

Investment Memorandum

January-2024



A \$150M investment opportunity for the development of a 100MW Kinetic Power Plant in Kurdistan.



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Project Overview

Executive Summary

Deep Engineering are proposing the development of a 100MW Kinetic Power Plant on a 50,000 sqm site in Soran, Erbil Province, Iraq. The project aims to deliver reliable and clean energy through utilizing the Kinetic Power plant (KPP) technology.

KPP is relatively a new technology and is patented for Rosch Innovations, a German company. Currently, two demo units (100KW and 500KW) have been operational for more than 2 years in the company production facility in Thailand. KPP technology generates electricity by capitalizing on buoyancy and gravitational forces. The technology is clean and sustainable, with zero emissions and minimal noise production.

The project consists of several components, including the construction of ten warehouses designed to house the KPP machinery and equipment, a substation to facilitate the distribution of generated electricity, and 280 underground casings that provide structural support and protection for the system. Additionally, the project involves the installation of a variety of mechanical and electrical components to optimize performance and efficiency.

The Engineering and Procurement (for the items related to the core technology) part of the project will be handled by the Rosch Innovations, while the construction part (civil Work, steel structure, steel work, etc) will be handled by the local sub-contractors under the supervision of HTL GmbH Site Engineers. An additional security through the feasibility study of the HTL, which is liable for their statements and has liability insurance in an amount corresponding to the project.

Future outlook:

The Project is distributed on four locations in Kurdistan Region of Iraq:

- Zakho – 100MW
- Soran – 100MW
- Raparin – 50MW
- Garmian – 50MW

The total capacity of the Project is a 300MW of Renewable energy power plant utilizing the Kinetic Power plant (KPP) technology. Deep Engineering will begin with developing a 100MW KPP in the Soran region.

Key Metrics:	Value
Total Capacity	100 MW
Total MWh produced per year	876,000 MWh
Turnkey Cost	\$150,000,000
Operating expenses per MWh	\$7/MWh
Selling price per MWh	\$50/MWh
Profit per MWh	\$43/MWh
Investment Horizon	15 years
Discount Rate	5%

Key Metrics:	Value
Annual Revenue	\$43,800,000
Annual Operating Expenses	\$6,132,000
Net Cash Flows	\$37,668,000
Total Net Profit (15 years)	\$565,020,000
Total Investment	\$150,000,000
Return on Investment (ROI)	376.68%
Internal Rate of Return (IRR)	25.49%
Net Present Value (NPV)	\$248,123,886
Payback Period	4 years

Funding Requirement

Deep Engineering Company is seeking **\$150,000,000 USD** for the development of their 100MW Kinetic Power Plant (KPP) project situated in Soran, Kurdistan.

The funding allocation includes Engineering and Construction, Equipment Procurement, Contingency, Project Management, and Miscellaneous expenses.

The anticipated cost of installed capacity per MW is \$1.5M USD, and the project aims to establish a 100MW Kinetic Power Plant.

The revenue will be generated through the sale of power per kilowatt-hour (KWh), with the assumed selling price per unit KWh over 15 years set at \$0.050 USD. The project anticipates selling 788,400,000 units annually, resulting in a total of 11,826,000,000 units over the 15-year period and generating a cumulative revenue of \$591,300,000.

The loan will be repaid over a period of 15 years.

Presently, Deep Engineering has contributed over \$10 million USD to date for the project.

Activities	Funding amount (\$)
Starting Project expenses	\$ 3,771,833
Site Preparation	\$ 3,650,000
Technical feasibility study	\$ 1,012,000
Drilling Piles with 140 piles	\$ 1,400,000
Core equipment for the KPP (300MW)	\$ 94,750,667
Steel casing and steel works and installation	\$ 11,200,000
Drilling of water well, and installation of water network	\$ 250,000
Steel structure for the building	\$ 3,230,000
Concrete and raft foundation (990,000m3)	\$ 5,100,000
Sandwich panel, aluminum and glass installation	\$ 2,964,260
Finishing work inside the building	\$ 831,240
installation of the underground cabling	\$ 4,000,000
Electromechanically works	\$ 1,340,000
Connection to the main grid	\$ 250,000
Electric power substations	\$ 15,000,000
Landscape work	\$ 1,050,000
office preparations, plumbing and electromechanical work	\$ 200,000
	\$ 150,000,000

Key Investment Highlights

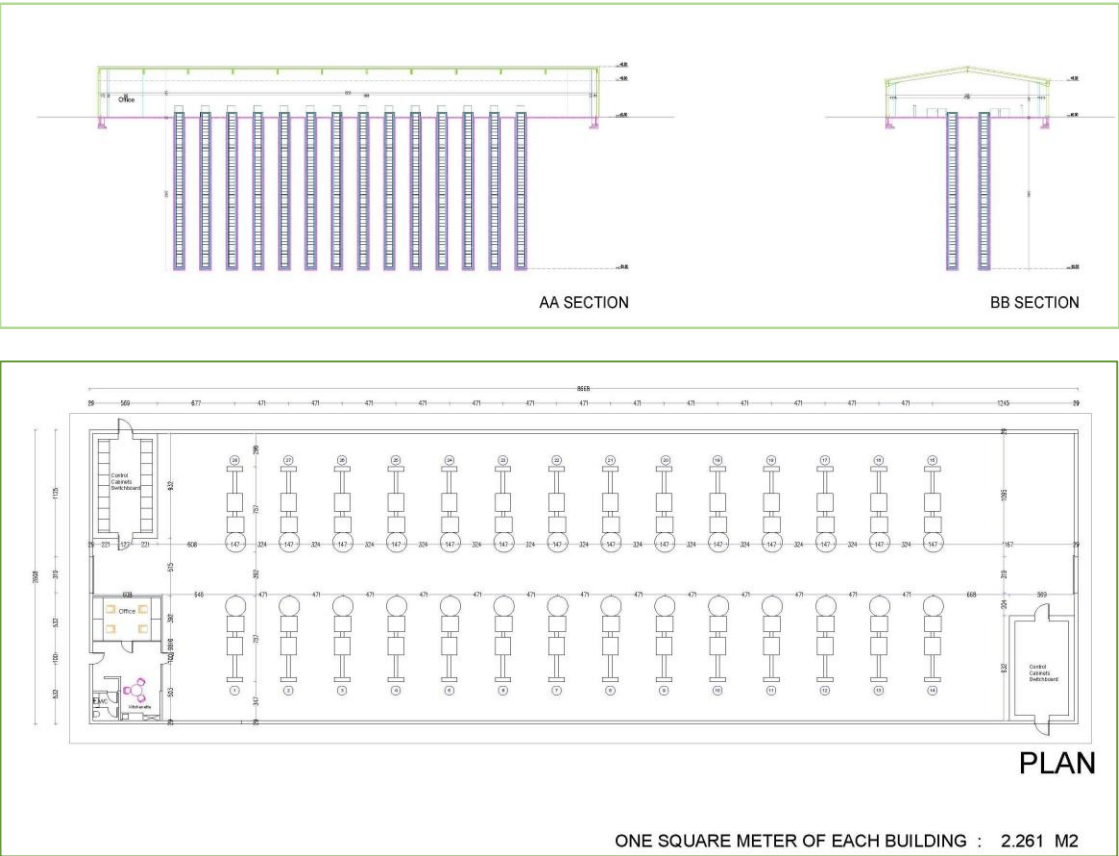
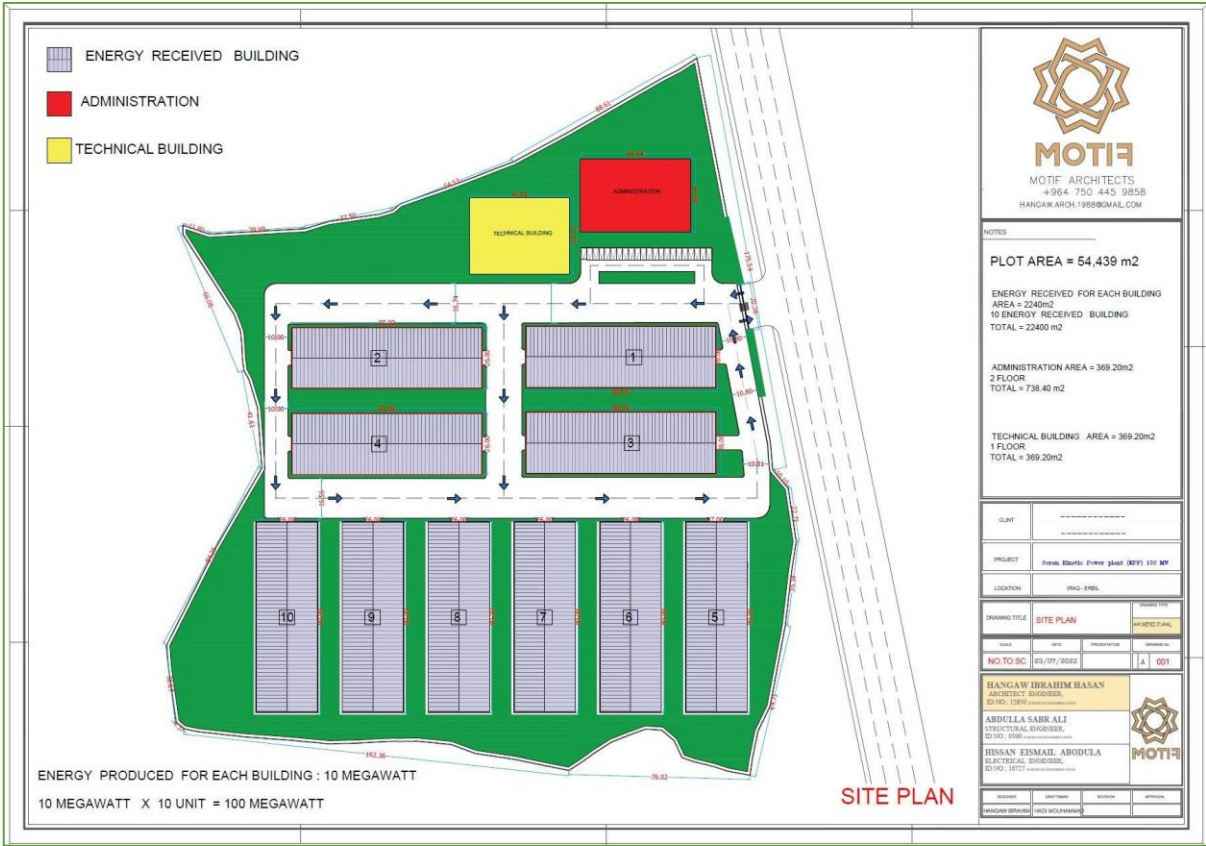
- Signed a power purchase agreement (PPA) with the Ministry of electricity – 5 cent per KWh. Which mean 50 USD per MW/hr.
- Power plant property, plot number: 455876/48 and 405977/51 – Soran, Kurdistan Region – market value estimated at \$4,000,000 USD in May 2022
- Soil Test for two of the power plants (Soran and Raparin) is ongoing.
- License for 300MW is already obtained. The license is for 4 separate power plants distributed in 4 major cities in Kurdistan Region of Iraq.
- Deep Engineering (DE) have contributed \$10,400,000 USD to date towards the project. The breakdown can be seen on the right.
- SGS technical Inspection has been done on the operational unit in Thailand, with a report provided
- An Initial Feasibility study has been done for the power plant. The final technical study will be done by a German consultancy firm “HTL GmbH” nominated by Rosch Innovations.
- All governmental permits are done
- Environmental Impact Assessment (EIA) report has been prepared to identify and assess the potential environmental impacts associated with the Soran 100 MW Renewable Energy Project.
- Deep Engineering have the right to use the land for the 100 MW KPP Power Plant Project throughout the entire duration of the PPA (Power Purchase Agreement) contract. The land ownership will be transferred to the project without any cost, in accordance with the investment laws of the Kurdistan Regional Government of Iraq.

Contribution to date	Amount	Companies:
Soil test, investigation and site Preparation	650,000 USD	Andrea Engineering test laboratory and AL Bahadir Kul contracting company
Initial study, drawing and layout	750,000 USD	Motif Architects and Engineering design
Technology Licenses	5,000,000 USD	Rosch Innovation
All governmental permits and securities	2,500,000 USD	Logistics, consultancy, legal services, administrative fees and PR
Business plan and all other studies	500,000 USD	Primo Consultancy – Jordan
Performance bond	1,000,000 USD	Local bank
Total contribution	10,400,000 USD	

Project Plannings



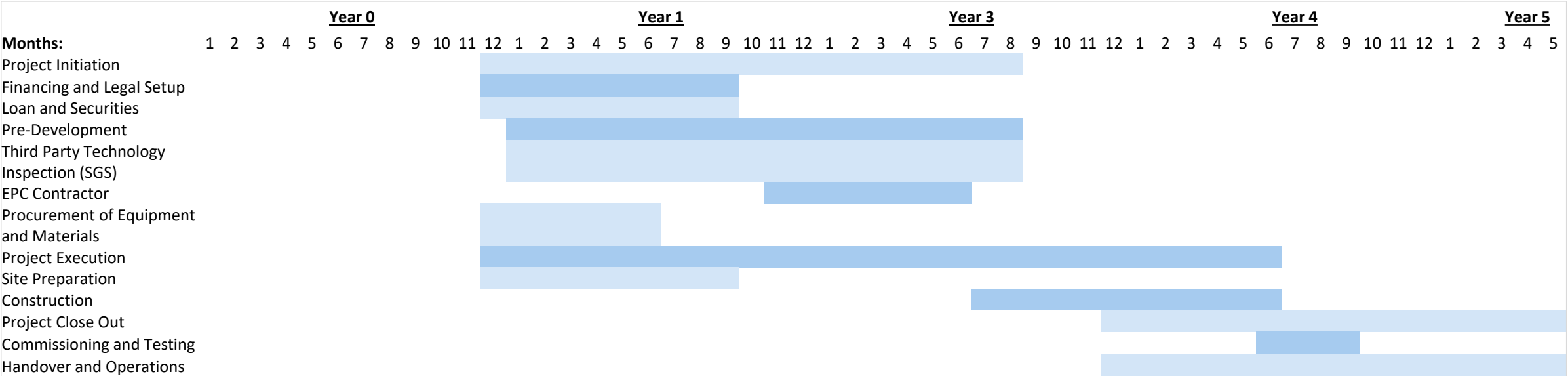
Project Plannings



Project Timeline

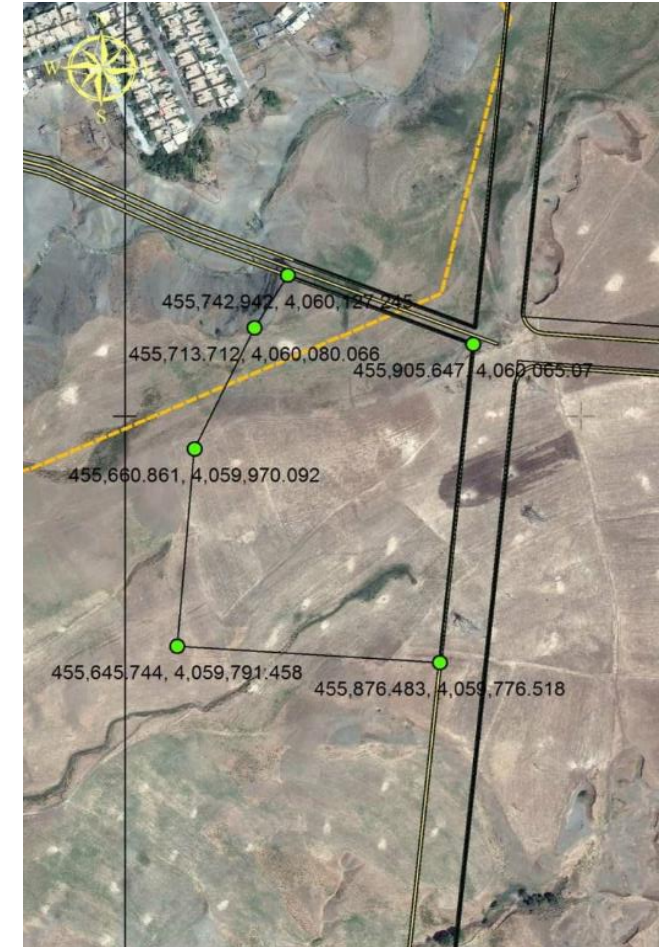
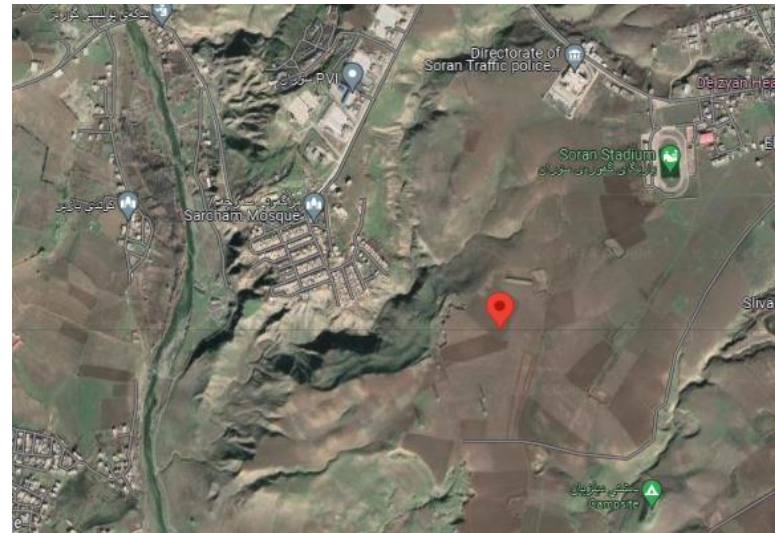
The Soran 100 MW Renewable Energy Project is expected to take 3 years and 5 months (1267 days) in total to be fully set up and running, with a subsequent 15-year operational phase. Throughout the project's lifecycle, continuous monitoring and maintenance will be conducted to ensure optimal functionality and adherence to environmental standards.

The timeline below highlights the core activities for completion, this includes the financing and legal setup, the site preparation, construction and testing.



Project Location

- The project is located on a 50,000 sqm site in Soran district 110km North-East of Erbil City. The project involves the construction and operation of a 100 MW renewable energy facility.
 - Strategic placement of four power plant locations near the substation for cost-efficient cabling and towers
 - Easily accessible from the city, within 1 KM from the main road
 - Scalable project lands allowing for future expansions
 - Minimal civil work preparations required for KPP implementation
 - Facility designed to modern standards, emphasizing environmental sustainability and maximizing green areas
 - Land allocated with numbers 48.455876 and 51.4059776
 - Proximity to the national grid, 500 meters away at 132KV
 - GPS Coordinates: 455,742.942, 4,060,127.245
-
- Soran, located in the Erbil Province of Kurdistan, Iraq, experiences a semi-arid climate characterized by hot, dry summers and mild, wet winters. The average annual temperature in the region is around 18°C (64°F), with temperature extremes ranging from 0°C (32°F) in winter to 40°C (104°F) in summer.
-
- Soran is situated in the triangular area between Iran, Iraq and Turkey. Several major mountain ranges surround the area, including the mountains of Hendrin, Zozik, Hassen Bak, Bradust and Korek. The area has two main rivers, one that flows to Haji Umran on the Iranian border, and another that follows the path to the Mergasor region.



Google maps coordinates: 36°41'09.9"N 44°30'34.2"E

Project Location



Project Location



KPP Overview

KPP System is a modular technology consisted of 500KW (0.5MW) Units, connected in series to reach the needed power capacity. The area needed for 1MW is less than 200sqm and a backup capacity of 40% is provided with the KPP, to insure stable power production.

Kinetic Power Plant (KPP®) technology is capable to be installed at any location in the world – as may be required – and to provide the required electrical energy without the use and consumption of fossil fuels. The result is 100 percent green, and thus clean energy.

In addition to the environmental benefits of Kinetic Power Plant (KPP®), there are also financial benefits:

- The power plants are modular scalable in size and are supplied from a power output of 5 MW upwards.
- The functionality is a complex control system combined with simple physical forces that set the container system in permanent rotation using pneumatic filling.
- The buoyant force is converted into kinetic energy via a gear system driving a generator, which converts the equalized energy into usable electric current.

Why KPP?



Scalable power

The capacity you need, totally dispatchable, with scope for required expansion whenever it is required from you.



Continues power

Continuous power Independent of weather conditions, with built-in redundancy to ensure 100% nameplate availability



Competitive power

At 25 €/MWh on a levelized cost basis (plant LCOE) with additional benefits in terms of grid balancing and reduced transmission costs



Clean power

No inputs (fuel, water, wind, sun...) or emissions (CO2, NOx, SOx), cost-effective alternatives to traditional fossil fuels.

1MW	KPP	Solar	Wind (not applicable in Iraq)
Efficiency	97%	20-25%	35-40%
1 year production (kWh)	8,500,000	2,190,000	3,500,000
1 year production (kWh) for 90MW	765,000,000	197,100,000	315,000,000
Space Required (SQM)	13,500	1,080,000	90,000 (Estimate)



20 YEAR
WARRANTY



SMOOTH AND
RELIABLE POWER



NO EMISSION



LESS COST



NO FUEL



NO NOISE

Technology Overview

KPP System is a modular technology consisted of 500KW (0.5MW) Units, connected in series to reach the needed power capacity. The area need for 1MW is less then 200sqm and a backup capacity of 40% is provided with the KPP, to insure stable power production

TECHNOLOGY PROCESS:

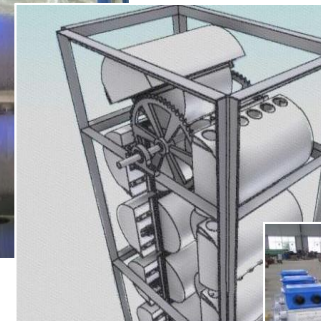
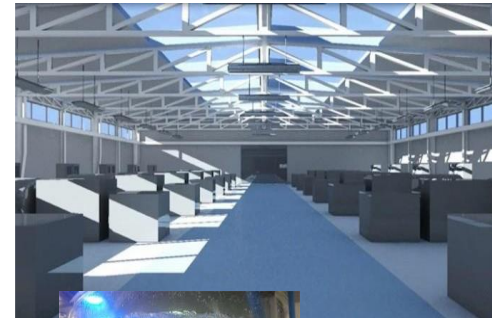
In the water-filled tube, 102 steel containers (Floaters) run on a revolving chains forming a two parallel set of floaters on both sides, where the floaters are pushing down from one side and pushing up on the opposite side .

These floaters are filled with compressed air at the lower deviation point and, as a result, generate a buoyancy force. At the upper deviation point, the air is displaced from the floaters by inflowing water, so that the rising floaters are filled with air and the descending containers are filled with water.

The air-filled containers each generate a buoyant force which is transferred in total via the chains to an overhead drive shaft. This drive shaft, via a gear box, drives a generator (Low speed permanent magnet generator) with a speed of 375 U/min.

The compressed air is generated by a compressor, with an air container of 300 ltr. And fed to the buoyancy floaters via a pressure reducing valve with a speed synchronized valve technology.

The compressor runs on the power generated by the generator. Where a nominal capacity of the produced electric power is used to compress air for operating the system and the remaining capacity will be feed to the grid via a switchbox.



WTLab
World Testing Lab

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Test report n° SFY01 14WC031002

Customer **ROSCH Innovations**

Product under test

Type - Model

The above described product

Tribano, 20/12/2014

The **Kinetic Power Plant (KPP)** is an invention by Rosch Innovations. The special Power Plant construction is completely unique worldwide. TÜV – approved.

The power plant is working due to the principle of Archimedis (lifting force) and generates green and zero- emission energy without the need of external fossil burnings.

The **Rosch-Kinetic-Power-Plants** are scalable in its size (energy output), offered in different modules up from 5 MW and they are distributed via licensees.

Technology Overview

The principle of this new innovative technology based on an everywhere available nature power:

GRAVITY

The Power Plant operates with its resulting force, already defined before 2200 years by Archimedes:

LIFTING FORCE

We use this Lifting Force by pressing compressed air into a lifting body, which rises up in a water filled tank. A generator is working as a brake to keep the speed of the lifting bodies under control.

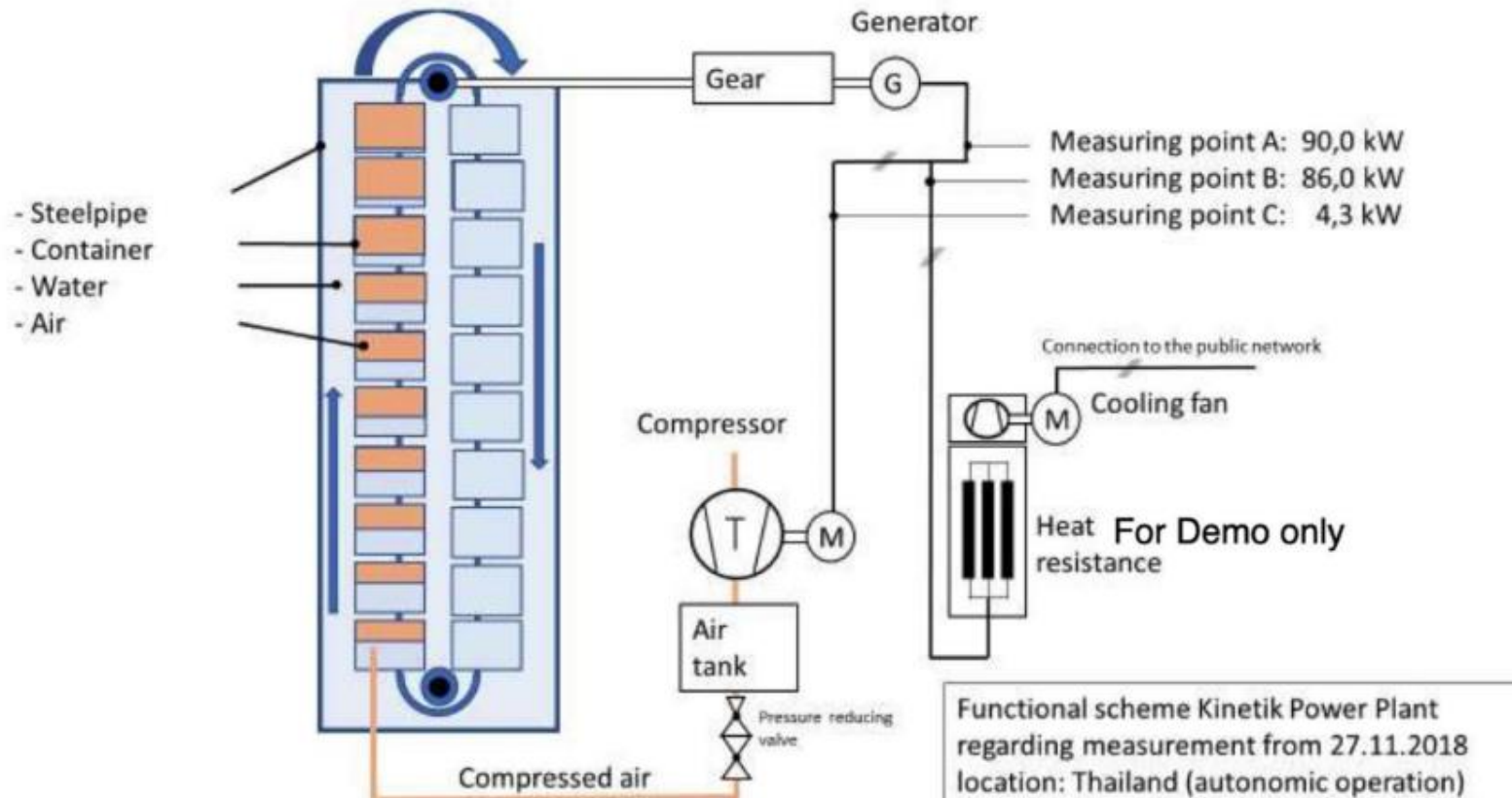
Technology Parameters

530 KW, 400 V, 50HZ, 375 RPM

No.	Parameter	Units	Data
1	Rated output power	kW	530
2	Rated speed	rpm	375
3	Rated output voltage	V AC	400
4	Rated current	A	765
5	Phase-phase resistance		0 0,0059@120 ° C 0,0043@20 ° C
6	Output wire square section	mm ²	38X(p1,3
7	Efficiency at rated speed		95,2 %
8	Winding type		Y
9	Insulation resistance	MΩ	> 20
10	Voltage withstand	mA	< 160
11	Insulation		H class
12	Start torque	Nm	190
13	Temperature rise	° C	90
14	max. working temperature	° C	130
15	Generator diameter	mm	800
16	Shaft diameter	mm	138
17	Housing material		Casted iron
18	Shaft material		Steel
19	Bearing		SKF
20	Weight	kg	4,700
21	Designed lifetime	Years	20

Technology Overview

Setup



Company Overview

Company Overview

Established in 2019, Deep Engineering is a management consulting firm headquartered in Erbil, Iraq. The firm services include kinetic power plant, oil and gas services, and business consultancy services which include project consultancy service, financial analysis, due diligence, finance consultancy, risk management, and accounting services.

Deep Engineering maintains operational offices in two strategic locations in Iraq: Erbil and Baghdad. These offices serve as the central hubs for our diverse range of projects and operations in the region.

Scope of Business: Deep Engineering holds the exclusive license for selling and promoting the Kinetic Power Plant (KPP) in Iraq. Their expertise extends to:

- Renewable energy project development, with a significant pipeline of potential projects exceeding 3GW in Iraq and an additional 500MW in the Middle East region.
- Ownership of 80% of a cement factory in Sulaymaniyah, currently under construction, with a production capacity of 6,000 TPD. By using KPP as the power source we will reduce production cost by 15 to 20% be produced ton of cement.
- Investments in a printing house, owning a 50% stake, and a separate renewable energy development company, also with a 50% ownership.

Assets: Deep Engineering boasts assets valued at over 500 million USD. This includes:

- Land allocated for the power plant site.
- Cement factory site land.
- Raw materials present in the cement factory quarry.

Soran Project: The Soran 100 MW Renewable Energy Project is owned by Deep Engineering, who also act as the Licensee partner of Rosch Innovations (providing onsite supervision and consultancy). The project land ownership will be officially delivered to the project owner upon completion of the project, against paying the ownership transfer fees (nominal amount).

Company Name	Deep Engineering for General Trading and Technology Ltd.
Company Number	27353
Location	Justice Tower 14-20, Mosul Road 44001- Erbil, Iraq
Business Nature	(General Trading & Technology/Limited)
Turnover 2021	5 million USD
Shareholders	Khalid Nouri Othman - 34% Ranj Sherko Ali - 33% Nizar Atif Al-debss - 33%



Previous Developments

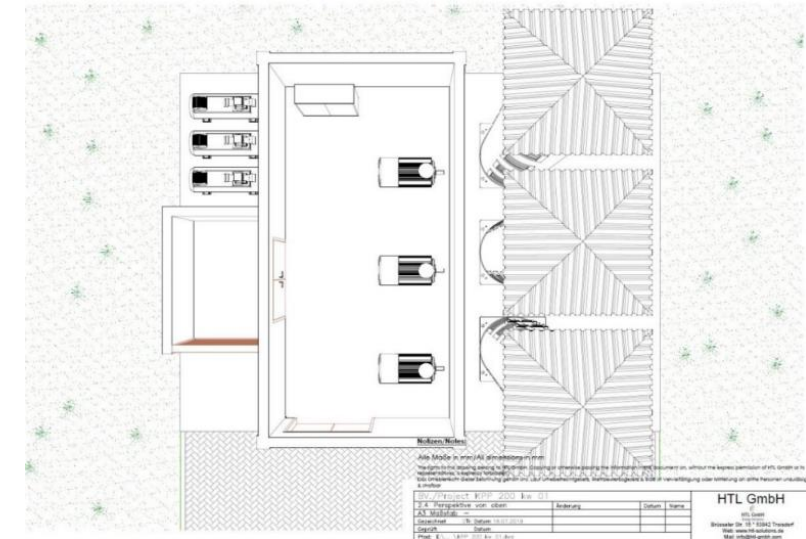
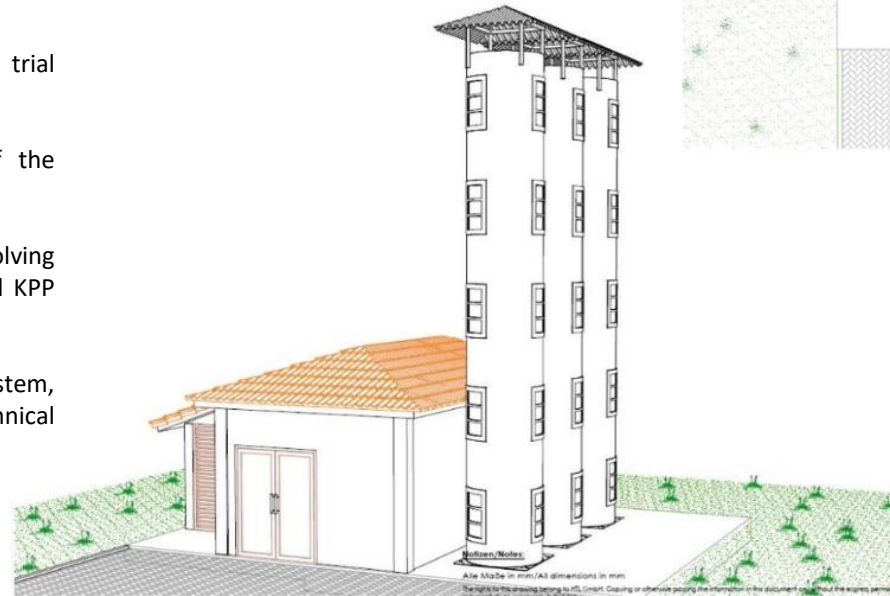
Deep Engineering previous developments to date

Project Name	Amount	Status
Erbil international Airport Taxi and transportation services for 7 year	26,000,000 USD	Completed
SAP Partner	5,000,000	We did more than 15 implementation but now we stopped this service
Oil and Gas supply	10,000,000 USD	
Developing cement plant with capacity of 6000 TPD	250,000,000 USD	In construction stage and concluding banking process with EPC contractor
Technology Distribution and Xiaomi distributor in Iraq	200,000,000 USD revenue per Year	On going
KRG City Taxi – like RTA in Dubai	30,000,000 USD	Implementation will start soon and all development and governmental license done
DECO jointly with MCT	100,000,000 USD	Constructing residential towers and business tower and already part done and part under construction

Demo Unit

100 kWh KPP Demo Unit in Thailand details:

- Annual maintenance for the Kinetic Power Plant (KPP) is conducted per MW, with a 24-month guarantee period and an annual cost of €50,000.
- The KPP 100 MW module includes various components such as metal tubes, power generators, cabinets, gear units, compressors, air control systems, pressure air tanks, and lift units.
- Electrical data: Nominal output of 530 kVA, air cooling, motor/generator management with remote monitoring, and a large display for operator guidance.
- Redundancy: 40% redundancy is installed for continuous rated power delivery.
- Installation and commissioning services are optional and cover construction, trial operation, operator instruction, handover, and joint commissioning.
- Planning and coordination services are offered at a calculated percentage of the component-part-price.
- A power requirements structure analysis is available as an additional service, involving facility exploration, load profile review, and determination of the most economical KPP size.
- Note: The basic service excludes components like the energy transport system, transformer stations, connections to the public utility grid, and other non-technical elements



Executive Team



Khalid Nouri Othman - 34%

Khalid Nuree Othman, armed with a Business Administration degree, Kurdistan Students Union before diving into marketing at HRB Group. His entrepreneurial journey with IT LOBBY reshaped Iraq's tech scene, securing partnerships with tech giants like Lenovo, Logitech, Apple, OPPO, Xiaomi, and OnePlus. Under his leadership, IT LOBBY earned the Golden Distributor of Xiaomi in the Middle East, showcasing Khalid's prowess in brand expansion. His recent focus on OnePlus highlights his ongoing commitment to advancing Iraq's tech landscape.



Ranj Sherko Ali - 33%

Ranj Sherko Ali, a Kurdish professional, holds degrees in Geology and Petroleum Engineering. His extensive career spans roles with DNO and KAR Group in geological engineering, production, and project supervision in the oil industry. He later ventured into entrepreneurship, establishing businesses in chemical product manufacturing and trading. As a refinery and operations manager at Erbil Refinery, Ranj led operations before founding an energy company collaborating on renewable energy projects with a German firm. His diverse skill set includes expertise in oil refining, instrumentation, valve systems, fire safety, and continuous learning through extensive training in petroleum engineering.



Nizar Atif Al-Debss - 33%

Nizar Debss, a seasoned Regional Sales Manager in computer and network security, holds a BS in Computer Science. With roles spanning TresW.Net and WorldNet s.a.l., he excelled in account management, contract negotiation, and devising marketing strategies. Currently the Managing Partner at Deep Engineer Company, Nizar drives renewable energy projects in Iraq, showcasing his expertise in business development and sales strategy. His extensive experience and educational background reflect a professional adept at steering growth and fostering business opportunities in the industry.

Rosch Innovations

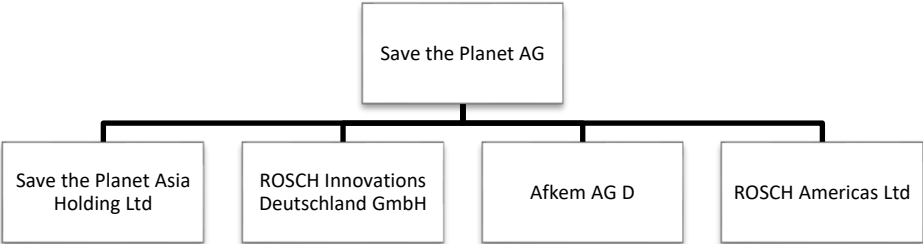
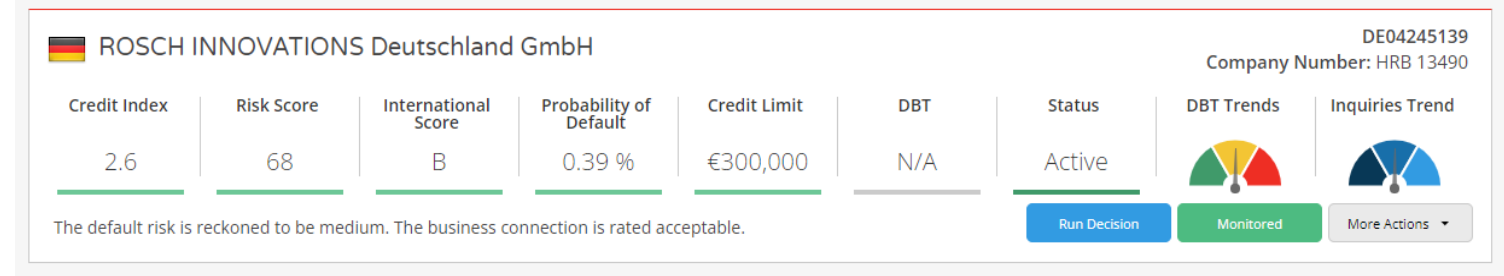
Rosch Innovations are a developer and distributor of sustainable energy solutions, including electric vehicles, eBikes, and motorbikes. The entity's objective is to promote environmentally friendly and economically sustainable energy production and consumption. Their flagship product is the Kinetic Power Plant (KPP®), which harnesses the power of air currents to generate electricity. The entity operates in multiple countries, and they have a holding company based in Switzerland named Save the Planet AG.

Save the Planet AG is a publicly listed company specializing in patent development and commercialization. They are headquartered in Switzerland and registered in Thurgau under CHE 315.132.758.

The timeline is as follows:

- Establishment of ROSCH Energy AG: 2011
- Rebranded as "Save the Planet AG": 2013
- Establishment of ROSCH Innovations Deutschland GmbH: 2012
- Inception of ROSCH Innovations GmbH: 2013
- Launch of ROSCH Innovations AfrAsia GmbH: 2013
- Creation of ROSCH LatAm/Americas: 2015
- Formation of Save the Planet Asia Holding Thailand: 2017
- Subsidiary Companies Established: 2019
- Acquisition of Afkem AG: 2018

Company Name	Rosch Innovations Deutschland GmbH
Company Number	HRB 13490
Address	Brüsseler Straße 15, 53842 Troisdorf



Rosch Innovations

- ROSCH Innovations operates two demo KPP units, 100KW and 500KW, which have been operational for over two years at their company production facility in Thailand.
 - The official address is: KPP project Ltd., 211/12 Moo 6, 20250 Bangsaray, Sattahip, Chonburi, Thailand.
 - GPS coordinates: 12.7408820, 100.9261680
 - Their Investors Centre is situated in Chonburi
- Rosch Innovations KPP Variants:**

Rosch Innovations KPP Variants:

Overall performance	200 kilowatts
Power plant type	Buoyancy power plant
rated capacity	200kW
Performance per move	100kW
Number of power station trains	3
Number of generators	3
Number of compressors	3
Usable energy per year	1,752,000 kWh

Overall performance	40 megawatts
Power plant type	Buoyancy power plant
rated capacity	40MW
Performance per move	500kW
Number of power station trains	80 + 32
Number of generators	112
Usable energy per year	350,400,000 kWh

Overall performance	5 megawatts
Power plant type	Buoyancy power plant
rated capacity	5MW
Performance per move	500kW
Number of power station trains	10 + 4 (redundancy)
Number of generators	14
Number of compressors	14
Usable energy per year	43,800,000 kWh

Overall performance	100 megawatts
Power plant type	Buoyancy power plant
rated capacity	100MW
Performance per move	500kW
Number of power station trains	200 + 80
Number of generators	280
Usable energy per year	876,000,000 kWh

Inventors Center Asia (Chonburi)



Financial Overview

Financial Assumptions

Particulars	Amount (USD)
Equity	0
Debt	150,000,000
Total Investment (Project cost)	<u>150,000,000</u>
Cost of installed capacity per MW	1,500,000
Selling price per Unit Kwh up to 15 years	0.050
Levelized cost of 15 years	0.00687
Cost of Production	0.00628
Operation & Maintenance	0.00041
Interest	6.00%
Weighted Average Depreciation Rate	4.00%
After 13 years onward Depreciation Rate	4.00%
Total Unit sold per year	<u>788,400,000</u>
Total Unit sold up to 15 years	<u>11,826,000,000</u>
Total Selling over the period of 15 years @ 0.05 US\$ per Unit	591,300,000
EBT over the period of 15 years	<u>512,190,000</u>

Particulars	Amount USD
COST PER MEGAWATT IS	USD 1,500,000
COST OF PROJECT FOR 300 MW INSTALLED CAPACITY	100
Land Acquisition	USD 0
Plant and Machinery	USD 105,000,000
Working Capital	USD 45,000,000
Insurance cost	USD 0
Interest During Construction	USD 0
Total	USD 150,000,000

Projected – Yearly Profit & Loss

P&L (in USD)/ Years	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
No of Units of sold (Unit KWh)	788.4 M	788.4 M	788.4 M	788.4 M	788.4 M	788.4 M	788.4 M	788.4 M	788.4 M	788.4 M	788.4 M	788.4 M	788.4 M	788.4 M	788.4 M
Price per Unit (USD/Unit)	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Total Revenues	39.4 M	39.4 M	39.4 M	39.4 M	39.4 M	39.4 M	39.4 M	39.4 M	39.4 M	39.4 M	39.4 M	39.4 M	39.4 M	39.4 M	39.4 M
Cost of Production per Unit (KWh)	5.0 M	5.0 M	5.0 M	5.0 M	5.0 M	5.0 M	5.0 M	5.0 M	5.0 M	5.0 M	5.0 M	5.0 M	5.0 M	5.0 M	5.0 M
Operation & Maintenance	0.3 M	0.3 M	0.4 M	0.4 M	0.4 M	0.4 M	0.4 M	0.5 M	0.5 M	0.5 M	0.5 M	0.6 M	0.6 M	0.6 M	0.6 M
Total Costs	5.3 M	5.3 M	5.3 M	5.3 M	5.3 M	5.4 M	5.4 M	5.4 M	5.4 M	5.5 M	5.5 M	5.5 M	5.5 M	5.6 M	5.6 M
EBITDA (Profit)	34.1 M	34.1 M	34.1 M	34.1 M	34.1 M	34.1 M	34.0 M	34.0 M	34.0 M	34.0 M	33.9 M	33.9 M	33.9 M	33.9 M	33.8 M
Depreciation	6.0 M	5.8 M	5.5 M	5.3 M	5.1 M	4.9 M	4.7 M	4.5 M	4.3 M	4.2 M	4.0 M	3.8 M	3.7 M	1.8 M	1.7 M
Interest	9.0 M	8.1 M	7.2 M	6.3 M	5.4 M	4.5 M	3.6 M	2.7 M	1.8 M	0.9 M	0.0 M	0.0 M	0.0 M	0.0 M	0.9 M
EBT	19.1 M	20.3 M	21.4 M	22.5 M	23.6 M	24.7 M	25.7 M	26.8 M	27.9 M	28.9 M	30.0 M	30.1 M	30.2 M	32.1 M	31.2 M
Tax	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5 M	4.5 M	4.5 M	4.8 M	4.7 M
PAT (net Profit)	19.1 M	20.3 M	21.4 M	22.5 M	23.6 M	24.7 M	25.7 M	26.8 M	27.9 M	28.9 M	25.5 M	25.6 M	25.7 M	27.3 M	26.5 M
Return On Debt (%)	12.76%	13.51%	14.26%	14.99%	15.72%	16.44%	17.16%	17.87%	18.58%	19.27%	19.97%	20.06%	20.14%	21.40%	20.80%

Debt Service Coverage Ratio	10.12
EBITDA (15 years)	510,058,545 USD
Total interest	50,400,000 USD

Projected – Yearly Cashflow Statement

Cash flow Statement/ Years	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Equity	0.0 M														
Debt	150.0 M														
PAT	19.1 M	20.3 M	21.4 M	22.5 M	23.6 M	24.7 M	25.7 M	26.8 M	27.9 M	28.9 M	25.5 M	25.6 M	25.7 M	27.3 M	26.5 M
Depreciation	6.0 M	5.8 M	5.5 M	5.3 M	5.1 M	4.9 M	4.7 M	4.5 M	4.3 M	4.2 M	4.0 M	3.8 M	3.7 M	1.8 M	1.7 M
Total Cash Inflow	175.1 M	26.0 M	26.9 M	27.8 M	28.7 M	29.6 M	30.4 M	31.3 M	32.2 M	33.1 M	29.4 M	29.4 M	29.4 M	29.0 M	28.2 M
Land Acquisition	0.0 M														
Plant & Machinery	150.0 M														
Loan Repayment	15.0 M	15.0 M	15.0 M	15.0 M	15.0 M	15.0 M	15.0 M	15.0 M	15.0 M	15.0 M	0.0 M	0.0 M	0.0 M	0.0 M	0.0 M
Total Cash Outflow	165.0 M	15.0 M	15.0 M	15.0 M	15.0 M	15.0 M	15.0 M	15.0 M	15.0 M	15.0 M	0.0 M	0.0 M	0.0 M	0.0 M	0.0 M
Opening Cash	0.0 M	10.1 M	21.2 M	33.1 M	45.9 M	59.6 M	74.1 M	89.6 M	105.9 M	123.1 M	141.1 M	170.6 M	200.0 M	229.3 M	258.4 M
Net Cashflow	10.1 M	11.0 M	11.9 M	12.8 M	13.7 M	14.6 M	15.4 M	16.3 M	17.2 M	18.1 M	29.4 M	29.4 M	29.4 M	29.0 M	28.2 M
Closing Cash	10.1 M	21.2 M	33.1 M	45.9 M	59.6 M	74.1 M	89.6 M	105.9 M	123.1 M	141.1 M	170.6 M	200.0 M	229.3 M	258.4 M	286.6 M

Projected – Yearly Balance Sheet

Balance Sheet	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Fixed Assets	150.0 M	150.0 M	150.0 M	150.0 M	150.0 M	150.0 M	150.0 M	150.0 M	150.0 M	150.0 M	150.0 M	150.0 M	150.0 M	150.0 M	150.0 M
Depreciation	6.0 M	11.8 M	17.3 M	22.6 M	27.7 M	32.6 M	37.3 M	41.8 M	46.1 M	50.3 M	54.3 M	58.1 M	61.8 M	63.5 M	65.3 M
Net Block	144.0 M	138.2 M	132.7 M	127.4 M	122.3 M	117.4 M	112.7 M	108.2 M	103.9 M	99.7 M	95.7 M	91.9 M	88.2 M	86.5 M	84.7 M
Cash Balance	10.1 M	21.2 M	33.1 M	45.9 M	59.6 M	74.1 M	89.6 M	105.9 M	123.1 M	141.1 M	170.6 M	200.0 M	229.3 M	258.4 M	286.6 M
<u>Total Assets</u>	<u>154.1 M</u>	<u>159.4 M</u>	<u>165.8 M</u>	<u>173.3 M</u>	<u>181.9 M</u>	<u>191.5 M</u>	<u>202.3 M</u>	<u>214.1 M</u>	<u>226.9 M</u>	<u>240.8 M</u>	<u>266.3 M</u>	<u>291.9 M</u>	<u>317.6 M</u>	<u>344.8 M</u>	<u>371.4 M</u>
Equity	0.0 M	0.0 M	0.0 M	0.0 M	0.0 M	0.0 M	0.0 M	0.0 M	0.0 M	0.0 M	0.0 M	0.0 M	0.0 M	0.0 M	0.0 M
Reserves	19.1 M	39.4 M	60.8 M	83.3 M	106.9 M	131.5 M	157.3 M	184.1 M	211.9 M	240.8 M	266.3 M	291.9 M	317.6 M	344.8 M	371.4 M
Loan	135.0 M	120.0 M	105.0 M	90.0 M	75.0 M	60.0 M	45.0 M	30.0 M	15.0 M	0.0 M	0.0 M	0.0 M	0.0 M	0.0 M	0.0 M
<u>Total Liabilities</u>	<u>154.1 M</u>	<u>159.4 M</u>	<u>165.8 M</u>	<u>173.3 M</u>	<u>181.9 M</u>	<u>191.5 M</u>	<u>202.3 M</u>	<u>214.1 M</u>	<u>226.9 M</u>	<u>240.8 M</u>	<u>266.3 M</u>	<u>291.9 M</u>	<u>317.6 M</u>	<u>344.8 M</u>	<u>371.4 M</u>

Market Overview

Market Overview

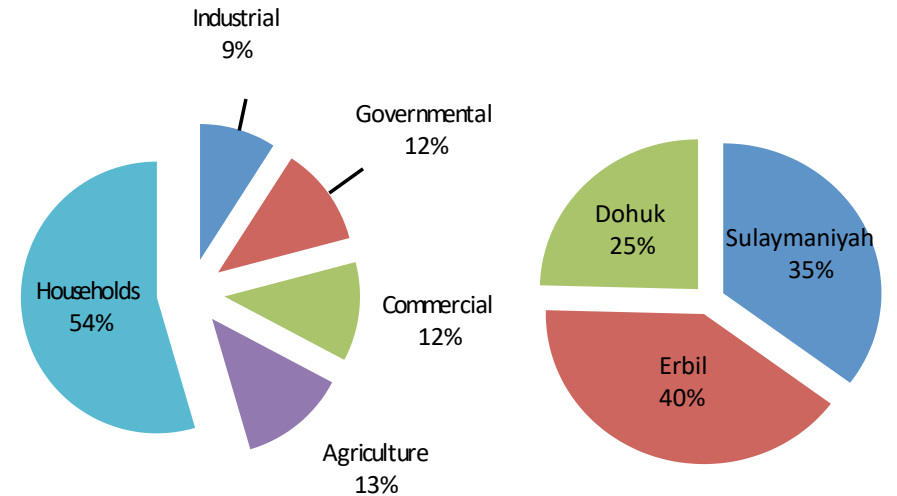
REGIONAL FACTS

- Iraqi Kurdistan Region is located in the northern part of Iraq with an area of around 40,643 KM Square, with a population of around 5.2 Million.
- Kurdistan is consisted of 4 governorates (Erbil, Sulaymaniyah, Duhok, and Halabja).
- The Region is geographically diverse, from hot and dry plains to cooler mountainous areas with natural springs and snowfall in the winter.
- The Kurdistan Region has international airports in Erbil and Sulaymaniyah, with direct flights to and from Europe and the Middle East. A new international airport is under construction in Duhok.
- Foreign visitors are warmly welcomed. Among the growing number of visitors are international media and businesspeople as well as those returning from the Kurdish Diaspora.

KURDISTAN REGIONAL GOVERNMENTS

- Access to electricity in Kurdistan region relatively fine compared to other parts of Iraq. however still majority of the electric power need is covered using private generators, but that can also be challenging during winter and summer extreme temperatures.
- Subsidized tariffs and high electricity losses are the most critical issues, contributing to the rapid growth of demand, and consequently to the need for rapid system expansion and investments.
- Currently, electricity is provided for a yearly average of 12 to 14 hours per day, and about 98% of households and enterprises are connected to the system. However, shortages still remain, mainly during the extreme winter and summer seasons, and electricity demand is growing rapidly, in part because of insignificant tariffs, and in part because almost half of generation results in losses (About 43% of electricity was lost due to high transmission, distribution, and non-technical losses - MOEL).

Electricity Supply by MoE - Generation Portfolio



Market Analysis

Other Kinetic Power Developments:

Montenegrin firm World Vision Corp (WVC)

Montenegrin firm World Vision Corp (WVC) intends to construct a 100 MW kinetic power plant in collaboration with China Rainbow International Investment (CRIIC), as reported by RTCG on November 11. The project is touted by WVC and CRIIC as the most cost-effective and environmentally friendly electricity generation method. "The production cost is under €0.03 per kW during the payback period, with a return on investment in slightly over five years," stated Sreten Djuretic, founder and co-owner of WVC, as cited by RTCG.

Hydrokinetic Power Generation – Gkinetic

Conventional hydropower production extracts potential energy from falling water. Irish startup Hydrokinetic have reimagined this concept with their GKinetic Device that creates power from water movements without building additional dams and structures. Their technology exploits the natural phenomena that occurs when fluid accelerates around and outside an obstacle and can be installed in rivers, oceans or estuaries. According to their website the device is scalable up to 1 MW and can be deployed in arrays to maximise power generation.

Kinetic Pavements by Pavegen

Kinetic pavements are a new and innovative alternative energy source that can generate electricity. This technology is making waves within the renewable energy community as it harnesses the power of footsteps to generate off-grid electricity, which is used to power nearby electrical appliances.

Electricity is generated whenever anyone steps on the pavement slab, and the energy is then used to power nearby lampposts, tube station lighting, and even USB charging points. One footstep typically generates 5 watts, meaning around 25 footsteps can charge the average mobile phone. Data is also collected so that power generated by passers-by's footsteps are best distributed to serve the local area. The company behind this exciting initiative is UK startup Pavegen who have sold the tiles to different cities around the world including Washington DC. The energy created from 10,000 people stepping on their tiles outside the White House was enough to power lights for about five hours. Current projects have been unveiled in locations as diverse as Hong Kong, Abu Dhabi, and the USA, and Pavegen has also unrolled the technology in some parts of the Transport for London network. The University of Birmingham's new high-tech recreational space is also set to feature a Pavegen walkway, generating electricity to power USB charging point benches.

Market Analysis

- KPP offers a steady baseline supply of green energy, free from emissions and toxic waste products.
- The system provides continuous power regardless of location and weather conditions.
- This technology is highly cost-efficient.
- The modules are scalable and can be customized to fit any demanded capacity.
- Ki-TECH Global offers modules ranging from 1 MW power generation to 5 MW industrial units.
- These units can be put together for even larger Power Plants.

Space required for standard modules:

- 1 MW module needs 300 Sq. meters
- 5 MW module needs 1500 Sq. meters

Why KPP Technology

- Generating high profit
- Producing electricity for around 0.7 US cents / kWh
- 100% ecological, no emissions of CO2 or NOx
- No fuel, Diesel, gas, sunshine or wind needed
- Very low running costs
- Perfect for countries without steady power grid
- Return of invest is feasible in a short time period
- Easy to expand

Description	Thermal Power Plant	Gas Power Plant	Thermal Power Plant	Solar Power Plant	Kinetic Power Plant
Fuel Type	Diesel	Gas	HFO	Battery	Buoyance and Gravitational Forces
Fuel Cost	\$150	\$73	\$40	Double the capacity is need to charge batteries for producing electricity over night Batteries replaced between 2 to 5 years	\$0.20
Operation Cost	\$38	\$17	\$27	\$10	\$1.00
Maintenance Cost	\$22	\$20	\$8	\$17.40	\$6.00
Warranty (year)	1	1	1	5to 20	25
Total	\$210	\$110	\$75	\$27.36	\$7.20
Remarks:					
Costs are calculated on MWh					
Solar power operation cost was calculated based on the day light availability					

	Kinetic Power Plant	Photovoltaic Plants	Wind Turbines
Baseload energy	Yes	No	No
Decentral located	Yes	Conditional	Conditional
Full working hours	Approx. 8500 h/year	Approx. 2200 h/year	Approx. 3500 h/year
Invest price	1,500 \$ /KW	700 \$ /KW	900 \$ /KW
Costs/KWh in 20 years	1,500 \$/ (8500x15) =0.009\$	700 \$ /(2200x15) =0.016\$	900 \$ /(3500x15) =0.013\$
Working costs incl. maintainace	0.007 \$/KWh	0.01 \$ /KWh	0.01 \$ /KWh
Total costs per KWh	Approx. 0.016 \$/KWh	Approx. 0.026 \$/KWh	Approx. 0.023 \$/KWh

SWOT Analysis



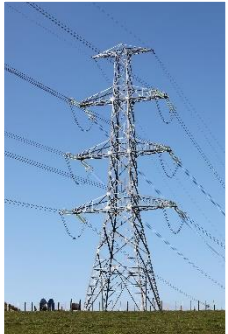
Strengths

- Renewable Energy
- No Fuel Needed
- Low land area space required
- Maintenance kits and spare parts will be located in Iraq
- low operation cost
- Ease of Implementation with a less period compared to other technologies



Weaknesses

- new technology
- Factories are located in Thailand



Opportunities

- Exclusive electric power supplier in the industrial area
- Power shortage in the city
- 80% local work force, and 20% foreigners



Threats

- Electric grid issues and failures
- other international players develop similar technology

Exit Strategy

Exit Strategy

This slide outlines the recommended financing strategy of **Deep Engineering** and the principal repayment structure.

FINANCING STRATEGY:

- Loan: \$150M USD
- Anticipated Cost per MW: \$1.5M USD
- Project Capacity: 100MW

Revenue Generation:

- Selling price: \$0.050 USD per unit KWh
- Units sold: 11,826,000,000 over 15 years
- Anticipated Revenue: \$591,300,000.

RETURN PERIOD:

- Repayment over a period of 15 years

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Adam Michaelson

Tom Pritchard

Inna Meteleva

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Jim Whitcher

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Toby Roberts

Lucie Ramirezova

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- Bridge loans, development financing, and term loans for residential and commercial real estate

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