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Women in Renewable Energy Sector

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CASE STUDY

SOCIAL DIALOGUE AND EMPLOYMENT OF WOMEN IN THE FIELD OF BIOMASS UTILIZATION IN BULGARIA

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Union for Private Economic Enterprise (UPEE)





Employers' organizations in Bulgaria, representative in the electricity sector:

Organization	Sub-sectors		National affiliations		
	cover	ed			
Balgarska	E40.1	, E40.3,	Balgarska stopanska		
branshova kamara	F45.31,		kamara (Bulgarian		
na energetizite	DF23.3 and		Industrial Association		
(Bulgarian Branch	DL31	.62.	-BIA)		
Chamber of the			BIA is a full member		
Energetics, BBCE)			of BusinessEurope		
European affiliations 1		Internati	ional affiliations		
No		No			







Trade union organizations in Bulgaria, representative in the electricity sector:

Organisation	Type of salaried workers	National affiliations	European affiliations	International affiliations
Nazionalna Federatzia na energetizite (The National Federation of Energy Workers)	Blue collar workers prevail	CITUB	EMCEF EPSU	ICEM PSI
Nezavisima syndikalna fedetazia na energetizite v Bulgaria (The Independent Trade Union Federation of Workers in Energy Industry in Bulgaria)	Blue collar workers prevail	CITUB	EPSU	PSI
Federatzia "Energetika" - Podkrepa (The Federation of Energy Workers Podkrepa, FEW Podkrepa)	Blue collar workers prevail	LC Podkrepa	EMCEF EPSU	ICEM PSI







ECONOMIC ACTIVITY, EMPLOYMENT AND UNEMPLOYMENT OF THE 15 – 64 YEARS OLD POPULATION BY SEX (in %)

Table 1

Year	LEA	LEA	LEA	LEMPL	LEMPL	LEMPL	LUNEMP	LUNEM	LUNEM
	Total	Men	Women	Total	Men	Women	Total	Men	Women
2003	49,2	54,5	44,0	42,4	46,8	38,4	13,7	14,1	13,2
2004	49,7	55,3	44,6	43,7	48,4	39,5	12,0	12,5	11,5
2005	49,7	55,4	39,5	44,7	49,7	40,0	10,0	10,3	9,8
2006	51,3	56,7	46,3	46,7	51,8	42,0	9,0	8,6	9,3
2007	66,1	70,3	62,0	61,6	65,5	57,7	6,9	6,8	6,9
2008	67,8	72,5	63,1	64,0	68,5	59,5	5,7	5,6	5,8
2009 II	67,6	72,3	63,0	63,3	67,7	59,9	6,4	6,3	6,4

Source: Employment and unemployment, National Statistical Institute, Sofia, 2006, 2/2007 second quarter; 2008-4/2009

Remark: Level of economic activity – LEA; Level of employment – LEMPL; Level of unemployment – LUNEM.







SECONDARY AND HIGHER EDUCATION BY SEX (in thousands of persons)

Table 6

	2003	2003	2004	2004	2005	2005
	Men	Women	Men	Women	Men	Women
Secondary education – vocational education high school	27,8	16,6	25,9	16,3	25,7	16,9
Higher education – TOTAL	13,7	16,6	13,4	17,3	13,1	17,2
Higher education – graduated college (specialist degree)	1	1,6	1	1,8	1,1	1,6
Graduated university – bachelor's and master's degrees	12,6	14,9	12,3	15,4	11,9	15,5

Source: Education in the Republic of Bulgaria, National Statistical Institute, Sofia, 2006.







WAGES BY GENDER AND ECONOMIC ACTIVITIES

Table 12 (Gross salary per month - 2002)

ECONOMIC ACTIVITIES	TOTAL	MEN	WOMEN	WWPSM (%)
Total	283	312	255	81,7
Extractive industry	463	482	379	78,6
Processing industry	259	302	220	72,8
Production and distribution of electricity, gaseous fuels and water	456	474	403	85,0
Construction	255	254	258	101,6
Trade, repair of motor vehicles, motorcycles, personal and household goods	198	207	186	89,9
Hotels and restaurants	187	188	186	98,9





WAGES BY GENDER AND ECONOMIC ACTIVITIES

Table 12 (Gross salary per month - 2002)

ECONOMIC ACTIVITIES	TOTAL	MEN	WOMEN	WWPSM (%)
Transport, storage and communications	359	373	333	89,3
Financial intermediation	567	623	536	86,0
Real Estate and business services	247	237	266	112,2
State government; compulsory social securities	343	365	328	89,9
Education	272	312	261	83,7







WAGES BY GENDER AND ECONOMIC ACTIVITIES

Table 12 (Gross salary per month - 2002)

ECONOMIC ACTIVITIES	TOTAL	MEN	WOMEN	WWPSM (%)
Healthcare and social activities	263	324	246	75,9
Other community and personal services	226	239	213	89,1
RATIOS BETWEEN THE HIGHEST AND THE LOWEST GROSS SALARY	3,03	3,31	2,88	72,8 – 112,2

Source: Calculated, using "Salary Structure 2002", National Statistical Institute, Sofia, 2004.

Remark: WWPSM - Women's wages as a percentage of salary for men.







WAGES BY GENDER AND OCCUPATIONAL CLASSIFICATION

Table 13 (Gross salary per month in Bulgarian levs – October 2002)

	TOTAL	MEN	WOMEN	WWPSM (%)
Total	283	312	255	81,7
Managers	564	603	503	83,4
Analytical specialists	376	443	345	77,9
Applied professionals	330	390	298	104,8
Support staff	240	231	242	104,8
Staff employed in services for the population, security and trade	166	177	157	88,7
Producers in agriculture, forestry and fishing	190	195	186	95,4







WAGES BY GENDER AND OCCUPATIONAL CLASSIFICATION

Table 13 (Gross salary per month in Bulgarian levs – October 2002)

	TOTAL	MEN	WOMEN	WWPSM (%)
Skilled workers	267	307	180	58,6
Operators of facilities, machinery and transport eqipment	273	296	228	77,0
Low skilled workers	169	174	164	94,3
RATIOS BETWEEN THE HIGHEST AND THE LOWEST GROSS SALARY	3,3	3,47	3,06	58,6 – 104,8

Source: Calculated, using "Salary Structure 2002", National Statistical Institute, Sofia, 2004.

Remark: WWPSM - Women's wages as a percentage of salary for men (WWPSM).



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WAGES BY GENDER AND EDUCATION

Table 14 (Gross salary per month in Bulgarian levs – October 2002)

EDUCATION	TOTAL	MEN	WOMEN	WWPSM (%)
TOTAL	283	312	255	81,7
Primary education – 4-th class and lower	225	265	185	69,8
Primary education – 8-th class	219	251	178	70,9
Secondary education – 12-th class	244	271	212	78,2
Vocational education – graduated after high school	310	337	281	83,4
Higher education – graduated college (specialist degree)	284	351	260	74,1







WAGES BY GENDER AND EDUCATION

Table 14 (Gross salary per month in Bulgarian levs – October 2002)

EDUCATION	TOTAL	MEN	WOMEN	WWPSM (%)
Graduated university – bachelor's and master's degrees	408	479	362	75,6
Higher education – philosophy doctor's degree	544	570	505	88,6
RATIOS BETWEEN THE HIGHEST AND THE LOWEST GROSS SALARY	,	2,27	2,84	69,8 – 88,6

Source: Calculated, using "Salary Structure 2002", National Statistical Institute, Sofia, 2004.

Remark: WWPSM - Women's wages as a percentage of salary for men.



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In the period 2002 – 2007, we can evaluate the payment gap by sex as follows:

No	Economic activities	2002	2006	2007
1	Total	17,8	10,8	10,7
2	Extractive industry	21,7	27,7	29,5
3	Processing industry	27,5	23,4	23,6
4	Production and distribution of electricity, gaseous fuels and water	14,3	9,2	7,7
5	Construction	-2,9	-14,9	-17,8
6	Trade, repair of motor vehicles, motorcycles, personal and household goods	10,2	11,5	12,1
7	Hotels and restaurants	0,7	5,9	7,6
8	Transport, storage and communications	7,8	2,7	1,3
9	Financial intermediation	13,7	22,5	26,6
10	Real Estate and business services	-10,4	-17,1	-17,9
11	State government; compulsory social securities	9,5	2,1	2,6
12	Education	16,3	14,7	14,3
13	Healthcare and social activities	23,9	28,5	28,1
14	Other community and personal services	10,1	6,8	13,9





ADDITIONAL DAYS LEAVE FOR WOMEN WITH 2, 3 AND MORE CHILDREN, NEGOTIATED FOLLOWING ARTICLE 168 OF THE LABOUR CODE

Table 16

No.	COLLECTIVE LABOUR CONTRACT, ADDITIONAL AGREEMENT, ANNEX	Signed on:	Agreed for women with 2 children	Agreed for women with 3 or more children
1	BRANCH COLLECTIVE LABOUR CONTRACT No. 08 / 05. 06. 2003.	02. 06. 2003	2 days leave	4 days leave
2	COLLECTIVE LABOUR CONTRACT No. 24 / 04. 06. 2004.	01. 06. 2004	2 days leave	4 days leave
3	BRANCH COLLECTIVE LABOUR CONTRACT No. 16 / 11, 10, 2005.	30. 09. 2005	2 days leave	4 days leave
4	COLLECTIVE LABOUR CONTRACT No. 19 / 12. 06. 2006.	29. 05. 2006	2 days leave	4 days leave
5	BRANCH COLLECTIVE LABOUR CONTRACT No. 20 / 30, 10, 2007.	25. 10. 2007	2 days leave	4 days leave
6	COLLECTIVE LABOUR CONTRACT No. 22 / 10. 07. 2008.	03. 07. 2008	2 days leave	4 days leave
7	BRANCH COLLECTIVE LABOUR CONTRACT No. 21 / 19. 10. 2009.	06. 10. 2009	2 days leave	4 days leave







Actual social partners in the Power Engineering Sector.

- Bulgarian Branch Chamber of Power Engineers BBKE (Българска браншова камара на енергетиците ББКЕ). It is an employers' organization, representative at sectoral level, member of the Bulgarian Industrial Association.
- National Federation of Power Engineers in Bulgaria NFE (Национална федерация на енергетиците в България $H\Phi E$). It is a trade union organization, representative at sectoral level, member of the Confederation of Independent Trade Unions in Bulgaria.
- Independent Trade Union Federation of Power Engineers in Bulgaria (Независима синдикална федерация на енергетиците в България). It is a trade union organization, representative at sectoral level, member of the Confederation of Independent Trade Unions in Bulgaria.
- Federation "Power Engineering" CL "Podkrepa" (Федерация "Енергетика" КТ "Подкрепа"). It is a trade union organization, representative at sectoral level, member of the Confederation of Labour "Podkrepa".







Emerging social partners in the Renewable Energy Subsector.

- Federation of Trade Unions in Forestry and Wood Processing Industries – FSOGSDP (Федерация на синдикалните организации от горското стопанство и дървогреработващата промишленост - ФСОГСДП). It is a trade union organization, representative at sectoral level, member of the Confederation of Independent Trade Unions in Bulgaria.







Potential social partners in the Renewable Energy Subsector.

- Association of Producers of Ecological Energy APEE (Асоциация на производителите на екологична енергия AПЕЕ). Potential employers' organization in the social dialogue in the Renewable Energy Subsector.
- Bulgarian Photovoltaic Association BFA (Българска фотоволгаична асоциация БФА). Potential employers' organization in the social dialogue in the Renewable Energy Subsector.
- Alliance of the Producers of Ecological Energy BG (SPEE-BG) (Сьюз на производителите на екологична енергия БГ). Potential employers' organization in the social dialogue in the Renewable Energy Subsector.
- Bulgarian Union of the Producers of Prefabricated Houses BSPSK (Български съюз на производителите на сглобяеми къщи БСПСК). Potential employers' organization in the social dialogue in the Renewable Energy Subsector.







Possible scenarios on the institutional building of the social dialogue in the renewable energy (subsector).

Zero scenario.

The option for incorporating of the Social Dialogue for the Renewables in the actual system of Social Dialogue in the Power Engineering (electricity) sector.

The option for institutionalizing of a relatively independent system of social dialogue in the Renewable Energies (Sub)sector.







Possible scenarios on the institutional building of the social dialogue in the renewable energy (subsector).

Zero scenario.

The option for incorporating of the Social Dialogue for the Renewables in the actual system of Social Dialogue in the Power Engineering (electricity) sector.

The option for institutionalizing of a relatively independent system of social dialogue in the Renewable Energies (Sub)sector.







C. 1. Women are represented better in the identified enterprises, which are involved in the utilization of biomass in Bulgaria in comparison with the organized enterprises of the Renewable Energy (Sub)sector.







Number of employees in the organized enterprises in the Renewable Energy (Sub)sector in Bulgaria 2009 – 2010.

Table 37

MATRIX OERES in BG - 106

	Total	MEN	%	WOMEN	%
01.2009	5471	4048	74 %	1423	26 %
07.2009	5233	3842	73,42 %	1391	26,58 %
01.2010	5040	3715	73,71 %	1325	26,29 %

MATRIX OERES in BG - 120

	Total	MEN	9/0	WOMEN	9/0
01.2009	6023	4473	74,27 %	1550	25,73 %
07.2009	5727	4217	73,63 %	1510	26,37 %
01.2010	5550	4107	74 %	1443	26 %

Source: The National Social Security Institute (NSSI), on the basis of a special assignment by the Union for Private Economic Enterprise (UPEE).



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Number of employees in the list of identified enterprises, which are involved in the utilization of biomass in Bulgaria 2009 – 2010.

Table 36

MATRIX BIOMASS

	Total	MEN	%	WOMEN	%
01.2009	1930	1328	68,81 %	602	31,19 %
07.2009	1392	1008	72,41 %	384	27,59 %
01.2010	1247	888	71,21 %	359	28,79 %







C. 2. The effect of the financial and economic crisis on the enterprises from the Renewable Energy (Sub)sector and the identified enterprises, which are involved in the utilization of biomass in Bulgaria.







REDUCTION IN THE WORKING PLACES IN THE RENEWABLE ENERGY (SUB)SECTOR AND IN THE CLUSTER OF ENTERPRISES, INVOLVED IN THE UTILIZATION OF BIOMASS IN THE PERIOD

JANUARY 2009 – JULY 2010

Table 17

MATRIX OERES in BG - 106

	Total	Reduction	MEN	Reduction	WOMEN	Reduction
01.2009	5471	-	4048	-	1423	_
07.2009	5233	4,35 %	3842	5,09 %	1391	2,25 %
01.2010	5040	7,88 %	3715	8,23 %	1325	6,89 %

MATRIX OERES in BG - 120

	Total	Reduction	MEN	Reduction	WOMEN	Reduction
01.2009	6023	-	4473	-	1550	-
07.2009	5727	4,91 %	4217	5,72 %	1510	2,58 %
01.2010	5550	7,85 %	4107	8,18 %	1443	6,90 %

MATRIX BIOMASS

	Total	Reduction	MEN	Reduction	WOMEN	Reduction
01.2009	1930	-	1328	-	602	-
07.2009	1392	27,88 %	1008	24,10 %	384	36,20 %
01.2010	1247	35,39 %	888	33,18 %	359	40,37 %







C. 3. Small, medium and micro- enterprises dominate both in the Renewable Energy (Sub)sector and in cluster of the identified enterprises, which are involved in the utilization of biomass.







Distribution of the enterprises, following the number of the insured persons.

Table 38

MATRIX OERES in BG – 106

	01.2009	07.2009	01.2010
0 persons	39	30	28
1 – 10 persons	36	44	49
11 - 50 persons	21	23	20
51 - 100 persons	3	3	3
More than 100 persons	7	6	6

	01.2009	07.2009	01.2010
0 persons	36,79%	28,30%	26,42%
1 – 10 persons	33,96%	41,51%	46,23%
11 - 50 persons	19,81%	21,70%	18,87%
51 - 100 persons	2,83%	2,83%	2,83%
More than 100 persons	6,60%	5,66%	5,66%







Distribution of the enterprises, following the number of the insured persons.

Table 39

MATRIX OERES in BG – 120

	01.2009	07.2009	01.2010
0 persons	40	32	30
1 — 10 persons	40	48	52
11 - 50 persons	28	29	27
51 - 100 persons	3	4	4
More than 100 persons	9	7	7

	01.2009	07.2009	01.2010
0 persons	33,33%	26,66%	25,00%
1 – 10 persons	33,33%	40,00%	43,33%
11 - 50 persons	23,33%	24,17%	22,50%
51 - 100 persons	2,50%	3,33%	3,33%
More than 100 persons	7,50%	5,83%	5,83%







Distribution of the enterprises, following the number of the insured persons.

Table 47

MATRIX BIOMASS

	01.2009	07.2009	01.2010
0 persons	48	45	43
1 – 10 persons	16	20	23
11 - 50 persons	14	12	13
51 - 100 persons	5	7	7
More than 100 persons	5	4	2

	01.2009	07.2009	01.2010
0 persons	54,55%	51,14%	48,86%
1 – 10 persons	18,18%	22,73%	26,14%
11 – 50 persons	15,91%	13,64%	14,77%
51 - 100 persons	5,68%	7,95%	7,95%
More than 100 persons	5,68%	4,55%	2,27%







PERCENTAGE OF ENTERPRISES WITH ZERO EMPLOYMENT

Table 18

	January 2009	July 2009	January 2010
Renewable Energy (Sub)sector	33,33 %	26,66%	25,00%
Biomass utilitization	54,55%	51,14%	48,86%







PERCENTAGE OF SMALL, MEDIUM AND MICRO- ENTERPRISES (WITH O - 50 EMPLOYEES)

Table 19

	January 2009	July 2009	January 2010
Renewable Energy (Sub)sector	89,99%	90,83 %	90,83%
Biomass utilitization	88,64%	87,51 %	89,77 %







C. 4. The age structure of the Renewable Energy (Sub)sector and of the cluster of enterprises, which are involved in the utilization of biomass is quite similar.

Table 20

DIFFERENCES IN THE PERCENTAGE OF THE DIFFERENT AGE GROUPS

	RES - BIOMASS	RES - BIOMASS	RES - BIOMASS
	01.2009	07. 2009	01.2010
Age 19 – 30 years	3,90 %	2,83 %	2,51 %
Age 31 – 40 years	3,27 %	3,97 %	2,77 %
Age 41 – 50 years	4,37 %	4,45 %	4,48 %
Age 51 - 60 years	- 9,15 %	- 8,49 %	- 6,67 %
Age more than 60 years	- 2,41 %	- 2,81 %	- 3,09 %







C. 5. There are significant differences between the average insurance income for different categories of economic active persons in the Renewable Energy (Sub)sector and the cluster of enterprises, which are involved in the utilization of biomass – self employed, persons with management contracts, persons with contracts following a civil relationship and employees with labour contracts (or civil servants).







INSTABILITY IN THE TRENDS OF THE CHANGING OF THE DIFFERENCES BETWEEN THE AVERAGE INSURANCE INCOME FOR THE RENEWABLE ENERGY SECTOR AND FOR THE ENTERPRISES INVOLVED IN THE UTILIZATION OF BIOMASS

Table 21

	DIFFERENCE	DIFFERENCE	DIFFERENCE
	01.2009	07.2009	01.2010
	Average insurance	Average insurance	Average insurance
	income	інсоте	income
Self	-25,87%	-1 <i>5,5</i> 8%	17,93%
Emplo yed			
Contract following a	-25,06%	33,18%	40,48%
civil relationship (not			
emplo yment			
relationship)			







STABILITY IN THE TRENDS OF THE CHANGING OF THE DIFFERENCES BETWEEN THE AVERAGE INSURANCE INCOME FOR THE RENEWABLE ENERGY SECTOR AND FOR THE ENTERPRISES INVOLVED IN THE UTILIZATION OF BIOMASS

Table 22

	DIFFERENCE 01.2009 Average insurance	DIFFERENCE 07. 2009 Average insurance	DIFFERENCE 01.2010 Average insurance
	income	інсоте	інсоте
Management	4,02%	-0,29%	-5,41%
Contract			
Employee with a labour	28,68%	36,87%	35,19%
contract or civil servant			







C. 6. The distribution of the employees (with labour contracts or civil servants), according to their incomes is different for the Renewable Energy (Sub)sector and for the cluster of identified enterprises, which are involved in the utilization of biomass.







DIFFERENCES IN THE DISTRIBUTION OF THE EMPLOYEES ACCORDING TO THEIR INCOME FOR THE RENEWABLE ENERGY (SUB)SECTOR AND FOR THE CLUSTER OF ENTERPRISES, WHICH ARE INVOLVED IN THE UTILIZATION OF BIOMASS

Table 24

	RES - BIOMASS	RES - BIOMASS	RES - BIOMASS
	01.2009	07.2009	01.2010
Up to 240 levs	- 1,28 %	- 1,91 %	0,52 %
From 240,01 to 500 levs	- 18, 12 %	- 15,98 %	- 14,5 %
From 500,01 to 1000 levs	0,15 %	- 12,32 %	- 16,99 %
From 1000,01 to 1500 levs	7,72 %	6,5 %	7,16%
From 1500,01 to 2000 levs	11,54 %	23,70 %	23,77 %







C. 7. The comparison of the distribution of the insured persons by basic economic activities in the enterprises from the Renewable Energy (Sub)sector and in the identified enterprises, which are involved in the utilization of biomass shows that there are significant structural differences between them.







Table 25

CORE, BASIC ECONOMIC ACTIVITIES FOR THE RENEWABLE ENERGY (SUB)SECTOR	CORE, BASIC ECONOMIC ACTIVITIES FOR THE ENTERPRISES, INVOLVED IN THE UTILIZATION OF BIOMASS
Construction of electric transmission and distribution and telecommunication networks;	·
	Manufacture of paper and paper board and
Generation, transmission and distribution of electricity;	articles thereof;
	Manufacture of machinery and equipment
Manufacture of engines and turbines, except	with general and particular purpose;
aircraft, vehicle and motorcycle.	
	Manufacture of furniture

Remark: Activities, which coincide for both the Renewable Energy (Sub)sector and for the enterprises, which are involved in the utilization of biomass, are not included in the table, given above.



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Thank you for your attention!





