

APPENDIX A – ACR662 Emission Reductions

2020 EOL ERT Calculation

2020 ERTs
1,934,327

BASELINE

Equation #1

$$BE_{BBA} = \{ Q_{BBA} \times FYL_{BBA} / 2204.62_{\text{lbs/tonne}} \} \times GWP_{BBA}$$

Parameter	Description	Value
BE_{BBA}	Baseline emissions (tonnes CO ₂ e)	1,998,264
Q_{BBA}	Quantity of Baseline BA (lbs) which would have been used to manufacture the foam in the absence of the project activity.	3,080,708
LL_{BBA}	Leakage Lifetime emission rate associated with the foam application	1.00
2204.62	Pound to metric ton conversion	2,204.62
GWP_{BBA}	The GWP of the Baseline BA.	1,430

Equation #2

$$Q_{BBA} = Q_{EBA} \times BAR$$

Parameter	Description	Value
Q_{EBA}	The quantity of Eligible BA (lbs) which is used to manufacture the foam for the project.	1,813,248
BAR	The quantity of Eligible BA, as compared to the Baseline BA, that is required to replace the Baseline BA to produce a foam with equivalent thermal performance (%)	1.699

PROJECT ACTIVITY

Equation #3

$$PE_{EBA} = \{ Q_{EBA} \times FYL_{EBA} \} / 2204.62_{\text{lbs/tonne}} \times GWP_{EBA}$$

Parameter	Description	Value
PE_{EBA}	Project emissions (tonnes CO ₂ e)	4,112.38
Q_{EBA}	The quantity of Eligible BA (lbs), which is used to manufacture the foam for the project	1,813,248
LL_{BBA}	Leakage Lifetime emission rate associated with the foam application	1.00
2204.62	Pound to metric ton conversion	2,204.62
GWP_{EBA}	The GWP of the Eligible BA	5

LEAKAGE

Equation #4

$$LE_{LBA} = \{ Q_{LBA} \times FYL_{LBA} / 2204.62_{\text{lbs/tonne}} \} \times GWP_{LBA}$$

Parameter	Description	Value
LE_{LBA}	Activity shifting leakage emissions (tonnes CO ₂ e).	0.00
Q_{LBA}	The quantity of BA (in pounds) that is used at the new location	0
LL_{LBA}	Leakage Lifetime emission rate associated with the foam application	1.00
2204.62	Pound to metric ton conversion	2,204.62
GWP_{LBA}	The GWP of the BA used at the new location	0

EMISSION REDUCTIONS

Equation #5

$$ER = ((BE_{BBA} - LE_{LBA}) - PE_{EBA}) \times (1-DF)$$

Parameter	Description	Value
ER	Equation 5 - Emission reductions (tonnes CO ₂ e)	1,934,327
BE_{BBA}	Equation 1 - Baseline emissions (tonnes CO ₂ e)	1,998,264
PE_{EBA}	Equation 3 - Project emissions (tonnes CO ₂ e)	4,112
LE_{LBA}	Equation 4 - Project leakage emissions (tonnes CO ₂ e)	0
DF	Spray foam discount factor	3%