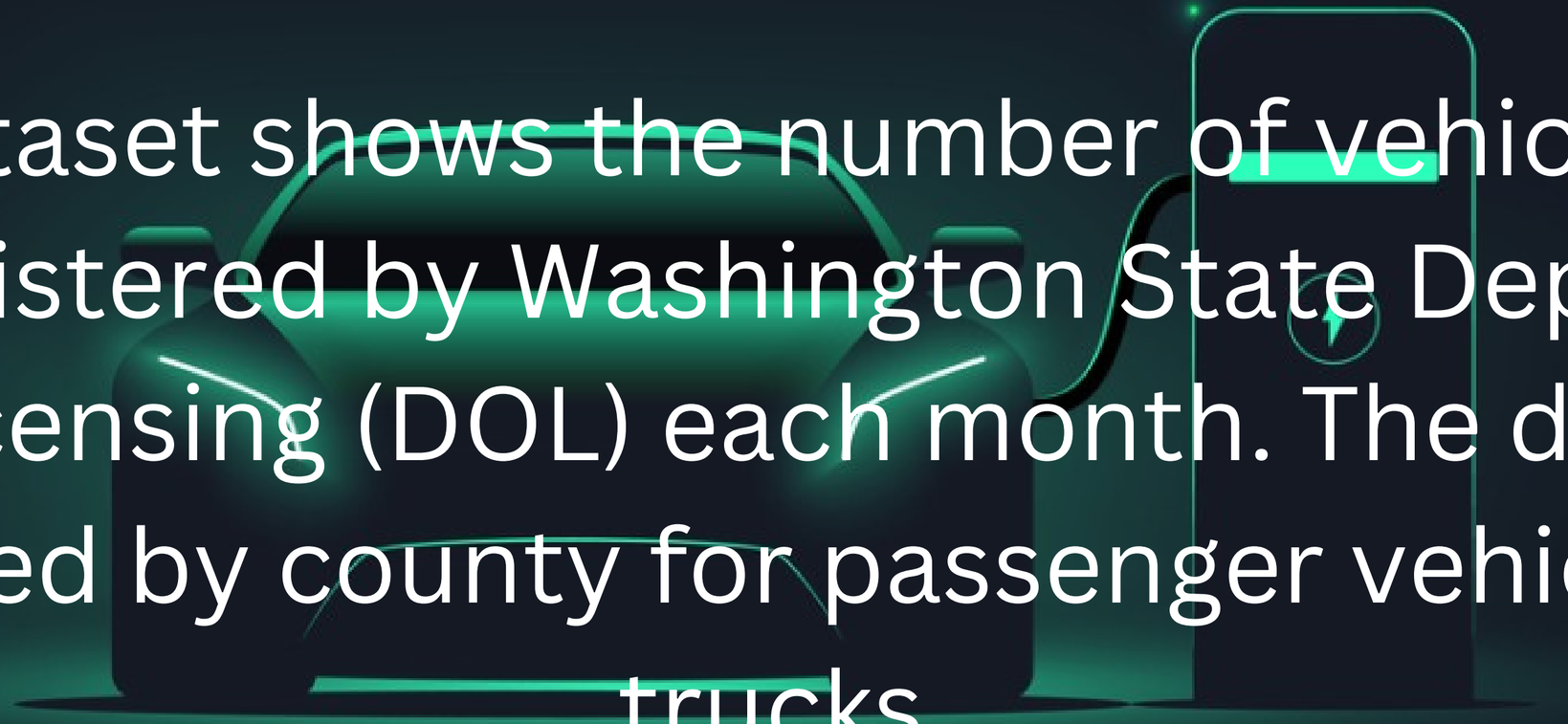
Electric Vehicle Population by Country (2024) Analysis

About Dataset

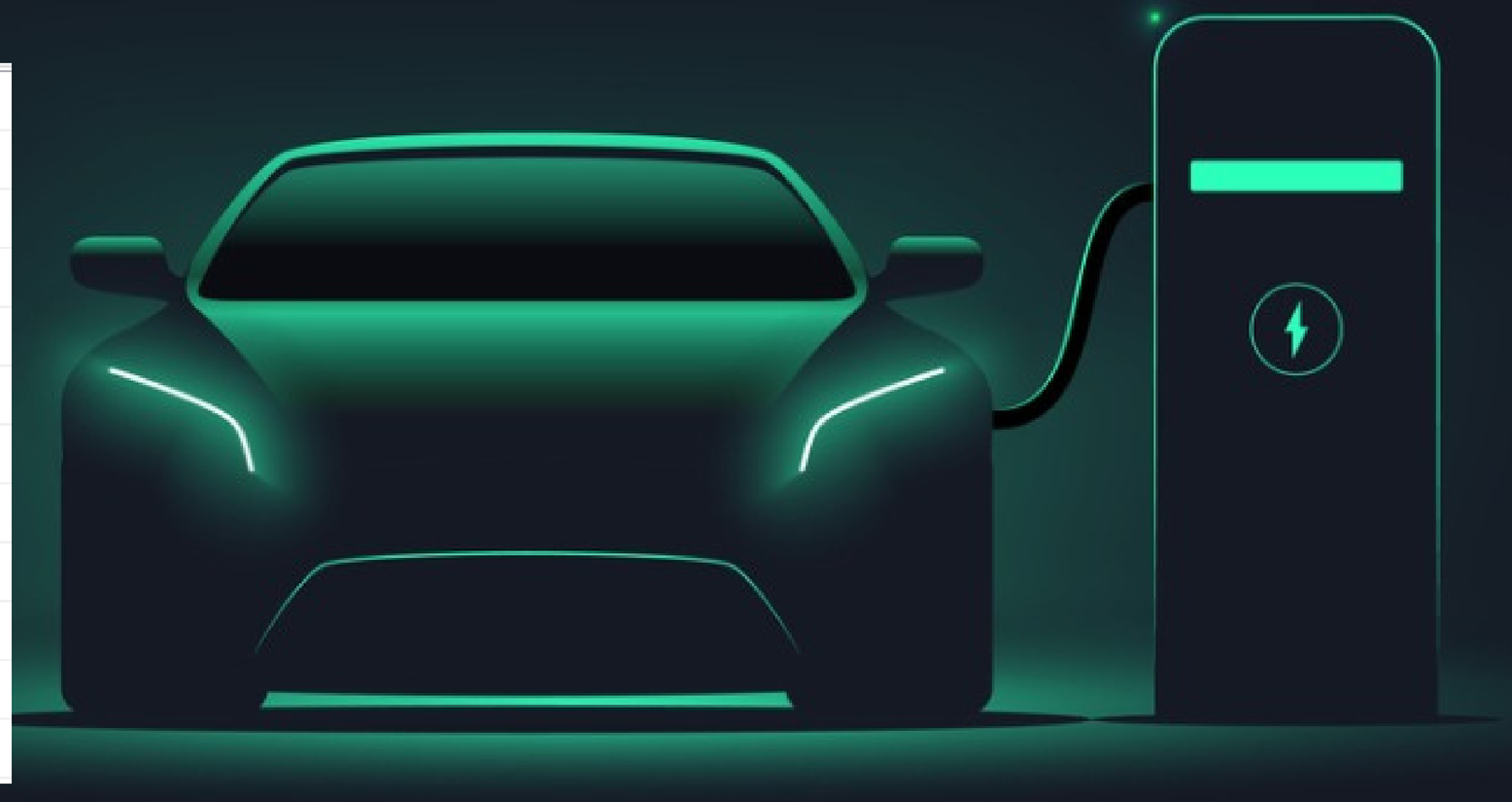


This dataset shows the number of vehicles that were registered by Washington State Department of Licensing (DOL) each month. The data is separated by county for passenger vehicles and trucks.

Count of total vehicles by state

```sql
--Count of total vehicles by state
SELECT State, SUM(CAST(REPLACE(Total_Vehicles, ',', '') AS INT)) AS Total_Vehicles
FROM Electric_Vehicle_Population_Size_History_By_County_
GROUP BY State;
```

	State	Total_Vehicles
1	TX	186107
2	KS	13499
3	PA	13882
4	WI	1523
5	DE	763
6	IN	5116
7	IL	33393
8	NH	1311
9	MD	106305
10	CO	81570
11	DC	16524



Total electric vehicles by state

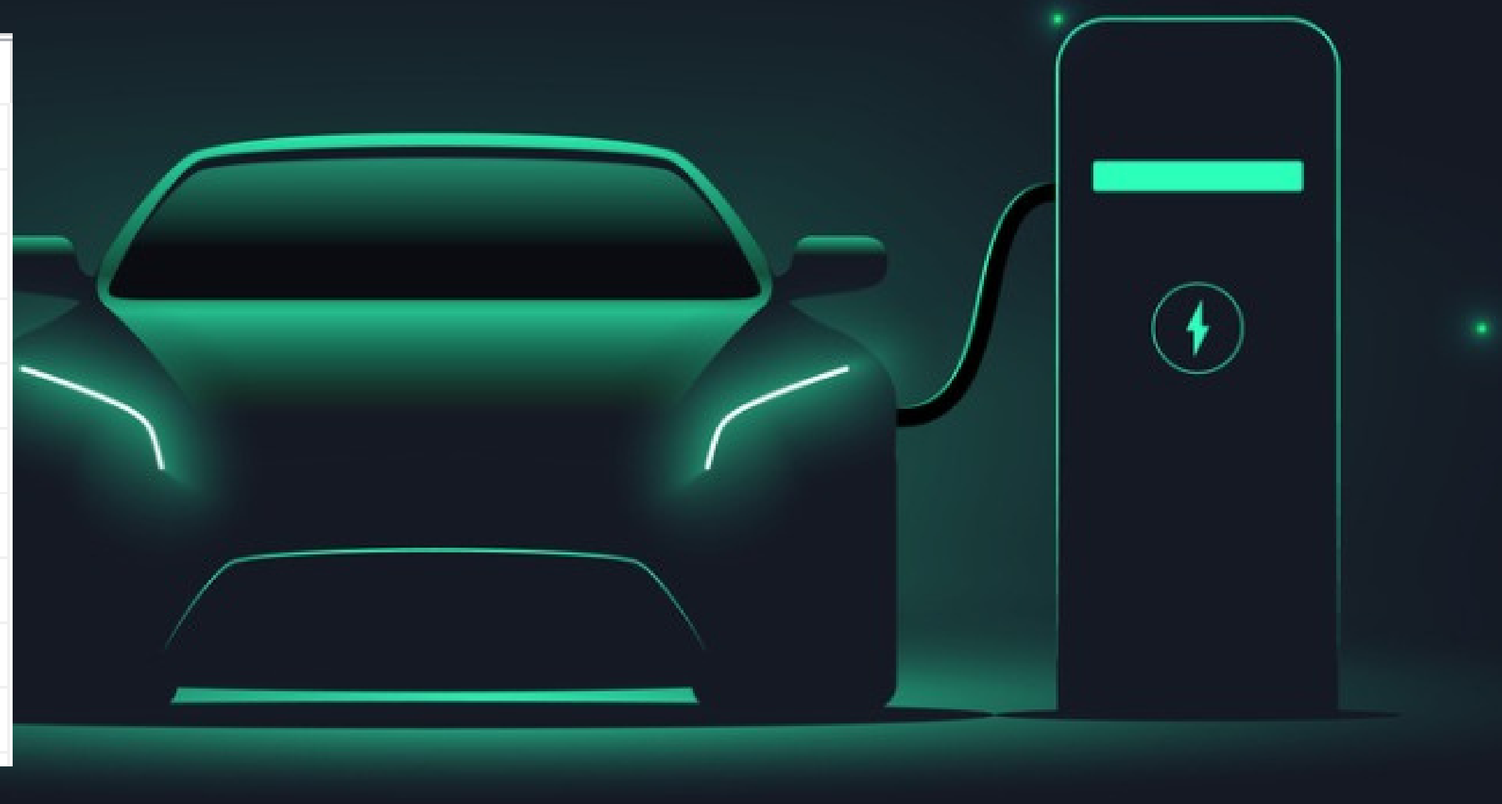
```sql
--Total electric vehicles by state
SELECT State, SUM(CAST(REPLACE(Electric_Vehicle_EV_Total, ',', '') AS INT)) AS Total_EV
FROM Electric_Vehicle_Population_Size_History_By_County_
GROUP BY State;
```

	State	Total_EV
1	TX	2113
2	KS	192
3	PA	351
4	WI	30
5	DE	16
6	IN	260
7	IL	663
8	NH	122
9	MD	1520
10	CO	776

Average percentage of electric vehicles by state

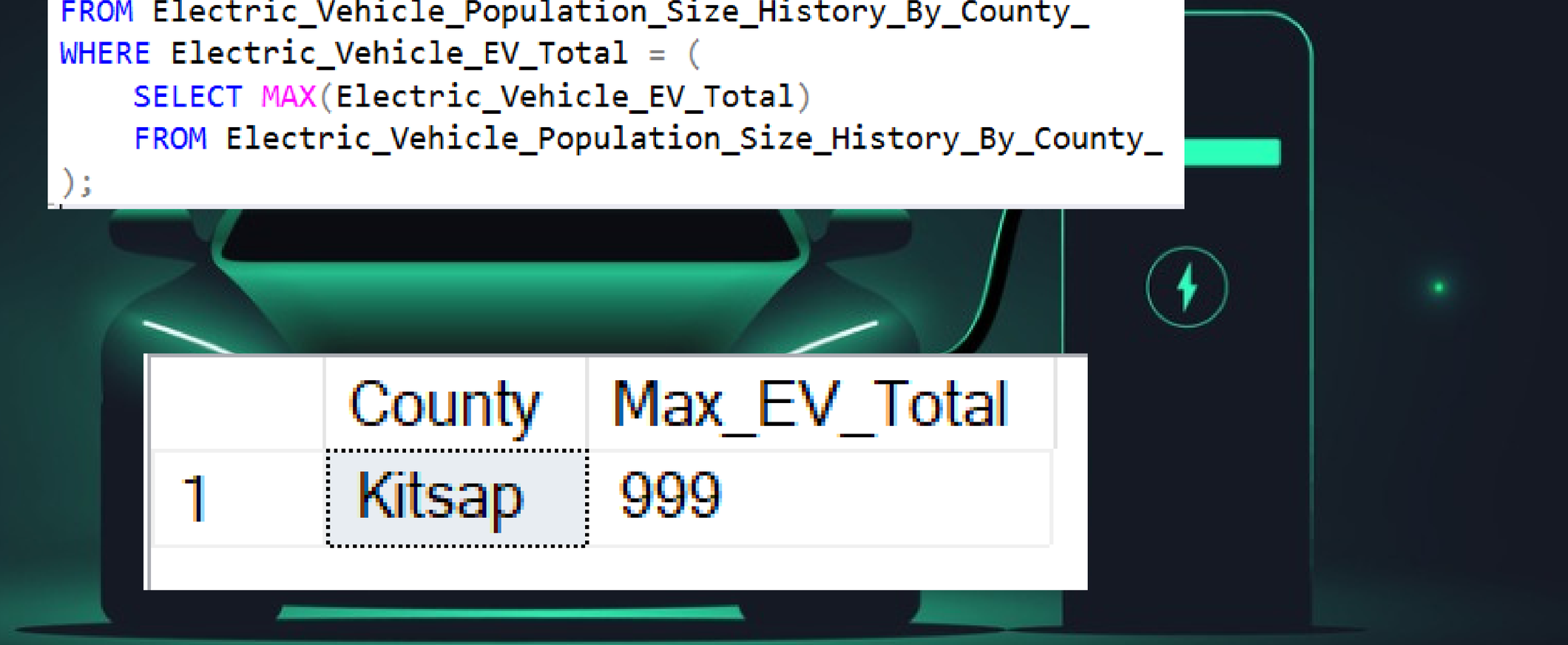
```sql
--Average percentage of electric vehicles by state
SELECT State, AVG(Percent_Electric_Vehicles) AS Avg_Percent_EV
FROM Electric_Vehicle_Population_Size_History_By_County_
GROUP BY State;
```

	State	Avg_Percent_EV
1	TX	2.83098671726755
2	KS	1.49544217687075
3	PA	9.31782456140351
4	WI	19.426
5	DE	2.114375
6	IN	18.7609504132231
7	IL	6.42156334231806
8	NH	22.017131147541
9	MD	2.55799212598425
10	CO	8.69865079365081



County with the highest number of electric vehicles

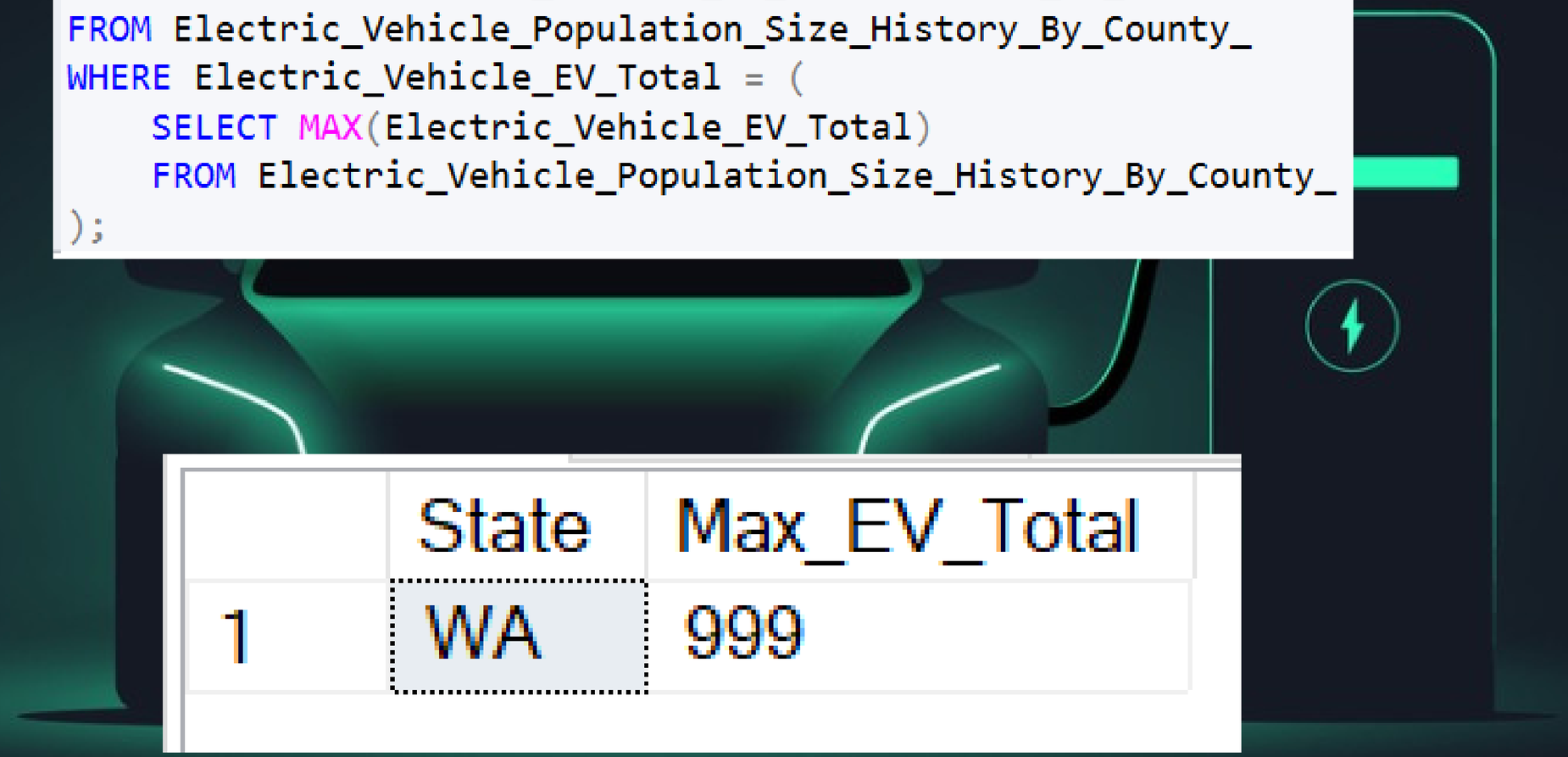
```sql
--County with the highest number of electric vehicles
SELECT County, Electric_Vehicle_EV_Total AS Max_EV_Total
FROM Electric_Vehicle_Population_Size_History_By_County_
WHERE Electric_Vehicle_EV_Total = (
    SELECT MAX(Electric_Vehicle_EV_Total)
    FROM Electric_Vehicle_Population_Size_History_By_County_
);
```



	County	Max_EV_Total
1	Kitsap	999

State with the highest number of electric vehicles

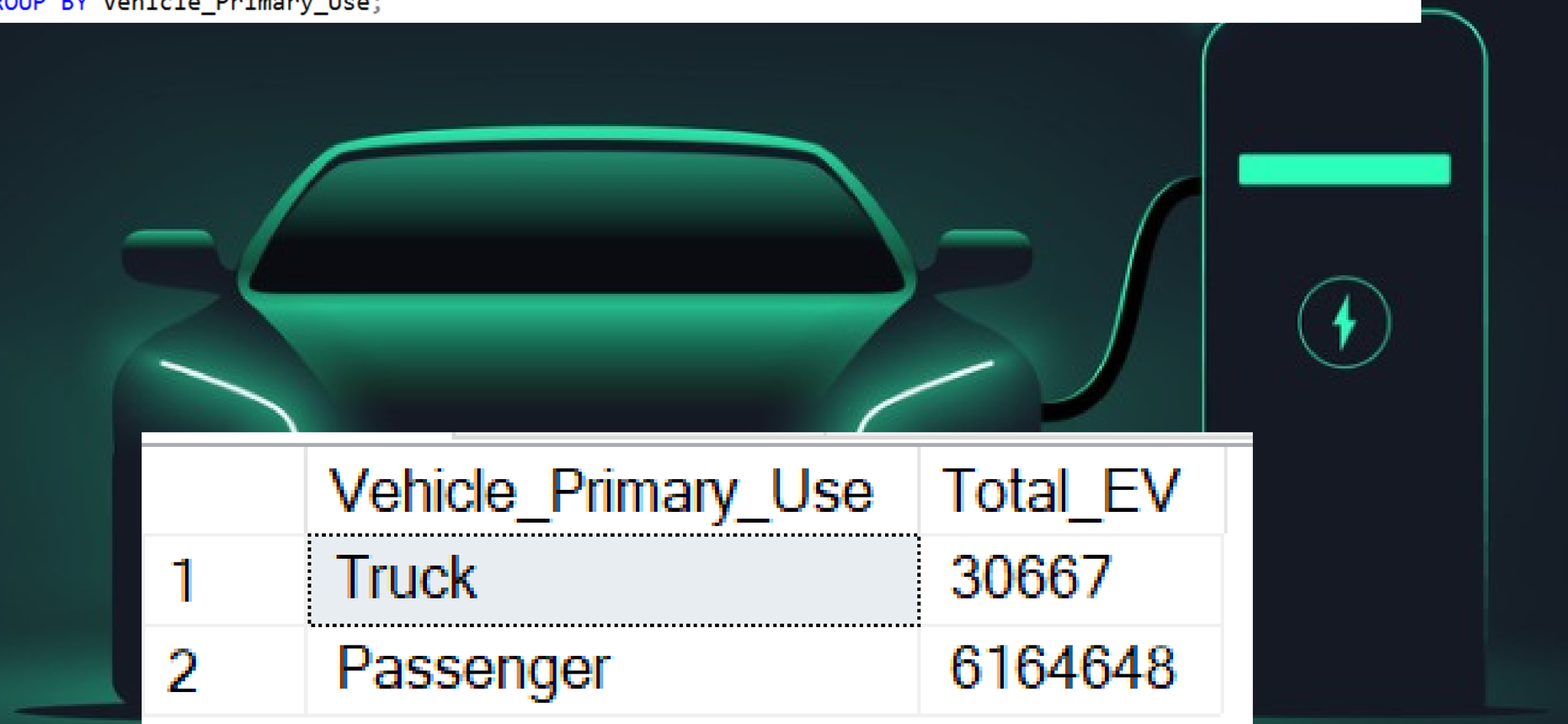
```sql
--State with the highest number of electric vehicles
SELECT State, Electric_Vehicle_EV_Total AS Max_EV_Total
FROM Electric_Vehicle_Population_Size_History_By_County_
WHERE Electric_Vehicle_EV_Total = (
    SELECT MAX(Electric_Vehicle_EV_Total)
    FROM Electric_Vehicle_Population_Size_History_By_County_
);
```



	State	Max_EV_Total
1	WA	999

Count of electric vehicles by vehicle primary use

```sql
--Count of electric vehicles by vehicle primary use
SELECT Vehicle_Primary_Use, SUM(CAST(REPLACE(Electric_Vehicle_EV_Total, ',', '') AS INT)) AS Total_EV
FROM Electric_Vehicle_Population_Size_History_By_County_
GROUP BY Vehicle_Primary_Use;
```



	Vehicle_Primary_Use	Total_EV
1	Truck	30667
2	Passenger	6164648

Count of electric vehicles by year and month

```sql
--Count of electric vehicles by year and month
SELECT
    YEAR(Date) AS Year,
    MONTH(Date) AS Month,
    SUM(CAST(REPLACE(Electric_Vehicle_EV_Total, ',', '') AS INT)) AS Total_EV
FROM
    Electric_Vehicle_Population_Size_History_By_County_
GROUP BY
    YEAR(Date), MONTH(Date);
```

	Year	Month	Total_EV
1	2017	5	24517
2	2023	9	153841
3	2024	2	174032
4	2020	3	57438
5	2020	11	63882
6	2019	4	45413
7	2018	9	36687
8	2022	8	104589
9	2022	2	90438
10	2021	7	77242

Count of non-electric vehicles by year and month

```sql
--Count of non-electric vehicles by year and month
SELECT
    YEAR(Date) AS Year,
    MONTH(Date) AS Month,
    SUM(CAST(REPLACE(Non_Electric_Vehicle_Total, ',', '') AS INT)) AS Total_Non_EV
FROM
    Electric_Vehicle_Population_Size_History_By_County_
GROUP BY
    YEAR(Date), MONTH(Date);
;
```

	Year	Month	Total_Non_EV
1	2017	5	5932096
2	2023	9	5997123
3	2024	2	5782801
4	2020	3	6179745
5	2020	11	6161745
6	2019	4	6101169
7	2018	9	6054293
8	2022	8	6091968
9	2022	2	6153799
10	2021	7	6201026

Percentage of electric vehicles over time

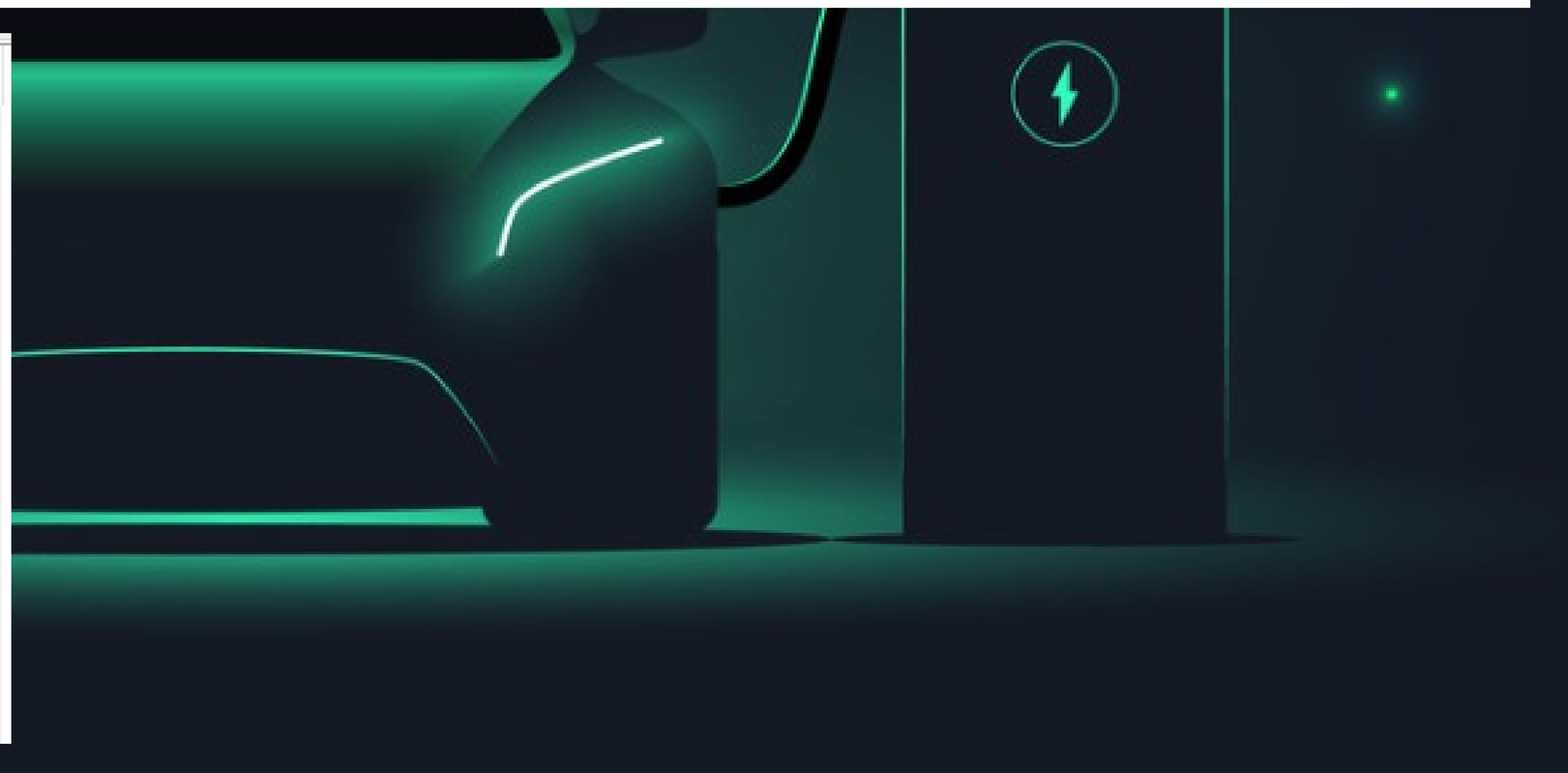
```sql
--Percentage of electric vehicles over time
SELECT
    Date,
    SUM(CAST(REPLACE(Electric_Vehicle_EV_Total, ',', '') AS INT)) AS Total_EV,
    SUM(CAST(REPLACE(Non_Electric_Vehicle_Total, ',', '') AS INT)) AS Total_Non_EV,
    (SUM(CAST(REPLACE(Electric_Vehicle_EV_Total, ',', '') AS INT)) / NULLIF(SUM(CAST(REPLACE(Electric_Vehicle_EV_Total, ',', '') AS INT)) + SUM(CAST(REPLACE(Non_Electric_Vehicle_Total, ',', '') AS INT)), 0)) * 100 AS Percent_EV
FROM
    Electric_Vehicle_Population_Size_History_By_County_
GROUP BY
    Date;
```

	Date	Total_EV	Total_Non_EV	Percent_EV
1	2021-01-31 00:00:00.0000000	66853	6167524	0
2	2019-09-30 00:00:00.0000000	50532	6153833	0
3	2022-12-31 00:00:00.0000000	116006	6067402	0
4	2019-06-30 00:00:00.0000000	47414	6125212	0
5	2022-09-30 00:00:00.0000000	106276	6087789	0
6	2017-06-30 00:00:00.0000000	25173	5936198	0
7	2020-12-31 00:00:00.0000000	64964	6168908	0
8	2023-08-31 00:00:00.0000000	149497	6010960	0
9	2019-10-31 00:00:00.0000000	52378	6165529	0
10	2018-04-30 00:00:00.0000000	31795	5999661	0

Count of electric vehicles by vehicle primary use and state

```sql
--Count of electric vehicles by vehicle primary use and state
SELECT
    State,
    Vehicle_Primary_Use,
    SUM(CAST(REPLACE(Electric_Vehicle_EV_Total, ',', '') AS INT)) AS Total_EV
FROM
    Electric_Vehicle_Population_Size_History_By_County_
GROUP BY
    State, Vehicle_Primary_Use;
```

	State	Vehicle_Primary_Use	Total_EV
1	SD	Passenger	35
2	VA	Passenger	3132
3	CA	Truck	29
4	IL	Passenger	663
5	MI	Passenger	212
6	ID	Passenger	306
7	TX	Passenger	2113
8	ID	Truck	19
9	VA	Truck	28
10	WI	Passenger	30



Count of electric vehicles by vehicle primary use and county

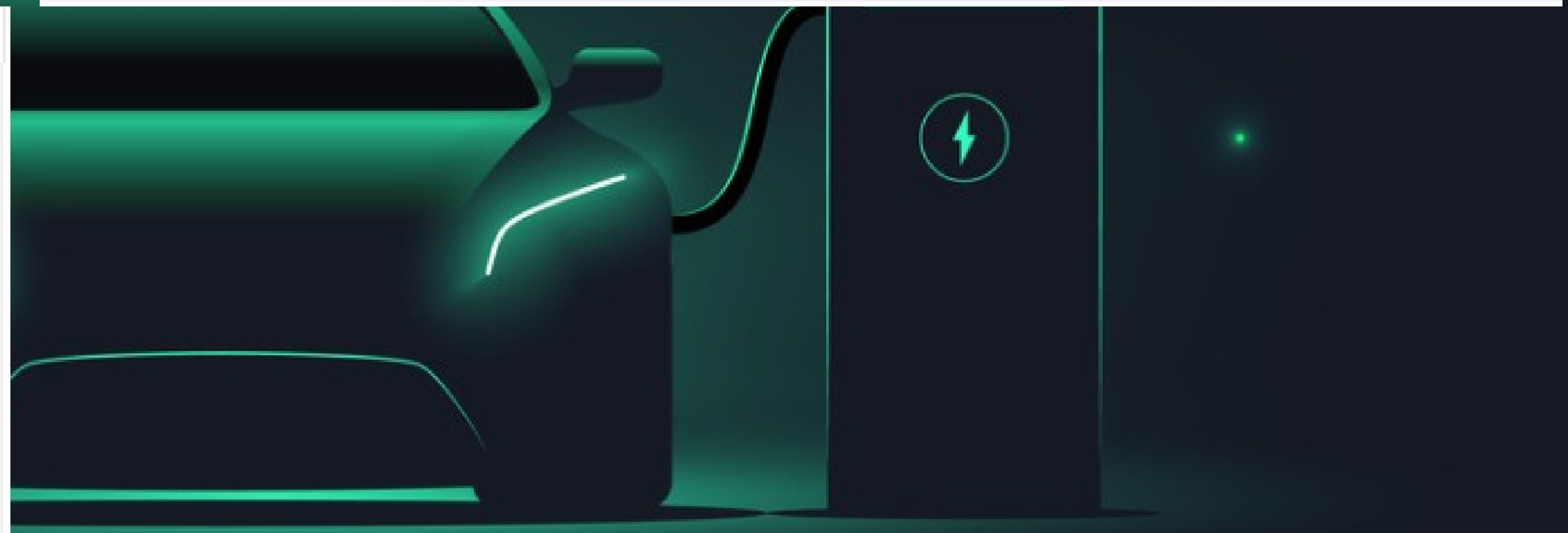
```sql
--Count of electric vehicles by vehicle primary use and county
SELECT
    County,
    Vehicle_Primary_Use,
    SUM(CAST(REPLACE(Electric_Vehicle_EV_Total, ',', '') AS INT)) AS Total_EV
FROM
    Electric_Vehicle_Population_Size_History_By_County_
GROUP BY
    County, Vehicle_Primary_Use;
```

	County	Vehicle_Primary_Use	Total_EV
1	Rockingham	Passenger	50
2	Dane	Passenger	7
3	Cumberland	Passenger	254
4	Shasta	Passenger	35
5	Currituck	Passenger	31
6	Wilson	Passenger	69
7	Latah	Passenger	21
8	Arlington	Passenger	147
9	Santa Clara	Passenger	862
10	Deschutes	Passenger	157

Count of electric vehicles by county and state

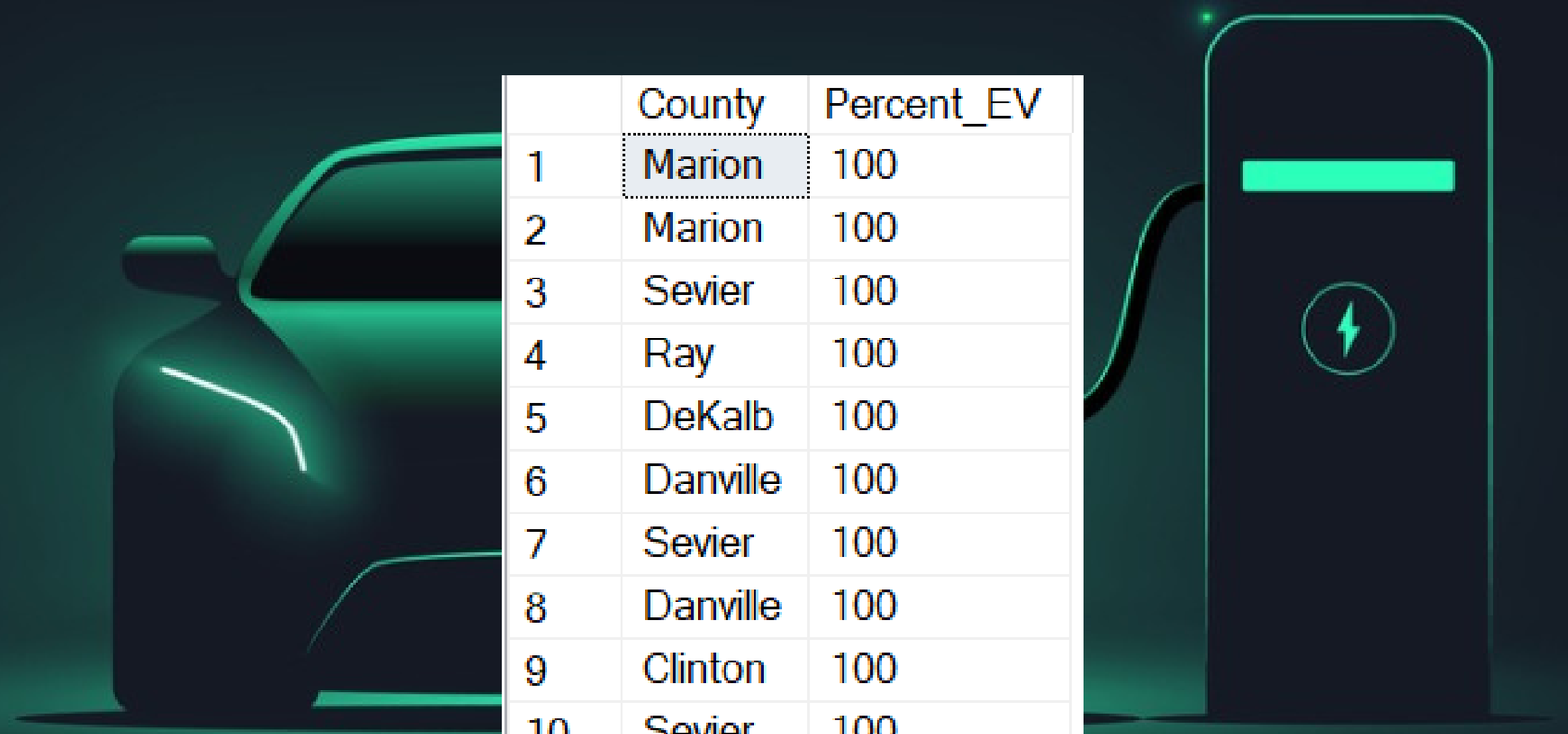
```sql
--Count of electric vehicles by county and state
SELECT
    County,
    State,
    SUM(CAST(REPLACE(Electric_Vehicle_EV_Total, ',', '') AS INT)) AS Total_EV
FROM
    Electric_Vehicle_Population_Size_History_By_County_
GROUP BY
    County, State;
```

	County	State	Total_EV
1	Douglas	CO	47
2	Marin	CA	75
3	Hood River	OR	1
4	Franklin	OH	12
5	Orange	CA	658
6	Allegheny	PA	104
7	Walla Walla	WA	15259
8	Mason	WA	30108
9	Lee	FL	59
10	Kern	CA	80



Top 10 counties with the highest percentage of electric vehicles

```sql
--Total electric vehicles by state
SELECT State, SUM(CAST(REPLACE(Electric_Vehicle_EV_Total, ',', '') AS INT)) AS Total_EV
FROM Electric_Vehicle_Population_Size_History_By_County_
GROUP BY State;
```

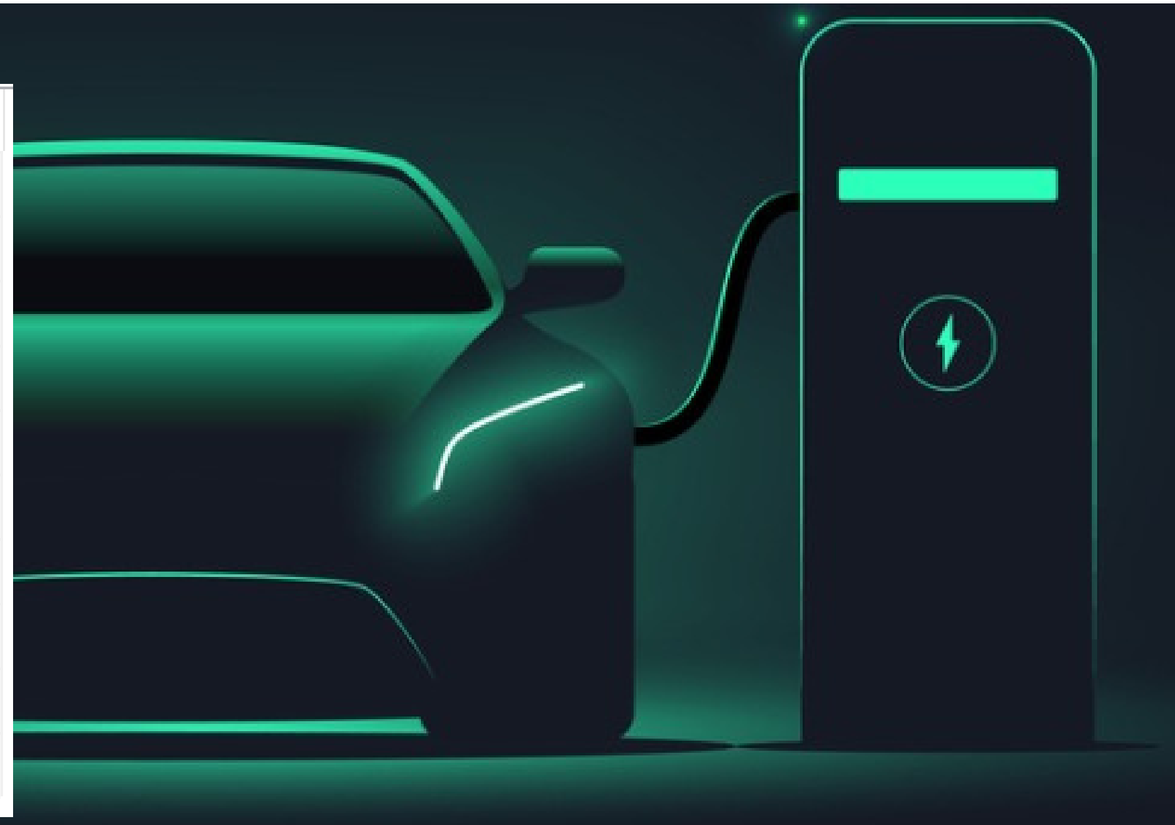


	County	Percent_EV
1	Marion	100
2	Marion	100
3	Sevier	100
4	Ray	100
5	DeKalb	100
6	Danville	100
7	Sevier	100
8	Danville	100
9	Clinton	100
10	Sevier	100

Top 10 states with the highest percentage of electric vehicles

```sql
--Top 10 states with the highest percentage of electric vehicles
SELECT TOP 10
    State,
    (CAST(REPLACE(Electric_Vehicle_EV_Total, ',', '') AS FLOAT) * 100.0 / CAST(REPLACE(Total_Vehicles, ',', '') AS FLOAT)) AS Percent_EV
FROM
    Electric_Vehicle_Population_Size_History_By_County_
ORDER BY
    Percent_EV DESC;
```

	State	Percent_EV
1	IA	100
2	IA	100
3	AR	100
4	MO	100
5	IN	100
6	VA	100
7	AR	100
8	VA	100
9	PA	100
10	AR	100



Count of electric vehicles by state and year

```sql
--Count of electric vehicles by state and year
SELECT
    State,
    YEAR(Date) AS Year,
    SUM(CAST(REPLACE(Electric_Vehicle_EV_Total, ',', '') AS INT)) AS Total_EV
FROM
    Electric_Vehicle_Population_Size_History_By_County_
GROUP BY
    State, YEAR(Date);
```

	State	Year	Total_EV
1	RI	2020	12
2	TN	2017	36
3	NJ	2024	15
4	DC	2020	26
5	OR	2019	209
6	IL	2022	133
7	AR	2022	23
8	ME	2022	12
9	NH	2022	24
10	NY	2023	106

Thank You

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vishnukanth k