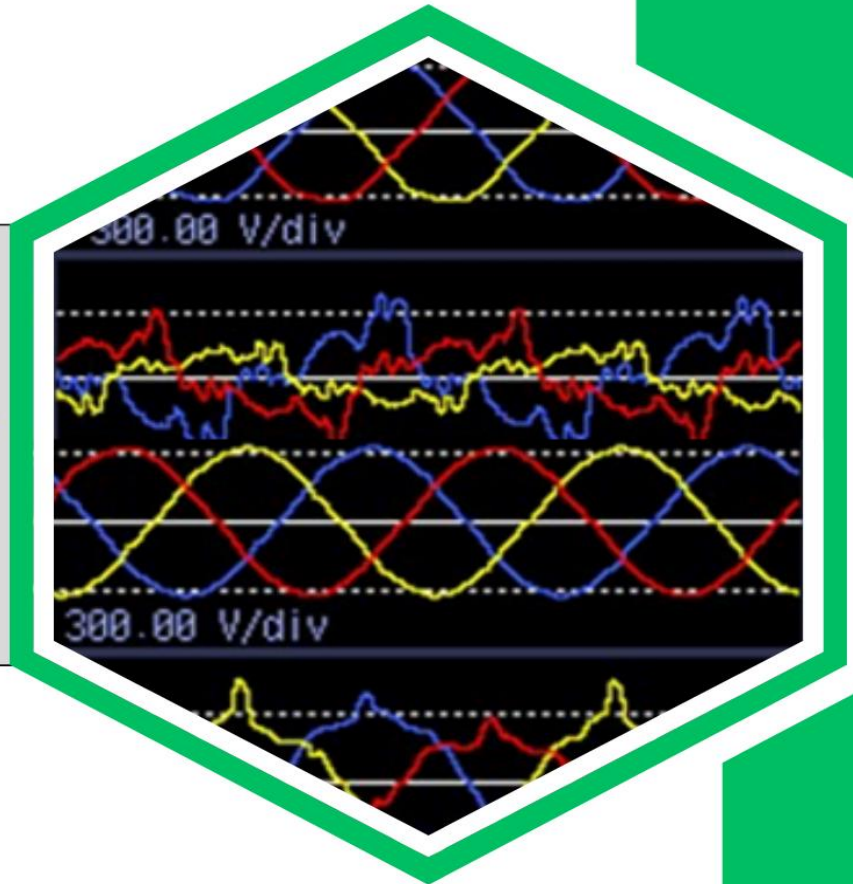




Power Quality Profile

POWER



**Contact us :
ENRG TECH**

+88-01711 487 709

info@enrgtechbd.com

<https://enrgtechbd.com>

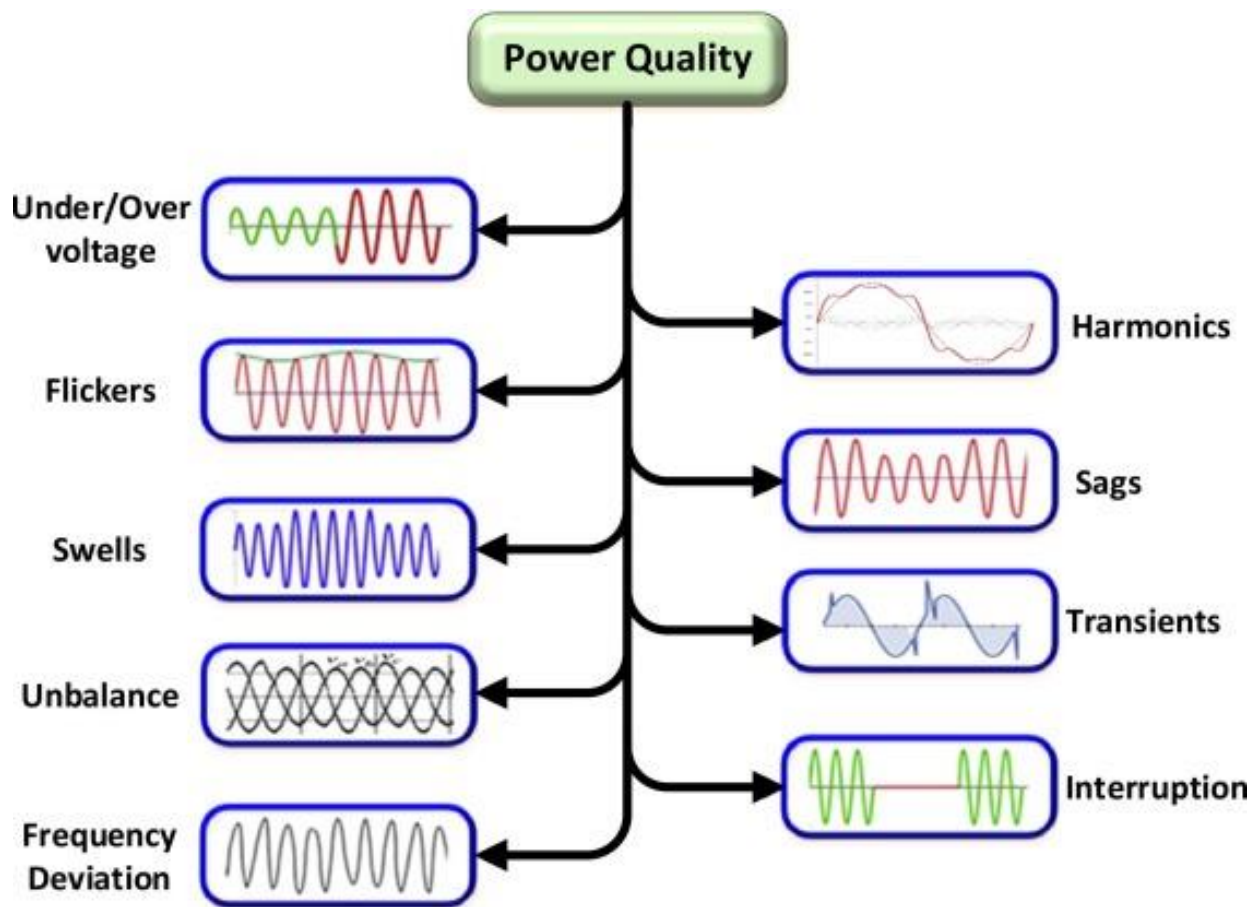
<https://www.linkedin.com/company/enrg-tech-bd>

Corporate-1: House: 298, (Lift-6) Jamtola Moor,
Shadhinata Sarani North Badda, Dhaka-1212.

Corporate-2: 30 Sonargaon Janapath Avenue Sector 11, Uttara, Dhaka 1230.

COMMON FAULTS IN POWER SYSTEMS AND COMPREHENSIVE SOLUTIONS:

Power systems often face issues like harmonics, imbalance, transients, and voltage fluctuations, which can disrupt operations, reduce efficiency, and damage equipment. Addressing these faults is essential to ensure system reliability and energy efficiency.



ENRG TECH: YOUR PARTNER IN POWER QUALITY MITIGATION:

ENRG TECH starts by identifying faults using state-of-the-art power analyzers to diagnose issues like harmonics, voltage imbalances, transients, inrush currents, and voltage fluctuations with unmatched precision. Once identified, we implement tailored solutions such as advanced harmonic filters, phase balancing systems, surge protection devices, and inrush current management technologies. Our comprehensive approach ensures optimized energy efficiency, reliable equipment performance, and sustainable power quality management.



REAL ENERGY LOSS AND ITS BROADER IMPACTS:

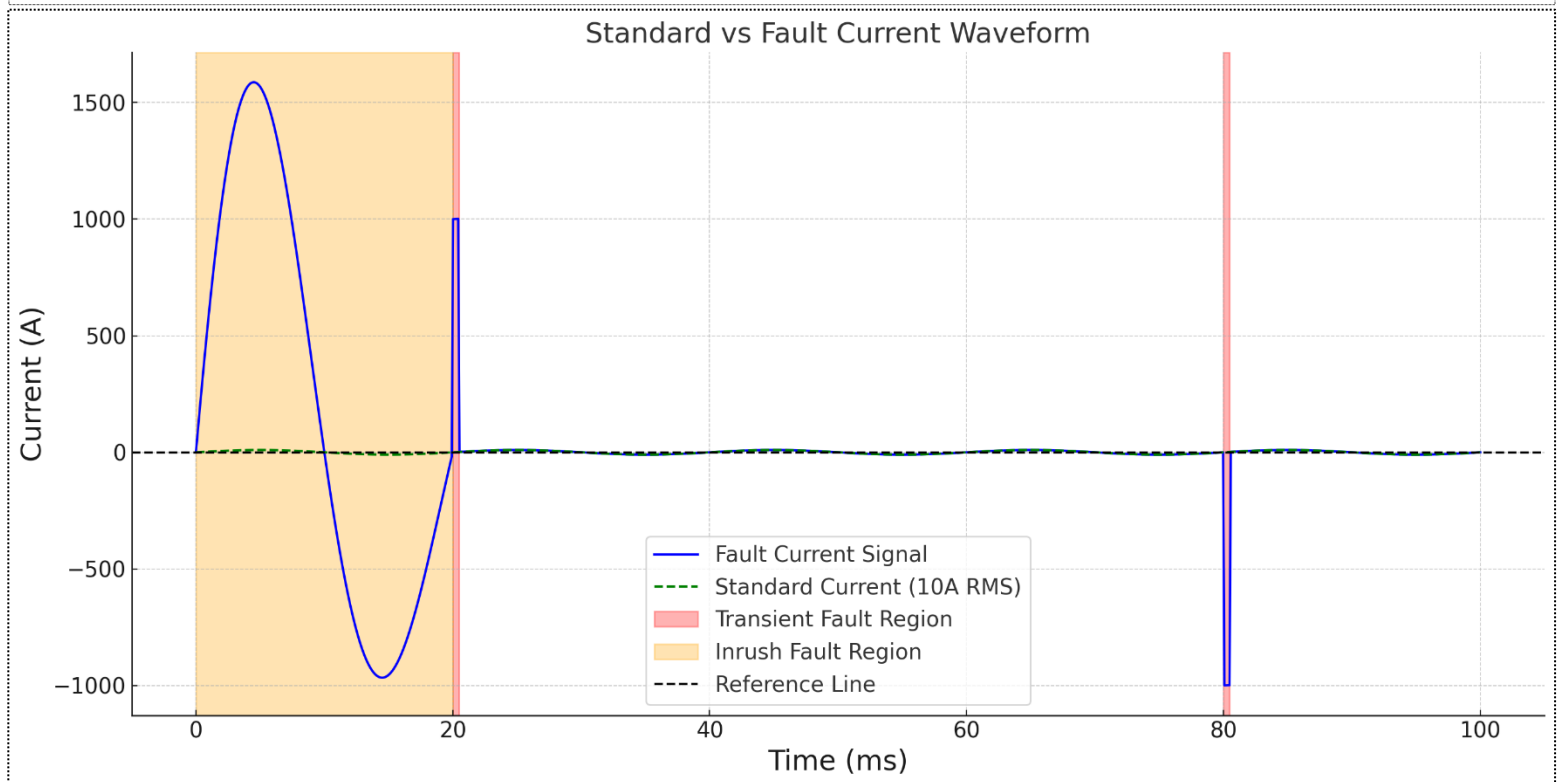
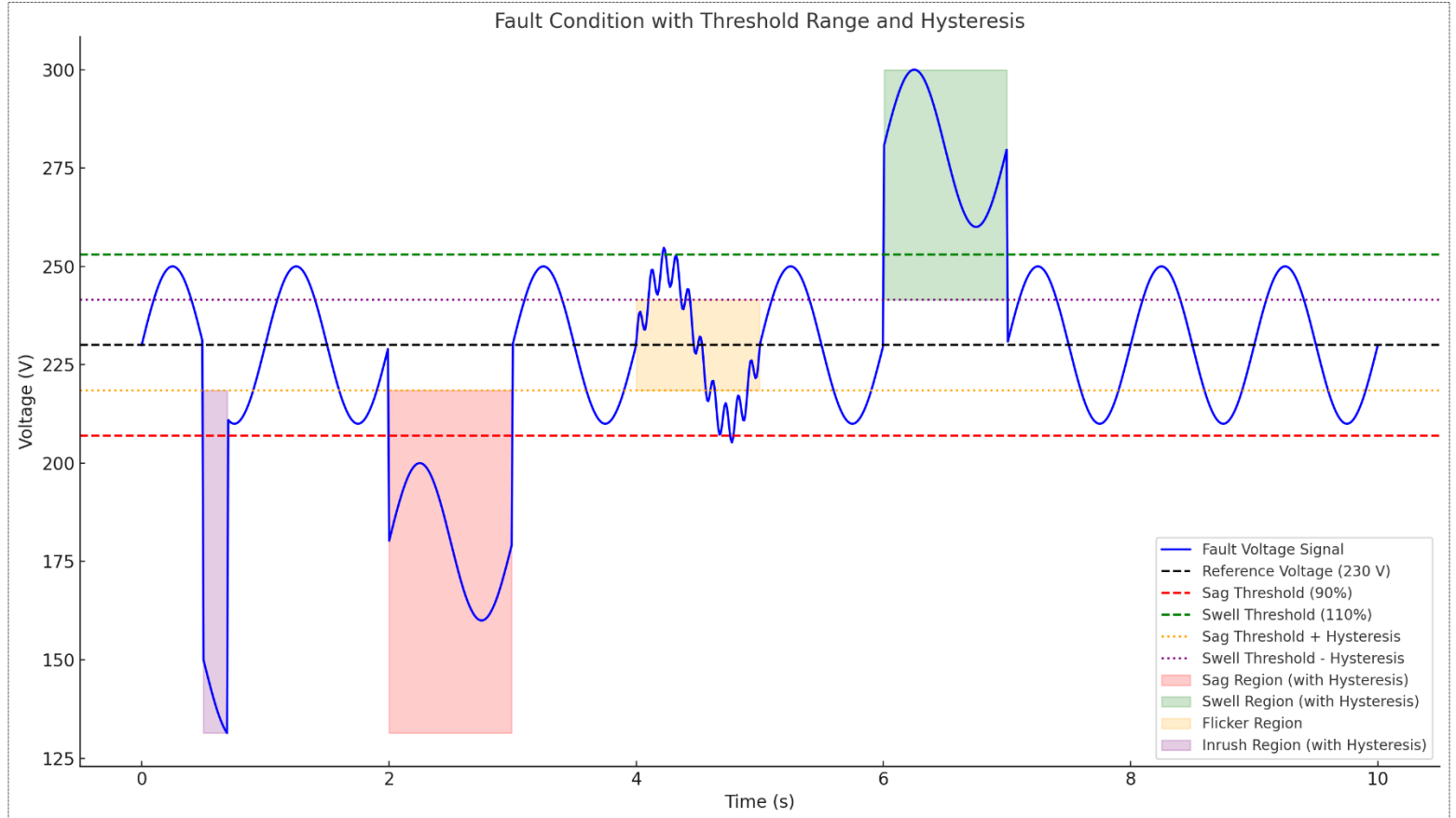
At ENRG TECH, our advanced analyzers have identified significant **direct energy losses** caused by low-quality power, often undetectable with conventional meters. Beyond these measurable inefficiencies, **indirect losses** such as equipment damage, accelerated aging, and frequent malfunctions further compound the hidden costs. With ENRG TECH, you gain actionable insights and solutions to address both direct and indirect impacts, ensuring optimized performance and long-term reliability.

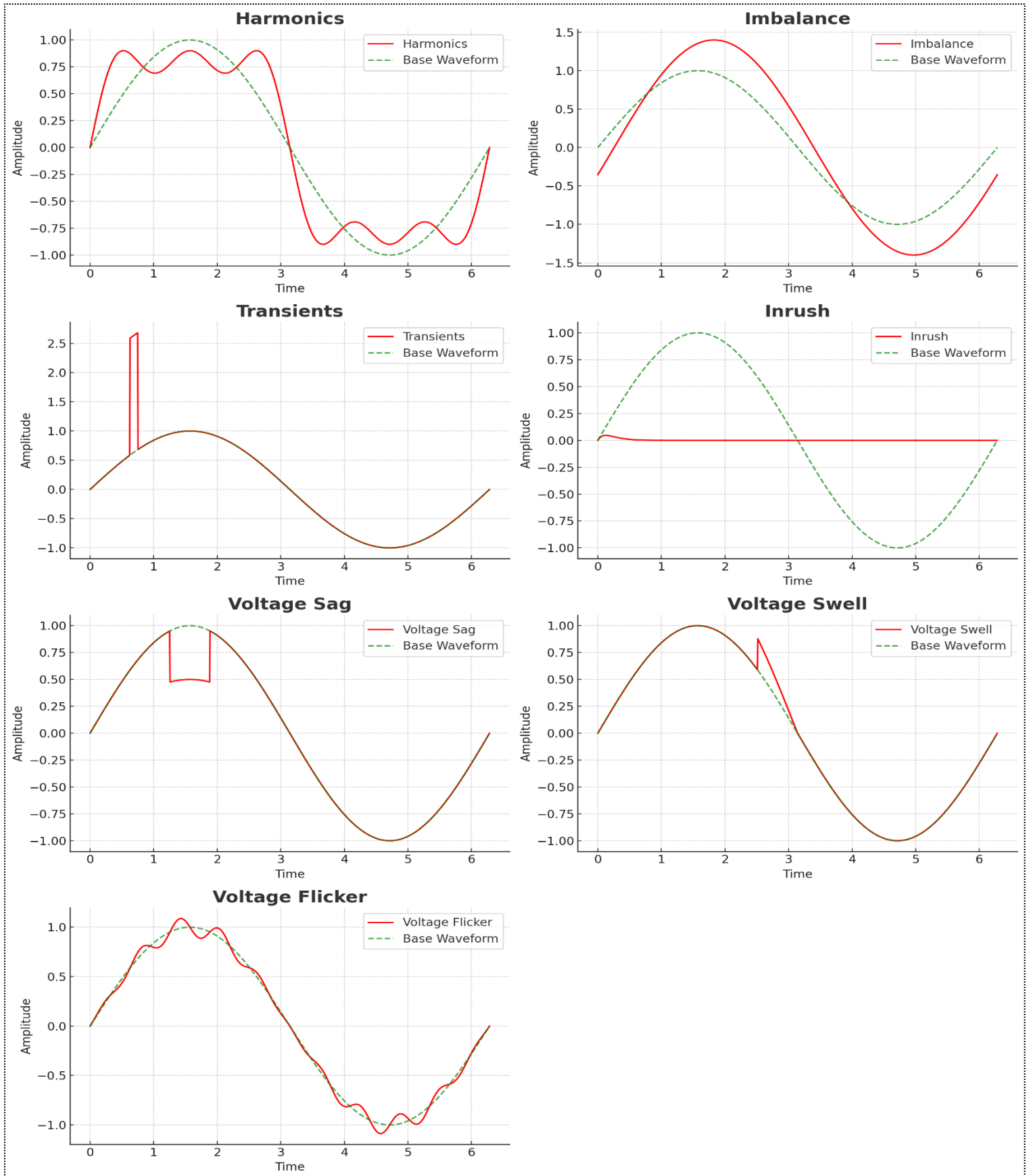


Different degree energy loss as per pollution severity

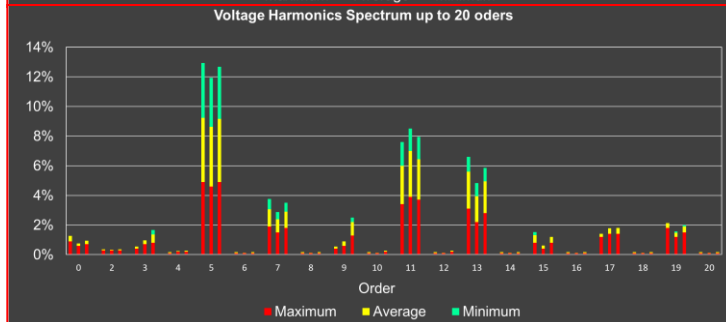
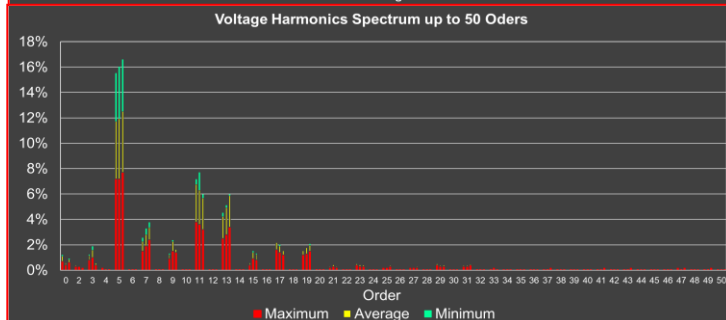
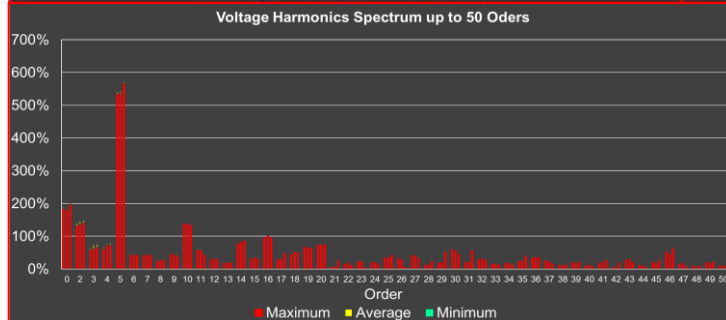
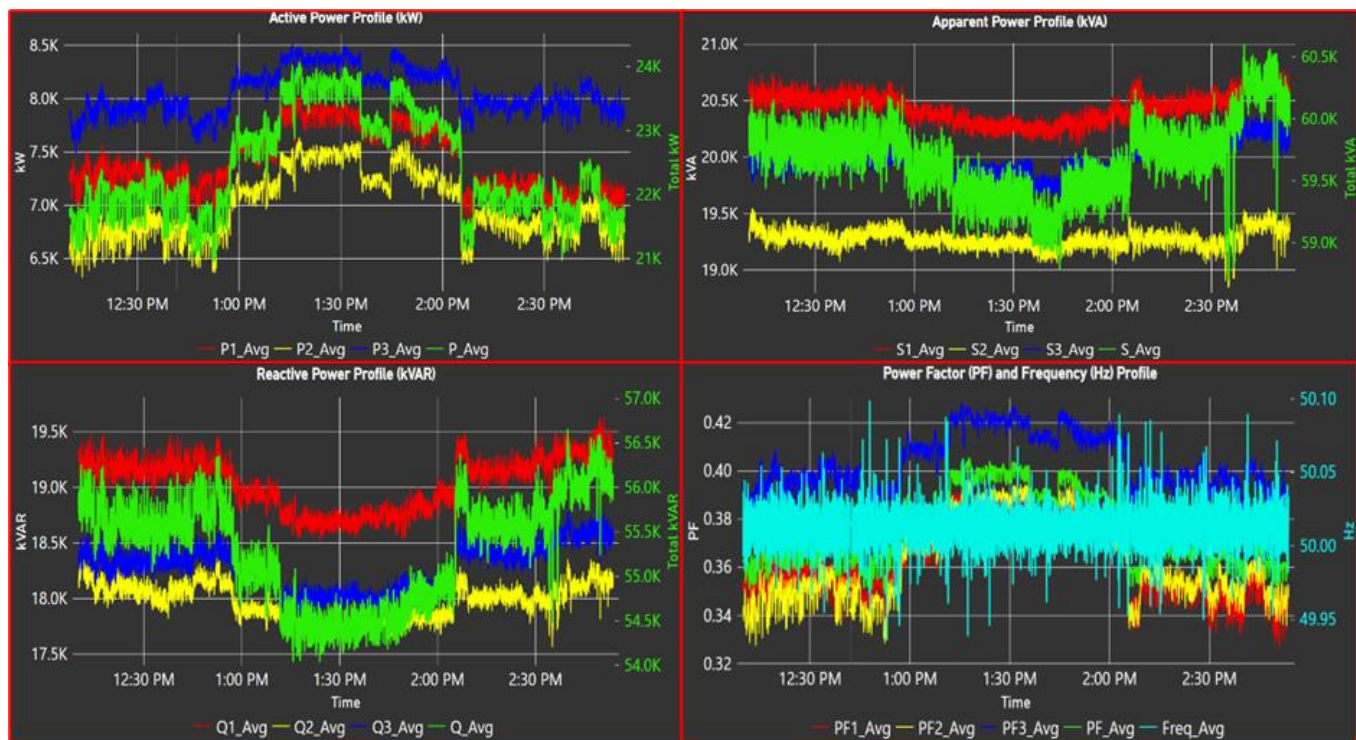


OVERVIEW OF FAULT



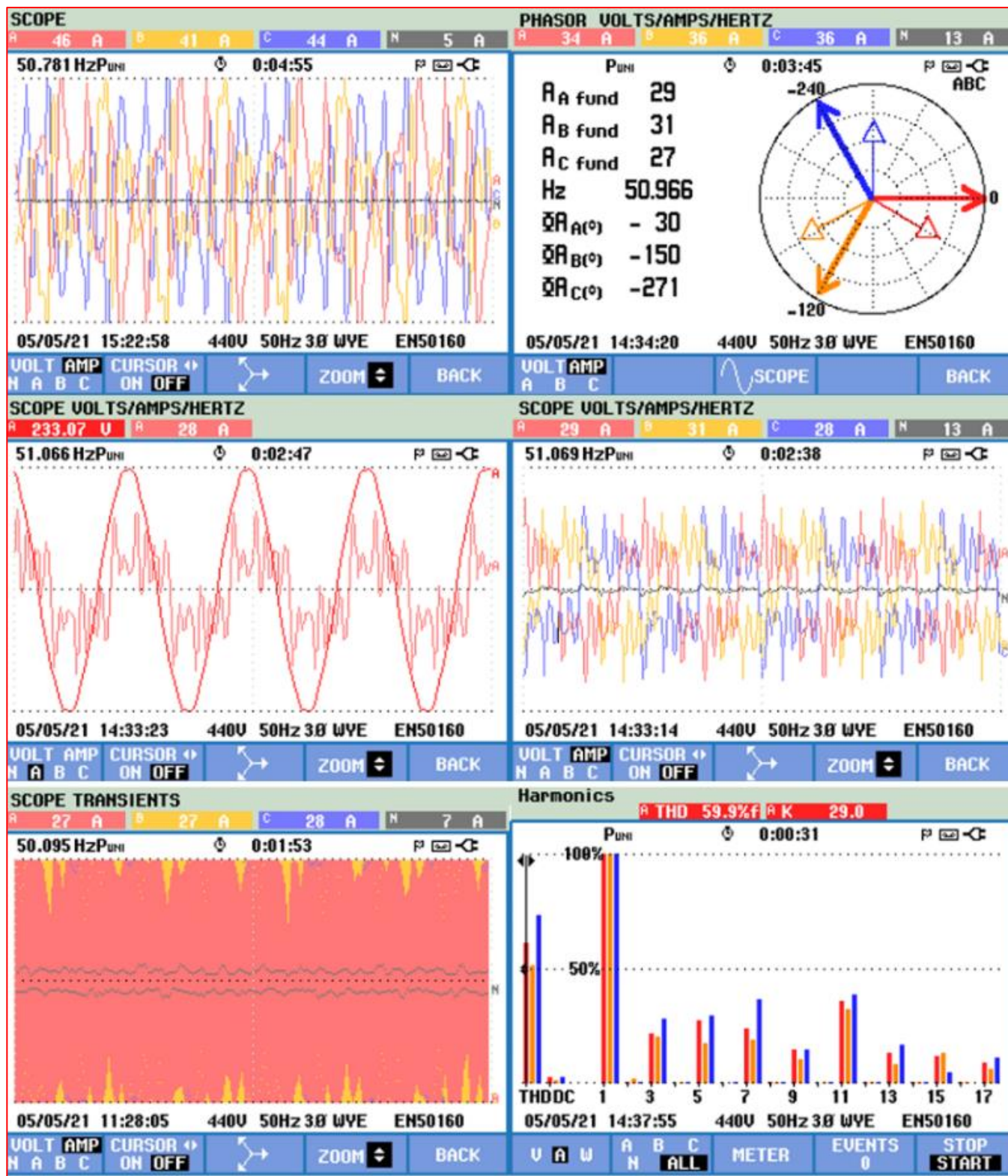


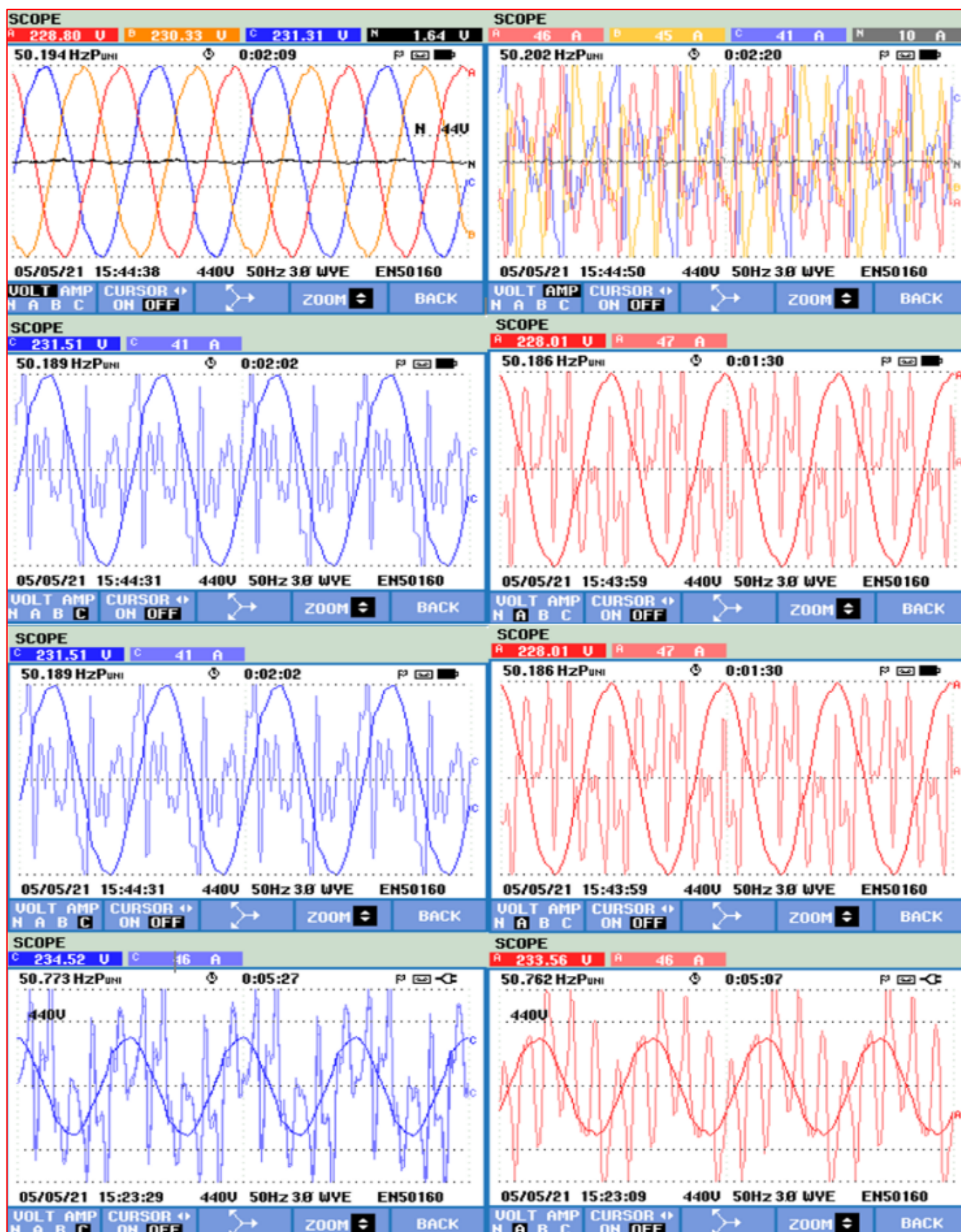
SAMPLE REAL TIME MEASURED PQ PARAMETER

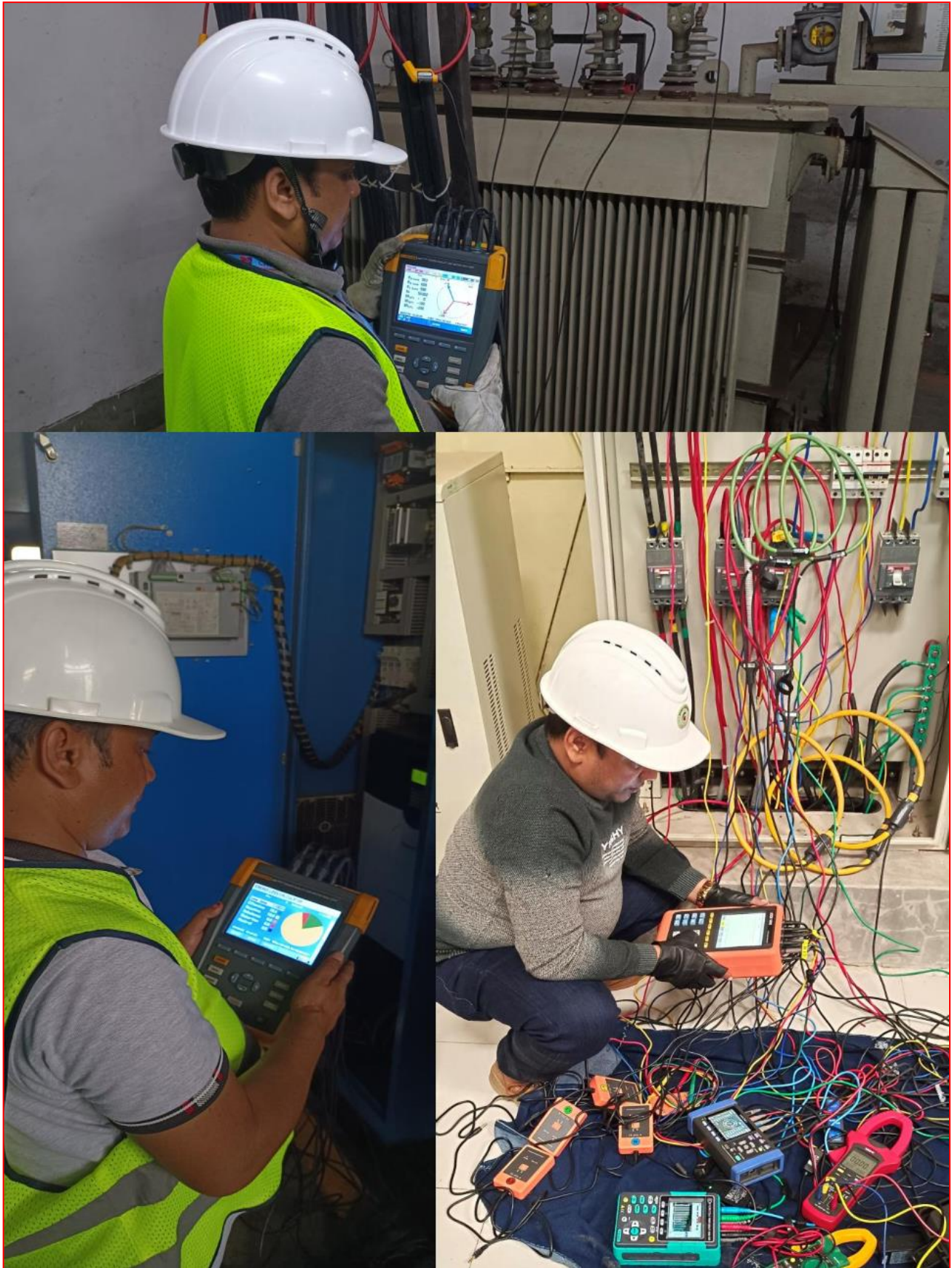


Harmonics Profile Gas generator (major order)											
Voltage Profile(V)						Current Profile(V)					
Orders	Range	R	Y	B		Orders	Range	R	Y	B	
0th	Max	0.70%	0.40%	0.60%		0th	Max	1.70%	0.80%	0.50%	
	Avg	0.40%	0.18%	0.22%			Avg	0.10%	0.10%	0.08%	
	Min	0.10%	0.00%	0.10%			Min	0.00%	0.00%	0.00%	
2nd	Max	0.30%	0.30%	0.20%		2nd	Max	40.40%	61.20%	11.00%	
	Avg	0.06%	0.06%	0.06%			Avg	3.07%	5.14%	1.90%	
	Min	0.00%	0.00%	0.00%			Min	0.00%	0.00%	0.00%	
3rd	Max	0.80%	1.00%	0.40%		3rd	Max	2.00%	0.80%	0.20%	
	Avg	0.34%	0.59%	0.15%			Avg	0.05%	0.04%	0.05%	
	Min	0.10%	0.30%	0.00%			Min	0.00%	0.00%	0.00%	
4th	Max	0.20%	0.10%	0.10%		4th	Max	140.60%	87.20%	50.70%	
	Avg	0.06%	0.05%	0.05%			Avg	9.14%	9.69%	9.15%	
	Min	0.00%	0.00%	0.00%			Min	0.00%	0.00%	0.00%	
5th	Max	7.20%	7.20%	7.70%		5th	Max	1.50%	1.80%	0.20%	
	Avg	4.51%	4.75%	4.81%			Avg	0.04%	0.05%	0.04%	
	Min	3.80%	4.10%	4.10%			Min	0.00%	0.00%	0.00%	
6th	Max	0.10%	0.10%	0.10%		6th	Max	95.50%	57.60%	30.80%	
	Avg	0.06%	0.06%	0.06%			Avg	5.77%	5.35%	4.76%	
	Min	0.00%	0.00%	0.00%			Min	0.00%	0.00%	0.00%	
7th	Max	1.50%	1.90%	2.40%		7th	Max	0.80%	0.20%	0.70%	
	Avg	0.75%	0.88%	0.97%			Avg	0.04%	0.03%	0.05%	
	Min	0.30%	0.50%	0.40%			Min	0.00%	0.00%	0.00%	
8th	Max	0.10%	0.10%	0.10%		8th	Max	22.00%	8.00%	9.00%	
	Avg	0.05%	0.05%	0.06%			Avg	1.57%	2.10%	1.37%	
	Min	0.00%	0.00%	0.00%			Min	0.00%	0.00%	0.00%	
9th	Max	0.90%	1.50%	1.40%		9th	Max	1.10%	0.10%	0.20%	
	Avg	0.31%	0.75%	0.23%			Avg	0.04%	0.03%	0.04%	
	Min	0.10%	0.10%	0.00%			Min	0.00%	0.00%	0.00%	
10th	Max	0.10%	0.10%	0.10%		10th	Max	18.70%	22.30%	3.40%	
	Avg	0.06%	0.05%	0.06%			Avg	2.52%	2.28%	2.26%	
	Min	0.00%	0.00%	0.00%			Min	0.00%	0.00%	0.00%	
11th	Max	3.80%	3.60%	3.20%		11th	Max	0.10%	0.50%	0.20%	
	Avg	2.97%	2.71%	2.49%			Avg	0.03%	0.03%	0.04%	
	Min	0.40%	1.40%	0.30%			Min	0.00%	0.00%	0.00%	
12th	Max	0.10%	0.10%	0.10%		12th	Max	10.90%	3.10%	2.80%	
	Avg	0.06%	0.05%	0.06%			Avg	1.11%	1.46%	1.55%	
	Min	0.00%	0.00%	0.00%			Min	0.00%	0.00%	0.00%	
13th	Max	2.50%	2.80%	3.40%		13th	Max	0.40%	0.30%	0.10%	
	Avg	1.73%	2.13%	2.47%			Avg	0.03%	0.03%	0.04%	
	Min	0.30%	0.20%	0.10%			Min	0.00%	0.00%	0.00%	
14th	Max	0.10%	0.10%	0.10%		14th	Max	6.20%	6.80%	1.50%	
	Avg	0.05%	0.05%	0.06%			Avg	0.37%	0.31%	0.38%	
	Min	0.00%	0.00%	0.00%			Min	0.00%	0.00%	0.00%	
15th	Max	0.40%	0.90%	0.80%		15th	Max	2.50%	2.80%	3.40%	
	Avg	0.19%	0.51%	0.42%			Avg	1.73%	2.13%	2.47%	
	Min	0.00%	0.10%	0.10%			Min	0.30%	0.20%	0.10%	
16th	Max	0.10%	0.10%	0.10%		16th	Max	0.10%	0.10%	0.10%	
	Avg	0.06%	0.05%	0.07%			Avg	0.05%	0.05%	0.06%	
	Min	0.00%	0.00%	0.00%			Min	0.00%	0.00%	0.00%	
17th	Max	1.60%	1.40%	1.20%		17th	Max	0.40%	0.90%	0.80%	
	Avg	0.58%	0.51%	0.34%			Avg	0.19%	0.51%	0.42%	
	Min	0.00%	0.10%	0.00%			Min	0.00%	0.10%	0.10%	
18th	Max	0.10%	0.10%	0.10%		18th	Max	0.10%	0.10%	0.10%	
	Avg	0.06%	0.06%	0.06%			Avg	0.06%	0.05%	0.07%	
	Min	0.00%	0.00%	0.00%			Min	0.00%	0.00%	0.00%	
19th	Max	1.20%	1.30%	1.50%		19th	Max	1.60%	1.40%	1.20%	
	Avg	0.34%	0.40%	0.46%			Avg	0.53%	0.51%	0.34%	
	Min	0.00%	0.00%	0.10%			Min	0.00%	0.10%	0.00%	
20th	Max	0.10%	0.10%	0.10%		20th	Max	0.10%	0.10%	0.10%	
	Avg	0.06%	0.05%	0.05%			Avg	0%	1%	0%	
	Min	0.00%	0.00%	0.00%			Min	0%	0%	0%	

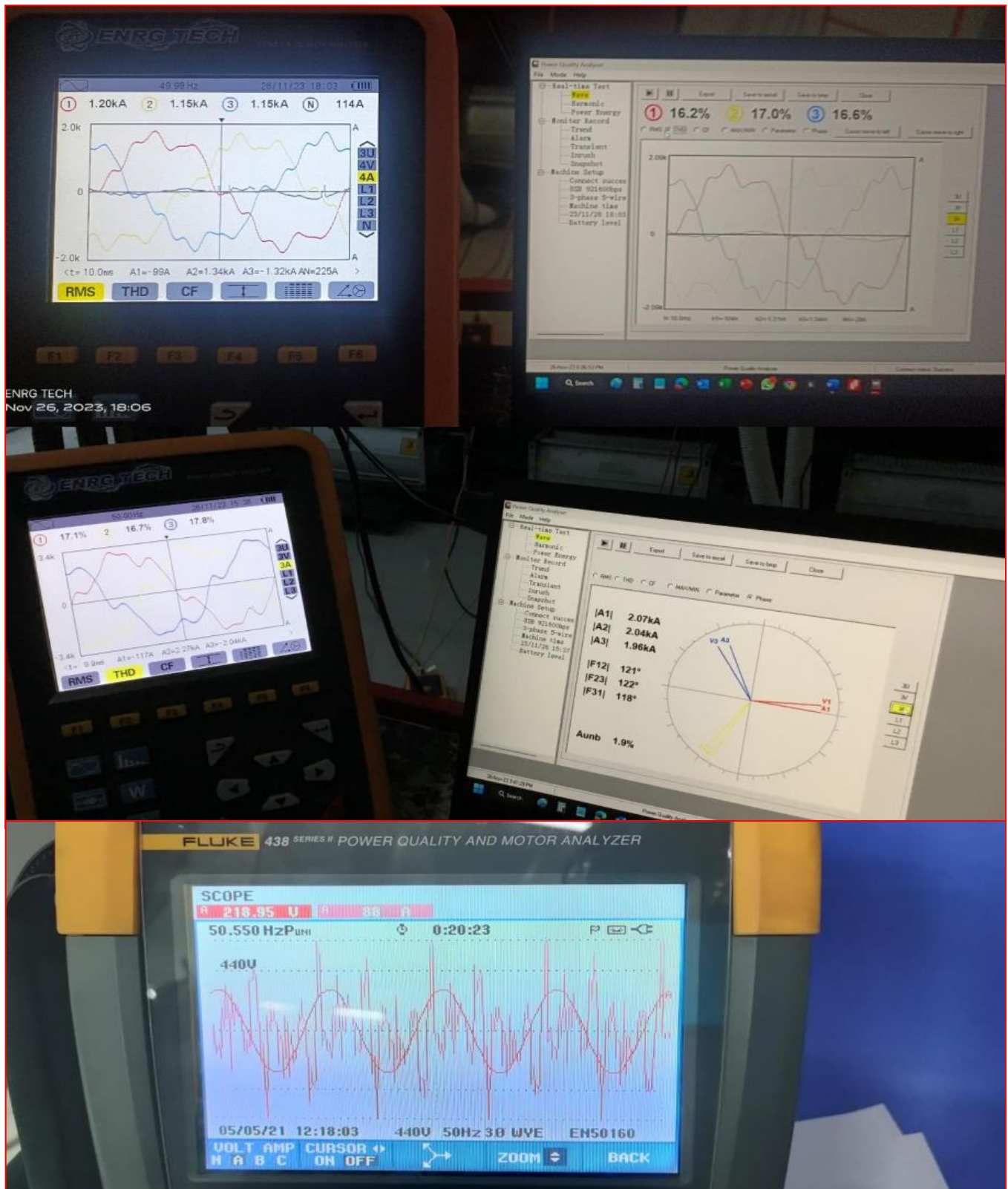


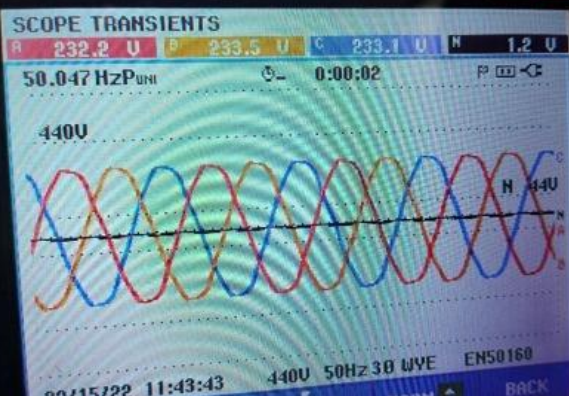
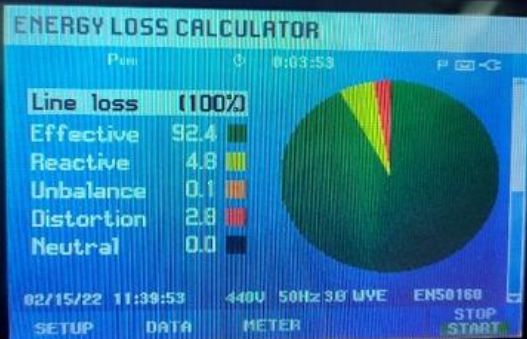












THE END

