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# LABOR TRANSITION IN THE COAL SECTOR

SOUTHEAST EUROPE

## APPENDIX B: BULGARIA

DRAFT

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WSI conducted literature review and Web searches of key stakeholders in the Energy Community of Southeast Europe including World Bank, USAID, European Union, United Nations Economic Commission for Europe (UNECE), American Center for International Labor Solidarity, European Bank for Reconstruction and Development and national statistical agencies.

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# ABBREVIATIONS

ALMP	Active Labor Market Program
BGN	Bulgarian Lev
BMC	Bulgarian Mining Chamber
CITUB	Independent Trade Unions in Bulgaria
CLC	Collective Labor Contract
CVT	Continuous Vocational Training
DHC	District Heating Company
EAD	Public Limited Company
EBRD	European Bank for Reconstruction and Development
EC	European Community
ECSEE	Energy Community of South East Europe
EU	European Union
EURACOAL	European Association for Coal and Lignite
GDP	Gross Domestic Product
HSLC	Health and Safety of Labor Conditions
ISO	International Organization for Standardization
MEER	Ministry of Energy and Energy Resources
MLSP	Ministry of Labor and Social Policy
NEK	National Electric Company (Natsionalna Elektricheska Kompania)
NGO	Non-governmental Organization
PA	Privatization Agency
PHARE	Poland Hungary Assistance for Economic Restructuring
RES	Renewable Energy Source
SCADA	Supervisory Control and Data Acquisition System
SCC	Social Cooperation Committee
SCLC	Sector Collective Labor Contract
SEE	South East Europe
SERC	State Energy Regulations Commission
SEWRC	State Energy and Water Regulatory Commission
SMAEP	Steel and Mining Areas Employment Project
SME	Small and Medium Enterprise
TPP	Thermal Power Plant
UCTE	Union for Cooperation and Transmission of Electricity
USAID	United States Agency for International Development

## Technical Terms:

GJ	Giga Joules
GWh	Giga Watt Hour
MMST	Million Short Ton
MW	Mega Watts
Mt	Million tons

**CURRENCY EQUIVALENTS**

(Exchange Rate Effective October 2006)

Currency Unit = Euro  
USD \$ 1.26 = Euro € 1  
USD \$ 1 = Euro € .793

Bulgarian Lev (BGN)  
USD\$ .648 = 1 BGN  
USD \$ 1 = 1.543 BGN

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## Appendix B

# BULGARIA

This report presents country-specific information on the coal sector in Bulgaria. It is part of a regional assessment of the labor force associated with coal mines and coal-fired power plants in Southeast Europe.<sup>1</sup>

Labor Opportunities	Labor Challenges
<ul style="list-style-type: none"><li>• Progressive legal framework for active labor market programs, redundancy assistance, and small business development</li><li>• New coal-fired plant to generate 2,000 to 10,000 jobs</li><li>• Rising GDP; decreasing unemployment rate</li><li>• Improvements in worker retaining programs</li></ul>	<ul style="list-style-type: none"><li>• Coal sector workforce reduced 27%</li><li>• 93% of coal mine production remains to be privatized</li><li>• 88% of power plant workers exposed to health and safety risks</li><li>• Corrupt liquidation practices have depleted budgets set aside for worker pensions</li></ul>

## I. OVERVIEW AND BACKGROUND

Although Bulgaria is the largest exporter of electricity in the Southeast Europe (SEE) region,<sup>2</sup> it imports more than 70% of its primary energy sources, relying mainly on imported Russian fuels (oil, natural gas, quality coal) and nuclear fuel. The only significant domestic energy source is low-quality lignite with a high sulfur content.<sup>3</sup> Growth in electric power production occurred after 1999 because of increased export of, and domestic demand for, electricity. Exports grew 20.7% from 1999-2003, amounting to 15.9% of power output. Domestic demand increased by 2.1%.<sup>4</sup> Coal use was up by 41.7% in 2003 compared to 2000. Greater energy consumption came from large enterprises and processing industries, such as metal works and equipment manufacturers.<sup>5</sup> Households are the second largest consumer, increasing from 28.4% in 1990 to 35.3% in 2003.

Coal-fired power plants generate 40% of Bulgaria's electricity; nuclear facilities produce 60%.<sup>6</sup> Thermal power share of generation is 49.6%,<sup>7</sup> with available capacities totaling 5015 MW. Local fuel provides 2365 MW, while imported fuels supply 2650 MW.<sup>8</sup>

<sup>1</sup> The *Labor Transition in the Coal Sector: Southeast Europe* report in its entirety, including all appendices, will be available online through the USAID Development Experience Clearinghouse at <http://dec.usaid.gov> (PN-ADI-883).

<sup>2</sup> Ministry of Energy and Energy Resources (MEER). *Bulgarian Energy Sector 2001-2004: Analysis of the results achieved in the energy policy and the implementation of the Energy Strategy of the Republic of Bulgaria*, (Sofia: MEER, 2004).

<sup>3</sup> MEER, *Energy Strategy of Bulgaria*, Adopted by Council of Ministers' Decision No. 279, 11 May 2002 Approved by the National Assembly on 17 July 2002, in State Gazette, Issue 71, (23 July 2002): 4.

<sup>4</sup> National Electric Company (EAD), *Bulgarian Power Sector Least-Cost Development Plan 2004-2020*, Short Report, (Sofia: EAD, April 2004):7.

<sup>5</sup> Ibid.

<sup>6</sup> MEER 2002: 40.

<sup>7</sup> EAD 2004.

In Bulgaria, organizational restructuring took place before a regulatory body, market rules, and structures were developed.<sup>9</sup> Most coal mines became non-viable beginning in 1996, when government-regulated prices no longer covered production costs and subsidies proved insufficient.

By 2004, almost half of Bulgaria's Thermal Power Plants (TPPs) were privatized and 7% of the mines were privately-owned.<sup>10</sup> The country was a leader among SEE countries in foreign direct investment for 2005. European Union (EU) accession scheduled for January 2007 has been a major motivation for privatizing the coal and energy sector.

Labor restructuring programs for workers in state-owned enterprises (SOEs) began in the 1990s and continue as Bulgaria prepares for EU accession. While some systems are in place to assist workers and mitigate the impact of labor restructuring, none were identified as addressing the specific needs of mining regions.

Despite the widely-recognized rule that energy sector reforms can only be successful if a legal, regulatory and institutional framework precedes restructuring and privatization, the sequence chosen in Bulgaria was exactly the opposite. The organizational restructuring and privatization took place before the establishment of a regulatory body and the introduction of regulatory and market rules.<sup>11</sup>

This report assesses current labor trends in the sector, as well as the state of readiness of employment programs and assistance services to mitigate the impact on labor restructuring.

## II. COAL MINING – BACKGROUND INFORMATION

This section presents available information regarding Bulgaria's coal production history and employment trends, including data about labor and operations for each mine.

Structural reform in the coal sector began in 1998 with the adoption of the **Program for Restructuring of the Companies from the Coal Sector, Privatization, and Financial Recovery and Closing-Down of Inefficient Coal Production Capacities**. Prior to restructuring, coal mining supplied about 45% of the fuel needed to generate electric power, and was the predominant fossil fuel-producing sector in Bulgaria.<sup>12</sup> In 2000, coal mines were still state-owned and controlled by the State Energy Agency. By 2001, a number of coal mines were unbundled into 100% state-owned joint-stock companies (EAD-Public Limited Company) to prepare for privatization or liquidation. Reforms included unbundling auxiliary activities (such as motor service stations and repair companies), liquidating mines that were operating at a loss, and preparing financial recovery programs for divested coal-mining companies.<sup>13</sup>

Reforms were guided by the **National Energy Strategy to 2010** and the **1999 Energy Law**. Domestic coal was assigned a strategic role in reducing dependence on energy imports. Investment plans of \$437 million (1998 - 2010) included closing unprofitable mines, refurbishing coal-fired power stations,

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<sup>8</sup> Ibid.: 13.

<sup>9</sup> MEER 2002.

<sup>10</sup> Center for Economic Development, *Bulgaria and the Lisbon Objectives* (Sofia: Center for Economic Development, March 2004), <http://www.ced.bg>.

<sup>11</sup> MEER 2002: 6.

<sup>12</sup> Walter G. Steblez, "The Mineral Industries of the Northern Balkans: Bulgaria and Romania," *US Geological Survey Minerals Yearbook – 2003*, (Washington: US Geological Survey, 2003).

<sup>13</sup> Bulgarian National Assembly, *Parliamentary Control, Questions to Minister of Economy and Energy* (Sofia: 84<sup>th</sup> session of the, National Assembly, 17 February 2006), <http://www.parliament.bg>.

attracting foreign private investors, and liberalizing coal prices. The plan assumed that increased electricity demand and decreased nuclear energy production would boost coal production from 33.3 million tons in 1988 to 46-47 million tons over five to ten years.<sup>14</sup> There are now 13 coal-mining companies operating in the sector, two of which are state-owned. The coal sector will continue to restructure in accordance with the Energy Strategy and the restructuring program.<sup>15</sup>

Lignite and brown coal (to a lesser extent) are of considerable economic importance to Bulgaria, while hard coal plays a minor role. Reserves are comprised of 88.7% lignite, 10.9% brown coal, and .4% hard coal. One-third of Bulgaria's electric power is generated from indigenous solid fuels. Lignite production is entirely from open pit mines; deep lignite mining operations went into liquidation at the end of 2002.<sup>16</sup>

Because coal prices are expected to remain more stable than gas, Bulgaria's mid-term energy plan calls for more reliance on coal as a primary source of energy.<sup>17</sup> Opencast lignite mining will fuel 30% of electricity generation.

<b>Bulgaria Coal Production and Employment 1998-2004</b>					
	2000	2001	2002	2003	2004
Production <sup>18</sup> (million tons)	29.14	29.37	28.72	30.13	29.13
Employment <sup>19</sup>	22,827	20,253	18,189	18,097	16,687

Lignite coal production in 2004 was reduced by one million tons when demand was cut because Maritsa East power plants were operating at 50% capacity.<sup>20</sup> In 2005, extraction of anthracite coal was discontinued, and the production of black coal hit a low of 25,000 tons. Brown coal production decreased by 250,000 tons because of reduced sales, fires in underground mines, privatization, and liquidation. The announced privatization of Bobov Dol power plant caused unrest when supply agreements for coal from the region were not stipulated.

<sup>14</sup> World Energy Council, *Restructuring the Coal Industries in Central and Eastern Europe and the CIS*, (London: World Energy Council, August 2000): 73.

<sup>15</sup> Republic of Bulgaria Council of Ministers, *The Bulgarian Contribution to the Monitoring Report of the European Commission*, Updated 26 September 2005-February 2006, (Sofia: 1 March 2006), <http://www.government.bg/cgi-bin/e-cms/vis/vis.pl?s=001&p=0162&n=000008&g=>.

<sup>16</sup> European Association for Coal and Lignite (EURACOAL), Bulgaria, (2004), <http://euracoal.be/newsite/Bulgaria.php>, (accessed 26 October 2006).

<sup>17</sup> EAD 2004.

<sup>18</sup> Energy Information Administration (EIA), *International Energy Annual 2003*, (Washington: EIA, 31 July 2005), <http://tonto.eia.doe.gov/bookshelf/SearchResults.asp?title=International+Energy+Annual&submit=Search&product=> (accessed 21 October 2006).

<sup>19</sup> Bulgaria National Statistical Institute, Official Website, [http://www.nsi.bg/Labour\\_e/Labour\\_e.htm](http://www.nsi.bg/Labour_e/Labour_e.htm).

<sup>20</sup> Bulgarian Mining Chamber, Report from the Managing Board on Implementation of the Guidelines for the Activity of the Bulgarian Mining Chamber (BMC) in 2005, (Sofia: BMC, 2006), <http://www.bmc-bg.org>.

## COAL MINES – SUMMARY AND TRENDS

The following chart summarizes data regarding the coal mines and labor force that supply thermal power stations in Bulgaria.

<b>Coal Mine And Labor Force Summary: Bulgaria</b>					
	Production Capacity (tons/year)	Type of Coal	Exploitable Coal Reserves (million tons)	Number of Employees	Change
<b>Total</b>	<b>29.13m (2004)<sup>21</sup></b>			<b>16,687 (2004)</b>	
<b>State-Owned</b>					
Maritsa East EAD (Open pits include Troyanovo 1, 2, 3, North, & South, which supply Maritsa TPP 1, 2, 3 and Galabovo Briquette Co.)	21 million <sup>22</sup>	Lignite	2,273	7,558	-3353
Bobov Dol – (Underground Babino and Bobov Dol, which supply Bobov Dol TPP)	1.2 million	Brown	151 <sup>23</sup>	2600 <sup>24</sup>	- 7000 (9600 in 1998)
<b>Privatized</b>					
Bely Brag Mine AD (Supplies Bobov Dol TPP)	.5 million	Lignite	23	480 (2001)	
Choukourovo Mine, AD (Supplies Bobov Dol TPP)	.5 million	Lignite	8	610(2001)	
Stanyantsi Mine AD (Supplies Bobov Dol TPP)	.5 million	Lignite	12	400(2001)	
Oranovo Mine (Supplies Bobov Dol TPP)		Brown			Privatized 2004
Otkrit Vagledobiv Mines EAD (Open pit mines United and Republic supply DHC Pernik and Bobov Dol TPP)	1.3 million	Brown	15	1205	-1515 (2720 in 2001) (Privatized 2004)
Vitren Mine EAD (Supplies Bobov Dol TPP)	.15 million	Brown	.7	150 (2001)	
Cherno More Mine EAD (underground, supplies Sliven and Gabrovo TPP)	.3 million	Brown	62	900 (2001)	
Lev Mine		Hard Coal		275	
Kanina Mine (open pit; formerly part of Pirin)		Lignite	1.5		(Privatized 2004)

<sup>21</sup>EIA 2005.

<sup>22</sup> Mini Maritsa Iztok, 2005 Statistics., Official Website, <http://www.marica-iztok.com>.

<sup>23</sup> Bulgaria Privatization Agency, Official Website, <http://www.priv.government.bg/apnew/Root/index.php?magic=0.0.0.0.1>.

<sup>24</sup> Bulgarian National Assembly 2006.

Balkan 200 Mine					
Minior Pit				256	
<b>Liquidated Mines</b>					
Antra Mine EAD (underground)	15,000	Anthracite		155 (2001)	-155
Pirin EAD (underground)	100,000 (2000)	Brown	30	74	- 1496 (1570)
Kolosh –BD (underground)					
Maritsa Basin Mines (underground)		Lignite		800	-800
Zdravets EAD (underground)		Lignite			
Christo Botev (open pit from Bobov Dol)					
Balkan Mine (underground; supplied Sliven and Gabrovo TPP)				709 (2001)	-709
Ivan Russev Mine (underground)					

## MINING WORKFORCE TRENDS

The mining industry has undergone a continuous reduction in the number of jobs during the last decade, escalating in 2001 when enterprise restructuring reached its peak and mines started closing.

According to employment data<sup>25</sup> **for 2000 – 2004, the coal sector workforce has declined 26.9%**, from 22,827 in 2000 to 16,687 in 2004. According to these data, annual reductions ranged from a high of 11.3% in 2001 to a low of .5% in 2003. During this period, females consistently comprised 18 to 19% of the workforce, indicating that reductions have affected men and women proportionately.

## STATE-OWNED MINES

**I. Maritsa East Mines** are headquartered in Radnevo in the Stara Zagora District. The coal basins, southeast of Stara Zagora, hold the country's largest deposit of lignite, with reserves of 2,273 million tons.<sup>26</sup> Maritsa East supplies 85-90% of the lignite for Bulgaria's coal-fired electricity production. Its open pit mines supply the adjacent power plants.<sup>27</sup>



In 2000, Maritsa Mines entered into a joint venture with a German company to prepare for privatization.<sup>28</sup> Improvements in excavation and transportation, combined with workforce reductions, have decreased production costs and increased productivity and profitability. Labor productivity per

<sup>25</sup> Bulgaria National Statistical Institute.

<sup>26</sup> MEER 2002: 40.

<sup>27</sup> Ibid.

<sup>28</sup> Ibid.: 42.

person has increased by 57.8% over a five-year period.<sup>29</sup> **Since 1999, the Maritsa East Mining company has shed more than 3353 workers (28.8%), while average gross salaries for employees have increased 47.4 % from 437 BGN (\$283) per month in 1999 to 644 BGN (\$417) in 2003.**<sup>30</sup>

The rehabilitation of various units at the Maritsa power complex during 2005-7 has reduced coal production, creating a challenge in retaining skilled workers in anticipation of increased production in the near future. A concession contract was signed in 2005 between the Council of Ministers and the mining company to allow the mine to exploit coal from the eastern coal basin during plant rehabilitation.

Development plans through 2020 are under way to further improve production efficiency in the opencast pits of Troyanovo 1 & 3 and Troyanovo North & South.<sup>31</sup> Plans to delay construction of a new power facility in 2007 have also affected production. Maritsa intends to increase annual production from 21 to 32 million tons to generate €540 million (\$680 million) by 2020 for self-funded investments.<sup>32</sup> For 2006, internal investments totaled 64 million BGN (\$41.5 million).

**2. Bobov Dol Mine.** Since 1998, the number of workers at the two underground brown coal mines (Babino and Bobov Dol) has decreased 73% from 9,600 to 2,600.<sup>33</sup> The company has accrued over 40 million BGN (\$25.9 million) in liabilities, is unable to cover its costs, and state subsidies have ceased. New management is implementing a recovery plan to preserve coal mining and existing jobs.

#### **PRIVATIZED MINES**

Open pit lignite mines operating as joint stock companies in the Sofia basin are:

- **Bely Brag Mine**
- **Choukourovo Mine**
- **Stanyansti Mine**

**Oranovo Mine** was divested from the Pirin mine and privatized at the end of 2004.

**Otkrit Vagledobiv Mine** (formerly Pernik) was privatized in 2004 and renamed in 2005.<sup>34</sup> Although the mine is a primary employer in the Pernik region in western Bulgaria, coal reserves are almost depleted and it is expected to be closed in the near future. Its two pits, United and Republic, supply District Heating Company (DHC) Pernik and TPP Bobov Dol. The Republic pit will reach the end of its life-cycle around 2010.<sup>35</sup> No official notice has been issued to workers of the pending mine closure.<sup>36</sup>

**Vitren Mine**, part of the Kahrliste deposit, was privatized in 2004.

**Cherno More Mine** is an underground brown coal mine in the Black Sea coal field near Bourgas.

**Lev Mine** is in Gabrova District. Following privatization, its hard coal production decreased in 2005 because of insolvency.

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<sup>29</sup> Liubomir Markov, *Concession for Coal Production to Maritsa East Mines*, (2004).

<sup>30</sup> Ibid.

<sup>31</sup> Ibid.

<sup>32</sup> Ibid.

<sup>33</sup> Bulgarian National Assembly 2006.

<sup>34</sup> Ibid.

<sup>35</sup> Ibid.

<sup>36</sup> Ibid.

**Kanina Mine** in Gotsedelchev coalfield was divested from the Pirin mine in 2000 and privatized in 2004.

**Balkan 200 Mine**, located in Tvardista, was privatized in 2004 and experienced decreased sales in 2005.

**Minior Pit**, located in Bobov Dol, was privatized in 2005.

### LIQUIDATED MINES

Other underground mining operations were first privatized and then liquidated because of non-viability. Of these, Pirin's liquidation was the most problematic.

**Pirin Mines** are in northwestern Bulgaria. In 2000, annual brown coal production was 100,000 tons, supplying TPP Bobov Dol; DHCs in Sofia, Blagoevgrad, Plovdiv, Pazardzhik and Kyustendil; as well as a few private and public sector consumers.<sup>38</sup>

In January 2005, technical liquidation was financed by the state budget. Although resources were provided for severance payments, the funding was expended for salaries and insurance through July 2005 and to cover operating costs through November 2005. An

internal audit in January 2006 led to indictments and damages exceeding 758,000 BGN (\$491,000). The MEER, trade unions and mine leadership decided to continue technical liquidation but restore coal mining to pay redundant workers.<sup>39</sup> The situation gained national attention in February 2006 when 166 former employees declared to the media and the President of the National Assembly their intention to renounce Bulgarian citizenship in protest over unpaid salaries, insurance, severance and delayed retirements since August 1, 2005.<sup>40</sup> **Of the 1,570 workers employed between 2001-2002, only 74 have remained.**<sup>41</sup>

Pirin Mine Subsidies <sup>37</sup>	
Year	Amount of Subsidy (BGN)/(USD)
2001	180,000/\$116.7
2002	210,000/\$136.1
2003	960,000/\$622.2
2004	700,000/\$453.7
2005	700,000/\$453.7

### III. COAL-FIRED POWER PLANTS

Restructuring of the **National Electricity Company** (Natsionalna Elektricheska Kompania EAD – NEK) was carried out in 2000-2001. NEK remained the state-owned utility overseeing generation, transmission, electricity purchase, sales and supply to customers. In addition, NEK manages imports and exports and on-line control of the national power system through a central dispatch center.<sup>42</sup>

Under the 2003 Energy Act, NEK must complete restructuring by January 2007, the date of EU accession. In 2000, NEK began unbundling the production, transmission, and distribution companies before a framework was in place to regulate relations between electric energy companies. Once the framework was in place, it was found to be in opposition to EU accession strategies, which caused further delays to review the process. Commitments for normalizing prices and terminating subsidies were offset by price freezes, postponement of unpopular price decisions, and a lack of transparent forms of subsidies.

<sup>37</sup> Ibid.

<sup>38</sup> Ibid.

<sup>39</sup> Ibid.

<sup>40</sup> Ibid.

<sup>41</sup> Ibid.

<sup>42</sup> MEER 2004.

At the first stage of restructuring in 2000 - 2001, ten companies were divested from NEK (seven regionally-based electric distribution companies and three independent energy producers, including the atomic power station Kozloduy). NEK also divested five coal-fired power plants as joint-stock companies in preparation for privatization or liquidation.

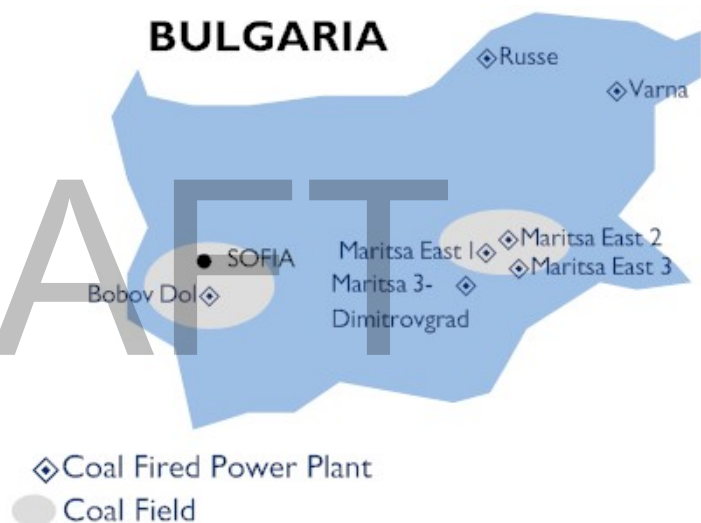
During the second stage of restructuring, four more enterprises registered under the Commercial Law as independent legal entities. In 2004, unbundling and divestiture created:

- seven electricity distribution enterprises
- seven independent power generation companies (including hydro and the Kozloduy nuclear power plant)
- an independent, state-owned Transmission System Operator

There are seven primary thermal power plants:

1. Brikel EAD (Public Limited Company) – Maritsa East 1 TPP
2. Maritsa East 2 TPP
3. Maritsa East 3 TPP
4. TPP Bobov Dol
5. TPP Varna
6. TPP Russe
7. Maritsa 3 – Dimitrovgrad

Five state-owned District Heating Companies (DHC) in Plovdiv, Varna, Shumen, Pernik, and Sliven are also preparing for privatization. Privatization of combined heat and power plants developed quickly in Varna, Bourgas, Vratsa, Pleven, and Veliko Turnovo,<sup>43</sup> and was expected to be finalized by September 30, 2006. Currently, 20% of the population is linked to district heating systems, and 9% of coal production is earmarked for briquetting.



NEK projected that it would double its 2005 profit in 2006, in large part because of increased electricity production, even though exports were expected to decrease in 2006 because of rehabilitation of Maritsa East 3 TPP. If consumption grows more than 5% and electricity costs rise as expected, Bulgaria could become a net importer of electricity by 2007, following the planned 2006 closure of Kozloduy's Units 3 and 4.

The following chart summarizes data regarding coal-fired power plants in Bulgaria and available labor force data.

<sup>43</sup> Republic of Bulgaria Council of Ministers 2006.

### Bulgaria Coal-Fired Power Plants (As of 2005-2006)

	Production (GWh/year)	Year Opened	Number of Units (Installed capacity)	Coal Type	Number of Employees (2004/2005)	Estimated Change in Workforce
<b>Bulgaria Total</b>	18,900 (2004) <sup>44</sup>		5015 MW		8296	
Brikel EAD – Maritsa East 1	1,151	1959-1964	560 MW – 10 Units (4x50 MW) (6x60 MW)	Lignite	1188	
Maritsa East 2	6,102	1963-95	1450 MW - 8 units (4x 150) (2x210) (2x215)	Lignite	2107	
Maritsa East 3	3,200 <sup>45</sup>	1978-81	840 MW - 4 units (4x210)	Lignite	1039	
<b>Scheduled to be Privatized</b>						
Bobov Dol	1,900 <sup>46</sup>	1973	630 MW - 3 units (3x210)	Brown, Lignite (Includes Imported)	1059	-41 (1100 in 2003)
Russe <sup>47</sup>	595 (2002)	1964-85	400 MW - 6 units (2x110 MW, 2 x 60 MW, and 2x30 MW)	Imported Semi-Anthracite, Oil, Natural Gas	796	
<b>Privatized</b>						
Varna	2603.5	1969-79	1260 MW - 6 units (6x210l)	Imported Black Coal, Natural Gas, Oil	889	-40 (929 in 2003)
Maritsa 3 – Dimitrograd	450	1951-1954	120 MW- 1 unit	Lignite	180	(Privatized 2003)
<b>Privatized District Heating and Small Power Plants</b>						
Gabrovo TPP					80	
Sliven CHP			(2MW)	Coal/oil/natural Gas	243	-184 (327 in 2001) (Privatized 2005)
Pernik CHP (Republik and Pernik plants)	500 electricity (400 heat)	1951-67	105MW	Lignite	715	(Closing bid date 11/27/06)

<sup>44</sup> EURACOAL 2004.

<sup>45</sup> Maritsa East 3, Official Website (2004), [http://www.me3power.com/fin\\_results\\_en.php](http://www.me3power.com/fin_results_en.php) (accessed 11 October 2006).

<sup>46</sup> Privatization Agency, Thermo-Electric Power Plant (TPP) Bobov Dol, EAD, Privatization Information Packet, (Sofia: Privatization Agency, 2003), <http://www.priv.government.bg/apnew/Root/index.php?magic=0.11.3402.5181.2>.

<sup>47</sup> Russe TPP, Official Website, <http://www.toplo-ruse.com>.

Of the seven primary coal-fired power plants, three are public/private joint partnerships, two are currently state-owned and scheduled for privatization, and two have been privatized. The three power plants of Maritsa East have a combined 2,850 MW capacity and produce approximately 65% of the power generated by Bulgarian coal-fired facilities. Much of the coal from the Stara Zagora District is used by these three power plants, all of which are specifically designed to operate using low-quality lignite coal.<sup>48</sup> Over 80% of the existing TPPs have been in operation for more than 20 years and require renovation. Large environmental investments are planned for several units.

### **1. Brikel – Maritsa East I**

Maritsa East I TPP and the Briquette Company in Galabovo (the only such factory in Bulgaria) merged to form Brikel joint-stock company. Construction of a new 670 MW lignite-fired power plant near Galabovo was launched in December 2005. Construction was supported by a 15-year power purchase agreement with NEK and a 15-year supply agreement with Maritsa East Mines.<sup>49</sup> Seventy percent of the \$1.3 billion investment will be funded by foreign banks and the European Bank for Reconstruction and Development (EBRD). The new plant will have a life expectancy of 40 years,<sup>50</sup> with estimated employment generation between 2,000<sup>51</sup> and 10,000<sup>52</sup> workers.

### **2. Maritsa East 2**

Six of its eight units are currently operating and two are under rehabilitation. This power plant was the first in Bulgaria to install emission control systems in 2002. In December 2004, the EBRD announced financing for an 11-year loan to reduce sulfur dioxide emissions and rehabilitate Units 1-4 (€209.3 million/\$263.7 million), as well as to increase the capacity of Units 5-6 (€16 million /\$20.16 million). Environmental controls are expected to be operational by 2009. Additional desulphurization projects for Units 5 and 6 are estimated to cost €80.3 million (\$101.2 million), with €10 million (\$12.6 million) financed from equity. Additional environmental projects are expected to cost €800 million (\$1,008 million) by the end of 2009.



Maritsa East 2 Power Plant

### **3. Maritsa East 3**

Modernization is under way to extend the plant's operational life by 15 years. The \$645 million project financed by 14 banks will increase the capacity from 840 to 904 MW and reduce pollution levels to EU standards.<sup>53</sup> A private joint venture of the Maritsa East III Energy Company is providing €600 million (\$756 million). The joint venture was established in 2003; ENEL controls 44 %, the NEK 27%, and Energy 29%. By 2003, over \$36 million had been expended. An additional €112 million (\$141 million) in

<sup>48</sup> EIA, *Southeastern Europe Country Analysis Brief: Bulgaria*, (Washington: IEA, August 2006), [http://www.eia.doe.gov/emeu/cabs/SE\\_Europe/Coal.html](http://www.eia.doe.gov/emeu/cabs/SE_Europe/Coal.html).

<sup>49</sup> AES Corporation, "AES Begins Construction of 670 MW Power Plant in Bulgaria: \$1.4 Billion Investment Marks Largest Foreign Investment in Bulgaria," Press Release dated 8 May 2006, <http://newsroom.aes.com/phoenix.zhtml?c=202639&p=irol-newsArticle&ID=897745&highlight=>.

<sup>50</sup> EVROPORTAL.BG, (Sofia: Ministry of Foreign Affairs, 2004-2007), <http://www.evroportal.bg>.

<sup>51</sup> Ibid.

<sup>52</sup> "US Company to Invest in Bulgarian Power Plant," *Sofia Echo*, 7 December 2005, [http://www.evroportal.bg/article\\_view.php?id=729299](http://www.evroportal.bg/article_view.php?id=729299).

<sup>53</sup> InvestBulgaria Agency (IBA), *Bulgaria Investment Guide 2006: Business, Environment and Key Sectors* (Sofia: IBA 2006), <http://www.investbg.government.bg>.

capital investments was to be completed in 2006.<sup>54</sup> The project has suffered several setbacks; full operation of Maritsa East 3 is scheduled for 2008.

The NEK plans to halt development of coal-fired thermal power plants after 2010, and pursue nuclear or gas-fired co-generation to further reduce emissions.<sup>55</sup> The Government of Bulgaria plans to decommission Brickel by the end of 2011 and Maritsa East 3 by 2014.<sup>56</sup>

The following smaller-scale thermal power plants and combined power and heating companies have been privatized or are in the process of being privatized. Most operate as combined-cycle units, using natural gas, oil, or hydro power, with a few solely dependent on coal for fuel.

#### **4. TPP Bobov Dol**

The sale of Bobov Dol has been pending since May 2005 because of complications in the tendering process. In February 2006, the Privatization Agency (PA) accepted the offer of the Greek State Electricity Enterprise, and the privatization process has commenced. If more issues further delay privatization, the PA and the Ministry of Economy and Energy Resources (MEER) will decide jointly whether to initiate a new privatization procedure.

#### **5. TPP Varna**

In March 2006, TPP Varna was privatized, with 100% of the capital purchased by the Czech company CEZ for €206 million (\$206 million).<sup>57</sup> Imported coal and natural gas are the primary fuels. As of 2006, TPP Varna is the only thermal power plant in Bulgaria certified under all three international standards for managing quality, environment, and safe labor conditions.<sup>58</sup>

#### **6. District Heating Company (DHC) Russe**

Because TPP Russe East and the District Heating Company Russe were connected through common systems for electricity and heat production, transmission, distribution and sales, the two companies merged into DHC Russe. The company preserved social benefits, continuing to provide transportation, medical services, and recreational facilities. TPP Russe is also involved in joint projects with the Municipality of Russe for heating kindergartens, hospitals, schools, and homes for the elderly.<sup>59</sup>

In 2006, TPP Russe was announced for privatization, with bids scheduled to close in November 2006. The plant has three production units: TPP Russe East, TPP Russe West, and the heat supply division. The company uses imported coal, oil and natural gas to produce electricity, industrial steam, and hot water. The first 300 MW lignite-fired unit is planned to become operational in early 2008, with a second unit of the same capacity completed by mid-2008 or 2009.<sup>60</sup> Rehabilitation of Unit 3 was underway during 2004 – 2005.<sup>61</sup> In January 2005, the Bulgarian Accreditation Service certified TPP Russe's Testing Laboratory to perform black coal and anthracite testing. In 2004, the company was certified for its Integrated System for Environmental Management and safe labor conditions.

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<sup>54</sup> Ibid.

<sup>55</sup> EAD 2004: 19.

<sup>56</sup> MEER 2002.

<sup>57</sup> Center for Economic Development, ECON.bg – The Business Portal, (Sofia: Center for Economic Development), <http://www.econ.bg>

<sup>58</sup> Varna TPP, Official Website, (2004-2007), <http://www.varna-tpp.com>

<sup>59</sup> Russe TPP.

<sup>60</sup> Nationalna Elektricheska Kompania (NEK) EAD, Official Website, (Sofia: NEK 2005), <http://www.nek.bg>.

<sup>61</sup> EAD 2004.

## IV. LABOR LAWS AND REGULATIONS

### Employment Trends

GDP growth in Bulgaria has grown steadily since 2001, from 4% to 6% in 2005. The national unemployment rate continues to drop; the rate in the second quarter of 2006 was reported at 9%.<sup>62</sup> Urban unemployment (7.4%) rates are lower than rural rates (13.9%). Overall, women continue to experience higher unemployment rates, particularly in rural areas where female unemployment reached 15.4% in 2006 versus 12.8% for males.<sup>63</sup>

The average annual wage in Bulgaria in 2004 was 3,509 BGN (\$2,274) in 2004. Employees in the mining sector averaged an annual salary of 6,115 BGN (\$3,963), while workers at heat generation plants averaged 5,656 BGN (\$3,666) and electricity, gas and water supply workers averaged 6,487 BGN (\$4,204).<sup>64</sup>

### Employment Contracts

The Bulgarian Labor Code requires that employment relationships, terms, and conditions be regulated through employment contracts for employees who are more than 16 years of age. Employers must notify the respective territorial division of the National Social Security Institute of all hiring within three days and of all terminations within seven days of these actions. In most cases, the duration of an employment contract is indefinite. Employment contracts for fixed periods are allowed by the Labor Code for temporary, seasonal and short-term work. Employment contracts must include:

- Paid holidays of no less than 20 days after 8 months of service
- Additional paid annual leave for hazardous work
- Females with 2 or more children under 18 are entitled to 2 – 4 additional days of paid leave
- Additional paid leave based on educational qualifications
- Up to one day per month paid leave to attend union management meetings or events
- Overtime pay equal to 50% on work days, 75% on weekends, 120% on official holidays and 60% for cumulative work hours
- Labor medical service
- “Safety food” (coffee, yogurt, sparkling water) if more than 50% of the work involves hazardous duties
- Life and accident insurance
- Long-term disability after a 30-day absence

### Key Provisions Labor Laws and Regulations Bulgaria

Collective Agreements	●
Union Representation	●
Early Warning	●
Planning Committees (company)	●
Community Planning	●
Migration Program	●
Social Insurance	●
Pensions	●
Health Insurance	●
Severances	●
Wait Listing	
Early Retirement	●
Forced Retirement	
Voluntary Retirement	
Hiring Freeze	
One-Time Financial Compensation	●
Retraining	●
Alternative Employment	●
Vocational Training	●
Social Programs	●
Health and Safety	●
Medical Care	●
Inspections	●
Safety Gear	●
Hazardous Work Compensation	●
Meals	●
Environmental Protection	●

<sup>62</sup> National Statistical Institute, “Labor Force, Employed and Unemployed by Place of Residence and Sex for the Second Quarter of 2006, (Sofia: National Statistical Institute, 21 August 2006), [http://www.nsi.bg/Labour\\_e/Labour\\_e.htm](http://www.nsi.bg/Labour_e/Labour_e.htm).

<sup>63</sup> Ibid.

<sup>64</sup> Ibid.

### **Collective Labor Contracts**

A Sector Collective Labor Contract (SCLC)<sup>65</sup> is negotiated between the Federation of Independent Trade Unions of Miners, the Syndicate Miners' Federation, and the Bulgarian Mining Chamber (BMC), which represents employers. An SCLC and Collective Labor Contracts (CLC) remain in force after restructuring or when there is a change of entity.

### **Trade Unions**

Approximately 18% of the total workforce is unionized; the percentage is decreasing. The two largest trade unions are the Confederation of Independent Trade Unions in Bulgaria (CITUB) and Podkrepa Labor Confederation.

### **Redundancy Procedures**

According to the SCLC for mining, if redundancies are required, employers are obligated to begin immediate negotiations with the local trade union through a Social Cooperation Committee (SCC). For mass layoffs, negotiation must begin no later than 45 days before discharge. Employers must provide an economic and financial analysis of the company and a minimum 6-month restructuring plan that specifies the number of lay-offs and timeframes, criteria for selecting redundant workers, and opportunities for relocation, retraining, and severances.

### **Severance Payments**

The Bulgarian Government has established that severance payments must be at least three months' gross salary for employees laid off from companies under liquidation.<sup>66</sup>

### **Social Insurances**

The Social Security Code requires insurance for all employees for general illness, work accidents, professional diseases, maternity leave, old age, death, unemployment, and pensions. Employers must register at the local social security administration within seven days of starting business and provide notice of liquidation, organizational changes, or merger. Other benefits include:

- Temporary disability because of illness, quarantine, accident, pregnancy, childbirth, or to raise a young child or care for a sick family member
- Additional salary if job transfers made to accommodate pregnancy or temporary disability result in less pay
- Disability pensions
- Pension death benefits for family members
- One-time aid following childbirth

In addition, an employer is required to reimburse the social security fund for compensation paid to an employee following work injuries.

### **Health Insurance**

Health insurance in Bulgaria is compulsory; supplemental insurance is voluntary. A package of health services is provided through the National Health Insurance Fund. Supplemental insurance is available through registered joint-stock companies.

### **Working Hours**

Bulgaria observes a standard five-day, forty-hour work week. Overtime work is permitted under the Labor Code if it is specified in the collective labor contract. Industrial companies can extend the work

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<sup>65</sup> Sector Collective Labor Contract (SCLC), Sector Research, Production, and Processing of Mineral Resources – December 2004

<sup>66</sup> MEER 2002.

day by written order and balance extra hours by scheduling shorter work days. Preliminary consultation with worker representatives is required, as well as advance notice to the Labor Inspectorate.

### **Health and Safety**

Employers are obligated to ensure safe and healthful working conditions, including medical service, special work clothes, and accident prevention measures to reduce injuries and illness. Workers must be informed about health and safety risks. Employers are required to appoint someone responsible for organizing accident prevention and health protection activities. Upon starting a business, and whenever its activity or technology changes, an employer must disclose to the Regional Labor Inspectorate the business activities, the number of employees, working conditions, risk factors, and preventive measures in place.

In October 2005, the Executive Agency General Labor Inspectorate conducted a national campaign to improve health and safety conditions in power plants. Findings and results included:<sup>67</sup>

- There were 779 violations, averaging 26 per plant; with over 70% involving safety and working conditions.
- Eight indictments were made, 22 machines were taken off-line, and the Bobov Dol quarry was closed.
- The number and severity of registered injuries decreased from 2002–to 2005.
- 88% of workers were subject to harmful conditions exceeding sanitary and hygienic standards.
- “Safety food” was provided to only 55 % of eligible workers.
- 42% of all workers receive additional annual leave for hazardous duty.
- 68% of all workers receive hazard pay under collective labor agreements.
- Occupational health services were being provided through external firms.
- Instructional and procedural materials for operating machinery were outdated.
- Available and suitable personal safety equipment (for noise, dust, toxins, high vibrations, physical pressure, and ionization) were lacking.
- Modernization, technical improvements, and repairs were needed.
- The use of hazardous chemicals (e.g., hydrazine) prevailed over alternative methods.
- Emergency preparedness was insufficient.

### **Social Dialogue**

The withdrawal in 2005 of the two major trade unions (CITUB and Podkrepa) from the National Council for Tripartite Cooperation indicated the need to improve social dialogue among the National Council for Employment, enterprises, sectoral levels, and trade unions. While an administrative framework is in place, processes require considerable improvement, and capacity-building of all social partners remains to be strengthened.<sup>68</sup>

### **Continuous Vocational Training (CVT)<sup>69</sup>**

Although a comprehensive framework is in place for CVT, a 2002 energy sector survey concluded that the majority of mining and energy enterprise respondents believe additional training is the worker’s

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<sup>67</sup> Analysis of results from a survey under national campaign “Control on Implementation of Obligations for Providing Safe Labor Conditions in the Companies Producing Heat and Electricity by Means of Power Plants with Productivity of Over 12.5 Tons of Steam or Hot Water per Hour”, <http://git.mlsp.government.bg>.

<sup>68</sup> Bulgaria – 2005 Comprehensive Monitoring Report, European Commission, COM 534 final, 25 October 2005.

<sup>69</sup> Bulgarian National Statistical Institute, *Continuous Vocational Training (CVT)*, 2002 Data, (Sofia: National Statistical Institute, 2004).

responsibility. Energy sector employers have not yet developed CVT plans or specific curricula, stating that a lack of time or skill were barriers to developing training plans.<sup>70</sup>

Continuous vocational training is designed to increase current knowledge and learn new skills. It is wholly or partially funded by companies. Courses may be offered internally or by external providers. A variety of training forms can be used, including on-the-job instruction, job rotation, self-study through open or distance learning (video, audio, correspondence, computer-based methods), as well as conferences and seminars.

### Restructuring Assistance Programs

The 2002 Energy Strategy provided plans to assist redundant workers through these mechanisms:

- **One-time Financial Compensation.** Workers laid off from liquidated coal-mining companies could be eligible for compensation for up to three months' gross monthly wage/salary.<sup>71</sup>
- **Retraining and Alternative Employment.** With support from MEER, the Ministry of Labor and Social Policy offered re-training and alternative employment to some redundant workers.

The **Steel and Mining Areas Employment Project (SMAEP)**<sup>72</sup> was designed in 1999 to mitigate social consequences from ongoing restructuring in the steel and mining industry. The total budget was €12.367 million (\$15.6 million), with €550,000 (\$693,000) for institution-building.

A €10.827/\$13.6 million grant scheme<sup>73</sup> was targeted to steel and mining regions with redundant workers, diversified economies, and relatively good job opportunities. Sofia, Pernik, Bourgas, and East and West Rhodopes were selected and locally-driven approaches were promoted. Grants of €10,000 – €300,000 (\$12,600 – \$378,000) required a minimum of 10% co-financing. Eligible implementers included private companies, associations of entrepreneurs, trade unions, employers' organizations, chambers of commerce, NGOs, universities, training institutions, research institutions, and municipalities.

Projects that supported municipal/regional priorities were selected. Services were directed toward laid-off and redundant workers from steel and mining companies, laid-off workers from ancillary enterprises, and family members. Active Labor Measure Programs (ALMPs) included training, retraining, counseling, entrepreneurship, and local infrastructure projects. The types of jobs and training offered were determined by project implementers.

#### LESSON LEARNED:

A year is not sufficient time to build efficient structures and ensure sustainability.<sup>74</sup>

SMAEP's grant implementation started three years after large-scale layoffs occurred. Project targets and priorities were shifted, and the relevance of a social mitigation objective was not reassessed.<sup>75</sup> SMAEP successes include:

- Projects were implemented in 62 municipalities, of which two-thirds were rural and relatively small, resulting in a high impact in local living conditions

<sup>70</sup> Ibid.

<sup>71</sup> MEER 2002: 42.

<sup>72</sup> Ibid: 42.

<sup>73</sup> Survey Report on the Socio-Economic Impact of the Steel and Mining Areas Employment Project (SMAEP – PHARE 2001) (June 2003).

<sup>74</sup> Ibid.

<sup>75</sup> Implementation was constrained by PHARE requirements for annual programming, whereas structural development and assisting vulnerable groups require long-term interventions.

- The program established regional structures for the implementing agency (Ministry of Labor and Social Policy). Local offices consisted of three or four staff, trained in project cycle management, presentation skills, financial and environmental/infrastructure issues, and relevant performance indicators, such as job creation.
- The total number of beneficiaries was 6,552 persons.
  - 2,850 were employed, about 50% long-term
  - Average additional income to participants was € 589 (\$742)
- Labor market demand was considered in 30% of the projects. Because the majority of projects were infrastructure/environmental reclamation, 82% of the projects offered courses in construction and landscape occupations.
  - Some implementers conducted labor market assessments to determine training needs, but the majority based the type of training offered on their own knowledge of the labor market or on project needs.
  - 5,625 unemployed participated in various forms of training; redundant steel and mine workers' participation was below 40%.

While 11% of the beneficiaries attended entrepreneurship training, only 2 % established their own business. There was not a well developed business support infrastructure or access to finance within the small municipalities. Project costs did not provide for institution building activities, affecting the quality of services and viability of management structures.<sup>76</sup>

The **2002 Energy Strategy will continue to subsidize employment** to mitigate unemployment effects, and steps have been taken to improve worker training and pre-qualification for new job skills. Programs are in place for retraining and alternative employment to prevent lay-offs. Financial support is available for redundant workers and for employers affected by restructuring. In 2003, 14 million BGN (\$9.07 million) was expended to address workforce reductions at inefficient or non-viable coal mines and facilities and to assist disabled underground mine workers.

In 2005, amendments to the **Act for Employment Stimulation** were adopted to enhance services provided by territorial units of the Employment Agency. The amendments also reduced administrative hurdles for the unemployed and employers to access employment and education programs. The amendments emphasized personal initiative and responsibility for the unemployed to find jobs and provided additional funds for this purpose. To stimulate entrepreneurship, the Government covers expenses for business start-up consultancy and other services.

The **National Employment Plan for 2006** targets youth, the long-term unemployed, persons nearing retirement, and the disabled. Programs are financed from the state budget; approximately 200 million BGN (\$129.6 million) was allocated. The Government's goal is to create 240,000 new jobs, address regional disparities, and stabilize unemployment rates to less than 10% by diversifying the economy and increasing labor market flexibility.<sup>77</sup>

<sup>76</sup> SMAEP 2003.

<sup>77</sup> Center for Economic Development, *The Bulgarian Economy in 2005*, (Sofia: Center for Economic Development, 2006), <http://www.ced.bg> (accessed March 9, 2006).

## V. COMMUNITY PROFILE – RADNEVO

This section summarizes the Radnevo municipality's current economic and social conditions. Experience has shown that consulting with local communities and adapting planning to local conditions strongly influences the impact of restructuring.

# COMMUNITY PROFILE

## Radnevo

### COMMUNITY CHARACTERISTICS

Radnevo is one of 11 municipalities in the Stara Zagora District, 250km from Sofia in south central Bulgaria. Of the 23,359 citizens, 49.7% female. Radnevo comprises 22 communities, with 69% of the area devoted to agricultural land and 18% to mining territories. The East Maritsa coal basin comprises the largest area of the mining territory. In addition to lignite, there are gypsum, marble, and aggregate deposits. Energy sector restructuring is reducing purchasing power, unemployment is rising, and people are migrating. Young people are leaving for career development in larger cities.

Radnevo contains more than 300 archeological sites dating back 4000 years, linking the area to the nation's founding. The mines and Radnevo's archeological museum have arranged for artifacts that are uncovered by excavations to be exhibited in the museum. Annual festivals and exhibitions (some sponsored by the energy complex, Maritsa East) are held for folk music, art, poetry, and folk dance.

In 2005, a fund was established from the privatization account to fund micro-projects to improve community infrastructure. A recreational area was developed around a natural thermal spring in a nearby village. Local people provided labor and some materials.



## COMMUNITY PROFILE: Radnevo, continued

### BUSINESS ENVIRONMENT

Radnevo ranks second in net revenue in the Stara Zagora District. It is also one of the few communities in Bulgaria that does not receive a general subsidy. Revenue transferred from the municipal to the state budget exceeds the amount returned by central government by four times. Although Radnevo is ranked eleventh in contribution to Bulgaria's GDP, it is classified as an area in industrial decline under the Regional Development Act. Development goals include diversifying the local economy, supporting SME development, improving the labor force, and introducing new technologies and production. The Municipal Development Plan for 2007 – 2013 lists the following priorities: expanding coal mining and power production, improving the environment, sustaining and expanding the agricultural sector, capitalizing on unique cultural attributes, and developing the infrastructure.

Community assets for employers include a highly educated population, modern agriculture, and effective local government (which in 2004 received a quality certification for management and administration). Radnevo is also an important regional transit point, with a major road connecting Romania, Turkey and Greece, and convenient links to Stara Zagora, Sofia, and the Black Sea ports of Bourgas (180km) and Varna (310km). The north-south railway that links all of Bulgaria passes through Radnevo. The municipality is viewed as open to business and innovations. The NGO sector is undeveloped.

Radnevo is a major producer of lignite coal and electricity and is the dominant generator of employment and income. The sector provides subcontracting opportunities for hundreds of companies. The production sector ranks fourth in number of companies after hotels and restaurants, transport, and communications. Production includes the food industry, dressmaking, and construction. The trade and service sector have grown in the last few years because of higher purchasing power from above-average salaries. All standard business loans are available. Since 2004, outside investors have been attracted for power generation, gas supply, and mining, but less so for agriculture processing and trade. Rehabilitation of TPP Maritsa East-2 has received the largest foreign investment. Maritsa East Mines have financed its own renovations. Currently, no businesses are under liquidation or failing.

<b>Number of Registered Companies: 520</b>	
Large Enterprises (≥250 employees)	6
Medium Enterprises (51 - 250)	7
Small Enterprises (11 – 50)	40
Micro-enterprises ≤ 10 employees (Trade, services, commodities)	467

Maritsa East was developed in 1960 and controls the largest thermal power plant in Bulgaria. New jobs will be created in 10-12 years from mine expansion. In 2005, an Energy Cluster was established with long-term goals through 2013 to sustain sector competitiveness and improve environment in accordance with EU requirements. The cluster's 2007 goals include attracting investors for modernization; increasing energy efficiency; reducing air, water, and soil pollution; improving working conditions; and upgrading the education and training system to meet the needs of the cluster network.

## COMMUNITY PROFILE: Radnevo, continued

Disease and illness levels have been connected to production at Maritsa East; regular monitoring of discharge water and emissions is taking place. Land re-cultivation has been slow. In 2006, a team from Bobov Dol studied Radnevo's best practices in building public-private partnerships for environmental projects and renovating mine terrains.

### EMPLOYMENT DATA

The labor force of 14,610 includes 4,553 in the private sector. The majority (55%) work in the power or coal sector. The Maritsa East I power plant and briquette factory (the only one in Bulgaria) employ 4,334; 7,558 work in the mines. These include workers who commute from Stara Zagora, Sliven, Nova Zagora, and other communities on company transportation. If privatization eliminates free transportation, the number of workers from Radnevo may rise. The average age of miners is more than 45 and young people rarely apply for jobs in Maritsa East. Mines are establishing a database to attract the best students.

Radnevo's workforce is trained in three secondary schools: the Mining and Geological University, and the Opencast Mechanization and Automation Vocational School, which is unique in Bulgaria for providing training in high-performance mining equipment. The technical school is controlled by the Ministry of Education, and the municipality cannot influence training content or its link to local labor demand. Maritsa East mines provides retraining programs. Other retraining programs exist for persons employed in new technology or production, mostly for mine and railway workers. The local labor office meets monthly with employers to better match vocational graduates with job vacancies. Positions that require specialized education, computer skills and experience are the hardest to fill. Training programs are offered for computer operators and welders. Jobs for cooks, hairdressers, and accountants are popular.

### UNEMPLOYMENT DATA

The official unemployment rate in June 2006 was 8.05% – the lowest in the region and lower than the national average of 13%.

#### UNEMPLOYMENT BY EDUCATION

No skills/Primary school	66.8%
Secondary	29.5%
University	3.7%

#### UNEMPLOYMENT BY AGE & AT-RISK GROUP

Youth ≤ 29	31.1%
Age 30-49	42.1%
≥50	26.8%
At-Risk Women	67.6%
Parolees	1.3%
Single Mothers	10%

## COMMUNITY PROFILE: Radnevo, continued

### UNEMPLOYMENT SUPPORT SERVICES

The local labor office offers employment programs and re-training courses, but with no job guarantee. Support is also targeted to at-risk groups. There are no transition centers for redundant workers.

### SME DEVELOPMENT

The secondary school offers small business start-up courses. Radnevo reduced barriers to business start-up in 2004 by creating a one-stop shop that provides over 40 business support services. In 2004, the municipal council reduced company taxes and permit fees. Salary and social insurance incentives are also provided to small businesses. The municipality posts unutilized land and facilities on its official website; 100% of the offered assets have been used by local SMEs. The local labor office offers a one-year 2,000 BGN (\$1,300) credit for business plans involving agriculture. A center for Promotion of Entrepreneurship, created in 2002 with PHARE funds, has become an NGO providing consulting services, training, and mine internships.

### INFRASTRUCTURE

- Municipal roads were recently improved, but are not first-rate. Improving the connecting roads to Nova Zagora, Galabovo, Stara Zagora and the power plant is a high priority.
- All 22 communities have water and electricity. The main water supply is 35km away in Chervenyakovo. The water system network uses 30-year-old asbestos-cement pipe, which results in significant water loss and health concerns.
- Sewer systems are either unavailable in small settlements or of poor quality. The quality of water and sewage systems hampers development of small producers.
- An extremely low level of forestation (3.38% compared to the country average of 33.7%) has led to erosion and flooding, particularly in 2005.
- All communities have phone lines and telecommunication facilities. In 2002, the telephone system was upgraded to a central digital exchange in Radnevo. All mobile phone service frequencies and internet access are available.
- The large mining territory and the power complex have polluted the air, water, and land. Sulphur dioxide emissions well exceed acceptable limits, requiring public announcements during increased concentrations and free medical checks.
- The entire village of Beli Breg will be dislocated in 10 to 12 years for mine expansion. A special migration program has been developed, and surveys are under way to plan housing and a new burial site within three years for the mostly elderly population.

## COMMUNITY PROFILE: Radnevo, continued

### OPPORTUNITIES

- Bulgaria's major producer of lignite and electricity, largest TPP, and only briquette factory are located in Radnevo
- Maritsa East 2 TPP received Bulgaria's largest foreign investment.
- Energy cluster formed in 2005
- Mines have positive revenue; finance own renovations; mine expansion in 10-12 years
- Agriculture is third largest sector; 69% arable land
- Radnevo ranked 11<sup>th</sup> in contribution to Bulgaria's GDP.
- Award-winning municipal administration; open to business development; one-stop business registration; municipal development plan 2007-2013
- SME and entrepreneurship development assistance centers, hiring and tax incentives, reduced permit fees; municipal website lists available land and facilities
- Important transit point by road and railway; links to major ports on Black Sea
- Trade and service sector growing; low business failure rate
- Bulgaria's only vocational school in mechanized mining equipment; retraining programs offered at mines and by labor office; targeted services for at-risk population
- Lowest unemployment rate in the District (8.05% compared to 13% nationally)
- All communities supplied with water and electricity; digital telecommunications, mobile phone and internet access widely available

### CHALLENGES

- Classified as industrial area in decline
- Power sector is dominant employer, provides hundreds of subcontracts to local business
- Increased illness and disease levels linked to energy sector
- Polluted land, water, air; public announcements and medical checks during high emission periods
- Sewer system inadequate and failing, poor drainage causes flooding, 30-year old asbestos-cement water supply pipes, inadequate systems hamper development of small producers
- Mine re-cultivation progressing very slowly
- Average age of miners is 45; young people not applying at Maritsa
- Vocational training curricula controlled by Ministry of Education; limited local influence
- Extremely low forestation (3.38% vs. country average of 33.7%) causes erosion, flooding
- Beli Breg village (mainly elderly) to be dislocated in 10-12 years for mine expansion.
- Unemployment rising, people migrating, young people leaving

## VI. POWER SECTOR REFORM

As noted previously, organizational restructuring in Bulgaria took place before a regulatory body, market rules and structures were developed.<sup>78</sup> Rapid restructuring in the coal and energy sector has occurred since 1998.

In 1999, the **National Strategy for Energy Sector and Energy Efficiency Development to 2010** was adopted, setting forth long-term goals for a secure energy supply, energy efficiency, environmental protection, and nuclear safety.

A lack of clarity in the **Act on Energy and Energy Efficiency** slowed progress in market orientation, competition, and privatization. The Act preserved state control and investment planning and introduced a non-market model of a Single Buyer in electrical energy and gas supply.<sup>79</sup> It did not clearly define functions for planning and regulatory bodies or resolve issues arising between ownership and energy policy.

The **Ministry of Energy and Energy Resources (MEER)** took the position that the energy sector was not ready for deregulation because of the early stages of economic reform, subsidies to household consumers, and financially unstable companies with outstanding property transfer issues.<sup>80</sup> MEER developed an action plan to restructure financial and commercial practices, make institutional changes, continue toward deregulation, and create appropriate legal support.

The **State Energy Regulations Commission (SERC)** was established as the **Independent Energy Regulator**, but operated in isolation from the **State Agency for Energy and Energy Resources**.<sup>81</sup>

By the end of 2001, MEER developed a plan for restructuring companies, privatization, and financial recovery or closure of inefficient power plants. MEER's goals were also tied to preparing for EU integration and reducing regional and social disparities in employment, income levels, and infrastructure to sustain economic growth and improve competitiveness.<sup>82</sup>

### Status of Coal and Energy Restructuring Process in Bulgaria

	CM	CPP
Unbundling	◐	◐
Producer Subsidization	◐	◐
Corporatization		
Separation of Transmission Network	-	●
Separation of Distribution Network (ISO)	-	●
Independent Regulator	-	●
Liquidation of Non-Viable Entities	●	◐
Refurbishment	◐	◐
Commercialization		
Liberalization/Deregulation	◐	◐
Price Stabilization	◐	◐
Consumer Subsidies	◐	◐
Privatization		
Private Investment	◐	◐

CM – Coal Mines; CPP – Coal-Fired Power Plants  
 Completion Status:  
 ● Full ◐ Partial ○ None – Not applicable

<sup>78</sup> MEER 2002.

<sup>79</sup> MEER, *Energy Strategy of Bulgaria* (Sofia: MEER, 1999): 4.

<sup>80</sup> Ibid.: 7-8.

<sup>81</sup> MEER 2002: 4.

<sup>82</sup> Ibid.

### The **2002 Energy Strategy**:

- redirected subsidies from non-viable mines toward funding liquidation and environmental protection projects<sup>83</sup>
- introduced commercial market relations between coal suppliers and energy sector customers
- targeted the Maritsa East Mines and power plants for developing electricity generation capacities
- monitored implementation of privatization and concession agreements by privatized companies
- targeted development of a domestic retail electricity market for household consumers beginning in 2007<sup>84</sup>
- offered plans for alternative employment for redundant workers

Following enactment of the law in 2002, liquidation of non-viable companies and environmental reclamation began, funded by the state budget.<sup>85</sup>

NEK developed the **Bulgarian Power Sector-Least Cost Development Plan 2004-2020**, which set goals to develop 600 MW of new lignite-fired capacities by 2008-2009.<sup>86</sup> Lignite fuel would be phased out by 2020 in favor of natural gas, in order to provide 1500 – 2000 MW of capacity at lower emission levels.<sup>87</sup>

The **Energy Law 2003** established the regulatory environment for a new market model for energy production and for unbundling distribution and transmission systems from production and supply activities.<sup>88</sup>

The **Energy Efficiency Law of 2004** integrated efficiency demands of the Energy Strategy with EU requirements. An **Energy Efficiency Fund** was established.<sup>89</sup> Bulgaria was reconnected to the **UCTE** first and second synchronic zones.

A competitive domestic energy market was launched. By September 2004, the **Privatization Agency completed the sale of 67% of the country's electricity distribution companies** to develop a wholesale electricity market for eligible customers.<sup>90</sup>

By August 2005, the liberalized market segment included eleven licensed buyers and five licensed producers, and covered approximately 12.5% of overall consumption. The electricity generated by newly licensed producers was purchased at preferential prices for a period of eight years according to proposed amendments to the Energy Act.

### **PRIVATIZATION**

In 2002 – 2003, electricity sector privatization began with distribution companies. Deadlines for the energy sector to liberalize by offering a choice of electricity providers were fixed at July 1, 2004 for non-

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<sup>83</sup> MEER 2002: 41.

<sup>84</sup> MEER 2004: 34.

<sup>85</sup> MEER 2002: 40.

<sup>86</sup> EAD 2004.

<sup>87</sup> Ibid.

<sup>88</sup> MEER 2004: 33.

<sup>89</sup> Ibid.

<sup>90</sup> Ibid.: 34.

public consumers and January 1, 2007 for public consumers.<sup>91</sup> Initial liberalization comprised 15 % of the country's total energy consumption.

By 2004, almost half of Bulgaria's TPPs were privatized, while 7% of the mines were privately-owned.<sup>92</sup> In February 2005, the Privatization agency announced that 66% of the energy sector had been privatized. During 2000 – 2005, the number of state-owned energy companies was reduced from 87 to 20. As of December 2005, 23 companies (4 privileged consumers,<sup>93</sup> 6 independent producers, 2 electricity dealers, and NEK) were registered as commercial participants.

Requirements for state subsidies to the coal industry were defined by the **Law on State Aid**. Bulgaria's relatively late launching of reforms caused a lag in ending subsidies. Mining subsidies have now been phased out almost entirely and technical liquidation of closed mines continues. Some cross-subsidization of electricity and heating still exists, but is scheduled to end in 2006. Funding for technical liquidation and mitigating environmental impact will be provided until social consequences are eliminated.<sup>94</sup>

Bulgaria's privatization tendering process has not been without obstacles. In May 2005, the Privatization Agency selected one company to acquire 100% of the Electricity Distribution Company Varna and 10% of the capital of DHC Russe. However, the process was terminated when another company protested the selection. The sale of DHC Russe was also stopped after the **Commission for Protection of Competition** objected to the sale of two companies to the same bidder. This enabled another company to purchase TPP Varna in March 2006 and TPP Russe will be offered to other finalists as well.<sup>95</sup>

Annex B provides a chart of the privatization offers that were pending in 2006.

Sector Opportunities	Sector Challenges
<ul style="list-style-type: none"> <li>• Largest electricity exporter in SEE</li> <li>• Private investment spurring technological improvements in generation facilities</li> <li>• State subsidies now directed toward mine liquidation and environmental improvements</li> <li>• Improved mine productivity and increased profits</li> <li>• 50% of power plants privatized</li> <li>• New power plant to be built</li> </ul>	<ul style="list-style-type: none"> <li>• Reliance on imports for 70% of energy fuels</li> <li>• Potential to become a net importer of energy if consumption rate rises</li> <li>• 90% of mining terrains remain to be rehabilitated</li> <li>• 80% of thermal power plants older than 20 years</li> <li>• Development of coal-fired power plants to be halted by 2010</li> <li>• Decommissioning two of seven primary power plants in 2011 and 2014</li> <li>• Many coal reserves will soon be depleted</li> </ul>

<sup>91</sup> Center for Economic Development. *Report: Bulgaria and the Lisbon Objectives*, (Sofia: Center for Economic Development, March 2004), <http://www.ced.bg>.

<sup>92</sup> Ibid.

<sup>93</sup> In 2003, the State Commission for Energy Regulation awarded 10 companies, with annual electricity consumption of over 100 GWh, the status of "Privileged Consumers."

<sup>94</sup> Republic of Bulgaria Council of Ministers 2006.

<sup>95</sup> Center for Economic Development 2006.

## ENVIRONMENTAL INITIATIVES

Coal-fired thermal power plants emit about 80% of the sulfur and 60% of the carbon dioxide emissions in Bulgaria.<sup>96</sup> Power plants Maritsa East group, TPP Maritsa 3, TPP Varna, and TPP Bobov Dol produce 80-85% of sulfur emissions. Waste water from mining activities is another serious problem: hundreds of hectares of land around mines and power stations are contaminated. Only 10% of the open pit mining areas have been re-cultivated.<sup>97</sup>

Bulgaria has committed to reducing carbon dioxide emissions by 8% by 2012. An environmental rehabilitation program for power plants will recondition mechanical equipment, build flue gas desulphurization plants, and implement other measures to reduce noxious emissions. Maritsa East will be fitted with flue gas desulphurization plants before 2008 and Bobov Dol before 2012.<sup>98</sup> The Ministers of Environment and Water and the MEER signed a memorandum for reducing production from thermal power units. The NEK plans to halt development of coal-fired thermal power plants after 2010, and pursue nuclear or gas-fired co-generation to further reduce emissions.<sup>99</sup>

## KEY STAKEHOLDERS IN POWER SECTOR RESTRUCTURING

The **Ministry of Economy and Energy** was created in 2005 by incorporating the **Ministry of Economy** and the **Ministry of Energy and Energy Resources (MEER)**. It implements Energy Strategy programs and activities for restructuring the energy sector and is charged with developing and implementing economic and energy policy. The Ministry has three departments:

- **Directorate of Natural Resources and Concessions** grants mining concessions and licenses for exploration.
- **The Bulgarian Mining Chamber (BMC)** is involved in issues concerning professional diseases, updating safety and work statutes, and establishing ordinances on mine rescue services. The BMC has signed Protocols of Cooperation with the MEER, the Ministry of Environment and Water, and the Ministry of Regional Development and Public Works to resolve company and branch issues in the mining sector. The BMC also works with CITUB and Podkrepa trade unions to negotiate collective branch labor contracts. In 2005, five Permanent Expert Groups were established to assist in drafting sector laws that would conform to environmental standards, promote health and safety initiatives, improve information services, and address security.
- **National SME Agency** implements and coordinates projects and policies for SME development.

**The Privatization Agency** carries out privatization activities.

**Commission for Protection of Competition** is an independent body that evaluates privatization procedures and safeguards transparent and fair privatization processes.

**The State Energy and Water Regulatory Commission (SEWRC)** is an independent body responsible for setting quotas on large producers and limiting their opportunities to sell directly to Privileged Consumers. SEWRC regulates electricity suppliers.

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<sup>96</sup> MEER 1999: 21.

<sup>97</sup> World Energy Council 2000: 49.

<sup>98</sup> EAD 2004.

<sup>99</sup> Ibid.: 19.

**DisCos (Distribution Companies)** develop contracting agreements between generators and consumers. The system dispatcher considers these agreements in allocating generation<sup>100</sup>.

**National Electricity Company (NEK)** is the State-owned joint stock company that manages power transmission and public supply of electricity. NEK operates high-voltage transmission lines, hydro and nuclear power operations. Although most of the lignite-fired power plants have been separated from its oversight, the NEK has power purchaser agreements with the power generation companies.

**The Ministry of Labor and Social Policy** implements labor and social protection policy through the Employment Agency, General Labor Inspectorate Social Assistance Agency, and other structures.

- **National Agency for Conciliation and Arbitration** was established in 2001 to resolve labor disputes.
- **National Employment Service**

**Social Cooperation Committees** are tripartite committees comprised of unions, employers, and government established through Sector Collective Labor Contracts to resolve issues with an employer's redundant worker plan.

**Economic and Social Council** was established in November 2003 as an independent consultative body on economic and social issues involving social partners and civil society.

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<sup>100</sup> MEER 2002.

ANNEX A  
LATEST DEALS IN THE BULGARIAN ENERGY AND ENVIRONMENT  
SECTOR<sup>101</sup>

Vendor	Investor	Target	Size (€/\$ millions)
Government	EBRD, Societe Generale	Rehabilitation of TPP Maritsa East 3	€518/\$652.7
Privatization	CEZ (Czech Republic)	“Western Bulgaria” package of Electricity Distribution Companies (EDC)	€281.5/\$354.7
Privatization	EVN AG (Austria)	“South-East Bulgaria” package of EDCs	€271/\$341.5
Government	Mitsui/Toshiba (85% financed by JBIC)	Rehabilitation of TPP Maritsa East 2	€230/\$289.8
Government	Siemens (Germany)	Modernization of three units of the Bulgarian state Varna TPP	€11/\$13.7
Privatization	E.ON Energie AG (Germany)	“North-East Bulgaria” package of EDCs	€140.7/\$177.3
Government	Varna Heating Utility	Two co-generation units with installed capacity of 2.2 MW each	€2.1/\$2.6
Government	EBRD	Maritsa East II pollution control equipment installation	€34/\$42.8
Government	Bulgarian NEC, JAERI, IAEA	Ecological installation in Maritsa East II TPP	€6.1/\$7.7
Government	TPP Russe	Noxious gases decrease project	€5.1/\$6.4
District Heating Russe	ZVVZ (Czech R.) – supplier; Komerčni Banka – creditor	Russe District Heating Company – Dust filter installation	€4/\$5

<sup>101</sup>InvestBulgaria Agency 2006.

## ANNEX B DONOR FUNDED ACTIVITIES

<b>Donor Funded Activities</b>				
ACTIVITY	STATUS	DONOR	YEAR	AMOUNT
<u>Maritsa East III Power Project</u> Rehabilitate 640 MW, improve efficiency, decrease environmental impact, and prepare for Kozloduy Nuclear Power Plant retirement	Closed	EBRD/ Black Sea Trade Development Bank/other	2002	€132.1 m / EBRD; €20 m BSTDB; €215 m other (\$166.2 m EBRD; \$25.2 m BSTDB;\$270.9 m other)
<u>Maritsa East I Power Company Project</u> “Build-own-operate-transfer” (BOOT) to replace existing capacity	Closed	EBRD/other	2005	€157.5 m EBRD/ €273 m other (\$198.5 m EBRD/\$344 m other)
<u>Maritsa East II TPP Project</u> Install flue gas desulphurization to plants in units 5 and 6.	Closed	EBRD/other	2004	€35 m EBRD/ €10m other (\$44.1 m EBRD/ \$12.6 m other)
<u>Power Sector Refurbishment Project</u> Refurbish Maritsa East II Power Plant, upgrade transmission and distribution networks, introduce demand-side management program, and finance coal imports to Varna TPP.	Closed	ERBD/EIB	1997- 2000	\$363 m (\$457.4 m)
<u>Maritsa East II TPP Rehabilitation Project</u> Rehabilitate units 1-4.	Active	Japanese Bank for International Cooperation (JBIC)	2003- 2007	€225.3 m (\$283.9 m)
<u>Steel and Mining Areas Employment Project (SMAEP)</u> Social mitigation assistance to address impact from restructuring through institution-building, plus a local grant scheme to address unemployment in targeted regions	Closed	EU PHARE	2001- 2003	€12.367 b (\$15.582 b)
<u>District Heating Project</u> Rehabilitate DHC Sofia and Pernik, improve services, lessen environmental impact, and convert to combined-cycle technology.	Active	World Bank/EU	2003- 2008	\$132.7 m
<u>Rehabilitation and Modernization of Power Transmission System – Energy Project 2</u> Large-scale modernization of power transmission system and dispatching, including management information system, SCADA/EMS systems, meter reading system, refurbishment of 400kV switchyard at Plovdiv, equipment for 400kV and 200kV substations	Active	EIB/EBRD	2008	€101m (\$127.3 m)
<u>400kV Interconnection Line between Bulgaria and Macedonia</u> Joint construction of power line between NEK and the		EBRD	2006	€15.5 m (\$19.5 m)

## Donor Funded Activities

ACTIVITY	STATUS	DONOR	YEAR	AMOUNT
Power Transmission Company of Macedonia				
<u>Social Investment and Employment Promotion</u> Reduce poverty and build social capital among minorities and women through two initiatives: <ul style="list-style-type: none"> <li>Community Infrastructure for Development Initiative</li> <li>Bulgarian Active Labor Market Initiative</li> </ul>	Active	World Bank	2002-2007	Total €66.74 m (€50 m from World Bank) (Total \$84.1 m - \$63 m from World Bank)
<u>Third Programmatic Adjustment Loan (PAL3)</u>	Closed	World Bank	2005-2006	\$ 150.53 m
<u>EU/EBRD SME Finance Facility</u> to finance SMEs		EBRD/private banks	2000-2004	€ 77 m (\$97 m)
<u>Central and Eastern Europe Power Fund</u> Invest in private sector projects in power generation, transmission and district heating.		EBRD	1999	€436 (\$549.4)
<u>Economic Growth and Job Creation</u> Enhance business-enabling environment through SME development, job creation, and access to financial resources.	Active	USAID	2005-2008	\$3 m
<u>Private Sector Development Program</u> Promote business environment and SME development. Assist with streamlining of Commercial Law. Assist State Energy Regulatory Commission with energy sector legislation, heating sector privatization, and tendering national gas distribution services. Train SERC on power market design, accounting practices, and regional electricity market issues. Support SEEREM.	Active	USAID	1992-2007	\$103 m
<u>Life-Long Learning and Vocational Education and Training</u> Support dynamic labor market and improve vocational training capacities in targeted regions.	Active	EU/PHARE	2002-2006	€5.334 m (€4 m PHARE) (\$6.7 m (\$5 m PHARE))
<u>Development of an Adult Training Center Network</u> Improve adult vocational training system	Active	EU/PHARE	2004-2008	€3m (€2.425m PHARE) (\$3.8 m (\$5 m PHARE))
<u>Private Sector Development Project</u> Support completion of SOE restructuring, attract foreign investment, promote banking sector privatization and restructuring, and strengthen regulatory framework and central bank.	Closed	EU/PHARE	1999-2001	€ 8.2 m (\$10.3 m)
<u>Beautiful Bulgaria Project II</u> Reduce overall urban unemployment to support EU accession, enhance SME sector, increase awareness, and address occupational safety and health issues.	Closed	EU/PHARE/ UNDP	1999-2001	€5.9 m (€4.5m PHARE/ €633,500 UNDP) (\$ 7.4 m(\$ 5.7 m PHARE/ \$798,210 UNDP))
<u>Institution Building at the State Energy Efficiency Agency</u> Provide support and assistance to the establishment of the SEEA established under the Energy Efficiency Law 1999	Closed	EU/PHARE	2001-2007	€3.438 m (€3.2 m PHARE) (\$4.3 m (\$4 m PHARE))

## Donor Funded Activities

ACTIVITY	STATUS	DONOR	YEAR	AMOUNT
<u>Investment in Labor Market Development and Vocational Training Development</u> Improve employment outlook of unemployed through new kinds of vocational training and retraining courses; increase participation of disadvantaged groups.	Closed	EU/PHARE	2000-2003	€6.25 m (€5m PHARE) (\$7.9 m (\$4 m PHARE))
<u>SME Services and Technology Grant Scheme</u> Provide management and technological support to SMEs.	Closed	EU/PHARE	2002-2004	€9.1 million (€4.7m PHARE) (\$11.5 m (\$5.9 m PHARE))
<u>Labor Market Initiative</u> Increase employability, entrepreneurship, and adaptability of the labor force, targeting disadvantaged groups.	Closed	EU/PHARE	2002-2004	€8.314m (€6.3m PHARE) (\$10.5 m (\$7.9 m PHARE))
<u>More Effective, Responsive, and Accountable Local Government</u> Increase community capacity to participate in decentralized government and promote free market activities.  Partners for Local Economic Development and Government Effectiveness (PLEDGE) Targeted regions with highest levels of unemployment to improve business environment.	Closed	USAID/ USDOL SEED ACT	1992-2005	\$4.6 m
<u>Accelerated Development and Growth of Private Enterprises</u> Establish legal framework to support private sector business development.	Closed	USAID SEED ACT	1992-2005	

## ANNEX C

### LEGISLATIVE BACKGROUND

#### Energy Laws

- **Energy Act 2003** – Based on the 2002 Energy Strategy, laid foundation for regulating electricity, natural gas and heat domestic markets in line with EU Directives regarding common electricity and natural gas markets. Established the State Energy Regulatory Commission (SERC) as an independent entity. Encouraged production from Renewable Energy Sources (RES) and from efficient co-generation. Envisions a green certificate trade system. Defined conditions for establishing and developing a competitive market model for electricity and natural gas. Established emission standards for sulfur dioxide, nitrogen oxides and dust. The act was amended in September 2006.
- **Energy Efficiency Act (2004)** – Based on the 2002 Energy Strategy, EU Directives, and Kyoto Protocol, outlines state support to make energy efficiency a national priority. Established the **Energy Efficiency Fund**, controlled by the **Energy Efficiency Agency**.
- **Administrative Violations and Sanctions Act (1969)** – Established general rules for administrative violations and for the imposition of sanctions. Provides limits to protect the rights and legal interests of citizens and organizations.
- **Spatial Development Act (2001)** – Guarantees sustainable development and favorable living, working, and recreational conditions in communities. Regulates social relations associated with spatial development planning, project design, and construction, as well as restrictions on ownership for spatial-development purposes.
- **Law on Branch Organizations (Draft 2005)** – Complies with EC Council Regulation 1407/2002 on state aid to the coal industry. Introduced with the **Law on State Aid**.
- **Concessions Law**
- **Law on Transformation and Privatization of State and Municipal-Owned Enterprises (1992)**
- **National Program for Sustainable Development of Mining (1998)**
- **Subsurface Resources Act** – Established that subsurface resources are the property of the State.
- **Law on the Protection of Competition (1998)**

#### Labor/Employment

- **1993 Labor Code** Article 3, specifies system of social dialogue. Establishes the National Council of Tripartite Cooperation, which includes representatives from government, workers' and employers' organizations. Stipulated that collective agreements must have national-level representation.
- **1999 Labor Code**
- **2001 Labor Code** established the National Agency for Conciliation and Arbitration.
- **Act on Amendment and Supplementing of the Labor Code**. Defined termination of fixed-term employment contracts, unfair dismissal, improvements in collective bargaining, extension of collective agreements to all enterprises, specific rules for social dialogue, and the tripartite cooperation system.
- **Law on Collective Labor Disputes (1990)** CITUB initiated this law, which outlines strike procedures.
- **Act on Economic and Social Council** promotes social partnerships.
- **Social Investment Fund Act**

- **Ordinance for Complex Labor Assignment**
- **Ordinance 4/98** regarding provision of Labor Medicine Service
- **Law on Employment Stimulation**
- **Law on Protection against Unemployment and Promotion of Employment (2000)**
- **Law on Small and Medium Enterprises (1999)**
- **Law on Professional Education and Training (1999; amended 2000)**
- **Law on Social Welfare (1998)**
- **Resolution No. 47 of the Council of Ministers “Rules for Development and Implementation of Employment Programs” (1998)**

#### **Environment**

- Ratified the UN Framework **Convention of Climate Changes** in 1995. **Signed Kyoto Protocol** in 1997 to reduce emissions of greenhouse gasses by 8% per year between 2008 – 2012 from 1988 levels
- Member of the **Geneva Convention on Cross-Border Pollution** of 1979
- Signed the **Goetheborg Protocol** in 1999, committing to reduce sulfur dioxide emissions between 2005 - 2010 to 56% of 1990 levels

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