



Outline Project Concept Study

FOR INVESTMENT IN MACEDONIA

EEC Macedonia Electricity Supply 1

EXECUTIVE SUMMARY



THIS FINANCIAL PROJECT WAS DEVELOPED IN THE METHODOLOGY AND WAYS THAT ARE NECESSARY FOR THE APPROVAL FOR PROJECT FINANCE (WITHOUT INSURANCE OR GUARANTEE) BY NATIONAL CREDIT AGENCY, INVESTORS AND BANKS

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International Credit reference Agency It does not imply offering of securities. April, 2019

INFORMATION MEMORANDUM

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1. EXECUTIVE SUMMARY Brief Description of the Financial Project

- Type of the Project
 Motivation and scope of financial model
 - ♂ Objectives of *eec* Macedonia
 - 𝒴 Investment

2. PROJECT DEFINITION

14 Pls. Note[†]

The top structural level—credit and insurance—of the project finance transaction is outside of this financial m	odel. (H	Page)
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CONFIDENTIAL NOTE

This Business Plan (the present EXECUTIVE SUMMARY, Excel-based *Pro-forma Capital-Budgeting*, Risk Assessment Program, the enclosed contracts, commercial offers, certificates and other papers and instruments contains commercial and business secrets, and is **confidential and/or privileged**.

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*

This **Summary** is generally assumed to be used online. The <u>URLs</u> in the electronic copy facilitate following the content when you're read it. References to external sources are intended for people who are using assistive technologies, and for non-financial experts—administrators, business managers, entrepreneurs, translators.

[†] Please note. This Summary, as well as the program Excel file of the financial model that is described here, except for the verbalization and figures, are presented with specially selected fonts, color applications, images and icons for the purpose of visualization the information. (<u>Visualization</u> is perceived and remembered <u>60,000 times faster</u> than the verbalizing)



INTRODUCTION

Project Name: EEC Macedonia Electricity Supply 1

Base level Zero (0)

Developer: East Electric Company DOO,¹ Macedonia, Project Company (PC).

Area (1) Stage 1: Municipality of Karposh, residential and business complex Alumina;

(2) Stage 2: Industrial zone Vizbegovo, residential settlement of Vizbegovo, Indus trial zone Zajchev Rid and residential and business complex Limak.

Subject: Investments in: 110 kV Transformer distribution Substation TS SKOPJE 3, located

in the settlement Nerezi, and the **power grid** by the distribution operator.

(i) Remote Electric Line to TS Gorche Petrov; cross section: 240 mm, length: 20.8 km.

(ii) Transformers 2 x 300/1/1A connect 600/1/1A.

The industrial investors and households from this part of the city of Skopje have suffer unwanted consequences. Many constructed halls planed for industrial production, can't currently operate due to the low voltage and due to the insufficient electricity power.

TS SKOPJE 3 is located in the settlement of Nerezi and can use the following 110 kV overhead lines to:



				C Just Education AT high Roomed		Edesso
Nr	Destination	Material	Size, mm ²	Ground wire	Length, km	CT-current transformer
1	TS Gorce Petrov	Al conductor steel	240	1 x 50 mm ²	20.8	2 x 300/1/1A
2	TS Jugohrom	Al conductor steel	240	1 x 50 mm ²	41.5	2 x 300/1/1A
3	TS Kozle					2 x 400/1/1A
4	TS Zapad					2 x 300/1/1A
5	TS Skopje 4				15.6	2 x 300/1/1A
6	TS Samokov				47.6	2 x 300/1/1A
7	Bus Coupler					
8	Feeders 1 and 2	High volta	age circuit b	reaker: disconn	lector	



110 kV Transmission Line with six high voltage line feeder, measuring, connecting and two transformer feeder, bus coupler is a substation that has huge potential for development in the distribution of electricity and future expanding the distribution of electricity with increasing the power of the transformers and upgrading with new ones.

Measuring the taken energy is on the 110 kV (the price of electrical energy of 110 kV is a lot cheaper from the price of 20 KV, which is the point of the project).



Stage 1

THIS EXECUTIVE SUMMARY IS FEASIBILITY STUDY OF PROJECT FINANCE BY A CREDIT INSTITUTION, most specifically the first stage only of the whole business plan of the Project

STEPRS TO FOLLOW

- The primary information.
- ✓ Done 2. General description of the investment. Publishing of INTRODUCTION about the Investment Project.
- Done 3. Visit the Substation TS SKOPJE 3 (TS-3); collect the data about the history of TS-3 and adjacent technology infrastructure, and the state policy for the acquisition, renewal and commissioning of sites in the electricity distribution system of Macedonia, and the approved prices by the state authorities.
- Preparing the structure of the financial model (i) Business Plan with Cash-flow rro-forma budgeting, Sensitivity analyzes, Profitability, etc. (ii) Financial quantitative risk assessment (first issue) with own software product.

Contact with the owner of the **TS-3**.

- 6. Presentation of the results of the preliminary studies, and part of the software to be applied in the financial modeling for project finance.
- 7. Correspondent exchange, draft buy-sell contract of **TS-3** with terms of postponement until the acquisition of licenses and bank's Letter of Commitment for a loan, including Seller's pro-forma invoice and Buyer's pay-order both placed with the Credit Bank.
- 8. Requests for offers for equipment and local country expenses for services and materials.
- 9. Preparation of complete documentation for loan application and online cash-flow control system during the loan life, and presentation to the Bank.
- 10. Apply / receive Stage 1 licenses.
- 11. Opening credit and current bank accounts and automatic bank transfers to the **TS-3**'s Seller and advance payments to other contractors.

4

Condition of equipment and revitalization

The complete equipment is 20 years not in use. The Transformers are disconnected but are in good condition. It is necessary to make service to the equipment, to filter the existing oil, to fill up with transformer oil and to perform a complete examination (where oil is leaked to be fixed). The 20 kV-feeder need to be completely revitalized in the first phase, also to conduct a complete overhaul of all the medium voltage breakers and medium voltage disconnector sand to perform a complete primary and secondary testing of the whole equipment and commissioning as Stage 1.

Further investments and design solutions

On the move between the Student dormitory Goce Delcev and the old factory Alumina is predicted and already started the built of many new residential high-rise buildings a new hotel and in the place of the old factory Alumina is also predicted to be built many high-rise buildings and also a new commercial shopping center. This means that in this place there will be more then 30 000 new residents. One 20 kV underground line for both, Stages 1 and 2, will be continued in direction towards the back side of the Military Hospital, beside the Boris Trajkovski Hall, Hotel Aleksandar Palace with final destination in the Industrial Zone Vizbegovo (5km).



Detail Urban Plan for commercial and residential buildings Municipality Karpos



Project Alumina (new high-rise buildings and commercial shopping center in the place of the old factory Alumina)



Plan for building new residential and commercial buildings in Municipality Karpos

TS Skopje 3 is located in immediate proximity of the river Vardar - beside the river bed there can be placed an underground 20kV cable line towards the industrial zone Vizbegovo (Zajcev Rid) and Saraj. Upstream the river Vardar, there is many attractive locations with voted Detail Urban Plan for construction of many residential and commercial facilities.

In addition, next to the Hall Boris Trajkovski according to the Detailed Urban Plan there is planned to be built a new shopping mall, where the cables, one from the old factory Alumina and the other from upstream the river bed of Vardar, will ring and will continue to VIzbegovo project Kasarna.

With the passage to the other side of the River Vardar the power grid can be spread to the industrial Zone Zajcev Rid and Vizbegovo, where in these two industrial zones the current supply of electric energy is in disastrously bad condition, both in the industrial zone itself and the residential part of Vizbegovo.

In Vizbegovo as the final destination should be built 20kV distribution substation from where allnew and already connected customers which are not satisfied with the current distributer int he industrial and residential buildings would be connected (the length of the entire route from TS Skopje 3 to Vizbegovo is 5.3 km x 2).

In immediate proximity of Vizbegovo there is an existing 110 kV high voltage power line (110 kV power line which was used in the past for electrical connection between Macedonia - Kosovo) which in not currently used. With a acquiring a permit for a connection and using the current 110 kV Powerline, there can be built a new TS Vizbegovo 110/20kV. The connection of the new TS Vizbegovo with TS Skopje 3 to 20kV would be a stable and secure system. (15

years ago it is planned to construct a new TS Zajcev Rid with the power of 120 MW, as currently are missing in this part of the city – if you want to make a connection to the electricity grid in this part of the city, you first need to sing a notarized statement with the current distribution operator that you agree to having a low quality electricity).

In the place of the former Military Camp were, now is planned a huge new project where many new residential buildings should be built. With the construction of the new TS Vizbegovo (in the first phase as 20 kV Distribution substation and then as 110/20 kV) it can be provided to complete the realization of the new Project Kasarna, Municipality Karpos.



Project Kasarna

The two existing 20 kV underground lines, that lead to the old factory Alumina, should be extended along the street Metropolitan Teodosi Gologanov near the gas station Auto Moto Sojuz, to the projected project behind the Old Train Station – the Limak facility which is currently in a halt with the construction due to the connection with the electric. Wanted power of 20 MW from EVN. If this project is timely contacted and start negotiations it easily can be a big new client as well as another energy solution for consumer connections in the central part of Skopje.

Within the substation itself, **TS Skopje 3** has space and power to build two new 110 kV transformer feeders as well as a new place with 2 kV feeders.



Free space to complete the station

After the 12,7 MVA is reached the transformers should be replaced with new and bigger transformers (in every moment the power must be double then the power which is needed for the customers in case when you have two transformers, and a transformer brake down or the equipment the customers will still get provided with electrical energy. If there are more than two transformers then there should be only one extra transformer in a case of a break down) The maximum number of transformers in TS Skopje 3 is four transformers with total power 160 MVA.



PRICES OF START / ACCEPT THE PROJECT:

Import value, DDP^{*}: €_____. -

Local country costs: €____. –

TOTAL: € _____. –

Credit term: 3-year period (the 12-month grace period included). Financial Model \rightarrow

Collateral: Corporate equity bonds (when required).

Profitability: NPV = € _____ - (Cell C75) at a hurdle rate 10% (Cell C74), [Worksheet BUDGET] IRR = _._% - (Cell C76). (Click the Button Check to confirm the correct computing

Feasibility study: DSCR = ____ – Good (with the proviso that 1.2 is the critical value) LLCR = _%

Payback period: 3 years and _ months - (Cells H74 : 174).

Financing: Project finance with US federal funds through Ex-Im Bank of the United States and/or EU funds - support of State Central Project Management Agency (CPVA), CFCD of Ministry of Finance of Macedonia through instruments like PHARE, CARDS, SAPARD, ISPA and the newest IPA (Agency), underwriter and local commercial bank.

Distribution:

Management and operation: East Electric Company DOO.

Distribution and financial control: OCFCS,[†] through EEC Ltd.²

This Summary is made on pre-design base data, and it will be fully completed when a final offer for equipment is provided.

≤

^{*} DDP – Delivered Duty Paid (more)

[†] Online Cash-flow Control System – software granted by International Investment Council, Washington, D.C.

f The Status

This Project is developed by International Investment Council, (IIC), a DBA-formation of East Electric Company LLC, Washington, D.C., and with courtesy of its outsourcing for Europe and Central Asia, East Electric Company Ltd., Bulgaria (EEC). It is one of the series of capital investment projects [more], subject of the activities of International Investment Partnership (IIP), where IIC is indirect partner through its President, Prof. George Angelow—one of the General Partners of IIP and authorized³ by the concessionaire of the construction land in 2016 to do and perform all and every act and thing whatsoever requisite.

Background

The process of the feasibility study started with a request and an enquiry from the Macedonian Partners of IIP for assistance in the financing and reconstruction of the existing **TS Skopje 3** and construction of asset of new modern facilities for the electricity transmission network in the northern and industrial part of Macedonia.

This Financial Project is for funding the Projects on <u>Delivered Duty Paid (DDP)</u> bases cleared for import and all applicable taxes and duties paid (e.g. VAT, GST) on a turnkey bases by a US producer(s), and local preparation of the construction site and receiving of permits made by Macedonian design and construction company under key.

4 Project Company.⁴

The land sales option is the most flexible and least capital-intensive option in the range of this project financing – Cell R64 [Worksheet Intro].

4 Sales Strategy

With the opening of proceedings, the Project Company, will organize participation in various trade fairs to expand its trading network in Europe. The necessary funding for this is provided in the Cash-flow Proforma Budgeting on *Level* 2 45Tof the Financial Model.

Status of the Project

Financial Model

Capital industrial investment project. Financial modeling is developed preferentially for project finance and particularly in this case for greenhouses. It is purposed for both the project due diligence review and further monitoring and operational control and financial risk management of the business during the loan life. At the beginning of the due diligence process, this can help speed up matters and allow the lender, e.g. Agency, to evaluate the project sooner and correct. The general purpose is to conclude a <u>concept design review</u> through an optimal size of capital investment and operational costs. As mentioned above, it has the well-known *hierarchical structure* for system analysis in five levels.

The financial modeling package contains:

- (i) Information Memorandum (Business Plan this Executive Summary) which provides a detailed verbal description of the financial model, so that an auditor, performing due diligence, can gain full perception of the business venture with its profitability evaluation and financial quantitative risk assessment. Part of this Summary focuses on a guide for easy operation with an Excel program file and the supporting software presenting the financial model and budgeting during the loan life for the benefit of all participants in the financing.
- (ii) Functional Model of Capital-budgeting—Cash-flow Pro-forma⁵
- (iii) Input data and assumptions [Worksheet Intro]. There are now double browsing buttons to the worksheets for fixation of different zooming. In the mode of use of the financial model for the operational control of the project and management, the right sectors of the buttons will serve the visit the worksheet in algorithmic conditions and control section.
 - Capital goods and services with their prices and loan [Worksheet Cap. Goods];
 - Sales, Costs, Cash-flows, Measuring Profitability and Pay-back methods applied, and graphical representations of the most important parameters of the Financial Model [Worksheet BUDGET];
 - Personnel and salaries on payroll [Worksheet Staff];
 - Decision and Sensitivity Analysis of posterior probabilities of events affecting the most important factor with impact over the cash inflow for risk management during operation [Worksheet Bayes].
- (iv) Risk Assessment and Management⁶ with Manual⁷ of a demo version and description of an Excel file with the financial model and software.^{*} It is provided in a customized version with actual results of the assessment of eight risk factors and their impact over the business venture. A brief description facilitates a fast but incomplete understanding of the preliminary study.

f Infrastructure

In the overall strategy of the Financial Project for this type of business, the infrastructure is treated as structurally identifying. For the purpose of strategic analysis, cost attribution, and phasing decisions, the infrastructure for the project is divided into two types: (1) primary—road-transport, and (2) secondary—energy supplying, designated as following:

- (1) to connect the site and provide distribution to each plot, and the warehouses for:
 - (i) row materials, and
 - (ii) end products for distribution
- (2) Connection to the grids for:

^{*} This software is a complex of copyright products used free with the curtesy of the Project Developer and its EU auxiliary.

- electrical power supply, transformer substation, distribution as above, and

Both types of the infrastructure will be a treated as a separate capital cost item.



PROJECT INFORMATION AND TECHNICAL MEMORANDUM 1

1. EXECUTIVE SUMMARY

1.1. BRIEF DESCRIPTION

F Type of the Financial Project



This **Financial Project** is capable of producing enough cash to cover all operating and debtservicing expenses over the whole tenor of the debt. It is the ultimate product of a universal financial model for project finance in the real economy. Its general structure is a very simple *hierarchic* formal system:^{*} input \rightarrow calculation algorithm \rightarrow <u>output and management</u>.

 $01 \rightarrow 2 \rightarrow 3 + 4$

- Levelo is the basic level with desired equipment, final products with their market prices and the expected final results in [Worksheet Intro];
- Level 1 capital goods and services in Worksheet Cap.Goods;
- Level 2 is the upper level with the rules of cash-flow pro-forma budgeting determined in Worksheet BUDGET;
- Level 3 quality analysis of the investment; and
- Level 4 risk management by the functional rules of [Worksheet Bayes].

In this formal system with visual pyramidal structure, from top to bottom, the management **5** is the "Command Center", which with download feedback can change the output of *Level* **3**. Respectively, following this structure, is that the rules for the operation of the formal system on *Level* **1** are determined by the rules of the upper *Level* **2**, which in turn are determined by functional rules of *Level* **3**, etc. The meta-rules of the top *Level* **5** cannot be changed because there is no higher level above it which has rules that specify how to modify them. The application of the principle of Theory of Control (Cybernetics) is the hierarchical structure, which is correct applied in similar cases of the financial modeling —this project—in order to keep the transaction under control which significantly mitigates the operational risk factor, including Online Cash-Flow Control System [more]. Finally, the input **0** is highly project-specific, located at the base *Level* **0** of the pyramidal structure, where all first data input and assumptions are fixed, constant, not changeable during the operating with the model.

They are:

- various costs and assumptions, offered by the suppliers of capital goods and services;
- Developer's long-term assets (land, concessions, raw materials, etc.), connected with the engineering project and will be put on it;
- forecasting revenues and the relevant duties, tax rates, interest rates and other local country costs.



[°] If you're interested in the theoretical fundamentals of the FORMAL SYSTEMS which are the basis of information transfer, visit the website and download the description in PDF format **Z**

Hotivation and Scope of Financial Model (FM)

The Project Company (PC) and Applicant is East Electric Company Ltd., Macedonia.

The technologies, which will be applied, and the facilities are manufactured by a leading designer and builders. The CEO of the **PC**, **Dimitar Ivanov**⁸, is a highly qualified engineeragronomist with many years of experience in vegetable production.

Financial Project is developed⁹ by East Electric Company Ltd.¹⁰, A an <u>auxiliary company</u> in Bulgaria of East Electric Company LLC, A Washington, D.C., with courtesy support of the designer of the financial model and software product, <u>International Investment Council</u>, (DBA formation) a leader in financial modeling and forecasting helping clients with investments, financial transactions, strategic planning, and operational aspects. Only a local company from the region of origin and development of the engineering project is capable of making a specific and adequate interpretation of the business in figures and formulas with all events that may occur in a very specific business environment. High-level experts have been assigned to provide a professional Feasibility Study of the business, climate, and other specific parameters of the recent development of greenhouse production in the region.¹¹

4 Objectives of EEC Macedonia Electricity Supply 1

𝒴 Long-term:

- Investment in <u>up</u>-to-date technology designed to be crop flexible, heating system based on pellets and EU eco-approved model and local department administrative water concession¹² as a second option heating system;
- High level digital control of quality and sales;
- Certification under ISO _____, ISO _____ and ISO _____;
- Coordination with zoning building and other codes and building requirements checked with the local authorities, including for steel tubing cold frame design, before offering application.

Short-term:

- Design of the TS complex for the products.
- Advertising and marketing.
- Training of technologists agronomist and gangers.
- Mitigation of default risk factor through diversification of the export.

🗲 Investment

𝒴 Location and Equipment



Description of Project

Feasibility study (under development)

∠Click to download certificate↓



𝒴 Technology

This is a preliminary description to the Financial Model containing suspected and desirable requirements and expected characteristics of the TS and the grid lines.

Not applicable due to the high price \rightarrow

Control measure center will reduce the amount of inoculum (spores) available and promotes rapid drying of wet leaves which reduces the conditions for infection.



2. PROJECT DEFINITION

Level INPUT DATA AND ASSUMPTIONS - initial parameters on the bases level

G_____ construction area, production, _____ and sale prices and alternative evaluation

The base *Levelo* is developed on [Worksheet Intro]. It contains the entire project output database. It is given by the **PC**'s manager who has made verbal description the idea of the Project. Later offers from suppliers of equipment and services have been received (Row 81) with similar prices.

This information is unchangeable, independent from the mathematical algorithm of the model. Conversely, the results are based on the database entered at this level. For a better, easier and faster conceptual understanding of the **Project** and future business management, a visual interpretation of the structure is given for the user - the hierarchy that is the basis of cybernetics - the management theory (as well as herein above this verbal description). The desired and expected result of the movement and processing of this information is presented visually to this picture.

All this explanation and quantitative digital information to become a budget and a financial model of the Project and for the management of the business after its financing and implementation must be converted into a <u>formal system</u>. There this first data input remains <u>completely independent</u> of the further modeling (with one **Exception** only). This base information feeds the next higher hierarchical **Level1** of the structure of the FM in 6-month periods for the duration of the loan life.

PRICING - ELECTRI	CITY		MKD/kWh	€/kWh
A. EVN MAKEDONIJA AD, Average supply. Prc. fo	4.7310	€ 0.0769		
AD ELEM - Skopje Production price			2.3704	€ 0.0385
AD MEPSO - Skopje Transmission tariff			0.2722	€ 0.0044
T.O.M Skopje Tariff for marketing, organization	n and n	nanagement	0.0187	€ 0.0003
B. Price of electric energy: ELEM + MEPSO + T.O.	.M. = P	rc. of 110 kV:	2.6613	€ 0.0432
Middle value of	f payn	nent (A - B):	2.0697	€ 0.0336
$\land \land \land$		€ p.h	€ p.h	€ p.h
V 1N	WN	10 MW	40 MW	80 MW
€ 0.0	336	336.33	1,345.31	2,690.61
p.Y	(r →	2,946,218	11,784,872	23,569,744
0 180 360 540 P = power v = voltage				

Preliminary data about the present prices of power energy in Macedonia and the value of consumption for the **whole project – <u>Stage 1 & Stage 2</u>**.

Note. Every figure representing first input of data and assumptions, when first entered in a cell, is marked with symbols: \textcircled for a non-monetary value and \textcircled for monetary value in EURO.

On Worksheet Intro there is also two big pictures showing a greenhouse. Behind there is information presenting the final main data

Sales / Costs / Income = Revenues – Costs

achieved at the end of the modeling for the end of the loan(s) life, which is expected achievement of the business. This is a feedback from the top *Levels* to the base. The idea of hiding this information from the user's view of the base level at the beginning until he reaches *Levels* and the subsequent ones.

To remove this screen-picture on Worksheet Intro, click the big picture or this icon See the records of this information. BROWSING OPERATIONS area contains buttons and icons that are recommended for navigation with in correspondence with other worksheets with desired zooms instead their sheet tabs.

Below is Section 9: INPUT RATA AND ASSUMPTIONS where there is a tabular visualization of both products and other baseline data. Indicative of the quality characteristics of the Project is the total relative annual yield of **679** t p.a./1 *ha* (Cell N15).

Next are:

- a) table with Basic unchangeable values ready for transfer to the upper level. All data therein are provided from
 INFLOW DATA WORKING PANEL below;
- b) their origins are from our market research and manufacturers' offers;
- c) on any row there, on the right, are presented the baseline financial parameters of the annual production:
 - yields of _____(*T*) and _____(*C*), and their <u>market prices</u> on monthly basis,
 - current costs— fertilizer, seeding and substrate,
 - consumption of water and electricity, and
 - heating;
- d) construction and infrastructure local country expenses costs:
 - import prices, and
 - VAT, own funds investment (if the case so requires), etc.;
- e) finally, the original source of most data of two + commercial offers from UK and USA, and others (if any).

Various colors, icons and other application facilitate fact and correct perception of the variety of information by type and origin.

Financial Model creates all possible funding options and the **Developer** selects and offers the creditor and / or investor the best option for the final **Financial Project**.

This information is transferred to specific positions on the next higher level for processing under its algorithm and rules of financial planning.



2. **FINANCIAL ANALYSIS**

Level 1 Capital Goods and Services [Worksheet Cap.Goods]

This **DESCRIPTION OF PROJECT** contains a pessimistic forecast of financial model of

CREDIT LOANS FOR PROJECT FINANCE Limited Recourse Project Finance.

Here are presented the project investment costs. They can from four different credit sources, alternatively combined in one or two. The investment capital has four applications; each could be from own resource.

T► CREI	Section 1 DIT LOANS FOR PROJECT FINANCING
Loan " A "	Purchase, exported cap. goods and services; delivery DDP*
Conditional	Could be up to 30% of original part of the export paid by Loan "A" Greenhouse base, assembling, infrastructure and
	other LTAssets - all one-off local country costs (up to 30% of original part of export value)
Loan " C "	Permanent purchase of production materials and seasonal trade (conditionally - the start-up working materials)
Loan " D "	Own funds (Loan "C"). Credit percentage down payment, when required (as ECA's practice)
* DDP - De	livered duty paid 🕅

Loan "**D**" ↓ <u>Loan "**A**"</u> ↓ Adv.% INVETMENT IN FOREIGN ACTIVITES (Loan FOREIGN ACTIVITES VN FUNDS L n "**A**" + VAT + 18% TOTAL "A") 0% %> 1. Purchase the transformer substation 500,000 90,000 500.000 0 0 100,000 25% 2. Station TS 110 / 20 kV building permit 100,000 18,000 25.000 75,000 0 25.000 75.000 documentation with state institutions 🤲 3. Cash-flows, profitability & sensitivity 🔻 360,000 64,800 360,000 360,000 360,000 0 analysis + Financial Risk Asessmen 4. Motor cars with equipment 40.000 7.200 40.000 40.000 40.000 Other Secont Part 500.000 € 1,000,000 180,000 25,000 975,000 Кликни за повеќе информации

※ cell F14 export net price € 3,769,710. -↑ + cell G14↑ VAT € 4,448,258. -, and ↑ cell M6 15% own funds

Loan "**B**" ↓

<u>Loan</u> "**D**"↓ **IOCAL COUNTRY CAPITAL INVESTMENT** (Loan section "B") 5. Plant TRansform.Station 110/20 kV with 2 TR + 2 TR fields and 2 ETR .Docs with 3.514.000 632,520 3.514.000 0 state institutions, preparation and permit D÷ Loan "A" + VAT + "D" TOTAL Building TS 110/20 kV with + 2 TS fields . 6. Distribution facilities 750,000 135 000 750.000 #REF 0 #REF! . 7. Planned 20 kV cable connections 1,650,000 135,000 0 1,650,000 #REF! #REF! 0 0 8. 20/04 kV transformer stations 1,680,000 302,400 0 1,680,000 9. Land acquisition for transformer stations 54.000 0 300.000 0 300.000 3.664.000 10. IZBEGOVO Plant TR Station 110/20 kV 659.520 0 Pre-design 3.664.000 with 2 transormators 110/20 kV + 12.7 MVA Feasibility study (underdevelopment) икни за повеќе информации SubTOTAL: € 11,558,000 € 1,918,440 0 11,558,000

The above two table depictions represent two parts of Table: Capital Goods and Services., including the following Common components of the investment:

* Cell F21 CAPITAL INVESTMENT EXPORT + (Loan "A")

Cell F35 LOCAL COUNTRY COSTS (LCC) (Loan "B"):

Incl. * Cell F25 Capital investment

* Cell F32 Financial modeling package and OCFCS

Local country costs are 20% (Cell C35) of the export originated from the country of manufacturer total value. The subtotals from both tables are transmitted to the next Level 2.

This is the possible simplest presentation of the expenditure side for capital investment. It is based generally on one of the commercial offer [Cell A81, Worksheet Intro] and which should be updated according to the requirements of the Agency, confirmed by a commercial contract. However, financial modeling provides opportunity of various treatment of this database in the financial project. It can help the decision maker—individual (e.g. CEO) or the Board of the Developer—to analyze and proceed in compliance of the real and optimal alternative of a best investment strategy. By way of example look at an option as pessimistic forecast—Developer is not in position to meet the usually required (i) "own funds", and even (ii) the VAT so that the equipment to be delivered inside the country on the building plot; thus, to meet with the seller/supplier obligation of DDP^{*} supply. Therefore, two additional options have been modeled, as following:

(i) OWN FUNDS Loan "D" [Cell U47, Worksheet Intro] - not applied. Every public credit institution (bank, investment fund, etc.) usually requires the borrower to cover 10 – 30 percent of the investment (US ECA, Ex-Im Bank—15%[†] [Cell T56 and↓, Worksheet Intro].

To select own fund self-participation, click on the button **√**%. To enter the required percentage on Cells N6 and N24, click **0**%

(ii) VAT payment at receiving the import capital goods on the buyer's customs is the other conditional problem for the buyer/importer [Cell U47, Worksheet Intro] – not requires.

Loan "C", WORKING CAPITAL – not required.

[Cell Q38] € 20,000.- This is an operational information for use only during the loan period (exceptional)

Loan "D", OWN FUNDS, 15% percentage of Loan "A" and/or Loan "B" (conditional).

DEPRECIATION OF ASSETS is the last position of this section, and source targeted at the next structural level, containing the financial algorithm of the project [Worksheet Cap.Goods] Price: € 1,155,208.- [Cell H40].



Delivered Duty Paid

[†] From 2003, on a proposal of IIC, accepted and legally resolved the local exporter to increase the price with 17.5% and pay 15% of it instead the foreign buyer.

Level **2** Investment Planning and Financial Modeling

Section 2. CASH FLOWS, Pro-forma Budgeting Pessimistic Forecast

At *Level* 2 is attached form of aggregate cash flows with breakdown which shows how the basic financial parameters from the lower hierarchical *Level* 1 of the investment capital are applied in the development of Business Plan on 6-month periods on Worksheet BUDGET.

It contains the rows of incomes from \sim Sales.

<u>Note</u>. The empty square herein **†** above is to accept the data from any annual sales selected by Button over the selected year's data.

This option performs three functions: (i) collects each of the six-month sale values in separate sum into the empty white field; (ii) indicates in black wherefrom the information was sent (see below); *and*

(iii) sums up the data from Rows 2 and 3 here above. Each row for both six-month periods below the button submits them in the empty field in Col. C. The current year is indicated in Cell C43.

The Rows (44 to 48) contain information from transferred from *Level* [Worksheet Intro] to and summed up in both half years, but with a correction of a trend of gradual revenue growth due to the increase of qualifications and the development of the markets. From there the data are forwarded directly to the upper *Level* and its principles and corresponding algorithms of the software is implemented feedback process management on Worksheet Bayes. This is a typical example of applications of the two principals of Cybernetic in practice— feedback on one level and hierarchical structure. Similar applications are ordinary practice in this financial model with the risk assessment software.

Total Costs b, includes two components—Variable costs c and Fixed costs d.

The salaries, provided by auxiliary [Worksheet Staff], include annual increase in compliance with the so-called "Swiss rule" of 2.7% (Row 64).

The computed final results of the budgeting are displayed graphically. The Financial Model is construed to accept updated budgeted figures with the real ones provided online by the accounting software (or manually) throughout the whole loan life.



(Subject to adjustment with actual project data delivered by Manufacturer and offer local Builder).



Level 3 PROFITABILITY ANALYSIS [Worksheet BUDGET]

Discount Cash-Flow Models for capital budgeting—the best measures of the financial effects of this investment^{*}

Excel is the most appropriate platform for financial forecasting and scenario analysis to create with the right methodology consistency, transparency, and flexibility full set of analyses for projects of this kind. At this *Level* 3 is processed the cash-flows information for calculation quality ratios. They are leading for decision making about purchase the project as well as for the Agency / credit bank auditors whether to support the Project. It is the source of output data for the next upper level—sensitivity analysis and quantitative financial risk assessment for calculation of the insurance fee and annual interest of the loan(s).

Net Present Value (NPV for CADS) – how revenue is earned and cash received from the purchased assets specified on *Level* 1 and the excess of cash from revenue over the cash paid for the costs associated with the investment as developed on *Level* 2. Discounting expected cash flows from the Project (Cell C75) to the present using the discount rate of 10% (Cell C74) is positive (too much), ______.- All expected discounted cash flows to the present time, NPV > 0 indicates that the investment should be pursued with hurdler rate = 10.5%.

Debt Service Coverage Ratio (DSCR) (Row 70)—one of the financial ratios that every small business manager should understand—for each six-month period, equal to EBT (Row 29) / Costs (Row 22) from the set of financial statements measuring Project Company ability of servicing its debt, including making payments on principal, interest, and leases. A ratio of 1 means that the company's net operating profits equals its debt service obligations.

Creditors want to know how much debt it currently owes and the available cash to pay the current and future debt.

DSCR is required to be 1.25 or more, **☑** DSCR = 2.07 is "Good" (Cell F70).

Internal Rate of Return (IRR) – Project Company can expect to earn cash by the Project IRR = 10.3% (Cell B75).

(to check the NPV making it **0** – click the Button "Check IRR" and then click "Restore"

^{*} Based on the old adage that a bird in the hand is worth two in the bush—the use of money has a cost (interest).

✓ Loan Life Coverage Ratio (LLCR = 148%) (Cell F76). LLCR provides the lender with a measure of the number of times or percentage the project cash flow over the scheduled life of the loan can repay the outstanding debt balance.

It is the time required for cumulative returns to equal cumulative costs as computed on *Level* when the designated approximate numbers are replaced with true amounts taken from the original offers and/or agreements with suppliers of goods and/or services specified on *Level*.

(Subject to adjustment with actual project data delivered by Manufacturer and offer local Builder).



Level SENSITIVITY ANALYSIS, Cash Flow Online Control System (CFOCS)

Section **PAYBACK PERIOD METHOD** (PB)

The real length of time required to cover the cost of investment will be computed when all prices, time periods, etc. are real, supported by the respective documents – contracts for purchase of capital goods and services. However, based on the received offers and other elements of this Financial Model, the expected length of time is a little bit over the half of the 7-year loan life (about 3 - 4 months) [Rows 128 – 132].



Section SENSITIVITY ANALYSES and Online Control [Worksheet Bayes]

A fundamental basis for the Operational and Risk Management—a general advantage of this Financial Model over massive investment business plans.

The emphasis of the Financial Project is its effectiveness, and it is the sales and repayment of the amount invested in the schedule within the planned timeframe. The results of the product marketing research and its step-by-step Sensitivity Analyses showed that for the selected Products offered by:

- (i) Project Company as an / Macedonian / EU (in a near perspective) entity, the theoretically best markets would be England (north London) and Sweden [Sales Strategy, Page 3↑] and as a result we have the relevant documents for intention and confirmed distribution readiness; and
- (ii) as original producer in Macedonia the Russia market (optional presently).

Majority of parameters in this Financial Project are based on incomplete information at the time of evaluation and they were estimated. Therefore, the results of the evaluation process are uncertain as well. At the pre-design stage it is conventional practice to analyze the parameters that are realized in the future and the manner in which they can be controlled by the PC. Feasibility stage is customary to use the Sensitivity Analyses which here treats the problem with improving the cash flow by managing the receivables through marketing and salesmen. In this sense here, it is made an analysis of the effect on the profitability of changes in sales as result of the marketing and management of the financial risk through predictable and unpredictable events of interest. The best method and mathematical algorithm for this purpose is Bayes Theorem [Worksheet Bayes].

Fraction Control System (CFOCS)

Cash flows are considered the lifeblood of every business, and how it is managed can mean whether the company is succeeding or not. Controls over all cash inflows and outflows of the PC is for lender's protection. We use online billing application that has integrated accounting capabilities. It will give the ability easily to enter all invoices and payables, track your cash flow, monitor inventory, generate necessary reports, and manage information from our distributors all from the website.

As far as the Investor, PC, rely on project finance where the Lender and Investor rely exclusively ("non-recourse" financing) on the cash flow generated by the project to repay the loan and earn a return on the investment, the OCFCS, including the Risk Assessment and Management part of this Financial Model, appears to be one of the main functions, respectively qualities of this financial model. They are designed to optimize the costs of finance for the Project. It should also underpin the allocation of risks between the ECA and the PC. In particular, the financial model ensures that financial and other risks are well managed within and between the ECA, sponsors and its financiers (if any). This gives comfort to the funder(s), are both incentivized and empowered to deal in a timely manner with problems that may occur in the Project, as shown in Section SENSITIVITY ANALYSES.

Managing cash flow is supposed full time of the loan life the lender, insurer and the shareholders to have online password access to the operational business plan. Twice a month, e.g. every two Friday, regularly accounting report data and graphic presentation of the cash flows will be appropriately available on the Project Developer's website. Thus it can raise red flags to potential problems before they grow too big to handle, reduce the reliance on credit, and indicate if a receivable is past due.

The management of OCFCS is assigned to International Investment Council, Washington, D.C., through its auxiliary local country East Electric Company Ltd., Bulgaria, as one of shareholders of the PC in close cooperation with Brothers Global Ltd, 46A Queens Ave., London, N21 3JH, UK

At least two of the leading salesmen (A1 and A2) in the ______ commercial sector are with a different professional culture and experience. They will distribute products from the greenhouse in two very different markets—English (north London, Page 3 \uparrow) and Sweden. In the pessimistic forecasts of pro-forma budgeting it is supposed on one hand different participation rate of factors (in the case of Salesmen) with different participation rates, Cells C7 and C9, and on the other hand - with not sufficiently foreseeable impact of these events on the selected target. It is the product of various unforeseen events with different percentage of participation rate in the final result (*Good* and *Bad* sales), Cells C11 and C13, (as prices and terms of deferred payments) of the different quantities supplied to them.

MATHEMATICAL MODELIN QUANTITATIVE APPROACH TO DECISION MAKING

In modeling terminology phisical replicans are repsented to as <u>icons models</u>. It is an attempt of physical conditional appearance as the idea of the object being analogicaly modeled. It represents a problem by a system of symbols and mathematical relationship or expressions - called "<u>mathematical models</u>". The purpose is that both models enable us to draw conclusion about the real situation.

This computer **Quantitative Model** involves volume variables - such as production volume or sales volume— and cost, revenue or profit to help.

In this financial modeling are developed and involved a software package containing one model, herein presented, and one program for financial risk assessment, **BR-PROGRAM**. Both interprete the output information make it possible to control the operational deceision making and risk management through Online Cash-Flow Control System.

Our approach is to describe deceision making situation in which quantitative methods have been successfully applied. It shows how the appropriate methods can be used to help the auditor and manager make better decision. Problem solving can be defined as the process of identifying a difference between some actual and some desired stake of affairs herein this Project and then taking actions to resolve the difference making the "best" or optimal solution.

Back to BUDGET ← ●

To the extent that the assessment of the **Project** is critical to the creditor and the insurer for its financing as well as subsequently for the development of the Company's Project business, this mathematical model for analysis and management provides accurate objective information about sales and profits after repayment of credit contributions. Given the particular emphasis on this part of the entire software package, we have used for its operational management specific symbols (icons), not typical of computer practice but memorized by the operator, including a brief description of the QUANTITATIVE APPROACH TO DECISION MAKING.

Management of the business through these already "predictable events of interest" (the feedback) results in potential changes to costs. One of all obvious examples is presented on Row 66 [Worksheet BUDGET] is in Cell B66. There is a fixed percentage of sales determining the mar-

keting expenses for each period. Through feedback from *Level* with the changes for improvement of the distribution, including the quantity of products for selling to the Salesman A1 (percentage of the <u>Good</u> sales) these costs will be reduced. This model calculates lower value of the evaluation in Cell P21 [Worksheet Bayes].

Monitoring of accounts receivables allows to identify quickly trends in payment behavior. If a salesman routinely pays on time but has had from time to time months of late payments (possible <u>Bad</u> events), this increases Risk Receivables Factor and could be a red flag. In this decision-making situation for Sensitivity Analyses we use a single feedback model to examine and control several alternatives of changing input values of the model from Level 4. They are due to the impact of two unpredictable events of interest identified on Level 2 through Bayes theorem and show the degree of impact to the cash inflows. During this period of time the ordinary yields of Products are not achieved. This section is developed for operational purposes on Worksheet Bayes and subsequent risk management which efficiently manage the cash flows not to be significantly affected.

The program algorithm for analyses of decisions (Bayes Theorem) in the Excel-based financial model [Worksheet Bayes] is an alternative of the accepted market decisions, following this option in definite cash-flow parameters during the loan(s) life. Then (an option) in this case in compliance with the results of risk assessment it is recommendable diversification of the distribution to another prospective market, e.g. the Russian (R. Macedonia, wherefrom

the Products origin) has not embargo restrictions about that. In this **Project** this is the only alternative, developed in capacity of so called "pessimistic forecast", <u>obligatory</u> in the financial modeling for **project financing** application and <u>conditional</u> – in the business management and operational control of the financial risk during the credit(s) pay-off period.

Section Debt Service Reserve Accounts (DSRA)

Sales and **Costs** data for each six-month period of one calendar year, separately and total, are presented on the top of **Worksheet BUDGET** on Rows 20 and 22 as budgeting. In addition to the **Financial Project** there are sections adding functions of a business management model and the associated with-it financial risk.

One option to manage quantitative financial risk is funding DSRA. It takes great shape and it is fully recorded within the project financing documentation and is developed from Project cashflows throughout procedure in this Section in addition to the functions of OCFCS.

There are five Rows (49 to 53), which do not contain budgeting data but are designed for managing the business within the debt term. They are created DSRA which can really a cash reserve for several months. By way of example its value in Cell F49 is 1,000 and distributed in three half-year periods additional funds on Row 49. Below it (Row 50) is computed the repayment with 6% annual interest. Purposes: (i) PC has inadequate funds or CADS* to pay for debt service, (ii) implementation of some innovation, or (iii) refinement of some part of the technology lines (our case) building an additional heating system with hot mineral water available on the ground.

OP	ERATIO	NAL AND RISK MANAGEMENT	Option: Funding DSRA	1 000	50%	30%	20%	500	300	200	0
	Dynar	mic structure of new loan with	6% Interest Select an	± ↑ ENTER ↑	New debt	to add to t	the Costs→	0	515	309	206
A	Sales,	Current accounting reports					0				190
B	Costs,	TOTAL accounting reports									
CFC	CS	Cash Flow Statenents A - B	Accounting								



^{*} Cash Available for Debt Service (CADS) - Investopedia

Description of Project

Feasibility study (under development)

Level 5 RISK ASSESSMENT AND MANAGEMENT



INTRODUCTION. Quantitative financial risk assessment (see description below) is the main priority for the final version of the cash flow proforma (Pessimistic Forecast), which is the basis for assessment and acceptance of the application for project financing of the industrial investment project. The assessments are presented graphically on Page "File" of the **7+1 Program** here \downarrow



The following provides more information for experts and auditors regarding the application of the software productused in this financial project

Brief Description of Risk Assessment

Setting the parameters of anticipated events is done in Section "SENSITIVITY ANALYSIS" on hierarchical *Level* [Worksheet BUDGET] for control the whole system which computed two predictable prior probability SALES REVENUE EVENTS of interest through **Buyes' Theorem**. In other words, this information for prior probability of events on the basis of the principle of hierarchical structures (the first principle of Cybernetics) is transmitted to the upper *Level* at the Input (X) of the Object of control – the Greenhouse. At this level will takes place the second principle of Cybernetics – the negative feedback. The information from the output of the Object (Y) is returned back ($-Y_c$) through the Control system [Worksheet Bayes] to a lower *Level* as signal for management. So called "disturbance impact" (F) see the technology description below.

INTRODUCTION. We begin sensitivity analyses with prior probability estimates for specific events of interest – the QUANTITY of products A1 supplied to Salesman 1 for sale on the market. His percentage of the whole quantity of products is introduced in Cell M75 with SpinButton for Event A1. Respectively, the remaining part up to 100 percent is for Salesman 2. Both are indicated on Cell C7 and Cell C9 on Worksheet Bayes and in the tabular presentation below QUANTITY %. from A10A2 Sales. Then from sources such as special accounting reports,

periodic values of cash in-flow indicated on the financial model, and so on we obtain additional information about the events. Given this new information we want to revise or update the above *prior probability* values by computing through specific algorithm and thus receive the *posterior probabilities* (tabular presentation in **POSTERIOR PROBABILITIES** below). The steps of probability revision process are shown in figures, and the final result is a ratio of cell P21, transferred for convenience in Cell M78 Worksheet BUDGET. The result, this ratio, forms Row 66 as a part of the Fixed Costs of the Business Plan for operational control of cash flows.*

This is a real feedback to the subject to automatic control of one and the same *Level* **4**.

So far as this financial model is construed as pessimistic forecast for development of the project, the presentation of this Section "**SENSITIVITY ANALYSIS**" is limited to this application only.

There are other activities that are related to online cash management. Can be analyzed their prior probabilities and to revise or update the posterior probabilities of other events and their compliments with mathematical algorithm on Worksheet Bayes5. They will be used in developing a complete decision strategy.

Pre-project Assessment of Risk Factors

(Example) Assessment Rate Level 0-10 of impact of Factor

This graph of the main matrix is a model for visualization of the program only; the values of the axes are not the real value of the Valister's model.



<u>Feasibility Assessment</u>. Once the final parameters of the capital investments are available, a full version of the program will be provided for management of the risk during the loan life.

The assessor introduces in the Main Operational Matrix (MOM) data based on information about general accepted criteria for quantitative assessment in relevant adequacy on the scale from 0 to 10, to be processed by the software product.

The program is based on Excel-file of Microsoft Office 2013 package of Windows 10 with macros and algorithm of VBAprogram language (see Enclosure 4 again). This program is widely used on the East Coast of the United States after the failure of conventional products for **risk assessment (RA)** from before the mortgage financial meltdown in 2008. Sensitive analyzes are aimed mainly (but not only) to two risk factors, **default** (*d*) and **operational** (σ) of special significance for financing and insurance institutions and, of course, to conceptually related Developer / Borrower.

 \leftarrow These figures on the left present the introductory segment of MOM of expertise in a mathematical model of geometric figures, proportional to the value at risk (VaR) factors and the extent of its impact on the field of their investment project.

but the applied software see application <u>Risk Assessment and Management</u>



Area roundup of **O**O**i**= 1.1 x 1.0

C	omple	te 🔯		Value of the Factor multiplied the Rate of impact – this is the
1	004	Risk	1	real VaR in the business envi-
2	1.11	2.2	3	ronment.
2	1.20	2.4	2	
2	0.80	1.6	2	
4	0.61	2.4	3	
1	1.05	1.1	2	
7	0.60	4.2	4	
2	1.05	2.1	1	
1	1.03	1.0	1	
	- 20	Area:	17	-
	2.63	1.8	0.3	

Three successive assessments have been made through feasibility study as follows:

- Pre-design INSIDE EXPERTISE made by Macedonian partner, _____ Ltd., as former tenant of the Project construction plot land. <u>Relative high level of risk</u> on critical level *;
- EXTERNAL ASSESSORS made next quantitative assessment after adopted decisions:

 registration in EU Project Company (PC) and subsidiary in Macedonia;
 PC will contract and make export of the final products;
 permanent online cashflow control,
 operative risk management; and
 final accounting reports. Result: Significant mitigation of the financial risk; and
- 3) INDEPENDENT EVALUATION made by the project Developer after proposal / decision to divide the project into two parts each 5.1 ha with the lapse of time between the two stages of 6 up to 9 months to raise staff qualifications and training of new workers. Result: <u>Completely acceptable financial risk level</u>.

During the in-depth study of each risk factor and predictable events related to those risks emerged new unpredictable events of interest. They have evaluated in the current operative assessments. This is a kind of preliminary virtual management of the risk of unpredictable events. It is performed with quantitative methods in practice, and in this particular case of conditional probability of the quality indicators of salesmen - only with Bayes' Theorem (see the next section below).

The computed results showed values of some factors with their impact on the Operational Risk (σ) in critical value. The feedback from top Level **5** to the basic Level **0** indicated requirement of making exchange of organizational decision of the project.

When in the financial model have been entered real figures of the value of capital investment, sales and costs, etc., a new RA has been made, including by INSIDE EXPERTISE only.

Default Risk (d) = 2 in this pessimistic forecast covers an acceptable low level. It is a key factor for the positive resolution of a loan application. The system, called OCFCS (for short), that is recommended and includes as a key element successful control, is an instrument that serves post factum in the investment throughout the Financial Model as an provider

current information to the lender, insurer and to the investor. It is more important for the *d*-Factor to be foreseen not only in the Sensitivity Analysis of the Cash-flow Pro-forma Budgeting of the business plan as an effect over the cash inflow, but its magnitude to be assessed prior to the final investment decision making and the approval of the loan application.

Many organizations suffer from a lack of standardization with regards to 'financial modelling language'. This affects the transparency, integrity, and operational efficiency of an organization's processes, resulting in incorrect analytical insights, poor business decisions and staff morale and frustrations within management. Analysis of different levels of the structure of business management facilitates making the right management decisions.

The software of quantitative RA based on Excel and

Visual Basic for Applications is friendly for operation, increases likelihood and magnitude of events and their possible impact. It treats eight risk factors – seven financial and the operational risk.

Generally, three groups of experts make inside, external and, when the case so requires, independent evaluations. In case the level of the total risk and the **Operational Risk** (*o*) factor achieves preset critical values, the system automatically recommends making evaluation of **Personal Traits** of the decision makers or the top managing staff (not happened in this case).



Level La

Level Lp

3. MARKETING TOOLS

Marketing Study (brief description)

The start-up risk assessment shows that the diversification of export with local market products during the bad selling by a single distributor decreases the efficiency of the marketing initiative and the respective investment made for distribution of the greenhouse products.

Partners, Suppliers and Clients

The PC, ______ Ltd., is in the Balkan region. It will apply for project finance. The commerce and marketing will be subject of activities of Bulgarian East Electric Company Ltd. The scope of shuch cooperation is, except the full online control and management through using the free of charge provided software by the outsourcing partner International Investment Council for Financial Modeling and the unique 8R-PROGRAM® the optimal distribution of a greater amount of Products. This concept and Sales Strategy was made in close cooperation with two large distributors of European vegetable markets through their requested and promised quotas.

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f SWOT Analyses

The SWAT table below summarizes the ke	y external factors relevant to Tem Cuc
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Strengths	Weaknesses
•	• Lack of equity capital of the Developer to finance the Project, which slows down its development and limits the size of its own equity shares.
	 Shortage of qualified technology and service staff, which increases financial risk and may lead to division of the Project into two stages.
Opportunities	Threats
 Developer can obtain refund of up to 50% of the invested amount in compliance with the Macedonian investment promotion act. Ability to diversification of the energy 	 The continued political and administrative support of local municipality is uncertain. On the other hand, its continuation and deepening are undesirable.
• Ability to diversification of the energy.	



4. ORGANIZATIONAL AND MANAGEMENT PLAN

🗲 Legal Form

East Ekectric Company Ltd. is/will be newly established limited liability Project Company. It is borrower, purchaser of equipment and materials, principal and coordinator of all participants, and seller of the **Products**.

Personnel policy

The results of the feasibility study show the requirements for 0.1 ha 2 workers; in this case after construction and commissioning of the greenhouse complex the production staff will be 3 employs, and with the administration the total number will be 10. Including:

TomCuc Ltd. – 5 adminiastrators –CEO, Chair of the Managing Board, and experts.

TomCuc HH Ltd. – 13 administrators - **Dragan Petrushevij**, CEO of greenhouse; technicans, Accountant security and 91 production staff.

The staff is highly qualified; part of all company employees have higher education; each worker is past three months training together with experts from the supplier and established market our teachers with specialization in the field of agriculture. Year-round and long-term maintenance of permanent staff. The enterprise

Project Company TomCuC, Ltd.		STAFF	- Start S	Galarie	S.	
PERSONNEL, Position		€ p.Mo	p.ann	€ p.Mo		0 Months
		Base		+Bonus		
ADMINISTRATION	1.5	salary		(condition	al)	
1 CEO	0.5	€1000	€0	100	€ 500	€0
2 Expert risk management	0.5	600	0	75	0	0
3 Expert financial control	0.5	600	0	50	0	0
TomCuC Ltd., TOTAL	1.5		€0			<u>€0</u>
Project Company TomCuC HH, Ltd.		STAFF	- Start S	Galarie	S	
PERSONNEL, Position	Nr	€ p.Mo	p.ann	€p	.Mo	12 Months
		Base	Fixed	+Bonus	TOTAL	
ASMINISTRATION	6	salary	salary	(condition	al)	
1 CEO - Manager	1	€ 900	€ 10 800	300	€1200	€ 14 400
2 Senior level technicans	2	800	19 200	200	1 000	24 000
3 Mid-level tehnicans	2	400	9 600	100	500	12 000
4 Accountant	1	500	6 000	50	550	6 600
SERVICE STAFF	5					
5 Truckers	1	500	6 000	50	550	6 600
6 Security	4	400	<u>19 200</u>	0	400	<u>19 200</u>
SubTOTAL	11		€ 70 800			€ 82 800
90 PRODUCTION STAFF	90					
7 Payroll staff, p Mo	90	€ 400	€ 432 000	100	500	540 000
Social Security (averaged)			75 600		17.5%	94 500
SubTOTAL			€ 507 600			<u>€ 634 500</u>
TomCuC HH, Ltd., TOTAL	103					<u>€ 622 800</u>
Social Security (averaged)					17.5%	€ 14 490
TOTAL						€ 637 290
IUIAL						

can train personnel Agricultural University of City of Plovdiv during the summer months.



 $(\uparrow go back to page 15)$

- ² Certificate of Incorporation of EEC [€] ☑ (UIC: 113570001)
- ³ Deed of Assignment 🔁
- 4 Lease of land 🔁
- ⁵ Functional Model of Capital-budgeting—Cash-flow Pro-forma and Analyzes
- ⁶ Risk Assessment and Management, Demo version
- 7 Handbook Manual for operation with Risk Assessment 🗐
- 8 _____, Personal profile 🖻
- 9 Professional Service Agreement 1
- ¹⁰ Website presentation of both, US and Bulgarian East Electrical Companies **Q**
- ¹¹ Feasibility Study of greenhouse production in Bulgaria & markets in the region **D**

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