semtive

Simple, reliable and affordable clean energy

Semtive's Vision

Democratize, decentralize and digitalize the access to energy through simple, affordable and reliable clean sources.

Cost-efficiency

Our turbines produce affordable energy systems, democratizing access with the same quality products around the world.

Environmentally friendly

We generate clean energy, through renewable sources, and we also reduce the carbon footprint of the turbine. Turbines designed to be reused, retrofitted or recycled.

Social impact

Our manufacturing process allows us to manufacture our wind turbine systems locally, reducing the carbon footprint and the shipment cost of traditional wind.

Semtive **turbine**

Affordable

Designed to provide an affordable solution combined with a rapid return on investment. Generates peak power when sun goes down, at the highest demand tier. Generating energy at a price as low as **$0.01/kWh** to the end user.

Simple installation

Less than one hour and just one tool needed. Plug & play connection, in a flat pack.

Minimum maintenance

Only two moving parts.

Reliable

Heavy duty construction, 40+ years of reliability.

Noiseless

At any wind condition.

Wide operating window

From a light breeze to a hurricane.

Semtive's models

	Nemoi S	Nemoi M	Nemoi L	Nemoi XL
Rated power	600 W	2400 W	7000 W*	12500 W*
Power @5 m/s**	50 W	250 W	1250 W*	2500 W*
Height	1.7m	3 m	4.5m*	6 m*
Diameter	1.5 m	3 m	4.5 m*	6 m*
Weight	50 kg.	150 kg.	280 kg.*	410 kg.*
Controller	Off-grid	Grid-tie	Grid-tie	Grid-tie
Price MSRP	$3K	$4.5K	$10K*	$15k*
Warranty	20 years	20 years	20 years	20 years

*Estimated values to be determine once the units are in production.

** Wind speed in meter/second according to AWEA standard. 5m/s=11.2 mph.

How much **energy** can be **generated**?

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Nemoi S

Up to 33% of an avg. house in US*

Nemoi M

Up to almost twice the power consumption of an avg. house in US*

Nemoi L

Up to 5 times the power consumption of an avg. house in US, or 1 commercial facility*

Nemoi XL

Up to 10 times the power consumption of an avg. house in US, or 2 commercial facilities, or an industrial facility*

* Average house in US consumption based on 30 kWh/day. Commercial and industrial facilities consumptions may vary depending on the industry, location, efficiency of the installation and footprint of the building.

Product **Specification**

Semtive move

All in one plug&play unit, in a portable package, completely modular according to customer requirements

	Semtive Move	Semtive Move +
Wattage (continuous)	3000	3000
Wattage (surge)	6000	6000
AC output (VAC)	2 x 120	2 x 120
AC output (A)	15	15
Battery detail	LiFePO4	LiFePO4
Pack capacity	2560 Wh (25.6V@100Ah)	3328 Wh (25.6V@130Ah)
Life cycles (80% capacity)	≥ 2,000	≥ 2,000
Maximum discharge rate	3C	3C
Maximum charge rate	2C	2C
Management system	MPPT charge controller	MPPT charge controller
Low voltage battery protection	Yes	Yes
Input charging methods	Solar, wind	Solar, wind
USB A	Yes	Yes
USB C	Yes	Yes
USB PD	Yes	Yes
12V car port	Yes	Yes

Battery size and chemistry, inverter capacity and outputs can be modified.

Energy consumption/generation

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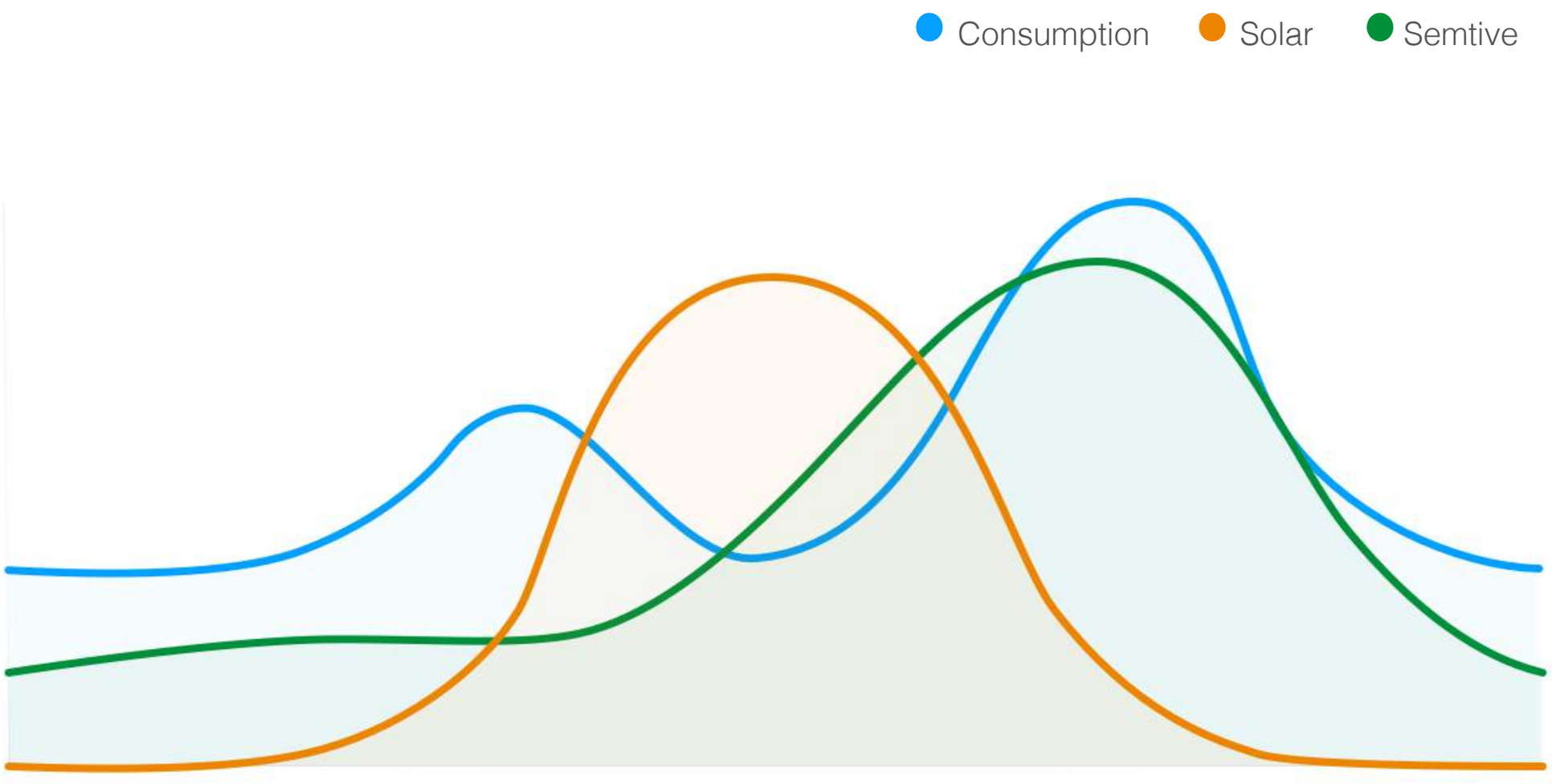
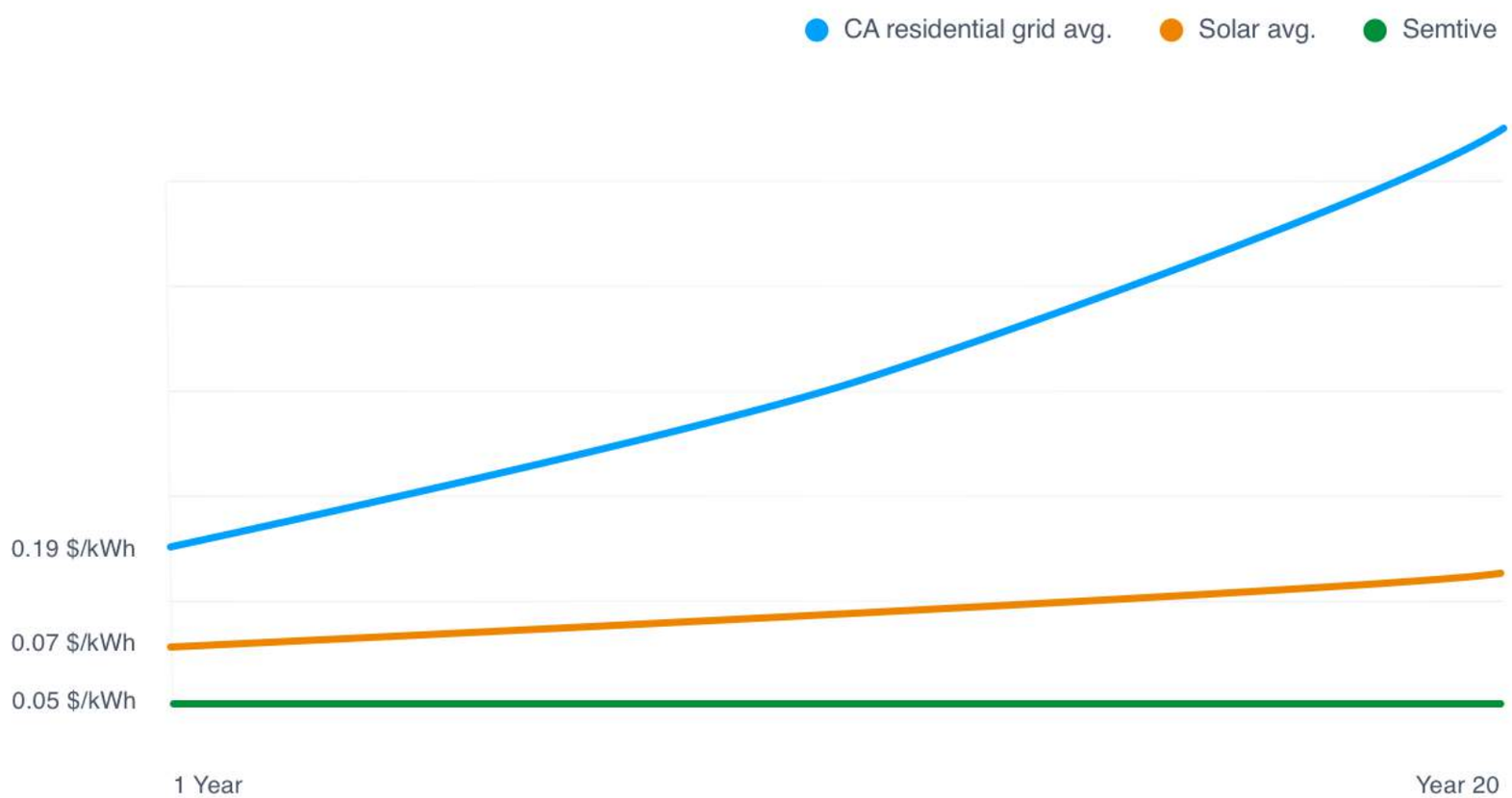
Semtive turbine generates peak power when sun goes down, at the highest demand tier, reducing the size and cost of storage and solar arrays.



Energy **cost comparison**

Semtive turbine has a low generation cost that even allows it to leverage hybrid arrays. That means more affordable PPAs and more resilient systems.



* Tax incentives and state subsidies are **not** included in calculating Semtive's avg cost per kWh.
* Grid cost is based on day time tier.
* Semtive LCOE estimated on low performance array and in a PPA model.

Semtive **System**

	Horizontal axis small wind turbines	Rooftop solar	Previous vertical turbines	Semtive
Affordable	✓	✗	✗	✓
Low wind operation	✗	✓	✗	✓
Urban areas	✗	✓ (<10% US homes)	✓ (<5% US homes)	✓ (>70% US homes)
Decentralized generation	✓	✓	✓	✓
Bird friendly	✗	✓	✓	✓
Night operation	✓	✗	✓	✓
Maintenance free	✗	✗	✗	✓

Product **Specification**

Semtive **Nemoi M**

Power

Nominal power*	2400 W

Dimensions

Height	3 m	9.8 ft
Width	3 m	9.8 ft
Weight	140 kg	308.6 lb

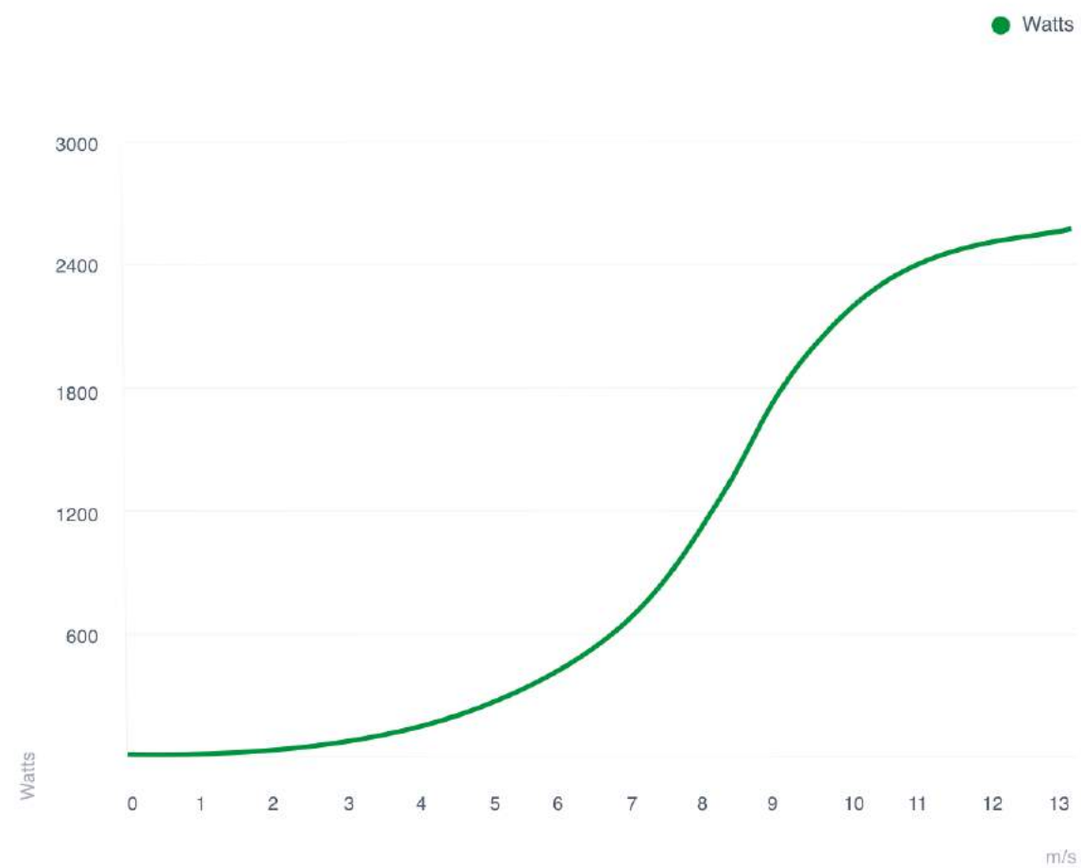
Operation

Cut-in speed**	5 km/h	3.1 mph
Nominal speed	40 km/h	24.8 mph
Maximum speed	209 km/h	130 mph

Generator

Type	Permanent
Voltage	48/110/220 V

Warranty‡	20 years



* Rated at 11 m/s [24.6 mph]
** Speed set to generate electricity
‡ According to the warranty certificate from our IOM Manual

Product **Specification**

Semtive **Nemoi S**

Power

Nominal power*	600 W

Dimensions

Height	1.7m	5.58 ft
Width	1.5 m	4.94 ft
Weight	45 kg	99.2 lb

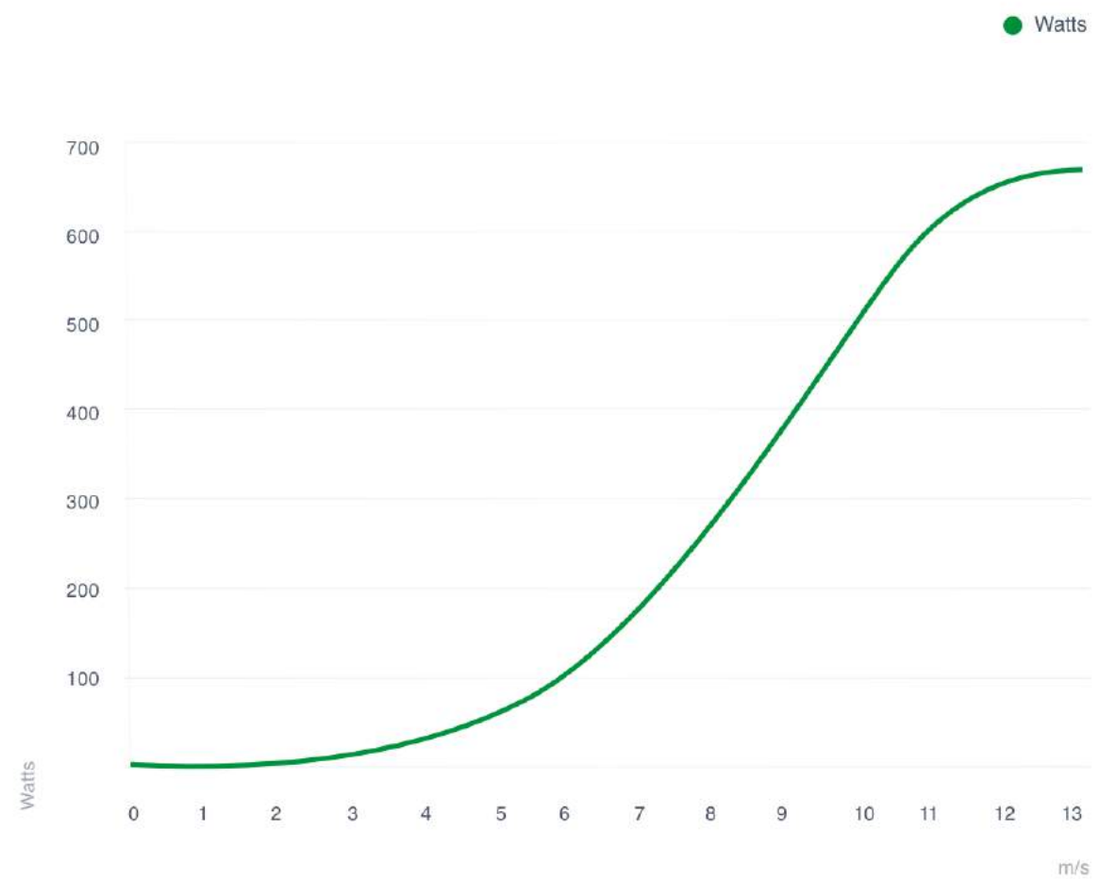
Operation

Cut-in speed**	5 km/h	3.1 mph
Nominal speed	40 km/h	24.8 mph
Maximum speed	209 km/h	130 mph

Generator

Type	Permanent
Voltage	24/48

Warranty‡	20 years



* Rated at 11 m/s [24.6 mph]
** Speed set to generate electricity
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Decentralized energy future

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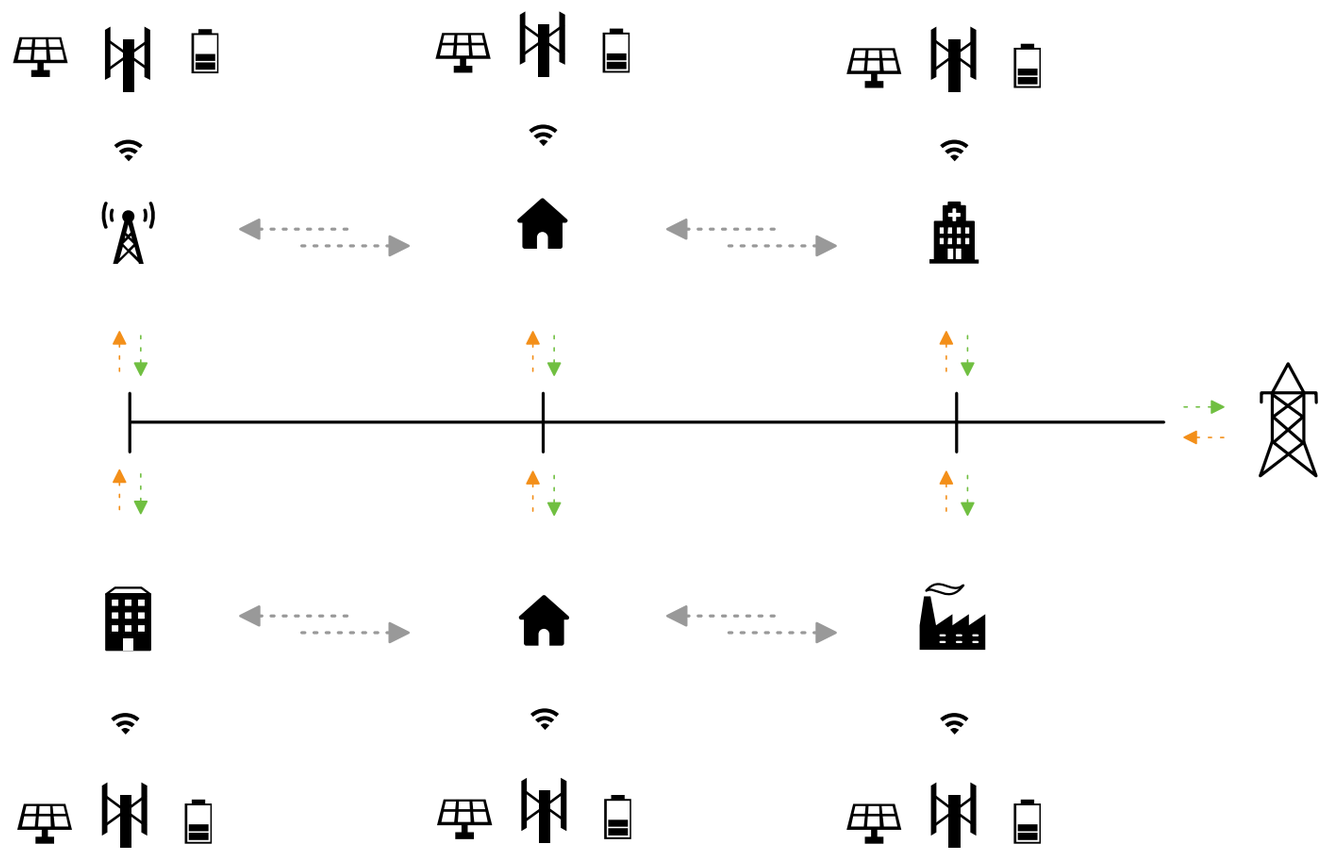
Semtive's energy solution

Each Semtive system is **smart**. Using **big data analytics**, it gathers information and uses it to forecast weather conditions and energy generation. It senses the energy consumption and chooses the best renewable source or energy storage device.

The systems communicate with each other, to transfer energy between them, creating **smart auctions** and always choosing the most affordable source. Sell or buy energy among your neighbors or with the utility company, being grid-tie or using a micro-grid. They can work as independent power generators, or together, as a virtual power plant (VPP).



How **Semtive**'s technology is doing it
Energy management hardware (IP protected)

All-in-1 Micro-inverter. MPPT controller + micro-inverter in one box. Merge wind + Solar & Storage. Rule 21 compliance + UL1741 - SA.

Simple installation. Plug & play connection into any conventional electrical socket 110V/220V.

Connectivity. Get data from you power consumption, weather, power generation and track your savings. Forecast weather conditions and energy production. Generates and provides the information for software manage VPP (Virtual Power Plants).

Energy efficiency. Learn from your behavior. Get tips to improve your efficiency.

Energy management. Manage & control all your connected appliances.

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