



Table of Content



1 Overview about the EU energy system	12
1.1 Energy breakdown	13
1.2 Renewables in Europe	23
2 Bioenergy landscape	32
2.1 Current bioenergy balance	33
2.2 Overview of the National Renewable Energy Action Plans	44
2.3 Socio-economic indicators	48
3 Biomass supply	51
3.1 Overview	52
3.2 Biomass from agricultural land and by-products	54
3.3 Biomass from forestry	61
3.4 Biomass from waste	79
4 Bioheat	84
4.1 Heat and RES heat demand in Europe	85
4.2 Biomass for heat and derived heat	88
4.3 Evolution and prospects of bioheat	91
5 Biomass for electricity	104
5.1 Electricity and RES electricity in Europe	105
5.2 Bioelectricity in Europe	109
5.3 Evolutions and prospects of bioelectricity	113
6 Biomass for transport	121
6.1 Transport sector in Europe	122
6.2 Renewable in transport	124
6.3 Liquid biofuels for transport	129
6.4 Advance liquid biofuels	134
7 Biogas	141
7.1 Biogas sector in Europe	142
8 Wood pellet	149
8.1 Overview of world pellet sector	151
8.2 Situation in Europe	160
8.3 Latest developments of ENplus certification	212
9 Support Schemes	214
9.1 Support Schemes for bioheat	217
9.2 Support Schemes for bioelectricity	223
10 Annexes	232
11.1 Reference tables	233
11.2 Pellets chapter reference tables	250
11.3 Glossary	251
11.4 List of figures	257
11.5 List of tables	261