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Load Balancing

Optimize and Future-Proof Your EV Charging Operations

Load Balancing enables EV system administrators to easily reduce and cap total EV charging load. Our smart charging software optimizes existing systems, keeps demand charges in check, and lets you expand EV fleets without the need for expensive infrastructure upgrades.

Why Load Balancing?

Load balancing helps businesses save on both EV charging infrastructure and operating expenses. (See reverse for details.)

### Who is Load Balancing for?

Condominiums, apartment buildings, offices, shopping malls, universities, event venues, garages—any commercial or public organization interested in optimizing EV charging.

### Does Load Balancing Adhere to Codes and Standards?

JuiceNet Enterprise load balancing functionality follows the National Electrical Code, which allows Load Balancing via software.

How Does It Work?

Without load balancing, all four cars charge to individual car acceptance rates, making it impossible to control and cap EV charging loads.

10 kW	10 kW	10 kW	10 kW	40 kW Max
7.7 kW	7.7 kW	10 kW	6 kW	31 kW Used
				20 kW Desired Cap
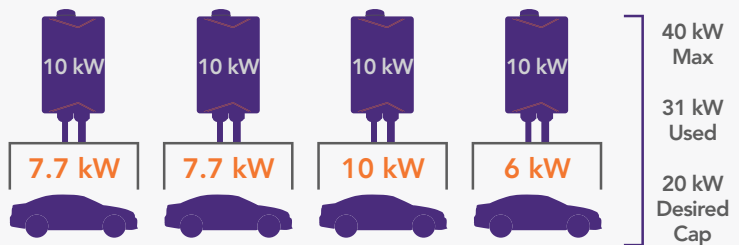
With load balancing, the maximum load is set at 20 kW. All four cars charge below their individual acceptance rates, making it easier to limit the overall consumption and manage demand charges.

10 kW	10 kW	10 kW	10 kW	20 kW Cap
~~7.7 kW~~	~~7.7 kW~~	~~10 kW~~	~~6 kW~~	20kW Used
5 kW	5 kW	5 kW	5 kW	
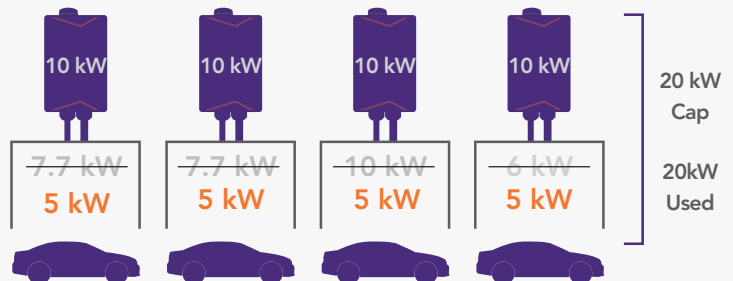
Reduce Your Energy Costs

Save on Capital Expense

Often, installing more EV charging stations requires expensive electrical infrastructure upgrades, such as electric service or electrical panel upgrades. Load balancing leverages existing infrastructure and helps reduce upfront costs by utilizing software, not hardware, to manage EV loads.

Save on Operating Expenses

JuiceNet's load balancing optimizes operating expenses in two ways:

1 Demand Charge Management: Electric companies often levy demand charges based on a customer's peak energy use. With load balancing, you can cap the energy you use at a given time in order to limit what you pay in demand charges.
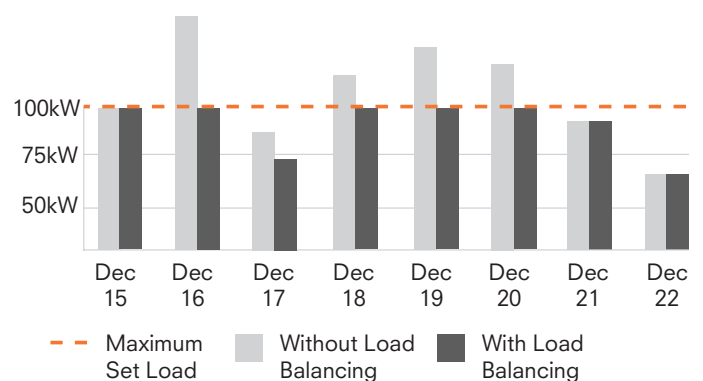
2 Reduce Overall kWh Consumption: By enabling you to limit the total amount of electricity your chargers draw, load balancing reduces your energy bills simply by lowering your overall consumption.

Electrical Infrastructure Costs for 4 EV Chargers

Installation Component	With Load Balancing	No Load Balancing*
Breaker	$50	$200
Conduit	$20	$1,160
Wire	$1,400	$8,320
Junction Box	$20	$12
Labor	$800	$2,500
TOTAL	**$2,290**	**$12,192**

*Costs are estimated based on common electrical installer quotes. Prices will vary.

Consumption Limited by Load Balancing

— Maximum Set Load   ▢ Without Load Balancing   ▪ With Load Balancing