

NEWSLETTER

2022-2023

"ESL and AKSA act like one company when there is a project in Pakistan. We work together on the project, price it, design it and then serve it to the client..."

MR. RIZWAN OZER,
GLOBAL GM SALES AKSA POWER GENERATION



FEATURING...

CEO's Message
An Exclusive Talk with Mr. Rizwan Ozer
Aksa DCC Capability
Engine Overhauls - A Case Study





CEO's MESSAGE

A TRIBUTE TO OUR HOLY PROPHET

(Peace Be Upon Him)

Muhammad Peace Be Upon Him
Our last prophet; the most beloved.

With him the chain of prophets terminated
And religion "as a way of life" was perfected.

With book and guidance, he was appointed
So that the only true way of life be established.

And prevail over all other ways that existed
To his people he constantly narrated.

The holy verses to purify them from evil practices
He taught them book and the wisdom besides it.

Prior to this they disbelieved and deviated
He recited, "Let none with Allah be associated."

Be good to your parents, it was mandated
Don't kill your children fearing shortages.

Don't approach obscenity though you will be attracted
Nor kill a soul which has been prohibited.

Don't approach property of an orphan unless you can improve it
Measure correctly and weigh with justice.

Act with fairness and justice, even if one affected is closely related
Fulfil Allah's covenant after you have consented.

Follow the straight path, leaving others forthwith
To be included among the rightly guided

Verily, Allah with His angels, shower blessings upon His beloved
Believers too, greet him with peace and blessings, it is commanded

The best of all times, even his enemies conceded
Our beloved; the Last Prophet.

May we live our life the way he lived it (Amen)!

Tariq Haq



THIS VOLUME'S STORY...



Zoom is a video calling software company that is popular around the globe. Millions of enterprises, businesses and individuals like us are regular Zoom users.

Eric Yuan, a former Cisco engineer and executive, founded Zoom in 2011. The Zoom platform makes reliable communication easy enabling businesses to focus on growth and supporting customers. Today zoom is used in industries such as education, health-care, government sector, financial services, retail and manufacturing alike. It also offers global expert support and services for design, strategy, implementation, event management and hardware needs. Not only this, it also works as a developer platform that allows developers to build apps and integrations and currently offers as many as 2186 apps in its marketplace.

But if we study the trends, for almost a decade or so videos, video calling, and conference calling have been getting progressively better on mobile through apps like Facetime and WhatsApp.

It is part of the rapid switch to mobile devices, which now contributes to 51% of all web traffic. But stop for a second and realize what it means. It means that 49% of video calling is still on computers.

Sure, working from your mobile is likely coming soon. But, right now, millions of people require computers for work.

Since 2019, Zoom has increased its quarterly revenue by over 1000% because it didn't take its product for granted on desktop or on mobile. Also, Zoom's software usage saw a remarkable global increase after quarantine measures were adopted due to the COVID-19 pandemic.

To date when we need to talk with our team members, friends, and family members across the globe the most, Zoom is the best option on the market at exactly the right time. This is all because zoom did not ignore the existing markets and kept investing in user-experience.

FROM A PHYSICIAN'S DAIRY...

Type 2 Diabetes is Reversible....!!

Type 2 Diabetes is a deadly disease with all types of complications from heart attack, blindness, renal failure, neuropathy, Alzheimer's, amputation, etc. But the good news is this, it can be reversed! this can be achieved only by making real efforts to change one's lifestyle.

The best thing God has gifted us is health. A diabetic has to avoid refined carbohydrates (total abstinence from sugar, avoid wheat as gluten destroys pancreas and avoid rice too). The least harmful is white rice in comparison with sugar and wheat. A diabetic patient can consume quinoa (قینوا- ایک قسم کا پودا), sorghum (جوار), millet (باجره) but in cooked form like rice. You can eat sourdough (خمیری روٹی) or rye bread (رائی کی روٹی) too but in small quantities. Gram flour bread (بیسن کی روٹی) in the form of pancakes may also be consumed.

Eat plenty of vegetables and moderate amount of whole fruits. Choose fruits and vegetables of your choice avoiding potatoes. Take complex carbohydrates like lentils, chick peas, nuts, etc., fermented food like yogurt, kefir daily and fermented vegetables as desired. Moderate amount of proteins and fats like eggs, meat, fish, chicken, butter and cheese may also be taken. Cut down the intake of milk- however, goat milk is better. Best thing is intermittent fasting- eat only in limited amounts of time. Best to eat in the window of 10 hours.

Daily light workout and walking are good for health. Spend one – two hours in sunlight and take adequate amount of sleep. Daily intake of multivitamins and Vitamin D is also essential especially for people suffering from chronic diseases.

Avoid processed food and oils. Best oils are coconut, extra virgin olive oil and avocado oil.

With the changes in lifestyle, you can reverse diabetes. Once you reverse your diabetes, especially those who have been diabetic for more than 10 years, strictly follow the diet! Avoid sugar, wheat and rice.

Otherwise your symptoms will come back! Monitor blood sugar levels regularly. If it remains high, it is very dangerous! In lipid profile, dense small oxidized LDL are culprits of heart attack and high blood sugar is the main cause of small dense LDL. Best test for diabetics is to do fasting insulin level. Normal value is less than 9. See your doctor regularly or at least every 6 months.

Dr. Abdul Haleem
Montefiore Medical Centre
USA



ESL-AKSA Data Center Capability- Achieve Operational Reliability and Crash-Resistant Data Center Networks with Our Uptime Institute Compliant Solutions

The energy needs of data centers are complex, time-sensitive and crucial.

Aksa is committed to providing the most effective solutions to the Data Center industry with its engineering, manufacturing, distribution and customer-oriented experience and knowledge. The products are tested according to Uptime Institute's Tier Standards and factory manufacturing tests are carried out.

AKSA Data Center Capability Highlights:

- Most suitable and reliable Aksa Data Center solutions with generator options ranging from 550 kVA to 3000 kVA.
- These solutions are approved by the Uptime Institute for compliance with TIER III and TIER IV standards in 44 different models produced for Data Centers.
- These sets have been reviewed and proven acceptable for use in Data Centers that meet Uptime Institute Tier Standards
- Aksa Data Center Specific Solutions are known for their robustness and easy maintenance.

UptimeInstitute®

18 May 2021

Nazmi Atalay
Aksa Jeneratör San. A.Ş.
General Manager, Operations
Rüzgarlı Bahçe Mahallesi Özalp Çıkmaızı
No:10 Kavacak Beykoz
İstanbul, Beykoz 34805
Turkey

Dear Nazmi Atalay,

The Tier Standard Topology requires that Tier III and Tier IV engine-generator systems are capable of supporting the design load for unlimited hours.

2.5.2 Engine generators for Tier III and Tier IV sites shall not have a limitation on consecutive hours of operation when loaded to 'N' demand. Engine generators that have a limit on consecutive hours of operation at 'N' demand are appropriate for Tier I or Tier II.

Since this clarification to the Tier Standard, engine-generator manufacturers have been providing letters attesting to the continuous capacity of select engine-generator models.

Aksa Jeneratör San. A.Ş. has introduced their Data Center Continuous (DCC) engine-generator rating, defined as the maximum power that the generating set is capable of delivering while supplying a variable or continuous electrical load and during unlimited run hours.

Considering this definition and the review of documentation provided by Aksa Jeneratör, I am pleased to inform you that Uptime Institute considers the Aksa Jeneratör San. A.Ş. DCC rating as acceptable for a Tier III or Tier IV objective for the units shown in Table 1 of this document, at the baseline conditions of 25°C and 110 meters above sea level elevation. However, as part of a Tier Certification of Constructed Facility review, the unit installed must contain a nameplate with the DCC rating or a letter must be provided to verify the continuous capacity of the unit. In addition, the rating will need to be confirmed on an individual project basis when site-specific ambient temperatures or elevations are above the baseline conditions identified.

If there are questions on this matter, please bring them to my attention.

Sincerely,

Christopher Brown
Chief Technical Officer

Enclosure: Table 1. 50-Hz and 60-Hz Engine-Generator Model

405 Lexington Avenue, 9th Floor, New York, NY 10174 • +1 212 505 3030 • info@uptimeinstitute.com

Telenor Pakistan Data Center Solutions (2000kVA DCC Power) each at Karachi & Lahore Mobile Switching Centers (MSC Facilities)

During a short period of a year's span ESL supplied and commissioned two grand Akxa Data Center Solutions of 2250 kVA each at Telenor Pakistan Karachi and Lahore MSC Facilities with 2000kVA DCC Power. Each solution is powered by AC 2250- 50 Hz, QSK60-G4 Cummins engine and equipped with Stamford Alternator and imported bolted type canopy.

Moreover, Telenor Pakistan has been a special customer as ESL has supplied hundreds of sets to the telecom giant with dozens of MW power.



Cybernet Internet Services Private Limited Data Center Solution (2 x 650 kVA DCC Power)

Another prominent Data Center Solution was supplied to Cybernet Internet Services Private Limited with 2 x AKSA 715 kVA Perkins engines (2 x 650 kVA DCC Power). The solution comprises 2 x APD 715- 50 Hz, 2806A-E18TAG2 USA Origin Perkins Engines, Stamford Alternators and imported bolted type specially designed canopies with marine paint for sea application along with Alternator Space Heaters and Anti Condensation Heaters.

In addition to the DCC Solutions, Cybernet has so far procured almost 50 sets of various ratings with several MW power.



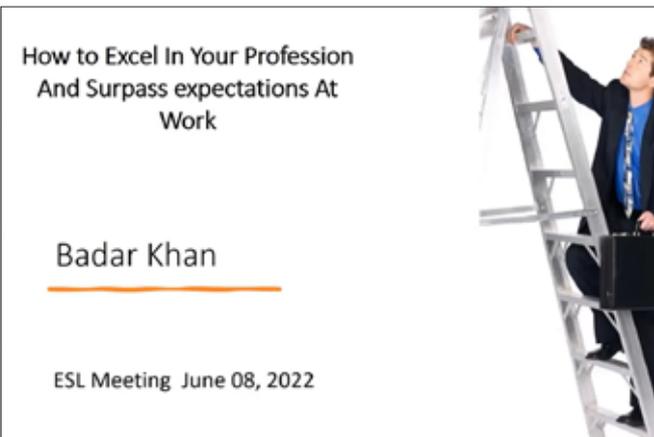
2022 AT A GLANCE!



ESL Fundraising Campaign & Istighfar Session for Flood Relief



ESL Plantation Drive



Motivational Session by Mr. Badar Khan on How to Excel in Your Profession & Surpass Expectations at Work



Eid Milan Program and Lecture on Importance of Piety and Relationship with Quran After Ramzan and Beyond



Dubai Trip March, 2022



ESL Conferencing at Textile Asia Exhibition, Faisalabad



Participation in Textile Asia Faisalabad
Representing Akxa Power Generation & ESL
Renewables



Participation in Textile Asia Faisalabad
Representing Cummins



Istaqbal e Ramzan Program



IEEEP Symposium 2022



In-house Training Session on Solar Power
System



Motivational Session by Mr. Akram Azam on
"Achieving More With Less"!

AN EXCLUSIVE TALK WITH MR. RIDVAN OZER

Global General Manager at AKSA Power Generation Sales / DEIK Türkiye China Foreign Economic Relations Board Member

Mr. Ozer is a veteran power generation professional and a Board Member of DEIK Türkiye China Foreign Economic Relations. He holds a vast experience of working in world renowned organizations and is currently holding a key position as the Global General Manager at AKSA Power Generation. It was a privilege for our interview panel to speak to him.

1. Your educational & professional background and your association with power generation sector.

I graduated from Yildiz Technical University in Istanbul, in 1994. In 1995 my professional career in the sector started in Türkiye, and it continued for 15 years. In the later process, I had a chance to gain experience in leading companies by working for different regions. During this process, I was Area General Manager in Saudi Arabia for the Middle East region, and in 2019 I returned to Türkiye to cover this region, including Georgia, Türkiye, Azerbaijan and Ukraine as General Manager.

I moved to AKSA Power Generation in 2020 and have been working as General Manager for AKSA Power Generation since then.

2. What were the challenges faced and achievements/successes made in this sector over the time?

Selling generators has many challenges as it is a very technical product. You should know all mechanical and electrical parts and equipment to meet customer's needs and demands. In Türkiye, generators are mainly used for standby usage, not for prime usage. I faced many economic crises during my career journey, and based on my experiences, standby equipment is the last equipment any investor wants to buy during a crisis because it's not urgent. Therefore, it is better to focus on projects like hospitals, hotels and big construction businesses which cannot afford an interruption in power at any time. But for projects, you need to design the equipment with the customer. Major projects need hard work as the customer needs to be guided for synchronization, sizing, for the number of sets and installation. All details should be discussed at the beginning of the project. Thus, being aware of customers' needs from the very beginning and addressing them throughout the project provides an opportunity to satisfy customers from the very beginning. This is how we create a relationship with the clients and this is where we make difference. Integrating these insights into my business life allowed me to make the highest sale amount in the the company as a sales manager.

When I started my career in Türkiye, there were not many companies in the sector and the ones in the sector had small structures within the company. By using my previous experiences, the business was very successful in two years and started producing profits.

My career journey at AKSA just started 2 years ago but I have been involved in many major projects. I motivated my team for setting complex and special projects so some of them started during my period. When I talk about these projects I am not talking about the domestic market because in the domestic market AKSA is the market leader in Türkiye for so long. My focus is gaining success globally. AKSA already has many offices in different regions and exclusive dealers like ESL in some countries.

For AKSA I would like to point out that the relationship with exclusive dealers and management in offices in other countries is very transparent and built on trust. There is a mutual benefit in all the businesses so it is all a win-win situation.



Another success of mine is that when I joined AKSA in 2020, we witnessed a growth of 25% in one year. This year we are growing at a rate of 30% so in two and a half years we have grown at a rate of 55% (not in local currency, but in dollars).

3. What are the biggest advantages of using AKSA Power Generation products?

First of all, the biggest advantage is good service and the largest coverage. In many countries you find clients contacting AKSA Power Generation offices directly, the offices are very close to the customers. When they buy the equipment, if they have any product problem, they can reach us out through local offices very easily. We are covering most of the regions worldwide.

The second advantage is the production capacity of AKSA Power Generation. It is almost a 40-year-old company, and we have a very big production capability. Lead time and production capability are very important these days so we can meet the demands of customers easily.

4. AKSA announced two years back that it will become the third largest power generation company in the world within five years. How far are you from achieving this goal?

It is a challenging but very important target for us for coming in the top 3. We are progressing on it. As Akxa Power Generation, we are in the leading position in the power generator market in Türkiye. This year we grew at 30% and every year we are growing at 25%. So this will help us to reach the top 3 companies worldwide.

We are also serving new products. We are also growing in gas engines which is a new product as it was not on the table before so we are generating revenue from gas generators. We have also started a rental division which is growing as well. We are also adding some new equipment to our product line. We have just launched new home standby products 10-12 kVA for residential usage. In this way, we are growing by investing. We just opened a new factory last year in Tekirdag which is a city close to Istanbul.

This factory is established on an area of 60,000 m². In this way, we will triple our current production capacity in Türkiye and we will produce generators in accordance with industry 4.0 standards. We also have factories in CHINA and USA. We deliver our products to 178 countries with our production and trade centers in Türkiye, China, USA and the Netherlands.

In a nutshell, we are expanding in terms of investing in new factories and products both, so we are growing. This will help us to achieve our goals.

5. How does an assembler like AKSA add value to the customer in competition with an OEM supplier like CAT or CPG?

We add value as we are flexible in our product line. We can serve not only one engine brand but have many engine brands like Cummins, Perkins, Doosan, Mitsubishi, John Deere, Volvo, and AKSA engines, and we are the global OEM for these brands- that's our advantage. We are also flexible with the product delivery time. As we have all the resources, we can produce, package and deliver in a much shorter time than other companies. These are the main advantages and competition tools for us, I will not talk about price as the price can be easily changed. Delivery is much more important than price.

6. Please highlight the product portfolio AKSA is working with at the moment.

Gas generators with Cummins Engines, home standby generators, battery storage product (it is an early stage but we are working on it). We are Türkiye's leading generator brand with over 50% market share in diesel generator production. We are one of the first manufacturers of Natural Gas generators in Türkiye; we have positioned our company to be a pioneer in the sector in terms of hybrid solutions including natural gas cogeneration, trigeneration and other gas applications, as well as energy storage. We started to serve globally, especially in Türkiye, in cogeneration systems where energy efficiency reaches 90%. In data center power systems, Akxa Power Generation, as the first and only Turkish brand in the world, has been approved by the Uptime Institute for compliance with TIER III and TIER IV standards in 61 different models ranging from 500kVA up to 3000kVA produced for Data Centers.

7. What are your plans vis a vis Alternative/Renewable energy sources, Fuel cells, Hydrogen generators, Battery storage devices, etc.?

Renewable energies—wind, solar, and hydropower are intermittent; not continuous. You need a backup source or supporting power in the shape of diesel or gas generators to be able to keep online renewable energy systems that we call hybrid systems. We are producing generator systems and simultaneously supporting renewable systems worldwide. We are also working on battery storage as I mentioned earlier. They are with batteries ranging from 100KW to 2MW. Because renewable energy is our future as we have to reduce emission levels and also the sound levels to ensure a clean world by supporting these hybrid systems. For now, hydrogen generators are in a very early stage. We will announce these products in the next couple of years.

8. What are the Major challenges in terms of markets, competitors, suppliers, customers at the moment in the power generation sector?

A major challenge worldwide is the supply chain. There are many delays in production in many big factories. To overcome this challenge, we keep large stocks because when the client needs a product and if we have the sources we can easily deliver on time.

9. What are the major ongoing projects of AKSA at the moment?

AKSA is trying to get some consultants for big companies like TWC and KPMG. We just finished a finance center project in Istanbul. The biggest finance center in Istanbul with 240MVA generators. We have many big data centers also outside of Türkiye in many countries in Europe like Romania, Holland and also Asia Pacific. As AKSA, we already give priority to energy efficiency and produce products and systems that shape the sector in this field. Our future strategy will be to take steps towards new product development. In particular, we will increase our work on hybrid products and energy storage systems.

10. Your views about AKSA-ESL association over the years.

We have a very strong association, and we trust each other too much. It is the most important thing and you cannot do business without trust. I also personally try to support ESL in their ventures.

11. ESL wants to make Pakistan second home of AKSA outside Türkiye. What steps do you suggest to enable ESL achieve its goal?

They need to cover the entire country and reach all potential clients whether they need small or big products, especially diesel and gas as we are expecting to get large business from here as Pakistan has potential. We have been successful with the gas business; with them, we want to grow it.

12. What are the plans of AKSA for Pakistani Market in terms of investments, project financing, setting up own office just like many other countries?

We believe in ESL, they are achieving their goals every year. When we see a growth in both gas and not only diesel generators we will definitely consider opening up own office. At the moment they are our exclusive distributors in the country.

13. What are the global challenges & opportunities that AKSA is facing in the Pakistani market?

Delivery time has been a major global challenge but we can support Pakistan with our quick delivery channels with large stock availability and production capability. Secondly, we always discuss and help with prices with competitors to ESL to help them grow year after year.

Global companies are usually not flexible, but AKSA is very flexible and we also help with tailor-made projects. We also have a wide range of brands in our product line. These are the advantages of ESL and AKSA together.

14. What is the Future outlook for AKSA both in terms of global and Pakistani market perspective?

If we talk globally, we want to be in the top 3 companies list and provide our clients most flexible, efficient and customer-focused products.

If we talk about the Pakistani Market, I can say that there is much more revenue and business in Pakistan as it has great potential. From ESL we need to carry all the challenges which we can solve together. The gas business is the future and we want to grow in it.

15. Any message for AKSA customers/ prospective customers in Pakistan.

Being a Turkish company and the relationship between Pakistan and Türkiye, we have special support for Pakistan. This is very important as we have a very strong relationship between the two countries. Pakistan is a brother country to Türkiye so we want to support Pakistan when they face any kind of challenges like disasters, we always try to help. For AKSA customers I would like them to believe in the potential of AKSA Power Generation which is going to be one of the top players globally. If they believe in and trust AKSA they will have much more satisfied service and products. Because when we grow, the clients will be getting much better service and products.

16. Pakistanis love Türkiye and China. How can this love be translated into more business for AKSA in Pakistan?

We need to expand trade between each other because there is potential and both countries should increase trade. The population is very high in Pakistan which serves big potential and opportunity for the future. Türkiye is also growing; it is the second-largest growing country worldwide with a 12.3% growth rate. Since both countries are growing we have great potential here so if we support each other of course it will bring the two countries a big win for the future.

ENGINE OVERHAULS – A CASE STUDY!

A customer owns two huge textile mills with almost identical machines. The textile mills are located one each in Karachi and Lahore. He uses 1 MW generators in both the mills, which were bought almost at the same time few years back.

The customer complained about a problem which is quite common in the industry. The generators in the Karachi plant are more susceptible to maintenance and have undergone overhauls earlier than their counterparts in Lahore. He invited a team of power generation engineers to explain why it is so and what can be done to arrest premature failure of engines in Karachi than in Lahore.

The engineers informed the owners that overhaul of an engine is accelerated due to the following reasons:

1. **Quality of installation**
2. **Environmental conditions**
3. **Maintenance practices**
4. **Operating conditions**

ESLصفائی نصف میٹیننس ہے

صفائی نصف میٹیننس ہے

جس طرح ایک صاف اور صحت مند مرغ زیادہ چھٹی قوت کا مالک ہوتا ہے اسی طرح ایک صاف اور صحت مند جسم زیادہ کام کرنے کی صلاحیت رکھتا ہے اور بہتر نتائج فراہم کرتا ہے۔
کچھ ایسی ہی طرح ایک صاف جزیئر زیادہ دیر پا قوت دکا کر دینی فراہم کرتا ہے۔



جزیئر کو صاف آتھرا گویا صحت مند رکھیے اور اس کے میٹیننس بجٹ میں خاطر خواہ کی حاصل کیجیے۔ جزیئر کے حوالے سے صفائی کا مفہوم مندرجہ ذیل ہے۔

They carried out a root-cause analysis of failure based upon the above factors and submitted the following findings:

The maintenance in Karachi plants has become due earlier than at Lahore because of a mix of the above factors. However, the Pareto Analysis clearly pointed towards training of engineers and operators which resulted in both improper maintenance practices and improper operating procedures. The following findings were more or less similar to those listed in any good literature on high horsepower engine overhaul:

1. **Installation**

- a. It was found that engines were starved of fresh air as the openings were not of proper size at the Karachi plant.
- b. Possibility of exhaust fumes being routed back and getting mixed with fresh air for aspiration was also examined but not found.

To view the entire article please click on.....

<https://eslpk.com/wp-content/uploads/2022/11/engine-overhauls.pdf>

CUSTOMERS & CONTRACTS

● Food & Beverages:

- **Coca Cola Beverages** one of the most prestigious customers of ESL was supplied with 2 x 2250 and 1 x 500 kVA Aksa DG sets. The total power supplied to Coca Cola Beverages is more than 50 MW now.
- **Pepsi Cola** was supplied 1 x 500 kVA, and 1 x 110 kVA Aksa DG set. In addition to this, Pepsi Cola Multan placed an order of 1250 kVA Aksa DG set and allied works. The total power supplied by ESL now is more than 11 MW.
- **IRC Dairy Products Private Limited, Faisalabad** was an addition to ESL customer list as the company was provided 1 x 1410 kVA Aksa DG.
- **Hico Ice-cream** was supplied a unit of 350 kVA DG set.



● Telecom Sector:

- **Cybernet Internet Services Private Limited** was supplied more than a dozen sets of up to 525 kVA.
- **Storm Fibre** secured multiple units of 30 KVA and 60 KVA for their various offices.
- **Zong** placed an order of 2 x 2000 kVA for their Mobile Switching Centre Karachi.

● Fashion & Textile:

- **Zephyrs Textiles** were supplied with 1 x 2000 kW HSK78, Cummins Lean Burn Gas Generator. This generator was purchased in view of the outstanding performance of Cummins QSK60 1160 KW generator supplied to the textile company last year integrated with the 500 KW solar solution provided by ESL Renewables earlier.
- **BA Mall** was another addition to our customer list as the mall placed an order of 4 x 2000 kVA, 2 x 1250 kVA & 2 x 500 kVA Aksa DG sets.
- **Diners Pakistan** was also provided with multiple Aksa DG sets of up to 66 kVA.
- **Ideas Pakistan** was supplied with multiple sets of 200 kVA, 220 kVA & 44 kVA Aksa DG sets.



- › **Bachaa Party** was another addition to ESL customers' list with the supply of 1 X 150 kVA Akxa DG set.
- › **AM Apparel Outlet, Sahiwal** procured multiple sets of up to 66 kVA.

● **Banking Sector:**

- › **Bank Alfalah** was supplied multiple ESL Power sets of up to 50 kVA.
- › **United Bank Limited** was supplied 1 x 100 kVA and multiple sets of 12 KVA making the total number of sets thus provided cross the figure of 100.
- › **Askari Bank** was supplied multiple sets of 33 kVA ESL Power. The bank has so far procured almost 50 sets from ESL.
- › **Bank AL Habib** obtained 110 kVA Akxa set alongside placing an order of 1 x 300 kVA DG set.
- › **Dubai Islamic Bank Pakistan Limited** was supplied dozens of sets up to 110 kVA.
- › **Habib Bank Limited** procured multiple of Akxa DG sets of up to 66 kVA rating.
- › **Mobilink Microfinance Bank Limited** was supplied with multiple sets of up to 275 kVA rating.
- › **AWM Ventures** procured 1 x 110 kVA Akxa DG set.



● **Medical Sector:**

- › **Shaukat Khanum Hospital Lahore** placed yet another order of 1250 kVA together with allied works. The total power supplied so far is 11 MW plus.
- › **Pro-Health** procured 3 units of 500 kVA.
- › **Punjab Institute of Neurosciences, Lahore** was supplied 1 x 200 kVA set.
- › **Siemens Healthcare** was supplied 2 sets of 200 kVA.

● **Oil & Petroleum:**

- › **Pak Petrochemical Industries Pvt. Ltd.** was supplied with 110 kVA Akxa DG set.
- › **Gas & Oil Pakistan Ltd** was supplied 2 x 110 kVA Akxa sets in addition to multiple 66 kVA ESL Power sets.

● **Construction & Engineering Sector:**

- › **National Engineers Company** was supplied 1 x 413 kVA EPD set.
- › **Associated Technologies Pvt. Limited** was supplied 20 x 22 kVA ESL Power for their various sites.
- › **Britlite Engineering Company** purchased 1 x 275 kVA together with 66 kVA ESL Power sets.
- › **Zameen Media Pvt. Ltd.** was supplied 1 x 347 kVA Akxa DG set.
- › **Frontier Worker Organization (FWO), Diamer Basha Dam Project** was supplied 1 x 110 kVA Akxa together with 66 kVA EPD set

➤ **Siemens Pakistan** was supplied 3 x 360 kVA Akxa DG sets. Moreover, Siemens also placed an order of 2 x 500 kVA DG sets. The company has so far procured 10 MW+ power.

● **Logistics:**

➤ **Muller & Phipps Pakistan Private Limited** was supplied 110 kVA and 155 kVA Akxa DG sets.

➤ **DHL Pakistan** was supplied 110 kVA Akxa DG set.

● **Miscellaneous:**

➤ **Cybernet Lakson Group** placed an order of 2 x 500 kVA DG sets.

➤ **Formulatrix Private Ltd** was supplied 360 kVA Akxa DG set.

➤ **Ghani Group** procured 5 sets in all including 2 x 1540 kW Cummins Lean Burn Gas Generators, 2 x 1100 kVA Akxa DG sets, 1 x 347 kVA Akxa DG set. These are in addition to the 2.5 MW Solar Solution supplied earlier.

➤ **Pakistan International Containers Limited** was supplied 2250 KVA, 66 kVA & 33 kVA Akxa DG sets. The total power thus supplied to them is 5MW+

➤ **Shafi Agro Pvt. Ltd.** was supplied 220 kVA ESL Power set.

➤ **Kifaya Super Market** obtained 1 unit of 100 kVA.

● **ESL Renewables:**

➤ **Alkaram Studios** have awarded a contract of 5 MW Solar Power Plant to ESL Renewables. This is a bifacial plant powered by Tricon N-Type solar panels. This is in addition to a 2 MW plant commissioned by ESL at Alkaram earlier this year.

➤ **Riaz Textile Mills** signed a contract of 3 MW Solar Power Plant with ESL Renewables.

➤ **Sun Flower Industries** chose ESL Renewables for the supply and installation of 100 KW Solar Power Plant.

➤ **Food Panda** was yet another customer to procure 60 KW Solar Power Plant.

➤ **Rajput Dairies** was another addition to our solar clients with the supply and installation of 50 KW Solar Power Plant.



دفاعی حصار۔ جنریٹر کی حفاظت پر مامور حفاظتی دستہ (Gensets Safeties)

ایک جنریٹر کو ہر وقت مشکلات اور خطرات کا سامنا کرنا پڑتا ہے۔ اوّل تو کوئی بھی آپریٹر چاہے کتنا ہی مستعد کیوں نہ ہو، ہمہ وقت جنریٹر کی تمام کیفیات (Conditions) کا اندازہ نہیں لگا سکتا۔ جبکہ حقیقت یہ ہے کہ اسے اکثر اوقات بغیر کسی آپریٹر کے ہی کام کرنا ہوتا ہے۔ خاص طور پر پینکس، ٹیلی کمیونیکیشن انڈسٹری، گیس اسٹیشنز وغیرہ میں یہ گھنٹوں بغیر کسی آپریٹر کے چلتا رہتا ہے۔ لہذا اس بات کی اشد ضرورت ہے کہ اس کی حفاظت پر ایسے محافظ مقرر کئے جائیں جو کہ ہر وقت بیدار رہیں اور کسی بھی صورت میں اس کی حفاظت کے فرض سے غافل نہ ہوں۔

ESL Customer Care **Role of Sensors**

Sensors fitted to the generators provide analogue and digital signals

Provision may be made to monitor:

- Battery voltage and battery charger
- Engine coolant, lubricating oil, and exhaust temperatures
- Lubricating oil pressure
- Engine coolant and lubricating oil levels
- Daily service fuel tanks level
- Plant room ambient temperature
- Generator winding temperatures
- Generator speed/ frequency
- Generator set vibration
- Electrical parameters such as kW, kVAR, etc.





ان خطرات سے نمٹنے کے لئے اس کے تمام وجود پر متعدد آلات لگائے جاتے ہیں جو ہمہ وقت حفاظت کا کام کرتے ہیں۔ ضرورت اس امر کی ہے کہ ان آلات کو ہر وقت فعال رکھا جائے اور کوئی انٹری مسٹری یا غیر ذمہ دار آپریٹر وقتی مصلحت کے تحت ان آلات کو معطل (Safety Bypass) نہ کر سکے۔ بصورت دیگر، اس بات کا قوی امکان ہے کہ یہ شدید نقصان سے دوچار ہو جائے اور صارفین نہ صرف اس کی خدمات سے محروم ہو جائیں بلکہ اس کی مرمت پر بھی خطیر خرچ سے دوچار ہوں۔

یہ آلات اس کا دفاعی حصار (Safeties/Protection) ہیں۔ چنانچہ ضروری ہے کہ اس کے دفاعی حصار کے ساتھ ہرگز کوئی چھٹیڑ چھاڑ نہ کی جائے اور اگر کثرت استعمال یا طبعی وجوہات کی بنا پر ان میں کوئی خلل واقع ہو بھی جائے تو اسکو فوری طور پر دور کیا جائے۔ یاد رکھیں، کسی بھی قسم کی سستی تباہ کن ثابت ہو سکتی ہے۔ یہ سپاہی مندرجہ ذیل حفاظتی امور پر فائز ہیں۔

۱۔ آئل پریشر کم ہونے کی صورت میں حفاظت کے لئے مامور لوائل پریشر سوئچ (LOP)۔ یہ ایک لازمی حفاظتی آلہ ہے اور انجن کی باڈی یا فلٹر کے ہیڈ پر لگایا جاتا ہے۔ جب انجن میں آئل کا پریشر ۳۵ پی ایس آئی (35 PSI) کے لگ بھگ ہو تو یہ سوئچ ایکٹیویٹ ہو جاتا ہے اور محتاط ہو جانے کا سگنل دیتا ہے۔ جب پریشر مزید گرا کر ۲۵ پی ایس آئی (25 PSI) کے لگ بھگ پہنچتا ہے تو یہ آلہ ڈی ایکٹیویٹ ہو کر انجن شٹ ڈاؤن کر دیتا ہے اور یوں انجن سیز ہونے سے بچ جاتا ہے۔ اس سپاہی کی مدد کرنے کے لئے کم سے کم یہ ضروری ہے کہ انجن کا آئل اور اسکے فلٹر وقت پر تبدیل کئے جائیں تاکہ آئل کا پریشر کم نہ ہو سکے۔

۲۔ کولنٹ ٹمپریچر بڑھ جانے کی صورت میں حفاظت کے لئے مامور ہائی کولنٹ ٹمپریچر (HCT) سوئچ۔ یہ بھی ایک لازمی (Mandatory) حفاظتی آلہ ہے اور تھر موٹیٹ ہاؤسنگ پر لگایا جاتا ہے۔ جب انجن میں کولنٹ کا ٹمپریچر بڑھ کر ۱۰۵ ڈگری سینٹی گریڈ کے نزدیک پہنچتا ہے تو یہ آلہ انجن شٹ ڈاؤن کر دیتا ہے اور یوں انجن کی گیس کٹ وغیرہ جلنے سے محفوظ رہتی ہیں۔ اگر آپ چاہتے ہیں کہ یہ چابکدستی سے اپنے کام میں مصروف رہے تو لازم ہے کہ انجن کارڈی ایٹر صاف رکھا جائے اور اس میں کولنٹ کی مقدار برقرار رکھی جائے۔

آرٹیکل کے بقیہ حصے کے مطالعے کے لئے ہماری ویب سائٹ کے لنک <https://eslpk.com/chapter13.pdf> پر کلک کیجئے یا کتاب کے مفت حصول کے لئے customercare@eslpk.com پر رابطہ کیجئے۔

ESL-3S, Approach: Safety-Service-Sales, in the stated sequence

ESL considers safety vital in all facets of its business. It has a proper HSSE program in place which helps in propagating the safety culture within the Company, its employees, contractors and customers. Its 3S philosophy is spelled out in the following sequence with respect to their relative significance:

Safety

ESL believes that achieving heights of success is a pipedream unless safety is considered as an inevitable part of its operations. We will choose not to work in case safety of our people, customers, suppliers and community is compromised in any way.

Service

ESL strives to make Service its forte. Service, from our standpoint, encompasses all activities throughout the life cycle of our association with the customers (point of first contact till repeat business opportunities and beyond).

Sales

The strategies of ESL revolve around suggesting solutions to its customers, rather than merely selling the products. Our focus is more on helping a customer buy rather than selling.



**8000+
GENERATORS**



**500 MW+
POWER
SUPPLIED**



**2000+
MAINTENANCE
CONTRACTS**



**1000+
CORPORATE
CUSTOMERS**



**200+
EMPLOYEES**



**COUNTRY-
WIDE
PRESENCE**

Energy Solutions (Pvt.) Limited

Head Office-Karachi

ESL House, DP-01, Sector-21,
Korangi Industrial Area, Karachi.
Phone: +92-21-35010590 35000682
Fax: +92-21-35019496

Regional Office-Lahore

ESL House, Plot No. 431-D, Kamaha
Aashiana Road Off Ferozpure Road.
Phone: +92-42-35923251-4
Fax: +92-42-35923260

Regional Office-Islamabad

ESL House, Plot No. 82, Street No.10,
Industrial Area I-9/2, Islamabad.
Phone: +92-51-4433178-80
Fax: +92-51-4433177