

Appendix 6 – Data input into the feasibility analysis of a pellet producing facility in Dedoplistskaro

TABLE A 6 . 1

Assumptions, data and data sources used for the economic feasibility assessment of the pellet producing facility.

Demand for energy in Dedoplistskaro	Unit	Mean value	Values/source
MJ of energy in 1 m ³ of fuelwood	MJ/m ³	9,360	Biomass energy centre ³⁹
Energetic content of straw pellets	MJ/ton	16,200 (2.8)	19 MJ/kg, 13 MJ/kg, 15 MJ/kg, 18 MJ/kg ⁴⁰
Annual demand for fuelwood per household	m ³ /HH	9	Helbig 2016
Annual demand for fuelwood	m ³	51,525	Helbig 2016
Annual total demand for fuel in MJ equivalents	MJ	482.3 millions	Calculated
Annual total demand for fuel in pellet equivalents	tons	29,770	Calculated
Economic value of fuel	Unit	Mean value (sd)	Values/source
Price of fuelwood	GEL/m ³	63 (14)	44, 60, 70 and 76 GEL/m ³ depending on the size of truckload delivery (REC, GIZ 2016)
Implicit price per MJ of energy	GEL/MJ	0.0067	Calculated
Sale price per ton of pellets on the basis of the energy equivalent value	GEL/ton	109.0	Calculated
Total potential supply of wheat straw	Unit	Mean value (sd)	Values/source
Arable land	ha	34,000	Klein (2015)
% of farmland dedicated to barley and wheat cropping	%	60 %	Valuation survey
Wheat and barley fields, Dedoplistskaro	ha	19,000	Inferred from valuation survey

³⁹ http://www.biomassenergycentre.org.uk/portal/page?_pageid=75,20041&_dad=portal

⁴⁰ <http://www.factory.lt/en/production/pellet-presses/straw-shredding-and-pellet-producing-equipment>; http://www.appletonlemoors.co.uk/docs/calorific_values.PDF; <http://www.agripellets.com/Docs/AWSPA.pdf>; Helberg (2016)