **29** | **19** | **14** | **17** | **0** |
| | | | | | | | | | | | | | | |
| CT Inlet, Unit 7 | 10087 | 1158 | 75 | 666.8 | | | | | | | | | | |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 1/3rds way toward gas compressors

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Receptor Location | 10306 | 740 | 25 | | **71.9** | 80.4 | 78.7 | 76.5 | 72.7 | 68.9 | 65.3 | 64.3 | 58.6 | 47.3 |
| | | | | | | 41.0 | 52.5 | 60.4 | 64.1 | 65.7 | 65.3 | 65.5 | 59.6 | 46.2 |
| Summary | | | | | | | | | | | | | | |
| Stack, Unit 5 SPL | | | | 595.1 | 56.5 | 63.7 | 59.7 | 63.5 | 61.4 | 55.0 | 46.6 | 36.7 | 24.1 | -2.9 |
| Stack, Unit 7 SPL | | | | 411.7 | 60.0 | 67.0 | 62.9 | 66.8 | 64.7 | 58.5 | 50.2 | 40.5 | 28.8 | 4.6 |
| Combustion Turbine (CT) Inlet Unit 5 SPL | | | | 624.6 | 37.5 | 48.3 | 52.2 | 45.1 | 43.9 | 32.6 | 18.1 | 13.1 | 17.4 | 4.0 |
| CT Inlet Unit 7 SPL | | | | 474.5 | 40.3 | 50.7 | 54.7 | 47.6 | 46.4 | 35.2 | 25.8 | 21.1 | 26.0 | 14.9 |
| CT Compartment Unit 5 SPL | | | | 580.4 | 57.6 | 59.9 | 61.9 | 56.8 | 54.6 | 51.3 | 48.8 | 53.9 | 46.4 | 32.7 |
| CT Compartment Unit 7 SPL | | | | 384.2 | 61.9 | 63.6 | 65.5 | 60.4 | 58.3 | 55.1 | 52.8 | 58.2 | 51.6 | 40.8 |
| CT Generator Unit 5 SPL | | | | 600.7 | 57.1 | 56.6 | 56.6 | 55.4 | 54.3 | 53.9 | 52.5 | 50.6 | 43.0 | 24.9 |
| CT Generator Unit 7 SPL | | | | 439.0 | 57.5 | 59.4 | 59.3 | 58.3 | 57.1 | 56.9 | 50.6 | 48.9 | 42.0 | 26.4 |
| CT Exhaust Duct Unit 5 SPL | | | | 570.8 | 53.4 | 64.1 | 61.0 | 58.9 | 51.7 | 50.4 | 48.0 | 45.1 | 41.7 | 30.1 |
| CT Exhaust Duct Unit 7 SPL | | | | 388.0 | 55.0 | 67.5 | 64.4 | 62.4 | 55.2 | 54.0 | 46.7 | 44.1 | 41.5 | 32.6 |
| HRSG Transition, Unit 5 SPL | | | | 558.2 | 58.2 | 72.3 | 68.2 | 64.1 | 59.9 | 55.6 | 52.2 | 48.4 | 39.9 | 18.5 |
| HRSG Transition, Unit 7 SPL | | | | 368.3 | 62.2 | 75.9 | 71.9 | 67.8 | 63.7 | 59.5 | 56.2 | 52.7 | 45.1 | 26.5 |
| HRSG Boiler, Unit 5 SPL | | | | 549.3 | 54.1 | 68.4 | 63.4 | 60.3 | 56.1 | 50.8 | 48.4 | 44.5 | 36.2 | 13.9 |
| HRSG Boiler, Unit 7 SPL | | | | 342.1 | 58.6 | 72.6 | 67.5 | 64.5 | 60.4 | 55.2 | 52.9 | 49.4 | 41.9 | 22.8 |
| CT Transformer, Unit 5 SPL | | | | 583.5 | 51.4 | 48.9 | 54.8 | 56.7 | 51.5 | 51.2 | 44.8 | 38.9 | 31.4 | 15.6 |
| CT Transformer, Unit 7 SPL | | | | 461.2 | 53.6 | 51.0 | 56.9 | 58.8 | 53.7 | 53.4 | 47.1 | 41.4 | 34.4 | 20.4 |
| ST Transformer, Unit 6 SPL | | | | 503.8 | 52.8 | 50.2 | 56.1 | 58.0 | 52.9 | 52.6 | 46.2 | 40.4 | 33.3 | 18.7 |
| ST Package, Unit 6 SPL | | | | 389.2 | 62.3 | 65.4 | 71.4 | 69.3 | 64.2 | 60.0 | 55.7 | 52.1 | 42.4 | 30.6 |
| Generator Package, Unit 6 SPL | | | | 418.4 | 61.6 | 64.8 | 70.8 | 68.7 | 63.6 | 59.3 | 55.0 | 51.4 | 41.6 | 29.3 |
| Major Pumps, Unit 5 SPL | | | | 532.6 | 55.8 | 50.7 | 56.6 | 54.5 | 53.4 | 52.1 | 50.7 | 48.9 | 45.6 | 33.5 |
| Major Pumps, Unit 6 SPL | | | | 481.0 | 59.9 | 54.6 | 60.6 | 58.5 | 57.3 | 56.0 | 54.7 | 52.9 | 49.9 | 38.6 |
| Major Pumps, Unit 7 SPL | | | | 310.5 | 61.2 | 55.4 | 61.4 | 59.3 | 58.2 | 57.1 | 55.8 | 54.4 | 52.0 | 43.3 |
| Gas Compressor 1 SPL | | | | 608.1 | 54.9 | 47.5 | 43.5 | 48.3 | 47.2 | 44.8 | 47.4 | 51.4 | 45.8 | 29.6 |
| Gas Compressor 2 SPL | | | | 637.7 | 54.4 | 47.1 | 43.0 | 47.9 | 46.7 | 44.4 | 46.9 | 50.9 | 45.2 | 28.6 |
| Fin Fan Cooler 1 SPL | | | | 608.6 | 42.2 | 49.5 | 49.5 | 48.3 | 45.2 | 39.8 | 36.4 | 28.4 | 21.8 | 6.6 |
| Fin Fan Cooler 2 SPL | | | | 638.2 | 41.7 | 49.1 | 49.0 | 47.9 | 44.7 | 39.4 | 35.9 | 27.9 | 21.1 | 5.5 |
| | | | | | | | | | | | | | | |
| | | | | **480.3** | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 5 | 9798 | 930 | 270 | 595.1 | | | | | | | | | | |
| Mitigated Lw | | | | | | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 595.1 | | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 5 | 14 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| **Stack, Unit 5 SPL** | | | | **595.1** | **56.5** | **64** | **60** | **64** | **61** | **55** | **47** | **37** | **24** | **-3** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 7 | 10087 | 988 | 270 | 411.7 | | | | | | | | | | |
| Mitigated Lw | | | | | **116.0** | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 411.7 | | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 9 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| **Stack, Unit 7 SPL** | | | | **411.7** | **60.0** | **67** | **63** | **67** | **65** | **58** | **50** | **41** | **29** | **5** |
| | | | | | | | | | | | | | | |
| Combustion Turbine (CT) Inlet, Unit 5 | 9798 | 1100 | 75 | 624.6 | | | | | | | | | | |
| Standard Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Mitigation - Silencer Upgrade | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Upgraded Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Distance Correction | | | | 624.6 | | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 5 | 14 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 5 | 5 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Combustion Turbine (CT) Inlet Unit 5 SPL** | | | | **624.6** | **37.5** | **48** | **52** | **45** | **44** | **33** | **18** | **13** | **17** | **4** |
| | | | | | | | | | | | | | | |
| CT Inlet, Unit 7 | 10087 | 1158 | 75 | 474.5 | | | | | | | | | | |
| Standard Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Mitigation - Silencer Upgrade | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 1/3rds way toward gas compressors

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Upgraded Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Distance Correction | | | | 474.5 | | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 4 | 11 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Inlet Unit 7 SPL** | | | | **474.5** | **40.3** | **51** | **55** | **48** | **46** | **35** | **26** | **21** | **26** | **15** |
| | | | | | | | | | | | | | | |
| CT Compartment, Unit 5 | 9798 | 1020 | 45 | 580.4 | | | | | | | | | | |
| Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Distance Correction | | | | 580.4 | | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 5 | 13 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Compartment Unit 5 SPL** | | | | **580.4** | **57.6** | **60** | **62** | **57** | **55** | **51** | **49** | **54** | **46** | **33** |
| | | | | | | | | | | | | | | |
| Combustion Turbine Compartment, Unit | 10087 | 1055 | 45 | 384.2 | | | | | | | | | | |
| Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Distance Correction | | | | 384.2 | | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 9 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Compartment Unit 7 SPL** | | | | **384.2** | **61.9** | **64** | **66** | **60** | **58** | **55** | **53** | **58** | **52** | **41** |
| | | | | | | | | | | | | | | |
| CT Generator, Unit 5 | 9798 | 1060 | 45 | 600.7 | | | | | | | | | | |
| Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Distance Correction | | | | 600.7 | | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 5 | 14 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Generator Unit 5 SPL** | | | | **600.7** | **57.1** | **57** | **57** | **55** | **54** | **54** | **52** | **51** | **43** | **25** |
| | | | | | | | | | | | | | | |
| CT Generator, Unit 7 | 10087 | 1120 | 45 | 439.0 | | | | | | | | | | |
| Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Distance Correction | | | | 439.0 | | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 4 | 10 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 5 | 5 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Generator Unit 7 SPL** | | | | **439.0** | **57.5** | **59** | **59** | **58** | **57** | **57** | **51** | **49** | **42** | **26** |
| | | | | | | | | | | | | | | |
| CT Exhaust Duct, Unit 5 | 9798 | 1000 | 38 | 570.8 | | | | | | | | | | |
| Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Distance Correction | | | | 570.8 | | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 5 | 13 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Exhaust Duct Unit 5 SPL** | | | | **570.8** | **53.4** | **64** | **61** | **59** | **52** | **50** | **48** | **45** | **42** | **30** |
| | | | | | | | | | | | | | | |
| CT Exhaust Duct, Unit 7 | 10087 | 1060 | 38 | 388.0 | | | | | | | | | | |
| Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Distance Correction | | | | 388.0 | | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 85 Feet West of Gas Compressors, Fin Fan Coolers

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Receptor Location | 10920 | 760 | 25 | | **60.9** | 64.1 | 63.1 | 62.1 | 59.0 | 54.8 | 53.4 | 55.6 | 52.1 | 43.8 |
| | | | | | | 24.7 | 36.9 | 46.0 | 50.4 | 51.6 | 53.4 | 56.8 | 53.1 | 42.7 |
| Summary | | | | | | | | | | | | | | |
| Stack, Unit 5 SPL | | | | 1161.0 | 38.1 | 45.8 | 41.7 | 45.4 | 43.1 | 36.4 | 27.6 | 16.8 | 1.8 | -33.7 |
| Stack, Unit 7 SPL | | | | 897.7 | 40.6 | 48.1 | 44.0 | 47.8 | 45.5 | 39.0 | 30.4 | 20.0 | 6.1 | -25.4 |
| Combustion Turbine (CT) Inlet Unit 5 SPL | | | | 1173.4 | 31.7 | 42.7 | 46.6 | 39.3 | 38.0 | 26.3 | 16.5 | 10.7 | 12.6 | -9.1 |
| CT Inlet Unit 7 SPL | | | | 924.6 | 34.0 | 44.8 | 48.7 | 41.5 | 40.3 | 28.8 | 19.1 | 13.6 | 16.6 | -1.3 |
| CT Compartment Unit 5 SPL | | | | 1151.9 | 29.9 | 33.8 | 35.7 | 30.5 | 28.2 | 24.5 | 21.7 | 25.9 | 15.9 | -6.4 |
| CT Compartment Unit 7 SPL | | | | 883.9 | 33.0 | 36.2 | 38.1 | 32.9 | 30.7 | 27.2 | 24.5 | 29.2 | 20.4 | 2.0 |
| CT Generator Unit 5 SPL | | | | 1161.6 | 39.1 | 39.8 | 39.7 | 38.4 | 37.1 | 36.4 | 34.6 | 31.8 | 21.8 | -4.7 |
| CT Generator Unit 7 SPL | | | | 907.7 | 41.8 | 42.0 | 41.9 | 40.7 | 39.4 | 38.9 | 37.2 | 34.9 | 25.9 | 3.3 |
| CT Exhaust Duct Unit 5 SPL | | | | 1147.5 | 36.1 | 47.9 | 44.8 | 42.5 | 35.2 | 33.6 | 30.7 | 26.9 | 21.0 | 0.7 |
| CT Exhaust Duct Unit 7 SPL | | | | 885.5 | 38.9 | 50.2 | 47.1 | 44.9 | 37.7 | 36.2 | 33.5 | 30.2 | 25.3 | 9.0 |
| HRSG Transition, Unit 5 SPL | | | | 1141.8 | 41.0 | 55.9 | 51.8 | 47.6 | 43.2 | 38.6 | 34.8 | 30.0 | 19.1 | -11.1 |
| HRSG Transition, Unit 7 SPL | | | | 877.6 | 21.8 | 54.3 | 42.2 | 26.0 | 13.8 | 7.3 | 6.6 | 16.3 | 4.5 | -27.7 |
| HRSG Boiler, Unit 5 SPL | | | | 1138.1 | 31.8 | 45.0 | 40.8 | 37.6 | 32.3 | 29.7 | 27.8 | 16.1 | 6.1 | -25.0 |
| HRSG Boiler, Unit 7 SPL | | | | 868.0 | 34.6 | 47.4 | 43.3 | 40.1 | 34.9 | 32.4 | 30.7 | 19.4 | 10.6 | -16.4 |
| CT Transformer, Unit 5 SPL | | | | 1121.1 | 38.9 | 37.1 | 43.0 | 44.8 | 39.4 | 38.8 | 32.0 | 25.2 | 15.4 | -8.5 |
| CT Transformer, Unit 7 SPL | | | | 881.3 | 41.3 | 39.2 | 45.2 | 47.0 | 41.7 | 41.2 | 34.6 | 28.2 | 19.4 | -0.9 |
| ST Transformer, Unit 6 SPL | | | | 996.1 | 40.1 | 38.1 | 44.1 | 45.8 | 40.6 | 40.0 | 33.3 | 26.7 | 17.4 | -4.6 |
| ST Package, Unit 6 SPL | | | | 946.7 | 37.7 | 41.6 | 47.5 | 45.3 | 40.0 | 35.5 | 30.8 | 26.4 | 14.3 | -6.0 |
| Generator Package, Unit 6 SPL | | | | 957.5 | 37.6 | 41.5 | 47.4 | 45.2 | 39.9 | 35.4 | 30.7 | 26.2 | 14.1 | -6.3 |
| Major Pumps, Unit 5 SPL | | | | 1130.7 | 29.6 | 26.0 | 31.9 | 29.7 | 28.3 | 26.7 | 24.9 | 22.1 | 16.2 | -4.8 |
| Major Pumps, Unit 6 SPL | | | | 1028.8 | 33.7 | 29.9 | 35.8 | 33.6 | 32.3 | 30.7 | 28.9 | 26.3 | 20.9 | 1.4 |
| Major Pumps, Unit 7 SPL | | | | 856.7 | 32.8 | 28.5 | 34.4 | 32.2 | 31.0 | 29.5 | 27.9 | 25.5 | 20.8 | 3.9 |
| Gas Compressor 1 SPL | | | | 86.4 | 56.1 | 46.6 | 42.6 | 47.6 | 46.5 | 44.5 | 47.4 | 52.3 | 48.9 | 40.6 |
| Gas Compressor 2 SPL | | | | 86.4 | 56.1 | 46.6 | 42.6 | 47.6 | 46.5 | 44.5 | 47.4 | 52.3 | 48.9 | 40.6 |
| Fin Fan Cooler 1 SPL | | | | 89.7 | 51.6 | 58.3 | 58.3 | 57.2 | 54.2 | 49.2 | 46.1 | 39.0 | 34.6 | 27.2 |
| Fin Fan Cooler 2 SPL | | | | 89.7 | 51.6 | 58.3 | 58.3 | 57.2 | 54.2 | 49.2 | 46.1 | 39.0 | 34.6 | 27.2 |
| | | | | | | | | | | | | | | |
| | | | | **1010.9** | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 5 | 9798 | 930 | 270 | 1161.0 | | | | | | | | | | |
| Mitigated Lw | | | | | | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 1161.0 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 27 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| Silencer (Assume -12 2BA) | | | | | | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| **Stack, Unit 5 SPL** | | | | **1161.0** | **38.1** | **46** | **42** | **45** | **43** | **36** | **28** | **17** | **2** | **-34** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 7 | 10087 | 988 | 270 | 897.7 | | | | | | | | | | |
| Mitigated Lw | | | | | **116.0** | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 897.7 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 21 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| Silencer (Assume -12 2BA) | | | | | | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| **Stack, Unit 7 SPL** | | | | **897.7** | **40.6** | **48** | **44** | **48** | **46** | **39** | **30** | **20** | **6** | **-25** |
| | | | | | | | | | | | | | | |
| Combustion Turbine (CT) Inlet, Unit 5 | 9798 | 1100 | 75 | 1173.4 | | | | | | | | | | |
| Standard Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Mitigation - Silencer Upgrade | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Upgraded Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Distance Correction | | | | 1173.4 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 27 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Combustion Turbine (CT) Inlet Unit 5 SPL** | | | | **1173.4** | **31.7** | **43** | **47** | **39** | **38** | **26** | **16** | **11** | **13** | **-9** |
| | | | | | | | | | | | | | | |
| CT Inlet, Unit 7 | 10087 | 1158 | 75 | 924.6 | | | | | | | | | | |

NRG El Segundo Repower Project
Sound Level Calculation
Worst-case residential view along 45th Street, Manhattan Beach

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Receptor Location | 12234 | 1556 | 115 | | **41.8** | 52.9 | 50.6 | 48.6 | 44.2 | 40.2 | 34.8 | 30.3 | 18.4 | -13.3 |
| | | | | | | 13.5 | 24.4 | 32.5 | 35.6 | 37.0 | 34.8 | 31.5 | 19.4 | -14.4 |
| Summary | | | | | | | | | | | | | | |
| Stack, Unit 5 SPL | | | | 2519.9 | 29.9 | 38.7 | 34.5 | 38.0 | 35.2 | 27.9 | 18.0 | 5.1 | -15.8 | -71.8 |
| Stack, Unit 7 SPL | | | | 2226.3 | 31.3 | 39.9 | 35.7 | 39.2 | 36.6 | 29.3 | 19.7 | 7.2 | -12.4 | -63.9 |
| Combustion Turbine (CT) Inlet Unit 5 SPL | | | | 2478.6 | 24.0 | 35.9 | 39.7 | 32.2 | 30.4 | 18.1 | 7.2 | -0.6 | -4.3 | -45.7 |
| CT Inlet Unit 7 SPL | | | | 2183.9 | 25.4 | 37.1 | 40.9 | 33.4 | 31.8 | 19.6 | 8.9 | 1.6 | -0.9 | -37.8 |
| CT Compartment Unit 5 SPL | | | | 2495.3 | 19.7 | 26.8 | 28.6 | 23.1 | 20.3 | 16.0 | 12.1 | 14.3 | -1.5 | -44.1 |
| CT Compartment Unit 7 SPL | | | | 2205.8 | 21.4 | 28.0 | 29.8 | 24.3 | 21.7 | 17.4 | 13.8 | 16.4 | 1.9 | -36.4 |
| CT Generator Unit 5 SPL | | | | 2487.0 | 29.7 | 32.9 | 32.6 | 31.1 | 29.4 | 28.0 | 25.1 | 20.3 | 4.6 | -41.9 |
| CT Generator Unit 7 SPL | | | | 2191.9 | 31.4 | 34.0 | 33.8 | 32.4 | 30.7 | 29.5 | 26.9 | 22.5 | 8.0 | -34.0 |
| CT Exhaust Duct Unit 5 SPL | | | | 2499.8 | 26.9 | 40.8 | 37.6 | 35.1 | 27.3 | 25.0 | 21.1 | 15.2 | 3.4 | -37.2 |
| CT Exhaust Duct Unit 7 SPL | | | | 2204.9 | 28.5 | 42.0 | 38.8 | 36.3 | 28.7 | 26.4 | 22.8 | 17.4 | 6.9 | -29.3 |
| HRSG Transition, Unit 5 SPL | | | | 2506.3 | 32.2 | 48.8 | 44.6 | 40.0 | 35.3 | 29.9 | 25.0 | 18.2 | 1.4 | -49.4 |
| HRSG Transition, Unit 7 SPL | | | | 2210.3 | 11.9 | 45.9 | 33.7 | 17.3 | 4.6 | -2.6 | -4.2 | 3.4 | -14.2 | -66.5 |
| HRSG Boiler, Unit 5 SPL | | | | 2515.2 | 22.8 | 37.8 | 33.5 | 30.0 | 24.3 | 20.9 | 18.0 | 4.1 | -11.7 | -63.6 |
| HRSG Boiler, Unit 7 SPL | | | | 2220.9 | 24.3 | 38.9 | 34.7 | 31.2 | 25.6 | 22.4 | 19.7 | 6.3 | -8.3 | -55.8 |
| CT Transformer, Unit 5 SPL | | | | 2421.6 | 30.3 | 30.1 | 35.9 | 37.4 | 31.7 | 30.3 | 22.5 | 13.8 | -1.7 | -45.1 |
| CT Transformer, Unit 7 SPL | | | | 2130.6 | 31.8 | 31.3 | 37.1 | 38.6 | 33.0 | 31.8 | 24.2 | 16.0 | 1.8 | -37.3 |
| ST Transformer, Unit 6 SPL | | | | 2273.0 | 31.1 | 30.7 | 36.5 | 38.0 | 32.3 | 31.1 | 23.4 | 14.9 | 0.1 | -41.2 |
| ST Package, Unit 6 SPL | | | | 2307.6 | 28.1 | 33.5 | 39.3 | 36.9 | 31.2 | 25.9 | 20.2 | 13.6 | -4.3 | -45.1 |
| Generator Package, Unit 6 SPL | | | | 2297.5 | 28.1 | 33.6 | 39.4 | 36.9 | 31.2 | 26.0 | 20.2 | 13.7 | -4.2 | -44.8 |
| Major Pumps, Unit 5 SPL | | | | 2524.2 | 19.7 | 18.7 | 24.5 | 22.0 | 20.2 | 17.8 | 14.9 | 10.1 | -1.8 | -43.9 |
| Major Pumps, Unit 6 SPL | | | | 2362.6 | 23.6 | 22.3 | 28.1 | 25.6 | 23.9 | 21.6 | 18.9 | 14.2 | 3.0 | -36.6 |
| Major Pumps, Unit 7 SPL | | | | 2229.8 | 21.3 | 19.9 | 25.7 | 23.2 | 21.5 | 19.3 | 16.6 | 12.2 | 1.6 | -36.0 |
| Gas Compressor 1 SPL | | | | 1509.7 | 25.8 | 21.4 | 17.3 | 22.0 | 20.5 | 17.7 | 19.6 | 22.2 | 12.7 | -17.0 |
| Gas Compressor 2 SPL | | | | 1483.4 | 26.1 | 21.6 | 17.4 | 22.1 | 20.7 | 17.9 | 19.8 | 22.5 | 13.1 | -16.3 |
| Fin Fan Cooler 1 SPL | | | | 1508.7 | 25.0 | 33.4 | 33.3 | 32.0 | 28.5 | 22.7 | 18.6 | 9.2 | -1.3 | -30.0 |
| Fin Fan Cooler 2 SPL | | | | 1482.3 | 25.2 | 33.6 | 33.4 | 32.1 | 28.7 | 22.9 | 18.8 | 9.5 | -0.9 | -29.2 |
| | | | | | | | | | | | | | | |
| | | | | **2340.6** | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 5 | 9798 | 930 | 270 | 2519.9 | | | | | | | | | | |
| Mitigated Lw | | | | | | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 2519.9 | | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 9 | 20 | 58 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| Silencer (Assume -12 2BA) | | | | | | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| **Stack, Unit 5 SPL** | | | | **2519.9** | **29.9** | **39** | **35** | **38** | **35** | **28** | **18** | **5** | **-16** | **-72** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 7 | 10087 | 988 | 270 | 2226.3 | | | | | | | | | | |
| Mitigated Lw | | | | | **116.0** | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 2226.3 | | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 8 | 18 | 51 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| Silencer (Assume -12 2BA) | | | | | | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| **Stack, Unit 7 SPL** | | | | **2226.3** | **31.3** | **40** | **36** | **39** | **37** | **29** | **20** | **7** | **-12** | **-64** |
| | | | | | | | | | | | | | | |
| Combustion Turbine (CT) Inlet, Unit 5 | 9798 | 1100 | 75 | 2478.6 | | | | | | | | | | |
| Standard Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Mitigation - Silencer Upgrade | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Upgraded Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Distance Correction | | | | 2478.6 | | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 9 | 20 | 57 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Combustion Turbine (CT) Inlet Unit 5 SPL** | | | | **2478.6** | **24.0** | **36** | **40** | **32** | **30** | **18** | **7** | **-1** | **-4** | **-46** |
| | | | | | | | | | | | | | | |
| CT Inlet, Unit 7 | 10087 | 1158 | 75 | 2183.9 | | | | | | | | | | |
| Standard Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Mitigation - Silencer Upgrade | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Upgraded Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Distance Correction | | | | 2183.9 | | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 270 Feet West of Nominal Accoustic Center

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Receptor Location | 10000 | 730 | 25 | | **61.4** | 70.7 | 68.2 | 66.2 | 62.3 | 59.0 | 55.3 | 52.4 | 47.2 | 37.2 |
| | | | | | | 31.3 | 42.0 | 50.1 | 53.7 | 55.8 | 55.3 | 53.6 | 48.2 | 36.1 |
| Summary | | | | | | | | | | | | | | |
| Stack, Unit 5 SPL | | | | 375.3 | 48.8 | 55.8 | 51.7 | 55.7 | 53.5 | 47.3 | 39.1 | 29.5 | 17.9 | -5.8 |
| Stack, Unit 7 SPL | | | | 366.3 | 49.0 | 56.0 | 51.9 | 55.9 | 53.8 | 47.6 | 39.3 | 29.7 | 18.1 | -5.4 |
| Combustion Turbine (CT) Inlet Unit 5 SPL | | | | 424.5 | 41.4 | 51.7 | 55.6 | 48.6 | 47.4 | 36.2 | 26.9 | 22.2 | 27.4 | 17.0 |
| CT Inlet Unit 7 SPL | | | | 439.6 | 41.1 | 51.4 | 55.3 | 48.2 | 47.1 | 35.9 | 26.5 | 21.9 | 27.0 | 16.3 |
| CT Compartment Unit 5 SPL | | | | 354.0 | 42.7 | 44.3 | 46.2 | 41.2 | 39.1 | 35.9 | 33.6 | 39.1 | 32.5 | 22.2 |
| CT Compartment Unit 7 SPL | | | | 337.0 | 43.2 | 44.7 | 46.7 | 41.6 | 39.5 | 36.3 | 34.1 | 39.6 | 33.1 | 23.0 |
| CT Generator Unit 5 SPL | | | | 387.4 | 50.5 | 49.5 | 49.4 | 48.4 | 47.3 | 47.0 | 45.8 | 44.2 | 37.5 | 22.6 |
| CT Generator Unit 7 SPL | | | | 400.1 | 50.2 | 49.2 | 49.2 | 48.1 | 47.0 | 46.7 | 45.4 | 43.8 | 37.1 | 22.1 |
| CT Exhaust Duct Unit 5 SPL | | | | 337.5 | 48.6 | 58.7 | 55.7 | 53.6 | 46.5 | 45.3 | 43.1 | 40.5 | 38.1 | 30.0 |
| CT Exhaust Duct Unit 7 SPL | | | | 341.5 | 48.5 | 58.6 | 55.6 | 53.5 | 46.4 | 45.2 | 42.9 | 40.4 | 37.9 | 29.8 |
| HRSG Transition, Unit 5 SPL | | | | 314.7 | 53.6 | 67.3 | 63.3 | 59.2 | 55.1 | 50.9 | 47.7 | 44.2 | 36.9 | 19.1 |
| HRSG Transition, Unit 7 SPL | | | | 318.1 | 31.7 | 63.2 | 51.2 | 35.1 | 23.0 | 16.8 | 16.6 | 27.1 | 17.7 | -6.0 |
| HRSG Boiler, Unit 5 SPL | | | | 297.3 | 44.8 | 56.8 | 52.8 | 49.7 | 44.6 | 42.5 | 41.2 | 30.8 | 24.5 | 6.0 |
| HRSG Boiler, Unit 7 SPL | | | | 285.8 | 45.2 | 57.2 | 53.1 | 50.1 | 45.0 | 42.8 | 41.6 | 31.2 | 24.9 | 6.6 |
| CT Transformer, Unit 5 SPL | | | | 407.0 | 48.8 | 46.1 | 52.0 | 53.9 | 48.8 | 48.6 | 42.3 | 36.7 | 29.9 | 16.8 |
| CT Transformer, Unit 7 SPL | | | | 462.0 | 47.6 | 44.9 | 50.9 | 52.8 | 47.7 | 47.4 | 41.1 | 35.4 | 28.4 | 14.4 |
| ST Transformer, Unit 6 SPL | | | | 411.8 | 48.7 | 46.0 | 51.9 | 53.8 | 48.7 | 48.5 | 42.2 | 36.5 | 29.8 | 16.6 |
| ST Package, Unit 6 SPL | | | | 252.9 | 50.3 | 53.2 | 59.2 | 57.1 | 52.1 | 47.9 | 43.7 | 40.4 | 31.3 | 21.5 |
| Generator Package, Unit 6 SPL | | | | 295.4 | 48.9 | 51.9 | 57.8 | 55.8 | 50.7 | 46.5 | 42.3 | 38.8 | 29.6 | 19.1 |
| Major Pumps, Unit 5 SPL | | | | 264.1 | 44.8 | 38.8 | 44.8 | 42.8 | 41.7 | 40.5 | 39.3 | 37.9 | 35.8 | 27.8 |
| Major Pumps, Unit 6 SPL | | | | 317.8 | 46.0 | 40.2 | 46.2 | 44.1 | 43.0 | 41.9 | 40.6 | 39.1 | 36.8 | 28.0 |
| Major Pumps, Unit 7 SPL | | | | 246.0 | 45.5 | 39.5 | 45.4 | 43.4 | 42.3 | 41.2 | 40.0 | 38.6 | 36.6 | 28.9 |
| Gas Compressor 1 SPL | | | | 912.3 | 32.2 | 25.9 | 21.8 | 26.7 | 25.4 | 22.9 | 25.2 | 28.8 | 21.9 | 1.1 |
| Gas Compressor 2 SPL | | | | 942.1 | 31.9 | 25.6 | 21.6 | 26.4 | 25.1 | 22.6 | 24.9 | 28.4 | 21.3 | 0.1 |
| Fin Fan Cooler 1 SPL | | | | 912.6 | 30.2 | 37.9 | 37.8 | 36.7 | 33.4 | 27.9 | 24.2 | 15.8 | 7.9 | -11.9 |
| Fin Fan Cooler 2 SPL | | | | 942.4 | 29.9 | 37.6 | 37.6 | 36.4 | 33.1 | 27.6 | 23.9 | 15.4 | 7.3 | -12.9 |
| | | | | | | | | | | | | | | |
| | | | | **347.1** | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 5 | 9798 | 930 | 270 | 375.3 | | | | | | | | | | |
| Mitigated Lw | | | | | | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 375.3 | | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 9 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| Silencer (Assume -12 2BA) | | | | | | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| **Stack, Unit 5 SPL** | | | | **375.3** | **48.8** | **56** | **52** | **56** | **54** | **47** | **39** | **29** | **18** | **-6** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 7 | 10087 | 988 | 270 | 366.3 | | | | | | | | | | |
| Mitigated Lw | | | | | **116.0** | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 366.3 | | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 8 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| Silencer (Assume -12 2BA) | | | | | | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| **Stack, Unit 7 SPL** | | | | **366.3** | **49.0** | **56** | **52** | **56** | **54** | **48** | **39** | **30** | **18** | **-5** |
| | | | | | | | | | | | | | | |
| Combustion Turbine (CT) Inlet, Unit 5 | 9798 | 1100 | 75 | 424.5 | | | | | | | | | | |
| Standard Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Mitigation - Silencer Upgrade | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Upgraded Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Distance Correction | | | | 424.5 | | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 10 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Combustion Turbine (CT) Inlet Unit 5 SPL** | | | | **424.5** | **41.4** | **52** | **56** | **49** | **47** | **36** | **27** | **22** | **27** | **17** |
| | | | | | | | | | | | | | | |
| CT Inlet, Unit 7 | 10087 | 1158 | 75 | 439.6 | | | | | | | | | | |
| Standard Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Mitigation - Silencer Upgrade | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Upgraded Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Distance Correction | | | | 439.6 | | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 270 Feet West of Nominal Accoustic Center

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Receptor Location | 10000 | 730 | 25 | | **61.4** | 70.7 | 68.2 | 66.2 | 62.3 | 59.0 | 55.3 | 52.4 | 47.2 | 37.2 |
| | | | | | | 31.3 | 42.0 | 50.1 | 53.7 | 55.8 | 55.3 | 53.6 | 48.2 | 36.1 |
| Summary | | | | | | | | | | | | | | |
| Stack, Unit 5 SPL | | | | 375.3 | 48.8 | 55.8 | 51.7 | 55.7 | 53.5 | 47.3 | 39.1 | 29.5 | 17.9 | -5.8 |
| Stack, Unit 7 SPL | | | | 366.3 | 49.0 | 56.0 | 51.9 | 55.9 | 53.8 | 47.6 | 39.3 | 29.7 | 18.1 | -5.4 |
| Combustion Turbine (CT) Inlet Unit 5 SPL | | | | 424.5 | 41.4 | 51.7 | 55.6 | 48.6 | 47.4 | 36.2 | 26.9 | 22.2 | 27.4 | 17.0 |
| CT Inlet Unit 7 SPL | | | | 439.6 | 41.1 | 51.4 | 55.3 | 48.2 | 47.1 | 35.9 | 26.5 | 21.9 | 27.0 | 16.3 |
| CT Compartment Unit 5 SPL | | | | 354.0 | 42.7 | 44.3 | 46.2 | 41.2 | 39.1 | 35.9 | 33.6 | 39.1 | 32.5 | 22.2 |
| CT Compartment Unit 7 SPL | | | | 337.0 | 43.2 | 44.7 | 46.7 | 41.6 | 39.5 | 36.3 | 34.1 | 39.6 | 33.1 | 23.0 |
| CT Generator Unit 5 SPL | | | | 387.4 | 50.5 | 49.5 | 49.4 | 48.4 | 47.3 | 47.0 | 45.8 | 44.2 | 37.5 | 22.6 |
| CT Generator Unit 7 SPL | | | | 400.1 | 50.2 | 49.2 | 49.2 | 48.1 | 47.0 | 46.7 | 45.4 | 43.8 | 37.1 | 22.1 |
| CT Exhaust Duct Unit 5 SPL | | | | 337.5 | 48.6 | 58.7 | 55.7 | 53.6 | 46.5 | 45.3 | 43.1 | 40.5 | 38.1 | 30.0 |
| CT Exhaust Duct Unit 7 SPL | | | | 341.5 | 48.5 | 58.6 | 55.6 | 53.5 | 46.4 | 45.2 | 42.9 | 40.4 | 37.9 | 29.8 |
| HRSG Transition, Unit 5 SPL | | | | 314.7 | 53.6 | 67.3 | 63.3 | 59.2 | 55.1 | 50.9 | 47.7 | 44.2 | 36.9 | 19.1 |
| HRSG Transition, Unit 7 SPL | | | | 318.1 | 31.7 | 63.2 | 51.2 | 35.1 | 23.0 | 16.8 | 16.6 | 27.1 | 17.7 | -6.0 |
| HRSG Boiler, Unit 5 SPL | | | | 297.3 | 44.8 | 56.8 | 52.8 | 49.7 | 44.6 | 42.5 | 41.2 | 30.8 | 24.5 | 6.0 |
| HRSG Boiler, Unit 7 SPL | | | | 285.8 | 45.2 | 57.2 | 53.1 | 50.1 | 45.0 | 42.8 | 41.6 | 31.2 | 24.9 | 6.6 |
| CT Transformer, Unit 5 SPL | | | | 407.0 | 48.8 | 46.1 | 52.0 | 53.9 | 48.8 | 48.6 | 42.3 | 36.7 | 29.9 | 16.8 |
| CT Transformer, Unit 7 SPL | | | | 462.0 | 47.6 | 44.9 | 50.9 | 52.8 | 47.7 | 47.4 | 41.1 | 35.4 | 28.4 | 14.4 |
| ST Transformer, Unit 6 SPL | | | | 411.8 | 48.7 | 46.0 | 51.9 | 53.8 | 48.7 | 48.5 | 42.2 | 36.5 | 29.8 | 16.6 |
| ST Package, Unit 6 SPL | | | | 252.9 | 50.3 | 53.2 | 59.2 | 57.1 | 52.1 | 47.9 | 43.7 | 40.4 | 31.3 | 21.5 |
| Generator Package, Unit 6 SPL | | | | 295.4 | 48.9 | 51.9 | 57.8 | 55.8 | 50.7 | 46.5 | 42.3 | 38.8 | 29.6 | 19.1 |
| Major Pumps, Unit 5 SPL | | | | 264.1 | 44.8 | 38.8 | 44.8 | 42.8 | 41.7 | 40.5 | 39.3 | 37.9 | 35.8 | 27.8 |
| Major Pumps, Unit 6 SPL | | | | 317.8 | 46.0 | 40.2 | 46.2 | 44.1 | 43.0 | 41.9 | 40.6 | 39.1 | 36.8 | 28.0 |
| Major Pumps, Unit 7 SPL | | | | 246.0 | 45.5 | 39.5 | 45.4 | 43.4 | 42.3 | 41.2 | 40.0 | 38.6 | 36.6 | 28.9 |
| Gas Compressor 1 SPL | | | | 912.3 | 32.2 | 25.9 | 21.8 | 26.7 | 25.4 | 22.9 | 25.2 | 28.8 | 21.9 | 1.1 |
| Gas Compressor 2 SPL | | | | 942.1 | 31.9 | 25.6 | 21.6 | 26.4 | 25.1 | 22.6 | 24.9 | 28.4 | 21.3 | 0.1 |
| Fin Fan Cooler 1 SPL | | | | 912.6 | 30.2 | 37.9 | 37.8 | 36.7 | 33.4 | 27.9 | 24.2 | 15.8 | 7.9 | -11.9 |
| Fin Fan Cooler 2 SPL | | | | 942.4 | 29.9 | 37.6 | 37.6 | 36.4 | 33.1 | 27.6 | 23.9 | 15.4 | 7.3 | -12.9 |
| | | | | | | | | | | | | | | |
| | | | | **347.1** | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 5 | 9798 | 930 | 270 | 375.3 | | | | | | | | | | |
| Mitigated Lw | | | | | | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 375.3 | | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 9 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| Silencer (Assume -12 2BA) | | | | | | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| **Stack, Unit 5 SPL** | | | | **375.3** | **48.8** | **56** | **52** | **56** | **54** | **47** | **39** | **29** | **18** | **-6** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 7 | 10087 | 988 | 270 | 366.3 | | | | | | | | | | |
| Mitigated Lw | | | | | **116.0** | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 366.3 | | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 8 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| Silencer (Assume -12 2BA) | | | | | | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| **Stack, Unit 7 SPL** | | | | **366.3** | **49.0** | **56** | **52** | **56** | **54** | **48** | **39** | **30** | **18** | **-5** |
| | | | | | | | | | | | | | | |
| Combustion Turbine (CT) Inlet, Unit 5 | 9798 | 1100 | 75 | 424.5 | | | | | | | | | | |
| Standard Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Mitigation - Silencer Upgrade | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Upgraded Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Distance Correction | | | | 424.5 | | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 10 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Combustion Turbine (CT) Inlet Unit 5 SPL** | | | | **424.5** | **41.4** | **52** | **56** | **49** | **47** | **36** | **27** | **22** | **27** | **17** |
| | | | | | | | | | | | | | | |
| CT Inlet, Unit 7 | 10087 | 1158 | 75 | 439.6 | | | | | | | | | | |
| Standard Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Mitigation - Silencer Upgrade | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Upgraded Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Distance Correction | | | | 439.6 | | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 |

NRG El Segundo Repower Project
Sound Level Calculation
Closest Residence along 45th Street, Manhattan Beach

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Receptor Location | 12234 | 1006 | 50 | | **42.2** | 53.2 | 50.8 | 48.8 | 44.5 | 40.4 | 35.2 | 31.2 | 20.1 | -8.4 |
| | | | | | | 13.8 | 24.6 | 32.7 | 35.9 | 37.2 | 35.2 | 32.4 | 21.1 | -9.5 |
| Summary | | | | | | | | | | | | | | |
| Stack, Unit 5 SPL | | | | 2447.1 | 30.2 | 39.0 | 34.8 | 38.3 | 35.6 | 28.2 | 18.4 | 5.6 | -15.0 | -69.8 |
| Stack, Unit 7 SPL | | | | 2158.3 | 31.6 | 40.2 | 36.0 | 39.5 | 36.9 | 29.7 | 20.1 | 7.8 | -11.6 | -62.1 |
| Combustion Turbine (CT) Inlet Unit 5 SPL | | | | 2437.9 | 24.2 | 36.0 | 39.8 | 32.3 | 30.6 | 18.3 | 7.4 | -0.3 | -3.9 | -44.6 |
| CT Inlet Unit 7 SPL | | | | 2152.5 | 25.5 | 37.2 | 41.0 | 33.5 | 31.9 | 19.7 | 9.1 | 1.8 | -0.5 | -36.9 |
| CT Compartment Unit 5 SPL | | | | 2436.0 | 20.0 | 27.0 | 28.8 | 23.3 | 20.6 | 16.3 | 12.4 | 14.7 | -0.8 | -42.5 |
| CT Compartment Unit 7 SPL | | | | 2147.6 | 21.8 | 28.2 | 30.0 | 24.6 | 21.9 | 17.8 | 14.1 | 16.8 | 2.6 | -34.8 |
| CT Generator Unit 5 SPL | | | | 2436.6 | 30.0 | 33.0 | 32.8 | 31.3 | 29.6 | 28.3 | 25.4 | 20.7 | 5.2 | -40.5 |
| CT Generator Unit 7 SPL | | | | 2150.0 | 31.6 | 34.2 | 34.0 | 32.6 | 30.9 | 29.7 | 27.1 | 22.8 | 8.5 | -32.9 |
| CT Exhaust Duct Unit 5 SPL | | | | 2436.0 | 27.3 | 41.0 | 37.8 | 35.3 | 27.6 | 25.3 | 21.4 | 15.7 | 4.2 | -35.5 |
| CT Exhaust Duct Unit 7 SPL | | | | 2147.7 | 28.8 | 42.2 | 39.0 | 36.6 | 28.9 | 26.8 | 23.1 | 17.8 | 7.6 | -27.8 |
| HRSG Transition, Unit 5 SPL | | | | 2436.3 | 32.6 | 49.0 | 44.8 | 40.3 | 35.6 | 30.3 | 25.4 | 18.7 | 2.2 | -47.5 |
| HRSG Transition, Unit 7 SPL | | | | 2147.2 | 12.2 | 46.2 | 34.0 | 17.6 | 4.9 | -2.2 | -3.9 | 3.8 | -13.4 | -64.8 |
| HRSG Boiler, Unit 5 SPL | | | | 2438.0 | 23.2 | 38.0 | 33.8 | 30.3 | 24.6 | 21.3 | 18.4 | 4.7 | -10.9 | -61.6 |
| HRSG Boiler, Unit 7 SPL | | | | 2148.0 | 24.7 | 39.2 | 35.0 | 31.6 | 25.9 | 22.8 | 20.1 | 6.8 | -7.4 | -53.8 |
| CT Transformer, Unit 5 SPL | | | | 2381.3 | 30.5 | 30.3 | 36.0 | 37.5 | 31.8 | 30.5 | 22.7 | 14.1 | -1.2 | -44.1 |
| CT Transformer, Unit 7 SPL | | | | 2100.4 | 32.0 | 31.4 | 37.2 | 38.8 | 33.2 | 32.0 | 24.4 | 16.2 | 2.1 | -36.5 |
| ST Transformer, Unit 6 SPL | | | | 2238.1 | 31.2 | 30.8 | 36.6 | 38.2 | 32.5 | 31.3 | 23.6 | 15.2 | 0.5 | -40.2 |
| ST Package, Unit 6 SPL | | | | 2234.2 | 28.5 | 33.8 | 39.6 | 37.2 | 31.5 | 26.3 | 20.6 | 14.2 | -3.5 | -43.1 |
| Generator Package, Unit 6 SPL | | | | 2234.1 | 28.5 | 33.8 | 39.6 | 37.2 | 31.5 | 26.3 | 20.6 | 14.2 | -3.5 | -43.1 |
| Major Pumps, Unit 5 SPL | | | | 2438.4 | 20.2 | 19.0 | 24.8 | 22.3 | 20.6 | 18.3 | 15.4 | 10.7 | -0.9 | -41.6 |
| Major Pumps, Unit 6 SPL | | | | 2304.3 | 23.9 | 22.6 | 28.4 | 25.9 | 24.2 | 21.9 | 19.2 | 14.7 | 3.7 | -35.0 |
| Major Pumps, Unit 7 SPL | | | | 2147.6 | 21.8 | 20.2 | 26.0 | 23.6 | 21.9 | 19.8 | 17.1 | 12.8 | 2.6 | -33.8 |
| Gas Compressor 1 SPL | | | | 1338.9 | 27.4 | 22.5 | 18.4 | 23.1 | 21.7 | 19.0 | 21.0 | 23.9 | 15.1 | -12.0 |
| Gas Compressor 2 SPL | | | | 1309.1 | 27.7 | 22.7 | 18.6 | 23.3 | 21.9 | 19.2 | 21.2 | 24.2 | 15.6 | -11.2 |
| Fin Fan Cooler 1 SPL | | | | 1338.7 | 26.3 | 34.5 | 34.4 | 33.1 | 29.7 | 24.0 | 20.0 | 10.9 | 1.1 | -25.0 |
| Fin Fan Cooler 2 SPL | | | | 1308.9 | 26.5 | 34.7 | 34.6 | 33.3 | 29.9 | 24.2 | 20.2 | 11.2 | 1.6 | -24.2 |
| | | | | | | | | | | | | | | |
| | | | | **2281.7** | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 5 | 9798 | 930 | 270 | 2447.1 | | | | | | | | | | |
| Mitigated Lw | | | | | | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 2447.1 | | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 9 | 20 | 56 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| Silencer (Assume -12 2BA) | | | | | | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| **Stack, Unit 5 SPL** | | | | **2447.1** | **30.2** | **39** | **35** | **38** | **36** | **28** | **18** | **6** | **-15** | **-70** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 7 | 10087 | 988 | 270 | 2158.3 | | | | | | | | | | |
| Mitigated Lw | | | | | **116.0** | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 2158.3 | | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 1 | 1 | 2 | 3 | 5 | 8 | 17 | 50 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| Silencer (Assume -12 2BA) | | | | | | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| **Stack, Unit 7 SPL** | | | | **2158.3** | **31.6** | **40** | **36** | **40** | **37** | **30** | **20** | **8** | **-12** | **-62** |
| | | | | | | | | | | | | | | |
| Combustion Turbine (CT) Inlet, Unit 5 | 9798 | 1100 | 75 | 2437.9 | | | | | | | | | | |
| Standard Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Mitigation - Silencer Upgrade | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Upgraded Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Distance Correction | | | | 2437.9 | | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 9 | 19 | 56 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Combustion Turbine (CT) Inlet Unit 5 SPL** | | | | **2437.9** | **24.2** | **36** | **40** | **32** | **31** | **18** | **7** | **0** | **-4** | **-45** |
| | | | | | | | | | | | | | | |
| CT Inlet, Unit 7 | 10087 | 1158 | 75 | 2152.5 | | | | | | | | | | |
| Standard Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Mitigation - Silencer Upgrade | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Upgraded Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Distance Correction | | | | 2152.5 | | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 85 Feet West of Gas Compressors, Fin Fan Coolers

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Receptor Location | 10920 | 760 | 25 | | **60.9** | 64.1 | 63.1 | 62.1 | 59.0 | 54.8 | 53.4 | 55.6 | 52.1 | 43.8 |
| | | | | | | 24.7 | 36.9 | 46.0 | 50.4 | 51.6 | 53.4 | 56.8 | 53.1 | 42.7 |
| Summary | | | | | | | | | | | | | | |
| Stack, Unit 5 SPL | | | | 1161.0 | 38.1 | 45.8 | 41.7 | 45.4 | 43.1 | 36.4 | 27.6 | 16.8 | 1.8 | -33.7 |
| Stack, Unit 7 SPL | | | | 897.7 | 40.6 | 48.1 | 44.0 | 47.8 | 45.5 | 39.0 | 30.4 | 20.0 | 6.1 | -25.4 |
| Combustion Turbine (CT) Inlet Unit 5 SPL | | | | 1173.4 | 31.7 | 42.7 | 46.6 | 39.3 | 38.0 | 26.3 | 16.5 | 10.7 | 12.6 | -9.1 |
| CT Inlet Unit 7 SPL | | | | 924.6 | 34.0 | 44.8 | 48.7 | 41.5 | 40.3 | 28.8 | 19.1 | 13.6 | 16.6 | -1.3 |
| CT Compartment Unit 5 SPL | | | | 1151.9 | 29.9 | 33.8 | 35.7 | 30.5 | 28.2 | 24.5 | 21.7 | 25.9 | 15.9 | -6.4 |
| CT Compartment Unit 7 SPL | | | | 883.9 | 33.0 | 36.2 | 38.1 | 32.9 | 30.7 | 27.2 | 24.5 | 29.2 | 20.4 | 2.0 |
| CT Generator Unit 5 SPL | | | | 1161.6 | 39.1 | 39.8 | 39.7 | 38.4 | 37.1 | 36.4 | 34.6 | 31.8 | 21.8 | -4.7 |
| CT Generator Unit 7 SPL | | | | 907.7 | 41.8 | 42.0 | 41.9 | 40.7 | 39.4 | 38.9 | 37.2 | 34.9 | 25.9 | 3.3 |
| CT Exhaust Duct Unit 5 SPL | | | | 1147.5 | 36.1 | 47.9 | 44.8 | 42.5 | 35.2 | 33.6 | 30.7 | 26.9 | 21.0 | 0.7 |
| CT Exhaust Duct Unit 7 SPL | | | | 885.5 | 38.9 | 50.2 | 47.1 | 44.9 | 37.7 | 36.2 | 33.5 | 30.2 | 25.3 | 9.0 |
| HRSG Transition, Unit 5 SPL | | | | 1141.8 | 41.0 | 55.9 | 51.8 | 47.6 | 43.2 | 38.6 | 34.8 | 30.0 | 19.1 | -11.1 |
| HRSG Transition, Unit 7 SPL | | | | 877.6 | 21.8 | 54.3 | 42.2 | 26.0 | 13.8 | 7.3 | 6.6 | 16.3 | 4.5 | -27.7 |
| HRSG Boiler, Unit 5 SPL | | | | 1138.1 | 31.8 | 45.0 | 40.8 | 37.6 | 32.3 | 29.7 | 27.8 | 16.1 | 6.1 | -25.0 |
| HRSG Boiler, Unit 7 SPL | | | | 868.0 | 34.6 | 47.4 | 43.3 | 40.1 | 34.9 | 32.4 | 30.7 | 19.4 | 10.6 | -16.4 |
| CT Transformer, Unit 5 SPL | | | | 1121.1 | 38.9 | 37.1 | 43.0 | 44.8 | 39.4 | 38.8 | 32.0 | 25.2 | 15.4 | -8.5 |
| CT Transformer, Unit 7 SPL | | | | 881.3 | 41.3 | 39.2 | 45.2 | 47.0 | 41.7 | 41.2 | 34.6 | 28.2 | 19.4 | -0.9 |
| ST Transformer, Unit 6 SPL | | | | 996.1 | 40.1 | 38.1 | 44.1 | 45.8 | 40.6 | 40.0 | 33.3 | 26.7 | 17.4 | -4.6 |
| ST Package, Unit 6 SPL | | | | 946.7 | 37.7 | 41.6 | 47.5 | 45.3 | 40.0 | 35.5 | 30.8 | 26.4 | 14.3 | -6.0 |
| Generator Package, Unit 6 SPL | | | | 957.5 | 37.6 | 41.5 | 47.4 | 45.2 | 39.9 | 35.4 | 30.7 | 26.2 | 14.1 | -6.3 |
| Major Pumps, Unit 5 SPL | | | | 1130.7 | 29.6 | 26.0 | 31.9 | 29.7 | 28.3 | 26.7 | 24.9 | 22.1 | 16.2 | -4.8 |
| Major Pumps, Unit 6 SPL | | | | 1028.8 | 33.7 | 29.9 | 35.8 | 33.6 | 32.3 | 30.7 | 28.9 | 26.3 | 20.9 | 1.4 |
| Major Pumps, Unit 7 SPL | | | | 856.7 | 32.8 | 28.5 | 34.4 | 32.2 | 31.0 | 29.5 | 27.9 | 25.5 | 20.8 | 3.9 |
| Gas Compressor 1 SPL | | | | 86.4 | 56.1 | 46.6 | 42.6 | 47.6 | 46.5 | 44.5 | 47.4 | 52.3 | 48.9 | 40.6 |
| Gas Compressor 2 SPL | | | | 86.4 | 56.1 | 46.6 | 42.6 | 47.6 | 46.5 | 44.5 | 47.4 | 52.3 | 48.9 | 40.6 |
| Fin Fan Cooler 1 SPL | | | | 89.7 | 51.6 | 58.3 | 58.3 | 57.2 | 54.2 | 49.2 | 46.1 | 39.0 | 34.6 | 27.2 |
| Fin Fan Cooler 2 SPL | | | | 89.7 | 51.6 | 58.3 | 58.3 | 57.2 | 54.2 | 49.2 | 46.1 | 39.0 | 34.6 | 27.2 |
| | | | | | | | | | | | | | | |
| | | | | **1010.9** | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 5 | 9798 | 930 | 270 | 1161.0 | | | | | | | | | | |
| Mitigated Lw | | | | | | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 1161.0 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 27 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| Silencer (Assume -12 2BA) | | | | | | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| **Stack, Unit 5 SPL** | | | | **1161.0** | **38.1** | **46** | **42** | **45** | **43** | **36** | **28** | **17** | **2** | **-34** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Stack, Unit 7 | 10087 | 988 | 270 | 897.7 | | | | | | | | | | |
| Mitigated Lw | | | | | **116.0** | 119 | 116 | 121 | 120 | 115 | 108 | 100 | 92 | 76 |
| Distance Correction | | | | 897.7 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 21 |
| Directivity | | | | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 |
| Silencer (Assume -12 2BA) | | | | | | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| **Stack, Unit 7 SPL** | | | | **897.7** | **40.6** | **48** | **44** | **48** | **46** | **39** | **30** | **20** | **6** | **-25** |
| | | | | | | | | | | | | | | |
| Combustion Turbine (CT) Inlet, Unit 5 | 9798 | 1100 | 75 | 1173.4 | | | | | | | | | | |
| Standard Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Mitigation - Silencer Upgrade | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Upgraded Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Distance Correction | | | | 1173.4 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 27 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Combustion Turbine (CT) Inlet Unit 5 SPL** | | | | **1173.4** | **31.7** | **43** | **47** | **39** | **38** | **26** | **16** | **11** | **13** | **-9** |
| | | | | | | | | | | | | | | |
| CT Inlet, Unit 7 | 10087 | 1158 | 75 | 924.6 | | | | | | | | | | |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 85 Feet West of Gas Compressors, Fin Fan Coolers

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Standard Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Mitigation - Silencer Upgrade | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Upgraded Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Distance Correction | | | | 924.6 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 21 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Inlet Unit 7 SPL** | | | | **924.6** | **34.0** | **45** | **49** | **42** | **40** | **29** | **19** | **14** | **17** | **-1** |
| | | | | | | | | | | | | | | |
| CT Compartment, Unit 5 | 9798 | 1020 | 45 | 1151.9 | | | | | | | | | | |
| Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Distance Correction | | | | 1151.9 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 27 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume 20 dBA) | | | | | | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| **CT Compartment Unit 5 SPL** | | | | **1151.9** | **29.9** | **34** | **36** | **31** | **28** | **25** | **22** | **26** | **16** | **-6** |
| | | | | | | | | | | | | | | |
| Combustion Turbine Compartment, Unit | 10087 | 1055 | 45 | 883.9 | | | | | | | | | | |
| Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Distance Correction | | | | 883.9 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 20 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume 20 dBA) | | | | | | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| **CT Compartment Unit 7 SPL** | | | | **883.9** | **33.0** | **36** | **38** | **33** | **31** | **27** | **25** | **29** | **20** | **2** |
| | | | | | | | | | | | | | | |
| CT Generator, Unit 5 | 9798 | 1060 | 45 | 1161.6 | | | | | | | | | | |
| Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Distance Correction | | | | 1161.6 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 27 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier (Assume -11 dBA) | | | | | | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| **CT Generator Unit 5 SPL** | | | | **1161.6** | **39.1** | **40** | **40** | **38** | **37** | **36** | **35** | **32** | **22** | **-5** |
| | | | | | | | | | | | | | | |
| CT Generator, Unit 7 | 10087 | 1120 | 45 | 907.7 | | | | | | | | | | |
| Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Distance Correction | | | | 907.7 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 21 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier (Assume -11 dBA) | | | | | | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| **CT Generator Unit 7 SPL** | | | | **907.7** | **41.8** | **42** | **42** | **41** | **39** | **39** | **37** | **35** | **26** | **3** |
| | | | | | | | | | | | | | | |
| CT Exhaust Duct, Unit 5 | 9798 | 1000 | 38 | 1147.5 | | | | | | | | | | |
| Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Distance Correction | | | | 1147.5 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 26 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Acoustical Shroud (Assume -10 dBA) | | | | | | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| **CT Exhaust Duct Unit 5 SPL** | | | | **1147.5** | **36.1** | **48** | **45** | **43** | **35** | **34** | **31** | **27** | **21** | **1** |
| | | | | | | | | | | | | | | |
| CT Exhaust Duct, Unit 7 | 10087 | 1060 | 38 | 885.5 | | | | | | | | | | |
| Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 85 Feet West of Gas Compressors, Fin Fan Coolers

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Distance Correction | | | | 885.5 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 20 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Acoustical Shroud (Assume -10 dBA) | | | | | | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| **CT Exhaust Duct Unit 7 SPL** | | | | **885.5** | **38.9** | **50** | **47** | **45** | **38** | **36** | **34** | **30** | **25** | **9** |
| | | | | | | | | | | | | | | |
| HRSG Transition, Unit 5 | 9798 | 970 | 50 | 1141.8 | | | | | | | | | | |
| Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Mitigation - Acoustic Shroud | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Distance Correction | | | | 1141.8 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 26 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Acoustical Shroud (Assume -10 dBA) | | | | | | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| **HRSG Transition, Unit 5 SPL** | | | | **1141.8** | **41.0** | **56** | **52** | **48** | **43** | **39** | **35** | **30** | **19** | **-11** |
| | | | | | | | | | | | | | | |
| HRSG Transition, Unit 7 | 10087 | 1035 | 50 | 877.6 | | | | | | | | | | |
| Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Mitigation - Acoustic Shroud | | | | | | 4 | 12 | 24 | 32 | 34 | 31 | 17 | 19 | 25 |
| Mitigated Lw | | | | | **90.2** | 121 | 109 | 93 | 81 | 75 | 75 | 86 | 78 | 59 |
| Distance Correction | | | | 877.6 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 20 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Acoustical Shroud (Assume -10 dBA) | | | | | | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| **HRSG Transition, Unit 7 SPL** | | | | **877.6** | **21.8** | **54** | **42** | **26** | **14** | **7** | **7** | **16** | **4** | **-28** |
| | | | | | | | | | | | | | | |
| HRSG Boiler, Unit 5 | 9798 | 930 | 112 | 1138.1 | | | | | | | | | | |
| Lw | | | | | **107.6** | 121 | 116 | 113 | 109 | 104 | 102 | 99 | 93 | 79 |
| Mitigation - Increase Boiler Casing Thickness | | | | | | 9 | 8 | 8 | 9 | 6 | 5 | 12 | 11 | 11 |
| Mitigated Lw | | | | | **100.5** | 112 | 108 | 105 | 100 | 98 | 97 | 87 | 82 | 68 |
| Distance Correction | | | | 1138.1 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 26 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier (Assume -8 dB) | | | | | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| **HRSG Boiler, Unit 5 SPL** | | | | **1138.1** | **31.8** | **45** | **41** | **38** | **32** | **30** | **28** | **16** | **6** | **-25** |
| | | | | | | | | | | | | | | |
| HRSG Boiler, Unit 7 | 10087 | 988 | 112 | 868.0 | | | | | | | | | | |
| Lw | | | | | **107.6** | 121 | 116 | 113 | 109 | 104 | 102 | 99 | 93 | 79 |
| Mitigation - Increase Boiler Casing Thickness | | | | | | 9 | 8 | 8 | 9 | 6 | 5 | 12 | 11 | 11 |
| Mitigated Lw | | | | | **100.5** | 112 | 108 | 105 | 100 | 98 | 97 | 87 | 82 | 68 |
| Distance Correction | | | | 868.0 | | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 20 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier (Assume -8 dB) | | | | | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| **HRSG Boiler, Unit 7 SPL** | | | | **868.0** | **34.6** | **47** | **43** | **40** | **35** | **32** | **31** | **19** | **11** | **-16** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| CT Transformer, Unit 5 | 9855 | 1110 | 40 | 1121.1 | | | | | | | | | | |
| Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Distance Correction | | | | 1121.1 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 26 |
| Barrier (Fire Wall, assume 6 dBA) | | | | | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| **CT Transformer, Unit 5 SPL** | | | | **1121.1** | **38.9** | **37** | **43** | **45** | **39** | **39** | **32** | **25** | **15** | **-8** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| CT Transformer, Unit 7 | 10140 | 1170 | 40 | 881.3 | | | | | | | | | | |
| Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 85 Feet West of Gas Compressors, Fin Fan Coolers

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Mitigated Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Distance Correction | | | | 881.3 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 20 |
| Barrier (Fire Wall, assume 6 dBA) | | | | | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| **CT Transformer, Unit 7 SPL** | | | | **881.3** | **41.3** | **39** | **45** | **47** | **42** | **41** | **35** | **28** | **19** | **-1** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| ST Transformer, Unit 6 | 10000 | 1140 | 63 | 996.1 | | | | | | | | | | |
| Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Distance Correction | | | | 996.1 | | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 1 | 2 | 4 | 8 | 23 |
| Barrier (Fire Wall, assume 6 dBA) | | | | | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| **ST Transformer, Unit 6 SPL** | | | | **996.1** | **40.1** | **38** | **44** | **46** | **41** | **40** | **33** | **27** | **17** | **-5** |
| | | | | | | | | | | | | | | |
| ST Package, Unit 6 | 10000 | 980 | 63 | 946.7 | | | | | | | | | | |
| Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Distance Correction | | | | 946.7 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 8 | 22 |
| Directivity | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -16 dBA) | | | | | | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| **ST Package, Unit 6 SPL** | | | | **946.7** | **37.7** | **42** | **48** | **45** | **40** | **36** | **31** | **26** | **14** | **-6** |
| | | | | | | | | | | | | | | |
| Generator Package, Unit 6 | 10000 | 1025 | 40 | 957.5 | | | | | | | | | | |
| Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Distance Correction | | | | 957.5 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 1 | 2 | 4 | 8 | 22 |
| Directivity | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -16 dBA) | | | | | | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| **Generator Package, Unit 6 SPL** | | | | **957.5** | **37.6** | **41** | **47** | **45** | **40** | **35** | **31** | **26** | **14** | **-6** |
| | | | | | | | | | | | | | | |
| Major Pumps, Unit 5 | 9798 | 900 | 30 | 1130.7 | | | | | | | | | | |
| Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| 1 Major Pump per Unit | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| Distance Correction | | | | 1130.7 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 26 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -18 dBA) | | | | | | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| **Major Pumps, Unit 5 SPL** | | | | **1130.7** | **29.6** | **26** | **32** | **30** | **28** | **27** | **25** | **22** | **16** | **-5** |
| | | | | | | | | | | | | | | |
| Major Pumps, Unit 6 | 9930 | 1040 | 30 | 1028.8 | | | | | | | | | | |
| Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| 2 Major Pumps per Unit | | | | | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Total Lw | | | | | **112.9** | 106 | 112 | 110 | 109 | 108 | 107 | 106 | 105 | 101 |
| Distance Correction | | | | 1028.8 | | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 1 | 2 | 4 | 8 | 24 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -18 dBA) | | | | | | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| **Major Pumps, Unit 6 SPL** | | | | **1028.8** | **33.7** | **30** | **36** | **34** | **32** | **31** | **29** | **26** | **21** | **1** |
| | | | | | | | | | | | | | | |
| Major Pumps, Unit 7 | 10087 | 960 | 30 | 856.7 | | | | | | | | | | |
| Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| 1 Major Pump per Unit | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| Distance Correction | | | | 856.7 | | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 20 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 85 Feet West of Gas Compressors, Fin Fan Coolers

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -18 dBA) | | | | | | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| **Major Pumps, Unit 7 SPL** | | | | **856.7** | **32.8** | **28** | **34** | **32** | **31** | **30** | **28** | **26** | **21** | **4** |
| | | | | | | | | | | | | | | |
| Gas Compressor 1 (North) | 10905 | 845 | 28.5 | 86.4 | | | | | | | | | | |
| Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Distance Correction | | | | 86.4 | | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -16 dBA) | | | | | | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| **Gas Compressor 1 SPL** | | | | **86.4** | **56.1** | **47** | **43** | **48** | **47** | **44** | **47** | **52** | **49** | **41** |
| | | | | | | | | | | | | | | |
| Gas Compressor 2 (South) | 10935 | 845 | 28.5 | 86.4 | | | | | | | | | | |
| Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Distance Correction | | | | 86.4 | | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -30 dBA) | | | | | | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| **Gas Compressor 2 SPL** | | | | **86.4** | **56.1** | **47** | **43** | **48** | **47** | **44** | **47** | **52** | **49** | **41** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Fin Fan Cooler 1 | 10905 | 845 | 49.5 | 89.7 | | | | | | | | | | |
| Fan Lw | | | | | **96.5** | 103 | 103 | 102 | 99 | 94 | 91 | 84 | 80 | 74 |
| Distance Correction | | | | 89.7 | | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| **Fin Fan Cooler 1 SPL** | | | | **89.7** | **51.6** | **58** | **58** | **57** | **54** | **49** | **46** | **39** | **35** | **27** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Fin Fan Cooler 2 | 10935 | 845 | 49.5 | 89.7 | | | | | | | | | | |
| Fan Lw | | | | | **96.5** | 103 | 103 | 102 | 99 | 94 | 91 | 84 | 80 | 74 |
| Distance Correction | | | | 89.7 | | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| **Fin Fan Cooler 2 SPL** | | | | **89.7** | **51.6** | **58** | **58** | **57** | **54** | **49** | **46** | **39** | **35** | **27** |
| | | | | | | | | | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ATMOSPHERIC ABSORPTION (dB/100 meters - 75% of EEI Values) | 0.08 | 0.11 | 0.17 | 0.27 | 0.45 | 0.70 | 1.20 | 2.62 | 7.56 |

NRG El Segundo Repower Project
Sound Level Calculation
Closest Residence along 45th Street, Manhattan Beach

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 1 | 1 | 2 | 3 | 5 | 8 | 17 | 50 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Inlet Unit 7 SPL** | | | | **2152.5** | **25.5** | **37** | **41** | **34** | **32** | **20** | **9** | **2** | **0** | **-37** |
| | | | | | | | | | | | | | | |
| CT Compartment, Unit 5 | 9798 | 1020 | 45 | 2436.0 | | | | | | | | | | |
| Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Distance Correction | | | | 2436.0 | | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 9 | 19 | 56 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume 20 dBA) | | | | | | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| **CT Compartment Unit 5 SPL** | | | | **2436.0** | **20.0** | **27** | **29** | **23** | **21** | **16** | **12** | **15** | **-1** | **-43** |
| | | | | | | | | | | | | | | |
| Combustion Turbine Compartment, Unit | 10087 | 1055 | 45 | 2147.6 | | | | | | | | | | |
| Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Distance Correction | | | | 2147.6 | | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 1 | 1 | 2 | 3 | 5 | 8 | 17 | 49 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume 20 dBA) | | | | | | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| **CT Compartment Unit 7 SPL** | | | | **2147.6** | **21.8** | **28** | **30** | **25** | **22** | **18** | **14** | **17** | **3** | **-35** |
| | | | | | | | | | | | | | | |
| CT Generator, Unit 5 | 9798 | 1060 | 45 | 2436.6 | | | | | | | | | | |
| Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Distance Correction | | | | 2436.6 | | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 9 | 19 | 56 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier (Assume -11 dBA) | | | | | | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| **CT Generator Unit 5 SPL** | | | | **2436.6** | **30.0** | **33** | **33** | **31** | **30** | **28** | **25** | **21** | **5** | **-41** |
| | | | | | | | | | | | | | | |
| CT Generator, Unit 7 | 10087 | 1120 | 45 | 2150.0 | | | | | | | | | | |
| Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Distance Correction | | | | 2150.0 | | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 1 | 1 | 2 | 3 | 5 | 8 | 17 | 50 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier (Assume -11 dBA) | | | | | | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| **CT Generator Unit 7 SPL** | | | | **2150.0** | **31.6** | **34** | **34** | **33** | **31** | **30** | **27** | **23** | **9** | **-33** |
| | | | | | | | | | | | | | | |
| CT Exhaust Duct, Unit 5 | 9798 | 1000 | 38 | 2436.0 | | | | | | | | | | |
| Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Distance Correction | | | | 2436.0 | | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 9 | 19 | 56 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Acoustical Shroud (Assume -10 dBA) | | | | | | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| **CT Exhaust Duct Unit 5 SPL** | | | | **2436.0** | **27.3** | **41** | **38** | **35** | **28** | **25** | **21** | **16** | **4** | **-36** |
| | | | | | | | | | | | | | | |
| CT Exhaust Duct, Unit 7 | 10087 | 1060 | 38 | 2147.7 | | | | | | | | | | |
| Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Distance Correction | | | | 2147.7 | | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 1 | 1 | 2 | 3 | 5 | 8 | 17 | 49 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Acoustical Shroud (Assume -10 dBA) | | | | | | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| **CT Exhaust Duct Unit 7 SPL** | | | | **2147.7** | **28.8** | **42** | **39** | **37** | **29** | **27** | **23** | **18** | **8** | **-28** |
| | | | | | | | | | | | | | | |
| HRSG Transition, Unit 5 | 9798 | 970 | 50 | 2436.3 | | | | | | | | | | |

NRG El Segundo Repower Project
Sound Level Calculation
Closest Residence along 45th Street, Manhattan Beach

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Mitigation - Acoustic Shroud | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Distance Correction | | | | 2436.3 | | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 9 | 19 | 56 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Acoustical Shroud (Assume -10 dBA) | | | | | | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| **HRSG Transition, Unit 5 SPL** | | | | **2436.3** | **32.6** | **49** | **45** | **40** | **36** | **30** | **25** | **19** | **2** | **-48** |
| | | | | | | | | | | | | | | |
| HRSG Transition, Unit 7 | 10087 | 1035 | 50 | 2147.2 | | | | | | | | | | |
| Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Mitigation - Acoustic Shroud | | | | | | 4 | 12 | 24 | 32 | 34 | 31 | 17 | 19 | 25 |
| Mitigated Lw | | | | | **90.2** | 121 | 109 | 93 | 81 | 75 | 75 | 86 | 78 | 59 |
| Distance Correction | | | | 2147.2 | | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 1 | 1 | 2 | 3 | 5 | 8 | 17 | 49 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Acoustical Shroud (Assume -10 dBA) | | | | | | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| **HRSG Transition, Unit 7 SPL** | | | | **2147.2** | **12.2** | **46** | **34** | **18** | **5** | **-2** | **-4** | **4** | **-13** | **-65** |
| | | | | | | | | | | | | | | |
| HRSG Boiler, Unit 5 | 9798 | 930 | 112 | 2438.0 | | | | | | | | | | |
| Lw | | | | | **107.6** | 121 | 116 | 113 | 109 | 104 | 102 | 99 | 93 | 79 |
| Mitigation - Increase Boiler Casing Thickness | | | | | | 9 | 8 | 8 | 9 | 6 | 5 | 12 | 11 | 11 |
| Mitigated Lw | | | | | **100.5** | 112 | 108 | 105 | 100 | 98 | 97 | 87 | 82 | 68 |
| Distance Correction | | | | 2438.0 | | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 9 | 19 | 56 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier (Assume -8 dB) | | | | | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| **HRSG Boiler, Unit 5 SPL** | | | | **2438.0** | **23.2** | **38** | **34** | **30** | **25** | **21** | **18** | **5** | **-11** | **-62** |
| | | | | | | | | | | | | | | |
| HRSG Boiler, Unit 7 | 10087 | 988 | 112 | 2148.0 | | | | | | | | | | |
| Lw | | | | | **107.6** | 121 | 116 | 113 | 109 | 104 | 102 | 99 | 93 | 79 |
| Mitigation - Increase Boiler Casing Thickness | | | | | | 9 | 8 | 8 | 9 | 6 | 5 | 12 | 11 | 11 |
| Mitigated Lw | | | | | **100.5** | 112 | 108 | 105 | 100 | 98 | 97 | 87 | 82 | 68 |
| Distance Correction | | | | 2148.0 | | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 1 | 1 | 2 | 3 | 5 | 8 | 17 | 49 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier (Assume -8 dB) | | | | | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| **HRSG Boiler, Unit 7 SPL** | | | | **2148.0** | **24.7** | **39** | **35** | **32** | **26** | **23** | **20** | **7** | **-7** | **-54** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| CT Transformer, Unit 5 | 9855 | 1110 | 40 | 2381.3 | | | | | | | | | | |
| Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Distance Correction | | | | 2381.3 | | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 9 | 19 | 55 |
| Barrier (Fire Wall, assume 6 dBA) | | | | | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| **CT Transformer, Unit 5 SPL** | | | | **2381.3** | **30.5** | **30** | **36** | **38** | **32** | **31** | **23** | **14** | **-1** | **-44** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| CT Transformer, Unit 7 | 10140 | 1170 | 40 | 2100.4 | | | | | | | | | | |
| Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Distance Correction | | | | 2100.4 | | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 1 | 1 | 2 | 3 | 4 | 8 | 17 | 48 |
| Barrier (Fire Wall, assume 6 dBA) | | | | | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| **CT Transformer, Unit 7 SPL** | | | | **2100.4** | **32.0** | **31** | **37** | **39** | **33** | **32** | **24** | **16** | **2** | **-37** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| ST Transformer, Unit 6 | 10000 | 1140 | 63 | 2238.1 | | | | | | | | | | |
| Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Distance Correction | | | | 2238.1 | | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 8 | 18 | 52 |

NRG El Segundo Repower Project
Sound Level Calculation
Closest Residence along 45th Street, Manhattan Beach

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Barrier (Fire Wall, assume 6 dBA) | | | | | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| **ST Transformer, Unit 6 SPL** | | | | **2238.1** | **31.2** | **31** | **37** | **38** | **32** | **31** | **24** | **15** | **0** | **-40** |
| | | | | | | | | | | | | | | |
| ST Package, Unit 6 | 10000 | 980 | 63 | 2234.2 | | | | | | | | | | |
| Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Distance Correction | | | | 2234.2 | | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 8 | 18 | 51 |
| Directivity | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -16 dBA) | | | | | | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| **ST Package, Unit 6 SPL** | | | | **2234.2** | **28.5** | **34** | **40** | **37** | **32** | **26** | **21** | **14** | **-3** | **-43** |
| | | | | | | | | | | | | | | |
| Generator Package, Unit 6 | 10000 | 1025 | 40 | 2234.1 | | | | | | | | | | |
| Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Distance Correction | | | | 2234.1 | | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 8 | 18 | 51 |
| Directivity | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -16 dBA) | | | | | | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| **Generator Package, Unit 6 SPL** | | | | **2234.1** | **28.5** | **34** | **40** | **37** | **32** | **26** | **21** | **14** | **-3** | **-43** |
| | | | | | | | | | | | | | | |
| Major Pumps, Unit 5 | 9798 | 900 | 30 | 2438.4 | | | | | | | | | | |
| Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| 1 Major Pump per Unit | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| Distance Correction | | | | 2438.4 | | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 9 | 19 | 56 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -18 dBA) | | | | | | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| **Major Pumps, Unit 5 SPL** | | | | **2438.4** | **20.2** | **19** | **25** | **22** | **21** | **18** | **15** | **11** | **-1** | **-42** |
| | | | | | | | | | | | | | | |
| Major Pumps, Unit 6 | 9930 | 1040 | 30 | 2304.3 | | | | | | | | | | |
| Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| 2 Major Pumps per Unit | | | | | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Total Lw | | | | | **112.9** | 106 | 112 | 110 | 109 | 108 | 107 | 106 | 105 | 101 |
| Distance Correction | | | | 2304.3 | | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 8 | 18 | 53 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -18 dBA) | | | | | | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| **Major Pumps, Unit 6 SPL** | | | | **2304.3** | **23.9** | **23** | **28** | **26** | **24** | **22** | **19** | **15** | **4** | **-35** |
| | | | | | | | | | | | | | | |
| Major Pumps, Unit 7 | 10087 | 960 | 30 | 2147.6 | | | | | | | | | | |
| Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| 1 Major Pump per Unit | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| Distance Correction | | | | 2147.6 | | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 1 | 1 | 2 | 3 | 5 | 8 | 17 | 49 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -18 dBA) | | | | | | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| **Major Pumps, Unit 7 SPL** | | | | **2147.6** | **21.8** | **20** | **26** | **24** | **22** | **20** | **17** | **13** | **3** | **-34** |
| | | | | | | | | | | | | | | |
| Gas Compressor 1 (North) | 10905 | 845 | 28.5 | 1338.9 | | | | | | | | | | |
| Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Distance Correction | | | | 1338.9 | | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 3 | 5 | 11 | 31 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -16 dBA) | | | | | | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| **Gas Compressor 1 SPL** | | | | **1338.9** | **27.4** | **22** | **18** | **23** | **22** | **19** | **21** | **24** | **15** | **-12** |
| | | | | | | | | | | | | | | |
| Gas Compressor 2 (South) | 10935 | 845 | 28.5 | 1309.1 | | | | | | | | | | |
| Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

NRG El Segundo Repower Project
Sound Level Calculation
Closest Residence along 45th Street, Manhattan Beach

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Mitigated Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Distance Correction | | | | 1309.1 | | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 3 | 5 | 10 | 30 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -30 dBA) | | | | | | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| **Gas Compressor 2 SPL** | | | | **1309.1** | **27.7** | **23** | **19** | **23** | **22** | **19** | **21** | **24** | **16** | **-11** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Fin Fan Cooler 1 | 10905 | 845 | 49.5 | 1338.7 | | | | | | | | | | |
| Fan Lw | | | | | **96.5** | 103 | 103 | 102 | 99 | 94 | 91 | 84 | 80 | 74 |
| Distance Correction | | | | 1338.7 | | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 3 | 5 | 11 | 31 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| **Fin Fan Cooler 1 SPL** | | | | **1338.7** | **26.3** | **34** | **34** | **33** | **30** | **24** | **20** | **11** | **1** | **-25** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Fin Fan Cooler 2 | 10935 | 845 | 49.5 | 1308.9 | | | | | | | | | | |
| Fan Lw | | | | | **96.5** | 103 | 103 | 102 | 99 | 94 | 91 | 84 | 80 | 74 |
| Distance Correction | | | | 1308.9 | | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 3 | 5 | 10 | 30 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| **Fin Fan Cooler 2 SPL** | | | | **1308.9** | **26.5** | **35** | **35** | **33** | **30** | **24** | **20** | **11** | **2** | **-24** |
| | | | | | | | | | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ATMOSPHERIC ABSORPTION (dB/100 meters - 75% of EEI Values) | 0.08 | 0.11 | 0.17 | 0.27 | 0.45 | 0.70 | 1.20 | 2.62 | 7.56 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 270 Feet West of Nominal Accoustic Center

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 4 | 10 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Inlet Unit 7 SPL** | | | | **439.6** | **41.1** | **51** | **55** | **48** | **47** | **36** | **27** | **22** | **27** | **16** |
| | | | | | | | | | | | | | | |
| CT Compartment, Unit 5 | 9798 | 1020 | 45 | 354.0 | | | | | | | | | | |
| Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Distance Correction | | | | 354.0 | | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 8 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume 20 dBA) | | | | | | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| **CT Compartment Unit 5 SPL** | | | | **354.0** | **42.7** | **44** | **46** | **41** | **39** | **36** | **34** | **39** | **33** | **22** |
| | | | | | | | | | | | | | | |
| Combustion Turbine Compartment, Unit | 10087 | 1055 | 45 | 337.0 | | | | | | | | | | |
| Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Distance Correction | | | | 337.0 | | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 8 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume 20 dBA) | | | | | | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| **CT Compartment Unit 7 SPL** | | | | **337.0** | **43.2** | **45** | **47** | **42** | **40** | **36** | **34** | **40** | **33** | **23** |
| | | | | | | | | | | | | | | |
| CT Generator, Unit 5 | 9798 | 1060 | 45 | 387.4 | | | | | | | | | | |
| Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Distance Correction | | | | 387.4 | | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 9 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier (Assume -11 dBA) | | | | | | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| **CT Generator Unit 5 SPL** | | | | **387.4** | **50.5** | **49** | **49** | **48** | **47** | **47** | **46** | **44** | **37** | **23** |
| | | | | | | | | | | | | | | |
| CT Generator, Unit 7 | 10087 | 1120 | 45 | 400.1 | | | | | | | | | | |
| Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Distance Correction | | | | 400.1 | | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 9 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier (Assume -11 dBA) | | | | | | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| **CT Generator Unit 7 SPL** | | | | **400.1** | **50.2** | **49** | **49** | **48** | **47** | **47** | **45** | **44** | **37** | **22** |
| | | | | | | | | | | | | | | |
| CT Exhaust Duct, Unit 5 | 9798 | 1000 | 38 | 337.5 | | | | | | | | | | |
| Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Distance Correction | | | | 337.5 | | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 8 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Acoustical Shroud (Assume -10 dBA) | | | | | | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| **CT Exhaust Duct Unit 5 SPL** | | | | **337.5** | **48.6** | **59** | **56** | **54** | **46** | **45** | **43** | **41** | **38** | **30** |
| | | | | | | | | | | | | | | |
| CT Exhaust Duct, Unit 7 | 10087 | 1060 | 38 | 341.5 | | | | | | | | | | |
| Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Distance Correction | | | | 341.5 | | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 8 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Acoustical Shroud (Assume -10 dBA) | | | | | | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| **CT Exhaust Duct Unit 7 SPL** | | | | **341.5** | **48.5** | **59** | **56** | **53** | **46** | **45** | **43** | **40** | **38** | **30** |
| | | | | | | | | | | | | | | |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 270 Feet West of Nominal Accoustic Center

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| HRSG Transition, Unit 5 | 9798 | 970 | 50 | 314.7 | | | | | | | | | | |
| Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Mitigation - Acoustic Shroud | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Distance Correction | | | | 314.7 | | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 7 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Acoustical Shroud (Assume -10 dBA) | | | | | | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| **HRSG Transition, Unit 5 SPL** | | | | **314.7** | **53.6** | **67** | **63** | **59** | **55** | **51** | **48** | **44** | **37** | **19** |
| | | | | | | | | | | | | | | |
| HRSG Transition, Unit 7 | 10087 | 1035 | 50 | 318.1 | | | | | | | | | | |
| Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Mitigation - Acoustic Shroud | | | | | | 4 | 12 | 24 | 32 | 34 | 31 | 17 | 19 | 25 |
| Mitigated Lw | | | | | **90.2** | 121 | 109 | 93 | 81 | 75 | 75 | 86 | 78 | 59 |
| Distance Correction | | | | 318.1 | | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 7 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Acoustical Shroud (Assume -10 dBA) | | | | | | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| **HRSG Transition, Unit 7 SPL** | | | | **318.1** | **31.7** | **63** | **51** | **35** | **23** | **17** | **17** | **27** | **18** | **-6** |
| | | | | | | | | | | | | | | |
| HRSG Boiler, Unit 5 | 9798 | 930 | 112 | 297.3 | | | | | | | | | | |
| Lw | | | | | **107.6** | 121 | 116 | 113 | 109 | 104 | 102 | 99 | 93 | 79 |
| Mitigation - Increase Boiler Casing Thickness | | | | | | 9 | 8 | 8 | 9 | 6 | 5 | 12 | 11 | 11 |
| Mitigated Lw | | | | | **100.5** | 112 | 108 | 105 | 100 | 98 | 97 | 87 | 82 | 68 |
| Distance Correction | | | | 297.3 | | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 7 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier (Assume -8 dB) | | | | | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| **HRSG Boiler, Unit 5 SPL** | | | | **297.3** | **44.8** | **57** | **53** | **50** | **45** | **42** | **41** | **31** | **25** | **6** |
| | | | | | | | | | | | | | | |
| HRSG Boiler, Unit 7 | 10087 | 988 | 112 | 285.8 | | | | | | | | | | |
| Lw | | | | | **107.6** | 121 | 116 | 113 | 109 | 104 | 102 | 99 | 93 | 79 |
| Mitigation - Increase Boiler Casing Thickness | | | | | | 9 | 8 | 8 | 9 | 6 | 5 | 12 | 11 | 11 |
| Mitigated Lw | | | | | **100.5** | 112 | 108 | 105 | 100 | 98 | 97 | 87 | 82 | 68 |
| Distance Correction | | | | 285.8 | | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 7 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier (Assume -8 dB) | | | | | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| **HRSG Boiler, Unit 7 SPL** | | | | **285.8** | **45.2** | **57** | **53** | **50** | **45** | **43** | **42** | **31** | **25** | **7** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| CT Transformer, Unit 5 | 9855 | 1110 | 40 | 407.0 | | | | | | | | | | |
| Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Distance Correction | | | | 407.0 | | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 9 |
| Barrier (Fire Wall, assume 6 dBA) | | | | | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| **CT Transformer, Unit 5 SPL** | | | | **407.0** | **48.8** | **46** | **52** | **54** | **49** | **49** | **42** | **37** | **30** | **17** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| CT Transformer, Unit 7 | 10140 | 1170 | 40 | 462.0 | | | | | | | | | | |
| Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Distance Correction | | | | 462.0 | | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 4 | 11 |
| Barrier (Fire Wall, assume 6 dBA) | | | | | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| **CT Transformer, Unit 7 SPL** | | | | **462.0** | **47.6** | **45** | **51** | **53** | **48** | **47** | **41** | **35** | **28** | **14** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| ST Transformer, Unit 6 | 10000 | 1140 | 63 | 411.8 | | | | | | | | | | |
| Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Distance Correction | | | | 411.8 | | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 270 Feet West of Nominal Accoustic Center

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 9 |
| Barrier (Fire Wall, assume 6 dBA) | | | | | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| **ST Transformer, Unit 6 SPL** | | | | **411.8** | **48.7** | **46** | **52** | **54** | **49** | **48** | **42** | **37** | **30** | **17** |
| | | | | | | | | | | | | | | |
| ST Package, Unit 6 | 10000 | 980 | 63 | 252.9 | | | | | | | | | | |
| Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Distance Correction | | | | 252.9 | | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 6 |
| Directivity | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -16 dBA) | | | | | | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| **ST Package, Unit 6 SPL** | | | | **252.9** | **50.3** | **53** | **59** | **57** | **52** | **48** | **44** | **40** | **31** | **21** |
| | | | | | | | | | | | | | | |
| Generator Package, Unit 6 | 10000 | 1025 | 40 | 295.4 | | | | | | | | | | |
| Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Distance Correction | | | | 295.4 | | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 7 |
| Directivity | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -16 dBA) | | | | | | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| **Generator Package, Unit 6 SPL** | | | | **295.4** | **48.9** | **52** | **58** | **56** | **51** | **47** | **42** | **39** | **30** | **19** |
| | | | | | | | | | | | | | | |
| Major Pumps, Unit 5 | 9798 | 900 | 30 | 264.1 | | | | | | | | | | |
| Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| 1 Major Pump per Unit | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| Distance Correction | | | | 264.1 | | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 6 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -18 dBA) | | | | | | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| **Major Pumps, Unit 5 SPL** | | | | **264.1** | **44.8** | **39** | **45** | **43** | **42** | **41** | **39** | **38** | **36** | **28** |
| | | | | | | | | | | | | | | |
| Major Pumps, Unit 6 | 9930 | 1040 | 30 | 317.8 | | | | | | | | | | |
| Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| 2 Major Pumps per Unit | | | | | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Total Lw | | | | | **112.9** | 106 | 112 | 110 | 109 | 108 | 107 | 106 | 105 | 101 |
| Distance Correction | | | | 317.8 | | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 7 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -18 dBA) | | | | | | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| **Major Pumps, Unit 6 SPL** | | | | **317.8** | **46.0** | **40** | **46** | **44** | **43** | **42** | **41** | **39** | **37** | **28** |
| | | | | | | | | | | | | | | |
| Major Pumps, Unit 7 | 10087 | 960 | 30 | 246.0 | | | | | | | | | | |
| Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| 1 Major Pump per Unit | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| Distance Correction | | | | 246.0 | | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 6 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -18 dBA) | | | | | | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| **Major Pumps, Unit 7 SPL** | | | | **246.0** | **45.5** | **39** | **45** | **43** | **42** | **41** | **40** | **39** | **37** | **29** |
| | | | | | | | | | | | | | | |
| Gas Compressor 1 (North) | 10905 | 845 | 28.5 | 912.3 | | | | | | | | | | |
| Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Distance Correction | | | | 912.3 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 21 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -16 dBA) | | | | | | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| **Gas Compressor 1 SPL** | | | | **912.3** | **32.2** | **26** | **22** | **27** | **25** | **23** | **25** | **29** | **22** | **1** |
| | | | | | | | | | | | | | | |
| Gas Compressor 2 (South) | 10935 | 845 | 28.5 | 942.1 | | | | | | | | | | |
| Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 270 Feet West of Nominal Accoustic Center

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Distance Correction | | | | 942.1 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 8 | 22 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -30 dBA) | | | | | | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| **Gas Compressor 2 SPL** | | | | **942.1** | **31.9** | **26** | **22** | **26** | **25** | **23** | **25** | **28** | **21** | **0** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Fin Fan Cooler 1 | 10905 | 845 | 49.5 | 912.6 | | | | | | | | | | |
| Fan Lw | | | | | **96.5** | 103 | 103 | 102 | 99 | 94 | 91 | 84 | 80 | 74 |
| Distance Correction | | | | 912.6 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 21 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| **Fin Fan Cooler 1 SPL** | | | | **912.6** | **30.2** | **38** | **38** | **37** | **33** | **28** | **24** | **16** | **8** | **-12** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Fin Fan Cooler 2 | 10935 | 845 | 49.5 | 942.4 | | | | | | | | | | |
| Fan Lw | | | | | **96.5** | 103 | 103 | 102 | 99 | 94 | 91 | 84 | 80 | 74 |
| Distance Correction | | | | 942.4 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 8 | 22 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| **Fin Fan Cooler 2 SPL** | | | | **942.4** | **29.9** | **38** | **38** | **36** | **33** | **28** | **24** | **15** | **7** | **-13** |
| | | | | | | | | | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ATMOSPHERIC ABSORPTION (dB/100 meters - 75% of EEI Values) | 0.08 | 0.11 | 0.17 | 0.27 | 0.45 | 0.70 | 1.20 | 2.62 | 7.56 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 270 Feet West of Nominal Accoustic Center

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 4 | 10 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Inlet Unit 7 SPL** | | | | **439.6** | **41.1** | **51** | **55** | **48** | **47** | **36** | **27** | **22** | **27** | **16** |
| | | | | | | | | | | | | | | |
| CT Compartment, Unit 5 | 9798 | 1020 | 45 | 354.0 | | | | | | | | | | |
| Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Distance Correction | | | | 354.0 | | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 8 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume 20 dBA) | | | | | | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| **CT Compartment Unit 5 SPL** | | | | **354.0** | **42.7** | **44** | **46** | **41** | **39** | **36** | **34** | **39** | **33** | **22** |
| | | | | | | | | | | | | | | |
| Combustion Turbine Compartment, Unit | 10087 | 1055 | 45 | 337.0 | | | | | | | | | | |
| Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Distance Correction | | | | 337.0 | | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 8 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume 20 dBA) | | | | | | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| **CT Compartment Unit 7 SPL** | | | | **337.0** | **43.2** | **45** | **47** | **42** | **40** | **36** | **34** | **40** | **33** | **23** |
| | | | | | | | | | | | | | | |
| CT Generator, Unit 5 | 9798 | 1060 | 45 | 387.4 | | | | | | | | | | |
| Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Distance Correction | | | | 387.4 | | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 9 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier (Assume -11 dBA) | | | | | | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| **CT Generator Unit 5 SPL** | | | | **387.4** | **50.5** | **49** | **49** | **48** | **47** | **47** | **46** | **44** | **37** | **23** |
| | | | | | | | | | | | | | | |
| CT Generator, Unit 7 | 10087 | 1120 | 45 | 400.1 | | | | | | | | | | |
| Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Distance Correction | | | | 400.1 | | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 9 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier (Assume -11 dBA) | | | | | | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| **CT Generator Unit 7 SPL** | | | | **400.1** | **50.2** | **49** | **49** | **48** | **47** | **47** | **45** | **44** | **37** | **22** |
| | | | | | | | | | | | | | | |
| CT Exhaust Duct, Unit 5 | 9798 | 1000 | 38 | 337.5 | | | | | | | | | | |
| Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Distance Correction | | | | 337.5 | | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 8 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Acoustical Shroud (Assume -10 dBA) | | | | | | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| **CT Exhaust Duct Unit 5 SPL** | | | | **337.5** | **48.6** | **59** | **56** | **54** | **46** | **45** | **43** | **41** | **38** | **30** |
| | | | | | | | | | | | | | | |
| CT Exhaust Duct, Unit 7 | 10087 | 1060 | 38 | 341.5 | | | | | | | | | | |
| Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Distance Correction | | | | 341.5 | | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 8 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Acoustical Shroud (Assume -10 dBA) | | | | | | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| **CT Exhaust Duct Unit 7 SPL** | | | | **341.5** | **48.5** | **59** | **56** | **53** | **46** | **45** | **43** | **40** | **38** | **30** |
| | | | | | | | | | | | | | | |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 270 Feet West of Nominal Accoustic Center

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| HRSG Transition, Unit 5 | 9798 | 970 | 50 | 314.7 | | | | | | | | | | |
| Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Mitigation - Acoustic Shroud | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Distance Correction | | | | 314.7 | | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 7 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Acoustical Shroud (Assume -10 dBA) | | | | | | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| **HRSG Transition, Unit 5 SPL** | | | | **314.7** | **53.6** | **67** | **63** | **59** | **55** | **51** | **48** | **44** | **37** | **19** |
| | | | | | | | | | | | | | | |
| HRSG Transition, Unit 7 | 10087 | 1035 | 50 | 318.1 | | | | | | | | | | |
| Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Mitigation - Acoustic Shroud | | | | | | 4 | 12 | 24 | 32 | 34 | 31 | 17 | 19 | 25 |
| Mitigated Lw | | | | | **90.2** | 121 | 109 | 93 | 81 | 75 | 75 | 86 | 78 | 59 |
| Distance Correction | | | | 318.1 | | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 7 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Acoustical Shroud (Assume -10 dBA) | | | | | | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| **HRSG Transition, Unit 7 SPL** | | | | **318.1** | **31.7** | **63** | **51** | **35** | **23** | **17** | **17** | **27** | **18** | **-6** |
| | | | | | | | | | | | | | | |
| HRSG Boiler, Unit 5 | 9798 | 930 | 112 | 297.3 | | | | | | | | | | |
| Lw | | | | | **107.6** | 121 | 116 | 113 | 109 | 104 | 102 | 99 | 93 | 79 |
| Mitigation - Increase Boiler Casing Thickness | | | | | | 9 | 8 | 8 | 9 | 6 | 5 | 12 | 11 | 11 |
| Mitigated Lw | | | | | **100.5** | 112 | 108 | 105 | 100 | 98 | 97 | 87 | 82 | 68 |
| Distance Correction | | | | 297.3 | | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 7 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier (Assume -8 dB) | | | | | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| **HRSG Boiler, Unit 5 SPL** | | | | **297.3** | **44.8** | **57** | **53** | **50** | **45** | **42** | **41** | **31** | **25** | **6** |
| | | | | | | | | | | | | | | |
| HRSG Boiler, Unit 7 | 10087 | 988 | 112 | 285.8 | | | | | | | | | | |
| Lw | | | | | **107.6** | 121 | 116 | 113 | 109 | 104 | 102 | 99 | 93 | 79 |
| Mitigation - Increase Boiler Casing Thickness | | | | | | 9 | 8 | 8 | 9 | 6 | 5 | 12 | 11 | 11 |
| Mitigated Lw | | | | | **100.5** | 112 | 108 | 105 | 100 | 98 | 97 | 87 | 82 | 68 |
| Distance Correction | | | | 285.8 | | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 7 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier (Assume -8 dB) | | | | | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| **HRSG Boiler, Unit 7 SPL** | | | | **285.8** | **45.2** | **57** | **53** | **50** | **45** | **43** | **42** | **31** | **25** | **7** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| CT Transformer, Unit 5 | 9855 | 1110 | 40 | 407.0 | | | | | | | | | | |
| Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Distance Correction | | | | 407.0 | | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 9 |
| Barrier (Fire Wall, assume 6 dBA) | | | | | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| **CT Transformer, Unit 5 SPL** | | | | **407.0** | **48.8** | **46** | **52** | **54** | **49** | **49** | **42** | **37** | **30** | **17** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| CT Transformer, Unit 7 | 10140 | 1170 | 40 | 462.0 | | | | | | | | | | |
| Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Distance Correction | | | | 462.0 | | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 4 | 11 |
| Barrier (Fire Wall, assume 6 dBA) | | | | | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| **CT Transformer, Unit 7 SPL** | | | | **462.0** | **47.6** | **45** | **51** | **53** | **48** | **47** | **41** | **35** | **28** | **14** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| ST Transformer, Unit 6 | 10000 | 1140 | 63 | 411.8 | | | | | | | | | | |
| Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Distance Correction | | | | 411.8 | | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 270 Feet West of Nominal Accoustic Center

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 9 |
| Barrier (Fire Wall, assume 6 dBA) | | | | | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| **ST Transformer, Unit 6 SPL** | | | | **411.8** | **48.7** | **46** | **52** | **54** | **49** | **48** | **42** | **37** | **30** | **17** |
| | | | | | | | | | | | | | | |
| ST Package, Unit 6 | 10000 | 980 | 63 | 252.9 | | | | | | | | | | |
| Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Distance Correction | | | | 252.9 | | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 6 |
| Directivity | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -16 dBA) | | | | | | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| **ST Package, Unit 6 SPL** | | | | **252.9** | **50.3** | **53** | **59** | **57** | **52** | **48** | **44** | **40** | **31** | **21** |
| | | | | | | | | | | | | | | |
| Generator Package, Unit 6 | 10000 | 1025 | 40 | 295.4 | | | | | | | | | | |
| Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Distance Correction | | | | 295.4 | | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 7 |
| Directivity | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -16 dBA) | | | | | | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| **Generator Package, Unit 6 SPL** | | | | **295.4** | **48.9** | **52** | **58** | **56** | **51** | **47** | **42** | **39** | **30** | **19** |
| | | | | | | | | | | | | | | |
| Major Pumps, Unit 5 | 9798 | 900 | 30 | 264.1 | | | | | | | | | | |
| Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| 1 Major Pump per Unit | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| Distance Correction | | | | 264.1 | | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 6 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -18 dBA) | | | | | | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| **Major Pumps, Unit 5 SPL** | | | | **264.1** | **44.8** | **39** | **45** | **43** | **42** | **41** | **39** | **38** | **36** | **28** |
| | | | | | | | | | | | | | | |
| Major Pumps, Unit 6 | 9930 | 1040 | 30 | 317.8 | | | | | | | | | | |
| Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| 2 Major Pumps per Unit | | | | | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Total Lw | | | | | **112.9** | 106 | 112 | 110 | 109 | 108 | 107 | 106 | 105 | 101 |
| Distance Correction | | | | 317.8 | | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 7 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -18 dBA) | | | | | | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| **Major Pumps, Unit 6 SPL** | | | | **317.8** | **46.0** | **40** | **46** | **44** | **43** | **42** | **41** | **39** | **37** | **28** |
| | | | | | | | | | | | | | | |
| Major Pumps, Unit 7 | 10087 | 960 | 30 | 246.0 | | | | | | | | | | |
| Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| 1 Major Pump per Unit | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| Distance Correction | | | | 246.0 | | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 6 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -18 dBA) | | | | | | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| **Major Pumps, Unit 7 SPL** | | | | **246.0** | **45.5** | **39** | **45** | **43** | **42** | **41** | **40** | **39** | **37** | **29** |
| | | | | | | | | | | | | | | |
| Gas Compressor 1 (North) | 10905 | 845 | 28.5 | 912.3 | | | | | | | | | | |
| Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Distance Correction | | | | 912.3 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 21 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -16 dBA) | | | | | | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| **Gas Compressor 1 SPL** | | | | **912.3** | **32.2** | **26** | **22** | **27** | **25** | **23** | **25** | **29** | **22** | **1** |
| | | | | | | | | | | | | | | |
| Gas Compressor 2 (South) | 10935 | 845 | 28.5 | 942.1 | | | | | | | | | | |
| Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 270 Feet West of Nominal Accoustic Center

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Distance Correction | | | | 942.1 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 8 | 22 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -30 dBA) | | | | | | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| **Gas Compressor 2 SPL** | | | | **942.1** | **31.9** | **26** | **22** | **26** | **25** | **23** | **25** | **28** | **21** | **0** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Fin Fan Cooler 1 | 10905 | 845 | 49.5 | 912.6 | | | | | | | | | | |
| Fan Lw | | | | | **96.5** | 103 | 103 | 102 | 99 | 94 | 91 | 84 | 80 | 74 |
| Distance Correction | | | | 912.6 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 21 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| **Fin Fan Cooler 1 SPL** | | | | **912.6** | **30.2** | **38** | **38** | **37** | **33** | **28** | **24** | **16** | **8** | **-12** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Fin Fan Cooler 2 | 10935 | 845 | 49.5 | 942.4 | | | | | | | | | | |
| Fan Lw | | | | | **96.5** | 103 | 103 | 102 | 99 | 94 | 91 | 84 | 80 | 74 |
| Distance Correction | | | | 942.4 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 8 | 22 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| **Fin Fan Cooler 2 SPL** | | | | **942.4** | **29.9** | **38** | **38** | **36** | **33** | **28** | **24** | **15** | **7** | **-13** |
| | | | | | | | | | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ATMOSPHERIC ABSORPTION (dB/100 meters - 75% of EEI Values) | 0.08 | 0.11 | 0.17 | 0.27 | 0.45 | 0.70 | 1.20 | 2.62 | 7.56 |

NRG El Segundo Repower Project
Sound Level Calculation
Worst-case residential view along 45th Street, Manhattan Beach

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 1 | 1 | 2 | 3 | 5 | 8 | 17 | 50 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Inlet Unit 7 SPL** | | | | **2183.9** | **25.4** | **37** | **41** | **33** | **32** | **20** | **9** | **2** | **-1** | **-38** |
| | | | | | | | | | | | | | | |
| CT Compartment, Unit 5 | 9798 | 1020 | 45 | 2495.3 | | | | | | | | | | |
| Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Distance Correction | | | | 2495.3 | | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 9 | 20 | 57 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume 20 dBA) | | | | | | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| **CT Compartment Unit 5 SPL** | | | | **2495.3** | **19.7** | **27** | **29** | **23** | **20** | **16** | **12** | **14** | **-2** | **-44** |
| | | | | | | | | | | | | | | |
| Combustion Turbine Compartment, Unit | 10087 | 1055 | 45 | 2205.8 | | | | | | | | | | |
| Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Distance Correction | | | | 2205.8 | | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 8 | 18 | 51 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume 20 dBA) | | | | | | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| **CT Compartment Unit 7 SPL** | | | | **2205.8** | **21.4** | **28** | **30** | **24** | **22** | **17** | **14** | **16** | **2** | **-36** |
| | | | | | | | | | | | | | | |
| CT Generator, Unit 5 | 9798 | 1060 | 45 | 2487.0 | | | | | | | | | | |
| Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Distance Correction | | | | 2487.0 | | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 9 | 20 | 57 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier (Assume -11 dBA) | | | | | | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| **CT Generator Unit 5 SPL** | | | | **2487.0** | **29.7** | **33** | **33** | **31** | **29** | **28** | **25** | **20** | **5** | **-42** |
| | | | | | | | | | | | | | | |
| CT Generator, Unit 7 | 10087 | 1120 | 45 | 2191.9 | | | | | | | | | | |
| Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Distance Correction | | | | 2191.9 | | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 8 | 17 | 51 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier (Assume -11 dBA) | | | | | | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| **CT Generator Unit 7 SPL** | | | | **2191.9** | **31.4** | **34** | **34** | **32** | **31** | **30** | **27** | **23** | **8** | **-34** |
| | | | | | | | | | | | | | | |
| CT Exhaust Duct, Unit 5 | 9798 | 1000 | 38 | 2499.8 | | | | | | | | | | |
| Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Distance Correction | | | | 2499.8 | | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 9 | 20 | 58 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Acoustical Shroud (Assume -10 dBA) | | | | | | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| **CT Exhaust Duct Unit 5 SPL** | | | | **2499.8** | **26.9** | **41** | **38** | **35** | **27** | **25** | **21** | **15** | **3** | **-37** |
| | | | | | | | | | | | | | | |
| CT Exhaust Duct, Unit 7 | 10087 | 1060 | 38 | 2204.9 | | | | | | | | | | |
| Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Distance Correction | | | | 2204.9 | | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 8 | 18 | 51 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Acoustical Shroud (Assume -10 dBA) | | | | | | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| **CT Exhaust Duct Unit 7 SPL** | | | | **2204.9** | **28.5** | **42** | **39** | **36** | **29** | **26** | **23** | **17** | **7** | **-29** |
| | | | | | | | | | | | | | | |
| HRSG Transition, Unit 5 | 9798 | 970 | 50 | 2506.3 | | | | | | | | | | |

NRG El Segundo Repower Project
Sound Level Calculation
Worst-case residential view along 45th Street, Manhattan Beach

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Mitigation - Acoustic Shroud | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Distance Correction | | | | 2506.3 | | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 9 | 20 | 58 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Acoustical Shroud (Assume -10 dBA) | | | | | | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| **HRSG Transition, Unit 5 SPL** | | | | **2506.3** | **32.2** | **49** | **45** | **40** | **35** | **30** | **25** | **18** | **1** | **-49** |
| | | | | | | | | | | | | | | |
| HRSG Transition, Unit 7 | 10087 | 1035 | 50 | 2210.3 | | | | | | | | | | |
| Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Mitigation - Acoustic Shroud | | | | | | 4 | 12 | 24 | 32 | 34 | 31 | 17 | 19 | 25 |
| Mitigated Lw | | | | | **90.2** | 121 | 109 | 93 | 81 | 75 | 75 | 86 | 78 | 59 |
| Distance Correction | | | | 2210.3 | | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 8 | 18 | 51 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Acoustical Shroud (Assume -10 dBA) | | | | | | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| **HRSG Transition, Unit 7 SPL** | | | | **2210.3** | **11.9** | **46** | **34** | **17** | **5** | **-3** | **-4** | **3** | **-14** | **-66** |
| | | | | | | | | | | | | | | |
| HRSG Boiler, Unit 5 | 9798 | 930 | 112 | 2515.2 | | | | | | | | | | |
| Lw | | | | | **107.6** | 121 | 116 | 113 | 109 | 104 | 102 | 99 | 93 | 79 |
| Mitigation - Increase Boiler Casing Thickness | | | | | | 9 | 8 | 8 | 9 | 6 | 5 | 12 | 11 | 11 |
| Mitigated Lw | | | | | **100.5** | 112 | 108 | 105 | 100 | 98 | 97 | 87 | 82 | 68 |
| Distance Correction | | | | 2515.2 | | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 9 | 20 | 58 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier (Assume -8 dB) | | | | | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| **HRSG Boiler, Unit 5 SPL** | | | | **2515.2** | **22.8** | **38** | **34** | **30** | **24** | **21** | **18** | **4** | **-12** | **-64** |
| | | | | | | | | | | | | | | |
| HRSG Boiler, Unit 7 | 10087 | 988 | 112 | 2220.9 | | | | | | | | | | |
| Lw | | | | | **107.6** | 121 | 116 | 113 | 109 | 104 | 102 | 99 | 93 | 79 |
| Mitigation - Increase Boiler Casing Thickness | | | | | | 9 | 8 | 8 | 9 | 6 | 5 | 12 | 11 | 11 |
| Mitigated Lw | | | | | **100.5** | 112 | 108 | 105 | 100 | 98 | 97 | 87 | 82 | 68 |
| Distance Correction | | | | 2220.9 | | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 8 | 18 | 51 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier (Assume -8 dB) | | | | | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| **HRSG Boiler, Unit 7 SPL** | | | | **2220.9** | **24.3** | **39** | **35** | **31** | **26** | **22** | **20** | **6** | **-8** | **-56** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| CT Transformer, Unit 5 | 9855 | 1110 | 40 | 2421.6 | | | | | | | | | | |
| Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Distance Correction | | | | 2421.6 | | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 9 | 19 | 56 |
| Barrier (Fire Wall, assume 6 dBA) | | | | | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| **CT Transformer, Unit 5 SPL** | | | | **2421.6** | **30.3** | **30** | **36** | **37** | **32** | **30** | **23** | **14** | **-2** | **-45** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| CT Transformer, Unit 7 | 10140 | 1170 | 40 | 2130.6 | | | | | | | | | | |
| Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Distance Correction | | | | 2130.6 | | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 1 | 1 | 2 | 3 | 5 | 8 | 17 | 49 |
| Barrier (Fire Wall, assume 6 dBA) | | | | | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| **CT Transformer, Unit 7 SPL** | | | | **2130.6** | **31.8** | **31** | **37** | **39** | **33** | **32** | **24** | **16** | **2** | **-37** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| ST Transformer, Unit 6 | 10000 | 1140 | 63 | 2273.0 | | | | | | | | | | |
| Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Distance Correction | | | | 2273.0 | | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 8 | 18 | 52 |
| Barrier (Fire Wall, assume 6 dBA) | | | | | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |

NRG El Segundo Repower Project
Sound Level Calculation
Worst-case residential view along 45th Street, Manhattan Beach

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| **ST Transformer, Unit 6 SPL** | | | | **2273.0** | **31.1** | **31** | **36** | **38** | **32** | **31** | **23** | **15** | **0** | **-41** |
| | | | | | | | | | | | | | | |
| ST Package, Unit 6 | 10000 | 980 | 63 | 2307.6 | | | | | | | | | | |
| Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Distance Correction | | | | 2307.6 | | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 8 | 18 | 53 |
| Directivity | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -16 dBA) | | | | | | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| **ST Package, Unit 6 SPL** | | | | **2307.6** | **28.1** | **34** | **39** | **37** | **31** | **26** | **20** | **14** | **-4** | **-45** |
| | | | | | | | | | | | | | | |
| Generator Package, Unit 6 | 10000 | 1025 | 40 | 2297.5 | | | | | | | | | | |
| Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Distance Correction | | | | 2297.5 | | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 8 | 18 | 53 |
| Directivity | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -16 dBA) | | | | | | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| **Generator Package, Unit 6 SPL** | | | | **2297.5** | **28.1** | **34** | **39** | **37** | **31** | **26** | **20** | **14** | **-4** | **-45** |
| | | | | | | | | | | | | | | |
| Major Pumps, Unit 5 | 9798 | 900 | 30 | 2524.2 | | | | | | | | | | |
| Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| 1 Major Pump per Unit | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| Distance Correction | | | | 2524.2 | | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 9 | 20 | 58 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -18 dBA) | | | | | | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| **Major Pumps, Unit 5 SPL** | | | | **2524.2** | **19.7** | **19** | **24** | **22** | **20** | **18** | **15** | **10** | **-2** | **-44** |
| | | | | | | | | | | | | | | |
| Major Pumps, Unit 6 | 9930 | 1040 | 30 | 2362.6 | | | | | | | | | | |
| Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| 2 Major Pumps per Unit | | | | | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Total Lw | | | | | **112.9** | 106 | 112 | 110 | 109 | 108 | 107 | 106 | 105 | 101 |
| Distance Correction | | | | 2362.6 | | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 9 | 19 | 54 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -18 dBA) | | | | | | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| **Major Pumps, Unit 6 SPL** | | | | **2362.6** | **23.6** | **22** | **28** | **26** | **24** | **22** | **19** | **14** | **3** | **-37** |
| | | | | | | | | | | | | | | |
| Major Pumps, Unit 7 | 10087 | 960 | 30 | 2229.8 | | | | | | | | | | |
| Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| 1 Major Pump per Unit | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| Distance Correction | | | | 2229.8 | | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 1 | 1 | 1 | 2 | 3 | 5 | 8 | 18 | 51 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -18 dBA) | | | | | | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| **Major Pumps, Unit 7 SPL** | | | | **2229.8** | **21.3** | **20** | **26** | **23** | **22** | **19** | **17** | **12** | **2** | **-36** |
| | | | | | | | | | | | | | | |
| Gas Compressor 1 (North) | 10905 | 845 | 28.5 | 1509.7 | | | | | | | | | | |
| Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Distance Correction | | | | 1509.7 | | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 3 | 6 | 12 | 35 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -16 dBA) | | | | | | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| **Gas Compressor 1 SPL** | | | | **1509.7** | **25.8** | **21** | **17** | **22** | **21** | **18** | **20** | **22** | **13** | **-17** |
| | | | | | | | | | | | | | | |
| Gas Compressor 2 (South) | 10935 | 845 | 28.5 | 1483.4 | | | | | | | | | | |
| Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Distance Correction | | | | 1483.4 | | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 |

NRG El Segundo Repower Project
Sound Level Calculation
Worst-case residential view along 45th Street, Manhattan Beach

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 3 | 5 | 12 | 34 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -30 dBA) | | | | | | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| **Gas Compressor 2 SPL** | | | | **1483.4** | **26.1** | **22** | **17** | **22** | **21** | **18** | **20** | **22** | **13** | **-16** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Fin Fan Cooler 1 | 10905 | 845 | 49.5 | 1508.7 | | | | | | | | | | |
| Fan Lw | | | | | **96.5** | 103 | 103 | 102 | 99 | 94 | 91 | 84 | 80 | 74 |
| Distance Correction | | | | 1508.7 | | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 3 | 6 | 12 | 35 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| **Fin Fan Cooler 1 SPL** | | | | **1508.7** | **25.0** | **33** | **33** | **32** | **29** | **23** | **19** | **9** | **-1** | **-30** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Fin Fan Cooler 2 | 10935 | 845 | 49.5 | 1482.3 | | | | | | | | | | |
| Fan Lw | | | | | **96.5** | 103 | 103 | 102 | 99 | 94 | 91 | 84 | 80 | 74 |
| Distance Correction | | | | 1482.3 | | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 3 | 5 | 12 | 34 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| **Fin Fan Cooler 2 SPL** | | | | **1482.3** | **25.2** | **34** | **33** | **32** | **29** | **23** | **19** | **9** | **-1** | **-29** |
| | | | | | | | | | | | | | | |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 85 Feet West of Gas Compressors, Fin Fan Coolers

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Standard Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Mitigation - Silencer Upgrade | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Upgraded Silencer Lw | | | | | **92.3** | 102 | 106 | 99 | 98 | 87 | 78 | 74 | 81 | 77 |
| Distance Correction | | | | 924.6 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 21 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **CT Inlet Unit 7 SPL** | | | | **924.6** | **34.0** | **45** | **49** | **42** | **40** | **29** | **19** | **14** | **17** | **-1** |
| | | | | | | | | | | | | | | |
| CT Compartment, Unit 5 | 9798 | 1020 | 45 | 1151.9 | | | | | | | | | | |
| Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Distance Correction | | | | 1151.9 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 27 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume 20 dBA) | | | | | | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| **CT Compartment Unit 5 SPL** | | | | **1151.9** | **29.9** | **34** | **36** | **31** | **28** | **25** | **22** | **26** | **16** | **-6** |
| | | | | | | | | | | | | | | |
| Combustion Turbine Compartment, Unit | 10087 | 1055 | 45 | 883.9 | | | | | | | | | | |
| Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.8** | 113 | 115 | 110 | 108 | 105 | 103 | 109 | 104 | 99 |
| Distance Correction | | | | 883.9 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 20 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume 20 dBA) | | | | | | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| **CT Compartment Unit 7 SPL** | | | | **883.9** | **33.0** | **36** | **38** | **33** | **31** | **27** | **25** | **29** | **20** | **2** |
| | | | | | | | | | | | | | | |
| CT Generator, Unit 5 | 9798 | 1060 | 45 | 1161.6 | | | | | | | | | | |
| Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Distance Correction | | | | 1161.6 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 27 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier (Assume -11 dBA) | | | | | | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| **CT Generator Unit 5 SPL** | | | | **1161.6** | **39.1** | **40** | **40** | **38** | **37** | **36** | **35** | **32** | **22** | **-5** |
| | | | | | | | | | | | | | | |
| CT Generator, Unit 7 | 10087 | 1120 | 45 | 907.7 | | | | | | | | | | |
| Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.1** | 110 | 110 | 109 | 108 | 108 | 107 | 106 | 101 | 92 |
| Distance Correction | | | | 907.7 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 21 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier (Assume -11 dBA) | | | | | | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| **CT Generator Unit 7 SPL** | | | | **907.7** | **41.8** | **42** | **42** | **41** | **39** | **39** | **37** | **35** | **26** | **3** |
| | | | | | | | | | | | | | | |
| CT Exhaust Duct, Unit 5 | 9798 | 1000 | 38 | 1147.5 | | | | | | | | | | |
| Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Distance Correction | | | | 1147.5 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 26 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Acoustical Shroud (Assume -10 dBA) | | | | | | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| **CT Exhaust Duct Unit 5 SPL** | | | | **1147.5** | **36.1** | **48** | **45** | **43** | **35** | **34** | **31** | **27** | **21** | **1** |
| | | | | | | | | | | | | | | |
| CT Exhaust Duct, Unit 7 | 10087 | 1060 | 38 | 885.5 | | | | | | | | | | |
| Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 85 Feet West of Gas Compressors, Fin Fan Coolers

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **108.0** | 117 | 114 | 112 | 105 | 104 | 102 | 100 | 99 | 96 |
| Distance Correction | | | | 885.5 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 20 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Acoustical Shroud (Assume -10 dBA) | | | | | | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| **CT Exhaust Duct Unit 7 SPL** | | | | **885.5** | **38.9** | **50** | **47** | **45** | **38** | **36** | **34** | **30** | **25** | **9** |
| | | | | | | | | | | | | | | |
| HRSG Transition, Unit 5 | 9798 | 970 | 50 | 1141.8 | | | | | | | | | | |
| Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Mitigation - Acoustic Shroud | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Distance Correction | | | | 1141.8 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 26 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Acoustical Shroud (Assume -10 dBA) | | | | | | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| **HRSG Transition, Unit 5 SPL** | | | | **1141.8** | **41.0** | **56** | **52** | **48** | **43** | **39** | **35** | **30** | **19** | **-11** |
| | | | | | | | | | | | | | | |
| HRSG Transition, Unit 7 | 10087 | 1035 | 50 | 877.6 | | | | | | | | | | |
| Lw | | | | | **111.9** | 125 | 121 | 117 | 113 | 109 | 106 | 103 | 97 | 84 |
| Mitigation - Acoustic Shroud | | | | | | 4 | 12 | 24 | 32 | 34 | 31 | 17 | 19 | 25 |
| Mitigated Lw | | | | | **90.2** | 121 | 109 | 93 | 81 | 75 | 75 | 86 | 78 | 59 |
| Distance Correction | | | | 877.6 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 20 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Acoustical Shroud (Assume -10 dBA) | | | | | | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| **HRSG Transition, Unit 7 SPL** | | | | **877.6** | **21.8** | **54** | **42** | **26** | **14** | **7** | **7** | **16** | **4** | **-28** |
| | | | | | | | | | | | | | | |
| HRSG Boiler, Unit 5 | 9798 | 930 | 112 | 1138.1 | | | | | | | | | | |
| Lw | | | | | **107.6** | 121 | 116 | 113 | 109 | 104 | 102 | 99 | 93 | 79 |
| Mitigation - Increase Boiler Casing Thickness | | | | | | 9 | 8 | 8 | 9 | 6 | 5 | 12 | 11 | 11 |
| Mitigated Lw | | | | | **100.5** | 112 | 108 | 105 | 100 | 98 | 97 | 87 | 82 | 68 |
| Distance Correction | | | | 1138.1 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 26 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier (Assume -8 dB) | | | | | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| **HRSG Boiler, Unit 5 SPL** | | | | **1138.1** | **31.8** | **45** | **41** | **38** | **32** | **30** | **28** | **16** | **6** | **-25** |
| | | | | | | | | | | | | | | |
| HRSG Boiler, Unit 7 | 10087 | 988 | 112 | 868.0 | | | | | | | | | | |
| Lw | | | | | **107.6** | 121 | 116 | 113 | 109 | 104 | 102 | 99 | 93 | 79 |
| Mitigation - Increase Boiler Casing Thickness | | | | | | 9 | 8 | 8 | 9 | 6 | 5 | 12 | 11 | 11 |
| Mitigated Lw | | | | | **100.5** | 112 | 108 | 105 | 100 | 98 | 97 | 87 | 82 | 68 |
| Distance Correction | | | | 868.0 | | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 20 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier (Assume -8 dB) | | | | | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| **HRSG Boiler, Unit 7 SPL** | | | | **868.0** | **34.6** | **47** | **43** | **40** | **35** | **32** | **31** | **19** | **11** | **-16** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| CT Transformer, Unit 5 | 9855 | 1110 | 40 | 1121.1 | | | | | | | | | | |
| Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Distance Correction | | | | 1121.1 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 26 |
| Barrier (Fire Wall, assume 6 dBA) | | | | | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| **CT Transformer, Unit 5 SPL** | | | | **1121.1** | **38.9** | **37** | **43** | **45** | **39** | **39** | **32** | **25** | **15** | **-8** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| CT Transformer, Unit 7 | 10140 | 1170 | 40 | 881.3 | | | | | | | | | | |
| Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 85 Feet West of Gas Compressors, Fin Fan Coolers

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Mitigated Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Distance Correction | | | | 881.3 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 20 |
| Barrier (Fire Wall, assume 6 dBA) | | | | | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| **CT Transformer, Unit 7 SPL** | | | | **881.3** | **41.3** | **39** | **45** | **47** | **42** | **41** | **35** | **28** | **19** | **-1** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| ST Transformer, Unit 6 | 10000 | 1140 | 63 | 996.1 | | | | | | | | | | |
| Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **105.4** | 102 | 108 | 110 | 105 | 105 | 99 | 94 | 89 | 82 |
| Distance Correction | | | | 996.1 | | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 1 | 2 | 4 | 8 | 23 |
| Barrier (Fire Wall, assume 6 dBA) | | | | | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| **ST Transformer, Unit 6 SPL** | | | | **996.1** | **40.1** | **38** | **44** | **46** | **41** | **40** | **33** | **27** | **17** | **-5** |
| | | | | | | | | | | | | | | |
| ST Package, Unit 6 | 10000 | 980 | 63 | 946.7 | | | | | | | | | | |
| Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Distance Correction | | | | 946.7 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 8 | 22 |
| Directivity | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -16 dBA) | | | | | | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| **ST Package, Unit 6 SPL** | | | | **946.7** | **37.7** | **42** | **48** | **45** | **40** | **36** | **31** | **26** | **14** | **-6** |
| | | | | | | | | | | | | | | |
| Generator Package, Unit 6 | 10000 | 1025 | 40 | 957.5 | | | | | | | | | | |
| Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **112.5** | 115 | 121 | 119 | 114 | 110 | 106 | 103 | 95 | 89 |
| Distance Correction | | | | 957.5 | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 1 | 2 | 4 | 8 | 22 |
| Directivity | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -16 dBA) | | | | | | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| **Generator Package, Unit 6 SPL** | | | | **957.5** | **37.6** | **41** | **47** | **45** | **40** | **35** | **31** | **26** | **14** | **-6** |
| | | | | | | | | | | | | | | |
| Major Pumps, Unit 5 | 9798 | 900 | 30 | 1130.7 | | | | | | | | | | |
| Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| 1 Major Pump per Unit | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| Distance Correction | | | | 1130.7 | | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 26 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -18 dBA) | | | | | | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| **Major Pumps, Unit 5 SPL** | | | | **1130.7** | **29.6** | **26** | **32** | **30** | **28** | **27** | **25** | **22** | **16** | **-5** |
| | | | | | | | | | | | | | | |
| Major Pumps, Unit 6 | 9930 | 1040 | 30 | 1028.8 | | | | | | | | | | |
| Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| 2 Major Pumps per Unit | | | | | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Total Lw | | | | | **112.9** | 106 | 112 | 110 | 109 | 108 | 107 | 106 | 105 | 101 |
| Distance Correction | | | | 1028.8 | | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 1 | 1 | 1 | 2 | 4 | 8 | 24 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -18 dBA) | | | | | | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| **Major Pumps, Unit 6 SPL** | | | | **1028.8** | **33.7** | **30** | **36** | **34** | **32** | **31** | **29** | **26** | **21** | **1** |
| | | | | | | | | | | | | | | |
| Major Pumps, Unit 7 | 10087 | 960 | 30 | 856.7 | | | | | | | | | | |
| Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| 1 Major Pump per Unit | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Lw | | | | | **109.9** | 103 | 109 | 107 | 106 | 105 | 104 | 103 | 102 | 98 |
| Distance Correction | | | | 856.7 | | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 7 | 20 |

NRG El Segundo Repower Project
Sound Level Calculation
Nearest Property Boundary: Approx. 85 Feet West of Gas Compressors, Fin Fan Coolers

| | X | Y | Z | Distance (feet) | dBA | OCTAVE BAND CENTER FREQUENCY (Hz) 31.5 | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -18 dBA) | | | | | | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| **Major Pumps, Unit 7 SPL** | | | | **856.7** | **32.8** | **28** | **34** | **32** | **31** | **30** | **28** | **26** | **21** | **4** |
| | | | | | | | | | | | | | | |
| Gas Compressor 1 (North) | 10905 | 845 | 28.5 | 86.4 | | | | | | | | | | |
| Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Distance Correction | | | | 86.4 | | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -16 dBA) | | | | | | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| **Gas Compressor 1 SPL** | | | | **86.4** | **56.1** | **47** | **43** | **48** | **47** | **44** | **47** | **52** | **49** | **41** |
| | | | | | | | | | | | | | | |
| Gas Compressor 2 (South) | 10935 | 845 | 28.5 | 86.4 | | | | | | | | | | |
| Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Mitigation | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mitigated Lw | | | | | **122.9** | 113 | 109 | 114 | 113 | 111 | 114 | 119 | 116 | 109 |
| Distance Correction | | | | 86.4 | | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enclosure (Assume -30 dBA) | | | | | | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| **Gas Compressor 2 SPL** | | | | **86.4** | **56.1** | **47** | **43** | **48** | **47** | **44** | **47** | **52** | **49** | **41** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Fin Fan Cooler 1 | 10905 | 845 | 49.5 | 89.7 | | | | | | | | | | |
| Fan Lw | | | | | **96.5** | 103 | 103 | 102 | 99 | 94 | 91 | 84 | 80 | 74 |
| Distance Correction | | | | 89.7 | | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| **Fin Fan Cooler 1 SPL** | | | | **89.7** | **51.6** | **58** | **58** | **57** | **54** | **49** | **46** | **39** | **35** | **27** |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Fin Fan Cooler 2 | 10935 | 845 | 49.5 | 89.7 | | | | | | | | | | |
| Fan Lw | | | | | **96.5** | 103 | 103 | 102 | 99 | 94 | 91 | 84 | 80 | 74 |
| Distance Correction | | | | 89.7 | | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 |
| Atmospheric Absorption (59 deg F, 70% R.H.) | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| Directivity | | | | n | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barrier | | | | | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| **Fin Fan Cooler 2 SPL** | | | | **89.7** | **51.6** | **58** | **58** | **57** | **54** | **49** | **46** | **39** | **35** | **27** |
| | | | | | | | | | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ATMOSPHERIC ABSORPTION (dB/100 meters - 75% of EEI Values) | 0.08 | 0.11 | 0.17 | 0.27 | 0.45 | 0.70 | 1.20 | 2.62 | 7.56 |