REPUBLIKA E SHQIPËRISË
MINISTRIA E ENERGJISË
DHE INDUSTRISË

TECHNICAL - _COMMERCIAL OFFER FOR THE PROVISION OF FREE MINING AND PROCESSING FACILITIES OF THE COPPER INDUSTRY, FOR USE, DEVELOPMENT AND LONG-TERM ADMINISTRATION

May 2017

Prepared by the Working Group:

1	Gëzim	Musabelliu	Deputy Minister	Chairman
2	Mehmet	Hasalami	Director of Policiesand Mining Development,	Member
3	Arben	Dhima	Director of Policies, Industry Development and Technical Standards,	Member
4	Kujtim	Gjoka	Head of the Mining Permit Sector,	Member
5	Fatos	Manastirliu	Head of the Policies and Mining Development Sector,	Member
6	Nikollë	Gega	Head of the Policies and Industry Development Sector,	Member
7	Vasil	Pano	Expert in the Concessions and Privatization Directory,Member	
8	Edmond	Goskolli	Adviser to the Exectuive Director at NANR,	Member
9	Nikollë	Kaza	Director of Mineral Resources in the AGS	Member

Tirana May 2017.

Content

TECHNICAL-COMMERCIAL OFFER

For the provision of several mining and processing facilities in the copper industry,for use, administration and development in accordance with the legal framework

Purpose: Promotion, incentive and business support to enable the increase of copper processing rate and other associated elements, referring to current and prospective resources, as an instrument that maximizes the value of this asset to the benefit of the country's economy, with increase in budget revenues, export, and mitigation of social problems in the areas that possess this asset by increasing the employmet levels etc.

1.1-**Brief history of the copper industry in Albania**

The copper industry is one of the oldest industries in our country. It has operated as complex ranging from geological research, mineral extraction, enrichment, blister copper production, electrolytic, wires and cables, brass and other copper alloys, brass lamination up to slag processing. Its origin starts from 1936, with geological research carried out by italians and later on with the start of mineral production in Rubik mine which was accompanied with the construction of enrichment factory and melting plant. After the WWII, with mining and Rubik plantbase this industry was reactivated in 1946. Production rates increased from year to year and in 1960,72200 tons of mineral and 950 tons of blister copper which was exported, was produced.

After this period the copper industry development was done in two directions, intensive and extensive, where priority was given to the second one. Hence, many mines were put in use, ***7 enrichment factories were built***, ***3 copper plants and wires and cables plant in Shkodra***. With these investments, it was completely closed the cycle of full copper mining processing (from the extraction to the production of wires and cables covering the country's needs and demand for export). After 1985 priority was given to the intensive use of the copper industry. The highest levels of production were achieved in 1989, where 1.14 million tons of copper mineral, 62,000 tons of copper concentrate, pyrite concentrate, and 15,300 tons of blister copper were produced. After 1990s, with the change of the system, and with the corporate-level copper scheme (Albbakër), based on the economic asistance given by the government and European Community, it began the stabilization of the part of the industry which had remained undamaged or that could get back to work without large expenses which was evaluated as economic for use. In the years 1995-1997, this industry was reactivated in 13 enterprises with 4,500 employees, 15 mines were put into function and were organized in 7 mining enterprises, 7 enrichment factories, and 3 copper and wires plants.

Dealing with the market economy necessitated the economic reassessment of this industry for alsmost every source, so some mining sites, enrichment factories and copper plant in Kukës were closed and conserved, because its operation and funcition heavily burdened the economic situation of this branch. After the events of 1997 this industry was completely suspended.

Despite some attempts to reactivate it, the sharp drop in the copper metal price in the world market, the huge stock of reserves, the lack of investment and other objective and subjective factors, made all this efforts fail. Eventually, ***by Government decision, based on economic-financial analysis, u mbyllën, konservuan dhe më vonë u demontuan a number of objects of this industry were closed down, preserved and later on demolished.*** In 2001,a concession was granted for some of the main facilities of this industry , and therefore in 2004 and on it was restarted its activization but only until the enrichment.

-2- Current situation of this industry

The copper industry facilities in 2001 were granted with concession to a Turkish company “BER-ONER” with concenssionary company “Ber Alb” ltd.

This industry in the period 2004-2015 has operated localized in the exploitation of two Munelle and Lak Rosh mines in the Puka region, enriching the mineral in the Fush-Arrez Enrichment Factory.

Munelles's polymetalic mine has had such mineral distribution, where a body of about 1 million tonnes of mineral has been of a very high quality: average copper 4 to 5%, average zinc 3% and gold 4 gr/ton, silver 65 gr/ton along with other elements such as Selen, Stibium etc.

At the same time some companies majority Canadianhave had mining permit for exploration, which were more focused on the revaluation of previously discovered reserves by Albanian institutions until 1992, by not contributing to the addition of new reserves.

From the complete processing scheme inherited until 1990, it has been partially functioning only the Wires Plant in Shkodra.The Melting Factory in the former Copper Plant in Rubik was demolished in 2007 - 2008, while the Refinery Plant was granted with a concession to a company at the end of 2012 but it already failed since the begining of the first year because the concessionaire required adaptation for ferrochrome production in his/her idea.

By the end of 2015, also the Turkish company "BER-ONER" focused in the Puka region with production schemes up to the copper concentrate, has stopped production being justified by the the decline in the price of metals in the stock market that is really noticeable but perhaps not very much arguing the part related to the complete prohibition of work.

-3- Data on mining reserves according to the sources

3.1-Copper resources according to Albanian Geological Survey data (year 2016)

No.	Copper Deposite	Geological Reserves (Resources) tons	Copper content (Cu)%.
1	Spaç	4668800	1.236
2	Gurth-1	97061	2.71
3	Gurth-2 (Koshaj)	338702	0.8
3	Gurth-3 (Plakëz)	200355	2.34
4	North Perlat	236275	1.68
5	South Perlat	1402930	2.86
6	Derven	1248558	0.87
7	Rubik	958570	2.01
8	Thirre	333752	1.70
9	Kurbnesh	133470	1.30
10	Kaçinar	28734	0.63
11	Kullaxhi	372592	1.06
12	Lamskon	426950	0.85
13	Lëtiten	346196	1.05
14	Mashtërkor	101622	1.12
15	Lëgjin	444909	0.99
16	Laj-Reps	252646	0.97
17	Rrënjoll	47000	0.99
18	Other objects	411868	1.03
	Sum Mirditë	**∑12050990**	**1.418**
1	Poravë	115000	1.5
2	North Paluca	97450	1.05
3	Palucë Qëndrore	70915	1.82
4	South Paluca	155261	1.32
5	Lak Roshi	1979060	1.452
6	Tuç	2100000	1.33
7	Tuçi Lindor	1700000	2.03
8	Rruga e Rinisë	1220000	1
9	Kodra e Keqe	289000	1.15
10	Qafë Bari (North)	338000	1.81
11	Munellë	6325245	1.175
12	Fushë Arrëz	282760	1.12
13	Micoj	636442	1.31
12	Kçirë	203000	1.9
13	Meçe	42350	1.3
14	Kabash	35000	2.6
15	Other objects	1191196	1.08
	Sum Pukë-Fush Arrëz	**∑16820679**	**1.349**
1	Gjegjan	61000	3.56
2	Golaj	429600	0.62
3	Nikoliq (1+2)	1078000	1.75
4	Krumë	210000	3
5	Gdheshtë	274000	1.3
6	Leproj	242100	1.36
7	Shikaj	596000	0.7
8	Other objects	1313550	1.07
	Sum Kukës+Has	**∑4204250**	**1.31**
1	Bregu Geshtenjes	2095441	2.21

2	Çiflig	718180	2.32
3	Dushku i Trashe	253000	2.4
4	Rehovë (Kanisqel)	358000	1.81
5	Other objects	404200	1.66
	Sum Korçë	**∑3828821**	**2.147**
1	**Palaj – Karmë (Vau Dejës)**	**∑1361000**	**2.5**
1	Turec (Lezhe)	372900	0.85
2	Ojekte tjera (Lezhë)	25000	0.99
3	Lunik (Librazhd)	16620	1.68
4	Objects- Mat	116645	2.34
5	Object - Dibër	44600	0.96
	Sum Lezhë-Librazhd-Mat-Dibër	**∑575765**	**1.19**
	TOTAL AMONUT OF RESERVES	**∑38841505**	**1.48**

Geologist researchers also provide a range of possible resources for mineralized objects and displays that are fixed and documented but no necessary works related to exploration have been carried out to return them to sources.There are also existing sources that are not closed (they are with extensive and in depth perspective).

Possible (Copper) Reserves(Resources)

1. Gurth - Spaç - Reps 1 million
2. Kullaxhi – Malaj 1 "
3. Shebe – Perlat – Buzboj – Prosek 1.5 "
4. Rubik – Vele – Mnele 1 "
5. Kurbnesh – Kthelle – Bulshar 0.5 "
6. Thirre - Shtrungaj 0.5 "

Mirdita over 5.5 million tons

1. Porav – Miliska 2 million
2. Qaf Mali – Lak Roshi 1.5 "
3. Tuç – Srriqe 1 "
4. Munell – Qaf Lisi 2 "
5. Fush Arrez-Gjegjan 0.5 "

Fush Arrez over 7 million

1. Petkaj-Asdre-Gdheshte (Kukes) 1 million
2. Nikoliq - Krume (Has) 0.5 "
3. Karme – Shllinze (Vau Dejes) 1 "
4. Rehove – Çiflig (Korçe) 2 "
5. Other (Lezhe, Librazhd, Mat, Elbasan) 0.5 "

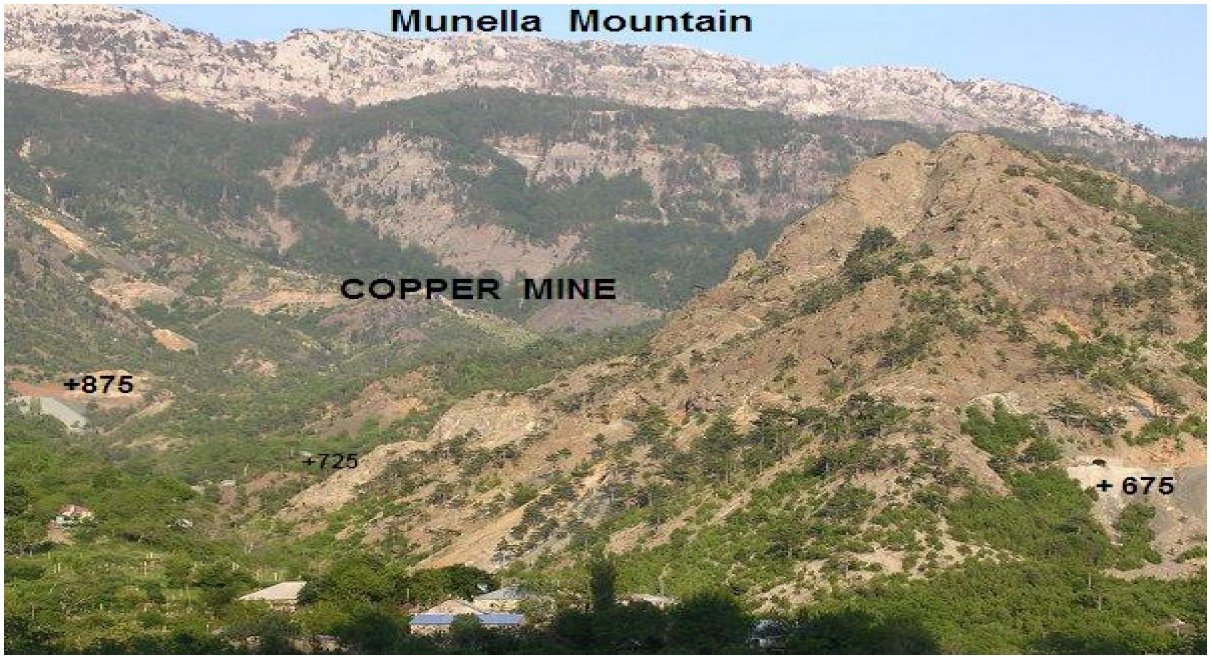
The amount of indicative resources (forecasts) is over 17.5 million tons of copper mineral.

-3.2.1- Mining sources in use

- Munelle Deposite

-Lak-Roshi Deposite

These doposites have begun to be mined from 2005 to 2015 by a concessionary company "Beralb" ltd, which has received with mining licenses and other deposites to mine the ore snd suply pthe benification plants for production of copper concentrate



View of the main copper source in Munellë (Puka region)

-3.2.2- Deposite data for mining

Deposites of Tuç; Qaf-Bari; Paluce; Fushe-Arrez (Puka region)

-Karme Deposite (Shkodra region)

These Deposites have been taken for mining by the concession company "Beralb" ltd

Currently, until 2016, two other companies such as "Tete-Tunel&Mining" ltd (Spaç source in Mirdita) and "Tirex" ltd, the source of the Bregut te Geshtenjes in the region of Korça have joined the copper industry as mining companies,.

These two companies anticipate the production process up to the copper concentrations as well.

3.2.3 Table overview of reserves according to contemporary standards

No	Deposite name	According to the 2014 study						
		Mineral resources		**Reserves**				
		Measured		**Proven**		**Possible**		**Indicative**
		Quantity mln ton	% Cu	Mln ton	% Cu	Mln ton	% Cu	Million ton mineral
1	Spaç	4.668	1.23	3.274	1.21	1.394	1.23	0,3
2	Gurthi 1,2,3	0.4	2.97			0.4	2.21	0,4
3	Rubik	0.968	2.01	0.65	2.12	0.318	1.78	1
4	Kullaxhi	0.372	1.06			0.372	1.06	1
5	Reps	0.253	0.97			0.253	0.97	0,3
6	Thirra	0.333	1.7			0.333	1.7	0,5
7	Letiten	0.346	1.05			0.346	1.05	
8	Legjin	0.445	0.99			0.445	0.99	
9	Lamkson	0.427	0.85			0.427	0.85	
10	Sum 1 Spaç area	**8.212**	**1.342**	**3.924**	**1.297**	**4.288**	**1.375**	
11	Kurbnesh	0.133	1.3			0.133	1.3	0,5
12	North Perlat	0.236	1.68			0.236	1.68	
13	South Perlat	1.403	2.88	1.403	2.88			1,5
14	Derven	1.248	0.98			1.248	0.98	
15	Kaçinar	0.0287	0.63			0.029	0.63	
16	Renjolle	0.047	0.99			0.047	0.99	
17	Sum 2	3.0957	1.905	1.403	2.88	1.693	1.585	
I	**Mirdita**	**11.3077**	**1.496**	**5.327**	**1.578**	**5.981**	**1.446**	**5,5**
1	Tuçi + Tuçi Lindor	3.8	1.64	2.03	2.22	1.77	1.33	1
2	Paluce	2.356	2.35	1.296	2.35	1.06		
3	Lak-Roshi	1.98	1.452	1.216	1.5	0.764	1.34	1,5
4	Munelle	6.32	1.3	4.145	1.3	2.175	1.3	2
5	St.Rinise	0.387	1			0.387	1	
6	Fushe-Arrez	0.15	1.71			0.15	1.71	0,5
7	Fushe Arrez-Micoi	0.839	1.35	0.571	1.35	0.268	1.35	
8	Kçire	0.116	1.45			0.116	1.45	
9	Porave							2
10	Qaf-Bari North and South	0.338	1.81			0.338	1.81	
11	Others 1							
II	**Sum Puka**	**16.286**	**1.63**	**9.258**	**1.76**	**7.028**	**1.285**	**7**
1	Gjegjan	0.061	3.5			0.061	3.5	
2	Shemri	0.449	1.36			0.449	1.36	
3	Gdheshte	0.274	0.98			0.274	0.98	1
4	Leproj	0.241	1.36			0.241	1.36	
III	**Sum Kukesi**	**1.025**	**1.385**			**1.025**	**1.203**	**1**
1	Golaj	0.429	0.6			0.429	0.6	

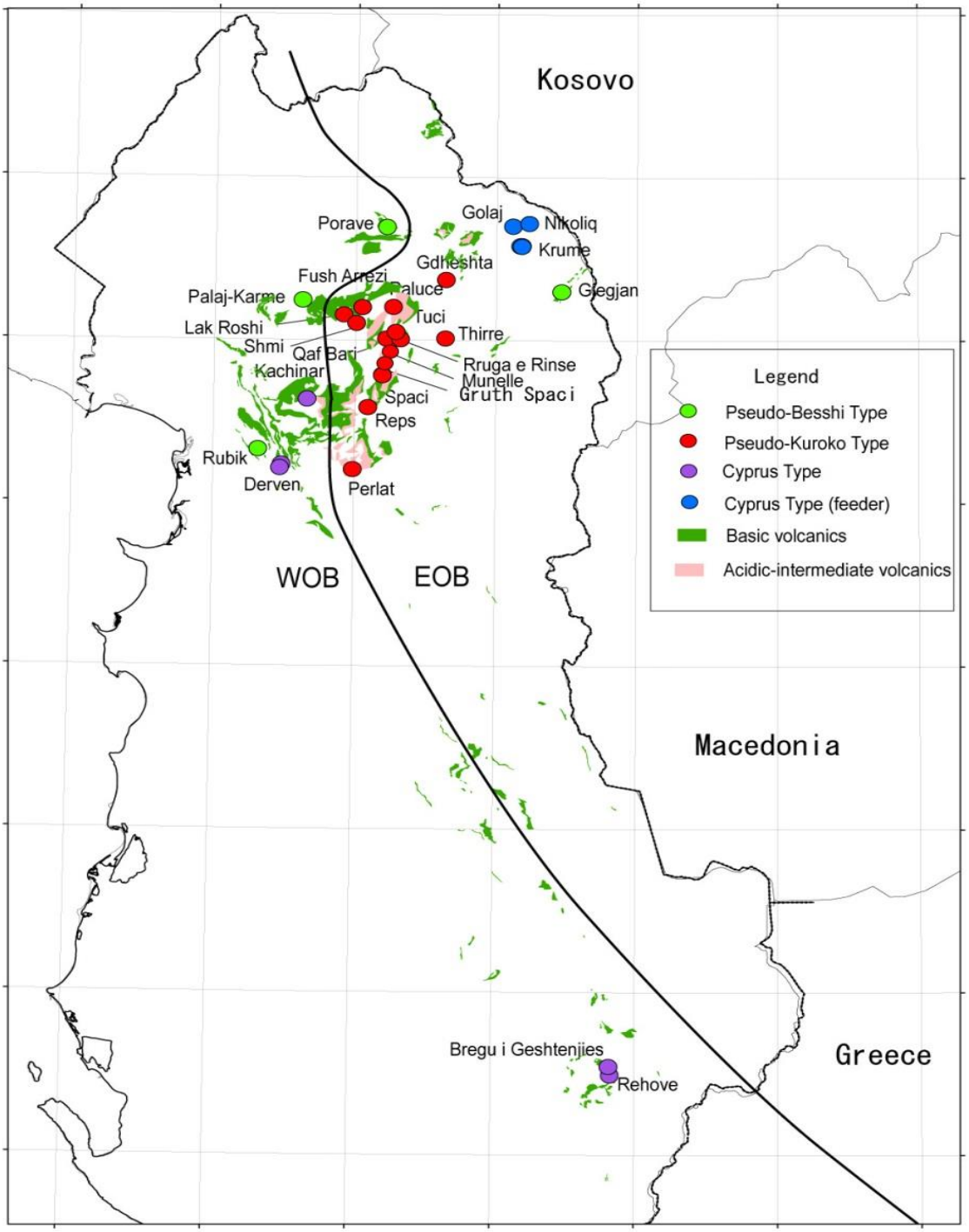
2	Nikoliq e rreth tij	0.86	1.28	0.557	1.32	0.303	1.2	
3	Krume (Has)	0.056	4.4			0.056	4.4	0,5
4	Others							
IV	**Sum Hasi**	**1.345**	**1.193**	**0.557**	**1.32**	**0.788**	**1.101**	**0,5**
1	Karme	0.963	2.5	0.963	2.5			1
2	Others, Turec e Mnele vig	0.469	1.11			0.469	1.11	
V	Shkodra	**1.432**	**2.045**	**0.963**	**2.5**	**0.469**	**1.1**	**1**
1	Rehova	0.24	1.83			0.24	1.83	2
2	B.Geshtenjes	1.73	2.09	1.73	2.09			
3	Shipak	0.15	1			0.15	1	
VI	**Korça**	**2.12**	**1.98**	**1.73**	**2.09**	**0.39**	**1.51**	**2**
	Others (Lezhe, Librazhd, Mat, Elbasan							**0,5**
	In total	**33.5157**	**1.60**	**17.83**	**1.74**	**15.68**	**1.33**	**17,5**

Comment: The average content of gold in these ore reserves ranges from 0.5 to 1 gr / ton, while silver content is 10 to 15 gallons of gold content.Copper minerals are sulfide naturally and have as an additional component gold, silver, selenium and so on.

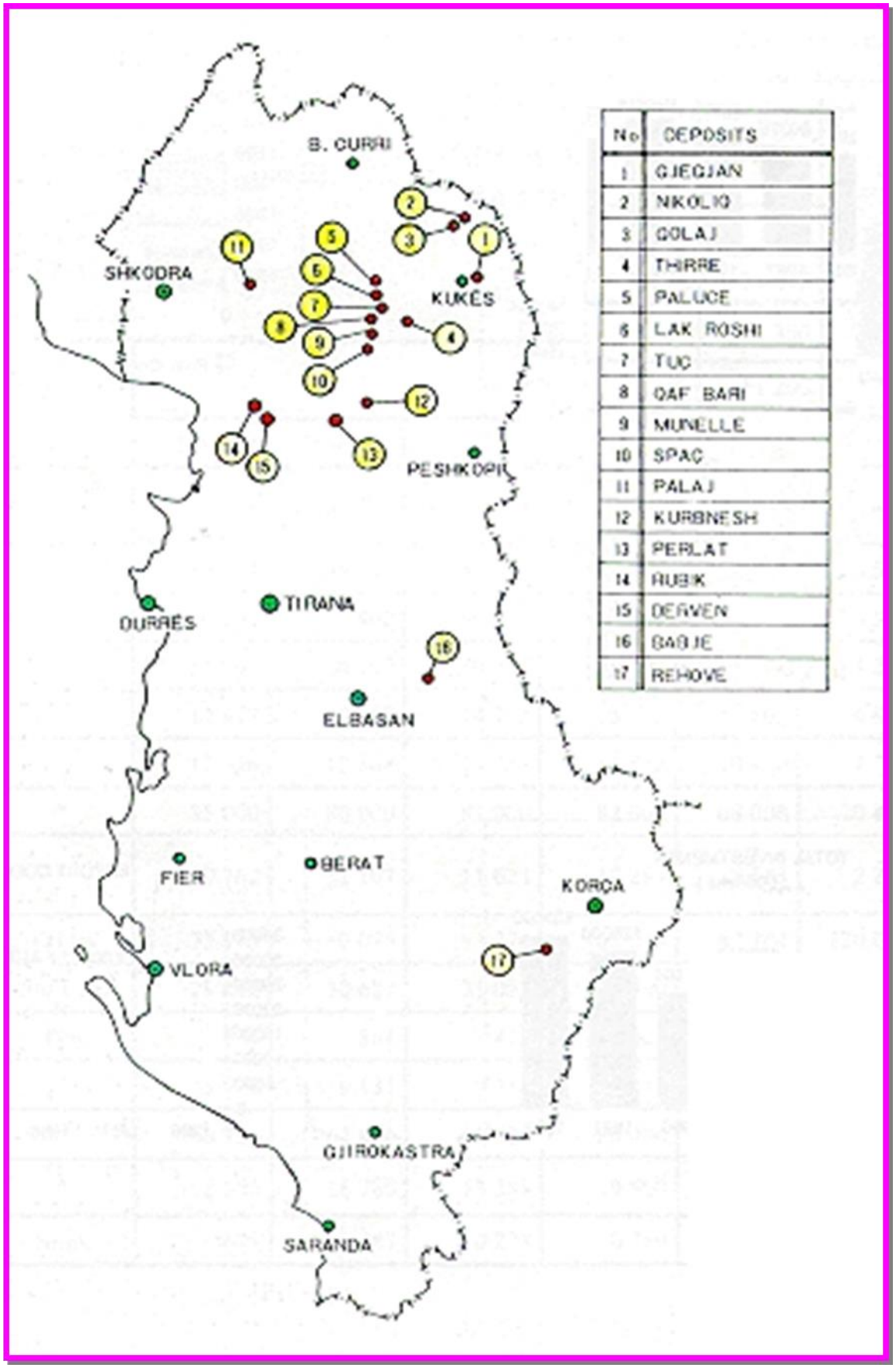
-3.2.4- Free mining areas

- Perlat Copper mine in (Mirdita)
- Derven Copper mine in (Mirdita)
- Thirre Copper mine in (Mirdita)

-Etc



Map of copper sources



Map of copper sources and metallurgical processing facilities

Map of mining sources dhe copper processing, etc

-4- <u>Data for existing processing facilities.</u>

4.1- Benification

Benificationt plant in Fushe-Arrez: object in administration of "Beralb" ltd private company

-Annual Processing capacity: 300 to 350 thousand tons ore per year

-Technical indicatiors:

Avarage copper recovery 80 % (low indicator)

-Average copper content in concentrate 18% and H_2O 10 to 12 %

-Avarage annual output: 25 to 35 thousand tons of concentrate

View of the Copper Enrichment plante in Fushe – Arrez ("Beralb" company)

Benificationt plant in Rreshen (object built in 1985, currently free)

Its technical condition

The object is damaged and has available only the buildings that have partial damage:

-a- Main corpus of the factory

-b- Physical laboratory

-c- Electromechanical sector

-d-Administrative office and chemistry laboratory

-e- Boilers

-Scale of tools

-Electrical grid TM 6 kv

The plant has also the landfill for enrichment wastes

Its surface area SA= 18500 m2 (approved by DCM 349 dated 12.05.2010 (not registered from the Real Estate Office). About 300 thousand tons of solid techonological waste have been deposited from enrichment.

Designed capacity

Copper mineral processing 60 thousand ton/year (for mineral from Derven, Perlat and Mirdita source)

Project indicators (Copper Recovery Re= 80 to 85 %, concentrate with quality 16 % Cu)

View of copper enrichment factory in Rreshen (free facility/object)

Other data:

Surface under the object SA= 1450 m2

Total surface area SA= 13.956 m2 (without the waste from flotation damp area)

Ownership: State

Location: Rreshen

Its distance to the copper sources in Mirdita:

-From Perlat deposite 15 km

-From Spaç + Gurth-Spaç deposite 20 km

-From Derven deposite 5 km

-From Rubik deposite 10 km

-4.2- <u>Metallurgy</u> : Copper Refining Plant in Rubik

Key data

Location: Rubik city, Rreshen Municipality, Mirdite country, Lezhe district.

Its functional scheme and the current state

This plant is a project implemented by the Chinese and was put into full capacity in March 1968, with t**hese wards (sectors)** :

-**Anodic refining**, with stationary furnace (using solar fuels with low sulfur content) which carried out the blister copper refining with anode form(quality about 99,7 % Cu).

-**Electrolysis refining**, for the purification of anodic copper from impurities and electrolytic copper profit, which according to the project were 115 production baths (electrolytic bathtubs) and 10 preparatory baths for project. The maximum capacity designed for wards reaches 6500 tons/year, electrolytic copper with average quality 99.95 - 99.97% Cu.

This product after the remelting and bar production had as destination the Wire and Cable Plant in Shkodra(also a Chinese project as the one in Rubik refinery which was realized in 1967) where wires and cables about 8 to 10 thousand ton/year were produced.**(Currently the machinery-equipment of these sectors (wards) is damaged)**

-**Anodic slimeward processing and electrolyze solution.**

In this sector (ward) was realized the anodic slime processing which resulted as waste from copper electrolysis, by benefiting Gold, Silver, Selenin, Copper and Nickel sulfate from processing of copper electrolysis solutions, and in the end there remained a minimum amount of Platini and Palladium salts.(***Currentlythe machinery-equipments are damaged***)

-Sectors (**Wards) of production and processing of copper alloys**

-a- Sector (Ward) of alloy smelting, which produced brass, bronz, blocks and tiles (vertical pouring in form) using copper alloy waste as well as electrolytic copper and respective zinc supplements, tin and lead as according to the production brand. This sector (ward) had two inductive electric ovens with a capacity of Q = 300 kg, producing on average of about 2000 ton/year. (***Currentlythe machinery-equipments are damaged***)

-b- The cold-lamination ward of the brass was used to realize the production of brass sheets with dimensions from 0.35 mm to 7 mm and width from 150 mm to 300 mm, mainly for the military industry for the giltheads production, but also for other sectors of the economy such as the artistic production industry, produ[illegible]**Pamje e Uzines se Rafinimit te bakrit Rubik** [illegible]cts.

Production capacity varied between 1500 and 2000 ton / year. (**Currentlythe machinery and equipments are totally damaged)**

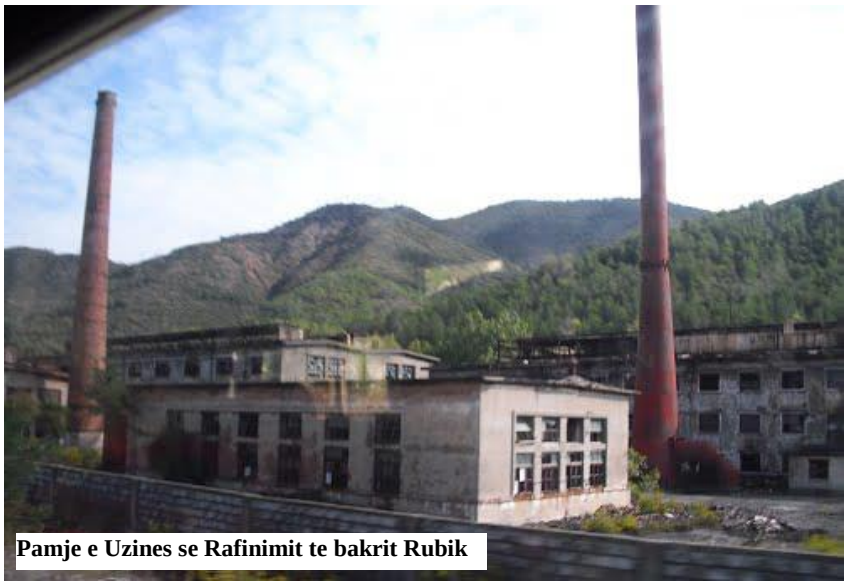
- In 1987, another sector (ward) of bimetallic sheets (an Italian investment in co-operation with other foreign firms) was made available to realize the production of bimetal strips (brass-coated steel) also this product had destination the military industry, but failed to fully consolidate.From the load tests until 1991, it was made possible production to an average of about 30-50 tons per year. **(Currently machinery-equipment etc are damaged)**

We emphasize that until 1990 all the copper and its alloys wastes (brass, bronze) were accumulated according to a supporting scheme by co-operating with the Wires and Cables Plant for industrial scarcities) and reprocessed on the Copper Plant in Rubik.To statistics, about 10 to 15% of the total copper metal produced in the country was obtained from such wastes.

Supporting sector: The boiler ward for the production of technological steam (electrolysis, other sectors and ward heatings) with capacity boilers Q = 6.5 ton / our (two boilers), using mazut fuel(***Currently damaged machinery-equipment***)

- **This plant has operated until 1999 with the two sectors that of copper blister production** (an Italian project and constructed in the 1940s) and the Chinese refining sector, which is part of the entire copper production scheme at country level with full cycles.

Later on, after a concession given by the government, the Turkish company "BER-ONER" in 2001 was envisaged to administer and develop some copper industry sectors, as well as



Pamje e Uzines se Rafinimit te bakrit Rubik

thetwo Rubik (Melting and Refining of copper) Plants, but later, these facilities were left out of the agreement since 2005.

As a consequence of a complete lack of strategy for this industry, almost out of the attention for reactivation, with all the increase of the stock price conjuncture of the copper, gold, etc. after 2004 and on, we have this situation:

The smelting Plant was demolished in 2008, while the Copper Refinery Plant is still undemolished, but of course with destroyed machinery and equipment, and an amortization of buildings etc.

There is a partial engineering infrastructure, such as the water supply and power lines, or the water sewage system etc.Roads and squares are available but there is need for repairs.

Approximately around 3 million $machinery-equipments and construction fittings for electrolysis, fire and alloy refining, steam boilers and laboratory are estimated from an approximate estimation for the rehabilitation of this Plant, along with the improvement of engineering infrastructure (water and power lines sewerage).

Current legal status of the facility::

Until 2015, it resulted as granted with the concession form "ROT" (Rehabilitation, operation and transfer) to a concessionary company for the adaptation of ferrocrome carbon production.

But referring to the maladministration of this facility by the concessionaire, the Ministry of Energy and Industry, after the control carried out in 2014, has concluded for the resolution of the concession contract, a process which is now closed with the procedure of receiving the object from the concessionaire by passing it again under administration of "Albaker" sha in liquidation in Tirana.

Location:

At the entrance of the Rubik city (south-east), the right side of the Durres-Morine national road.

-**Total surface area** of the squares, roads and facilities: 4.7 ha (***see Planimetry***)

-Cubatura(volume of bildings) of Plant facilities 54 000 m3 (without Bimetal sector ward) and about 60000 m^3 in total.

-Construction area 9500 $m^{2;}$ -Construction coeficcent about 25 %

- Ownership: State

Environmental view of the area where the plant is built

Link to national infrastructure:

It is located near the national road Tirana-Kukes-Morine

-Its distance with enrichment Factories:

With enrichment Factory in Fushe-Arrez	60 km
With Enrichment Factoryin Rreshen	10 km
With Enrichment Factory in Spaç	25 km

With the Wires and Cables Plant in Shkodra	75 km
Harbour/Port of Shengjin	35 km
Harbour/Port of Durres	70 km

4.4-<u>On the possibility of constructing a smelting factory on the territory of this Plant.</u>

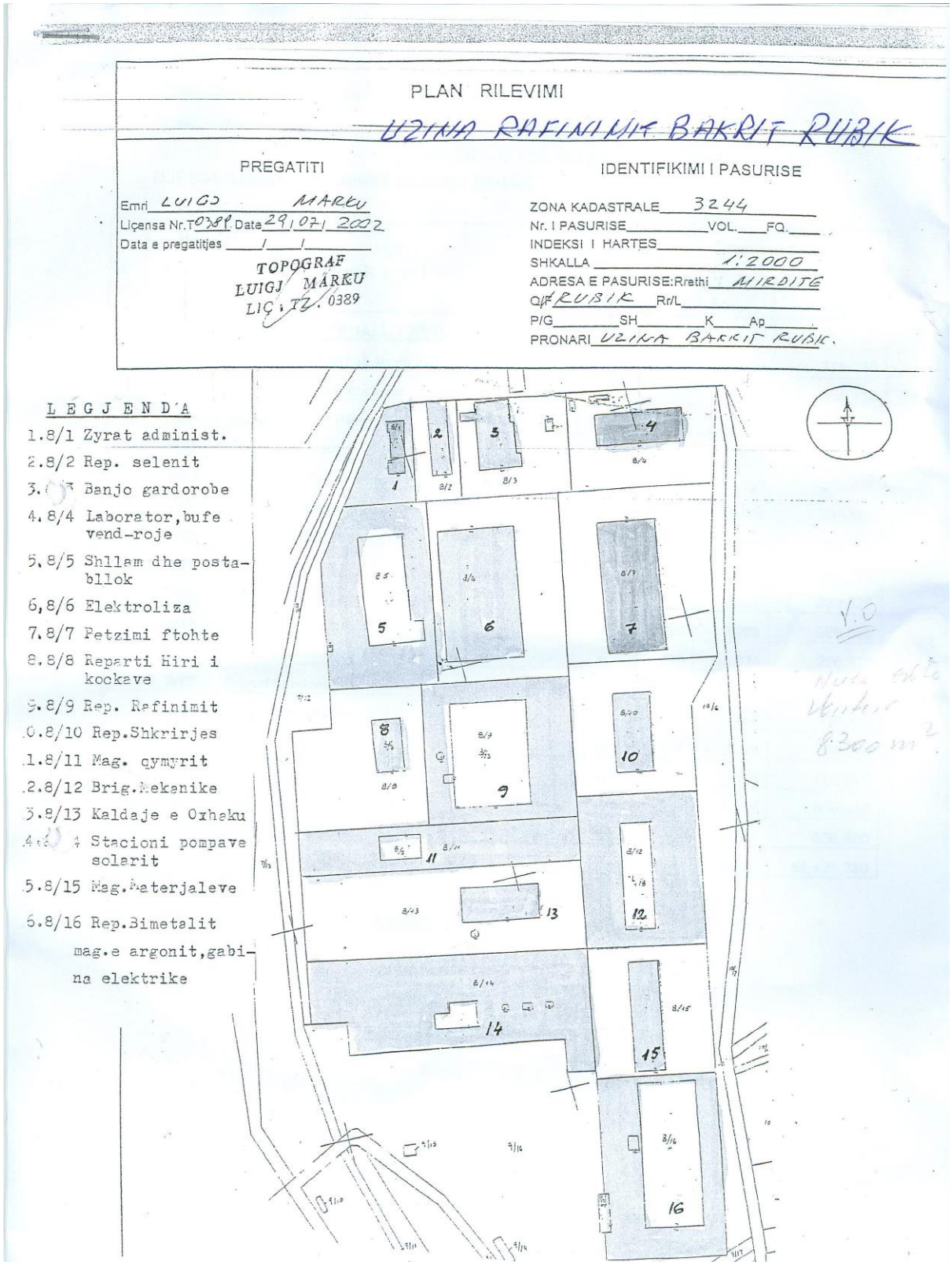
Given the low processing capacities, according to our estimation, we suggest thatfor small processing work may be briquetting of copper concentrates and metallurgical streams, merging them into a vertical furnace furnace, Then the conversion of copper metal to copper blisters, coupled with a classic gas purification scheme (precipitation model, cyclone and then wet model using lime for capture of SO2 in vertical SCRUBBER culverts).

This scheme suggests that it is possible to compose within the territory of the refining plant.In our opinion, this is accomplished by adapting two existing facilities (bimetallic buildings and boilers) and realizing their organic connections with the refining sector.

In this facility, according to our estimation, we can invest in the partial re-activation of the current sectors, with the recycling of metallic copper wastes and its alloys, possibly accompanied by electronic wastes also.The basis for this is a minimum supply of 2 thousand ton per year, possibly with the aim of importing from the neighboring countries of Kosovo and Montenegro that do not have such recycling lines.In synchrony, to the investment performance in the enrichment and mines and based on the raw material of copper concentrates that are available, both from the company itself and from other domestic operators that are today part of this industry, it is determined the investment in smelting for copper blister production.*<u>Despite this opinion, which in our view and some preliminary calculations results as the optimal investment variant in Rubik's Plant, it is the investor's right to make a technical-economic assessment for investing in the smelting cycle in two variants:</u>*

-a-Construction of the smelting plant in the territory of Refining Plant.

-b- Its construction in another territory. This procedure is related to the degree of investor interest and the complete analysis of the variants.



Plan of Rubik's Copper Refinery Plant Facilities

4.4-Wires and Cables Plant in Shkodra

Location: Industrial region of Shkodra municipality

Key data:

Overall surface area S = 85 mije m2

-Surface under the object S = 40712 m2

-Surface of roads and sewerageS = 14 822 m2

-Free space (park, sidewalks) S = 29 466 m2

The main facilities/objects:

-Boilers (old and new boiler)

-Lamination ward (Based on the scheme related to copper refining from the Rubik Plant)

-Sector of wires

-Sectorofwires and covered with PVC (plastics)

-Sector of smaltation (enamelled) for winding wires production

- The new and cable production sector (ward) a German investment of 1987s.

-Sector of barabans (Reels)

-Sector of bobins

- Laboratory

-Several warehouses (Warehouse for fuels, raw materials, ready-made products etc)

-Electromechanical sector (Electrical and machine-shop ward)

-Compressor room

-Pump station

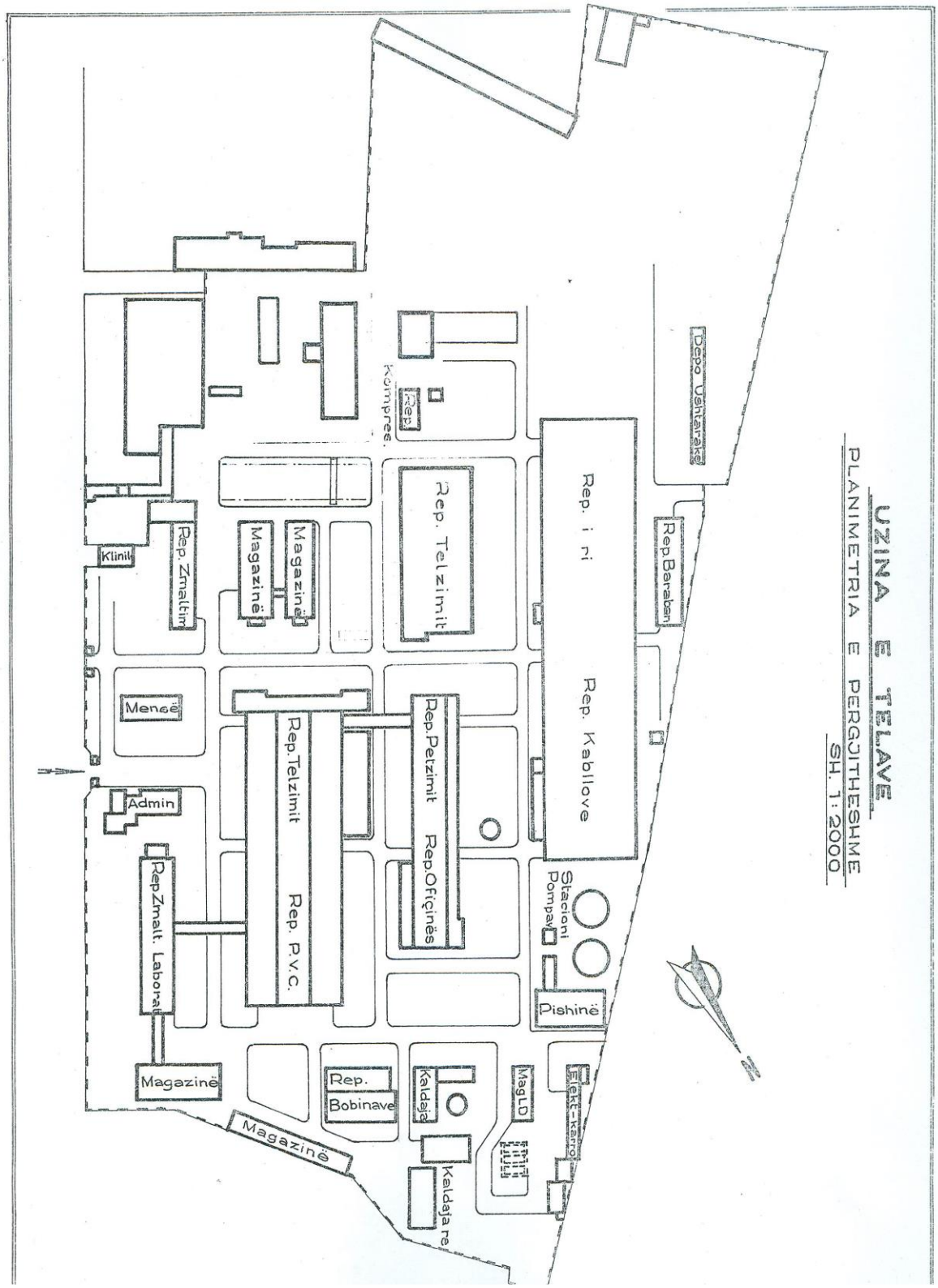
-Administration offices

-Staff facilities (former cafeteria)

-Engineering infrastructure (roads and squares, water supply and power system and sewerages etc) –

-Electrical substation

Schematic presentation of facilities planimetry:



Plan of Wires and Cables Plant Facilities in Shkodra

This plant is a Chinese project of the year 1965, and was built in parallel with the Copper Refinery Plant in Rubik, finalizing the complete copper processing in the country.

The projected capacity varied from 8 to 10 thousand ton/year according to a structure oriented for the domestic market and export. In the years 1985 to 1987 a German investment was realized by building two wards that realized the production of thin wires and power cables.

In 2004, this facility was granted as a concession to a Turkish company "Yilmaz kabllo", which did not really achieve the contractual parameters and did not invest in the maintenance of buildings and engineering infrastructure, streets, squares, etc.

This has resulted in the amortization of many objects and damage to inherited machinery-equipments, because the criteria for their storage and conservation have not been applied.

View of Wires and Cables Plant in Shkodra(year 2014)

It's technical condition:

Referring to the non-optimal performance of the concession work period (2004 to 2016) there is a high degree of amortization of machinery equipment not used by the company, even the new 1985-1987 (German) lines have been damaged by not storing and preserving them properly.

Construction works have major damages because there has not been invested in their maintenance, and also in some sectors such as boilers, lamination etc which are almost out of use. Damages are also noticed in the streets and squares as well as a part of engineering infrastructure.

With regard to the situation we can say that for the continuity of work in this facility is necessary a complete rehabilitation such as for streets and squares and construction objects as

well as the introduction of modern lines and machinery-equipemtns not only for wires and cables but there are also some environments which can be used for activities such as various electrical products, electronic packages for tools, electromotor production etc

Link to national infrastructure:

Located in the city of Shkodra

Distance to the Hani Hotit custom34 km

Distance to Muriçan custom, 17 km

Distance to the port of Shengjin, 60 km

Distance to the prot of Durres, 120 km

Distance to the Morine custom, 180 km

Legal status:

This facility was granted with concession in 2004 but from periodic controls by the state structures it came to the conclusion for the closure of the agreement because it had not implemented the obligations. A procedure for closure of the concession agrement has been followed, by passing it to the state administration and the promotion of interest from investors interested in administration and development of this facility.

-5- The raw material that can be secured (produced) in the domestic market in the processing cycle:

-5.1- Copper Concentrate from Existing Company "Beralba" sh.pk provides 25-30 thousand tonnes with a quality 18% Cu for 15 years, up to 2032 (period of concession contract) and then another 5 years until 2037 with the sources of Puka region And Shkodra

Consequently, for this 20-year period, this average region is estimated to be 25-30 thousand tonnes of concentrate per year with 18% Cu

-5.2- **Copper Concentrate from Tete-Albania Tunel & Mining Company** Ltd, about 20 thousand ton / year, quality 20,% Cu

According to the information, the Turkish company "Tete-Albania Tunel & Mining" in the Spaç mine predicts from 2018 to 2028, the average annual production of copper concentrates with 20% Cu, in the amount of 19.7 thousand tons.

5.3- According to information from the company "Tirex" ltd, for the period 2019 to 2028, it is foreseen about 4 thousand tons of copper concentrate per year, with 20% Cu quality.

Of course, with some small spits around Spac, as well as search for new reserves, this company can continue for at least another 5 years only with the resources of some resources near the enrichment factory.

Table overview for a 10-year period of copper concentrate production by companies operating mining facilities and copper enrichment, according to their information is as follows:

Name the company Unit	Name the company Unit	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
-1- Beralb shpk	Thousand tonnes	5,79	15,93	24,96	30,55	32,14	35,34	33,41	31,2	30,9	28,6	28,6
-2- Tete-Mining	Thousand tonnes	19,7	19,7	19,7	19,7	19,7	19,7	19,7	19,7	10,2	10,2	10,2
-3- Tirex shpk	Thousand tonnes	----- --	4,14	4,14	4,14	4,14	4,14	4,14	4,14	4,14	4,14	4,14
Total	Thousand tonnes	25,49	39,77	48,8	54,39	55,98	59,18	57,25	55,04	45,24	42,94	42,94

Comment:

Referring to the balance sheet of this document, the amount of extraordinary reserves for the deposits that has been taken into use by the company "Beralb" shpk, (in the Puke and Shkoder region), there are still about 6 million tonnes of groundwater with a quality of 1.76% Cu.

Starting from an indicator of loss and impoverishment no more than 10% we still have raw materials from mining for enrichment about 6 million tonnes with quality 1,58% Cu. With recovery rates of 85% of average processing capacity, 400 thousand tonnes each year continues the work for 15 years with annual production concentrations: 447518 tonnes: 15 = 29834 tonnes per year.

Based on an opportunity for using the estimated potential reserves (according to the relevant table of all mineral reserves), in the mining facilities that this company has taken for use, which are about 7 million tonnes with 1.285% Cu quality, with Minimum 35% authenticity (C2), and 15% impoverishment loss we have:

Underwater reserve 2.5 million tons with quality 1,13% Cu for the enrichment or for capacity 400 thousand tons reaches 6 years of work in enrichment.

In total, only the mining facilities of the company "Beralb" ltd can produce about 8,22 million tons of mineral with 1,45% Cu in enrichment, optimal for the price of copper over $ 4,500 / ton

Therefore, only from these sources that this company has taken for use and production of copper concentrates (without foreseeing the increase of inventory through exploration) provides production performance 21 years after 2027 (by 2047) of course with average production of copper concentrates 29 Up to 30 thousand tons / year.

- For the deposits in the Korça region by the company "Tirex" ltd, for about 17 years usage and production in total about 70.45 thousand tons of copper concentrate with 18% Cu (average yearly 4.14 thousand tons), from 2019 to Year 2036

5.4- The rest from: Free sources Perlat and Derven Mirdite**,**

Mirdita: Perlat and Derven: With 150 thousand ton / year processing we have 12 years of work.

The forecast for the production of concentrate is thought to be the year 2020 and the continuation, or this concentration of approximately 11 thousand ton / year from 2020 to 2032.

We have about **11 thousand tons of annual concentrate with 20% Cu**

This amount is thought to start 2020 by 2032 (12 years), or average every year 11 thousand tonnes

-5.5- With the remaining potential reserves (according to the reserve table), they are about 4.5 million tonnes with 1.09% or extracted about 2.5 million tonnes with 1% Cu

Based on this table of raw material and production of copper concentrate, it is foreseen that from 2019 to 2038 (20 year period) we have the possibility of producing average copper concentrations of 45 to 50 thousand tonnes per year or pure copper finished product from Electrolysis 7800 to 8500 tons / year or average about 8 thousand tons / year.

***At the same time, according to the AWS, we have expectations for about 17.5 million tons of new reserves based on some preliminary research but not supported by any profound investment presented in the reserve table, labeled as indicative**.*

Secondary copper sources

5.6 - Data on metal residues of copper and its alloys that are exported unprocessed
According to customs data, for the period 2004 to 2015, the amount of metal scrap (copper

scrap) and its alloys (brass, bronze) varies Average from 3 to 4 thousand tonnes / year, which occur in unprocessed exports. Future prognoses are thought to range from 2 to 3 thousand tonnes per year, but also enable their imports from two neighboring countries, Kosovo and Montenegro, which currently do not have a recycling line.

Based on these data, it turns out that with these resources where the main ones are based on the metal from the mine, and the addition of recycled copper scrap metal, provide the optimal conditions for an investment in the processing cycle.

From this picture, besides the interest to increase the degree of processing instead of the first mineral resource, as a first phase can be direct investment in Rubik and Shkoder, for synchronization of metal waste processing and raw material production for wires Cable at least 500 to 1000 tons at the beginning, then also depending on investment opportunities in the smelting sector.

An Project-idea for synchronization of the copper processing cycle is as follows:

-a- Investing in free mining facilities and their enrichment (mainly only in Mirdita)

-b- Investing for reactivation of the former Rubik Copper Refinery Plant in synchronous with that of wires and cables in Shkodra as the first phase, organizing only copper waste of its connections with capacities of 2 to 3 thousand tons per year

-c- Investment in the copper concentrate melt cycle provided by the current operator and free mineral resources.

-d- The full organic link of the scheme to the wire and cable.

-Execution of investment for other products in the Shkoder Wire Mesh, in addition to wire and cable, can be produced electrical equipment, electromotor electric etc

-6- Approximate estimation of the possibility of investing and utilizing free resources and current processing facilities along with new ones.

-A free mining facilities around $ 12 million Perlat, Derven, Gurth, Call, and including other facilities that have taken advantage of operating companies in this industry, roughly $ 55 million worth of investment in mining.

-b- We have $ 15 million mineral of wealth (three new milling factories, two in Mirdite and one in Korce)

Total investment in mining - enrichment (new facilities of operators in this industry and free ones) is estimated at about $ 70 million

Metallurgy:

-c- The $ 19m smelting (smelting sector and gas clearing line)

-d- In refineries $ 4 million repairs of existing + $ 2 million unfinished pouring

-We produce cable wire $ 4.5 million

Total metallurgy: $ 29.5 million

Total new investments that provide this raw material: $ 99.5 mil.

Referring to a 5% interest rate over a 10-year period, investment costs amount to $119mil.

According to a preliminary assessment by our study structures, for kof. Loss - impoverishment less than 15%; Extraction cost not more than $ 20 / tonne mineral and enrichment cost $ 10 - $ 12 / tonne mineral; recuperation in enrichment 85-87% of concentrate quality 20% Cu, for ***LME 5500 $ / ton of electrolytic copper*** (99.95 - 99.97% Cu), investment slip across the entire copper cycle up to cable and cable ***ranges from 7 to 8 years.***

Naturally, in our opinion, there are reservations about increasing recovery to enrichment by up to 90%, but also lowering the cost of extraction by $ 2 / ton (or from $ 20 to $ 18 per tonne extracurricular cost) that enables increased efficiency of time reduction Self-sacrifice, from 7 to 6 years.

Starting from an estimate of the production equilibrium value for LME 5500 $ / cu (metal stock), fixed costs (investment plus interest) and variable *one / tonne product* results that ***Q equilibrium is over 8400 tons / Year*** electrolytic copper production. As we stated, about 7800 to 8500 tonnes are provided from the raw material of copper concentrates and the difference of the metal from the *copper residues.*

Project lifespan: *For mineral resources average 1.74% Cu or about 1.5% Mineral ore in enrichment is achieved for up to 20 years, with increasing growth processing every year with less than 1% Cu (Or 1.3% underground), up to 30% of the annual quantity, have a lifespan of up to 25 years, based on the inventory detected and verified by 2016.*

-7- Domestic market needs for copper products

Wire and Cable:

From the approximate information we have this market demand structure:

- Electric power, 450 tons / year

-Industry, about 100 tons

-Residential and industrial buildings and residential buildings about 100 tons / year

-Transport etc, 20 tons / year

-Service sector (electromotor windings etc) 50 tons / year;

-Not for brass and bronze products (such as recorders etc)

Meanwhile, also referring to an 11 year import of copper products are ***about 700 tons / year (2005 to 2015),*** according to INSTAT statistics and customs.

Here it should be taken into consideration that these data are really according to customs, without taking into consideration the case when in the power sector are direct investments made by different donors and even the need for copper products can be included as an investment element without being Treated as customs commodity.

Referring to the customs data from 2000 to 2002 where the cable and copper products were imported from 4500 to 5000 tons / year, and the fact that over 15 years (from 2000 to 2015, over 400 thousand illegal constructions were actually consumed Wire and cable etc. (average 30 kg / 70 m2 residential area), or about 1200 tons / year, it is believed that the consumption was actually higher than the customs reporting.

Based on this information, we believe that the domestic market needs to be annual average not less than 1000 tonnes per wire and cable and copper products (tubes, etc.).

-8- <u>The position of Albania in the regional copper products market</u>

- Based on average annual per capita consumption in the world and data from the Balkan region, it turns out that:

- In the countries of the region such as Greece, Serbia, Croatia, Slovenia, Bosnia and Herzegovina, Macedonia, Romania and Bulgaria, there is a Wire and Cable Production Plant, while Montenegro and Kosovo do not have such.

Data on refined electrolytic copper production from Balkan countries (in thousand tonnes)

State / year	1986	1990	2002	2005	2007	2010	2011	2012	2013	2014	2015
Albania	11,7	10	------	------	-------	-------	-------	-------	-------	------	
Yugoslavia	100	151,4	-----	-----	-----	------	------	------	-------	------	
serbia			35,9	31,3	31,6	22,2	28,45	34,7	35,8	33	44
Macedonia			------	------	------	------	------	1,1	1,9	1,7	2,4
Romania	44	27,7	13,45	20,74	18,6	4	---	---	---	----	----
Bulgaria	48	24,3	40,0	60,5	69,9	215,1	226,1	226,1	226,1	234	230
Cyprus	2,3	2,5	3,7	---	3,012	2,595	3,66	4,328	4,4	4	2,1
Turkey	75,1	84,2	41,0	95,0	105,0	47,1	85	80	80,0	82	84
Total	281,1	300,1	134,05	207,54	228,11	290,99	343,2	346,23	348,2	354,7	362,5

The Balkan countries' population (63.6 million), together with Turkey 72 million, reaches 135.6 million people or about 1.99% of the world's population.

The period 2002 to 2015 has average metal production by the mines of the respective countries about 190.27 thousand tons of copper, about 190 thousand tons (around 0.9% of the world), ***or 1.4 kg / inhabitant (about 58% World average). There are about 4% Albania, 65% Bulgaria, 21% Serbia, Romania and Macedonia with 4% each, etc.***

The world average for the period 2002 to 2015 is 16.2 million tonnes of metal from mining or 2.4 kg / inhabitant.

Electrolytic copper production **Balkan countries** reach average annual levels from 2002 to 2015 around 258.17 thousand tons***, or about 1.9 kg / inhabitant***

The world average for the period 2002 to 2015 for electrolytic copper production is 19.7 million tons or ***2.89 kg / inhabitant***

According to these data it turns out that Balkan countries have so far failed to produce electrolytic copper with more than **65.7%** of the world average

Albania: The average metal produced by its mines for 2002 to 2013 reaches 4.6 billion tonnes of metal in the form of copper concentrate or per capita population (4.2 million inhabitants), we have about 1.095 kg / inhabitant, about 43% Less than the average of the Balkan countries and about 1.2 times less than the average of the world. While the 1980-90 period when it worked full cycle, it reached an average of 3.5 kg / inhabitant, or about twice the average of the world.

Data on the consumption of copper metal per capita in the world: :

Indicator Kg consumption per inhabitant per period	Period 1950-1960	Period 1970-1980	Period 1980-1990	Period 1990 - 2000	Period 2000-2005	Period 2007-2012	Period 2015 - 2025
World (average)	1,2 - 1,5	2 - 2,3	2-2,2	2-2,5	2,5-2,7	2,7 – 2,8	2,8 - 3
Albania (average)	0,7 – 1,1	1,7 – 1,8	1,8-1,9	1,2-1,4	1,5 – 1,6	**0,25(low)**	

Based on this indicator of development in the world, as copper is among the main elements that have a great use in the economy of a country, there is a clear tendency of increasing per capita consumption, while our country has a lower indicator than Average of the world.

Meanwhile, we point out that the regional market, ie from the Balkan countries with their products, if they aim at achieving average world consumption of copper (2.8 kg / inhabitant), referring to its population 135.6 million requires about 382 million tons of copper , While with the data above, it provides only about 346.2 million tonnes or about 90.5% of this world average when now considered as developing countries.

-9- The legal regulatory framework that enables the promotion of business and entrepreneurship in this industry

- Law on Promotion of Foreign Investments, no. 55/2015 "On Strategic Investments in the Republic of Albania"

Mining Legislation: Law no. 10304 dated 15.07.2010 "On Mining Sector in the Republic of Albania" and by-laws in its implementation (DCM, Guidelines and Ministerial Orders)

- Law on Concessions, Law no. 125/2013 "On Concessions and Public Private Partnerships" amended

- Symbolic lease legislation with 1 euro; VKM Nr. 54, dated 05.02.2014 "ForDetermining the Criteria, Procedure and Method of Leasing, Emphyteusis or Other State Property contracts "amended.

- The law on the operation of various commercial companies such as business registration, licensing equipment, etc.

-10- Possible investment facilities in this industry, in case of deeper administration and development, up to cable and cable processing:

According to a special law, when it may require the entire copper cycle (mine to cable and cable), the concession agreement may be approved by the assembly and may be offered for a period of five years some facilities such as: taxprofits; customs fees for machinery-equipment to be installed for investment in the loop cycle, wire and cable processing.

-b- The fee for mining rent can by law decreased by up to 50% in the case of increasing processing up to electrolytic copper and wire and cable. Specifically, up to 3% of the value of the sold product will be down to 6% of the value of the sold product, up to electrolytic copper, while for the cable wire it can still be reduced by up to 2, 5%.

-c- If used in the metal smelting and refining cycle, an incentive mechanism may be applied for these residues to be interested in processing in the country, providing that their export without processing will be taxed, whereas for the final copper product Metallic, resulting from their processing.

-d-For current processing facilities such as Enrichment Plant in Rreshen, Refinement Plant in Rubik and Wire Plant in Shkoder, can be stimulated symbolic renting 1 euro for a 20 year period, with right extension, fulfilling the conditions for Investment in each facility of (X) million and employment (Y) according to the following legislation:

Strategic Investment Legislation in the Republic of Albania (Law No. 55/2015) provides:

Strategic Investments in the Areas:

-a- Mining; B- Zone of technology and economic development; C-Zone improves the development of a region etc.

As a function of the type of investment, field etc. there are some priorities regarding the procedures for applications and assistance of state institutions namely:

-**In the mining area**, the investment> 30m euros, has assisted production, for Inv> 50m euros, there are special procedures

- **In the case of technological areas and economic development**, investment> 5m euros, assisted procedure, for Inv> 50m euros with special procedure

- **In the case of areas with special development**, investment> 1 million euro and employment> 150 with assisted procedure, for investment> 10 million euro and employment> 600 with special procedure

In these cases it is directly taken as a supporting institution AIDA (Albanian Investment Agency, subordinated to the Ministry responsible for the economy)

Law no. 9789 dated 19.07.2007 "On the Establishment and Functioning of Technology Areas and Economic Development" as amended by Law 54/2015 "On Amendments and Additions to Law no. 9789, dated 19.7.2007, "On the Establishment and Functioning of Economic Zones" has the following:

1. Technology and economic development areas benefit from the following facilities:

Fiscal

From a facility that was foreseen in the previous law:

• Goods, which enter into a free zone by licensed persons and those services were performed within the free zone are exempt from customs duties and value added tax.

• Developers and users are exempted from paying 50% of the income tax rate to 5 (five) years from the beginning of their activity in the area;

• Developers or users investing in the area within 3 (three) years from the beginning of the economic activity of the area are recognized as deductible expenses, tax period, 20 (twenty) percent of annual capital expenditures, regardless of amortization amounts according to law tax profit, for a period of two years;

• Supply of Albanian goods destined to be placed in the area is considered as supplies for export with zero rates, in accordance with the provisions of the Law on Value Added Tax and customs legislation;

• The developer's project is excluded from the infrastructure impact tax;

• constructions made in this area, according to project developers are exempt from property tax estate a 5-year period;

• Developers or users of the area are exempt from tax on the transfer of ownership right over immovable property;

• Expenditures on salaries and social and health contributions paid by the employer to the employee are recognized at 150% of the value during the first fiscal year of the activity. In the following years additional costs for salaries compared to the previous year for the purpose of computation of taxable profit recognized as deductible expenses 150% of the value;

• Training costs of employees in technology and economic development areas for the purposes of calculating taxable profit are recognized as recognized tax expense items with a double value for a period of 10 (ten) years from the beginning of the economic activity;

• Expenditures for Research and Development recognized as deductible expenses to twice the value of a ten (10) year period from the beginning of economic activity.

• Goods can be transported from one TEDA to another without paying customs duties

Administrative

• To remove bureaucracies in terms of obtaining permits from developers and users are proposed to handle applications for permits within 15 days from the institutions responsible for issuing these permits and in exceptional cases the responsible institution may also apply on request developers.

b) developers and users are exempted from paying 50 percent of the tax rate for the first 5 years, from the beginning of their activity in the area;

c) developers to invest in the area, within 3 years from the date of commencement of the works, or users who invests in the area within three years from the beginning of the economic activity of the area, known as deductible expenses, tax period, 20 percent Of annual capital expenditures, despite amortization amounts, according to the law on income tax, for a period of 2 years;

ç)) the supply of Albanian goods intended to be placed in the area, considered a supply for export at zero degrees, in accordance with the provisions of law on value added tax and customs legislation;

d) The developer's project is excluded from the infrastructure impact tax;

dh) Buildings realized in this area, according to the developer's project, are exempt from the immovable property tax for a period of five years;

e) the developers or users of the area are exempt from tax on the transfer of the right of ownership over immovable property;

ë) expenses for wages and social and health contributions paid by an employer to the employee, recognized 150 percent of its value during the first fiscal year of activity. In the following years, additional costs for wages, compared to the previous year, for the purposes of calculating taxable profit, recognized as deductible expenses to 150 percent of the value;

f) costs of employee training in the areas of technology and economic development, for the purposes of calculating taxable profit, recognized as deductible expenses of the tax period to twice the value, for a 10-year period from the beginning of economic activity;

g) expenses for research and development are recognized as deductible expenses to twice the value, for a 10-year period from the beginning of economic activity.

2. The transfer of an existing activity in the Albanian territory in the area of technology and economic development, with the main purpose of obtaining the facilities provided for in this law, is prohibited. Any transaction, which essentially results in the transfer of economic activity, according to the above definition, is prohibited.

3. If the products come from the area for sale in the domestic market at a price below the normal price for the product in question or similar or directly substitutable products and when it causes material injury to the domestic industry, the ministry responsible for the economy applies A correction fee of the missing value on the product in question. The ministry responsible for the economy is charged with the implementation of this correctional mechanism.

Variants for Concession

Law no. 125/2013, "On concessions and public private partnership" as amended by law no. 77/2015 "and the legal acts in its implementation

Currently, the Law "On Concessions and Public Private Partnership" applies to the award of concessions by contracting authorities which are:
- Line Ministries;
- Local Government Units.

The economic activity on which public private concessions / partnerships can be implemented are:

a) transport (railway system, rail transport, ports, airports, roads, tunnels, bridges, parking, public transport);

b) production and distribution of electricity and heating energy;

c) water production and distribution, treatment, collection, distribution and management of sewage, irrigation, drainage, drainage and dams;

ç) waste management, including collection, handling, transfer and storage;

d) telecommunications; Dh) science and education;

e) tourism, entertainment and hotel;

ë) culture and sport;

f) health;

g) social services;

gj) prisons and judicial infrastructure;

h) rehabilitation of land and forests;

i) industrial parks, mines and similar infrastructure for business support;

j) shelter;

k) years of public administration, information technology and database infrastructure;

l) distribution of natural gas;

ll) rehabilitation and urban and suburban development.

m) Public lighting in the territory of local administrative units and in agriculture

The Council of Ministers, upon the proposal of the line ministries or proposals received from the authorities of the local government units or the central bodies of the private concession / public partnership policy, decides on private concessions / public partnerships that apply to other sectors.

Competencies of the institution:

ATRAKO in implementation of DCM no. 150, dated 22.02.2007, "On the organization and functioning of the Concession Treatment Agency", as amended, is a public juridical person, subject to the minister responsible for the economy and in compliance with the legal framework in force, this Agency has the competencies as follows :

-The Concession Treatment Agency exercises its activity throughout the territory of the Albanian reptilian.

The Concession Treatment Agency pursuant to Article 12 of Law 125/2013, as amended by that of Law 77/2015, carries out the following functions:

- Convenes with the contracting authorities for the purpose of:

-a- Preparation of feasibility study

-b- Preparation of Competitive Procedure Documents and Evaluation Criteria

-c- Evaluation of proposals and determination of the best bidder

-d- Negotiations and contract award

-e Monitoring of Concession Contracts

At the same time, this Agency has the following attributes:

- Proposes to the minister responsible for the economy the change of the legislation in the field of concessions as well as the guidelines for the implementation of the provisions of this law

-b- monitors, analyzes and studies, current European and global trends of knowledge and experience in the field of public, private, public concessions

-c- Collaborates with PPA (Public Procurement Agency) for the design and publication of standard concession / public private partnership documents.

-11- Data on landowners, sources of power supply, water, etc.

For solving the land problem that is required for an action:

-a- State Farm Variant

Applicant depending on land surface needs according to the procedures, is addressed to the institutions that have the right to evaluate the type of land, its category, etc. as well as follow the progress up to the provision of the surface in rent administration, etc. according to the tariffs. Whenever it may be a forest or pasture, the approval procedure for use as long as the project is required to comply with some environmental requirements is still followed.

Among the basic structures are IPRO (Immovable Property Registration Office), local structures, regional land management directories etc.

The land can be:

- Land land approved as a construction site

- Land plot of existing industrial facilities

-Integrated agricultural land which is administered by the local government where it can be leased according to the Instruction no. 1, dated 18.07.2012 "On the procedure of renting out the intact agricultural lands", while the agricultural land of the former agricultural farms is rented by the Ministry of Agriculture under Law no. 8318, dated 01.04.1998 "On agricultural land" as amended, and DCM no. 460, dated 22.05.2013 for the implementation of this law.

- Downtime

- Meadows

- The rivers of rivers

- Forests

For these cases we have this legal basis:

- Law no. 9385, dated 04.05.2005 "On Forests and Forest Service", as amended

-VKM nr. 1354, dated 10.10.2008 "On the rules and procedures for removing, increasing and changing the destination of the pasture fund", amended by DCM no. 435, date 08.06.2014.

-VKM nr. 1353, dated 10.10.2008 "On the rules for filing the application, maintaining and completing the technical documentation, criteria and procedures for the reduction of surface area and volume of the forest fund", amended by DCM no. 434, date 08.06. 2014

-Useage no. 1. Date 09.06.2016 of the Minister of Environment "On the rules, procedures for researching, reviewing and approving requests for the use of public forest and pasture fund"

-b-Variants of Private Space

It is negotiated with landowners for cases where the development activity area is related to private property, always providing proper documentation from IPRO etc. that this land is not under state administration and ownership. In addition, it is negotiated between the parties for the way of land rent (long term project life) or notarized purchase act in two variants.

Data for the engineering infrastructure of the areas where it is required to be provided for development

- Power Supply:

The actual network state of the object's connection distance to the area

In former industrial facilities, such as the Rubik Copper Refinery Plant and the Wire Plant in Shkoder, have a partial infrastructure set up for water and power supply lines, as well as access to facilities as well as sewerage systems, with the need for partial rehabilitation Of them.

As for the existing mines, the Spaç, Perlat, Derven etc Mirdite, or others in the Korça region, the connections are realized in the vicinity of the Distribution System by the Substations of the respective areas, according to the legal procedures

The same thing for the former copper enrichment plant in Rreshen, which has had power supply lines up to its entrance

Current price for energy by connection points and consumption etc.

Right to buy it in the market

Regulatory framework for the quality of power supply:

For electricity tariffs is the Energy Regulatory Entity legal institution directly dependent on the Assembly of Albania, which makes decisions on the tariffs for electricity consumers:

Concretely with Decision no. 148, dated 26.12.2014, this Entity (ERE) has approved the tariffs for 2015, which are in force again with two other decisions respectively no. 156, date 24.12.2015 (for 2016) and Decision no. 190 dated 22.12.2016, which are in force until 31 March 2017.

According to ERE's decision no. 13, dated 16.02.2016 "*On the fixed electricity tariff that will be paid to electricity producers from hydropower plants for 2016"*

1- Fixed electricity tariff to be paid to electricity producers by hydropower plants for **2016 will be 7,448 leke / kWh.**

2- Upon the entry into force of this decision, the decision no. 27 dated 16.02.2015 of the ERE Board of Commissioners, "On the approval of the fixed energy tariff for 2015 that will be paid to electricity producers from hydropower plants.

3- Differences that may result between the approved price for 2016 and the approved price for the interim period with the decision of the ERE Board No 156. Dated 24.12.2015, will be sorted by correcting the respective billings.

- **According to Decision no. 148, dated 26.12.2014** "On the determination of retail prices of electricity for tariff customers for 2015", the tariffs of retail electricity services are presented below.

Tarifat e sherbimeve te shitjes me pakice te energjise elektrike per vitin 2015		
Niveli i tensionit	*Cmimi (leke/kWh)*	*Cmimi pik (leke/kWh)*
Konsumatore ne 35 k V	9.5	10.93
Konsumatore ne 20/10/6 kV	11	12.65
Furra buke dhe prodhim mielli ne 20/10/6 kV	7.1	8.17
Konsumatore ne 0,4 kV	14	16.1
Furra buke dhe prodhim mielli ne 0,4 kV	7.6	8.74
Familjare	9.5	
Tarifa per konsumin e energjise elektrike ne ambjentet e perbashketa (ndricim shkalle, pompe,ashensor)	9.5	
Tarife fikse e sherbimit per leximin "zero" (leke/muaj)	200	

**Cmimi i energjise reaktive eshte sa 15 % e cmimit te energjise aktive*

** Orari pik gjate te cilit do te aplikohet tarifa per energjine e konsumuar ne pik eshte :*

Per periudhen 1 Nentor - 31 Mars nga ora 18:00 deri ne 22:00

Per periudhen 1 Prill - 31 Tetor nga ora 19:00 deri 23 : 00

- **With ERE decision no. 156, dated 24.12.2015**, these tariffs are in effect until June 2016
- **With ERE decision no. 190, dated 22.12.2016**, these tariffs are in force until 31.03.2017.

➢ **With Decision No.128, dated 29.07.2016** "On retail electricity tariffs for customers connected to TM and meter in TU for the period 1 July to 31 December 2016", the ERE decided:

- For customers connected to TM and Meters in TU, to approve the 12.4 leke / kWh fee for Active Power Retail (no peak) for the period 1 July to 31 December 2016 by the universal supplier. With ERE's decision no. 190, dated 22.12.2016, this fee is in effect until 31.03.2017

Liberalization of the electricity market

Law no. 43/2015, dated 30.04.2015 "On the Electricity Sector", Article 109, point 1 provides:

1. *Voltage 110 kV electricity customers as well as any other customer who, regardless of the voltage level of the electricity network to which it is connected, has an annual electricity consumption greater than 50 million kWh , At the moment of entry into force of this law, are considered to have entered the liberalized market. Clients connected to the 35 kV voltage level are required to enter the liberalized market not later than June 30, 2016, customers connected to the voltage 20 kV, no later than 31 December 2016, while customers connected to the level Voltage of 10 kV and 0.6 kV, no later than 31 December 2017. Customers connected to voltage 0,4 kV have the right to freely choose their supplier.*

According to the calendar provided for in Article 109 (Provisional Provisions) of Law no. 43/2015, dated 30.04.2015 "On the Electricity Sector", where there is a gradual liberalization

of the liberalized market for different customers, according to the voltage level and the consumption of electricity. It is currently considered that 110 kV electricity customers have been liberalized in the liberalized market, as well as every other customer who, despite the voltage level of the electricity grid to which it is connected, has an annual electricity consumption Greater than 50 million kWh. OSHEE sh.a has started investing in the measurement system for customers connected to the 35 kV voltage level to enable the establishment of the technical conditions for the liberalized market exit of the connected customers at the 35 kV voltage level.

Water supply :

Regulatory framework

The legal basis for issuing permits / authorizations for the use of water source is the Law no.111 / 2012, dated 15.11.2012, "On Integrated Water Resources Management" and DCM no.416, dated 13.5.2015, "On Approval Of the general and special conditions, accompanying documents, validity deadlines, application forms for authorization and permits, review and decision making procedures, and authorization forms and permits for the use of water resources ".

Application for water supply permit

- Referred to DCM 416/2015, the entity for obtaining a "water resource permit" must complete the general conditions form, the technical legal documentation provided in Annex I, and fill in Form A7, Annex II together with the documents Required by this form.

In case the activity is carried out within the boundaries of a basin, the body competent to issue the permit is the Basin Water Council in the territory of which the activity is to be carried out.

For defining the basin, reference should be made to DCM 342/2016, which defines hydrographic boundaries of water basins.

Legal technical documentation is filed with the Water Basin Agency.

- If this entity receives water from a water basin and performs activity in another water basin then the competent body is the National Water Council.

Legal technical documentation in this case is filed with the Technical Secretariat of the National Water Council

-With regard to water tariffs, it should be referred to DCM no. 662, dated 21.09.2016, "On the Approval of Water Use and Discharge Tariffs"

- **Tariffs for the use of water water / m3 water**

According to the above-mentioned DCM, we have these tariffs for water supply and water discharge::

No.	User	Fee discharges	Water usage fees		Comments
			Surface water	Underwater water	
1.8	Commercial and industrial enterprises that use water for the technological process in the mining industry, metallurgy, oil and gas, textiles etc.	5 leke/m3	1,5 leke/m3	2,5 leke/m3	

(*1 USD = 125 leke*)

12- ***Environmental problems***

Requirements for the protection of air, water and soil

- a - For discharges to the ground

- Mining exploitation

These waste must be disposed in landfills designed and administered according to legal requirements to avoid environmental impact.

-Entertainment notes

These residues should be disposed of in the correct place with standards and technical conditions such as to ensure their deposition under such conditions that reduce the impact on the environment

At the same time, they should be protected to avoid leakage or any cracking or massive sliding

Their requirements are to control the quality of the discharge water in the receiving water environment, where it meets the set legal norms of pH, suspended matter, and other elements of metals etc.

The requirements for their project are rigorous and pass along with the enrichment plant project for obtaining construction and exploitation permits.

-Other industrial debris from metallurgy

Industrial wastes from melting, refining, etc. as dirt, powders taken from the residual waste stream are regularly reused in the process and during the activity, along with the complete project of the production facility are also the squares for the precipitation deposit or their final landfill .

Albanian legislation has defined the manner of solid waste management by their nature and classification in the Waste Catalog.

-b- For water discharges

Surface water

Standard: (according to DCM No. 177, dated March 31, 2005)

- Extraction from the underground or career of minerals

PH 6 to 9

Total solid matter 50 mg / liter

BOD5 50 mg / l; COD 150 mg / l; Petroleum products 10 mg / l; Cu 0.5 mg / l; Cr 0.1 mg / l;

Ni 0.5 mg / l; Zn 2 mg / l; Pb 0.2 mg / l; Cyanides total 1 mg / l; Cyanide and Lire 0.1 mg / l; Iron 3.5 mg / l; Uranium 2 mg / l; Mercury 0.01 mg / l; Arsenic 0.1 mg / l

Enrichment (Write as above)

Metallurgy

Smelting and refining sector

- pH 6 - 9
- Holds 50 mg / liter
- Arsenic 0.1 mg / l
- Cadmium 0.1 mg / l
- Chromium 6 valent 0.1 mg / l
- Chromium total 0.5 mg / l
- Bullets 0.3 mg / l
- Mercury 0.01 mg / l
- Zinc 1 mg / l
- Iron 3.5 mg / l

Metal pouring

- pH 6 - 9
- Holds 50 mg / liter
- Petroleum products 10 mg / l
- Copper 0.5 mg / l
- Zinc 2 mg / l

For each activity the subject also applies for the environmental permit. In the environmental permit are defined requirements that must meet a subject for industrial discharges

Subterranean waters (these are subject only to landfills of enrichment and metallurgy residues), depending on their location etc. and are part of their landfill projects

-c- For discharges in the air

From technological processing processes

Copper and refining

Mineral smelting sector and copper concentrates

The slag resulting from the melting process and water granulation is deposited and reused for abrasive materials in some sectors such as ship repair, oil pipelines etc. This experience has also been implemented in Albania at the Bakery Plant in Rubik and an installed plant in Shengjin (port in the north of the country).

The contemporary plant in the world is able to discharge not more than 0.5 to 1 kg / ton of copper produced and SO2 = 25 kg / ton copper

As a result, these norms are required to discharge into the chimney:

Total dust in air from chimney = 50 mg / m3

SO2 = 1000 mg / m3

NOx = 400 mg / m3

CO = 200 mg / m3

For copper-refined refining (anode production)

Depending on the fuel being used or if it is with an electric furnace

- Powder = 50 mg / m3

-SO2 = 400 mg / m3

-NOx = 200 mg / m3

-CO = 100 mg / m3

As a result, these norms are required to discharge into the chimney:

Total dust in air from chimney = 50 mg / m3

SO2 = 1000 mg / m3

NOx = 400 mg / m3

CO = 200 mg / m3

Legal regulatory framework for the environment:

Law no. 10431, date 09.06.2011, "On the Protection of the Environment"; Law No. 10441, dated 07.07.2011 "On Environmental Impact Assessment"; Law no. 162, date 29.12.2014 "On the protection of air quality"; VKM nr. 435, dated 12.09.2002 "On air discharge rates" etc.

-13- Data on regulatory framework for licensing and regulation of territory

-a For the equipment with the respective permits:

Mining exploitation is regulated by mining legislation

- Construction works for mineral processing and mineral processing etc:

According to the legislation in force (Basic Law No. 107, dated 31.07.2017 "On Territorial Planning and Development" and DCM No. 408, dated 13.05.2015 "On the Approval of the Territorial Development Regulation", DCM No. 671, Dated 29.07.2015 "On the approval of the Territorial Planning Regulation" the permit for the construction of facilities in mining, enrichment, metallurgy etc. is provided through such a procedure:

-a- The interested entity seeks to be familiar with the relevant Form and the appropriate documentation to obtain a building permit for the necessary facilities at the National Territorial Development Agency

--b- Applies the request and gets in touch with the local government bodies where the activity will be developed, with the development plan of the area approved by the local government

-c- Recognized with elements of land ownership where it is required to develop the activity and provides complete documentation

-d- It is recognized with the infrastructure of the area, roads, water supply and energy, sewerage etc

-e Begin the preparation of complete documentation according to the Form submitted by the National Territorial Development Agency and the specific ones required by the local government.

Part of this documentation are

- **Legal documentation:** (eg concession contract etc, Mining license, etc. Registration certificate of the company at the NEC National Business Center, Licenses of projectors of objects.

-**Documentation on land ownership:** Certificate of ownership, with the card from the Asset Registration Office. If it is agricultural land, it is certified by the Directorate of Administration and Land Protection from the respective District Council where cadastral items are given land bonitude etc.

- Receiving a request for expropriation from the relevant Ministry (in the case of mining facilities for exploitation)

- Contracts for the use of a forest or pasture fund

- Decision by the bodies of the Regional Water Basin and the National Water Council

Cultural heritage

-Version of Instument of Culture

- Decision of the National Council of Archeology

-Contract with the Archeological Service Agency

Environment

Mine Impact Assessment Report (from the licensed subject)

Environmental Impact Assessment Assessment Preliminary / Environmental Permit etc according to environmental legislation

Part of the environmental documentation is also the preliminary discussion of the project with the public in the area where this project is being developed. This is followed by the subject in co-ordination with the environmental structures and local bodies of the area.

Technical Documentation

Map where the activity and the facility and the plan for setting the structure and Urban parameters are foreseen

Construction project with several elements, such as the Civil Engineering Infrastructure, three-dimensional 3D images of the object / objects, geographic coordinates, MNZ project

The technological project coupled with the Relation to the Splitter

Worksheet and organizing plan for construction work

Preventive realization of works

Geological-engineering and hydrological report of the area

Seismic report for the area

Technical Oponence (For Construction) is the Opposite Advantage for the Technological Project

Feasibility study

-Other licenses for power supply to OSSH (Distribution System Operator)

-For Water Supply: Regional Water Reservoir Authorities for water supply from rivers, streams or drilling wells, while from the Water Supply and Sewerage for drinking water from the network

- After submitting them to the Territorial Development Agency, according to the nature of the project, this agency sends the opinion to the Ministry responsible for Mines and Industries.

Where appropriate, this project may be required to be protected in this department for the project

-After this documentation is evaluated by the Territorial Development Agency and forwarded for approval to the NCT (National Territorial Council)

- The project is registered in NCT (National Territorial Council) and then comes to decision by this body

- Observation of the Construction Permit by the Territorial Development Agency.

14- Taxes and Taxes profits:

-National tax

-Rent mining, is for copper 6%,

VAT, is 20% of the value of goods or services

- Profit tax, is 15% of the profit value

- Local tax

-a- Tax impact on infrastructure (law on territorial regulation etc.)

-b- Land tax (according to the decision of the local municipal bodies)

-Port tax -a- Temporary Deposit Tax at Port for a $ 12 / tonne commodity

Tax Legislation

Law no. 9920, dated 19.5.2008 "On Tax Procedures in the Republic of Albania", as amended

Law No.9975, dated 28.7.2008 "On Taxes Payable" amended

Law no. 92/2014 "On value added tax in the Republic of Albania"
1 This law is partially approximated by: Directive of the European Parliament and of the Council 2006/112 / EC of 28 November

Law no. 8438, dated 28.12.1998 "On Income Tax" as amended

Law No. 9632, dated 30.10.2006 "On the Local Tax System" as amended

VKM Nr. 953, dated 29.12.2014 "On the implementing provisions of law no. 92/2014, "On Value Added Provisions in the Republic of Albania", as amended

DCM No. 7, dated 4.1.2012 "On the Determination of Procedures and Documentation Required to Collect Mineral Lease Tax", as amended

-15-Environment in areas where this development is foreseen:

Generally, we are dealing with an area where many years ago this industry has worked and has functioned, with a tradition and goodwill towards the business, resulting in the connection of their interests with the use and utilization of natural resources.

There is a partial infrastructure in some of the existing facilities, naturally amortized but which facilitate the conditions for rehabilitation and adaptation in function of their destination.

It has an infrastructure and road network that also connects to national roads, of course with some maintenance needs.

They have inherited a professional experience, normally only in an initial phase, in the process of enrichment and metallurgy, because their age is somewhat broken, but as a preparatory stage they can be professional and gradually train young people with courses and trainings .

Obviously, part of such a development in these areas can bring attention to the opening of a vocational secondary school in one of the provinces for mining, enrichment and metallurgy for a period of 10 to 15 years (from a class of at least 20 - 30 veta, for each branch).

In the experience so far, the area where this activity is thought has not created any problems so far with regard to the performance of the private economic activity.

The need for work since there are high levels of unemployment in these territories increases the interest rate to develop a complex industrial activity.

There is the willingness and support of local and central elected, cooperating case by case to solve the problems that are facing.

II- Specific Referral to the Bidder:

-1- Experience in the management of the mining and processing industry

-a- Company that has experience in this field and human capital and financial capital for the management of these assets

-b- Ensure optimum utilization of copper-containing property values by not only achieving complex use of useful elements in addition to copper, gold, silver, selenium, and platinum group, as well as enhancing copper assortments up to wire and cable Also the manufacture of copper alloys (brass and bronze)

Advantages in the Bid Evaluation is the subject that undertakes to develop the complete cycle of processing from mining to final products, electrolytic copper and cable and cable.

Among the specific requirements of a project are as follows:

- Enrichment to provide high recovery rate of copper over 85% and other Gold and Silver elements in copper concentrations over 40%.

-b-Provide zinc concentrate benefit if used mineral, has optimal zinc content,

-c- Produce also pyrite concentrate, as an added value in iron and sulfur recovery that has the raw material, thus reducing sterile waste in dams.

-d- Competitive advantage is an optimal project in melting and refining, enabling metal waste recycling, as well as utilizing the heat utilization of the gases of technological processes, in addition to realizing the purification of gases. As the first stage in metallurgy, it may be the reactivation of the copper refining plant in Rubik, only with the recycling of copper, brass and bronze metal waste, because it has been for years that these waste are exported raw unprocessed, with their import perspective from Neighboring countries, Kosovo, Montenegro. Even of these waste, which are of the first quality, can be provided directly a quantity of copper katanile (with melting in the inductive furnace for continuous pouring), which serves as raw material for the Wire and Cable Plant in Shkoder

-2- Opportunity for funding

The interested company has the opportunity to finance and good financial and economic situation as a convincing element for administering the long-term development of natural assets of other assets of this industry