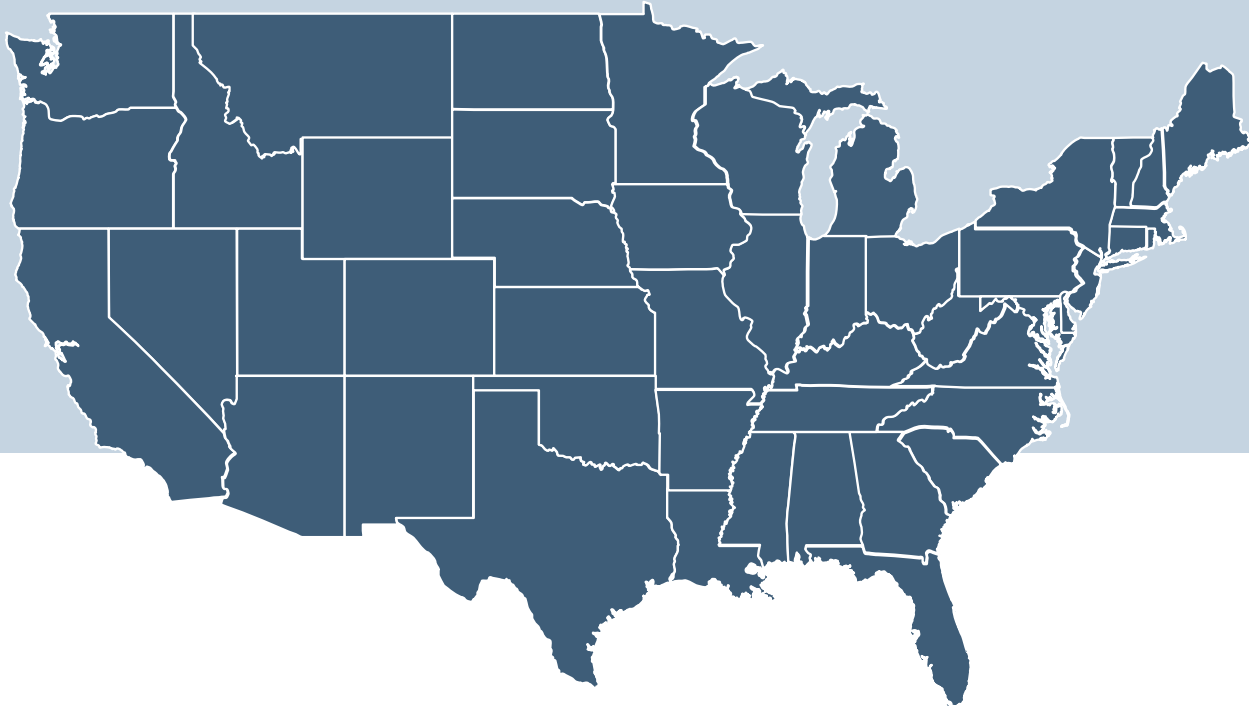


# Volume VI



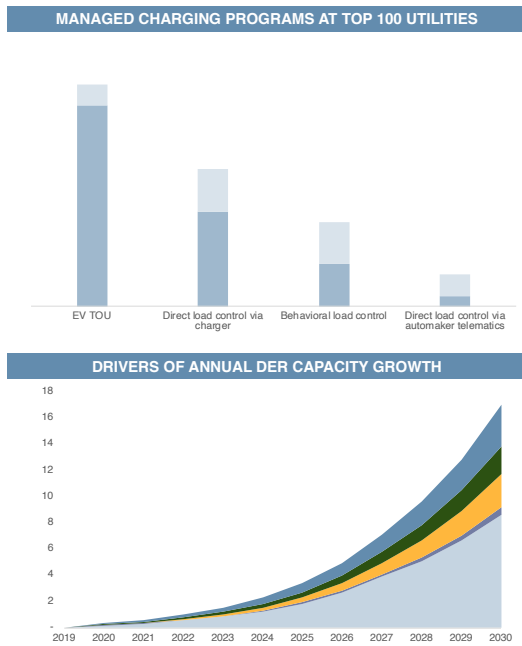
**northeast group, llc**

## EV Managed Charging: US Outlook and Benchmark of Top 100 Utilities

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## EV Managed Charging: US Outlook and Benchmark of Top 100 Utilities

The rapid growth of electric vehicle (EV) sales in the US creates challenges but even greater opportunities for utilities. EVs have the potential to become a major distributed energy resource (DER) on the back of EV sales growth and rising AMI meter penetration, helping to smooth demand for electricity and providing substantial benefits for both utilities and consumers. Northeast Group has been tracking the utility response to EVs since 2011. For most of the 2010s, utility EV programs were focused on time-of-use rates (TOU), with the number of EV-specific TOU rates slowly increasing but still dependent on consumer behavior. These are known as *passive* managed charging programs. Recently, utilities have introduced *active* managed charging programs that give them control over when EVs are charged, a trend that is likely to grow. While the availability of managed charging programs has increased, customer participation remains low and there are several barriers that limit the capacity of EVs to function as a DER. So far only 3 programs have customers “opt out” instead of “opt in;” these and other incentives will be necessary to increase participation rates. If managed charging programs grow, automakers improve charging capacity, and customers choose to participate in programs, utilities are expected to develop dozens of GW of demand response capacity while customers could save hundreds of millions of dollars per year by 2030, with benefits significantly higher if participation rates increase.



Key questions answered in this 52-slide report:

- Which utilities have developed managed charging programs and what do they offer?
- How many GW of demand response will EV managed charging provide for utilities? How many millions of dollars will EV managed charging help customers save?
- How do utility programs for EVs compare to early programs in the mid-2010s?
- What will be the key factors that determine the impact of EVs as a DER?

### Table of Contents

1. Executive summary	4
2. Electric vehicles as a DER	10
3. Utility response to EVs	17
4. Time-of-use rates	27
5. Incentives and barriers	35
6. Appendix	40

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