

GreenFlux Smart Charging App “Tariff” Explained

The GreenFlux Smart Charging App “Tariff” Explained

The new version of the GreenFlux Smart Charging App incorporates a simulated Time of Use Tariff¹ – an electricity tariff where the price of a unit of electricity (kWh) varies through the day.

“Simulated” means constructed for the purposes of the Electric Nation Smart Charging Trial – based on real world electricity prices. This tariff is an example of electricity tariffs that are beginning to appear as Smart Meters are rolled out across the country.

This simulated tariff does not replace the tariff of your current electricity supplier, you do not need to change supplier to be involved in this part of the project, your other household electricity costs are not affected by this simulated tariff or by your involvement in this part of the project. The costs of charging your EV from your household supply will remain the same and will be included in your electricity bill. In participating in this part of the Electric Nation trial you have not entered into any form of contract with Electric Nation for supply of electricity.

What the simulated tariff attempts to do is illustrate how subscribing to a time of use tariff, now or in the future, could save EV drivers a good deal of money – if they choose to charge their EV at certain times of day, or more to the point not charge their EVs in the late afternoon and early evening.

This is similar to, but slightly more sophisticated than, Economy 7/Economy 10 electricity tariffs which many will be familiar with, where electricity prices are lower at night than during the day. If you are already on such a tariff then you may well be aware of the benefits of overnight charging.

The way this simulated tariff works is that:

- Electric Nation will give you an initial £10 shopping voucher (Amazon or similar) as a reward for participating in this part of the project
- Then, for every unit of “cheap” electricity (according to our simulated tariff) you use to charge your EV we will add to this reward
- But, if you choose to charge when electricity is “expensive” we will take money off your reward for each unit of electricity you use to charge you EV
- If you always charge using “expensive” electricity (according to our simulated tariff) your reward could pass zero and go negative – don’t worry! We will cap your loss at nothing (£0.00) and will not be asking for money from you.

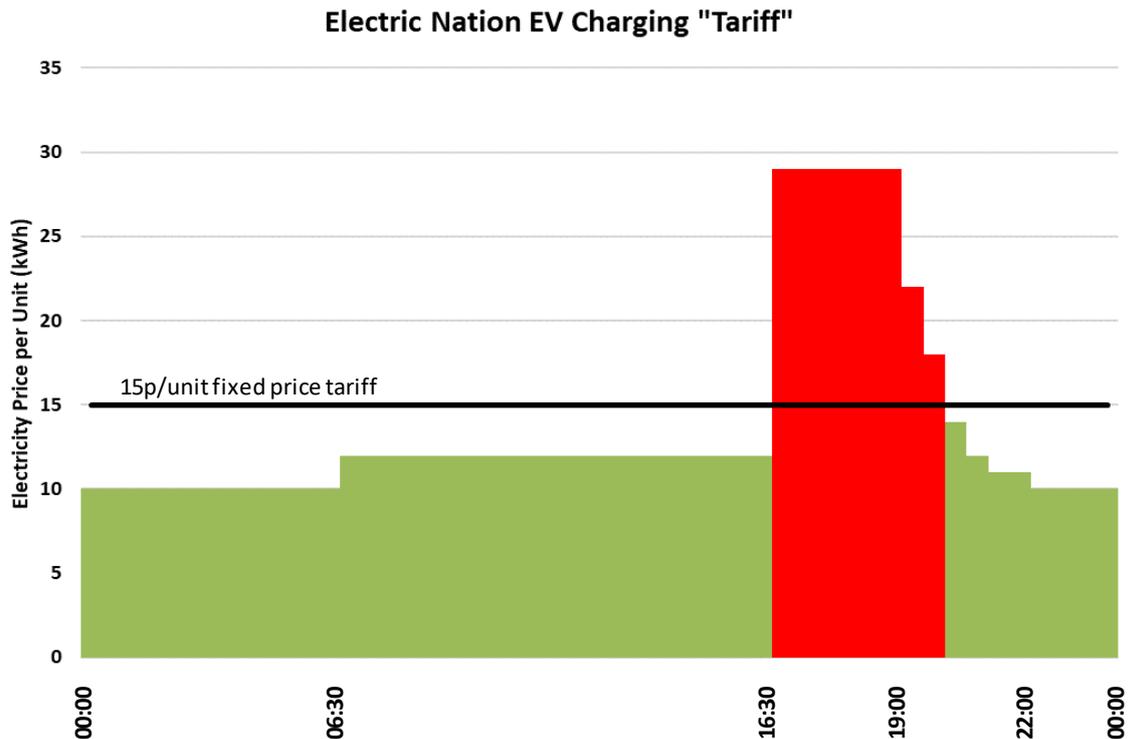
We can tell when and how much electricity you use to charge your EV through your Smart Charger.

¹ This is a simulated tariff for the Electric Nation project only (based on real GB electricity price information) and is used for illustration purposes and calculation of the GreenFlux Smart Charging App Reward only. This simulated tariff does not apply to your other household electricity consumption.

GreenFlux Smart Charging App “Tariff” Explained

This is all about when your EV is charging. Charging overnight and during the morning through to late afternoon is “cheapest” and will earn you rewards, charging in late afternoon and early evening is “expensive” and will erode your reward.

If you were on this tariff in real life, then charging your EV during “cheapest” periods would reduce the cost of charging your EV. Charging at the peak, “expensive” period would make your charging cost higher. Let’s try to explain this. The chart overleaf illustrates the simulated tariff being used in this part of the Electric Nation trial, used by the GreenFlux App.



The green and red sections show the price of electricity over a day from midnight to midnight.

Put another way:

Period	From	To	Electricity costs per unit (kWh)	Reward vs 15p per unit standard price
Night	22:00	06:30	10p	+5p
Day	06:30	16:30	12p	+3p
Peak	16:30	19:00	28p	-13p
Evening -Taper	19:00	19:30	22p	-7p
	19:30	20:00	18p	-3p
	20:00	20:30	14p	+1p
	20:30	21:00	12p	+3p
	21:00	22:00	11p	+4p

Comparing these prices against a fixed price tariff, where electricity costs are the same throughout the day, we have chosen 15p per unit (kWh), then it is clear that charging an EV

GreenFlux Smart Charging App “Tariff” Explained

at the cheaper times would save money compared with the fixed price tariff. Whereas charging at the more expensive time would add to EV charging costs.

In the Electric Nation simulated Time of Use Tariff we will simulate these savings or additional costs by adding to or taking away from your Smart Charging Reward.

The benefit of the GreenFlux Smart Charging App (for Electric Nation) is that the app will take care of things for you depending on your choice of charging preference.

If you chose to use the new GreenFlux Smart Charging App you have three profiles to choose from

- **Minimise Cost** – the GreenFlux App will charge you EV when electricity prices are low, i.e. Night and Day periods only (22:00 to 16:30). At all other times the charger will charge your EV, unless you change the setting in the app.
- **Optimise Time& Cost** – a compromise, the GreenFlux App will not charge your EV when the cost is highest, but will charge during the “Taper Tariff” period from 7pm to 10:00pm as well as Night and Day periods
- **Optimise Time** – the GreenFlux App will charge your EV from the moment you plug it in, whatever the cost i.e. at all periods
- This is the Default setting and if you never use the app you will continue to experience charging as before.

This table summarises the effects of the profile chosen on when your EV will charge and the effect on your reward when you chose to charge your EV

	00:00	06:30	16:30	19:00	22:30	00:00
Tariff						
Optimise Cost	10p	12p		No Charging		10p
Optimise Time & Cost	10p	12p		22p to 11p		10p
Optimise Time	10p	12p	29p	22p to 11p		10p
Your Reward						
Optimise Cost	+5p	+3p		No Charging		+5p
Optimise Time & Cost	+5p	+3p		-7p to +4p		+5p
Optimise Time	+5p	+3p	-14p	-7p to +4p		+5p

Your profile will be set to ‘optimise time’ as a default option – so until you chose to change the setting your car will continue to charge as normal.

Your choice, coupled with when you plug your EV in, how much charge your EV needs (related to your EV’s battery size and how much charge is needed to top it up) will determine how much the electricity used to charge your EV would cost and whether you save money (add to your reward) or not.

You can find out more about the GreenFlux app [here](#). This includes a wide range of FAQs to help you decide how to set-up the app, or how to maximise your rewards.