

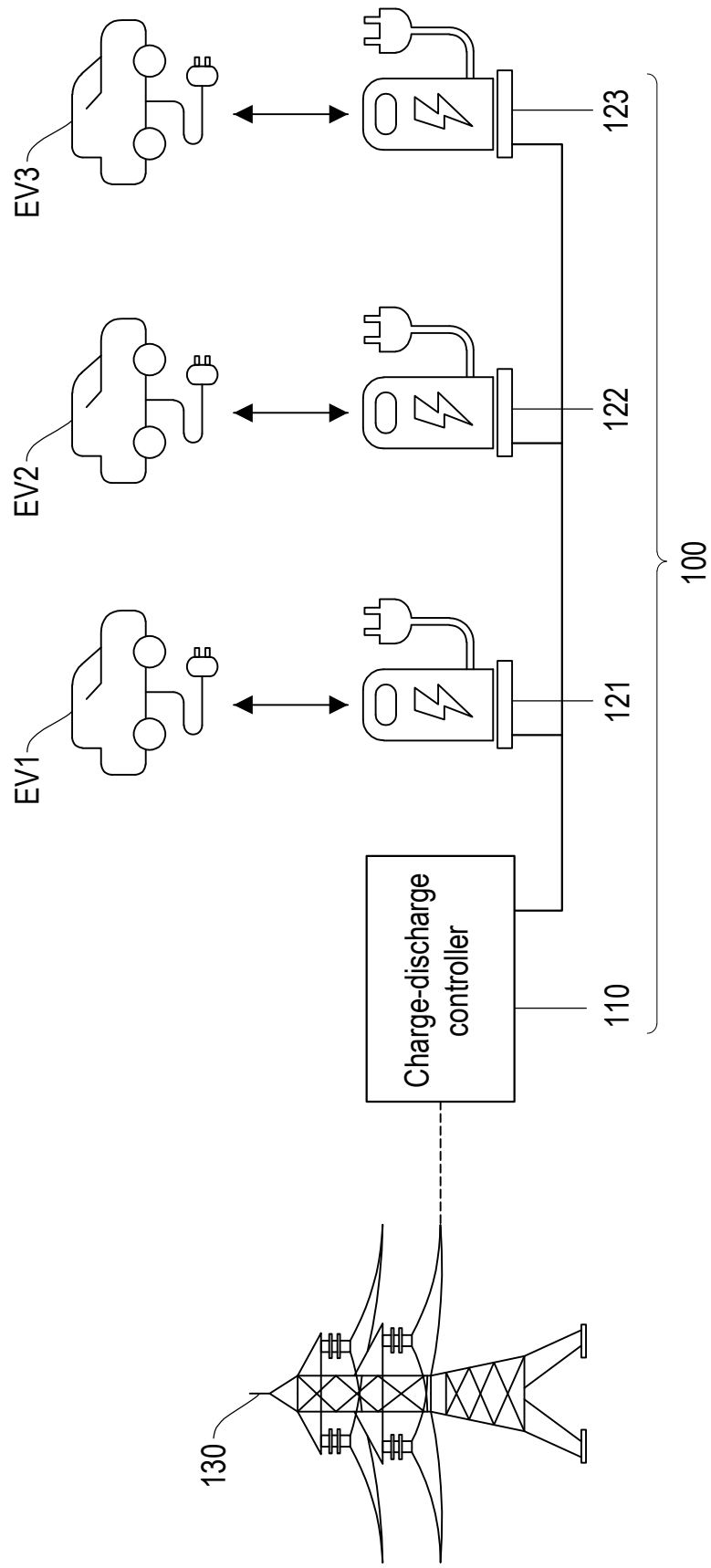


FIG. 1

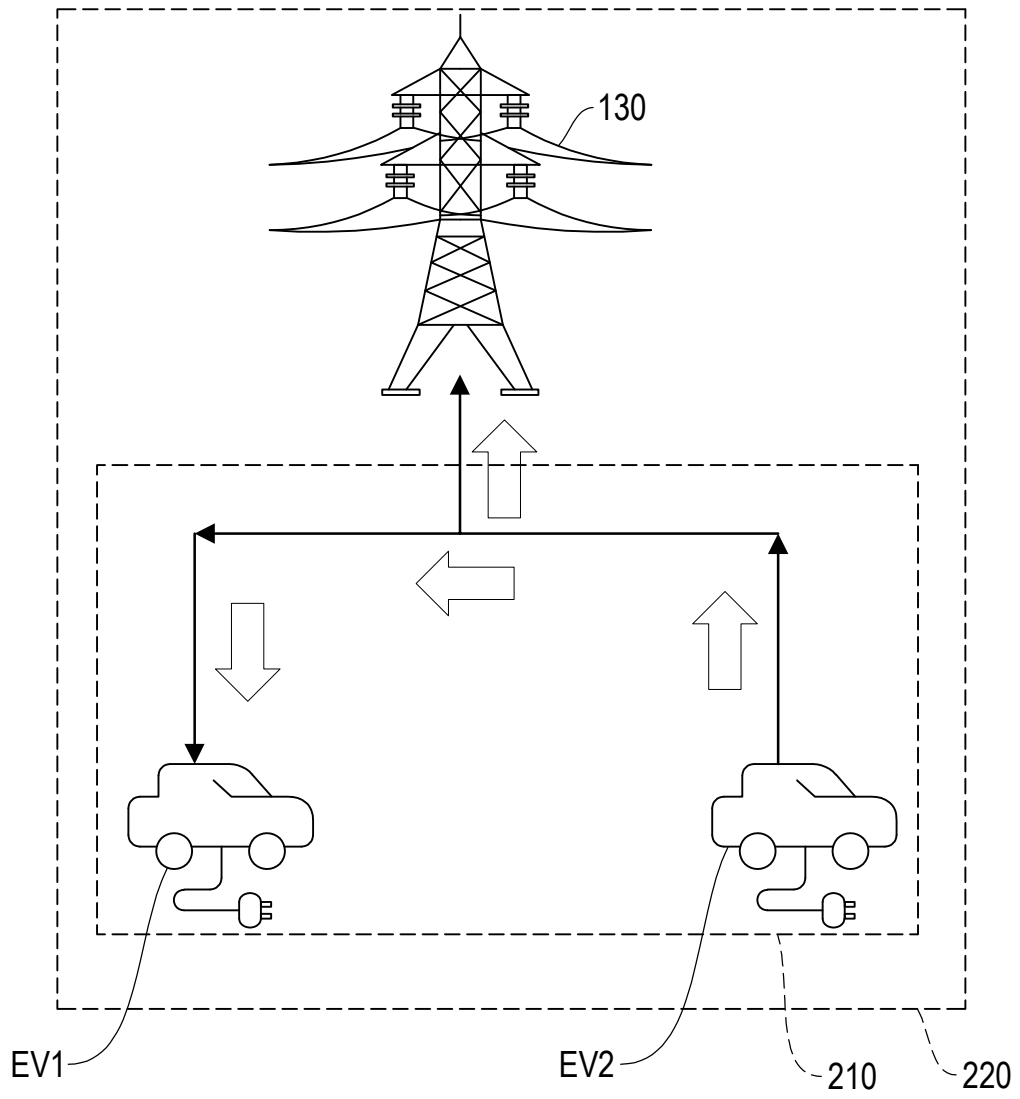


FIG. 2

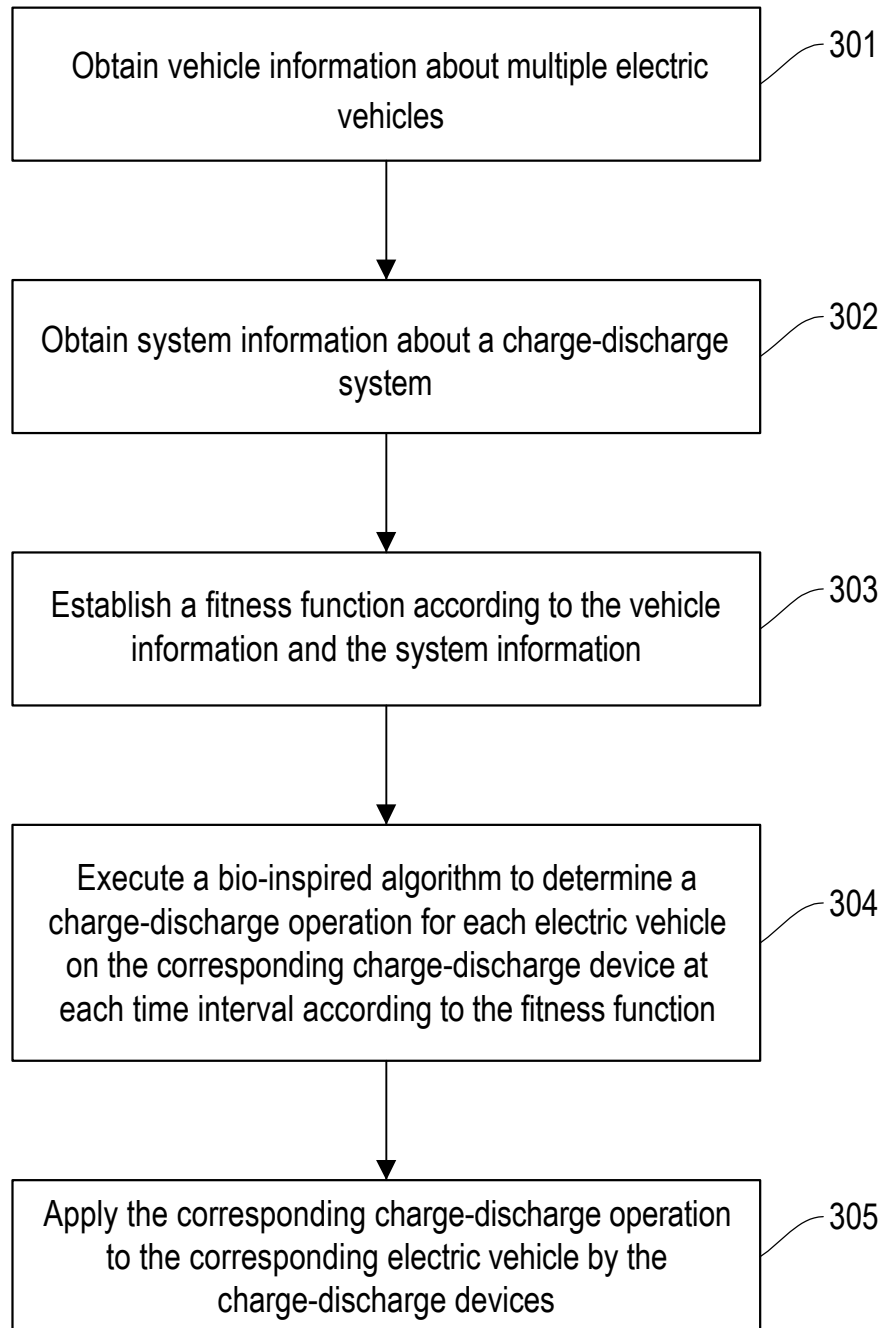


FIG. 3

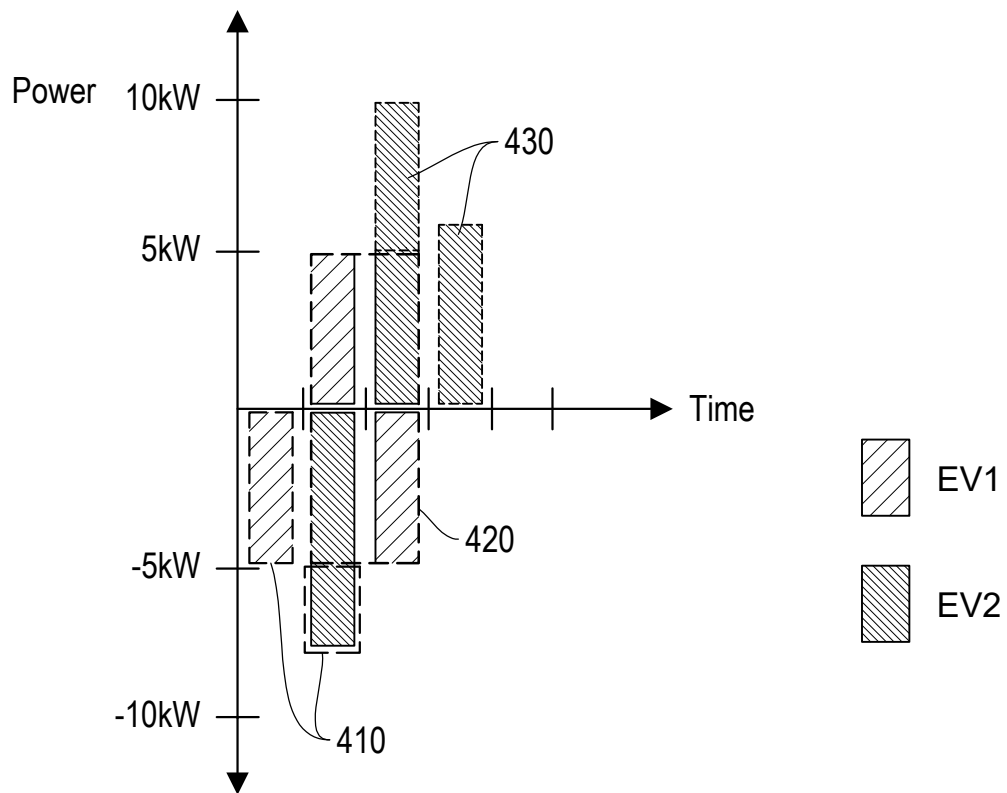


FIG. 4

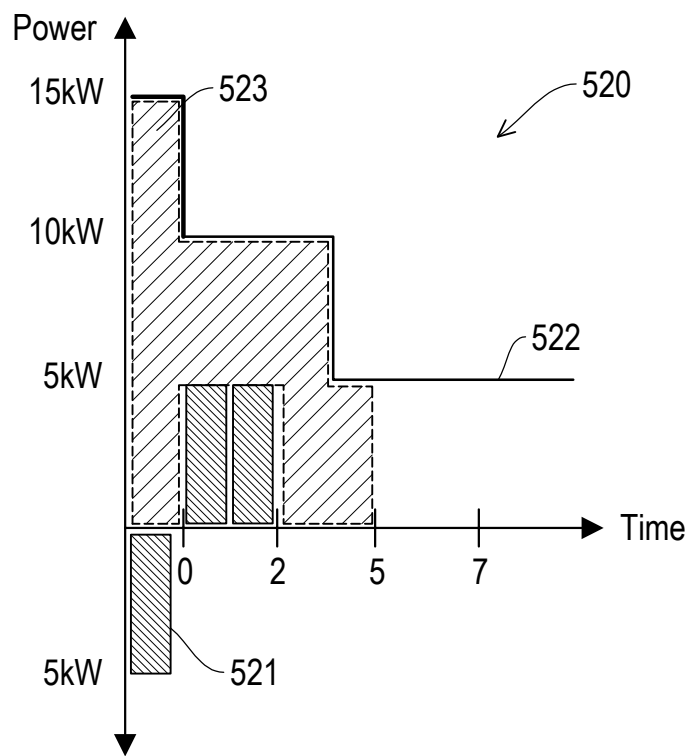
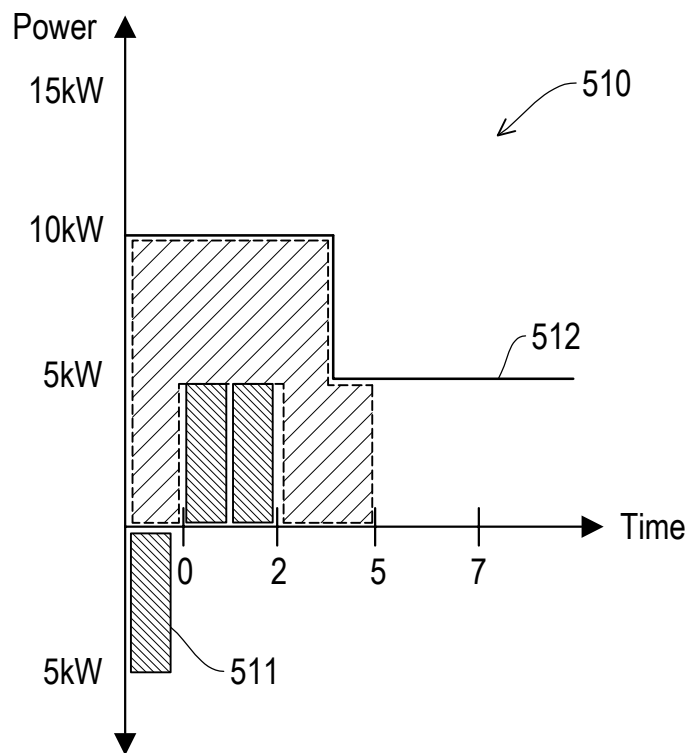


FIG. 5

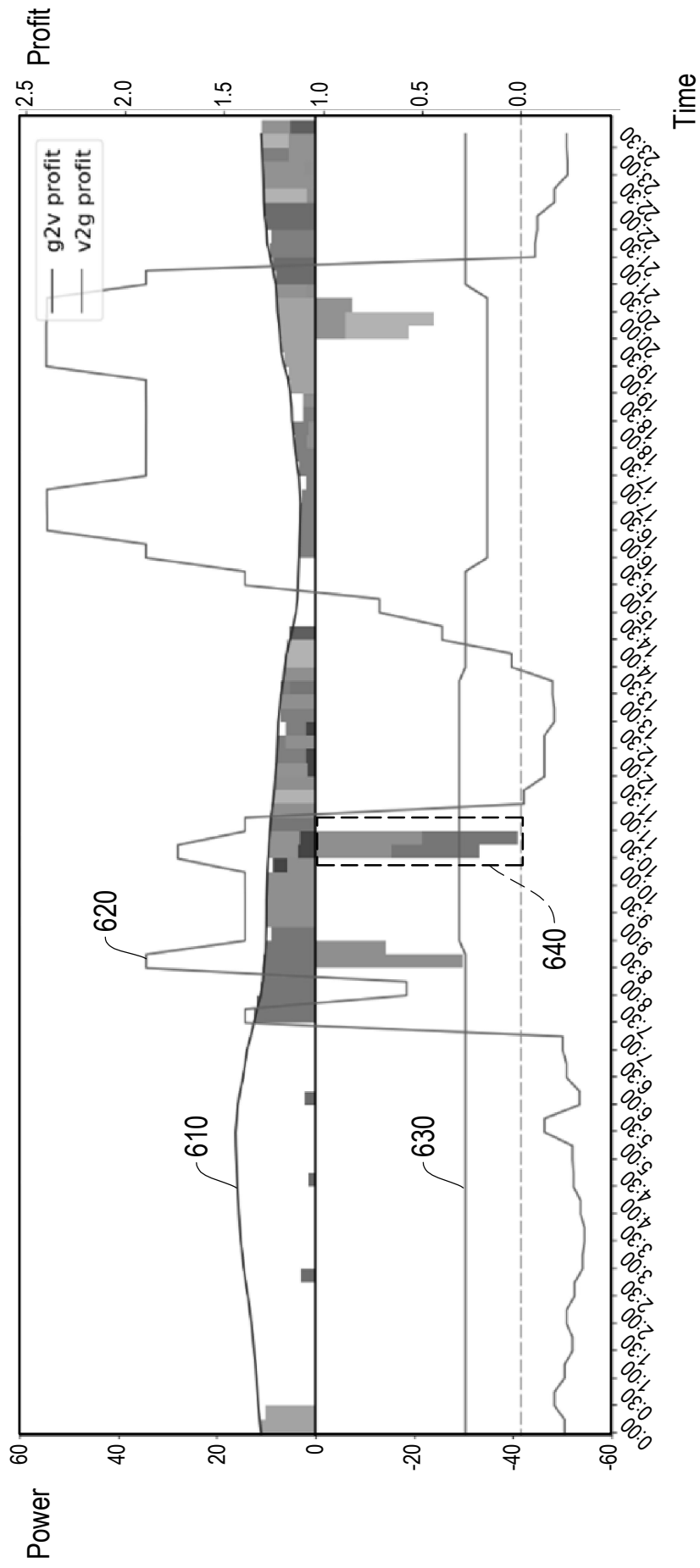


FIG. 6

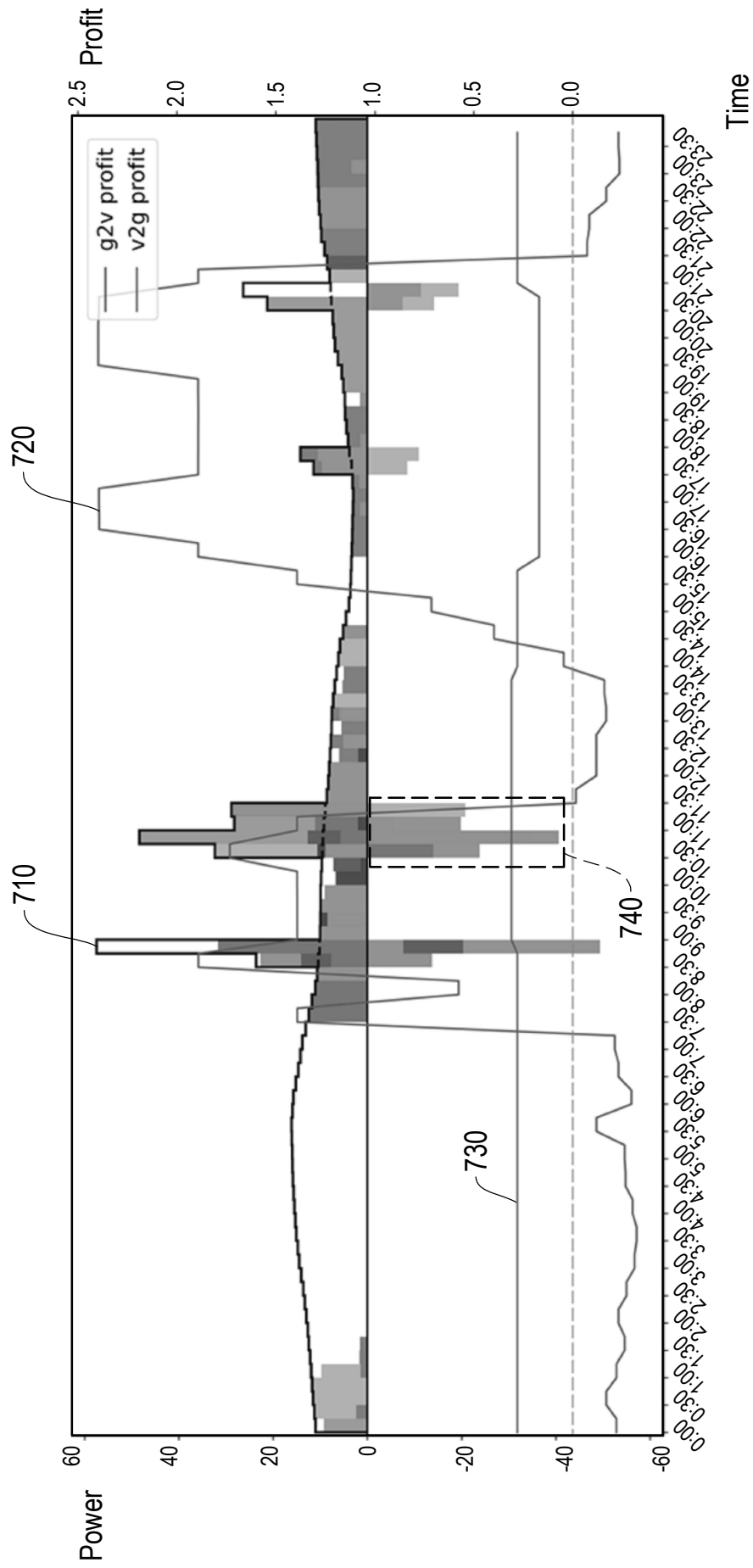


FIG. 7

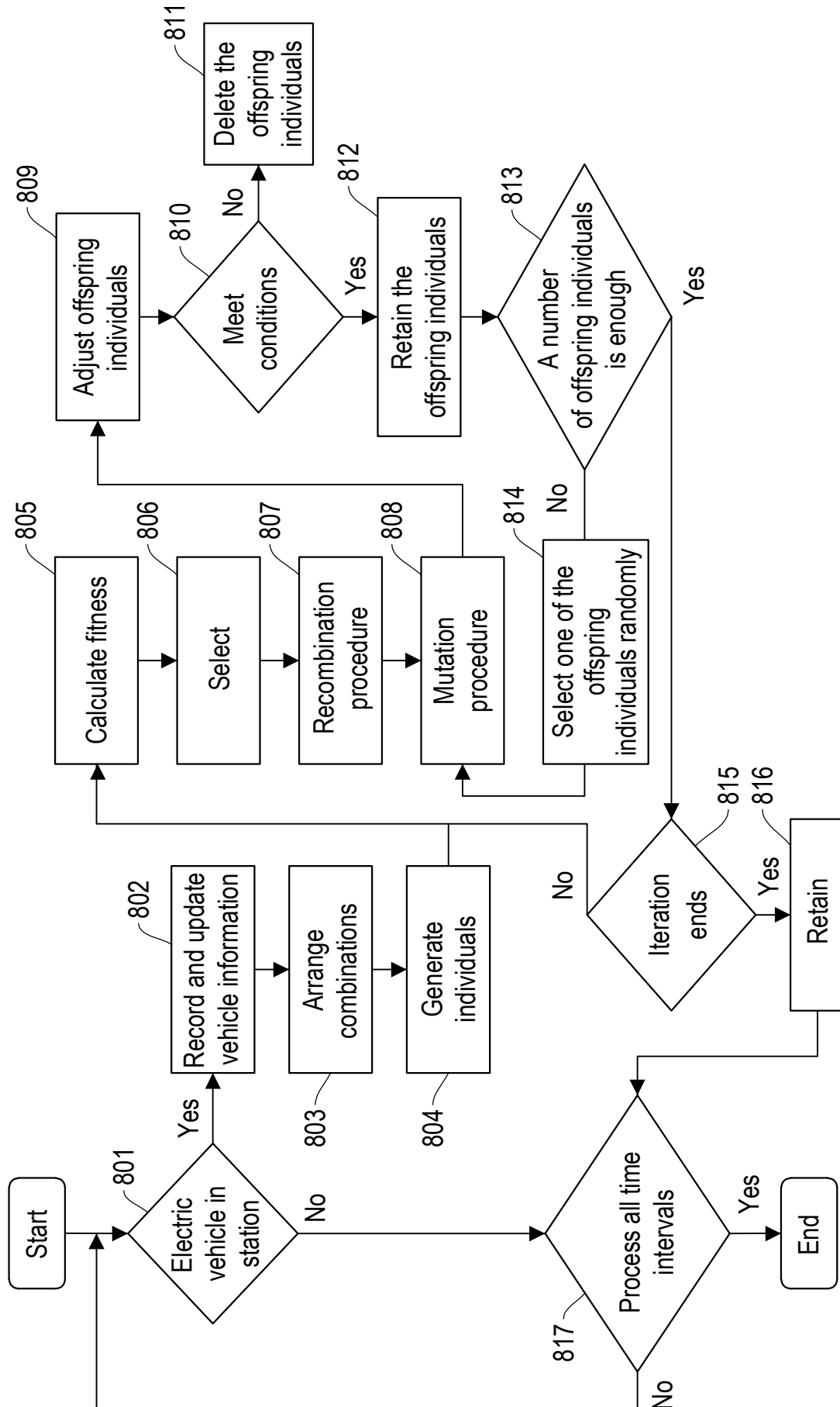


FIG. 8

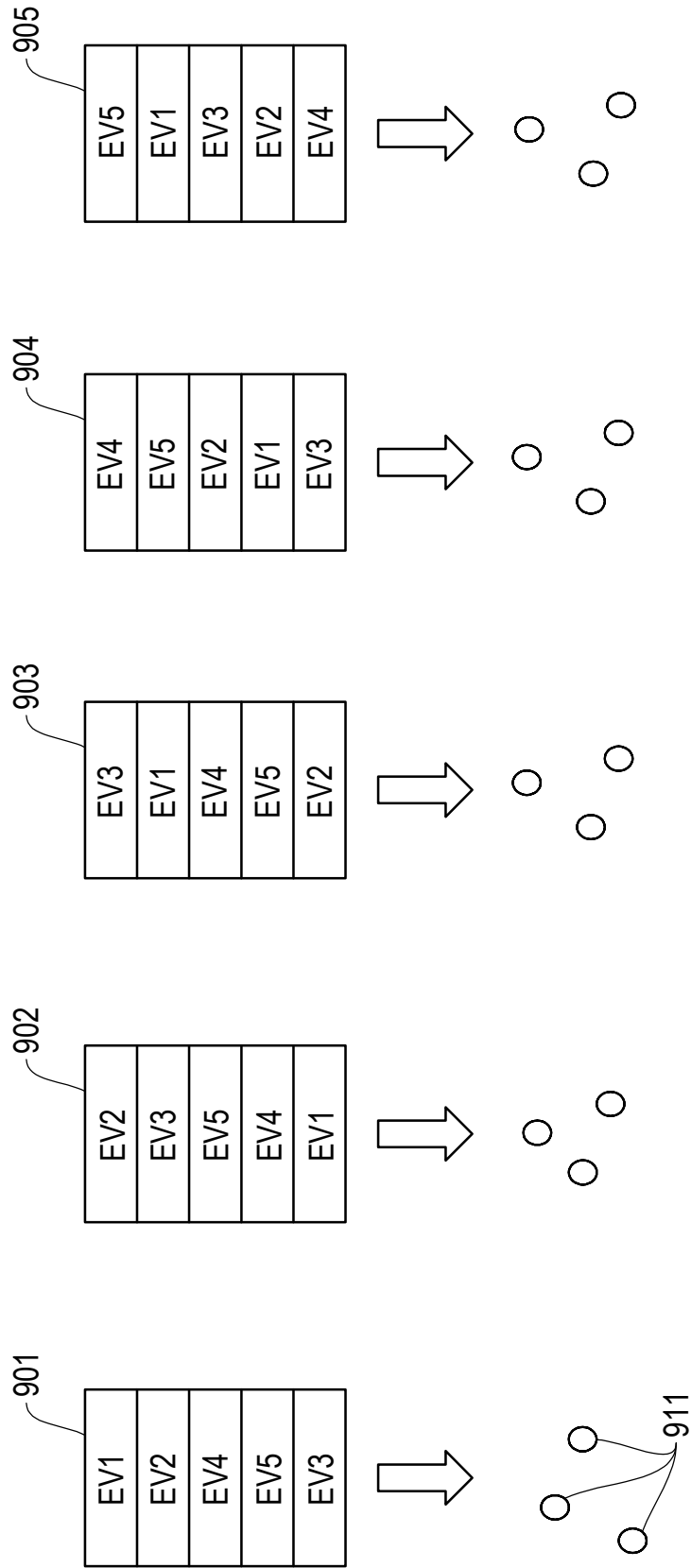


FIG. 9

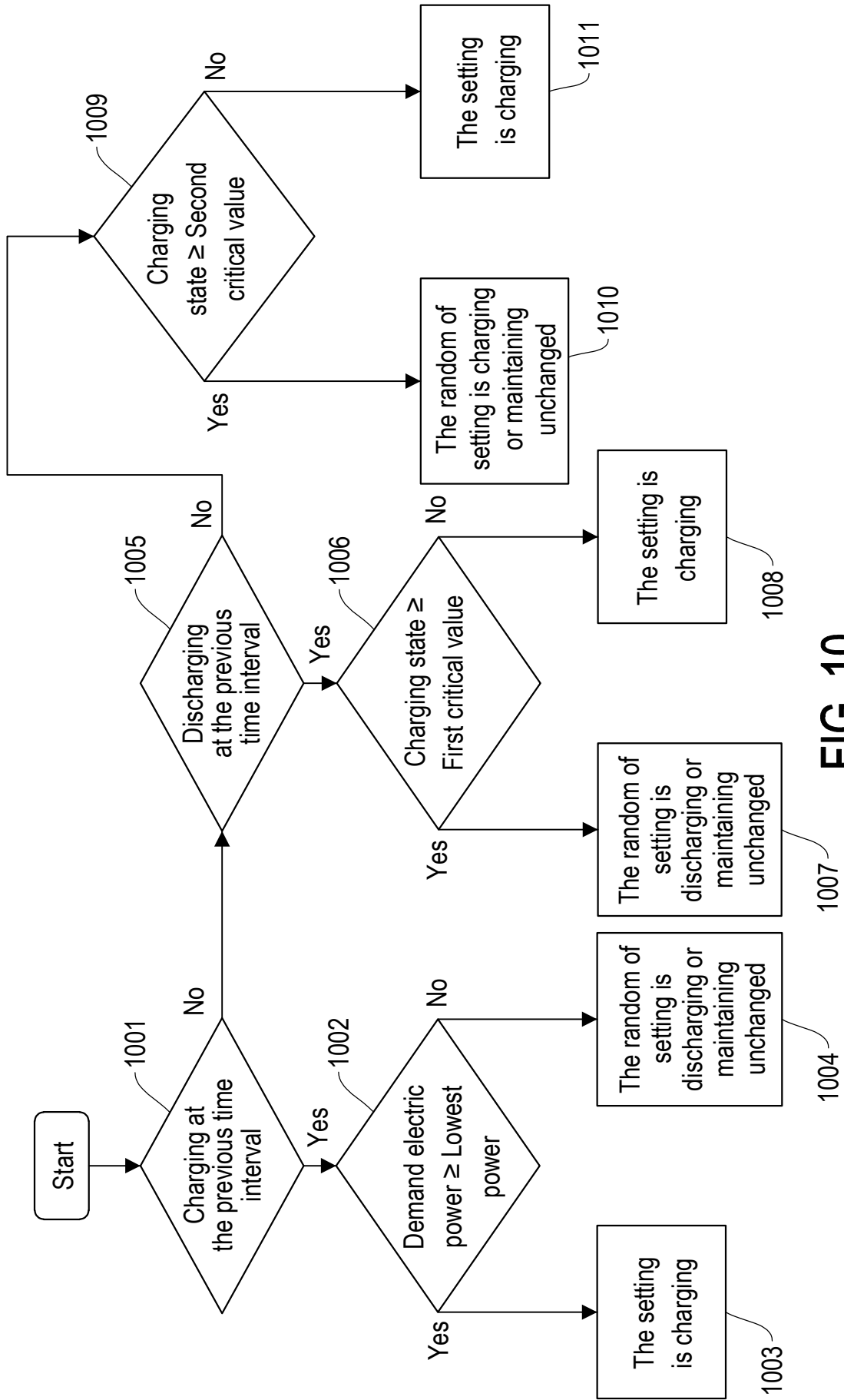


FIG. 10

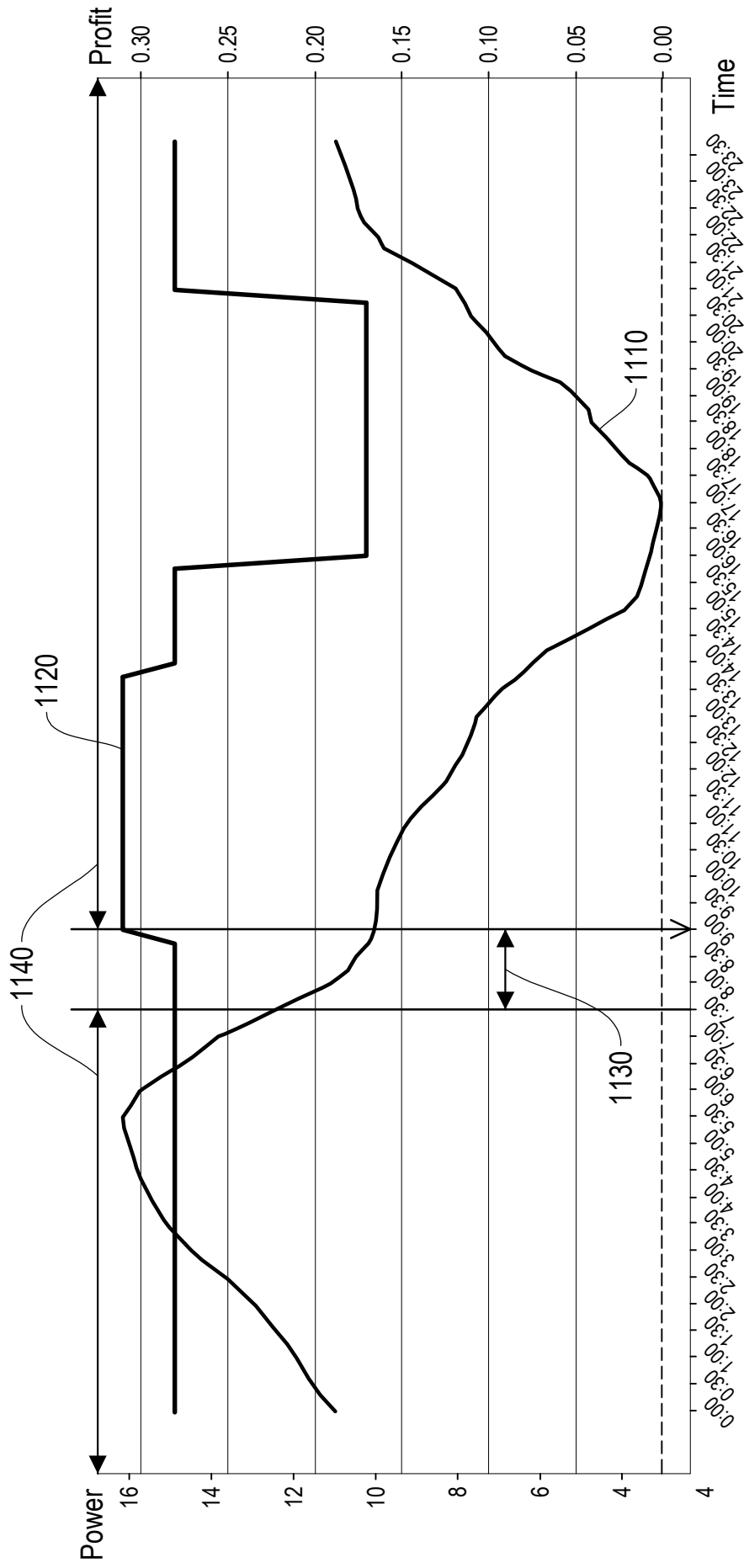


FIG. 11

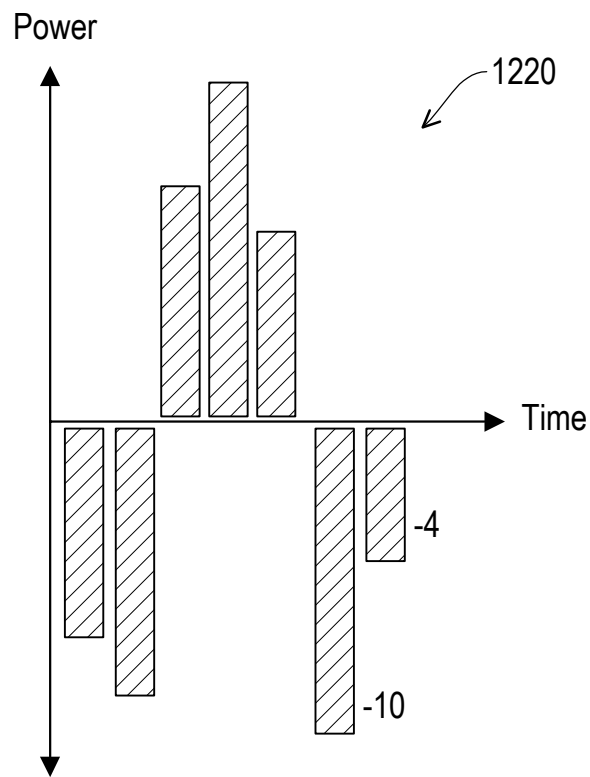
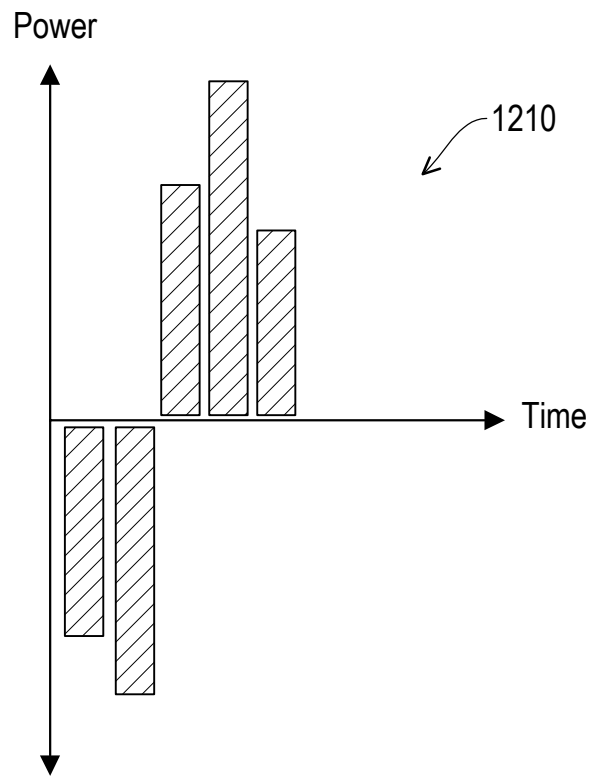


FIG. 12

1300

		P_1	P_2	$P_1 \times P_2$	Additional calculation
Scenario 1	Penalty	X	X	$1 \times 1 = 1$	
	Value	1	1		
Scenario 2	Penalty	X	✓	$1 \times (-M) = -M$	
	Value	1	< 0		
Scenario 3	Penalty	✓	X	$N \times (-1) = -N$	$P_2 = \begin{cases} -1 & \text{if } P_1 > 1 \text{ and } P_2 = 1 \\ P_2 & \text{otherwise} \end{cases}$
	Value	> 1	-1		
Scenario 4	Penalty	✓	✓	$N \times (-M) = -N \times M$	
	Value	> 1	< 0		
concentrate : $N > 0, M > 0$					

FIG. 13

1400

	Variable δ	Weight W	Importance I
$g2v \rho_t$	1	1	I_{g2v}
$v2g \rho_t$	1	$\frac{(\rho_t^{v2g} - \rho_t^{g2v})}{10}$	I_{v2g}
$v2v \rho_t$	-1	ρ_t^{v2g}	I_{v2g}

FIG. 14

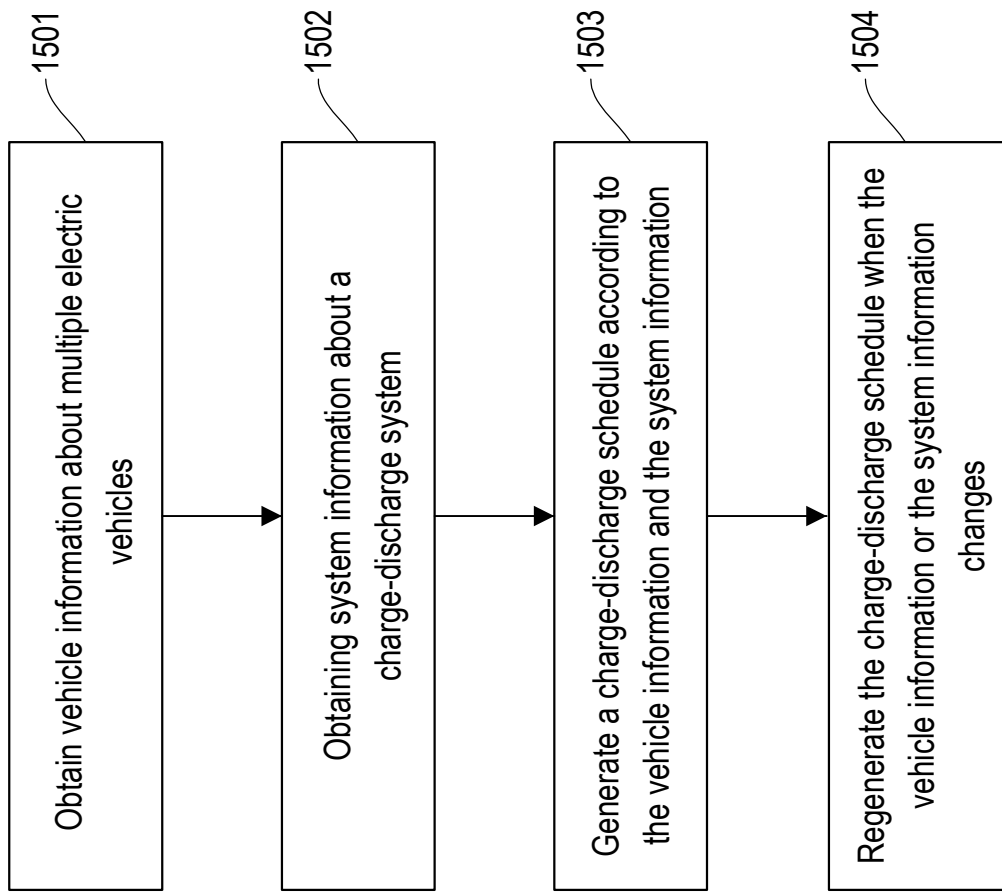


FIG. 15