

# Appendix I

## Energy Analysis

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## FS39 Energy Calculations

<u>Summary</u>		<i>million btu</i>
<u>Construction</u>		<b><u>3,196</u></b>
	diesel	<b>2,935</b>
	gas	<b>261</b>
<u>Operations</u>		<b><u>12,355</u></b>
	diesel	<b>11,154</b>
	gen	<b>31</b>
	electricity	<b>968</b>
	natural gas	<b>202</b>

### Construction Energy

	<u>fuel</u>	<u>MT</u>	<u>LBS</u>	<u>Gallons</u>	<u>Million BTU</u>
CO2 from diesel - equipment	diesel	200.27578	441532	19622	2718
CO2 from diesel - trucks	diesel	16.04786	35379	1572	218
CO2 from gasoline - commute	gas	18.40654	40579	2097	261
Total		234.7	517,491	23,292	3,196

### Operational Energy

	<u>fuel</u>	<u>MT</u>	<u>lbs</u>	<u>gallons</u>	<u>million BTU</u>
<u>VMT</u>	diesel	822	1812198	80537	11154
<u>Generator</u>	diesel	2	5112	227	31
<u>Natural Gas</u>	kBTU/year	202205			202
<u>Electricity</u>	kwh/year	283589	968172846		968

BTU_kWh	3,414	USDOE 2014
LBs CO2 per gal diesel	22.5	CR 2015
LBs CO2 per gal gasoline	19.4	CR 2015
LBs per MT	2204.62	
Energy Unit	BTU/gal	
Gasoline	124,340	USDOE 2014
Diesel	138,490	USDOE 2014
Million	1000000	

