TOPBYTES LTD
Product brochure · Coming soon

DESIGNED AND BUILT IN BRITAIN

OctoIHD

Your Octopus energy use and bill, live on your desk

A 7-inch touchscreen in-home display that works with Octopus Energy. It shows what your home is using right now from your Octopus Home Mini, and costs every half hour against your real tariff, including Intelligent Octopus Go smart-charge slots, so the bill so far is right to the penny. Electricity, gas and export, with free over-the-air updates.



OctoIHD (Neon theme) on the TopBytes 7-inch unit, showing a real home's live screen.

Live demand

What your home is drawing now, the rate you're paying and the next cheap slot

Costed to the penny

Every half hour priced on your own tariff, with standing charges and VAT

Day, week, month, bill

Bar charts by rate band and a running bill with a month-end estimate

Octopus Energy, Intelligent Octopus Go, Octopus Home Mini and Octoplus are trademarks of Octopus Energy; OctoIHD is independent and not affiliated with or endorsed by Octopus Energy.

AT A GLANCE

Know what your energy costs

Smart tariffs make electricity cheap at some times and expensive at others, and with an EV on Intelligent Octopus Go the cheap slots move around every night. The app tells you afterwards; a basic in-home display shows kilowatts but not what they cost on your tariff.

OctoIHD is a complete 7-inch touchscreen unit, supplied ready to use, that reads your own Octopus Energy account over Wi-Fi. It shows live demand from your Home Mini, prices every half hour the way Octopus does, and keeps a running bill for electricity, gas and export. It talks to Octopus directly: no extra server, app or subscription.

What you see

- Live power in watts, the rate you're on now and its cost per hour
- Today, this week and this month as bar charts by rate band
- The bill so far, with standing charges, VAT and export
- Planned smart-charge slots, Power Ups and Happy Hours

Easy to own

- Set up from your phone: Wi-Fi, account number and API key
- Reads your meters and tariff from Octopus by itself
- History kept on the unit, so a restart loses nothing
- Free over-the-air updates keep it current

Make it yours

- Three colour themes: Classic, Neon and Amber
- Night mode: screen off, dimmed or a dark night screen
- Choose the start screen; show or hide export
- Change settings on the screen or from a browser

7"	48	100	3
800 × 480 capacitive touch	half hours costed each day	days of history on the unit	fuels: import, gas, export

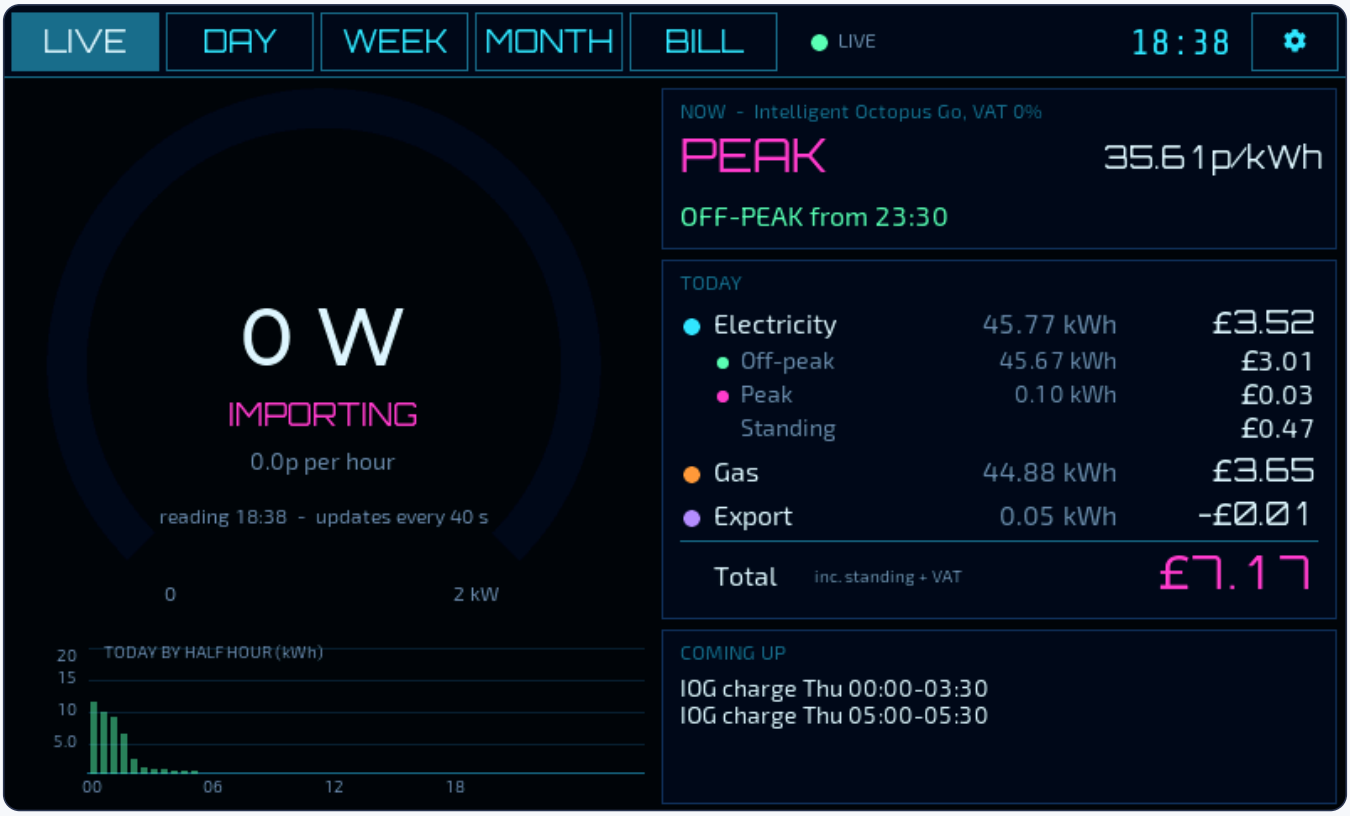
ALWAYS IMPROVING

- Firmware 0.1.0: live screen, day, week and month charts, the bill screen, three themes, night mode and the settings website.
- Free over-the-air updates from the TopBytes update service, installed with a tap.
- Checks its own sums: on settled days it compares its costing with the figures Octopus publishes, so a change in the rules shows up.

LIVE

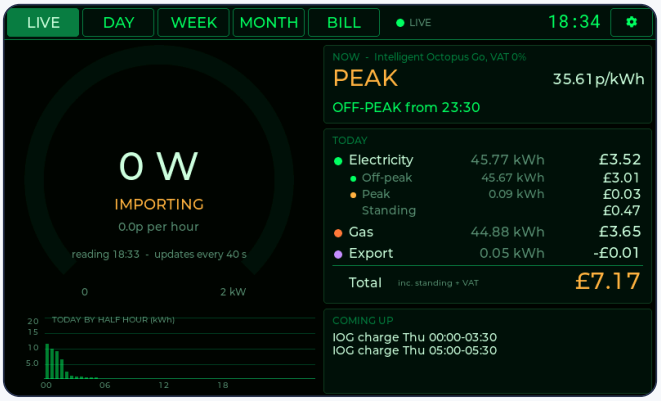
What your home is using, right now

The Live screen is the one you leave on. A large gauge shows the power your home is drawing, read from your Octopus Home Mini, alongside the rate you're paying this half hour, when the next change comes, and today's running total for each fuel.

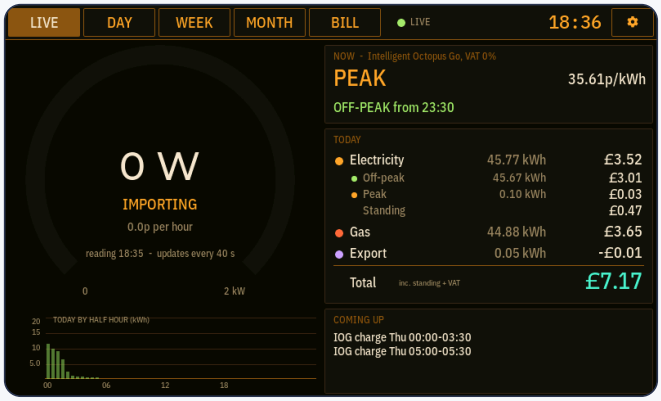


Live screen (Neon theme): peak rate now, off-peak from 23:30, today's electricity, gas and export with standing charges and VAT, and the smart-charge slots planned for tonight.

- Live demand updated about every 40 seconds while the screen is on
- Rate now in p/kWh, coloured by band: off-peak, smart-charge slot or peak
- Cost per hour at the current draw and rate
- Today by half hour as a small bar chart under the gauge
- Today's totals: electricity split by band, gas, export and the total inc. standing and VAT
- Coming up: planned Intelligent Octopus Go charging, Power Ups and booked Happy Hours
- Tap the gauge for a fresh reading straight away



The same Live screen in the Classic theme.

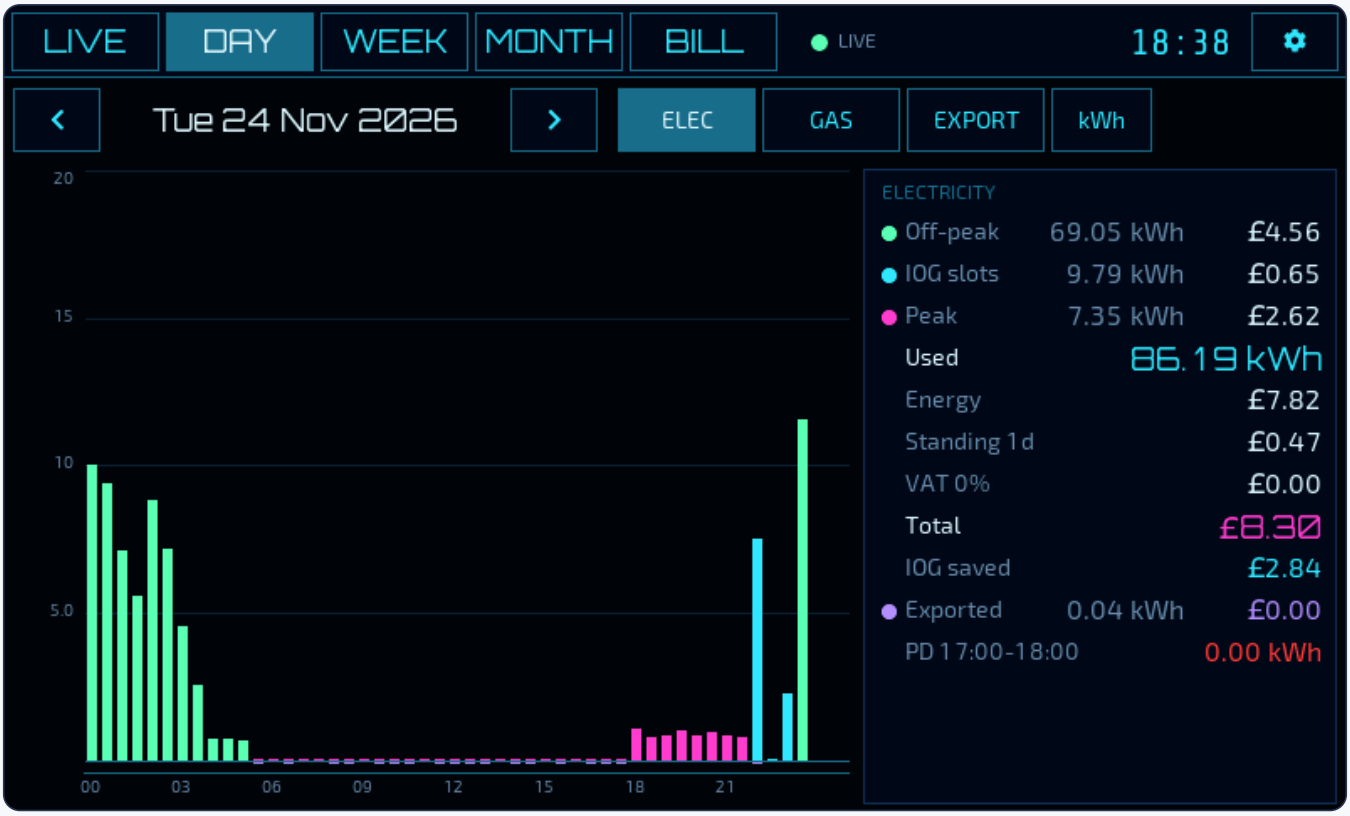


And in the Amber theme.

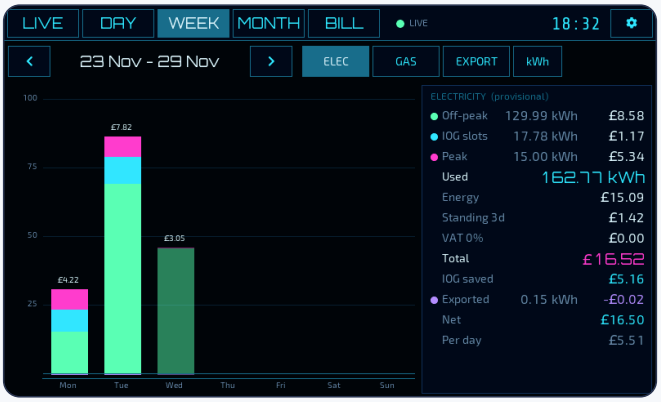
DAY, WEEK AND MONTH

See where the money went

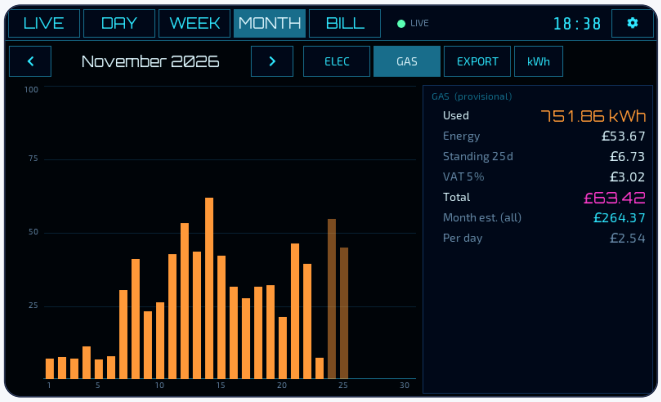
Three chart screens break your use down by half hour, by day of the week and by day of the month. Each bar is split into the rate band you were charged at, and the panel alongside turns kilowatt-hours into pounds. Step back through earlier days, weeks and months with the arrows.



Day view: off-peak overnight, peak in the evening, and two smart-charge slots (blue) that Intelligent Octopus Go priced at the off-peak rate, with the saving shown.



Week view: each day's cost on top of its bar, with the week's total and average per day.



Month view for gas: daily use, standing charge, VAT at 5% and a month-end estimate.

- Electricity, gas and export on every chart, in kWh or £
- Today's bars are marked provisional until Octopus settles them
- Power Downs and Happy Hours marked on the day they happened
- Month estimate projects the whole month from your use so far

THE BILL

Your bill so far, to the penny

The Bill screen covers the current bill period, from the day after your last Octopus bill to today. Settled half hours use the cost Octopus itself recorded; today is priced from your tariff. Standing charges are added once a day, VAT is applied per fuel at the rate actually charged, and export is taken off.



Bill screen: electricity by band, gas, export and the net figure, plus how much Intelligent Octopus Go saved against charging at peak. Other credits such as referrals and goodwill are listed separately, outside the total (blurred here).

WORKS WITH YOUR OCTOPUS TARIFF

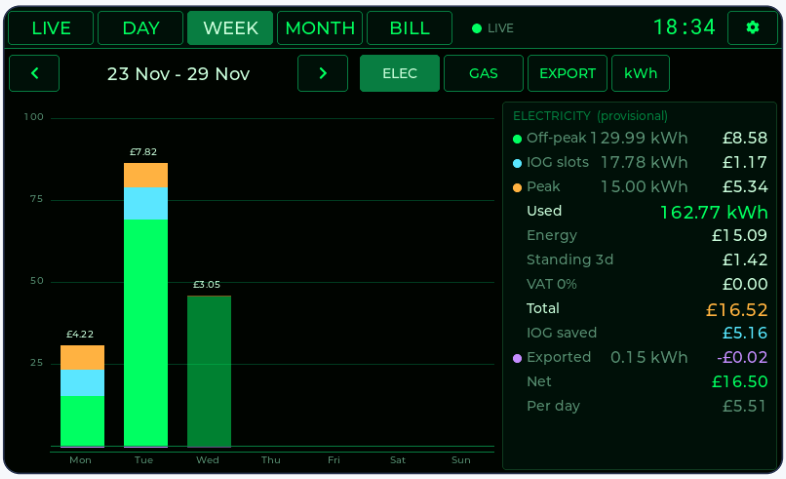
OctoIHD reads your tariff from your account and follows its rates and times. It recognises Intelligent Octopus Go, Octopus Go, Agile, Cosy, Flux, Intelligent Flux, Tracker, Snug, Economy 7, and fixed and flexible single-rate tariffs.

- Smart-charge slots: Intelligent Octopus Go dispatches outside the normal off-peak window are logged on the unit and priced at the off-peak rate
- Power Ups priced at 0p inside the window
- Happy Hour credits matched back to the hour they paid for
- Export credited at your export rate, with no VAT

THREE LOOKS, ONE PRODUCT

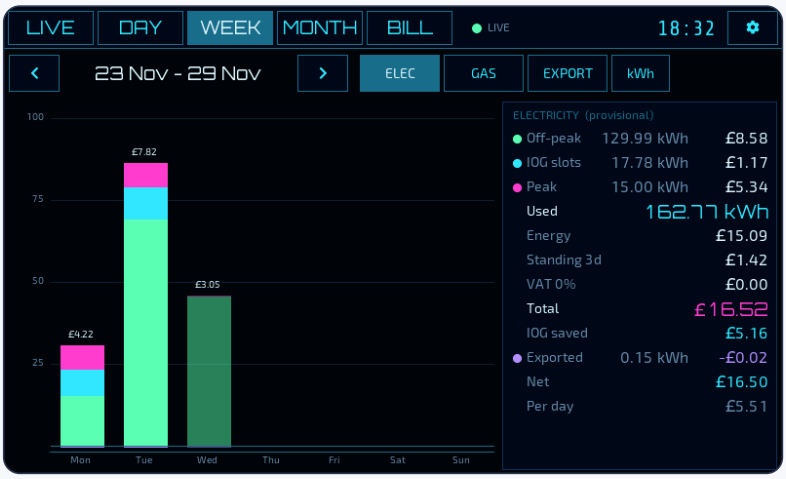
A display people want on show

OctoIHD ships with three complete colour themes, chosen on the screen or from the settings website: Classic, Neon and Amber. Rate bands keep their meaning in every theme, so off-peak, smart-charge and peak always read at a glance.



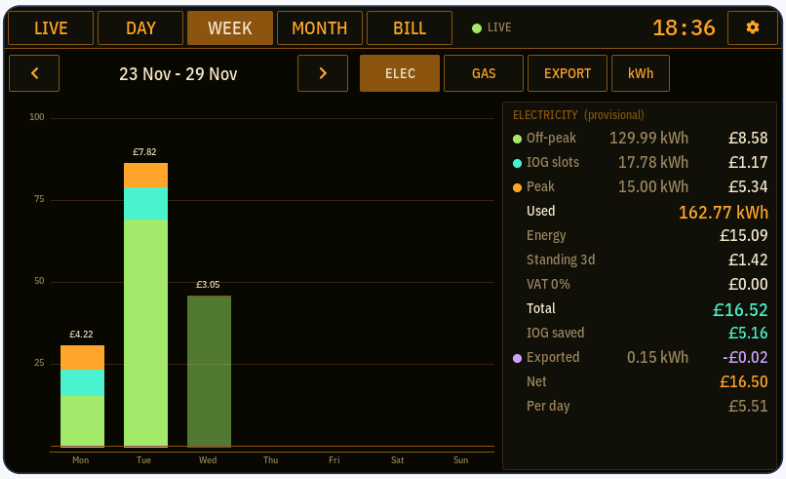
Classic

Phosphor green on black with amber values. Clean and easy to read across a room.



Neon

A holographic display: cyan and magenta neon on blue-black.



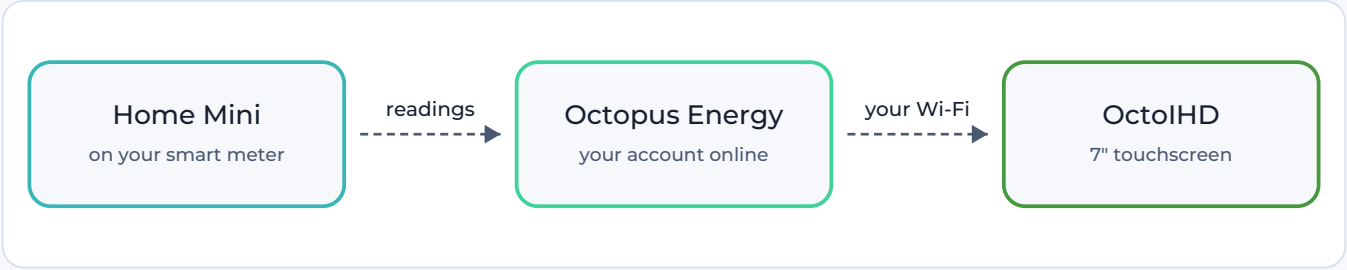
Amber

A vintage meter: amber dial and a blue-green display on a warm dark background.

Week view shown in each theme. Changing theme restarts the display to apply it.

SETUP AND HOW IT WORKS

Your account, no middleman



1 Power it up

Any 5 V USB-C supply; the cable is in the box.

2 Join Wi-Fi

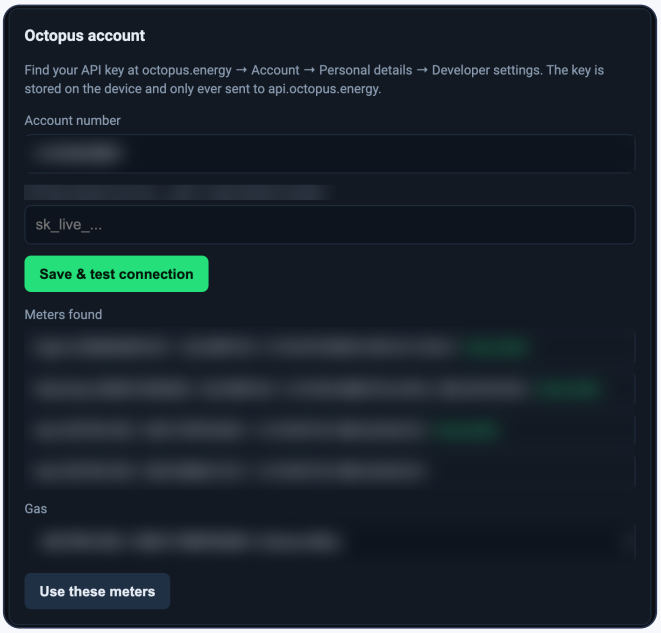
The unit opens its own setup hotspot: connect from your phone and pick your network.

3 Add your account

Enter your Octopus account number and API key, then test the connection.

4 Done

It finds your meters, Home Mini and tariff, and fills in its history by itself.



The settings website, here the Octopus account section (account and meter details blurred).



Changing settings from your home network needs a 6-digit code shown on the unit's screen.

What you need

- An Octopus Energy account and an Octopus Home Mini for live readings
- Your Octopus API key, from your account's developer settings
- A 2.4 GHz Wi-Fi network with internet access

Your key stays yours

- The API key is stored on the unit, only ever sent to Octopus, and never shown back in full
- Firmware comes only from the TopBytes update service: there's no upload page on the network

WHO IT'S FOR

For anyone on a smart Octopus tariff

OctoIHD is most useful when the price of electricity changes through the day, and you want to see it change without opening an app.

EV owners

On Intelligent Octopus Go, see tonight's smart-charge slots before they happen and what they saved afterwards.

Time-of-use households

Agile, Cosy, Flux or Go: the rate now and the next change are always on screen, so it's easy to move the washing to the cheap hours.

Solar and export

Export is shown alongside import and credited at your export rate, so the net figure is what you actually pay.

Budget watchers

A running bill and month-end estimate for electricity and gas, with no surprises when the real bill arrives.

READY TO USE



OctoIHD on the TopBytes 7-inch unit (Week view, Neon theme).

OctoIHD comes as a complete unit: a 7-inch touchscreen in the TopBytes enclosure with its firmware pre-installed. That means:

- no app or computer to set up: just your Wi-Fi and your Octopus API key
- USB-C power from any 5 V supply
- free over-the-air firmware updates

YOUR DATA STAYS WITH YOU

- Straight from Octopus: the display fetches your usage and tariff directly from Octopus. There is no TopBytes server in between.
- Your key stays on the unit: it is only ever sent to api.octopus.energy and is never shown again, even on the settings website.

SPECIFICATION

Product details

Display	7-inch, 800 × 480, capacitive touch; adjustable brightness; 180° rotation
Processor	ESP32-S3 dual-core, 16 MB flash, 8 MB PSRAM
Data	Your Octopus Energy account over the internet (API key and account number); live demand from an Octopus Home Mini
Fuels	Electricity import, gas and electricity export
Screens	Live, Day, Week, Month and Bill; on-screen settings
Tariffs	Intelligent Octopus Go, Go, Agile, Cosy, Flux, Intelligent Flux, Tracker, Snug, Economy 7, fixed and flexible
History	About 100 days of half-hourly use and cost stored on the unit
Settings website	On your home network at octoihd.local, protected by a 6-digit pairing code
Night mode	Scheduled screen off, dimmed, or a dark night screen; touch wakes it
Wi-Fi	2.4 GHz; up to 3 networks; setup hotspot for first use
Power	5 V USB-C
Themes	Classic, Neon, Amber
Updates	Free over-the-air firmware updates from the TopBytes update service

IN THE BOX

- OctoIHD unit, firmware installed and ready to go
- USB-C power cable

HELP AND SUPPORT

- Email support@topbytes.net
- Device info on the unit shows its firmware, IP address and settings website

Coming soon, direct from TopBytes

OctoIHD isn't on sale yet. It will be available direct from TopBytes. To register your interest or ask about availability, email support@topbytes.net or get in touch at topbytes.net.

Screenshots are captured directly from a unit running on a real Octopus account; account and meter details are blurred. Octopus Energy, Intelligent Octopus Go, Octopus Home Mini and Octoplus are trademarks of Octopus Energy; OctoIHD is independent and not affiliated with or endorsed by Octopus Energy.