

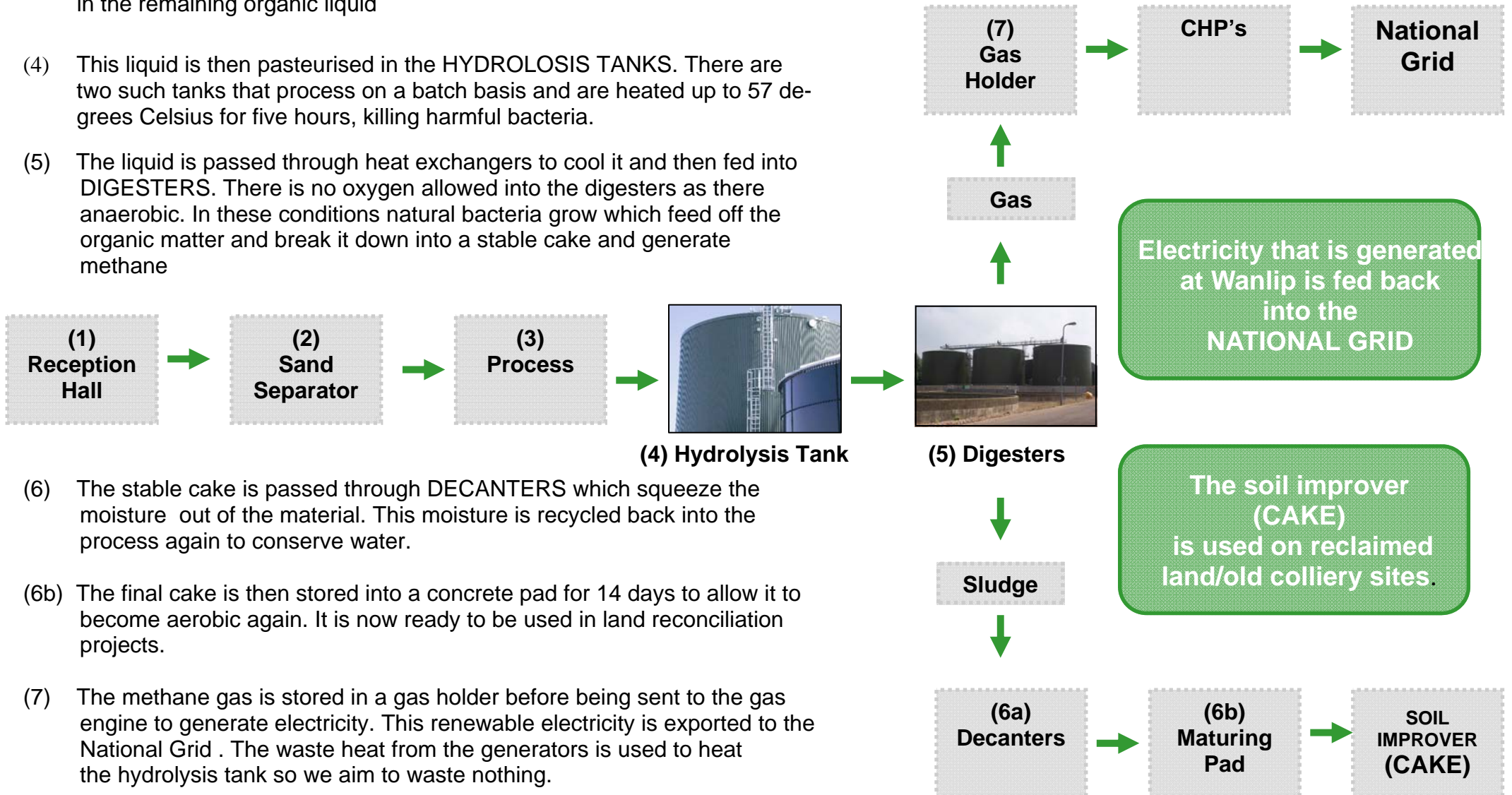
Anaerobic Digester, Wanlip



- (1) Organic material is transported from the Ball Mill and tipped into the RECEPTION HALL. The material is fed by conveyor into a mixing tank, where water is added to produce a slurry.
- (2) The slurry is fed into a SAND SEPERATER, which is a system of weirs that takes out the heavy material added to produce a slurry.
- (3) From here the slurry passes through a de- watering system which removes the fibrous material and helps to get the correct dry solids in the remaining organic liquid

- (4) This liquid is then pasteurised in the HYDROLOSIS TANKS. There are two such tanks that process on a batch basis and are heated up to 57 degrees Celsius for five hours, killing harmful bacteria.

- (5) The liquid is passed through heat exchangers to cool it and then fed into DIGESTERS. There is no oxygen allowed into the digesters as there anaerobic. In these conditions natural bacteria grow which feed off the organic matter and break it down into a stable cake and generate methane



- (6) The stable cake is passed through DECANTERS which squeeze the moisture out of the material. This moisture is recycled back into the process again to conserve water.

- (6b) The final cake is then stored into a concrete pad for 14 days to allow it to become aerobic again. It is now ready to be used in land reconciliation projects.

- (7) The methane gas is stored in a gas holder before being sent to the gas engine to generate electricity. This renewable electricity is exported to the National Grid. The waste heat from the generators is used to heat the hydrolysis tank so we aim to waste nothing.