

GoFlex HEMS Configurator

HW setup guide



| Document | t HW setup guide | | | | |
|----------|--------------------------------|--|--|--|--|
| Version | 01.2 | | | | |
| Туре | project documentation - GoFlex | | | | |
| Date | 22.10.2018 | | | | |

Content

| Cor | itent 2 | |
|------|---|---|
| I. | Before start 3 | |
| 11. | Preparing the PC 3 | |
| III. | Connecting to controller 4 | |
| IV. | "Home screen" configuration6 | |
| v. | Addressing accessories | |
| VI. | Before leaving14 | |
| VII. | Walk through Screens 15 | |
| VIII | . Support 20 | 1 |
| AT | ACHEMENT: Equipment validation 21 | |
| AT | ACHEMENT: Graphic interface validation 22 | |
| AT | ACHEMENT: System validation 22 | |

I. Before start

- All HW has to be wired and powered as specified in electrical diagrams provided by Robotina:

https://app.box.com/folder/49556955497

- Before start with SW configuration have to be all HW verified with table in attachment "Equipment validation".

II. Preparing the PC

- Download Goflex HEMS configurator from Robotina wiki page:

http://wiki.hiq-home.com/doku.php?id=hiq_energy:goflex_hems:downloads

- Connect your computer in a LAN network (connection with router is mandatory).
- Run "Goflex HEMS Configurator v1.0.0.exe"

▲ Checking point

- At this point you should see the screen as below:



III. Connecting to controller

- Continue to page "Settings" and press "Autodetect". In a pop-up window select founded controller and confirm it with ok.

| 😳 Goflex HEMS Configurator v1.0.0 | | Reality prote pile angle Company | state Manual And |
|--|----------------------------|---|---------------------------------------|
| System setting | 3S | Internet access | 🖄 GOFLEX |
| autodetect | | push timer: ? s | home |
| estore: ???????????????????????????????????? | | 22222222222222222222222222222222222222 | power [W] |
| backup | | | energy [Wh] |
| SOURCES icon | P nominal power-meter type | addr. Date and time: | timetable |
| 22222222222222222222222222222222222222 | 2 W X 2 | | battery |
| >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>> | 5 M 5 5 | | tariff |
| 222222222222222222222222222222222222222 | 2 W 2 2 | - X | |
| *************************************** | | | settings |
| CONSUMERS icon | P nominal power-meter type | addr. index managed output type addr. index man.time out | mode timet. |
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| 33333333333333333333 | | | |
| ? | | | |
| init parameters save | parameters read parameters | | Jp |
| long-press | tosave parameters | | |
| ??:?:? | | | × |

TROUBLE SHOOTING

- Check if "RUN" LED on the controller is always "ON". In case of blinking restart controller with power disconnection.



 Checking point
 After the connection is established will red Xes disappear and you can start with configuration. -

| 💍 Goflex HEMS Conf | igurator v1.0.0 |) | | | | | | Sec. 10 | - | - | and the Person of Street or other | - | · · | A Read |
|--------------------------------|-----------------|-------|-----------|-----|------------------|-------|--------------|---|-------|-------|-----------------------------------|----------|--------|----------|
| Syste | m set | tings | | | | | | Interne | et ad | cces | S | | | 🔅 GOFLEX |
| autodetect | | | | | | | | yenable ✓ test reset push timer: 11 s mescare: 2333 (23387) | | | | | | |
| ✓ eStore: 16853 × HIQ Home: | | | | | | | roundtrip: : | 20 ms | | | | | | |
| | | | | | | | | | | | | | | |
| SOURCES | ic | on | P nominal | | power-meter type | addr. | | Date and time: | | | | | | |
| | 1 | | | × | | | | ∧ ∧ ∧ ∧ ∧ ∧ ∧ 12.09.2018 wed 15:43:02 × ✓ | | | | | | |
| | | | 0 W | | | | | ~~ ~ | ~ ~ ' | ~ ~ | | | | |
| | / | | 1409 W | | | | | | | | | | | |
| | / | | | | | | | | | | | | | |
| CONSUMERS | i | con | P nominal | | power-meter type | addr. | index | managed output type | addr. | index | man.time | out mode | timet. | |
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| wed 15:43:02 | | | | | | | | | | | | | | A |

IV. "Home screen" configuration

- Before continue click on a button "init parameters"

Then follow:

- Click on a box under the text "Sources" and write "Grid"
- Click on a slash under the text "icon" and choose "Grid"
- Click on box under the text "power meter type" and based on installed HW in a pop-up window select between single power meter and tree phase power meter

▲ Checking point

At this point you should see the screen as below:

| | igurator v1.0.0 | | | | | | | | | | | |
|-----------|-----------------|-----------|----------------------------|-------|-------|-------------------------------|-------------------|------------|----------------------------------|----------|--------|----------|
| System | n setting | s | | | | Interne | t ac | ces | | | | 🖄 GOFLEX |
| | | | | | | | | | | | | |
| ✓ HEMS: | c20026 (v1.0.0 | 0) | | | | push timer: 2 messages: 25 | 22 s 588 / 25 | 593 | | | | |
| ✓ eStore | e: 16853 | | | | | roundtrip: 20 | 0 ms | | | | | |
| × HIQ Ho | ome: | | | | | | | | | | | |
| | | | | | | | | | | | | |
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| SOURCES | icon | P nominal | power-meter type | addr. | | Date and time: | | | | | | |
| irid | Grid | | A HEMS 3 phase power-meter | | | 13.09.2018 | A A / thu 10:0 | ^ ^ | х Л | | | |
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| CONSUMERS | icon | P nominal | power-meter type | addr. | index | managed output type | addr. | index | man.time | out mode | timet. | |
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| | | | × / × / | | | | | | 0 min 0 min | | | |
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| | | | x / x / x / x / | | | | | | 0 min 0 min 0 min 0 min | | | |

- Adding PV power meter: click on the boxes in a second row and add PV plant as an additionally source.

| 📀 Goflex HEMS Configura | ator v1.0.0 | | | | | Sec. State | - | - | | - | - | P. Band |
|---|-------------|-----------|----------------------------|--------------|-------|---------------------|-------|------------|----------------|----------|--------|----------|
| System | settin | gs | | | | Interne | t ac | ces | | | | 🖄 GOFLEX |
| autodetect I enable v test reset | | | | | | | | | | | | |
| ✓ EStore: X HIQ Home: | 16853 | | | roundtrip: 2 | 0 ms | | | | | | | |
| back | | | | | | | | | | | | |
| SOURCES | icon | P nominal | power-meter type | addr. | | Date and time: | | | | | | |
| Grid G | | | A HEMS 3 phase power-meter | | | ^ ^ ^ | A A / | ^ ^ | × ./ | | | |
| PV P | | | A HEMS 1 phase power-meter | | | × × × | V V V | < < | | | | |
| / | | | | | | | | | | | | |
| / | | | | | | | | | | | | |
| / | | 6 W | | | | | | | | | | |
| / | | | | | | | | | | | | settings |
| CONSUMERS | icon | P nominal | power-meter type | addr. | index | managed output type | addr. | index | man.time | out mode | timet. | |
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| / | | | | | | | | | | | | |
| / | | 9 W | | | | | | | 0 min 0 min | normal | | |
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| / | | | | | | | | | | | | |
| 1 | | | | | | | | | | | | |
| / Parameters not saved in permanent memory! init parameters save parameters read parameters | | | | | | | | | | | | |
| long-press | | | meters | | | | | | | | | |
| thu 10:07:50 | | | | | | | | | | | | <u>^</u> |

- Adding CDEMS: click on the boxes in fifth row and add CDEMS plant as a battery system.

- Adding Consumers:
- Below "Consumer" click and name all consumer that are under the HEMS control
- Procced with selecting icons for specific load
- Where consumer is controlled by a wireless device click on a box under "Power-meter type" and chose "HEMS Wireless LM".
- Under "managed output type" select between:
 - \circ "HEMS digital" for loads that are controlled with digital outputs from controller
 - o "HEMS Wireless LM" for wireless accessories (socket, relay)

| Δ | Checking point | |
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|---|----------------|--|

| Goflex HEMS Confi | gurator v1.0.0 | | | | | - Annalise | - | - | and the Person of | - | - | a disease |
|---|----------------|-----------|----------------------------|-------|-------|---|----------|-------------|-------------------|----------|--------|-----------|
| System | n setting | S | | | | Interne | t ad | ces | | | | 🖄 GOFLE |
| | | | | | | ☑ enable ✓ test reset | | | | | | |
| ✓ HENS: c20026 (v1.0.00) ✓ eStore: 16653 > HONG | | | | | | messages: 25903 / 25912 roundtrip: 40 ms | | | | | | |
| | | | | | | | | | | | | |
| SOURCES | icon | P nominal | power-meter type | addr. | | Date and time: | | | | | | |
| Grid | Grid | | A HEMS 3 phase power-meter | | | | | | | | | |
| | | | | | | 13.09.2018 | thu 12:4 | 45:34 VV | × | | | |
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| | / | | | | | | | | | | | |
| CONSUMERS | icon | P nominal | power-meter type | addr. | index | managed output type | addr. | index | man.time | out mode | timet. | |
| later heater | | | | | | | | | | | | |
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| | | 0 W | | | | | | | 0 min | | | |
| | 1 | | | | | | | | | | | |
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| init param | | | read parameters | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

V. Addressing accessories

- In a "settings page" click on "HW Setup"

▲ Checking point

- On top of Configurator will appear "HiQ HEMS HW Setup" menu

| B HIQ HEMS HW Setup | Receiving sprate print may be Compatible, Name Manual | f find |
|---|---|--------|
| $\begin{array}{c c c c c c c c c c c c c c c c c c c $ | PICL PIC2 PIC3 PIC4 PIC5 PIC6 PIC7 PIC6 A: 169 A: 161 A: 162 A: 163 A: 164 A: 165 A: 166 A: 167 | exit |
| Wireless rebuild open close Wireless GN BR 1 BR 2 BR 3 BR 4 Close Wireless Close | | |
| Network status: normal (network closed). Click on active WLM to toggle output. Click on inactive device to | add it or on "error" device to delete it. | |
| TS-H | X X | |
| Aik Enocean Gu-Emo Click on active push-button to delete it or on inactive push-button | () () () () () () () () () () () () () (| |
| HC-IQ HEMS | $ \begin{array}{ c c c c c c c c } \hline \bigcirc & \bigcirc$ | |
| | | |

- 1phase Power meters:
- In case of more than one power meter:
 - Connect communication bus (to only one power-sensor)
 - In HIQ Configurator counter should appear as "new power-sensor"
 - o Press and hold the push-button on the power-sensor until it appears -SEt- on display
 - In HIQ Configurator click on the "add" button next to the source or consumer that the sensor is measuring

- 3phase Power meters:

- o Communication bus with the power-sensor should already be connected
- Press and hold the push-button on the sensor until it appears "COnF Add" on display
- o In HIQ Configurator counter should appear as "new power-sensor"
- Click on the "add" button next to the device that the sensor is measuring
- Setting address:
 - Click on power meter "A: 149".
 - Change address to "A: 150" or "A: 154" (for a second power meter)
- In case of trouble follow the text under "refresh" button

TROUBLE SHOOTING

- 3 phase power meter

• Check if the A and B wires are connected as below:



- CAD-232-A2-IQ,
- $\,\circ\,$ Terminate DIP switch as below (1 and 2 toward ON):



Adding ZigBee gateway:

- Click on "rebuild" button
- \circ follow the instruction under the button "close".

$\underline{\Lambda}$ Checking point

- Gateway icon has to be as shown below. If not follow the text under button "close"



- TROUBLE SHOOTING

• Check if the DIP settings are as specified below (1=ON, 2-8 OFF)



- Adding wireless plugs/ wireless relay

- Procedure is same for all wireless devices:
 - o restart device from the power supply
 - o press and hold small button on device until the red light turns on.
 - o in a configurator click on a smart plug icon (also valid for smart relays)
 - o Important notice:
 - When we add sockets or relays, we have to take into consider order on consumer list: WLM C1 -> First consumer

WLM C2 -> Second consumer

| CONSUMERS | ; | icon | P nomina | 1 | | powe | er-meter typ | е | addr. | index |
|-----------|--------|--------|----------|---------|---|------|--------------|---|---------------|-------|
| Light 1 | Light | | 200 1 | d | ✓ | HEMS | wireless LM | | | 0 |
| Light 2 | Light | | 300 1 | d | ✓ | HEMS | wireless LM | | | |
| Light 3 | Light | | 200 1 | d | ✓ | HEMS | wireless LM | | | |
| | 1 | | 01 | d | × | | | | | 0 |
| | 1 | | 0 1 | d | × | | | | | 0 |
| | 1 | | 01 | d | × | | | | | 0 |
| | 1 | | 01 | d | × | | | | | |
| | | | | d | × | | | | | |
| Unmanaged | Home | | | | | | | | | |
| WLM C1 | WLM C2 | WLM C3 | WLM C4 | ((W | | < | | | (() 7 WL | × |

- Adding temperature sensors (for water boiler)
- Address of temperature sensors has to be done manually on device as described below:

| Plug-ir | power supply | |
|-----------------|------------------------------------|---------|
| TDI-WN-W | | on wall |
| 1, 2 (from top) | Digital input 1 | |
| 3, 4 | Digital input 2 | |
| 5, 6 | NTC temperature probe input 1 | |
| 7, 8 | NTC temperature probe input 2 | |
| +, - | Plug-in power supply | |
| DIP setting | Address setting: [1=lsb, 8=msb] | |
| | - sensor 1, address 60 = 0011 1100 | |
| | - sensor 2, address 61 = 1011 1100 | |
| | - sensor 3, address 62 = 0111 1100 | |
| | - sensor 4, address 63 = 1111 1100 | |
| | - sensor 5, address 64 = 0000 0010 | |
| | - sensor 6, address 65 = 1000 0010 | |
| | - sensor 7, address 66 = 0100 0010 | |
| | - sensor 8, address 67 = 1100 0010 | |

- Adding temperature sensors (for room temperature)



- Adjust sensor address with DIP-switches according table below
- HIQ HEMS Configurator click on sensor which will be added
- Wait for network open waiting device status
- Power on and press button on sensor
- Wait until sensor is configured
- Procedure can be interrupted with "close network" button.

| Sensor | Address | DIP switch settings |
|------------|---------|-----------------------|
| S1 | 60 | |
| S2 | 61 | |
| S 3 | 62 | |
| S4 | 63 | ON T 2 3 4 5 6 7 8 |
| S5 | 64 | |
| S6 | 65 | |
| S7 | 66 | ON T 2 5 4 5 6 7 8 |
| S 8 | 67 | OM 1 2 5 4 5 6 7 8 |

VI. Before leaving

- After the configuration is done go back to "settings" page and click on "Save parameter"
- Check if there is no "exclamation" sign in the right bottom corner
- Verify system with "System validation" enclosed in attachment.

\bigwedge Checking point

- If everything is done correctly sign " Λ " in a right bottom corner will disappear.

| Goflex HEMS Config | gurator v1.0.0 | | | | | | | | _ | - | against Transport | | _ | |
|---------------------------|------------------------------------|-----------|---|--------------------------|-------|-------|---|-------------------------------|------------------|-------|-------------------|----------|--------|----------|
| System | n setting | S | | | | | | Interne | t ad | cces | | | | 🕸 GOFLEX |
| | | | | | | | | ☑ enable push timer: : | ✓ 10 s | | | | | |
| ✓ HEMS: ✓ eStore X HIO Ho | c20026 (v1.0.0 e: 16853 ome: | 0) | | | | | | messages: 28 roundtrip: 44 | 543 / 28 6 ms | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| SOURCES | icon | P nominal | | power-meter type | addr. | | | Date and time: | | | | | | |
| Grid | Grid | 0 W | ~ | HEMS 3 phase power-meter | 150 | | | | | | | | | |
| PV | PV plant | | ~ | | | | | 14.09.2018 | fri 10: | 45:08 | | | | |
| | | | × | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| CDEMS | Battery | | × | | | | | | | | | | | |
| | | | × | | | | | | | | | | | |
| | | | | | | | | | | | | | | settings |
| CONSUMERS | icon | P nominal | | power-meter type | addr. | index | | managed output type | addr. | index | man.time | out mode | timet. | |
| Water heater | | | | | | | | | | | | | | |
| EV | Plug - Socket | | ✓ | | | | С | | | | | | | |
| IR panel | | | × | | | | | | | | | | | |
| | | | × | | | | | | | | | | | |
| | | | × | | | | | | | | | | | |
| | | 0 W | × | | | | | | | | 0 min | | | |
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| | | | | | | | | | | | | | | |
| fri 10:45:08 | | | | | | | | | | | | | | |

VII. Walk through Screens

| 18 HEMS G2 Configurator v1.0.0 | | |
|--|--------------------------|------|
| | Temperature -100.0 °C | home |
| Grid I Inc. A.M. PV Plant 9 M I. 9 M I. 9 M I. | | |
| | | |
| 2 6 Mh ; ^ 0 | | |
| | | |
| | | |
| 3 × 0 th 1 ² | | |
| Consumer 1 Consumer 2 Consumer 3 | Consumer 4 | |
| $\underbrace{\overset{\circ}{\overset{\circ}}_{0 \text{ bin}}}_{4 \text{ records of }} \underbrace{\overset{\circ}{\overset{\circ}}_{0 \text{ bin}}}_{2 \text{ records of }} \underbrace{\overset{\circ}{\overset{\circ}}_{0 \text{ bin}}}_{4 \text{ records of }} \underbrace{\overset{\circ}{\overset{\circ}}_{0 \text{ bin}}}_{2 \text{ records of }} \underbrace{\overset{\circ}{\overset{\circ}}_{0 b$ | | |
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| | | |
| Unknown source А .: Оther consumers Оther volumers | | |
| 5 ^[2] 6 M | | |
| | | |
| tue 15:41:03 | | |

| 1. Grid | | |
|-----------------------------|------------|--|
| > | From grid | Tariff (LO, HI, D-LO, D-HI) and power from grid in W |
| | | Imported energy by tariff in Wh |
| ۲ | To grid | Power exported to grid in W |
| | | Exported energy in Wh |
| 2. Plants | | |
| ۲ | Produced | Produced power in W and energy in Wh |
| > | Consumed | Consumed power in W and energy in Wh |
| 3. Storage systems | i | |
| ۲ | 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 | e | |
| > | Sourced | Power in W and energy in Wh from unknown source |

| | 🕛 Accum | ulate also all differences caused by power-sensor inaccuracy |
|------------------------------|----------|--|
| 6. Other consumer | S | |
| > | Consumed | Consumed power in W and energy in Wh by other (not measured) consumers |
| ¹ only for eStore | | · |

² only for first managed consumer

| oria (0) oria (d) orid 0-d) orid 0- | ords H Ords D-10 Ords D-10 Ords D-10 Ord D-10 Owner (M) ords H 0 0 0 0 0 ords D-10 0 0 0 0 | ords 00 ords 0:0 ords 0:0 | HEMS G2 Configurator v | 1.0.0 | | | | | | | | | | |
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| eld e e e e V Flant 0 0 0 0 0 0 ther consider's 0 | • • <th>rid 0 0 0 0 0 0 tariff setting thr: consumers 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0</th> <th></th> <th>1</th> <th></th> <th>GRID SUNT</th> <th>10</th> <th></th> <th>PLA TOTAL :</th> <th>NT SUM: B</th> <th>9</th> <th>STORAGE SURF</th> <th></th> <th></th> | rid 0 0 0 0 0 0 tariff setting thr: consumers 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | | 1 | | GRID SUNT | 10 | | PLA TOTAL : | NT SUM: B | 9 | STORAGE SURF | | |
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| | | 3 | dher consumers Insumer 1 Insumer 2 Insumer 3 Insumer 4 | • | | | | | | | | | | |
| 3 | | | 2 | 3 | | | | | | | | | | |
| | | | | | | | | | | | | | | |

| 1. Sourced power |
|-------------------------------|
| Sourced power for each source |
| Sums per source type |
| Total of all sourced power |
| 2. Consumed power |
| Power for each consumer |
| 3. Power distribution |
| Partial distributed power |

| E HEMS G2 Configurator v | v1.0.0 | | | | | | | | | | - • • • • |
|-------------------------------|--------|--------------|--------------|----------------|-----------|---------------|--------|------------|----------------|--------------|-------------|
| | | | | | | | | | | | home |
| | | | | | | | | | | | power [W] |
| | | Grid LO Ø | Grid HI Ø | Grid D-LO O | Grid D-HI | PV Plant Ø | c1100- | CTODAGE SI | Unknown source | | energy [Wh] |
| 644 | | | | | | TOTAL: | 0 | | | | timetable |
| P2Plant | 0 | 0 | 0 | 0 | | 0 | | | 0 | $\mathbf{>}$ | tariff |
| | | | | | | | | | | | |
| | | | | | | | | | | | settings |
| Other consumers Consumer 1 | 0 | | | | | 0 | | | | | |
| Consumer 2 Consumer 3 | | | | | | | | | | | |
| Consumer 4 | | | | | | | | | | | |
| | | | | | | 1 | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | exit |
| tue 15:41:40 | | | | | | | | | | | |

1. Sourced power distribution

How sourced power is consumed by each consumer

2. Consumed power distribution

Who sources consumed power

| HEMS G2 Configurator v1.0 | 0.0 | | | | | | | | | | | |
|---------------------------|----------|--------------|--------------|----------------|----------------|---------------|---|---|------------|-------------|---------------------|-------------|
| | | | | | | | | | | | | home |
| | | | | | | | | | | | | |
| | | Grid LO e | Grid HI 0 | Grid D-LO Ø | Grid D-HI Ø | PV Plant 0 | | | | - | Unknown source Ø | energy [Wh] |
| Grid | | 1 | GRID SUM: | 0 | | TOTAL: | 0 | 0 | STORAGE SI | | | timetable |
| PV Plant | 0 | e | 0 | 6 | 0 | | | | | | | tariff |
| | | | | | | | | | | | | settings |
| Other consumers | 0 | | | | | | | | | | | |
| Consumer 1 | | | | | | | | | | | | |
| Consumer 2 | | | | | | | | | | | | |
| Consumer 3 | | | | | | | | | | | | |
| Consumer 4 | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| 2 | | 2 | | | | | | | | | | |
| 2 | <u></u> | 2 | | | | | | | | | | |
| Energy since: tue 18. | .09.2018 | 15:42:08 | | | | | | | | | | |
| 4 | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | res 5 10 | s et all | exit |
| | | | | | | | | | | | | |

| 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. Energy since |
| Date and time since energy is recorded |
| 5. Reset all |
| Long-press to reset all energy counters |

| G HEMS 62 Configurator v1.0.0 | | | | | | | | |
|--|-------------|--|--|--|--|--|--|--|
| 1 Consumer 2 Consumer 3 Consumer 4 | home | | | | | | | |
| 2 (Xtimetable enable) | power [W] | | | | | | | |
| | energy [Wh] | | | | | | | |
| | timetable | | | | | | | |
| | tariff | | | | | | | |
| | settings | | | | | | | |
| 5 | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| 3 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 | | | | | | | | |
| (4 executed once vertice) set off ▲ set on X disable delete (cloud optimization: Cloud optimization: Source actions | T | | | | | | | |
| 5 weekly recurring vet off ▲ set on delete 7 X X X | s exit | | | | | | | |
| tue 15:42:36 | | | | | | | | |

1. Managed load menu

Switch between managed loads

2. Enable checkbox (NOT SUPPORTED)

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

Action to set analog output. Analog actions are recurring.

7. Cloud optimization

When enabled (checked) cloud optimization is enabled.

VIII.Support

- Please visit <u>https://app.box.com/folder/49556955497</u>
 - HEMS Electrical diagram
 - $\circ~$ Data sheet HEMS controller
 - Data sheet Home Linker
 - Data sheet Power meter
 - $\circ~$ Data sheet ZigBee gateway
 - Data sheet Smart socket
 - Data sheet –Temperature sensor
 - $\circ~$ Data sheet CDEMS
- Or check Robotina wiki page: http://wiki.hiq-home.com/doku.php?id=hiq_energy:goflex_hems:hardware_



ATTACHEMENT: Equipment validation

| No. | Objective | Test procedure | Acceptance Criteria | Test equipment | Test result |
|-----|----------------------------|--|--|----------------|-------------|
| 1 | HEMS Equipment validation | HEMS is connected as specified in electrical diagram provided by Robotina. | Power light on power supply module is ON | Visual check | |
| 2 | | | Power light on HEMS Controller is ON | Visual check | |
| 3 | | | Power light on Home Linker is ON | Visual check | |
| 4 | | | Power light on Power meter is ON | Visual check | |
| 5 | | | Power light on ZigBee Gateway is ON | Visual check | |
| 6 | | | Power light on Smart socket is ON | Visual check | |
| 7 | | | Power light on Temperature sensor is ON | Visual check | |
| 8 | CDEMS Equipment validation | Turn CDEMS main switch ON | Power light on CDEMS controller is ON | Visual check | |
| 9 | | Push button on the battery front | Power light on CDEMS battery is ON | Visual check | |

ATTACHEMENT: Graphic interface validation

| No. | Objective | Test procedure | Acceptance Criteria | Test equipment | Test result |
|-----|------------------------------|-------------------------|----------------------------|-------------------|-------------|
| 1 | Graphic interface validation | Run "HEMS CONFIGURATOR" | All pages fully functional | HEMS CONFIGURATOR | |
| | | | | | |
| | | | | | |

ATTACHEMENT: System validation

| No. | Objective | Test procedure | Acceptance Criteria | Test equipment | Test result |
|-----|-------------------------|---|--|-------------------|-------------|
| 1 | HEMS Data integrity and | Power meter – readings are done automatically, | Energy and power displayed in HEMS | HEMS CONFIGURATOR | |
| | collection | no additional action is needed | CONFIGURATOR are equal to values displayed on | | |
| | | | power meter screen | | |
| 2 | | Smart Socket – readings are done automatically, no additional action is needed | Energy and power measurement are displayed in HEMS CONFIGURATOR | HEMS CONFIGURATOR | |
| 3 | | Temperature & Humidity sensor – readings are done automatically, no additional action is needed | Temperature and humidity measurements are displayed in HEMS CONFIGURATOR | HEMS CONFIGURATOR | |