

Example Calculations

Case 1: Base case

Visit	Berth (hr)	Engine (hr)	Power (MW)	Baseline Engine Emissions (MWh)	Actual Engine Emissions (MWh)
				Berth*Power	Engine*Power
1	70	70	1.5	105	105
2	75	2	1.5	112.5	3
3	72	72	1.5	108	108
4	70	3	1.5	105	4.5
5	65	2	1.5	97.5	3
6	67	2	1.5	100.5	3
			Totals:	628.5	226.5
(Baseline - Actual) / (Baseline)			Reduction:	$(628.5 - 226.5) / 628.5 = 64\%$	
# SP Visits) / (# Visits)			Shore Power:	$4 / 6 = 67\%$	

Case 2: Base case, except an undocumented emergency occurred during visit 5.

Visit	Berth (hr)	Engine (hr)	Power (MW)	Baseline Engine Emissions (MWh)	Actual Engine Emissions (MWh)
				Berth*Power	Engine*Power
1	70	70	1.5	105	105
2	75	2	1.5	112.5	3
3	72	72	1.5	108	108
4	70	3	1.5	105	4.5
5	65	65	1.5	97.5	97.5
6	67	2	1.5	100.5	3
			Totals:	628.5	321
(Baseline - Actual) / (Baseline)			Reduction:	$(628.5 - 321) / 628.5 = 49\%$	
# SP Visits) / (# Visits)			Shore Power:	$3 / 6 = 50\%$	

Case 3: Base case, except an emergency visits occurred during visit 5 that was documented and valid. In this case, the visit counts toward Shore Power, but the emissions are excluded from reduction calculations.

Visit	Berth (hr)	Engine (hr)	Power (MW)	Baseline Engine Emissions (MWh)	Actual Engine Emissions (MWh)
				Berth*Power	Engine*Power
1	70	70	1.5	105	105
2	75	2	1.5	112.5	3
3	72	72	1.5	108	108
4	70	3	1.5	105	4.5
5	65	65	1.5	97.5	97.5
6	67	2	1.5	100.5	3
			Totals:	531	223.5
(Baseline - Actual) / (Baseline)			Reduction:	$(531 - 223.5) / 531 = 58\%$	
# SP Visits) / (# Visits)			Shore Power:	$4 / 6 = 67\%$	