

Results and Benefits

The benefits received by the Electricity Generating Authority of Thailand (EGAT) include:

- 1. Increased revenue to EGAT's subsidiaries: 263.73 million THB
- 2. Dividends received by EGAT: 9.6 million THB
- 3. License fees received by EGAT: 9.8 million THB
- 4. Valuation of EGAT's Know-How: 82 million THB
- 5. Support EGAT's policy as a driving force for achieving its strategic goals
- The benefits to the nation include:
 - 1.Response to government policy by supporting the development of infrastructure for electric vehicle and charging stations across the country
 - 2. Development of Know-How in charger technology, with national ownership of the intellectual property
 - 3. Promoting Carbon Neutrality
 - 4. Reduction in imports and capital outflow
 - 5. Domestic production by Thai workers, creating jobs and distributing income among the local population

Award

- Excellence Prize, EGAT Invention and Innovation contest 2024
- LabelNo.5 2024

<u>Thai Petty</u> <u>Patent</u>

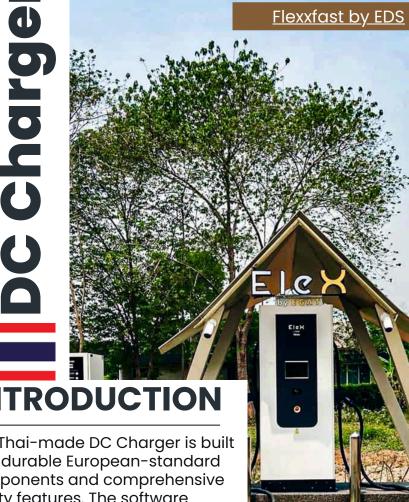
for 1 and	distribution in the second s		
8.8	Subates 2515/2947	under no	
569	Sulfue no	1	
Ange Ange Ange Ange Ange Ange Ange Ange	Aglindikoverstalogisti eta		
entubel	Mharradadad		
remeanalishad sylektes	Setember	unition dates	
10200	12020	unibilitysphiles	
40300)3930	wid.	



MR. SUKRIT JAIDEE MR. KITSANU BUNJONGJIT **MR. SAROD TREESAKON** MR. PHAKPHUM KUANGOEN MS. CHONNIPA KWANJARU MR. KRIENGSAK FUNGYAI



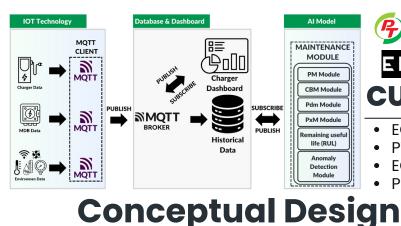
+66811454333 Electricity Generating Authority of Thailand Sukrit.jai@egat.co.th



INTRODUCTION

The Thai-made DC Charger is built with durable European-standard components and comprehensive safety features. The software supports IEC 61851-1, 23, and OCPP communication, with an analytic platform for performance monitoring to ensure efficiency and reliability.

To address the growth of electric vehicles, support EGAT's expertise and strategic goals, align with the government's 30/30 policy, and seize business opportunities, we have developed this innovation.





PTG ENERGY PCL

PRIVATE CUSTOMER

EGCO GROUP

• EGAT

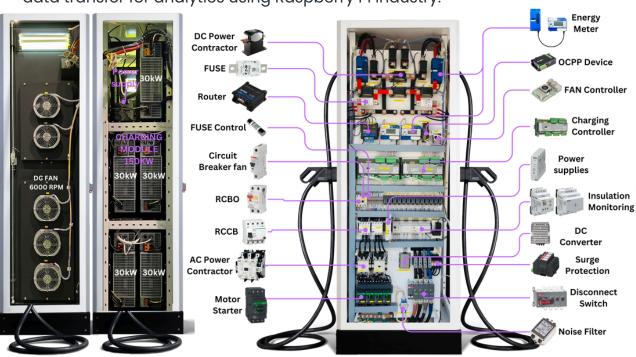
Implementation and Usage

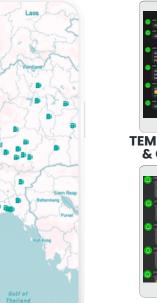
November 2024, we have installed 220 chargers nationwide, with power capacities of 60kW, 120kW, 150kW, and 180kW.

Made in Thailand

The DC Charger consists of four key components:

- Protection Equipment: Includes FUSE, RCBO, RCCB, AC Contactor, Motor Starter, Insulation Monitoring, Surge Protection, and Circuit Breaker.
- Control Devices: Utilizes PLC for power control, Raspberry Pi Industry for OCPP server communication, and Raspberry Pi 5 for fan speed control and power quality monitoring.
- Control Software: Supports dynamic charging and full safety interlock.
- OCPP Software: Ensures reliable server communication and data transfer for analytics using Raspberry Pi Industry.







MDB

NOTIFICATION

FAN PCB



TEMPERATURE MONITORING



STATION MONITORING

	ON Data -49 dbm	64 296.52 V 642 294.37 V 64 255.94 V 64 113.65 A 642 10.88 A 643 117.60 A
Tot. Tot. Tot.	AL 79284.59 W	A 00.111 E1

MBD MONITORING

(FA	EXX	HEARTBEAT MONITORING					
	STres) <u></u> (.	
14/02/04 04:04	1410-2040(0.01)	1010-010-00-01	54-10-203911-1010	10-10-200 F1 2047	19-10-204115404	15-10-204179120	
10.0308-04108	10.10.204.00712	10.10.2024.0031421	01-10-25(a-10-06.10	44-10-2020-11-20-16	10.10.204113441	18.10304-01146	
9-030-0404	1010-2010/01/02	1010204303420	14-10-2020/11-21/16	9410-204114126	94-10-204 FEB22	1410-2010/034	
1010-208-01854	1010-2010-00-021	1410-00410-0.00	5410-20919-2018	1010-20811-002	10-10-2024 11:26-57	14-10-2004 12-13-00	
	1. FTIE Sedanshamp		15,5mpHangDeat			E.FTE.Parabilitier	
10-10-268 Q-218	1010-2010-0030	1410-2041035-51	54 10-3 Gal19 24CH	4410-208114624	10102041010221	14-10-2024 12-15:54	
W-0-30x O 8-4	1010-208 (\$140-0)	14-10-22418-56-51	\$4-10-253k11-25/17	9410-204114010	9410-20410/061	14-10-204 (219-51	
1010-208-038-0	1010-208-004-41	1010-010-0051-01	5410-20811-2008	1010-20811-002	10.10-2014 12/06/201	14-10-2004 10-23-36	
		3.FTH Aughestern					
10/10/208 02/21/28	14-10-204-0547-46	1410-304-85721-	5410-25311-3018	1010208113045	101020310030	15-10-2524 1827-25	
10.0308-0383	1410-204-000-01	18.10.204-00008	54-035a1+3008	94-10-20a 11501a	44.40-2024 12:40-34	14.10304-0365	
1010-0120-012-04	10.10.218.0147.01			1010-00308-112024		10.10/00/01/01/01	

HEARTBEAT MONITORING

EX ISTan		CHARGING STATUS				U	
10.00	1.FUlldadeathan	2.718.begetong	Harburg(35)	Collimon Challeng Knorg - Rice, stratistic state, NOP	(1, Nathorlange) Rise (1, Nithease) and	EUTONICAMAN)	
	U.P. Interl	217 Investori	Killerhored (K)	of managed	S Floorbarra	Chardwood 1	
11.492	AUA 10-2010/11-11-2017	AGA NO DEPOSITOR AND	AUG 10-10 T10-11 JL 8847	ADD DO STOLED AND	PUA 10-20762-38-11 8/92	10410-01708-018-002	
100	1 PTH Doubling	IL PTOD INvestor	II Send N 1	6 Datament	1.0.0	E PTH Passalestan	
410.000	304 1035584335514	STATUTE ACCURATE	ALL NO DESCRIPTION OF ALL DAY	30+1+2755411.862	104-10-34706-5414-1412	Intelligitation in the	
			H.Bergeborg!			W.PTHL Rengthied	
14792	104-05-1970.54(6)772	202-20203-002	Alla No. In The and St. No. 7	10.05178.004.007	104.05.0006.0014.7012	104-10-0471-10-01002	
						6,778,Parahleton3	
46.1452	204-10-2510708-503402	ADA NO PERSONAL ADA	ALM NO INTERNATIONAL AND	AD4 10-0704 \$122,812	ALL IN THE YORK NEW YORK	INTERNATION OF THE PARTY OF THE	
ang)	SUTTRIANGUE	NUTRI, Nanofatangul.	N. Publication	AL Revealers	N.P. Market	R.Phil. Despit. N.A.	
	C.FTIL Neurgebrah	IT STAR MARKED IN A	Particle Sectors IV 1	(2 hallowd hall	2 II Dated	of \$700 high-shakes	
A DESCRIPTION OF	104 (B. 1078-07-1079	104.05.1010145.54.102	ALC: 10.0176 (11.0 LT)	AUG. 18. (1995) 5114 5107	AUG 10.0101.010.010	No. 10.00301-0.001-010	
-	H.PTVE Seator	21 PTVE Scentrationing	Millionational	a salar	18.PTionettal	st PTHE Seator?	
4.4.20%	104 10-0178-10 Section	204-06-2010/102-26-1022	ALM NO OF NOTABLE AND	AD4-26-10718-4011-812	20430-01013-032	014-10-25748-9-25.0542	
246.49	32410-3538-36-38.992	30410-305642-351782	ALL MORE ALL AND	204-0-3110-3142-842	21Card/001C4L401C	28/401030-04/2012	
610.002	1014-09-2019/k31-51/25/2	204-0511054036.532	\$14.06 WHEN STOLEN #	AD410-0710-0110-012	2014/01/2012 01:00	104-10-021-120-005	

CHARGING MONITORING