



ESEC[®]
EAST SEA ENERGY ENVIRONMENT



Project: ETAP POWER ENGINEERING SERVICE
Customer: INTEL PRODUCTS VIETNAM (IPV)

TURN IT BALANCE

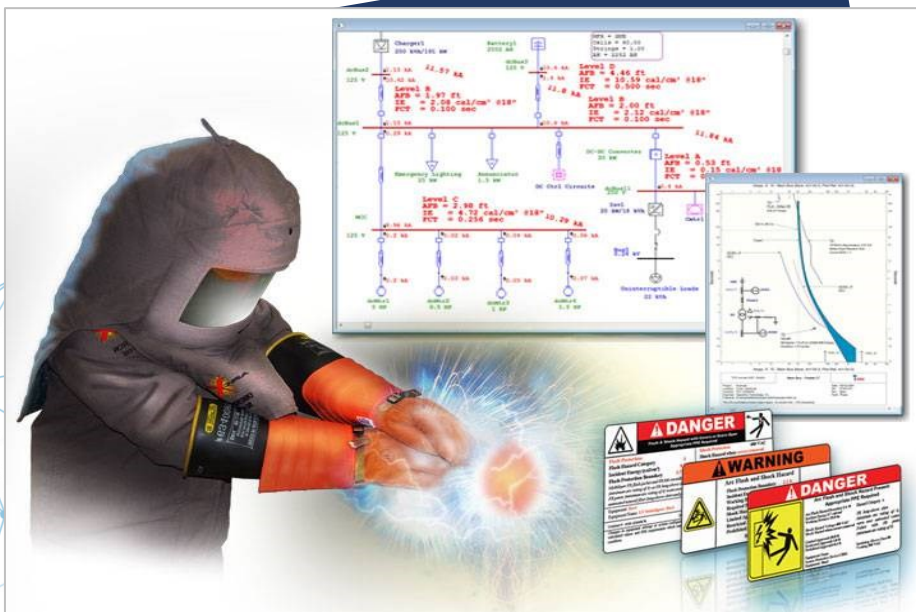
Customer Profile



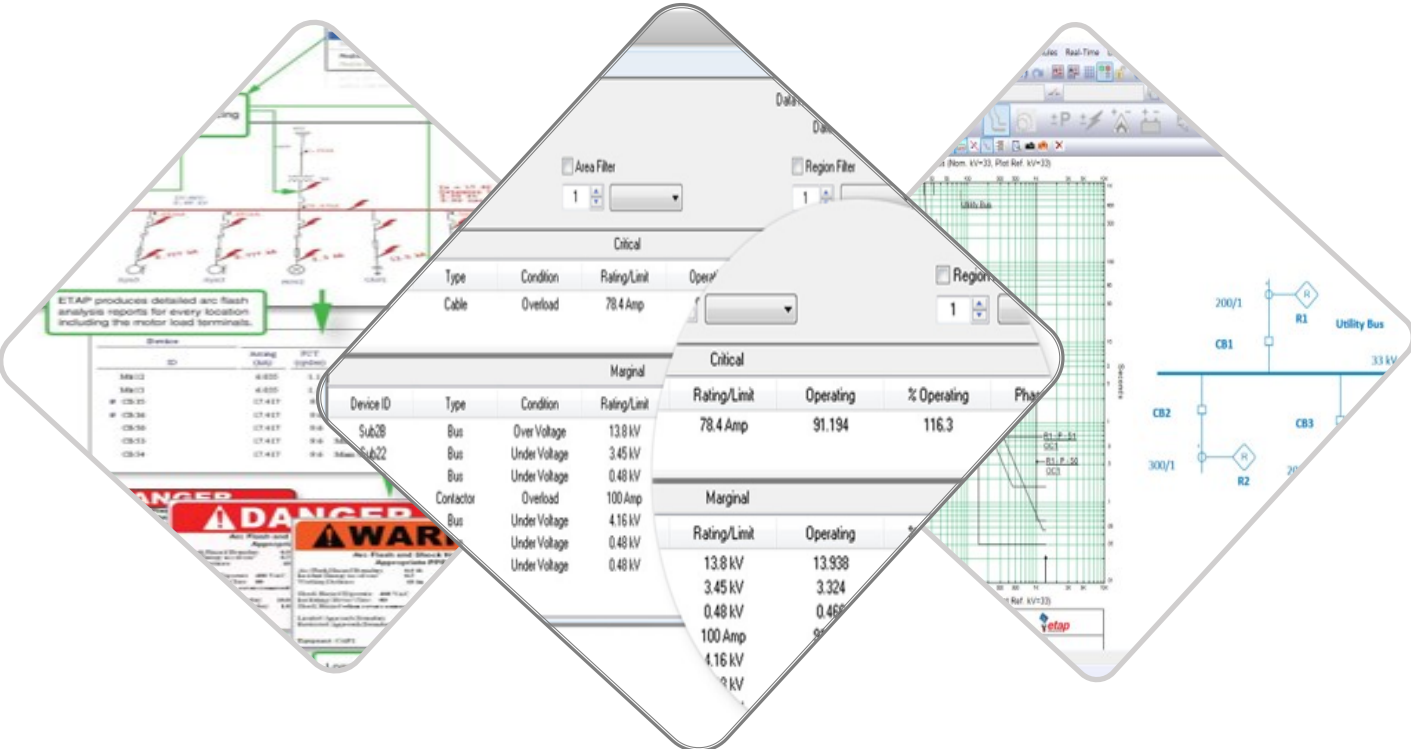
Intel Products Vietnam (IPV) with 1 billion USD investment is its seventh and largest assembly test plant within Intel Assembly and Test (ATM) network to produce chipset. Intel Products Vietnam is very proud of producing Intel's latest technology chip products including 5G, IOT, Desktop, Mobile etc. This plant is the first investment of its kind in the semiconductor industry in Vietnam.

PROBLEM

- ✔ Power System Data was Out-to-date
- ✔ Relay Setting Values are NOT selective co-ordination, between upstream - downstream, bus levels.
- ✔ Arc Flash category of electrical panels is HIGH unusually.
- ✔ Many difficulties in operation, trouble –shooting, maintenance and expansion plan.



The Solution



ETAP produces detailed arc flash analysis reports for every location including the motor load terminals.

Device ID	Type	Condition	Rating/Limit	Operating	% Operating	Phase
Critical						
	Cable	Overload	78.4 Amp			
Marginal						
	Sub08	Bus Over Voltage	13.8 kV	78.4 Amp	91.194	116.3
	Bus	Under Voltage	3.45 kV			
	Bus	Under Voltage	0.48 kV			
	Contactor	Overload	100 Amp			
	Bus	Under Voltage	4.16 kV			
	Bus	Under Voltage	0.48 kV			
	Bus	Under Voltage	0.48 kV			
Marginal						
			Rating/Limit	Operating		
			13.8 kV	13.938		
			3.45 kV	3.324		
			0.48 kV	0.468		
			100 Amp	91.194		
			4.16 kV			
			0.48 kV			



ETAP Power Engineering, using ETAP software, performs modeling and study to produce report and recommendation

- ✔ Data collection & verification.
- ✔ System modelling.
- ✔ Load Flow analysis.
- ✔ Short Circuit calculation.
- ✔ Protective Relay co-ordination.
- ✔ Arc Flash analysis with NFPA 70E, IEEE 1584 standard.

Customer benefits

Entire electrical system has been updated, re-calculated and analyzed with most up-to-date configuration, operation scenarios that Intel plant might have. In addition, future expansion has also been taken into consideration.



Equipment duty, operating parameters were well checked, verified and adjusted

Protection devices were selective co-ordination. Re-setting values obtained for onsite adjustment

Incident energy and arc flash level of several panels reduced significantly

System configuration and equipment parameters were updated, full ready to serve for operation, maintenance and expansion

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