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# Mopping up the solar spill: Using optimized managed charging to absorb excess solar generation

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**Key takeaways**

- Compared to unmanaged electric vehicle (EV) charging, managed charging can significantly reduce system costs.
- Managed charging reduces renewable-energy curtailment and facilitates better incorporation of existing renewable energy resources, making the grid cleaner.
- Managed charging prevents charging coincident with system demand peaks, reducing costs and reliance on dirty peaker plants—emissions-intensive power sources used to meet peak demands.
- Workplace managed charging is an effective method for maximizing financial and environmental benefits for utilities, employers, and the grid.

EVs are changing the electric grid, and they'll continue to do so as their numbers increase. And while EVs are heralded as an important step toward decarbonization, they can exacerbate peak demand periods—often powered by dirtier, nonrenewable resources—if their charging goes unmanaged. However, because EVs are a flexible resource, optimized managed charging can ensure that charging is coincident with solar output instead of peak demand. Pairing EV charging with unused midday solar is an opportunity to address pressing utility challenges, including increasing levels of solar curtailment, negative daytime solar prices, and potential demand increases associated with rising EV penetration. By siting those solar-optimized chargers at workplaces, you can unlock even more benefits for customers.

Don’t wait for the sun to set on this opportunity: now is the time to start planning for and implementing workplace managed-charging programs for the benefit of the grid, your utility, and your customers. Our e-book shows you how.

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