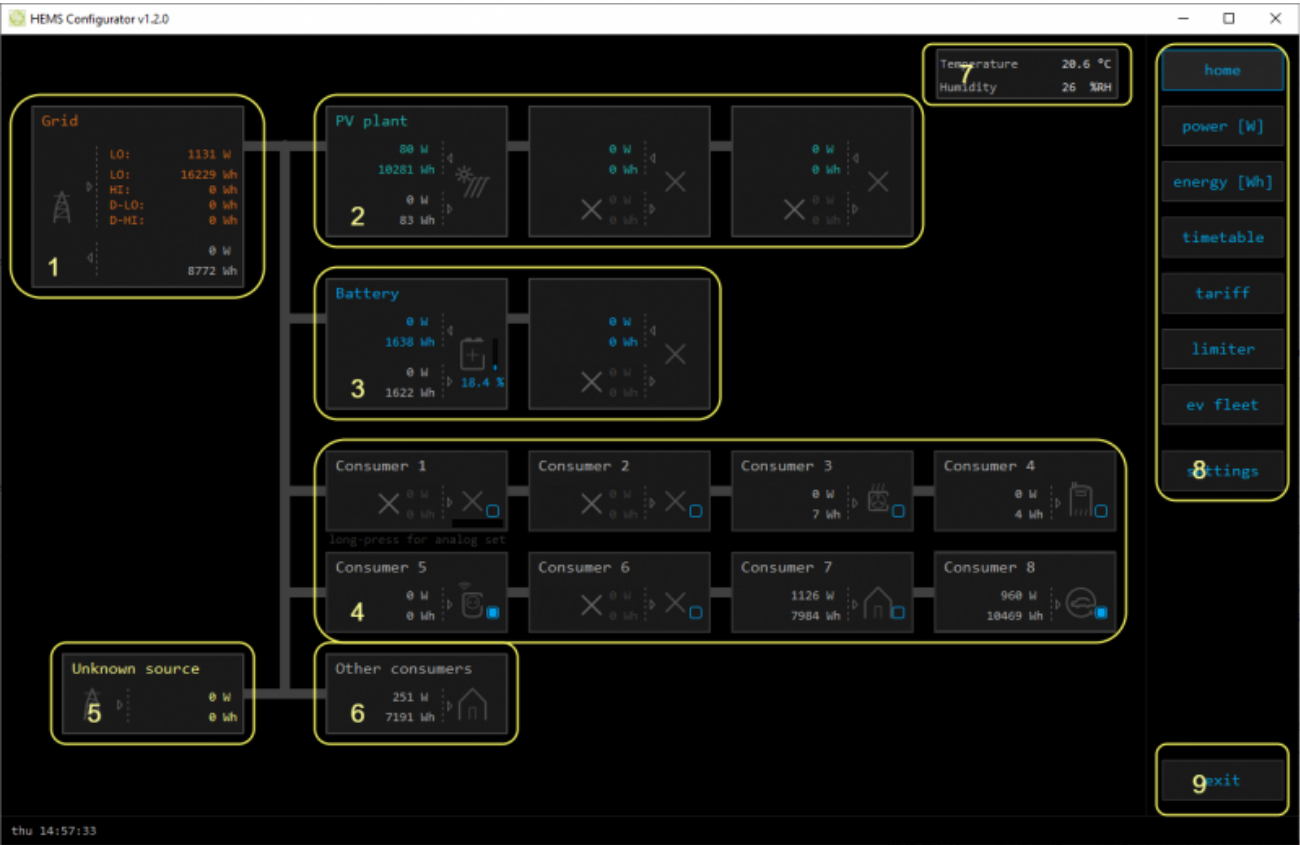


HEMS v1.2.3 Configurator


Latest version of HEMS Configurator can be found under [download folder](#).

home

Basic system overview.



1. Grid		
›	From grid	Tariff (LO, HI, D-LO, D-HI) and power from grid in W
		Imported energy by tariff in Wh
‹	To grid	Power exported to grid in W
		Exported energy in Wh
2. Plants		
‹	Produced	Produced power in W and energy in Wh
›	Consumed	Consumed power in W and energy in Wh
3. Storage systems		
‹	Sourced	Power in W and energy in Wh sourced from storage (battery)
›	Stored	Power in W and energy in Wh stored (to battery)
bargraph and %¹	SOC	Battery State Of Charge
4. Consumers		
›	Consumed	Consumed power in W and energy in Wh

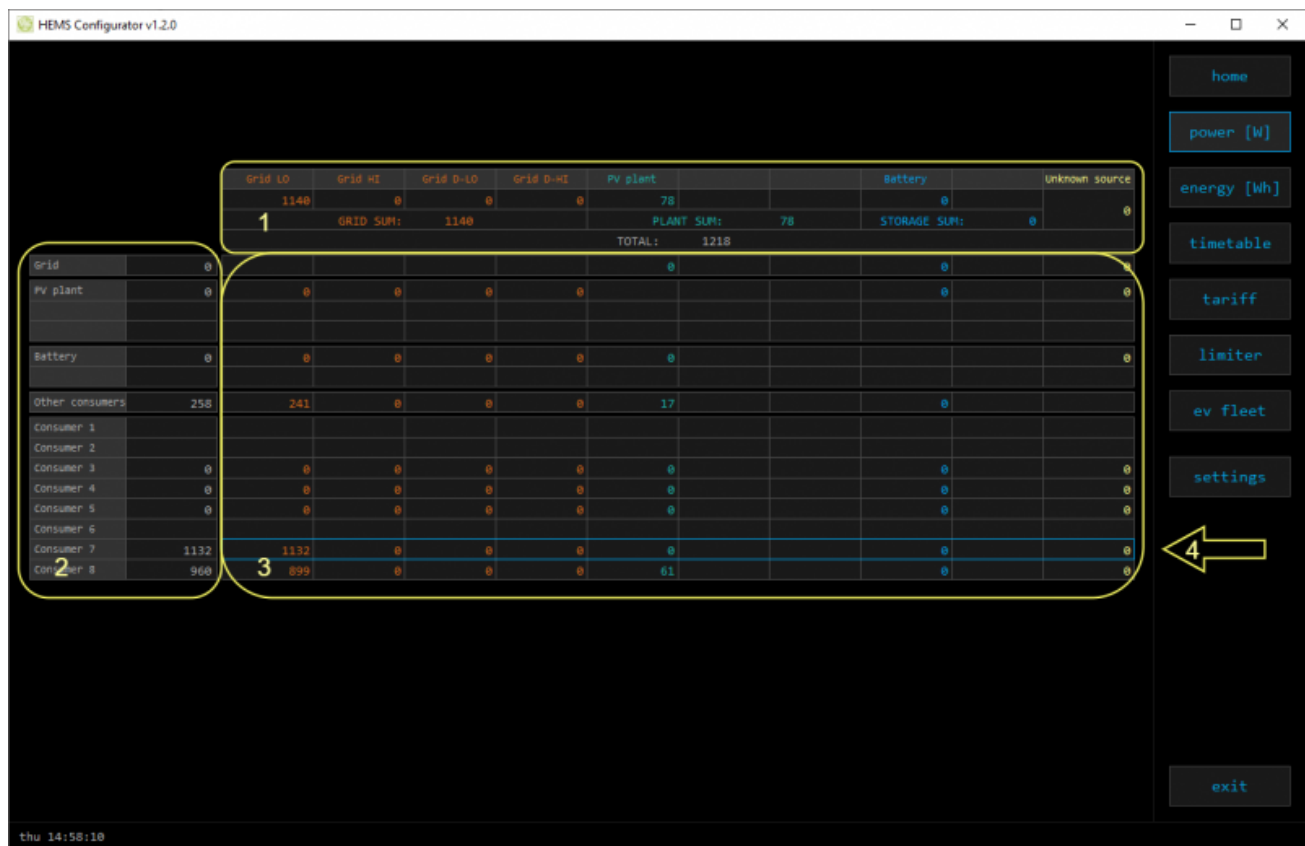
[]	Status	Output status for managed consumers
bargraph ²	Analog out	Analog output value
click	Toggle	Click in frame toggles managed consumers output
long-press ²	Set analog	Long press on first consumer pops-up dialog for analog value set
5. Unknown source		
>	Sourced	Power in W and energy in Wh from unknown source
 Accumulate also all differences caused by power-sensor inaccuracy		
6. Other consumers		
>	Consumed	Consumed power in W and energy in Wh by other (not measured) consumers
7. Temperature and humidity		
	Temperature	Temperature in °C
	Humidity	Humidity in % RH
8. Page navigation		
	Home	Home screen
	Power [W]	Power screen
	Energy [Wh]	Energy screen
	Timetable	Timetable screen
	Tariff	Tariff screen
	Limiter	Limiterscreen
	EV fleet	EV fleet screen
	IO mux	IO mux screen
	Settings	Settings screen
9. Exit		
	Exit	Close appliction

¹ only for eStore

² only for first managed consumer

power

Overview of current power distribution by source / consumer.



1. Sourced power

Sourced power for each source

[illegible]

Total of all sourced power	100%
----------------------------	------

2. Consumed power

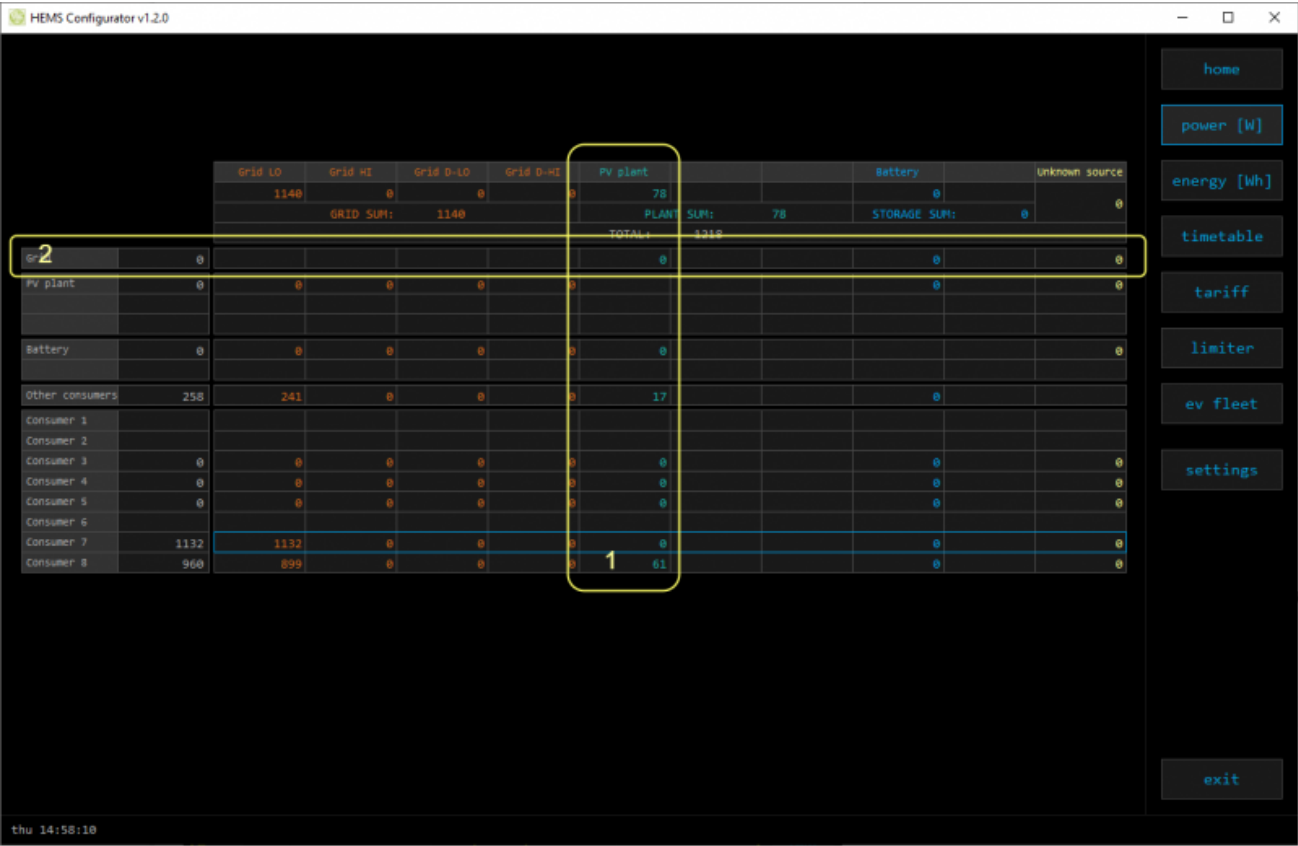
Power for each consumer

3. Power distribution

Partial distributed power

4. Submeter (Blue outline)

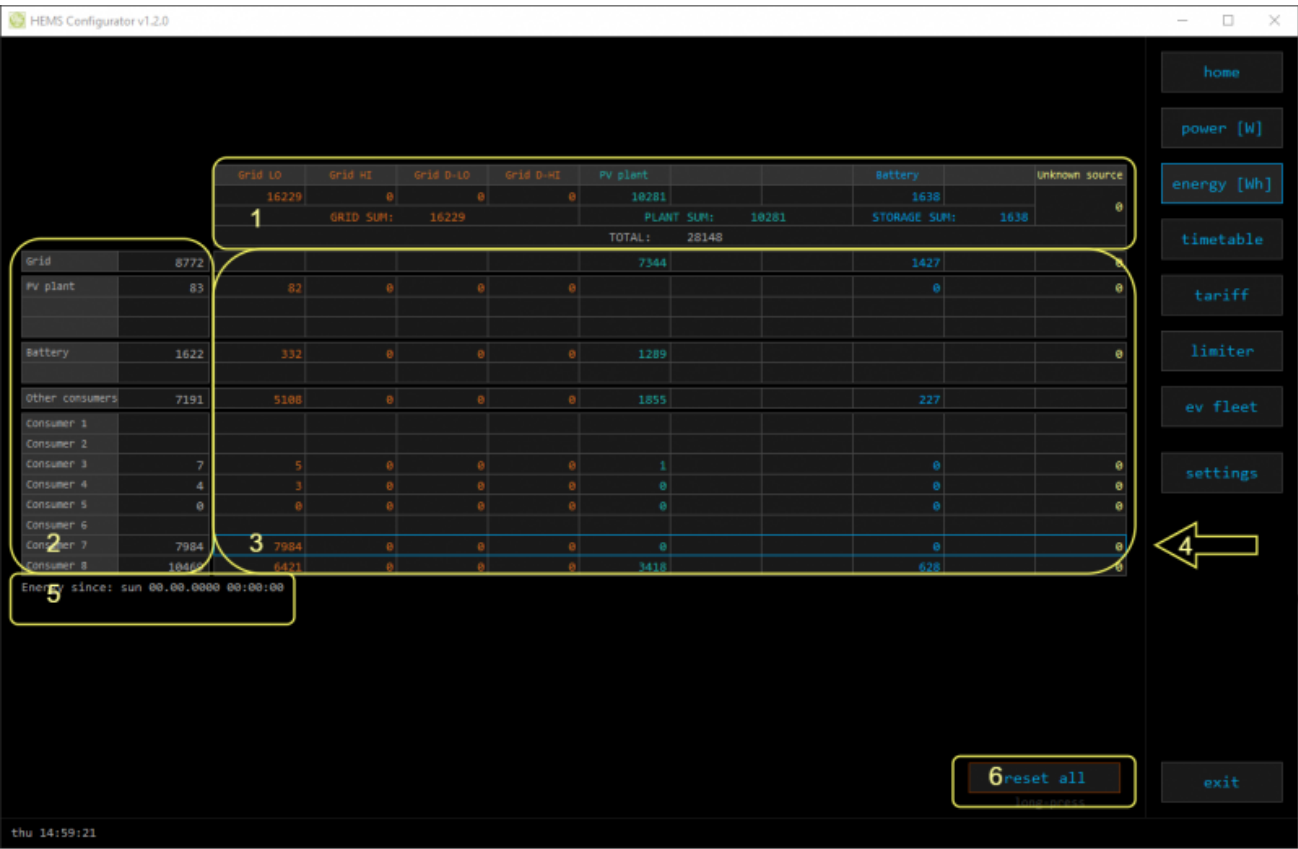
Power meter is not part of internal circuit



- | |
|--|
| 1. Sourced power distribution |
| How sourced power is consumed by each consumer |
| 2. Consumed power distribution |
| Who sources consumed power |

energy

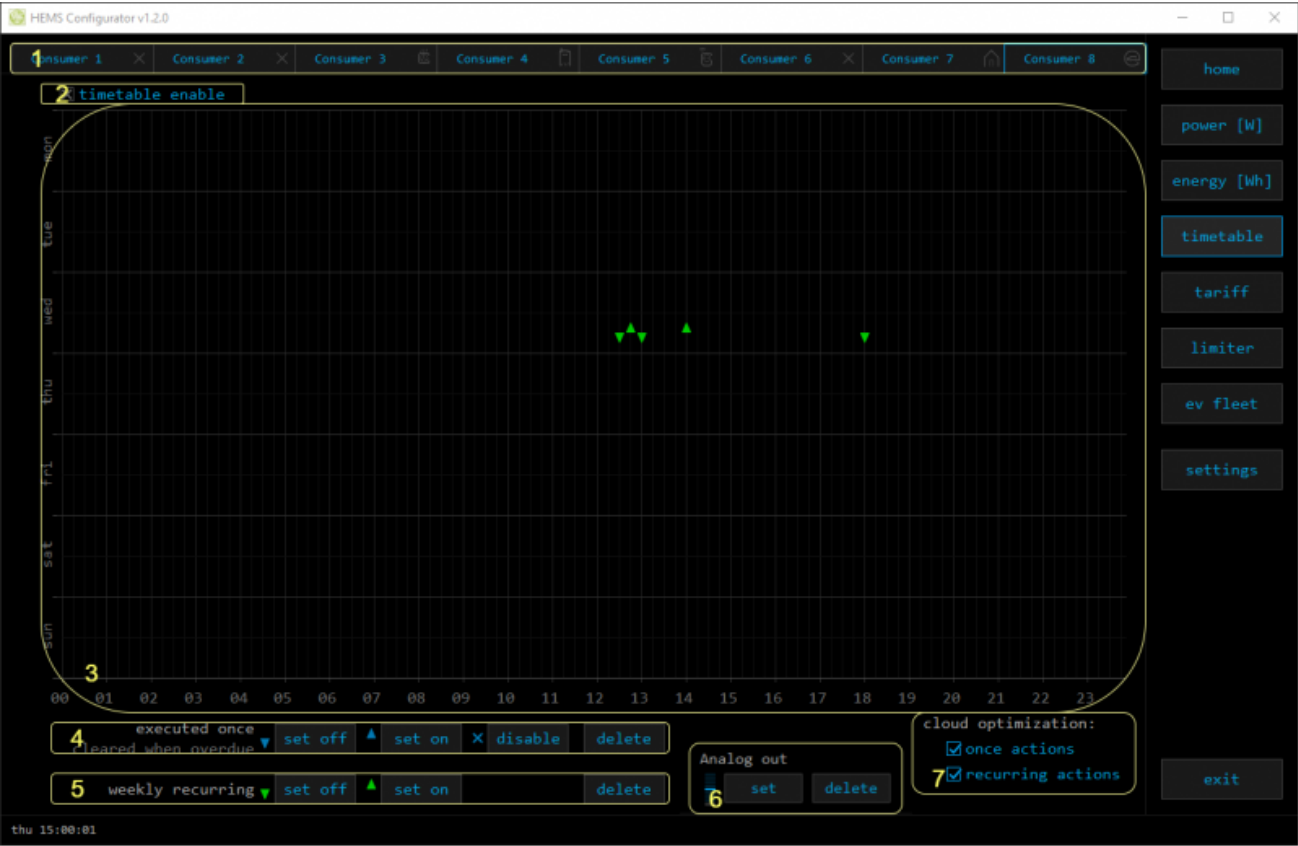
Energy overview of a given time distributed by sources / consumers.



1. Sourced energy
Sourced energy for each source
Sums per source type
Total of all sourced energy
2. Consumed energy
Energy for each consumer
3. Energy distribution
Partial distributed energy
4. Submeter (Blue outline)
Power meter is not part of internal circuit
5. Energy since
Date and time since energy is recorded
6. Reset all
Long-press to reset all energy counters

timetable

Weekly timetable for managed consumers.

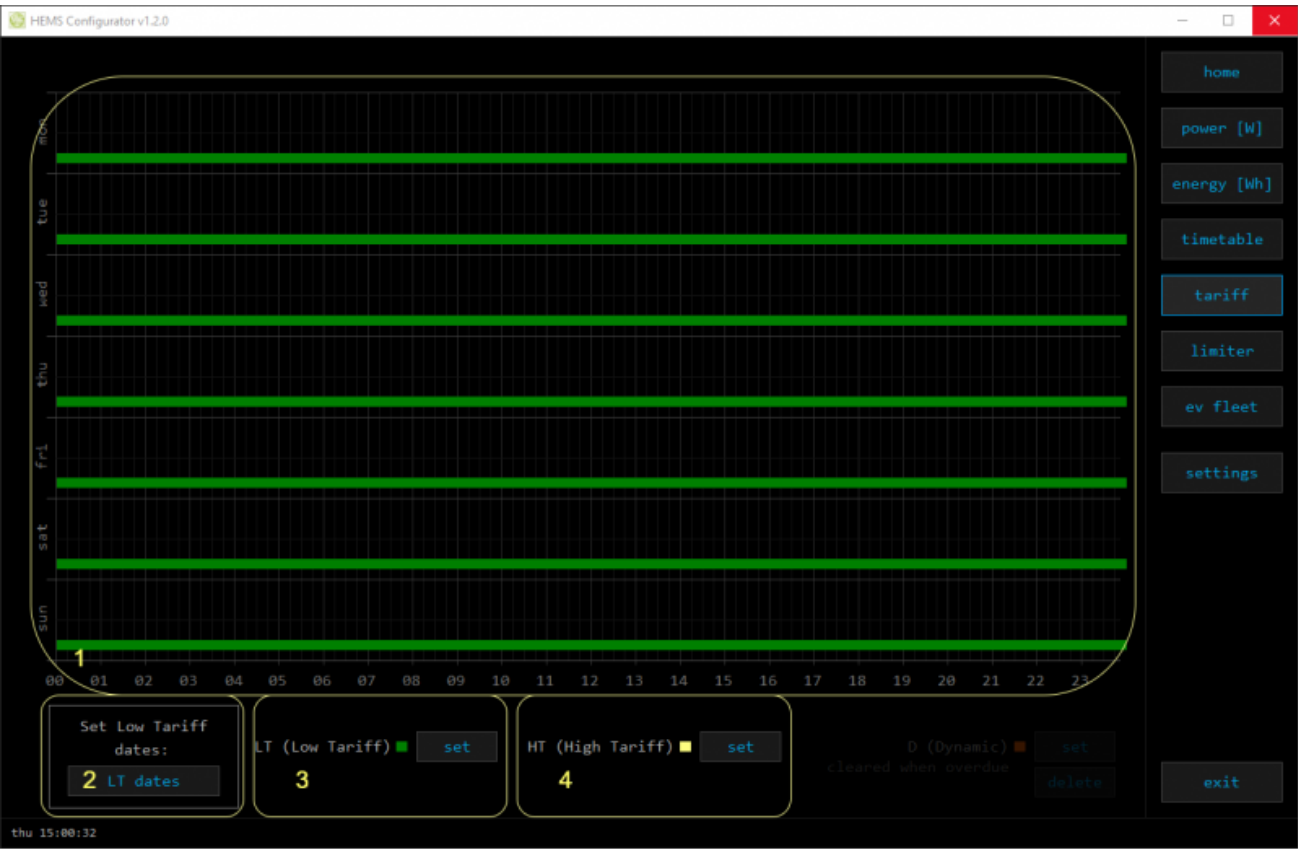


1. Managed load menu
Switch between managed loads
2. Enable checkbox
When un-checked timetable is not executed
3. Events grid
Events displayed in weekly grid (15 min resolution)
Click to select time and set event by clicking buttons below
4. Once actions (top priority timetable actions)
Actions are executed and then automatically cleared.
“Disable” action will just disable recurring action.
5. Recurring actions (low priority actions)
Actions are executed each week.
6. Analog out ¹
Action to set analog output. Analog actions are recurring.
7. Cloud optimization
When enabled (checked) cloud optimization is enabled.

¹ only for Consumer 1

tariff

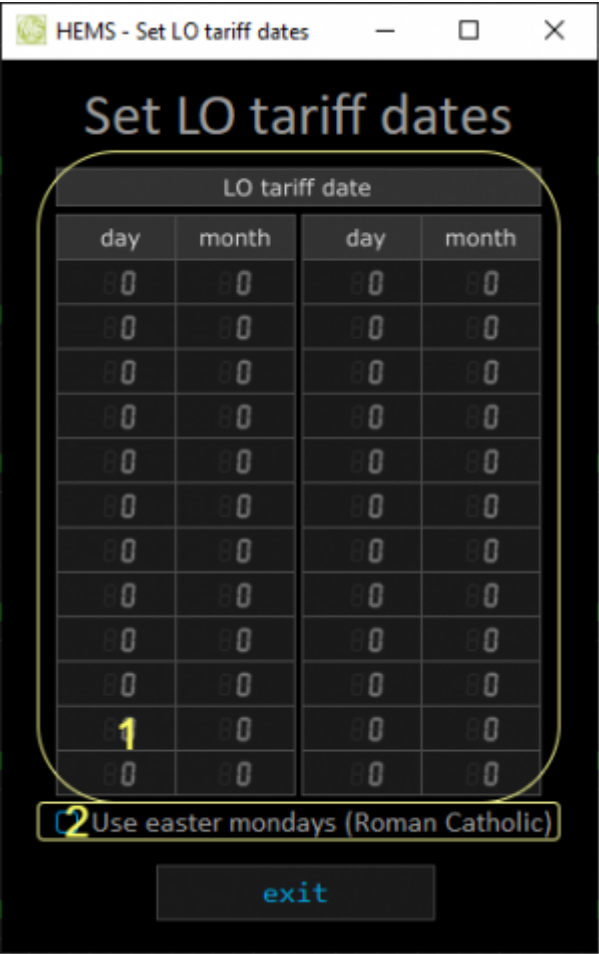
Weekly tariff timetable for grid energy per tariff distribution.



1. Tariff grid
Graphical weekly timetable with tariffs.
Click to select term, click-and-drag to select multiple terms.
2. Low tariff dates
Set low tariff dates for holidays.
3. Low tariff
Set low tariff for selected terms.
4. High tariff
Set high tariff for selected terms.

lo tariff dates

Holiday dates when tariff is low



1. Date table
Up to 24 days when tariff is low on holiday
2. Use easter mondays
Use preprogrammed roman-catholic easter monday holidays

limiter

Overview and configuration of limiter



1. Consumer management

Turn consumers on or off

2. Power

Line	Phase	Power (W)	Power (W)
1	Phase 1	1000	1000
2	Phase 2	1000	1000
3	Phase 3	1000	1000
4	Phase 4	1000	1000
5	Phase 5	1000	1000
6	Phase 6	1000	1000
7	Phase 7	1000	1000
8	Phase 8	1000	1000
9	Phase 9	1000	1000
10	Phase 10	1000	1000
11	Phase 11	1000	1000
12	Phase 12	1000	1000
13	Phase 13	1000	1000
14	Phase 14	1000	1000
15	Phase 15	1000	1000
16	Phase 16	1000	1000
17	Phase 17	1000	1000
18	Phase 18	1000	1000
19	Phase 19	1000	1000
20	Phase 20	1000	1000
21	Phase 21	1000	1000
22	Phase 22	1000	1000
23	Phase 23	1000	1000
24	Phase 24	1000	1000
25	Phase 25	1000	1000
26	Phase 26	1000	1000
27	Phase 27	1000	1000
28	Phase 28	1000	1000
29	Phase 29	1000	1000
30	Phase 30	1000	1000
31	Phase 31	1000	1000
32	Phase 32	1000	1000
33	Phase 33	1000	1000
34	Phase 34	1000	1000
35	Phase 35	1000	1000
36	Phase 36	1000	1000
37	Phase 37	1000	1000
38	Phase 38	1000	1000
39	Phase 39	1000	1000
40	Phase 40	1000	1000
41	Phase 41	1000	1000
42	Phase 42	1000	1000
43	Phase 43	1000	1000
44	Phase 44	1000	1000
45	Phase 45	1000	1000
46	Phase 46	1000	1000
47	Phase 47	1000	1000
48	Phase 48	1000	1000
49	Phase 49	1000	1000
50	Phase 50	1000	1000
51	Phase 51	1000	1000
52	Phase 52	1000	1000
53	Phase 53	1000	1000
54	Phase 54	1000	1000
55	Phase 55	1000	1000
56	Phase 56	1000	1000
57	Phase 57	1000	1000
58	Phase 58	1000	1000
59	Phase 59	1000	1000
60	Phase 60	1000	1000
61	Phase 61	1000	1000
62	Phase 62	1000	1000
63	Phase 63	1000	1000
64	Phase 64	1000	1000
65	Phase 65	1000	1000
66	Phase 66	1000	1000
67	Phase 67	1000	1000
68	Phase 68	1000	1000
69	Phase 69	1000	1000
70	Phase 70	1000	1000
71	Phase 71	1000	1000
72	Phase 72	1000	1000
73	Phase 73	1000	1000
74	Phase 74	1000	1000
75	Phase 75	1000	1000
76	Phase 76	1000	1000
77	Phase 77	1000	1000
78	Phase 78	1000	1000
79	Phase 79	1000	1000
80	Phase 80	1000	1000
81	Phase 81	1000	1000
82	Phase 82	1000	1000
83	Phase 83	1000	1000
84	Phase 84	1000	1000
85	Phase 85	1000	1000
86	Phase 86	1000	1000
87	Phase 87	1000	1000
88	Phase 88	1000	1000
89	Phase 89	1000	1000
90	Phase 90	1000	1000
91			

3. Current

Current for each phase

4. Voltage

Voltage for each phase

5. Phase order

Firstly set correct phase order for grid power sensor and then set for other powers sensors/devices. NOTE: changing grid phase order will NOT apply to phase order of other devices!

6. Current limit

Current limit threshold for main grid fuse

7. Status, priority and current setpoint

	Yellow status when limiter is enabled and active. Green status when enabled and not active
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Priority

Device priority group (no limiter, limit last, limit second, limit first)

Max $[A]^1$

Device expected current draw

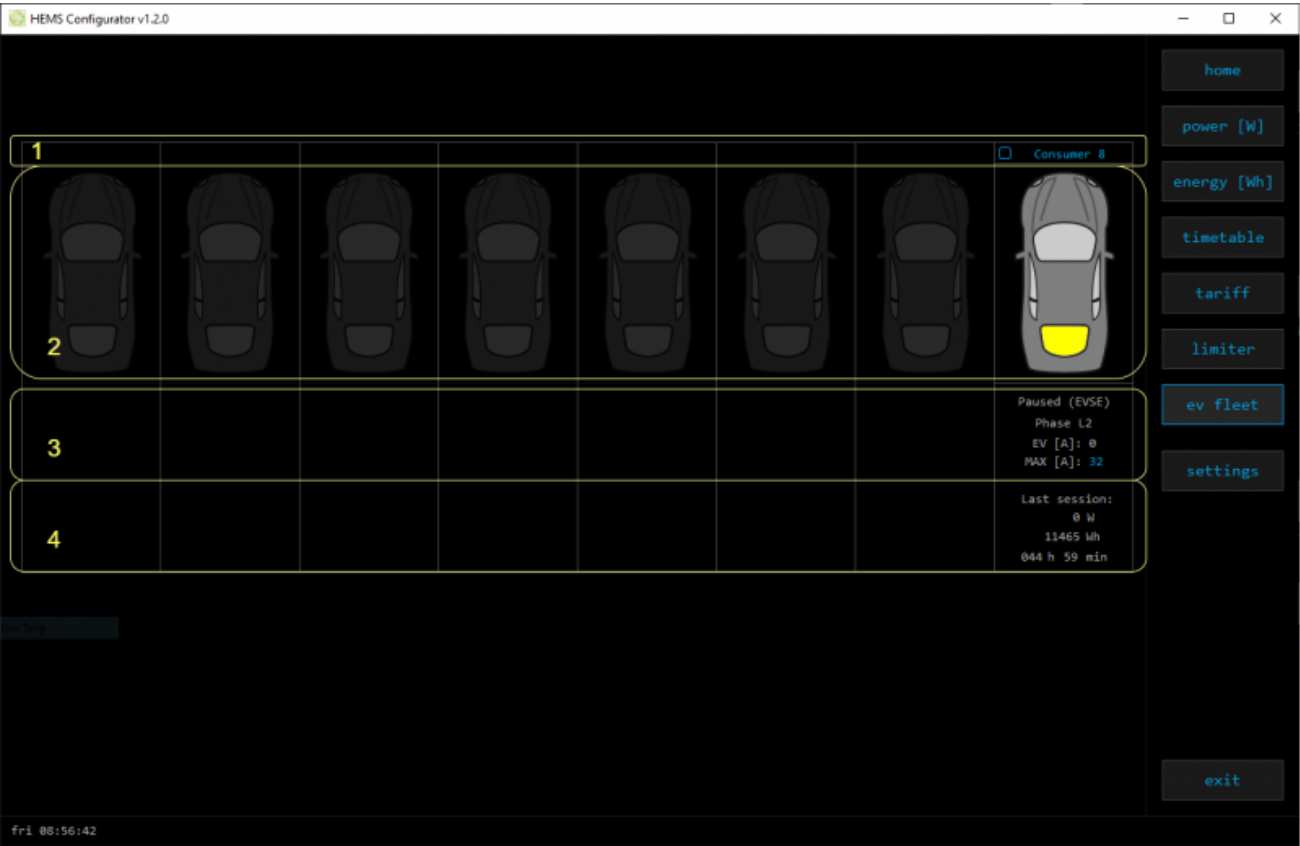
8. Grid frequency

Grid frequency measured on grid power meter sensor

¹ parameter is dynamically set for all devices, except for the EV charging stations

ev fleet

Overview and configuration of EV charging stations

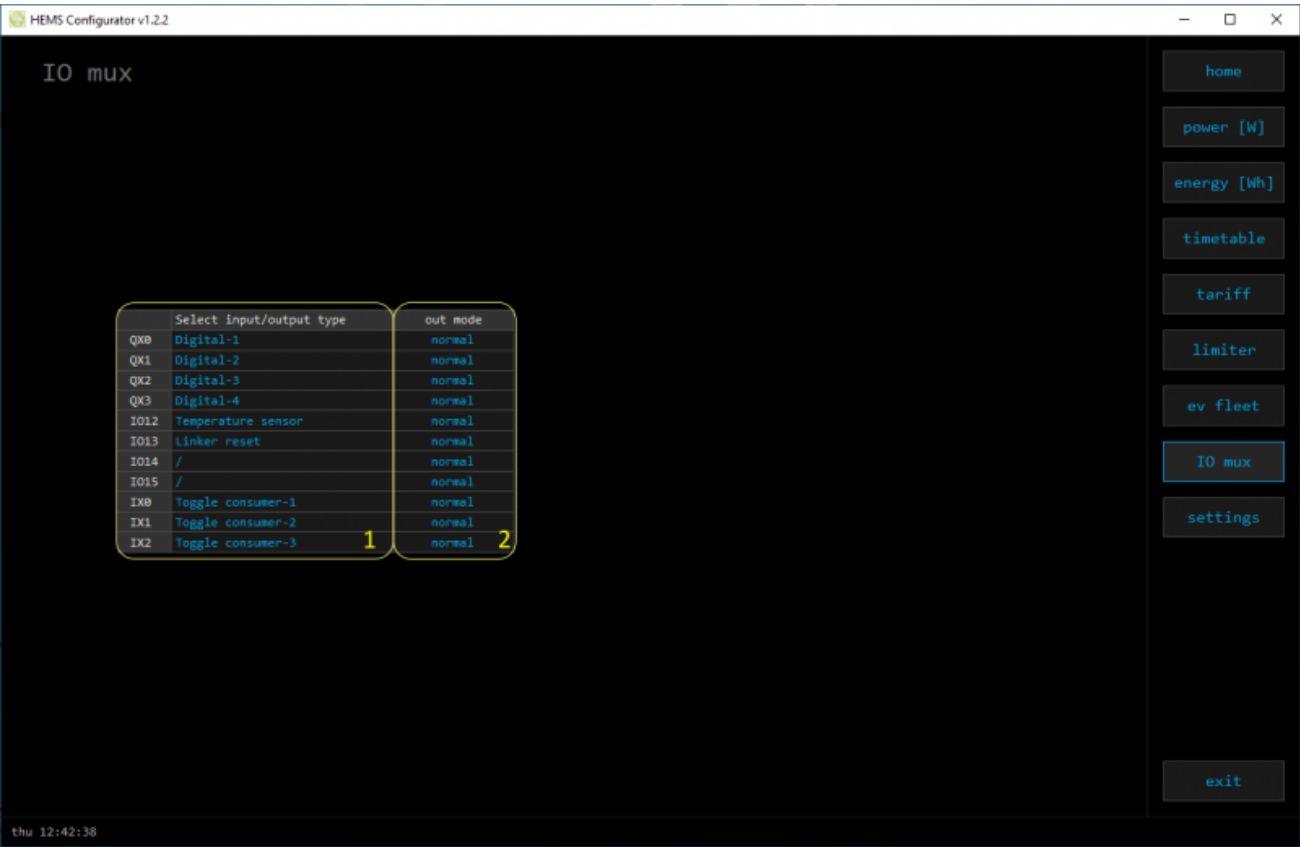


1. EV charging station management	
Turn EV station on or off	
2. EV vehicle status	
GREY	Stand by
RED	Error
YELLOW	Charging paused
BLUE	Charging
GREEN	Charging ended
3. EV charging station status	
Status	Status of EV charging station
Phase detection	Detection of utilized phases
EV [A]	EV charger max allowed current
MAX [A]	User set MAX charging current
3. EV charging session	
Power	Actual power draw
Energy	Energy delivered to EV

Duration	Session charging duration
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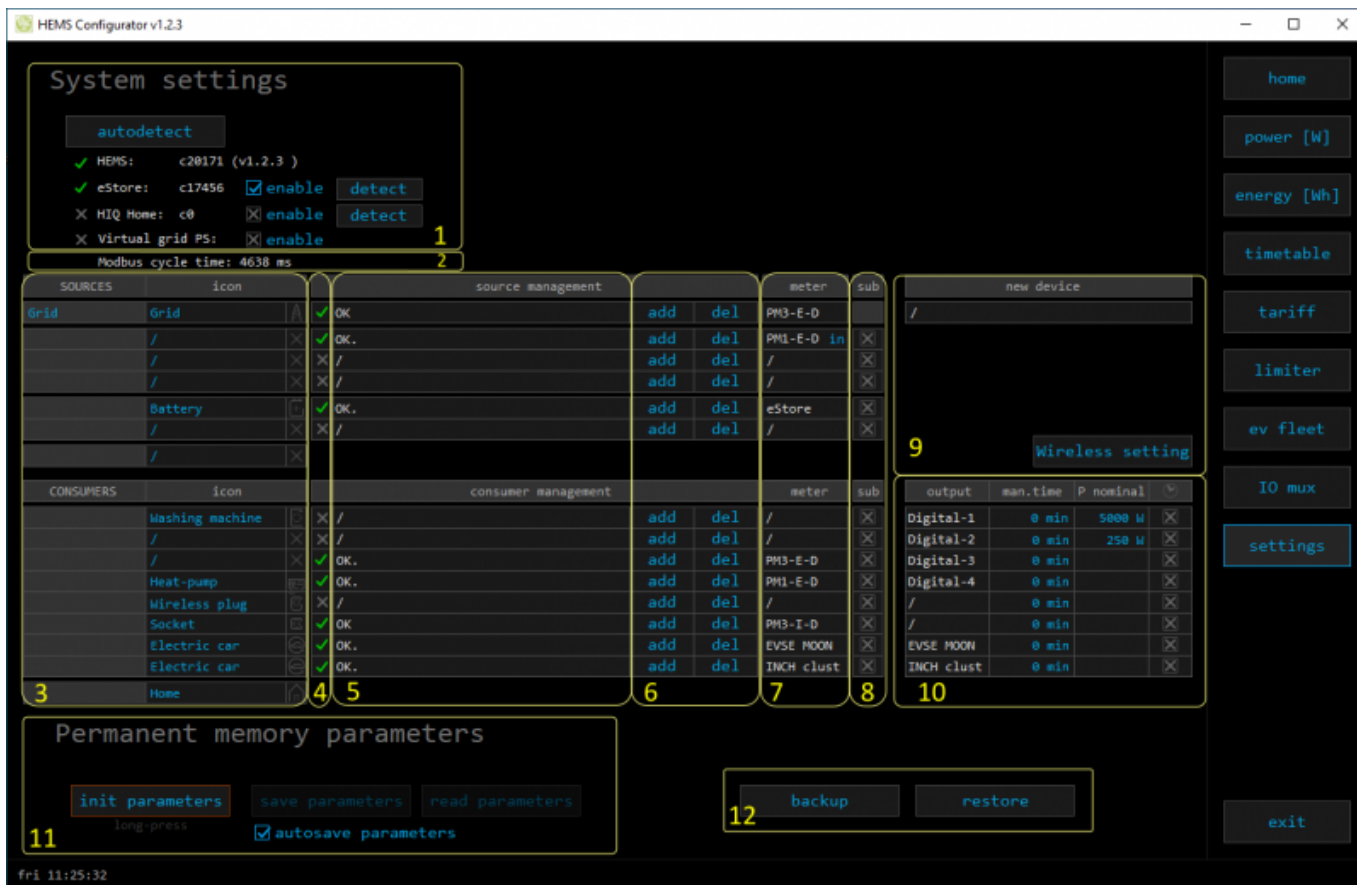
io mux

Overview and configuration of input/output ports IO mux



1. Select input/output type
On the left side there are defined MC controller (MC-230) ports to which could be assigned MC-230 functions (digital, linker reset, router reset, etc).
Default settings are for e.g. QX0 → digital 1 while digital 1 is defined for consumer 1 (settings page). It could be changed in a way to define new function role to QX0 port e.g. for linker reset
If it is selected Enable consumer at input IX0,IX1 or IX2 it means that dedicated consumer will be managed (ON/OFF) by input signal on IX0,IX1 or IX2. For example, thermostat signal is wired to IX0 port and via IO mux defined “Enable consumer 1” to IX0. While thermostat is active, it is consumer 1 active as well and vice versa.
Limitations: one temperature sensor is allowed, one consumer could be managed by one input only
2. out mode
Managed consumer input/output mode (normal or inverted)

settings



1. System settings

[autodetect]		Click to find HEMS in local network
eStore	C.....	eStore serial number (automatically detected or can be entered manually).
	[] enable	When checked HEMS will read Grid, first plant and first Storage directly from eStore (so there is no need to duplicate power-sensor).
	[detect]	eStore address is cleared and new eStore can be detected.
HIQ Home	C.....	HIQ Home serial number (automatically detected or can be entered manually).
	[] enable	When checked HEMS will read Grid power and energy from HIQ Home (so there is no need to duplicate power-sensor).
	[detect]	HIQ Home address is cleared so new can be detected.
Virtual grid PS	[] enable	Check if system is without main grid power meter. Energy, power and currents are calculated from other power meters.

2. Modbus cycle time

Modbus cycle time	Time in ms for modbus communication to complete reading of all connected devices.
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3. Sources and Consumers settings table

SOURCES	Source name
icon	Source icon

4. Device status

Status	Status OK, Warning, Error, Detected
--------	-------------------------------------

5. Device message

source and consumer management	Source or consumer power-sensor management	
	message	Messages regarding source or consumer power-sensor

6. Device configuration		
Configuration	add	Associate new power-sensor to source or consumer
	del	Disassociate power-sensor from source or consumer & configure it as new power-sensor
7. Device type		
meter	Source or consumer power-sensor type	
configuration	in/ex	Power plant connection ¹
8. Submeter option		
sub	Check if this power meter or device is not part of internal circuit. Energy division for this device is ignored and outlined in blue border.	
9. Wireless settigs		
new device	Power-sensor configured as new one detected or wireless module configuration ²	
Wireless setting	Setting up wireless modules: pairing, adding and delete the wireless modules and setting repeater level	
10. Device output		
output	Select consumer output type	
	<<>>	Set repeater level ³
man. time	Managed consumer manual override timer	
P nominal	Enter consumer's power in Watts. It is disabled if there is assigned power sensor to this consumer.	
clock	Enable timetable	
11. Permanent memory parameters		
[init parameters]	Init all parameters to default values	
[save parameters]	Save all parameters to permanent memory	
[read parameters]	Read all parameters from permanent memory	
[] autosave parameters	Parameters will be automatically saved to permanent memory in 15 minutes after last parameter change	
12. Backup / Restore to PC		
[backup]	Backup all parameters to PC ⁴	
[restore]	Restore all parameters from PC backup ⁴	

¹ only for the first power plant

² wireless setting must be enabled

³ only for wireless modules and wireless setting must be enabled

⁴ older versions of backup files may be used. Any unsuccessfully backed or restored parameters will be displayed but operation will end successfully if you use **continue**.

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