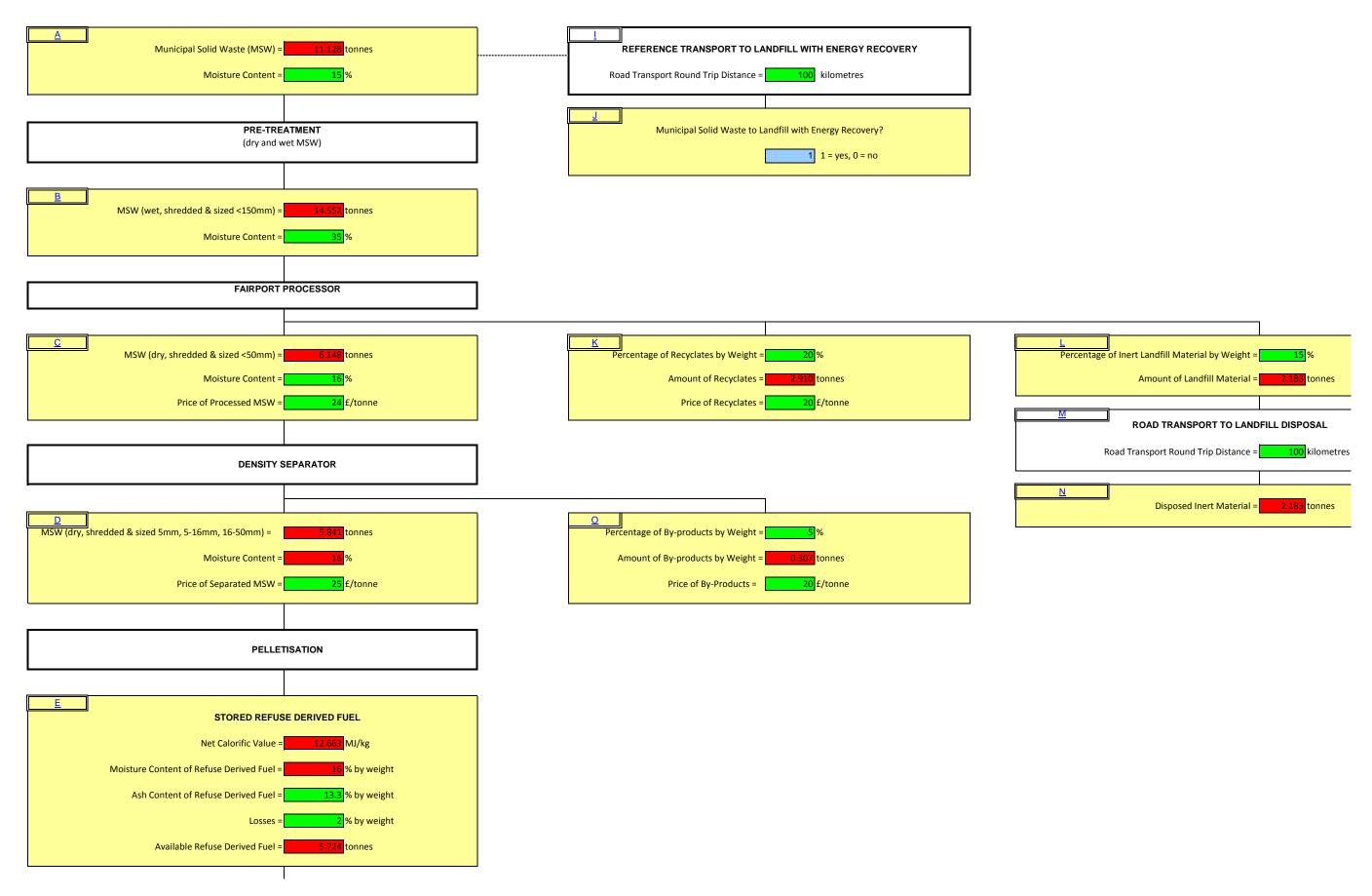
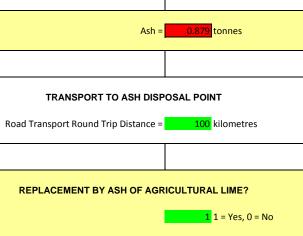
Description of Functional Unit: Final Unit of Measurement: Combined Heat and Power Generation by the Combustion of High Biomass Refuse Derived Fuel 1 MWhe Electricity (net) or Heat







H

A	Default moisture content of 15% (Ref. 13)
<u>B</u>	Default moisture content of 35% (Ref. 13)
<u>c</u>	Default moisture content of 15.7% (Ref. 13), and a default value price of £24/t MSW based on shadow price derived from RO penalty price of £30/MWhe, calorific value of 12.712 MJ/kg for RDF pellets and a thermal efficiency of electricity generation by combustion of 25%, giving a conversion factor for dried, shredded and sized MSW (16% moisture content) of 1.133 tonnes/MWhe.
D	Default value price of £25/t MSW based on shadow price derived from RO penalty price of £30/MWhe, calorific value of 12.712 MJ/kg for MSW and a thermal efficiency of electricity generation by combustion of 25%, giving a conversion factor for dried, shredded, sized and separated of 1.192 tonnes/MWhe.
E	Default moisture content of pellets of 15.7% (Ref. 13), default ash content of pellets of 13.3% (Ref. 13), nominal losses of 2% and the net calorific value (NCV) is calculated assuming a dry NCV of 18.7 and a hydrogen content of 4.34 (Ref. 16)
E	Default assumes a nominal round trip distance by road of 100 kilometres and 3% losses
<u>G</u>	Default values for thermal efficiency of 75%, a net electrical output rating of 2 MWe and a thermal output rating of 6 MWt calculated from specified thermal input rating, thermal efficiency of power plant and a heat to power ratio of 2, a thermal input rating of power plant of 10 MWt, a load factor of 55% (Ref. 3), a plant life of 25 years (Ref. 3), start-up fuel of 14.4 GJ/operation based on 20% of load (10 MWt) for 5 mins and a nominal 6 start up operations per year (Ref. 19).
<u>H</u>	Default assumes a nominal round trip distance by road of 100 kilometres and 3% losses
<u>1</u>	Default assumes a nominal round trip distance by road of 100 kilometres and 3% losses
<u>J</u>	Default assumes disposal to landfill with energy recovery
K	Default value for recyclates amounts to 20% of MSW by weight (Ref. 13) and an average price for general materials recovered for recycling of £20/tonne (Ref. 20)
L	Default value for landfill material amounts to 15% of MSW by weight (Ref. 13)
M	Default assumes a nominal round trip distance by road of 100 kilometres
N	Default assumes that, as all biomass has been recovered previously, this material is, effectively, inert and, hence, there is no energy recovery in landfill
<u>o</u>	Default value of by products of 5% by weight (Ref. 13) and an average price for general materials recovered for recycling of £20/tonne (Ref. 20)