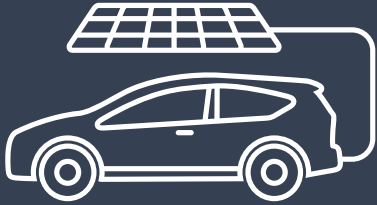




## 3 Essential Data Points to Realize EV Potential



EVs represent a massive opportunity to **increase utility revenue, reduce carbon emissions and reinforce the utility / customer relationship.**

However, they also present the potential to dramatically increase the load on the grid and cause local blackouts during high usage.



INCREASE UTILITY  
REVENUE



REDUCE CARBON  
EMISSIONS



REINFORCE THE  
UTILITY/CUSTOMER  
RELATIONSHIP

How can utilities ensure EV ownership has positive impact on revenue and grid operations?

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It comes down to **three essential data points** that allow utilities to more accurately anticipate the **effect that EV charging will have on the grid, streamline rate and grid planning and realize greater EV revenue potential.**

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# 1

## NUMBER AND LOCATION OF EV CHARGERS

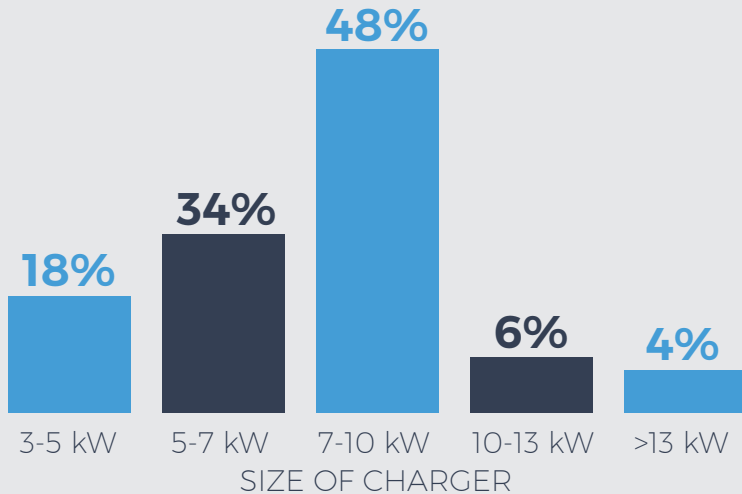
Because EV ownership often grows in pockets, the **effects on the grid are typically highly localized**. Identifying feeder lines and individual transformers that could come under strain due to multiple EVs, should **inform grid upgrades** and targeted roll outs of EV rates or controlled chargers to **encourage load shifting**.

TRANSFORMER ID	# OF EVs DETECTED	TOTAL CHARGING CAPACITY
FLWKYQUSVG	5	53.3 kW
ATV5XWNRXD	4	34 kW
PZOFFAYQYB	4	27 kW

# 2

## CHARGER SIZE

### PERCENTAGE OF EV OWNERS

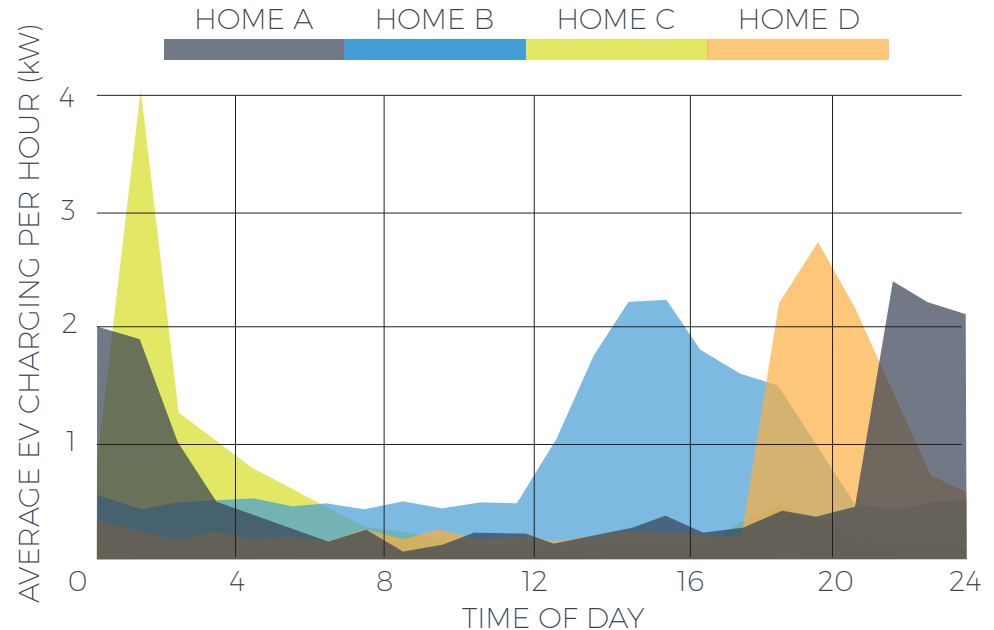


The size of the chargers in use is directly proportional to the impact on the grid. For example a **single 10 kW** charger has a much greater impact on the grid than **two 5 kW** chargers. Data revealing **a region's charger size mix** allows utilities to **prevent grid strain** and **successfully implement charger optimization programs**.

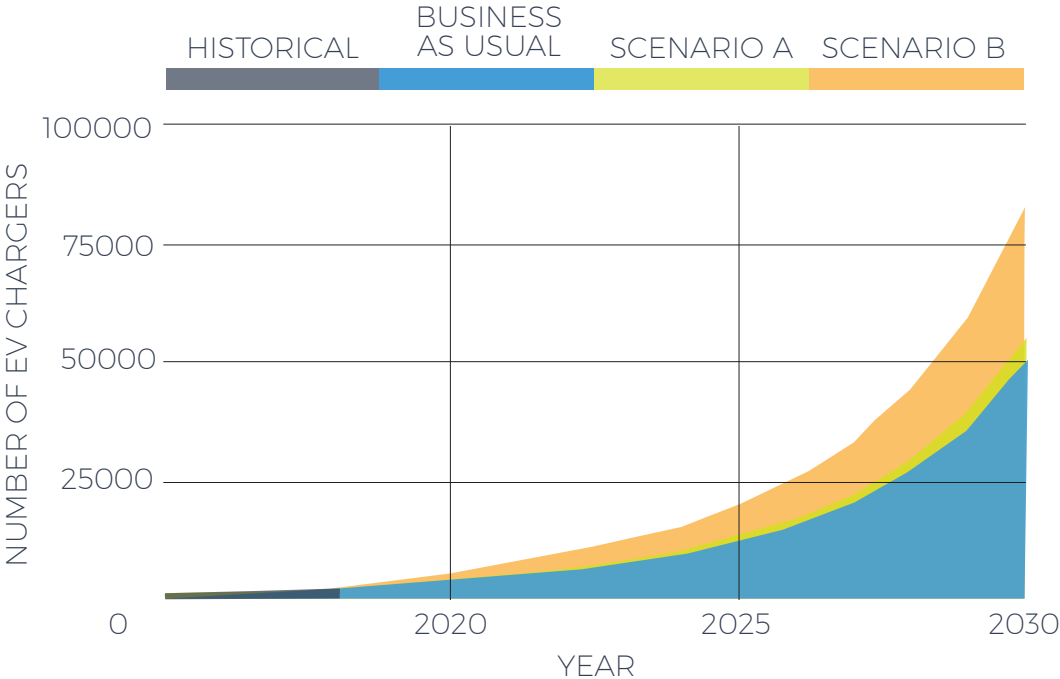
# 3

## TIME OF CHARGING

Understanding the **time basis of EV charging** is key in calculating **peak load impacts** and designing **successful EV rate programs** and load shifting initiatives.



As the **number of EV chargers grows** exponentially in the future, **so will the revenue and grid impacts.**





While EV charger growth brings increased revenue potential...

## REVENUE POTENTIAL THROUGH 2030

BUSINESS AS  
USUAL

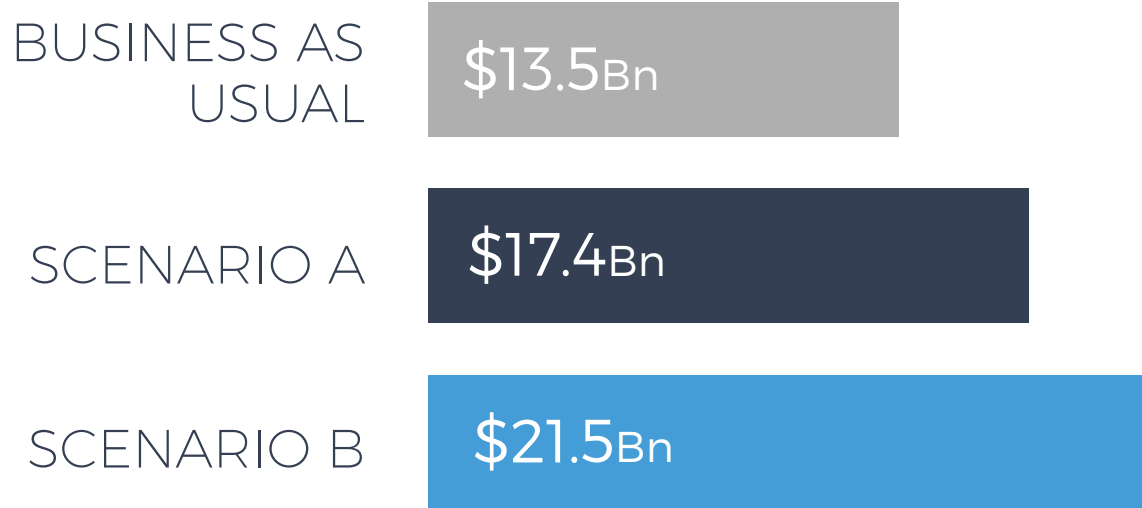
\$13.5Bn

SCENARIO A

\$17.4Bn

SCENARIO B

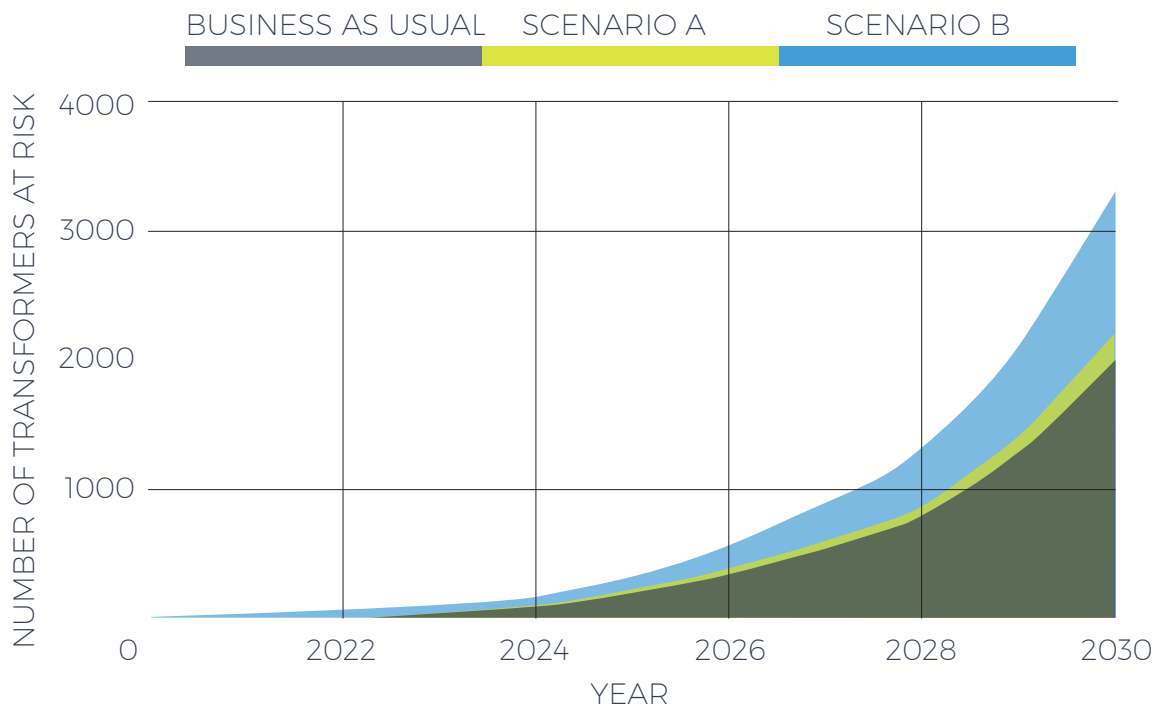
\$21.5Bn



... it also creates vulnerability in the stability of the grid.

## EFFECT OF EV LOAD ON THE GRID

### # OF TRANSFORMERS AT RISK PER YEAR



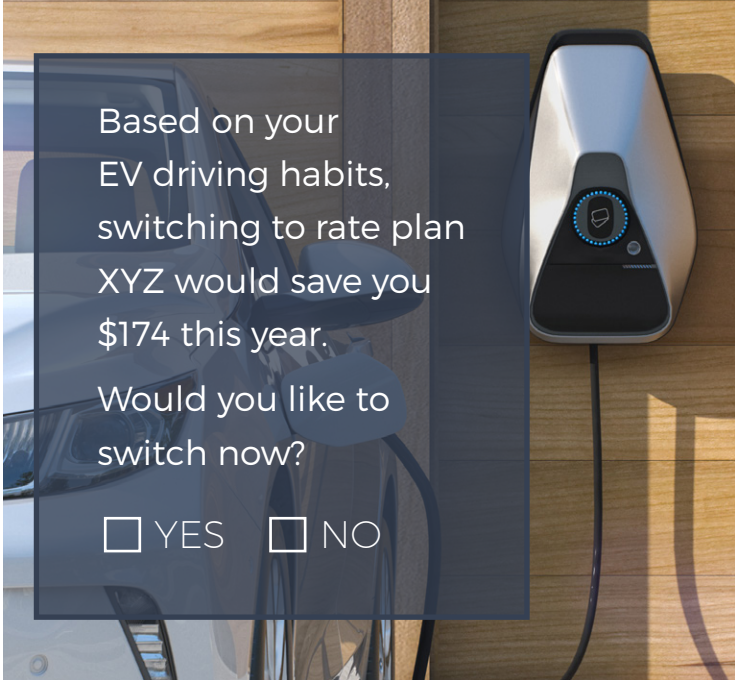
The **3 essential data points** can be used to **come up with an action plan** for incentivizing EV ownership while also **maintaining grid balance** by pursuing:

EV REBATES

EV SPECIFIC TOU RATES

EV CHARGER LOAD SHIFTING INCENTIVES

ADDITIONAL EV PROGRAMS



Based on your EV driving habits, switching to rate plan XYZ would save you \$174 this year.

Would you like to switch now?

YES  NO

To kickstart your EV action plan, visit:

[bidgely.com/ev](https://bidgely.com/ev)

