

Citation: Shitikantha Dash, Dikshit Chauhan, Dipti Srinivasan, “Profit-Aware EV Utilisation Model in a Sustainable Smart City: A Joint Optimisation over EV System, Urban Power Grid System and City's Road Grid System,” MDPI Smart Cities, 2025.

CG-PG Mapping

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PG Bus number | CG rows | CG columns

2	1	1
3	3	1
4	5	1
5	7	1
6	9	3
7	9	5
8	9	7
9	9	9
10	7	9
11	7	7
12	7	5
13	7	3
14	5	3
15	5	5
16	5	7
17	5	9
18	3	9
19	1	3
20	1	5
21	1	7
22	1	9
23	3	3

24	3	5
25	3	7
26	9	1

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EV details

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Sl. no. of EV | Arrival time | Departure time | Arrival Energy | Desired Energy

1	4	78	11	50
2	4	48	13.50	50
3	7	72	23	50
4	9	43	18.75	50
5	9	92	17.75	50
6	14	32	18.25	50
7	15	71	11	50
8	16	89	11	50
9	17	55	11	50
10	19	44	11	50
11	19	44	11	50
12	19	73	23.75	50
13	21	71	11	50
14	22	45	12.75	50
15	22	56	20	50
16	23	76	11	50
17	23	64	15.75	50
18	25	60	13	50
19	27	51	22.50	50
20	30	85	13.75	50

21	31	86	20.50	50	
22	32		89	23.50	50
23	33		57	11	50
24	34		43	11.50	50
25	34		87	15.50	50
26	36		60	12	50
27	40		54	24	50
28	43		62	11	50
29	44		83	15.50	50
30	46		54	13	50