

# AMBILL<sup>®</sup> easy bill

Billing Software



**Billing Units**

+ Create new Billing Unit

Search

Street	Floor	Location	Zip	City
Paradisestreet 11	1st Floor	right	23454	Dubai
Paradisestreet 11	2nd Floor	left	23454	Dubai
Paradisestreet 11	2nd Floor	right		

Customer Portal for Tenant: Frodo Baggins

Rental: 10 Southern Way, MK43 3RT, Oakley, GB (2011-01-01 - 2012-08-17)

Meter: 40020001 - Power (2011-01-01 - 2012-08-17)

Year: 2012

Time Period: January 2012

Consumption of kWh

oMan Facility Management

Mr. Dawud 'Udai Daher  
Paradisestreet 11  
23454 Dubai  
United Arab Emirates

Customer Number: 1000050  
Invoice Number: 2011-000001-2  
Accounting Period: 2011-02-01 - 2011-02-28  
Currency: CHF  
Issue Date: 2011-04-08

Ref	Description	Meter #	Index Start	Index End	Consumption	Price / Unit	VAT (%)	Price (CHF)
1	Gas				7.40 m3	1.80 / m3	1.00	6.30
2	Internet	37518714	7147-200 kWh	7147-200 kWh	8.62 m3	0.17 / m3	2.00	29.62
3	Waste						2.00	43.56
Total Unlinked								
Total VAT								
Total Price								

Ref	Description	Meter #	Index Start	Index End	Consumption	Price / Unit	VAT (%)	Price (CHF)
2	Heat				207'950 kWh	0.21 / kWh	1.00	65.27
3	Internet	37518712	7147-200 kWh	7147-200 kWh	855'000 kWh	0.21 / kWh	2.00	143.60
4	Cable TV						2.00	29.16
5	Waste						2.00	43.56
Total Unlinked								
Total VAT								
Total Price								

Ref	Description	Meter #	Index Start	Index End	Consumption	Price / Unit	VAT (%)	Price (CHF)
1	Water				352'000 m3	0.005 / m3	1.00	8.08
2	Waste						2.00	43.56
Total Unlinked								
Total VAT								
Total Price								

oMAN Facility Management  
Dubai

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# Target of document

This document describes the functionality of the billing application „AMBILL® easy bill“ which is relevant to a user.

# Acronyms und Abbreviations

Abbreviation	Description
Facility	<p>A facility is an entity which contains all objects that should be billed. This can be a site, a building or a village.</p> <p>A facility contains therefore billing units, tenants, data collector devices and their meter data.</p>
Billing Unit	<p>A billing unit is an object which can be rented by a tenant.</p>
Tenant	<p>A tenant is a person who rents a billing unit for a certain amount of time.</p>
Billing Run	<p>A billing run is the step to create bills for the tenants.</p>
Data Collector	<p>A data collector is a device (such as an AMBUS® Net) which collects the data from attached meters in a specified interval and format.</p>
Meter	<p>A meter is a device to measure the volume of certain media usage.</p>
Channel	<p>M-Bus meters store data in different channels and registers. For knowing exactly the meaning of each stored value (addressed via channel and register) a description of the respective meter is needed.</p>
Register value	<p>A meter might provide multiple indices or register values</p>
Overhead	<p>A billing item which is independent of the medium accounting but shows up on the bill for a tenant.</p>
Media	<p>Media is the “resource” which gets measured</p>
Unit Conversion	<p>A factor which is used to calculate a unit into another (e.g. m<sup>3</sup> in l)</p>

# 1 System architecture

Basically there are 2 possibilities to set up the billing software system:

- Local meters with centralised application server
- Local meters with local application server

Depending on the existing environment one or the other solution suits better.

## 1.1 Infrastructure setup with a centralised AMBILL® easy bill application server

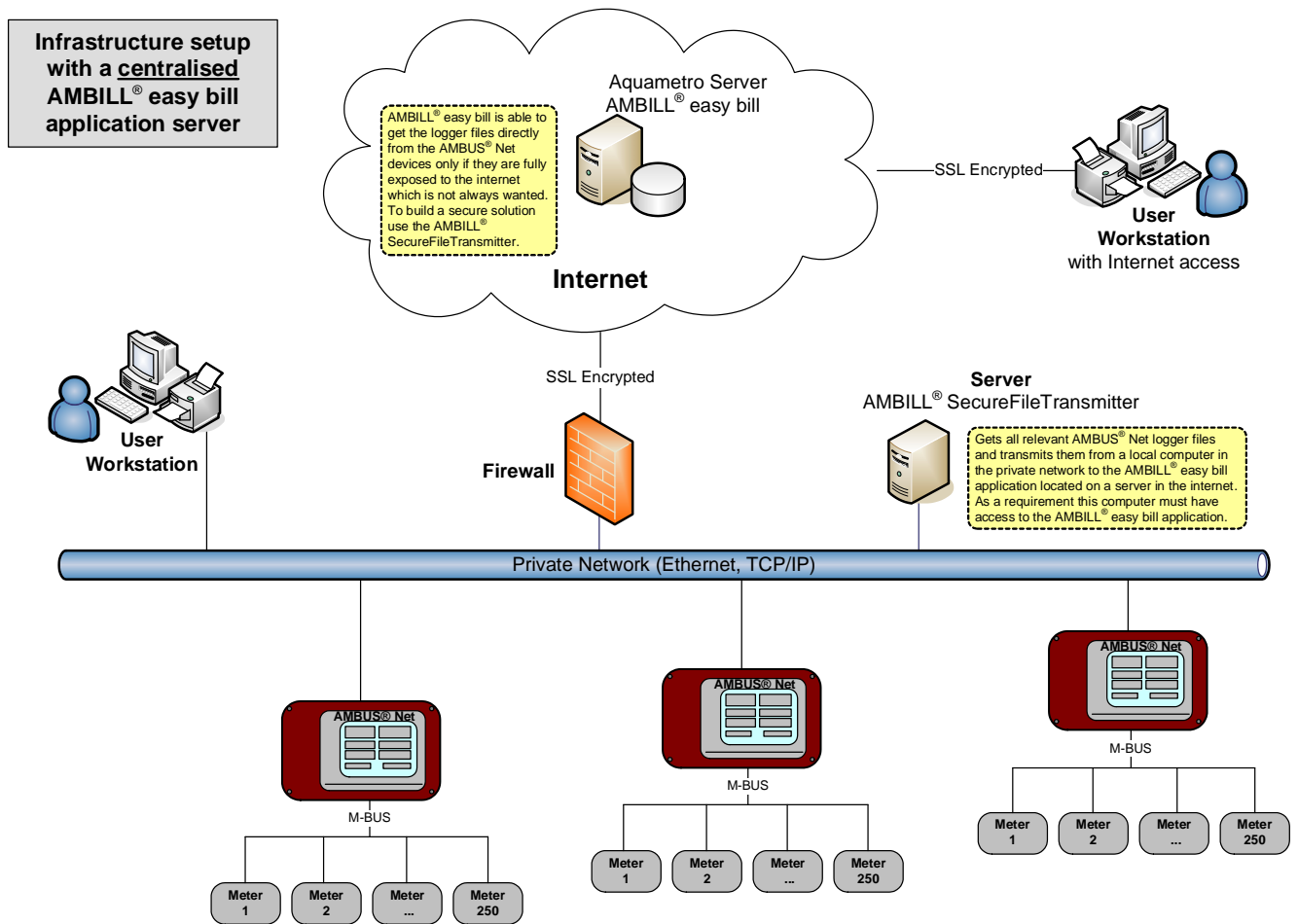


Image 1: IT setup / ASP solution



## 1.2 Infrastructure setup with a local AMBILL® easy bill application server

Infrastructure setup with a local AMBILL® easy bill application server

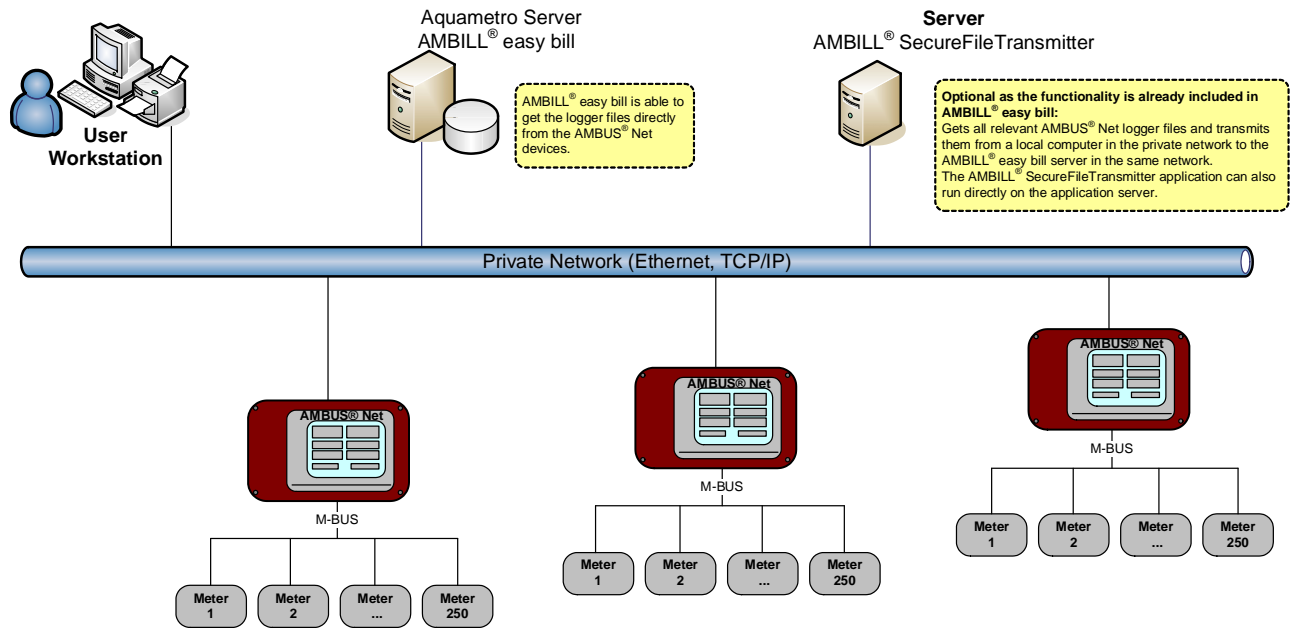


Image 2: IT setup / local infrastructure

## 2 Hardware infrastructure – prerequisites

### 2.1 AMBUS® Net devices

#### 2.1.1 Network settings

The AMBUS® Net must be accessible over an internal network. Please verify that the correct network settings have been configured on each AMBUS® Net.

**Network parameters**

IP address: 192.168.1.10  
Subnet mask: 255.255.255.0  
Default gateway: 0.0.0.0

Modem Back

AMBUS Net 250 Aquametro AG, Therwil

Image 3: AMBUS® Net, Network parameters

The IP network addresses of all AMBUS® Net devices in a facility must be unique. Please ask your network administrator for the correct addresses.

#### 2.1.2 Logger settings

The billing software is designed to read daily and monthly logger files.

Read out usage unit Read out meter  
Modify usage unit Modify meter list  
Logger function System  
Protocol Back

AMBUS Net 250 Aquametro AG, Therwil

**Logger settings**

Image 4: AMBUS® Net, main screen

### 2.1.2.1 Logger functions

Set the logger interval of the AMBUS® Net at least to once a day (2 hours recommended).  
Set the other options to your liking, they don

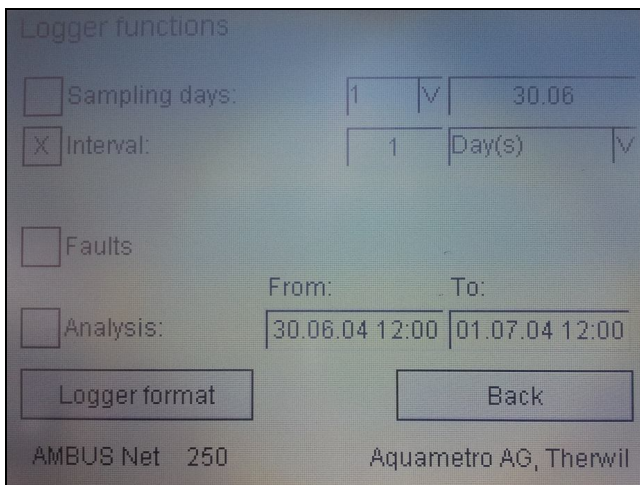


Image 5: AMBUS® Net, Logger functions, minimum logger interval

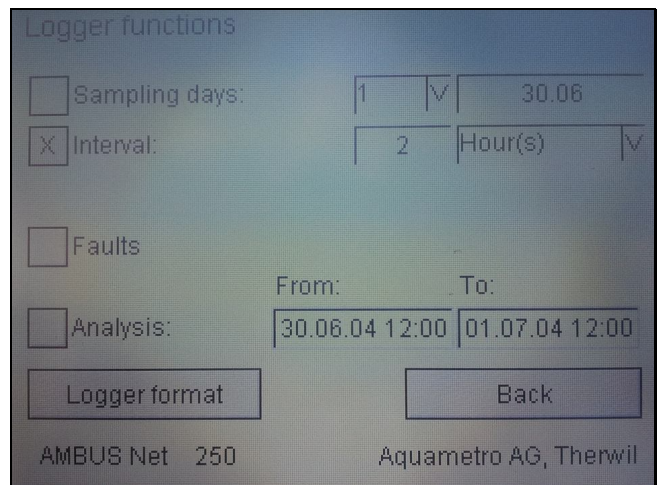


Image 6: AMBUS® Net, Logger functions, recommended logger interval

### 2.1.2.2 Logger format

Set the logger format of the AMBUS® Net to either:

- daily logging (per day one file will be created)
- or monthly logging (per month one file will be created)

The log file type must be set to "Installation protocol" (this will generate LA\*.CSV files).  
The "Usage unit protocol" is optional and depends only on your needs.

The options "Max. file size" and "Compress logger" files must be unchecked.

Please make sure that the field separator is set to ";" and the decimal separator is "." as these settings are important when the files get imported into the billing system.

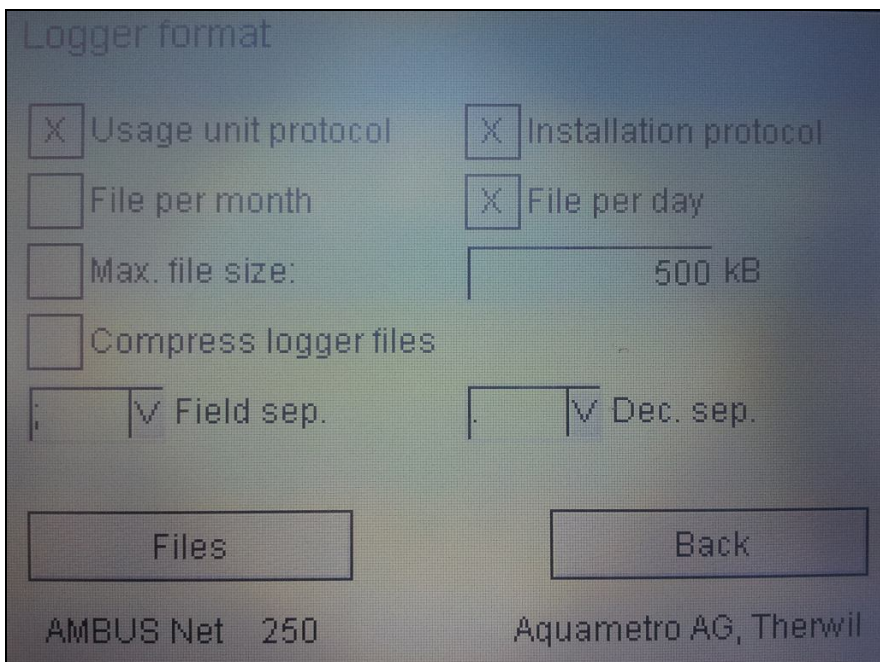


Image 7: AMBUS® Net, Logger settings

# 3 User Guide

## 3.1 How to set up a new facility

Only “Administrators” of the AMBILL® easy bill software can set up a new facility. If you use the “online-version” which is installed on servers of Aquametro AG, please ask the AMBILL® easy bill team or your responsible sales person of Aquametro AG to set up a new facility.

Administrators please consult chapter “Admin / Facilities” in the reference part of the administrators manual.

## 3.2 How to add a new user

Only “Administrators” of AMBILL® easy bill software can add new users (facility managers) or make changes within existing accounts. If you use the “online-version” which is installed on servers of Aquametro AG, please ask the “AMBILL® easy bill” team or your responsible sales person of Aquametro AG to add, change or delete a user.

Virtually an unlimited amount of users can be added for a single facility. For security reasons please make sure that persons who are not involved any longer in your billing process are deleted from the list of users

Administrators please consult chapter “Admin / Facility Managers” in the reference part of the administrators manual.

## 3.3 How to add new billing units

Billing units (flats, villas, offices, ...) which shall be billed on a regular basis according to your facility needs play an important role in a billing system. Tenants, meters, overheads, etc. are bound to the billing units. They have to be set up in a one-time process.

By clicking **Billing Units** on the menu bar you will enter the according page.

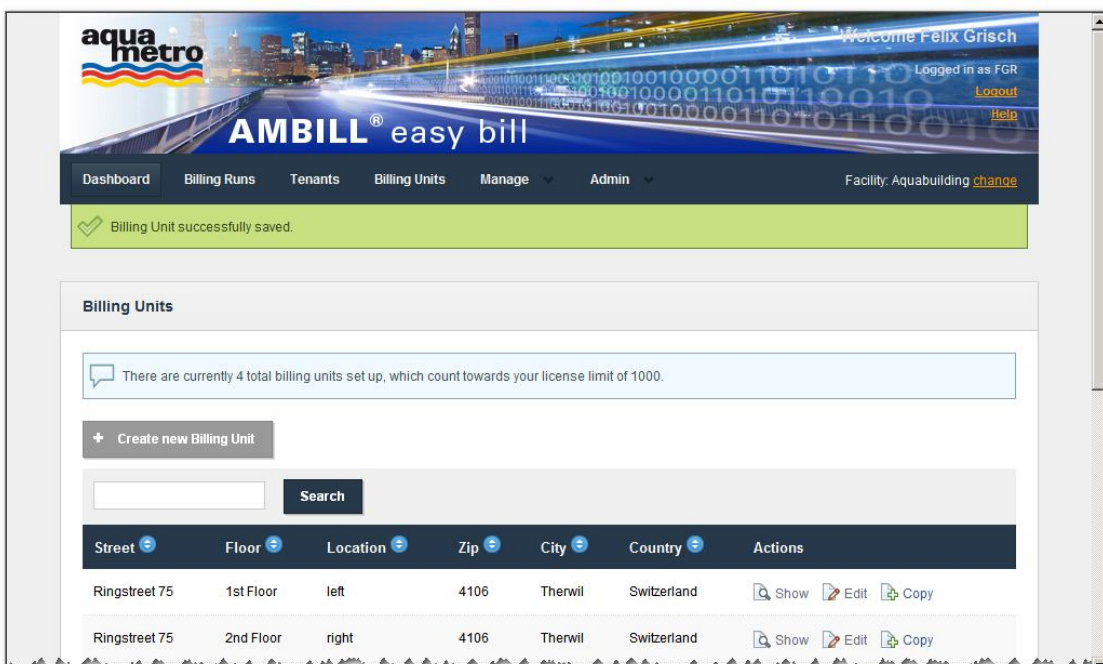


Image 8: Establish a new billing unit

For adding a new billing unit please click on **Create new Billing Unit**.

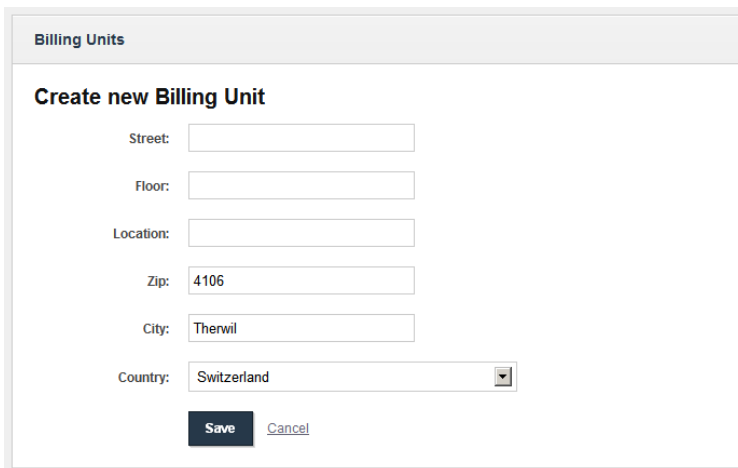


Image 9: Input box for billing unit data

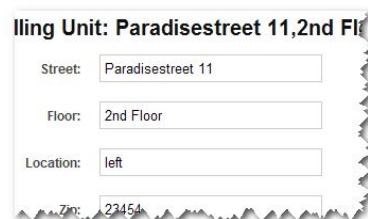
Entering the Street (street and apartment nr.) is mandatory. Zip, City and Country information is already filled in according to the base data of the facility and also mandatory. However, this information can be overwritten.

The input of Floor and Location information is optional but will help to clearly define the according unit.

The address of the billing unit is normally the same as one would use to send regular mail to the according tenant (tenant information is discussed in the next chapter).

**Warning:** You must be able to clearly identify each billing unit! Please make sure you have your naming and addressing concept outlined before entering all your billing units.

*Example:*



After saving your billing unit you will be able to **Show** your inputs, **Edit** or **Copy** them. Copying a unit will open a new billing unit with the information taken from the one you copied. Please modify the according information as needed before saving.

**Warning:**

A billing unit can only be deleted as long as no tenant was applied to this unit and it was not involved in an earlier billing run.

**Tip:**

First set up all your billing units. Tenants can not be entered without being able to be bound to a billing unit.



### 3.4 How to add tenants

Every time a new tenant starts living in your facility you have to enter the tenant's information in the billing system. By clicking on **Tenants** you will enter the according page.

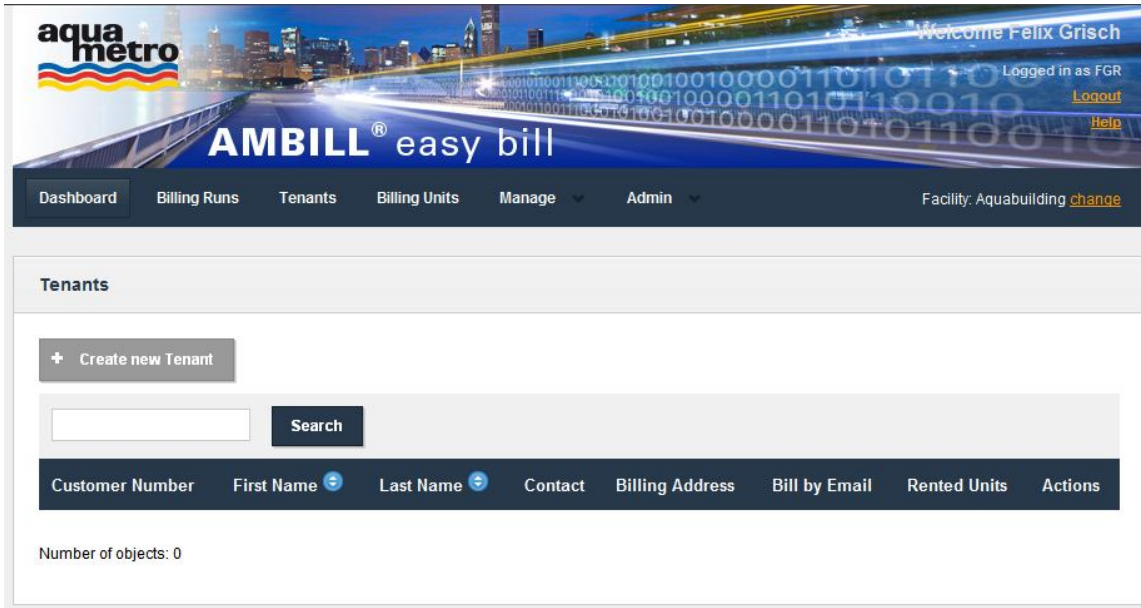


Image 10: Establishing a new tenant


For entering a new tenant please click on **Create new Tenant**.

The screenshot shows the 'Create new Tenant' form. It is divided into several sections: 'Contact', 'Rental', and 'Billing Address'. The 'Contact' section includes fields for 'First Name', 'Last Name', 'Phone', and 'Email', along with a 'Send Bill By Email' checkbox. The 'Rental' section has fields for 'Billing Unit' and 'checkin:'. The 'Billing Address' section includes fields for 'First Name', 'Last Name', 'Street', 'Zip', 'City', and 'Country' (a dropdown menu). At the bottom, there is a 'Customer Number' field and 'Save' and 'Cancel' buttons.

Image 11: Input box for tenants

Fill in the according information to each of your tenants.

By clicking the **Send Bill By Email** box (in this case the email address is mandatory) the bills will be sent automatically by email to the according tenant. This will happen automatically when a billing run is approved.

 **Warning:**


If the “Send Bill By Email” functionality is used, the bill will not be printed within the normal printing process for sending out the bills by regular mail. However, the bill can of course be printed on demand.

When entering a new tenant you are obliged to make a connection with the according billing unit. This can be done by entering the information in the “Billing Unit” field. As soon as you start typing in part of the information (i.e. address) you will see all the possible billing units where you can choose from. Also the date of the start of the contract must be set (CheckIn). This date may be set ahead of time, too.



**Tip:**

A tenant might have more than one billing unit rented. The address of the one that is named in the “Billing Unit” field will be taken as billing address where the bill is sent to.

 **Warning:**

Tenants must be bound to billing units and check in and check out dates. Therefore please make sure you have entered the billing units before entering the tenant’s data.

The “Billing Address” information is optional and only used if the bill has to be sent to a different person/location. If no special billing address is entered, the address of the billing unit is printed on the respective bill. Also use the “Billing Address” if tenants are changing and you need to send the bill to the new address of the tenant.

The “Customer Number” field is optional and can be left blank. The system will generate automatically a number for each tenant. However, if you like to work with your own number (i.e. to match the customer numbers from another facility management software) you can enter your own.

After saving the tenant you will be able to **Show** your inputs or **Edit** them. **Rentals** will give you an overview about the different billing units a tenant has already rented. If a tenant will move to a different billing unit or rent/buy an additional one, this is the place to add the according billing units. Please also refer to chapter 4.5.

### 3.4.1 How to handle tenant changes

When tenants are changing the billing units (i.e. moving out and another on is moving in) you have to follow two simple steps:

1. Add the new tenant as described above and fill in the appropriate check in date
2. **Show** the existing tenant and fill in the appropriate checkout date

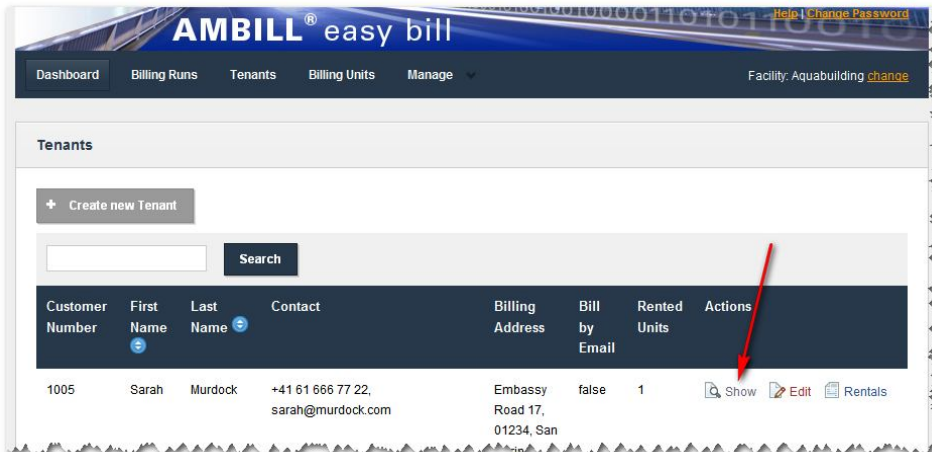


Image 12: Editing tenant data

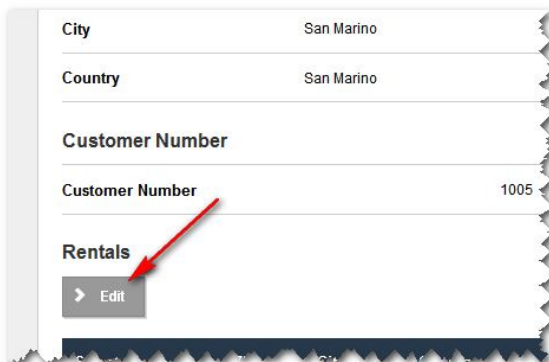


Image 13: Editing tenant rentals

Choose the appropriate billing unit to set the checkout date...

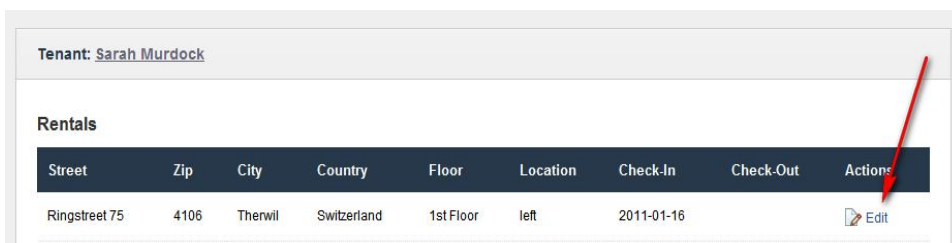


Image 14: Editing the rentals of a specific tenant



... and fill in the corresponding date.

The screenshot shows the AMBILL easy bill web interface. At the top, there is a navigation bar with 'Dashboard', 'Billing Runs', 'Tenants', 'Billing Units', and 'Manage'. The facility name is 'Aquabuilding'. The main content area is for tenant 'Sarah Murdock' and is titled 'Rentals'. It features a table with the following data:

Street	Zip	City	Country	Floor	Location	Check-In	Check-Out	Actions
Ringstreet 75	4106	Therwil	Switzerland	1st Floor	left	2011-01-16		Edit

Below the table, there are input fields for 'Billing Unit' (Ringstreet 75, 1st Floor, left, 4106, Th), 'Check-In' (2011-01-16), and 'Check-Out' (2011-02-28). At the bottom, there are 'Save' and 'Cancel' buttons.

Image 15: Edit the Check-In and Check-Out dates

By clicking on **Save** the process will be completed.



**Tip:**

In the "Tenants / Show / Edit Rentals" window you can also add additional billing units to a single tenant.

### 3.5 How to add a new data collector device

Only "Administrators" of AMBILL® easy bill software can add new data collectors like AMBUS® Net devices or make changes within existing collectors. If you use the "online-version" which is installed on servers of Aquametro AG, please ask the "AMBILL® easy bill" team or your responsible sales person of Aquametro AG to add, change or delete a data collector.

Administrators please consult the admin manual (local installations only).

### 3.6 How to assign a meter correctly to a billing unit

For billing the energy costs of a certain billing unit you have to have the meter values of each corresponding energy meter (heat, cold, water, electricity, ...). Depending on your installation, meters can be read either fully automatic (by means of a data collector) or manually by a person who will take note of the meter indexes as needed.

Before being able to read out a meter and have the index allocated to a certain billing unit, the meter has to be established within the facility.

### 3.6.1 How to establish a meter manually within the facility

Open **Manage** / **Manual Meters**, then click on **Create new Manual Meter**.

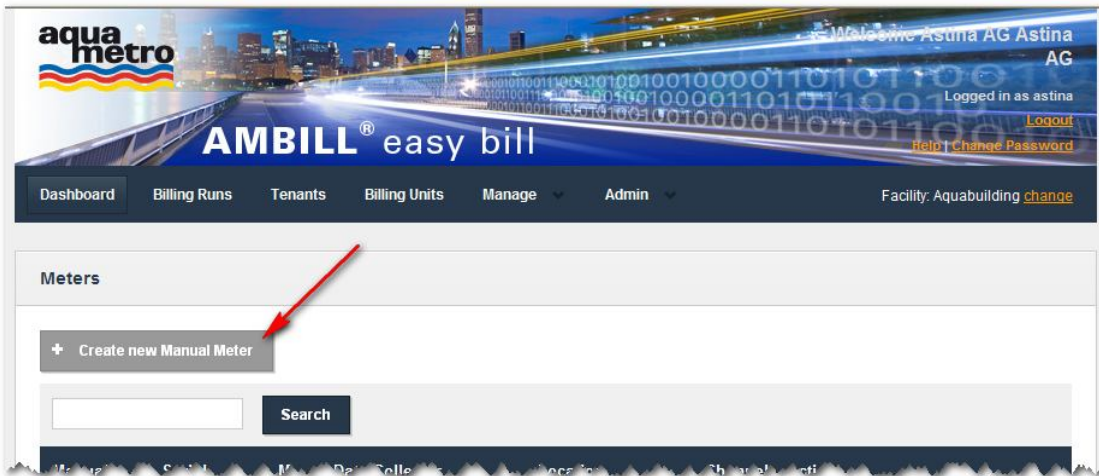


Image 16: Establish a manual meter

In the following window please enter the data of the respective meter:

The image shows a form titled 'Manual Meter' with a sub-heading 'Create new Manual Meter'. It contains three input fields: 'Serial Number' with the value '94597294', 'Location' with the value 'Distribution Room, 34 Heel Street', and 'Manufacturer' with the value 'AMT'. At the bottom of the form are two buttons: 'Save' and 'Cancel'.

Image 17: Input box for manual meter data

In the serial number field, enter the serial number of the respective meter. To make sure one does not mix different meters, this serial number has to be unique.

The fields "Location" and "Manufacturer" are optional and only for your information.

### 3.6.2 How to establish a meter read by a data collector within the facility

To get the meter values of a meter which is read via a data collector, the data collector itself has to be established within the facility (see chapter 3.5).

After the first reading of the data collector all the corresponding meters and their values are automatically filled in the AMBILL® easy bill database. As soon as this process is once finished the meters can be assigned to the respective billing units.

### 3.6.3 How to assign a meter to a billing unit

If the data collector(s) / meters are established, click on **Manage** / **Meters**.

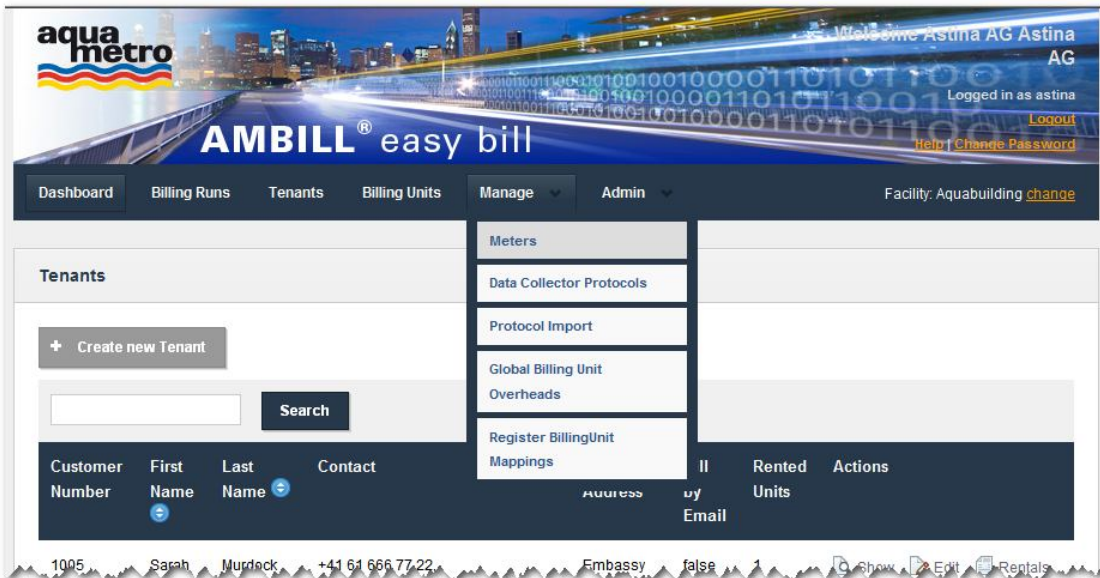


Image 18: Manage meters

In the following window you get a list with all meters that were read by your data collector(s) or were established manually.

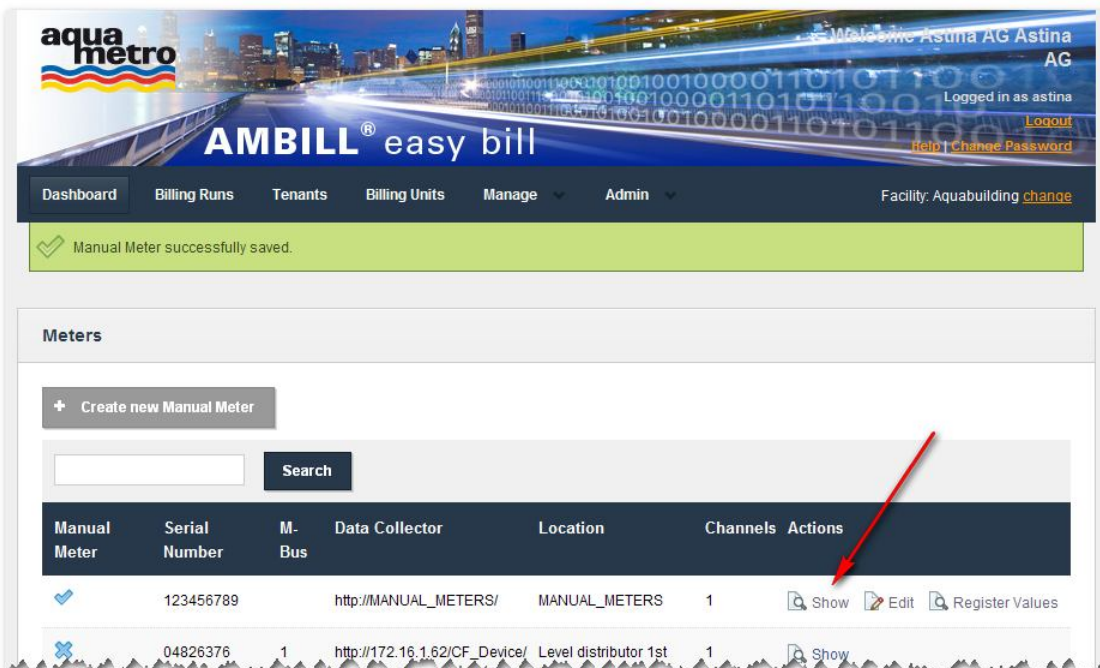


Image 19: Choose the right meter

Now look for the meter number you want to assign to a certain billing unit and click on **Show**.

#### Tip:

Through the search-field you can directly jump to specific meter number or you can filter for data collector addresses (just enter part of it) as well.

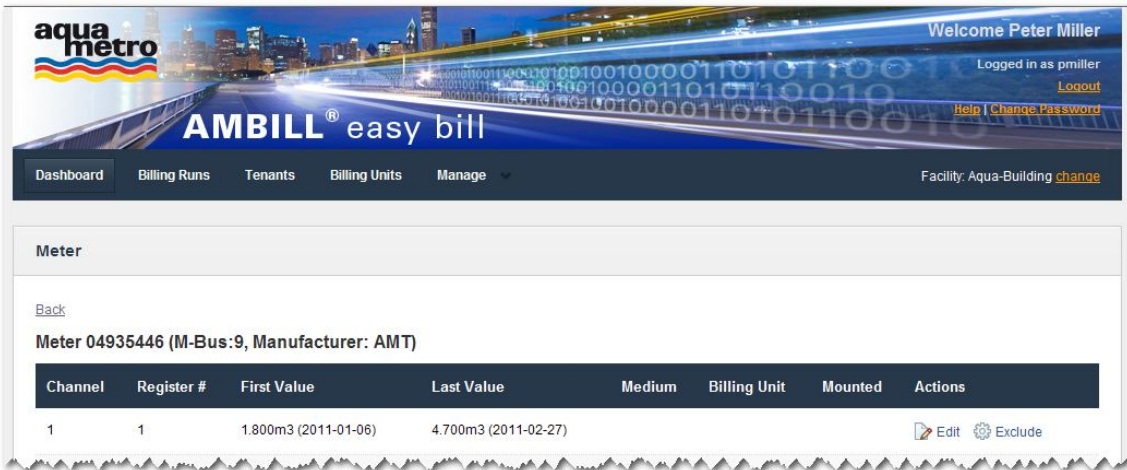


Image 20: All the values of the meter are listed

Choose the appropriate value of the meter and click on **Edit** (or click on **New** respectively, if you make the first assignment).

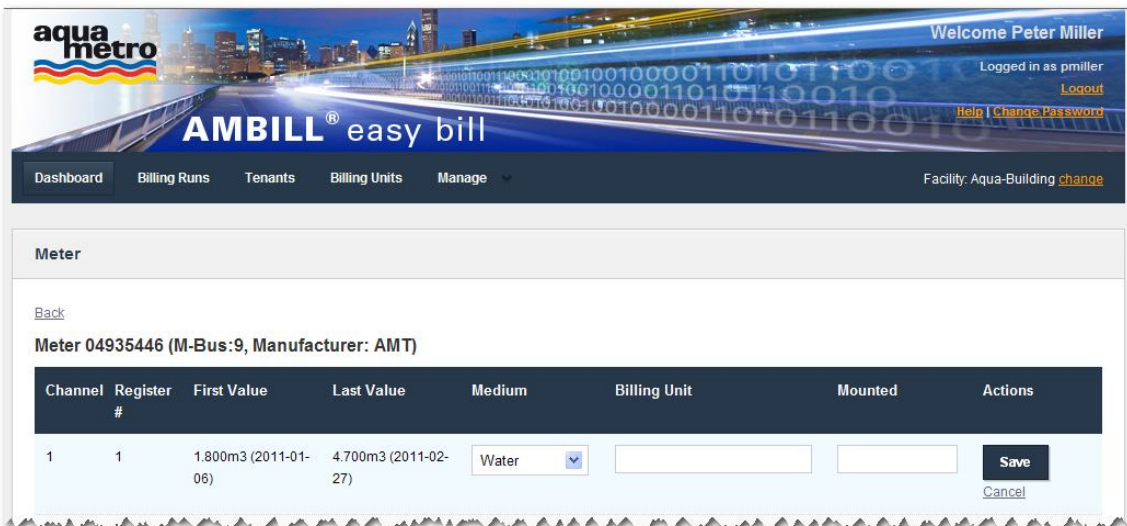


Image 21: Choose the medium you want to bill

In the field "Medium", please choose the correct medium you want to bill according this meter.

**Warning:**  
A meter can have several different values (also called registers). Please make sure the appropriate one is selected.



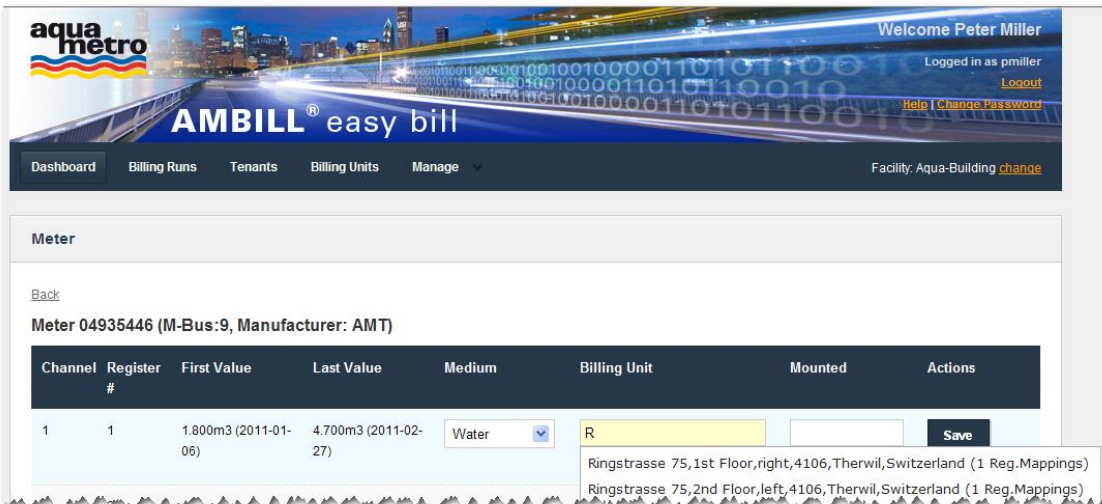


Image 22: Assign the respecting billing unit

In the field "Billing Unit" please fill in the according billing unit. As soon as you start writing you will get a list to choose from.

Also, add the date when the meter was installed (mounted).

Finish the assignment by clicking on **Save**.

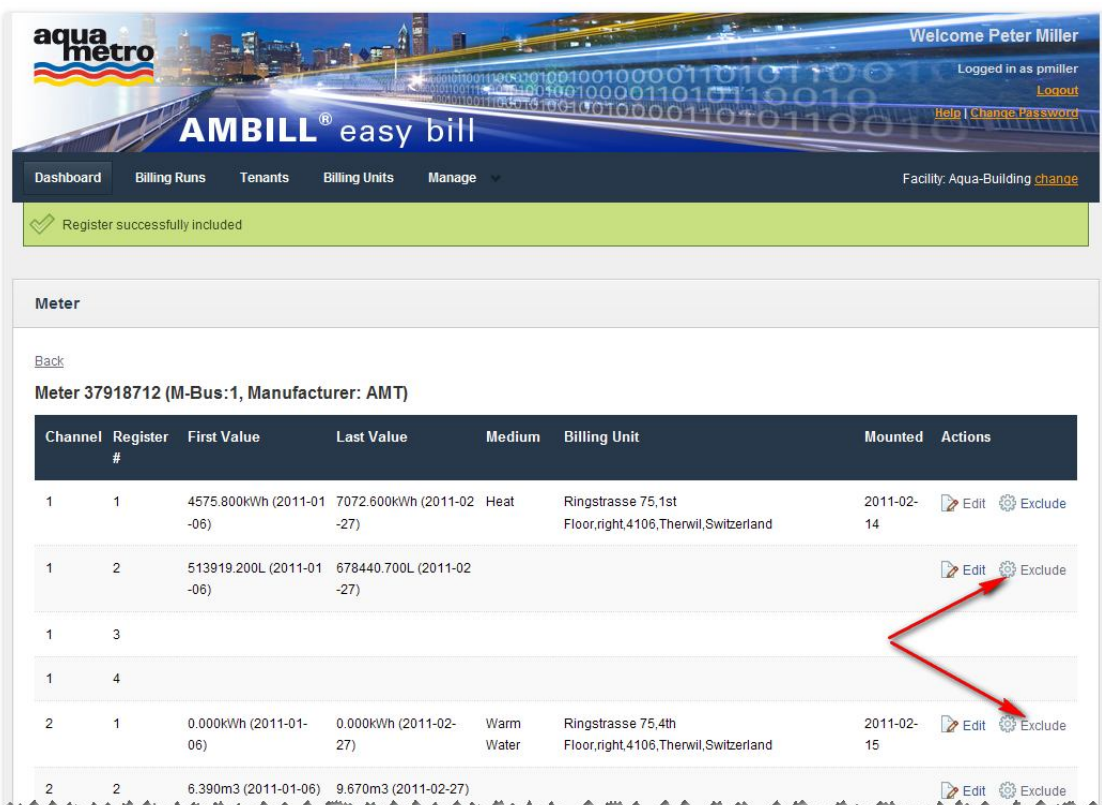


Image 23: Exclude meter data from being shown as "unassigned meters" in the dashboard

Meter values which are not used for billing can be excluded. So they will not show up in the list of unassigned meters (see description of the dashboard). In this case the "Exclude" sign will toggle to "Include".

**Tip:**

On the bottom of the page you will find an "Exclude all" button. Use this to exclude all of the values with one click. However, make sure you will include again the ones you are using.

By clicking on **Back** you go back to the list of meters.

### 3.7 How to add supplementary items to a bill

AMBILL® easy bill is able to handle also supplementary overheads you want to be billed additional to the energy costs (i.e.: waste, cable tv, internet connection, ...).



#### Tip:

Overheads are usually bound to a billing unit, not to a tenant

#### 3.7.1 Overheads valid for most of the billing units

Under **Manage** / **Global Billing Unit Overheads** you can add supplementary items you would like to be billed and will be valid for most of your tenants.

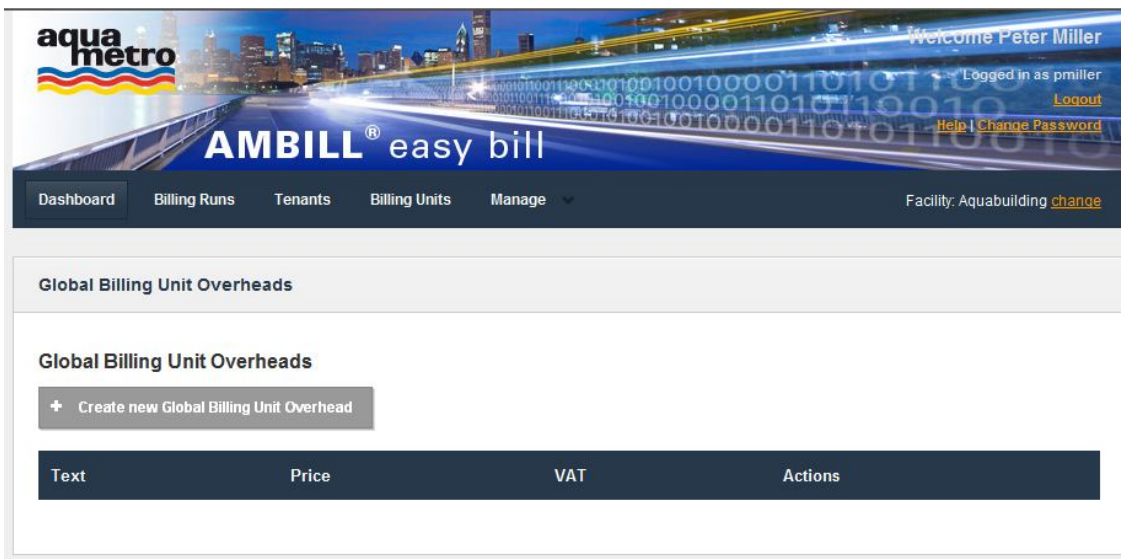


Image 24: Manage / Global Billing Unit Overheads

Click on **Create new Global Billing Unit Overhead** to add a new item and fill in the appropriate text and prices.

By clicking on “Add all” you can have all billing units to be billed with this certain item. If you want one or another billing unit not to be billed with, then just use the minus sign (-) to exclude it from being billed with this item.

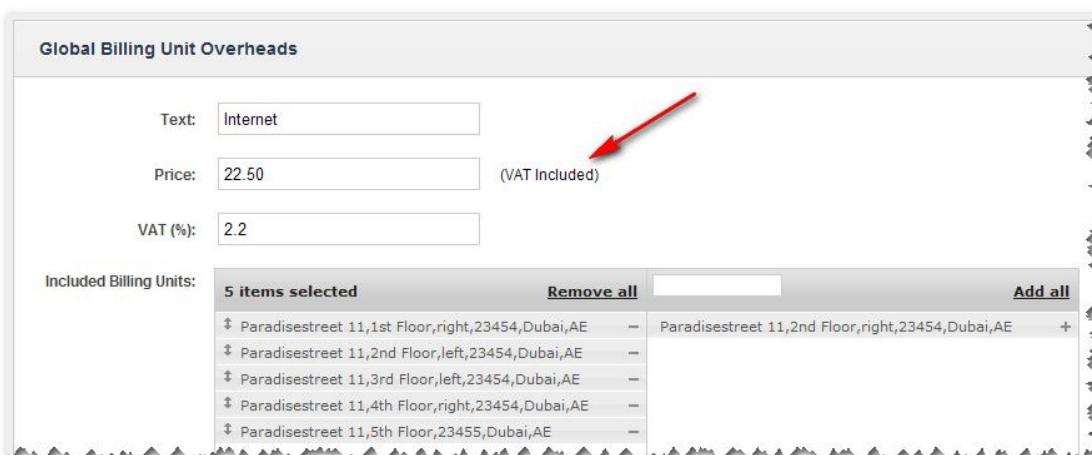


Image 25: Entering the specific data for overheads

The VAT is either included or excluded of the price you set, according to the settings of the whole facility. Please enter the price according to the settings as indicated behind the “Price” field.

By saving your inputs the process is finished and the supplementary item you just established will be taken into account with the next billing run.



**Tip:**

If you place your mouse cursor over a certain address and leave it for a second or two, you will get a tool tip with the full address shown.

### 3.7.2 Overheads for an individual billing unit

To add a specific overhead to a single billing unit there is an easy way to do this:

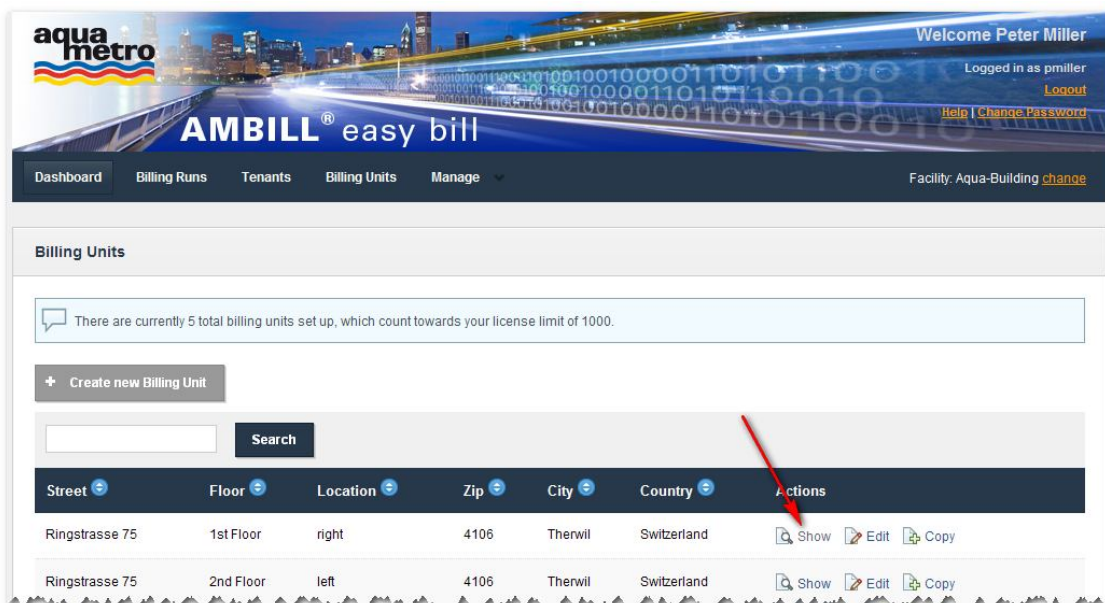


Image 26: Choose the correct billing unit

Click on **Billing Units** in the main menu and search for the specific billing unit.

Click on **Show** to open it.

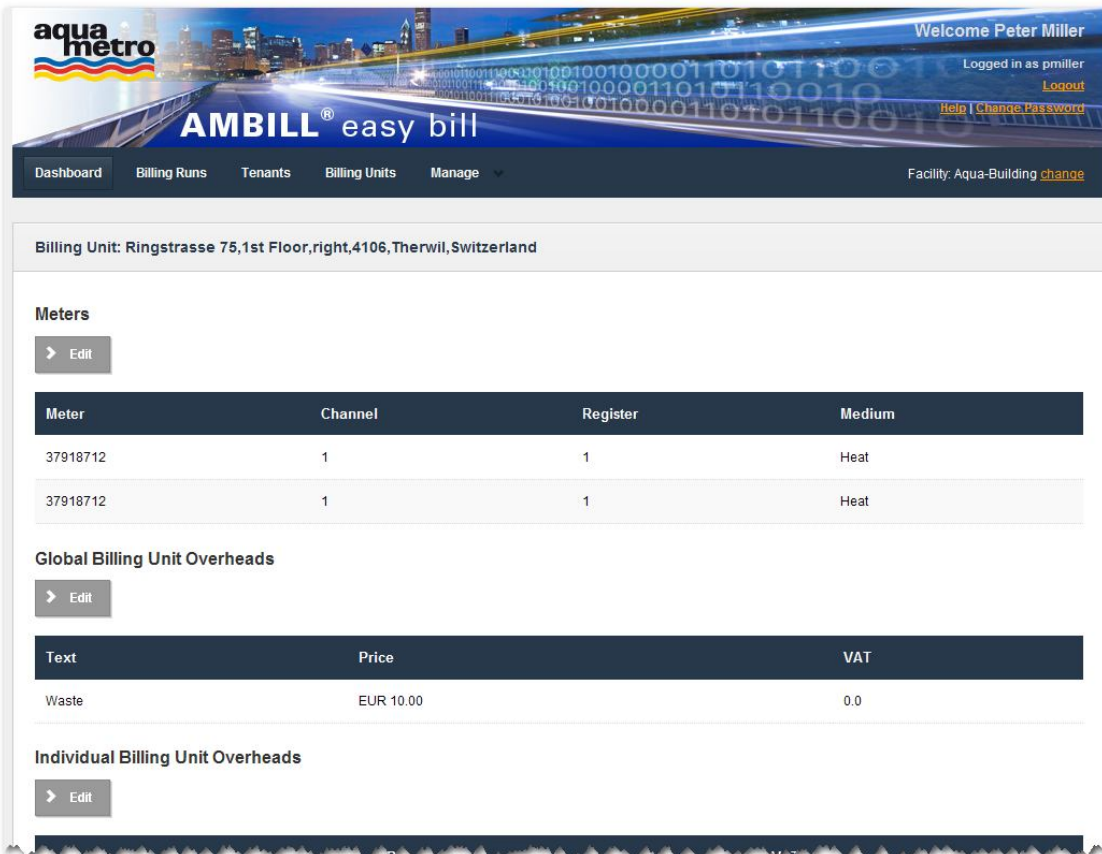


Image 27: "Edit" the billing unit overheads

Now click on **Edit** under "Individual Billing Unit Overheads" and enter the specific overhead.



Image 28: Input box for overheads for a specific billing unit

The VAT is either included or excluded of the price you set, according to the settings of the whole facility. Please ask your responsible person for billing if you don't know.

Click on **Save** to finish the action.



**Tip:**

Overheads can have a negative value. E.g. if one of the tenants is mowing the lawn regularly, you might want to pay him a certain amount of money. In this case enter a new overhead (lawn mowing) and put in a negative amount of money (e.g. -50). This amount will be subtracted from the total costs in the upcoming bills.



### 3.8 How to manually enter meter readings

Once manual meters have been created and have been assigned to billing units you can create a list for entering meter readings.

To do this, click on **Manage** / **Manual Meter Reading List**.

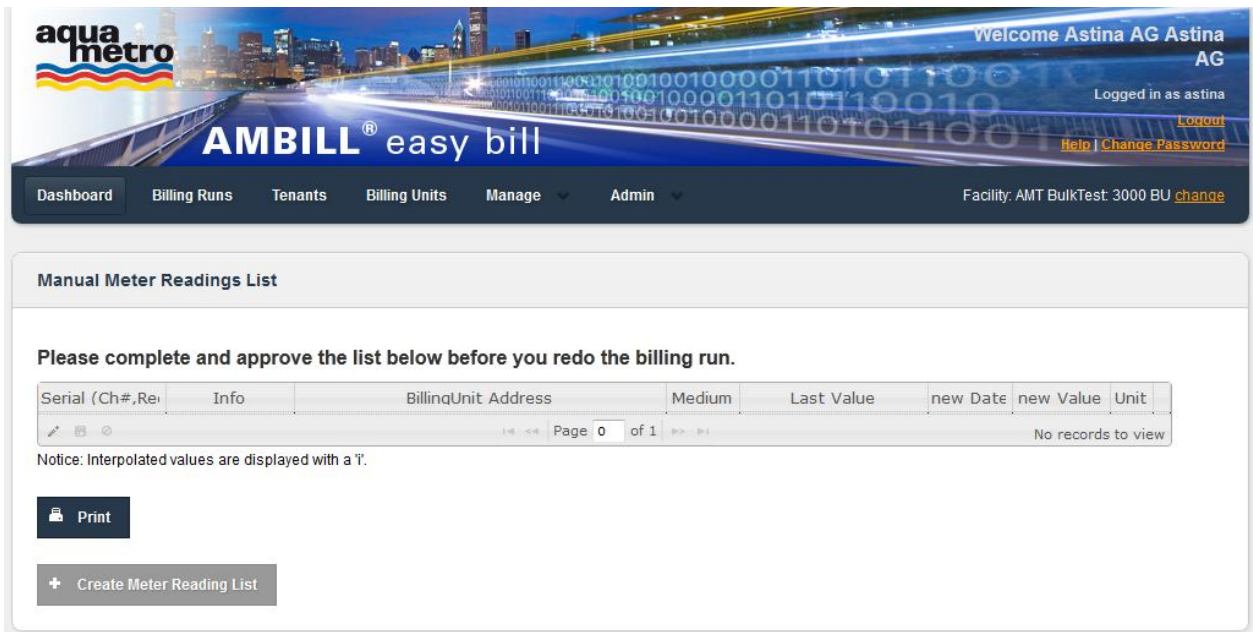


Image 29: Empty meter reading list

To create a new list, click on the button **+ Create Meter Reading List** to fill the list with all manual meters you currently have in the system.

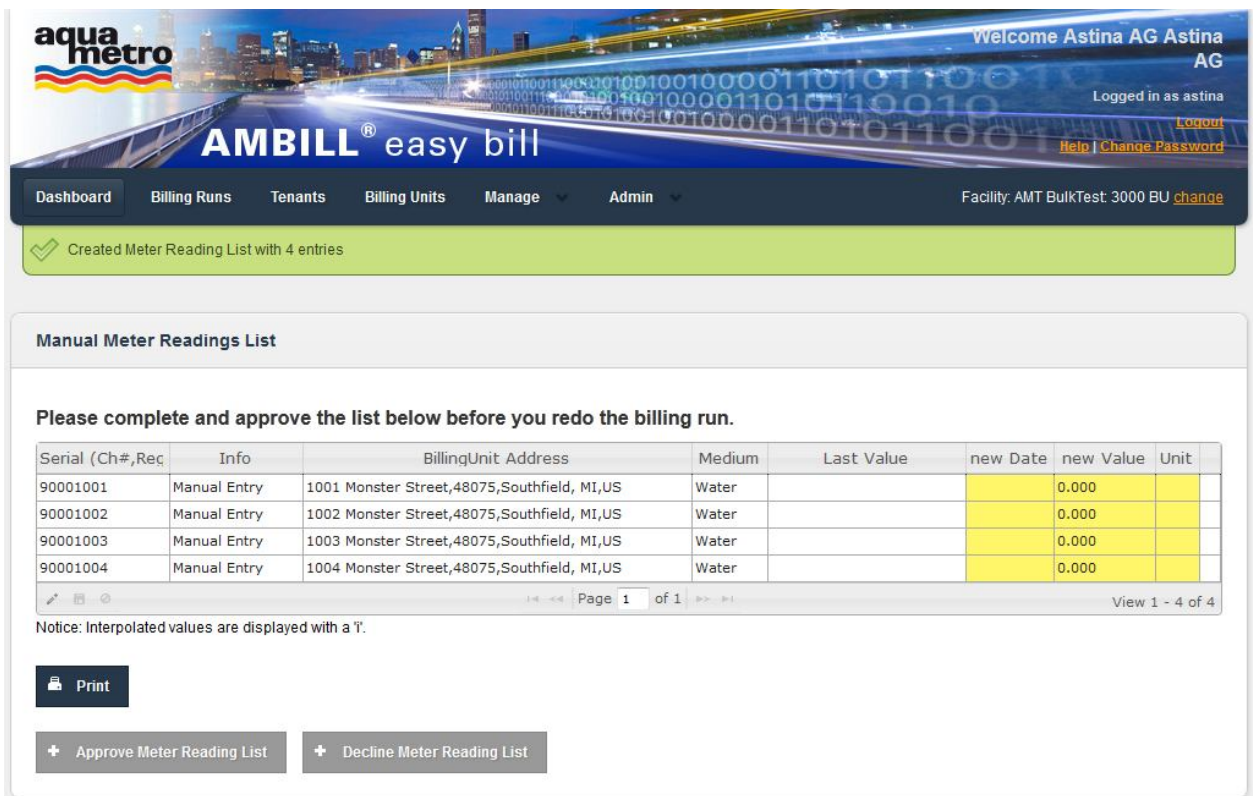


Image 30: Meter reading list ready to use (print and fill)

Using the button **Print** the list can be printed out on paper.

**Tip:**

Try to get the meter readings as close to the billing date parameters as possible (ideally would be on the same day).

E.g. if you bill on a monthly basis, always get the meter reading at the beginning of the following month. Don't get the reading already at the end of the respective month!

Once you have gathered all meter readings you can enter the values using the same view and the yellow highlighted fields. In some cases where meter readings in the future exist, new values will be calculated (interpolated) by the system. Those are displayed with a small "i". Overwrite the values or leave them as they are if you want to use them for the billing.

Please double check if everything is fine before you click on **+ Approve Meter Reading List** to save all values back to the system.

By clicking **+ Decline Meter Reading List** you can discard the whole list. Be careful if you have already entered meter readings – all of them will be deleted permanently!

**Info:**

As long as a meter reading list is present no new billing run can be created. If you want to create a new billing run either accept or decline an existing meter reading list.

### 3.9 How to release a billing run

In order to prepare the bills each time you want to send them out (according to your invoicing period) you have to execute a so called billing run.

Please make sure you have the following information handy before establishing a new billing run:

- Prices from your distributors for the different energies (fixed price per unit)
- or**
- Invoice from your energy distributor (e.g. district cooling provider) for the certain invoicing period over the total costs of this certain energy (cost allocation of a total price according to each tenants consumption)

**Info:**

Please make sure that all global overheads as well as the overheads for single tenants (billing units) are entered into the system and up to date (see chapter 3.7). Also values of meters which are not read automatically have to be entered into the system (see chapter 3.8).

To execute a billing run click on **Billing Runs** and then on **+ Create new Billing Run**.

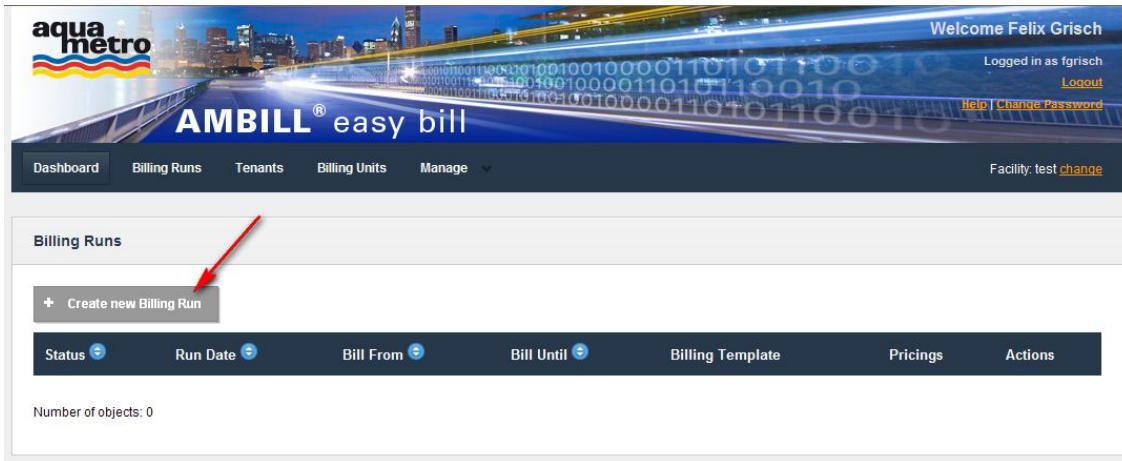


Image 31: Release a new billing run

### Billing Run

#### Create new Billing Run

Last Billing Run:

Bill From:

Bill Until:

#### Pricings

##### Pricing: Water

Billing:  Not billed  Fix per unit  Based on billed energy/medium

Unit:

Price (Pre Tax):

VAT:

##### Pricing: Electricity

Billing:  Not billed  Fix per unit  Based on billed energy/medium

##### Pricing: Heat

Billing:  Not billed  Fix per unit  Based on billed energy/medium

Unit:

Price (Pre Tax):

VAT:

##### Pricing: Gas

Billing:  Not billed  Fix per unit  Based on billed energy/medium

##### Pricing: Warm Water

Billing:  Not billed  Fix per unit  Based on billed energy/medium

Image 32: Enter the billing runs base data

Enter your appropriate data.

Please be careful regarding the difference between “Pricing: Fix per unit” and “Pricing: Based on billed energy/medium”. If you have a fix price from your energy supplier (e.g. you have to pay 22 cents per kWh electricity), choose the “Fix per unit” option and enter this price into the price box. If you get a monthly bill (e.g. from your district cooling provider), then choose the “Based on billed energy/medium” option and enter your total

amount you have been billed for. This amount will then be distributed over all billing units according their consumption.

Clicking on **Save** will finally execute the billing run.

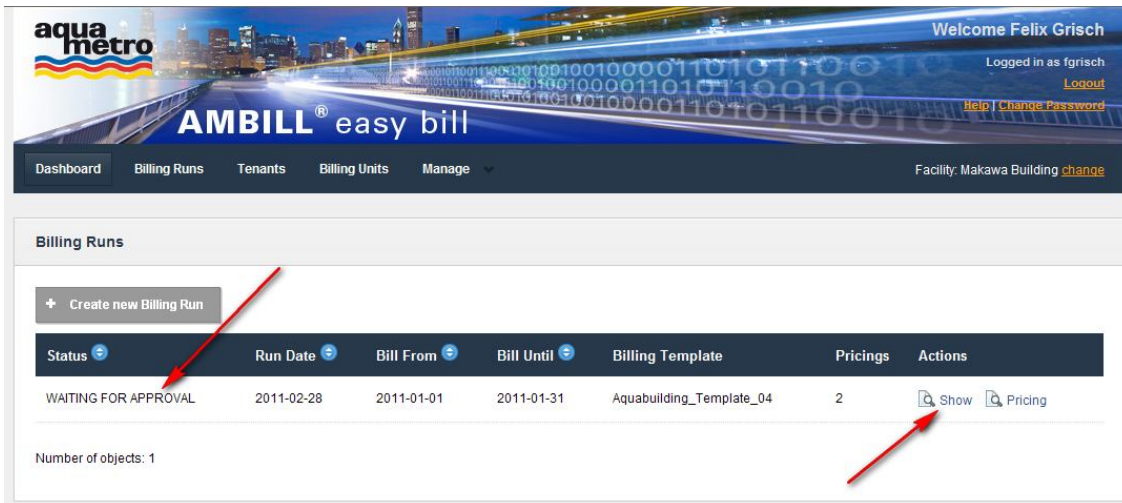


Image 33: The billing run is calculated and ready for viewing

If the execution was successful you can see that the state of the billing run will be “WAITING FOR APPROVAL”. This means that you can first check all the invoices and still make some changes to the bills.

If there was an error you will see further details when you move the mouse over the status “FAILED”. The following situations could lead to an error:

- No conversion factor could be found for a meter register:  
This happens when a meter reading with a certain unit can't be converted to a unit needed for the billing.  
Most likely this happens when a meter register was assigned to a wrong medium, e.g. a Water meter (m3) was defined as Power (kWh).  
Please go to the meter mentioned in the error message, correct the assignment and redo the billing run.
- The billing run couldn't be fully calculated because some values are missing:  
Please see “

Missing meter readings” on page 32 for further details.

If your billing run was successful, click on **Show** to see an overview of the single bills:

**Billing Run**

**Show Billing Run 9**

Status: WAITING FOR APPROVAL

Billing Template: Aquabuilding\_Template\_04

**Approve** **Decline**

Invoice Number	Invoice Date	Tenant	Total Price	Total Price incl.Tax	Bill Items	Actions
2011-000001-2	2011-02-28	Dawud 'Udail Daher	EUR 723.47	EUR 734.73	3	Edit  Download
2011-000002-2	2011-02-28	Faris Hud Wasen	EUR 572.38	EUR 581.37	3	Edit  Download
2011-000003-2	2011-02-28	Saffanah Kifah Ghannam	EUR 204.32	EUR 207.80	3	Edit  Download
2011-000004-2	2011-02-28	Tamir Nayif Gaber	EUR 505.70	EUR 513.69	3	Edit  Download
<b>Total Price</b>	2011-02-28		EUR 2005.88	EUR 2037.59	4	

**Download All Bills** **Download All Bills For Printing** **Export All Bills to Csv** **Export All Bills to Excel**

Image 34: Summary of the billing run

By clicking on **Edit** you get the detail view of the specific billing unit.

**Billing Run: [Billing Run 9](#)**

### Show bill: 2011-000002-2 for Tenant Faris Hud Wasen

Tenant	Billing Address
Faris Hud Wasen +41 33 444 22 33 Faris@trash-mail.com	Faris Hud Wasen

#### Bill Items

[+ Create new Bill Item](#)

Billing Unit	Text	Consumption	Price	Price incl.Tax	Rented Days	Comment	Actions
Paradisestreet 11,2nd Floor, left, 23454, Dubai, United Arab Emirates	Heat:957.100kWh	957.100	EUR	EUR	31(2011 -01-01 - 2011-01 -31)		<a href="#">Edit</a> <a href="#">Delete</a>
Paradisestreet 11,2nd Floor, left, 23454, Dubai, United Arab Emirates	Cable TV		EUR	EUR			<a href="#">Edit</a> <a href="#">Delete</a>
Paradisestreet 11,2nd Floor, left, 23454, Dubai, United Arab Emirates	Internet		EUR	EUR			<a href="#">Edit</a> <a href="#">Delete</a>
<b>Total Price (items: 3)</b>			EUR	EUR			
			572.38	581.37			

Image 35: Summary of a tenants bill / still editable

The prices you see on this view are calculated according the consumptions a single tenant had and were read by means of the appropriate meter (e.g. heat meter). However, here you have the possibility to change the consumption or the price respectively by clicking on [Edit](#).

**Warning:**  
If the pricing was done "Based on billed energy/medium" (see above), changing the consumption will affect all other invoices accordingly since this will influence the total cost allocation.

Also it is possible to completely remove a single position from ones invoice by clicking on [Delete](#). This will not affect the other invoices and the item is just removed from the respective bill.

Finally you have the possibility to add a bill item by clicking on [Create new Bill Item](#). Here you can add whatever position to be billed in the last second, so to say (e.g. a broken window which had to be repaired). This item is only temporary and will not be billed again within the next billing run.

Click on [Billing Run](#) on the top of the window to get back to the billing run overview. To get an idea of an invoice you can download the by clicking on [Download](#) on the right. It will save or open the PDF-file for you according your installation.



If you are sure that all your invoices are correct, then click on the **Approve** button. This will have the effect, that the single bills can't be modified or deleted anymore. If you don't like the result, you can **Decline** (instead of approving) the billing run and start all over again. In case of declining, all files and changes done within this billing run are irrevocably deleted.

Approving will also send the bills directly by email to the tenants who were marked accordingly (see chapter 3.4 "How to add tenants").

In order to download all of the bills at once you have different possibilities:



Image 36: Different possibilities of downloading the bills

1. All bills are downloaded in a zip file. Save the file on your hard disk, open it and, if you like, print all the bills.

**You should do this in any case just for saving a copy of the bills you are going to send to your clients**

2. Here only the bills for printing are downloaded, meaning that the bills sent directly by email to certain tenants are not contained within this zip file. This is for your convenience and in order to not to print the bills out which are already sent to tenants by email.
3. In order to export all the data towards an accounting system you can generate a csv file.
4. Use this option to have all data exported towards an Excel file.

### 3.9.1 Missing meter readings

In some situations it could happen that for a billing run one or multiple meter readings are missing (e.g. manual meters were forgotten, outage of one or multiple meters or data collectors).

In that case the billing run gets the status "FAILED" and the following error message is displayed:


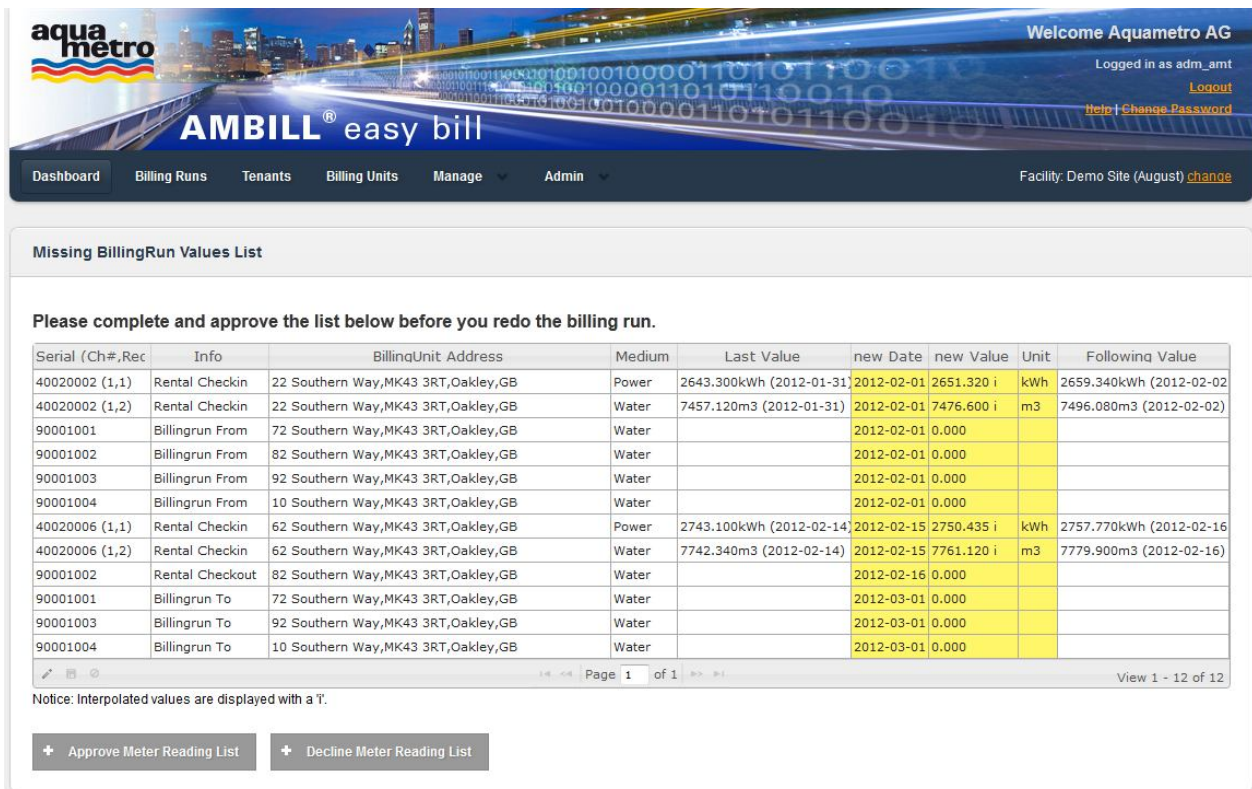
 The billing run couldn't be fully calculated because some values are missing. Please enter them manually -> Manage -> Missing BillingRun Values List

Image 37: Error message "Missing billing run values"

This means that for the following points in time no meter reading might exist:

- Missing value at start of billing run
- Missing value for a check-in date of a tenant (during the billing run period)
- Missing value for a check-out date of a tenant (during the billing run period)
- Missing value at end of billing run

In order to successfully create a billing run the missing meter readings must be entered or, if the values could have been calculated, approved manually.



Welcome Aquametro AG  
 Logged in as adm\_amt  
 Logout  
 Help | Change Password  
 Facility: Demo Site (August) [change](#)

Dashboard Billing Runs Tenants Billing Units Manage Admin

Missing BillingRun Values List

Please complete and approve the list below before you redo the billing run.

Serial (Ch#.,Rec)	Info	BillingUnit Address	Medium	Last Value	new Date	new Value	Unit	Following Value
40020002 (1,1)	Rental Checkin	22 Southern Way,MK43 3RT,Oakley,GB	Power	2643.300kWh (2012-01-31)	2012-02-01	2651.320 i	kWh	2659.340kWh (2012-02-02)
40020002 (1,2)	Rental Checkin	22 Southern Way,MK43 3RT,Oakley,GB	Water	7457.120m3 (2012-01-31)	2012-02-01	7476.600 i	m3	7496.080m3 (2012-02-02)
90001001	Billingrun From	72 Southern Way,MK43 3RT,Oakley,GB	Water		2012-02-01	0.000		
90001002	Billingrun From	82 Southern Way,MK43 3RT,Oakley,GB	Water		2012-02-01	0.000		
90001003	Billingrun From	92 Southern Way,MK43 3RT,Oakley,GB	Water		2012-02-01	0.000		
90001004	Billingrun From	10 Southern Way,MK43 3RT,Oakley,GB	Water		2012-02-01	0.000		
40020006 (1,1)	Rental Checkin	62 Southern Way,MK43 3RT,Oakley,GB	Power	2743.100kWh (2012-02-14)	2012-02-15	2750.435 i	kWh	2757.770kWh (2012-02-16)
40020006 (1,2)	Rental Checkin	62 Southern Way,MK43 3RT,Oakley,GB	Water	7742.340m3 (2012-02-14)	2012-02-15	7761.120 i	m3	7779.900m3 (2012-02-16)
90001002	Rental Checkout	82 Southern Way,MK43 3RT,Oakley,GB	Water		2012-02-16	0.000		
90001001	Billingrun To	72 Southern Way,MK43 3RT,Oakley,GB	Water		2012-03-01	0.000		
90001003	Billingrun To	92 Southern Way,MK43 3RT,Oakley,GB	Water		2012-03-01	0.000		
90001004	Billingrun To	10 Southern Way,MK43 3RT,Oakley,GB	Water		2012-03-01	0.000		

Page 1 of 1 View 1 - 12 of 12

Notice: Interpolated values are displayed with a T.

+ Approve Meter Reading List + Decline Meter Reading List

Image 38: Missing BillingRun Values List

Once all values have been entered, click on **+ Approve Meter Reading List**. The provided values will then be saved permanently into the system and will be used in a new billing run.

If you are able to provide the logger files you can click on **+ Decline Meter Reading List** and import the missing protocols over **Manage** / **Protocol Import**.



## 4 Reference

### 4.1 Login page

The user can login himself with the correct user name and password. If he is configured as an administrator he will get the Admin menu at the top, otherwise this menu will not show up.

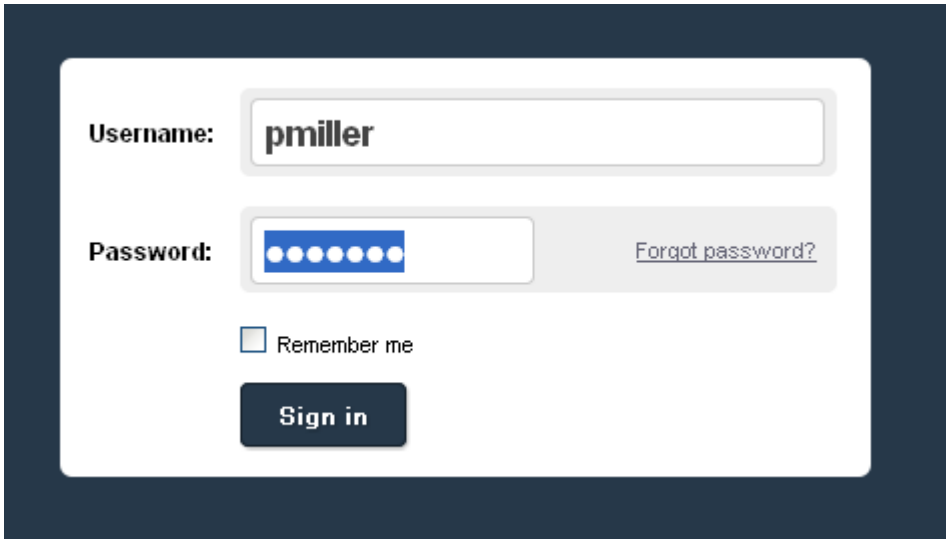
A screenshot of a login page. It features a dark blue background with a white login form. The form has a 'Username:' label followed by a text input field containing 'pmiller'. Below that is a 'Password:' label followed by a password input field with masked characters (dots) and a 'Forgot password?' link. There is a 'Remember me' checkbox below the password field. At the bottom of the form is a dark blue 'Sign in' button.

Image 39: Login page

The user login must have been created in the AMBILL® easy bill application by an administrator user.

The link "Forgot password" displays a page with Aquametro contact information.

The option "Remember me" will store the logon information in encrypted form on the local disk (as a cookie) and will be used for later logins.

Once a user is logged in the information about that user will be displayed in the upper right corner of the application. There it is also possible to log off the current user.



Image 40: Information about logged in user

## 4.2 Facility Chooser

Once a user is logged in, all facilities for this user are available and are listed in the drop down box labelled "Facility".

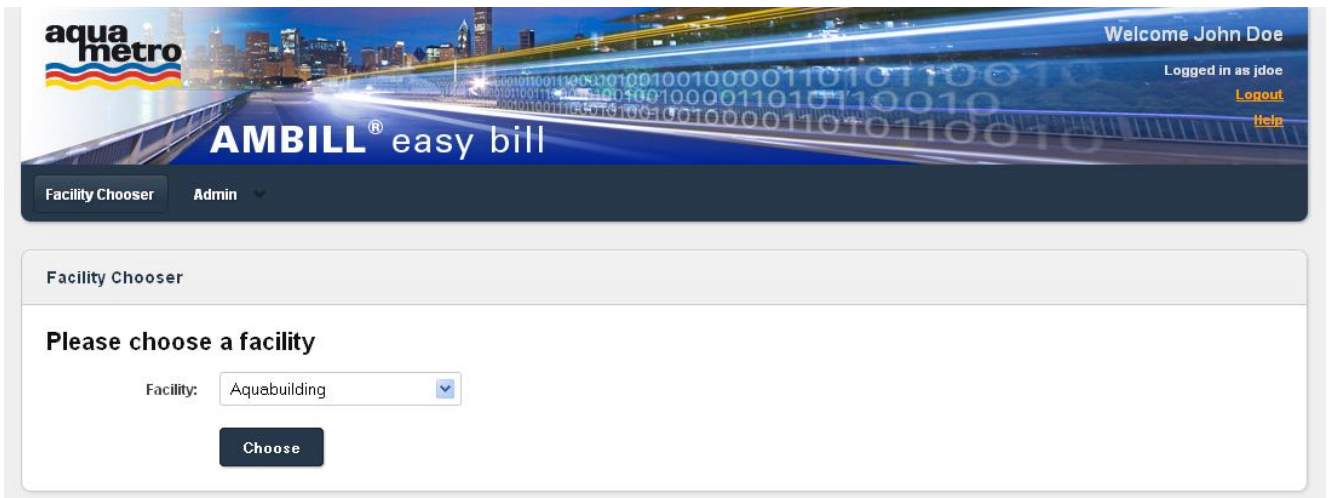


Image 41: Facility Chooser

To select a facility the desired entry has to be selected followed by a click on the button **Choose**.

## 4.3 Dashboard

The dashboard is the main starting point.

**Dashboard Summary:**

- NUMBER OF BILLING UNITS: 6
- NUMBER OF OCCUPIED BILLING UNITS: 5
- OCCUPANCY PERCENTAGE: 83%

**Meters Section:**

Unresponsive Meters: 0

Manual Meter	Serial Number	M-Bus	Data Collector	Channel #	Register #	First Value	Last Value	Actions
--------------	---------------	-------	----------------	-----------	------------	-------------	------------	---------

Unassigned Meters over all Datacollectors: 3

Manual Meter	Serial Number	M-Bus	Data Collector	Channels	unmapped Channels	unmapped Registers	Actions
	04935446	9	http://[redacted]/CF_Device/	1	1	1	Show
	134679		http://MANUAL_METERS/	1	1	1	Show
	9		http://MANUAL_METERS/	1	1	1	Show

**Information Section:**

**Address:**  
Aquabuilding  
Ringstrasse 75  
4106 Therwil  
Switzerland

**Other Details:**  
Currency: CHF  
Invoicing Period: Monthly  
VAT Calculation: VAT Included

Image 42: Facility dashboard

In the upper part the user will get a high level overview of how many billing units have been defined and how many billing units are currently rented (also as percentage value).

On the right hand side there is a box showing all details about the facility.

If you are using a standalone installation (billing software installed on a server on site) the license details will be displayed here as well.

In the bigger box which is named “Meters” you can see details about all meters configured in the facility.

- The first list informs about meters which are assigned to billing units but are currently not responding and therefore should be checked whether they work properly and the daily reading data is available.
- The lower list shows all meters which are not assigned to a billing unit which means that the used media can't be billed correctly. These meters should be checked as well and either be assigned to a billing unit or explicit excluded from the billing.

## 4.4 Billing Runs

On this page the user will get an overview of all created billing runs and their status.

**Billing Runs**

+ Create new Billing Run

Status	Run Date	Bill From	Bill Until (inclusive)	Billing Template	Pricings	Actions
APPROVED	2011-03-18 14:58	2011-02-01	2011-02-28	Aquabuilding_Template_20110317_1 (2011-03-18 12:22)	3	<a href="#">Pricing</a> <a href="#">Show</a>

Number of objects: 1

Image 43: Billing Run Overview

Click on [Create new Billing Run](#) to create a new billing run.

Click on [Pricing](#) to get an overview of the defined prices for a specific billing run.

Click on [Show](#) to get an overview of all bills created in a specific billing run.

The presented list can be sorted by various columns by clicking on the column titles. The small icon next to the title name indicates how the data is sorted.

## 4.4.1 Create new Billing Run

**aqua metro** Welcome Astina AG Astina AG  
Logged in as astina  
[Logout](#)  
[Help](#) | [Change Password](#)

**AMBILL® easy bill**

Dashboard Billing Runs Tenants Billing Units Manage Admin Facility: Aquabuilding [change](#)

### Billing Run

#### Create new Billing Run

Last Billing Run: 2011-02-28

Bill From:

Bill Until (inclusive):

#### Pricings

##### Pricing: Gas

Billing:  Not billed  Fix per unit  Based on billed energy/medium

Unit:

Price (CHF):  (VAT Included)

VAT (%):

##### Pricing: Heat

Billing:  Not billed  Fix per unit  Based on billed energy/medium

Unit:

Price (CHF):  (VAT Included)

VAT (%):

##### Pricing: Power

Billing:  Not billed  Fix per unit  Based on billed energy/medium

##### Pricing: Water

Billing:  Not billed  Fix per unit  Based on billed energy/medium

Unit:

Price (CHF):  (VAT Included)

VAT (%):

[Cancel](#)

Image 44: Create Billing Run

On this screen you have 2 sections to fill out:

- Range of billing run → define a start and an end date
- Pricings → detailed pricings for each medium (will grow if a medium gets added)

Fieldname	Explanation	Entry
<i>For a billing run the following fields must be filled with dates</i>		
Bill From	Define the first day of the billing period (e.g. 1 <sup>st</sup> of month/quarter/year)	required
Bill Until (inclusive)	This is the last day of the billing period. This last day will also be included in the calculation. (e.g. last of month/quarter/year)	required
<i>For each medium fill out following fields</i>		
Billing	Select one of the following options (see table below for details): <ul style="list-style-type: none"> <li>• Not billed</li> <li>• Fix per unit</li> <li>• Based on billed energy/medium</li> </ul>	required
Unit	Define the unit that should appear on the bill. It might be that the meters deliver data in Wh or MWh but you like to have kWh on the bill. As long as a conversion factor is defined in the system this will automatically be calculated.  The billing run will fail if you define a unit for which no conversion factor is present. For example your meters deliver energy (kWh) but you select a volume unit (m <sup>3</sup> ).	required
Price (currency)	Define the price, either per unit or per bill (see table below for details)	required
VAT (%)	Define the taxes for this medium.	required

Billing option	Explanation
Not billed	The medium will not be billed at all.
Fix per unit	If this option is selected a price can be defined for a certain unit. <u>Example:</u> 4 dollars per 1 m <sup>3</sup>
Based on billed energy/medium	If you don't have a calculated price for a certain unit but a bill for a certain amount of a medium over a period of time you can define this here. The price will then be divided by all tenants on how much they have used that medium (percentage allocation). <u>Example:</u> In April you received a bill from your water supplier for water (m <sup>3</sup> ). The price on the bill is 2415 \$.

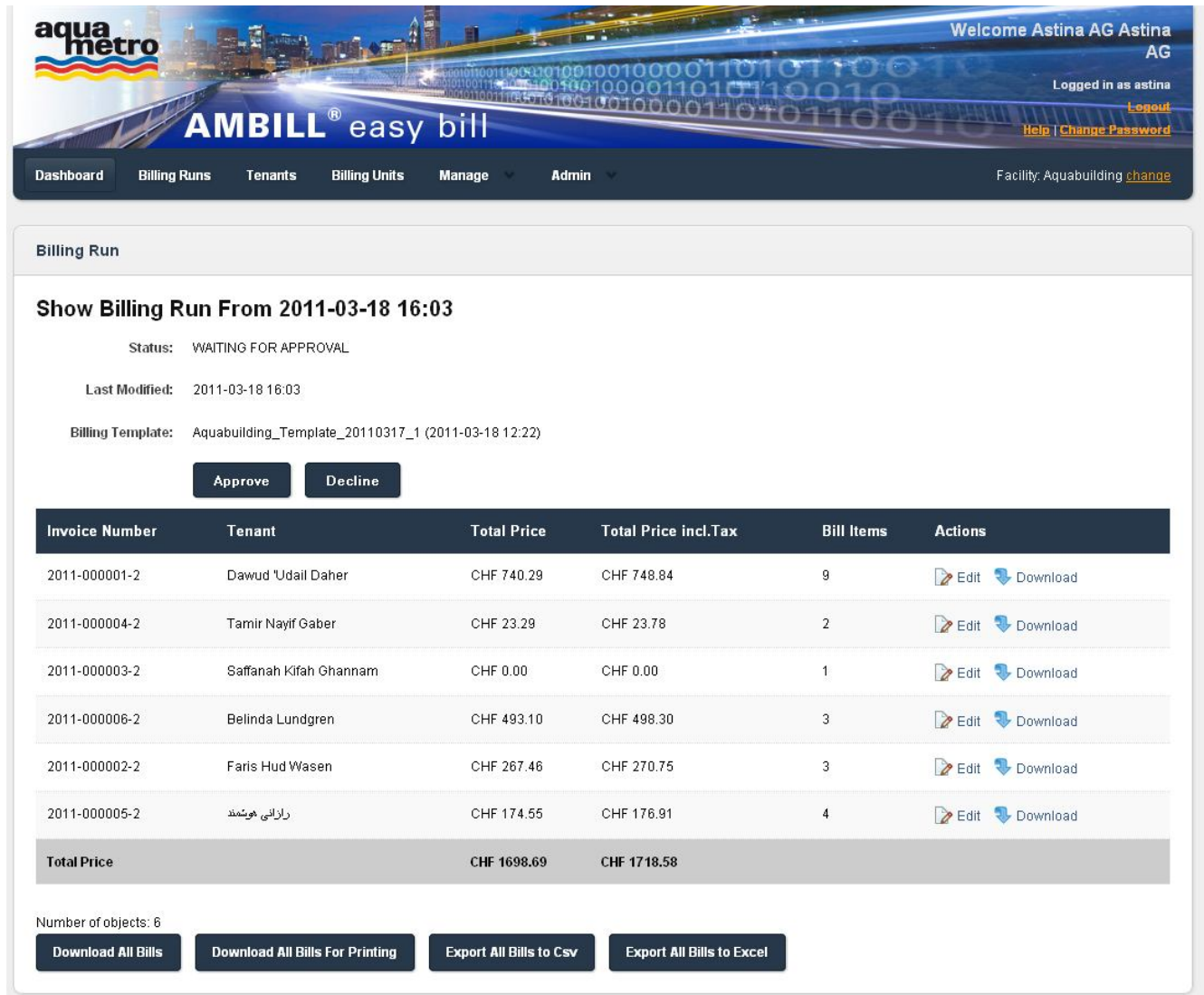
Click on **Save** to launch the billing run calculation or **Cancel** if you want to get back without saving the changes.

All settings and values will be saved and will be presented the next time you create a new billing run.



## 4.4.2 Show Billing Run

Shows all details of a specific billing run.



The screenshot displays the AMBILL easy bill interface. At the top, there is a header with the aqua metro logo on the left and a welcome message 'Welcome Astina AG Astina AG' on the right. Below the header is a navigation menu with options: Dashboard, Billing Runs, Tenants, Billing Units, Manage, and Admin. The main content area is titled 'Billing Run' and shows details for a specific billing run: 'Show Billing Run From 2011-03-18 16:03'. The status is 'WAITING FOR APPROVAL', last modified is '2011-03-18 16:03', and the billing template is 'Aquabuilding\_Template\_20110317\_1 (2011-03-18 12:22)'. There are two buttons: 'Approve' and 'Decline'. Below this is a table with columns: Invoice Number, Tenant, Total Price, Total Price incl. Tax, Bill Items, and Actions. The table contains six rows of data, including a total price row. At the bottom, there are four buttons: 'Download All Bills', 'Download All Bills For Printing', 'Export All Bills to Csv', and 'Export All Bills to Excel'.

Invoice Number	Tenant	Total Price	Total Price incl. Tax	Bill Items	Actions
2011-000001-2	Dawud 'Udail Daher	CHF 740.29	CHF 748.84	9	Edit Download
2011-000004-2	Tamir Nayif Gaber	CHF 23.29	CHF 23.78	2	Edit Download
2011-000003-2	Saffanah Kifah Ghannam	CHF 0.00	CHF 0.00	1	Edit Download
2011-000006-2	Belinda Lundgren	CHF 493.10	CHF 498.30	3	Edit Download
2011-000002-2	Faris Hud Wasen	CHF 267.46	CHF 270.75	3	Edit Download
2011-000005-2	رازلی هوشمند	CHF 174.55	CHF 176.91	4	Edit Download
<b>Total Price</b>		<b>CHF 1698.69</b>	<b>CHF 1718.58</b>		

Image 45: Billing Run Details

After a billing run has been created it must be reviewed. If everything is fine and it can be accepted by clicking on **Approve**. At the same time the mails for all tenants which are configured to get their bills by email will be sent out.

If there is a mistake in the billing run it can be refused by clicking **Decline**. In this case the billing run will be declined and completely removed from the system.

Clicking on **Edit** will show all bill items and details. There it is also possible to edit existing items or even add additional items.

By clicking on **Download** it's possible to download or view the generated bill in its final form.

At the bottom of the page you can see the following buttons:

Button name	Explanation
Download All Bills	Download of a zip file containing all bills in the billing run. Also those which will be or have been sent out by mail.
Download All Bills For Printing	Download of a zip file containing only those bills which have to be printed out and sent by letter. This package does not contain bills that will be sent by mail.
Export All Bills to CSV	Download of a CSV text file. The fields are separated by a tab character with all details of that billing run.
Export All Bills to Excel	Download of an Excel file (XLS) with all details of that billing run. The file can directly be opened and viewed with Excel.

#### 4.4.2.1 Edit bill items

On this view all bill items for a specific bill will be displayed.

The screenshot shows the AMBILL easy bill interface. At the top, there is a navigation menu with options: Dashboard, Billing Runs, Tenants, Billing Units, Manage, and Admin. The main content area is titled "Billing Run: Billing Run 33" and "Show bill: 2011-000006-2 for Tenant Belinda Lundgren".

**Tenant Information:**

Tenant	Billing Address
Ms Belinda Lundgren +41 55 333 22 11 Belinda.lundgren@trash-mail.com	Ms Belinda Lundgren Paradisestreet 11 23455 Dubai

**Bill Items Table:**

Billing Unit	Text	Consumption	Price	Price incl. Tax	Rented Days	Comment	Actions
Paradisestreet 11,5th Floor,23455,Dubai,AE	Heat	1386.500	CHF 466.74	CHF 471.41	59(2011-02-01 - 2011-03-31)		Edit Delete
Paradisestreet 11,5th Floor,23455,Dubai,AE	Water	1.290	CHF 4.34	CHF 4.39	59(2011-02-01 - 2011-03-31)		Edit Delete
Paradisestreet 11,5th Floor,23455,Dubai,AE	Internet		CHF 22.02	CHF 22.50			Edit Delete
<b>Total Price (items: 3)</b>			<b>CHF 493.10</b>	<b>CHF 498.30</b>			

**Bill Actions:** CHF 498.30  
Download

Image 46: Bill items and details



To create an additional item for the bill click on [Create new Bill Item](#).

#### 4.4.2.1.1 Create new Bill Item

The screenshot shows the AMBILL® easy bill web interface. At the top, there is a navigation bar with the logo 'aqua metro' on the left and 'Welcome Astina AG Astina AG' on the right. Below the logo, it says 'Logged in as astina' with links for 'Logout', 'Help', and 'Change Password'. The main navigation bar includes 'Dashboard', 'Billing Runs', 'Tenants', 'Billing Units', 'Manage', and 'Admin'. The facility name 'Facility: Aquabuilding' is also visible. The main content area is titled 'Bill Item' and contains a form for creating a new bill item. The form has five input fields: 'Text', 'Price', 'VAT (%)', 'Consumption', and 'Comment'. A 'save' button is located at the bottom of the form.

Image 47: Create new Bill Item

The following data has to be entered:

Fieldname	Explanation	Entry
Text	Description of the bill item, appears on the generated bill.	required
Price	Price for the bill item	required
VAT (%)	Percentage of taxes which are in	required
Consumption	A numeric value about the consumption of a certain medium. This information will be used for the bill only, there is no calculation done based on the entered value.	optional
Comment	Additional comment for this bill item.	optional

#### 4.4.2.1.2 Edit Bill Item

The screenshot shows the AMBILL® easy bill web interface. At the top left is the 'aqua metro' logo. The main header area features a cityscape background with the text 'Welcome Astina AG Astina AG' and 'Logged in as astina'. There are links for 'Logout', 'Help', and 'Change Password'. A navigation menu includes 'Dashboard', 'Billing Runs', 'Tenants', 'Billing Units', 'Manage', and 'Admin'. The facility name 'Aquabuilding' and a 'change' link are also visible. The main content area is titled 'Bill Item' and contains the 'Edit Bill Item' form with the following fields:

- Text:
- Price (CHF):  (VAT Included)
- VAT (%):
- Consumption:
- Comment:

A 'save' button is located below the comment field.

Image 48: Create new Bill Item

It is possible to edit the following entries of a bill item: Text, VAT and Consumption. However, if you are working with prices which are based on billed energy, the calculation for the total facility is redone and might affect all other billing units as well.

#### 4.4.2.1.3 Delete Bill Item

**Delete** will delete the respecting item from the actual billing unit. No recalculation is done and no other bill is affected by this activity.

### 4.4.3 Delete a complete billing run

If a billing run wasn't successful the status is "FAILED". Hovering with the mouse over the status will show the error message.

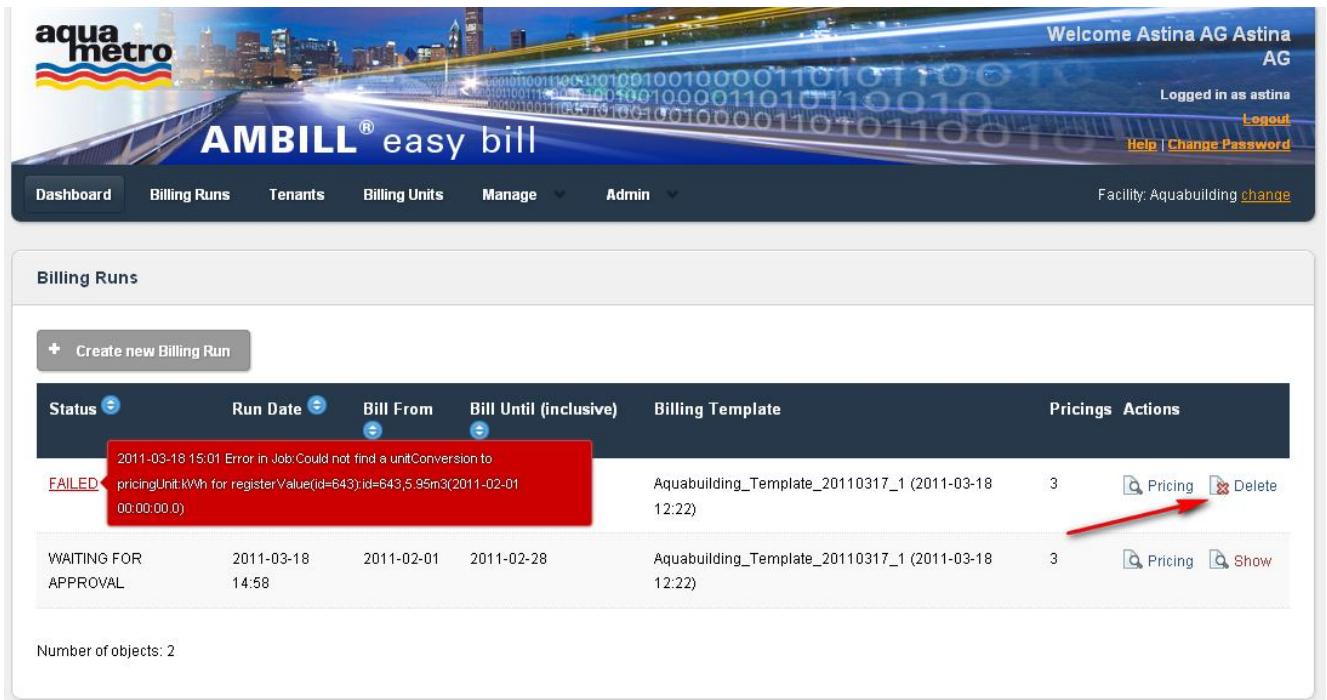


Image 49: Billing Run with status "FAILED"

In this case here a wrong unit has been chosen for a medium and it's not possible to convert cubic meters to kWh.

After the error message has been read the billing run can be deleted by clicking on **Delete**.

Of course a billing run can also be deleted if there is no failure message but you don't like the result for whatever reason. The data of a deleted billing run is erased irrevocably.

## 4.4.4 Pricing

The pricing is the base of the bill calculation. For each billing run the pricing details can be viewed any time.

**AMBILL® easy bill**

Dashboard | Billing Runs | Tenants | Billing Units | Manage | Admin | Facility: Demo Site (August) [change](#)

Welcome Aquametro AG  
Logged in as adm\_amt  
[Logout](#)  
[Help](#) | [Change Password](#)

**Billing Run**

Show Billing Run From 2012-08-03 10:39

Bill From: 2012-04-01  
Bill Until (inclusive): 2012-04-30

**Pricing**

Medium	Unit	Price (VAT Included)	VAT (%)
Power	kWh	GBP 1.50	7.8
Water	m3	GBP 0.85	7.8

Image 50: Billing Run Pricing Details

## 4.5 Tenants

Please see chapter 3.4 for a detailed description of how to add and change tenants.

**AMBILL® easy bill**

Dashboard | Billing Runs | Tenants | Billing Units | Manage | Admin | Facility: Demo Site (August) [change](#)

Welcome Aquametro AG  
Logged in as adm\_amt  
[Logout](#)  
[Help](#) | [Change Password](#)

**Tenants**

+ Create new Tenant

Search

Customer Number	Title	First Name	Last Name	Contact	Bill by Email	Actions
1000027	Mr	رازانی	بهزاد	05066 12 05 79 bhezad.razana@trash-mail.com	false	<a href="#">Show</a> <a href="#">Edit</a> <a href="#">Rentals</a> <a href="#">CustomerPortal</a>
1000028	Ms	Zoe	Herrod	0911 73 89 54 zoe.herrod@trash-mail.com	false	<a href="#">Show</a> <a href="#">Edit</a> <a href="#">Rentals</a> <a href="#">CustomerPortal</a>
1000029	Mr	Edward	Weatherly	04362 20 44 93 edward.weatherly@trash-mail.com	false	<a href="#">Show</a> <a href="#">Edit</a> <a href="#">Rentals</a> <a href="#">CustomerPortal</a>

Image 51: Handle tenants

Button name	Explanation
+ Create new Tenant	Apply a new tenant
Show	see the different entries of a tenant as well as the respective rentals and a history of the approved bills
Edit	Edit the tenant's data.
Rentals	See and add rented billing units of this tenants
Customer Portal	Opens the customer portal view as the tenant would see it. The customer portal is an optional module and has to be activated.

When creating a new tenant, the following information can be entered:

Fieldname	Explanation	Entry
<i>Contact</i>		
Title	Title of the person (Mr, Mrs, Dr, ...)	optional
First Name	First Name	required
Last Name	Last Name	required
Phone	Phone nr.	optional
Email	Email address (required if you want to send the bill by email)	optional
<i>Rental</i>		
Billing Unit	Address of the Billing Unit where the bill is sent to (only required if no special billing address is used)	required
CheckIn	Date of moving in of the tenant (can be set ahead of time)	required
<i>Billing Address</i>		
Title	Title of the person (Mr, Mrs, Dr, ...)	optional
First Name	First Name	optional
Last Name	Last Name	optional
Street	Street & Nr, where the bill shall be sent to (required if special billing address is used)	optional
Zip	Zip code, where the bill shall be sent to (required if special billing address is used)	optional
City	City, where the bill shall be sent to (required if special billing address is used)	optional
Country	Country, where the bill shall be sent to (required if special billing address is used)	optional
Customer Number	Customer number. Fill in only if you want to use your already defined numbers	optional

## 4.6 Billing Units

Please see chapter 3.3 for a detailed description of how to add a billing unit.

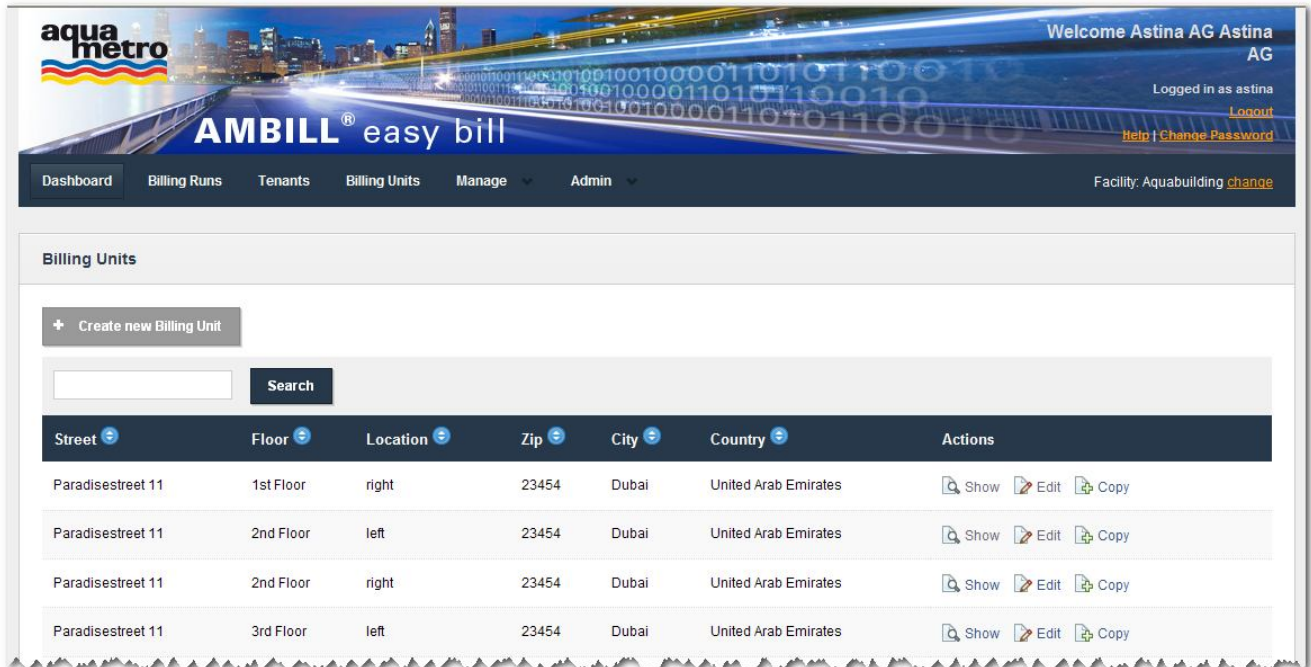


Image 52: Billing Units

Button name	Explanation
	Apply a new billing unit
	See, edit and add meters, global and individual billing overheads to the respective billing unit. Show the history of tenants.
	Edit the billing unit's data.
	Easily add a new billing unit by copying (and change accordingly) an existing one.

When creating a new billing unit the following information can be entered:

Fieldname	Explanation	Entry
Street	Street and Number of the billing unit (postal address)	required
Floor	Floor or other location information (e.g. 1 <sup>st</sup> Floor)	optional
Location	Additional location information (e.g. left)	optional
Zip	Zip code of the billing unit (postal address)	required
City	City of the billing unit (postal address)	required
Country	Country of the billing unit (postal address)	required



## 4.7 Manage / Meters

This meter list contains all automatic as well as all manual meters.

Manual Meter	Serial Number	M-Bus	Data Collector	Location	Channels	Actions
<input checked="" type="checkbox"/>	40020001	1	http://home.datacomm.ch/~sni/192.168.1.4/	192.168.1.4	1	Show
<input checked="" type="checkbox"/>	40020002	2	http://home.datacomm.ch/~sni/192.168.1.4/	192.168.1.4	1	Show
<input checked="" type="checkbox"/>	40020003	3	http://home.datacomm.ch/~sni/192.168.1.4/	192.168.1.4	1	Show

The symbol on the left () indicates if the meter is a so called “manual meter”. Manual meters have to be read manually meaning that the meter reading has to be inserted by hand into the system (they are not captured automatically).

## 4.8 Manage / Manual Meters

This meter list contains only manual meters. Automatic meters won't be displayed here.

Manual Meter	Serial Number	M-Bus	Data Collector	Location	Channels	Actions
<input checked="" type="checkbox"/>	90001001		http://MANUAL_METERS/		1	Show Edit
<input checked="" type="checkbox"/>	90001002		http://MANUAL_METERS/		1	Show Edit
<input checked="" type="checkbox"/>	90001003		http://MANUAL_METERS/		1	Show Edit
<input checked="" type="checkbox"/>	90001004		http://MANUAL_METERS/		1	Show Edit

Image 53: Manage / Manual Meters

The symbol on the left (✔) indicates if the meter is a so called “manual meter”. Manual meters have to be read manually meaning that the meter reading has to be inserted by hand into the system (they are not captured automatically).

 **Tip:**

If you open the meter list **Manage** / **Meters** you will get a list of all meters including also all manual meters.

Button name	Explanation
+ Create new Manual Meter	Add a new “Manual Meter” (a meter which is not read via a data concentrator)
Show	See the different register values of a meter where always the first and last values (registered in the system) are presented
Edit	<p>Only “Manual Meters” can be edited whereof the serial number can be changed. The M-Bus primary address and the manufacturer fields are for information only.</p> <p>If a meter number is changed, also the according entries in the connected billing units are changed automatically</p>

When creating a new “manual meter” the following information can be entered:

Fieldname	Explanation	Entry
Serial Number	Serial number of the meter	required
Location	Location of the meter (useful if the meter reading has to be gathered manually by a person)	optional
Manufacturer	Manufacturer of the meter	optional

## 4.9 Manage / Manual Meter Readings List

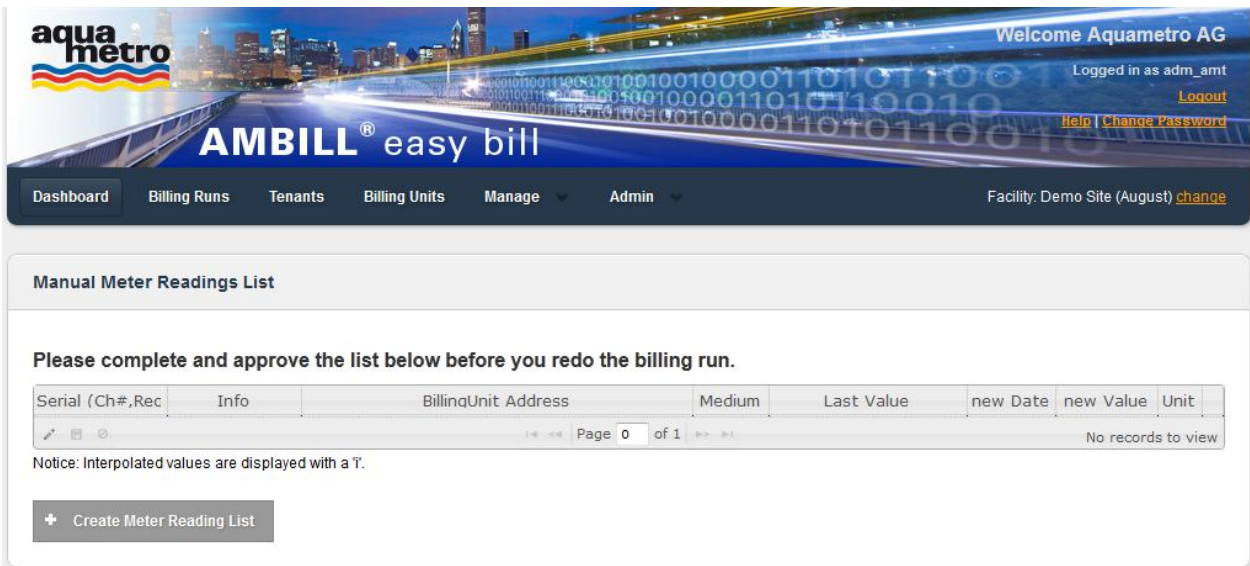


Image 54: Manage / Manual Meter Readings List (empty list)

Click on **+ Create Meter Reading List** to fill the list with all meters which are not automatically treated by the system (e.g. manual meters).

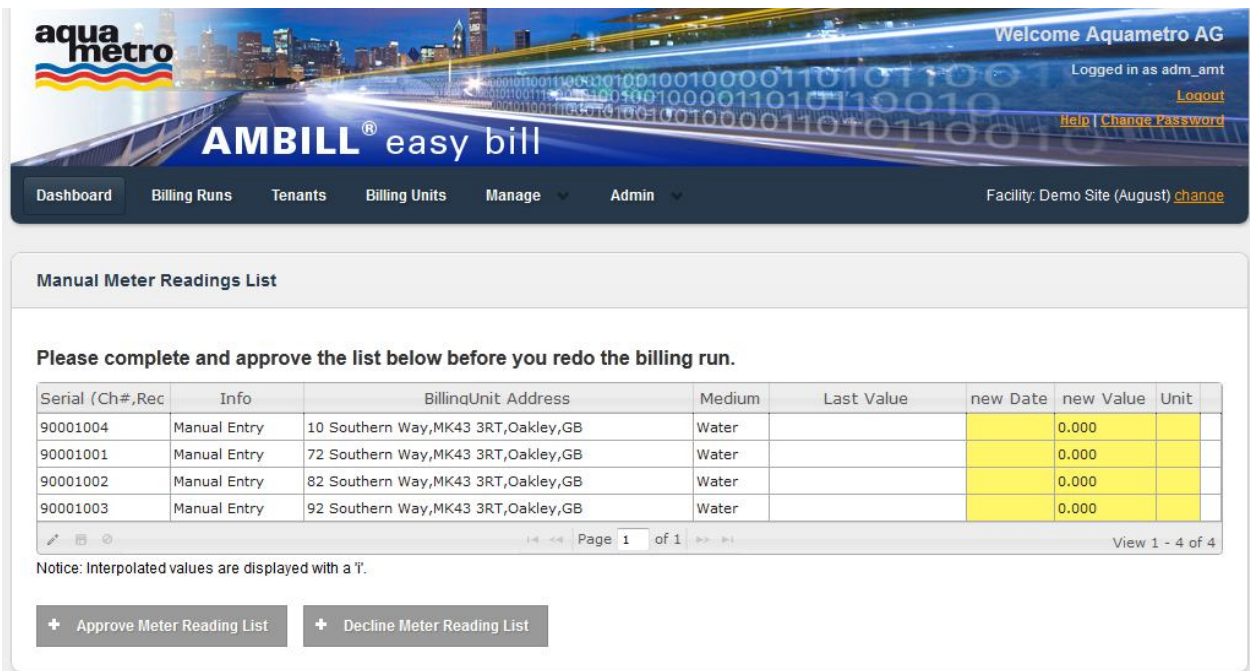


Image 55: Manage / Manual Meter Readings List (filled list)

Values can be entered using the mouse and keyboard:

- Click on a row to edit it.
- In the column "Unit", use either the up and down keys or the mouse to select the correct unit.
- Use the Tab key (or mouse) to jump to the next field.
- Press the return key to save your values to the system and to jump to the next row (don't forget to do this for the last row as well, otherwise the values are not stored correctly)

Once all values have been entered into the list the manually entered values can be released to be used in a billing run. A click on **+ Approve Meter Reading List** will do this.

If all values should be discarded, click on [+ Decline Meter Reading List](#). Be careful, all already entered data will be deleted permanently. Recovery of those values is not possible.

## 4.10 Missing Billing Run Values List

Welcome Aquametro AG  
 Logged in as adm\_amt  
[Logout](#)  
[Help](#) | [Change Password](#)

Dashboard Billing Runs Tenants Billing Units Manage Admin Facility: Demo Site (August) [change](#)

Missing BillingRun Values List

Please complete and approve the list below before you redo the billing run.

Serial (Ch#,Rec)	Info	BillingUnit Address	Medium	Last Value	new Date	new Value	Unit	Following Value
40020002 (1,1)	Rental Checkin	22 Southern Way,MK43 3RT,Oakley,GB	Power	2643.300kWh (2012-01-31)	2012-02-01	2651.320 i	kWh	2659.340kWh (2012-02-02)
40020002 (1,2)	Rental Checkin	22 Southern Way,MK43 3RT,Oakley,GB	Water	7457.120m3 (2012-01-31)	2012-02-01	7476.600 i	m3	7496.080m3 (2012-02-02)
90001001	Billingrun From	72 Southern Way,MK43 3RT,Oakley,GB	Water		2012-02-01	0.000		
90001002	Billingrun From	82 Southern Way,MK43 3RT,Oakley,GB	Water		2012-02-01	0.000		
90001003	Billingrun From	92 Southern Way,MK43 3RT,Oakley,GB	Water		2012-02-01	0.000		
90001004	Billingrun From	10 Southern Way,MK43 3RT,Oakley,GB	Water		2012-02-01	0.000		
40020006 (1,1)	Rental Checkin	62 Southern Way,MK43 3RT,Oakley,GB	Power	2743.100kWh (2012-02-14)	2012-02-15	2750.435 i	kWh	2757.770kWh (2012-02-16)
40020006 (1,2)	Rental Checkin	62 Southern Way,MK43 3RT,Oakley,GB	Water	7742.340m3 (2012-02-14)	2012-02-15	7761.120 i	m3	7779.900m3 (2012-02-16)
90001002	Rental Checkout	82 Southern Way,MK43 3RT,Oakley,GB	Water		2012-02-16	0.000		
90001001	Billingrun To	72 Southern Way,MK43 3RT,Oakley,GB	Water		2012-03-01	0.000		
90001003	Billingrun To	92 Southern Way,MK43 3RT,Oakley,GB	Water		2012-03-01	0.000		
90001004	Billingrun To	10 Southern Way,MK43 3RT,Oakley,GB	Water		2012-03-01	0.000		

Page 1 of 1 View 1 - 12 of 12

Notice: Interpolated values are displayed with a 'i'.

[+ Approve Meter Reading List](#) [+ Decline Meter Reading List](#)

Image 56: Missing Billing Run Values List

If values for a billing run are missing the billing run will fail. As a result a list will be filled with the respective meters and a description which value is needed. This list can be accessed by clicking on [Manage](#) / [Missing BillingRun Values List](#).

This means that for the following points in time no meter reading might exist:

- Missing value at start of billing run
- Missing value for a check-in date of a tenant (during the billing run period)
- Missing value for a check-out date of a tenant (during the billing run period)
- Missing value at end of billing run

In order to successfully create a billing run the missing meter readings must be entered or, if the values could have been calculated, approved manually.

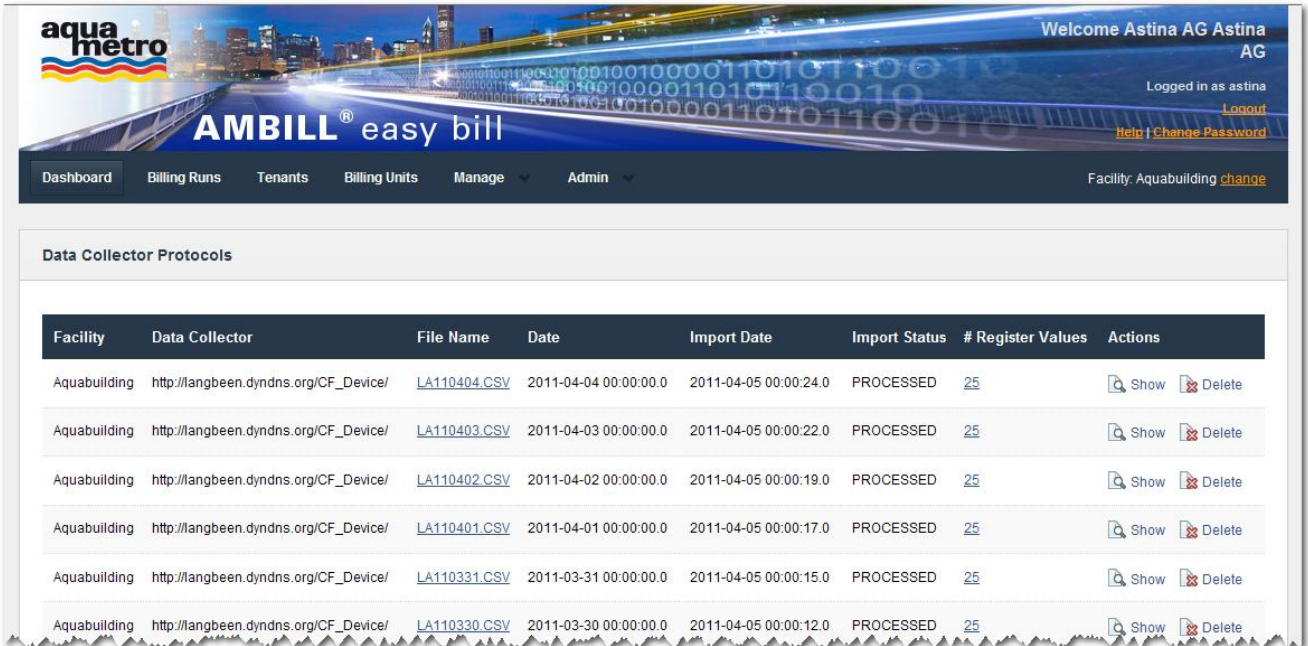
Values can be entered using the mouse and keyboard:

- Click on a row to edit it.
- In the column "Unit", use either the up and down keys or the mouse to select the correct unit.
- Use the Tab key (or mouse) to jump to the next field.
- Press the return key to save your values to the system and to jump to the next row (don't forget to do this for the last row as well, otherwise the values are not stored correctly)

After entering all missing values the list can be approved by clicking [+ Approve Meter Reading List](#). A new billing run will then use those values to calculate the bills.



## 4.11 Manage / Data Collector Protocols



The screenshot shows the AMBILL easy bill web interface. The header includes the Aqua Metro logo, the text 'Welcome Astina AG Astina AG', and user information 'Logged in as astina' with links for 'Logout', 'Help', and 'Change Password'. The navigation menu includes 'Dashboard', 'Billing Runs', 'Tenants', 'Billing Units', 'Manage', and 'Admin'. The main content area is titled 'Data Collector Protocols' and contains a table with the following data:

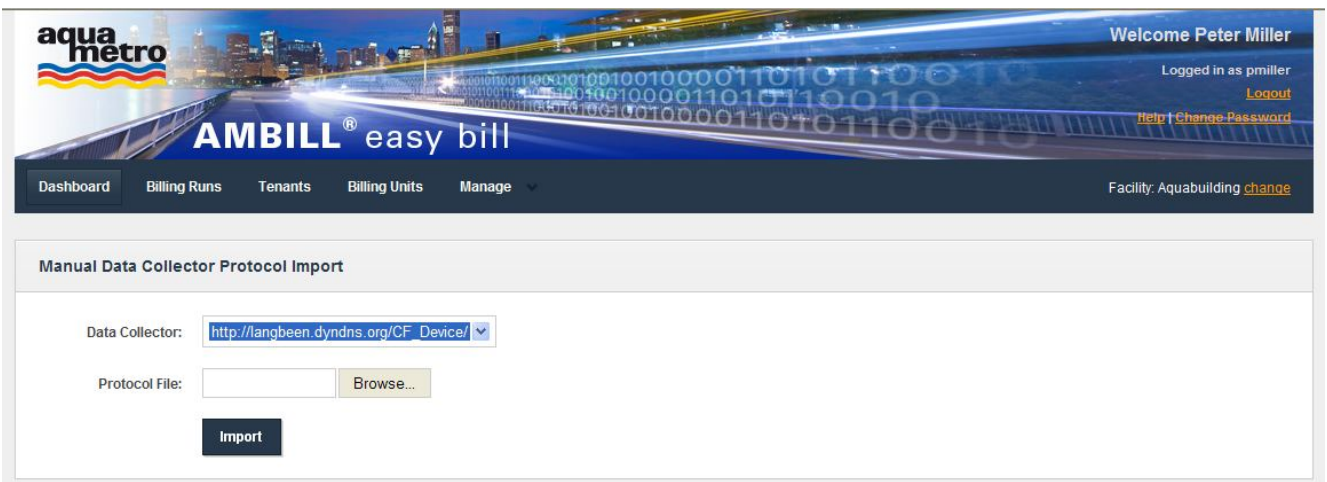
Facility	Data Collector	File Name	Date	Import Date	Import Status	# Register Values	Actions
Aquabuilding	http://langbeen.dyndns.org/CF_Device/	<a href="#">LA110404.CSV</a>	2011-04-04 00:00:00.0	2011-04-05 00:00:24.0	PROCESSED	25	Show Delete
Aquabuilding	http://langbeen.dyndns.org/CF_Device/	<a href="#">LA110403.CSV</a>	2011-04-03 00:00:00.0	2011-04-05 00:00:22.0	PROCESSED	25	Show Delete
Aquabuilding	http://langbeen.dyndns.org/CF_Device/	<a href="#">LA110402.CSV</a>	2011-04-02 00:00:00.0	2011-04-05 00:00:19.0	PROCESSED	25	Show Delete
Aquabuilding	http://langbeen.dyndns.org/CF_Device/	<a href="#">LA110401.CSV</a>	2011-04-01 00:00:00.0	2011-04-05 00:00:17.0	PROCESSED	25	Show Delete
Aquabuilding	http://langbeen.dyndns.org/CF_Device/	<a href="#">LA110331.CSV</a>	2011-03-31 00:00:00.0	2011-04-05 00:00:15.0	PROCESSED	25	Show Delete
Aquabuilding	http://langbeen.dyndns.org/CF_Device/	<a href="#">LA110330.CSV</a>	2011-03-30 00:00:00.0	2011-04-05 00:00:12.0	PROCESSED	25	Show Delete

Image 57: Manage / Data Collector Protocols

All data files from the respecting data collectors can be reviewed (**Show**) or downloaded (**filename.csv**) respectively.

If the **Delete** option is missing, meter data was used for billing runs and therefore can't be deleted anymore.

## 4.12 Manage / Protocol Import



The screenshot shows the AMBILL easy bill web interface. The header includes the Aqua Metro logo, the text 'Welcome Peter Miller', and user information 'Logged in as pmiller' with links for 'Logout', 'Help', and 'Change Password'. The navigation menu includes 'Dashboard', 'Billing Runs', 'Tenants', 'Billing Units', 'Manage', and 'Admin'. The main content area is titled 'Manual Data Collector Protocol Import' and contains a form with the following fields:

- Data Collector:
- Protocol File:
- 

Image 58: Manage / Protocol Import

If a data collector was, for whatever reason, not imported automatically (e.g. a freshly added collector), the data import can be started manually by choosing the right data collector from the drop down list. In this case the "Protocol File" must be left blank.

If you can't automatically import data from a data collector, you can import data as a single file. The file can be chosen by clicking on **Browse**.

## 4.13 Manage / Global Billing Unit Overheads

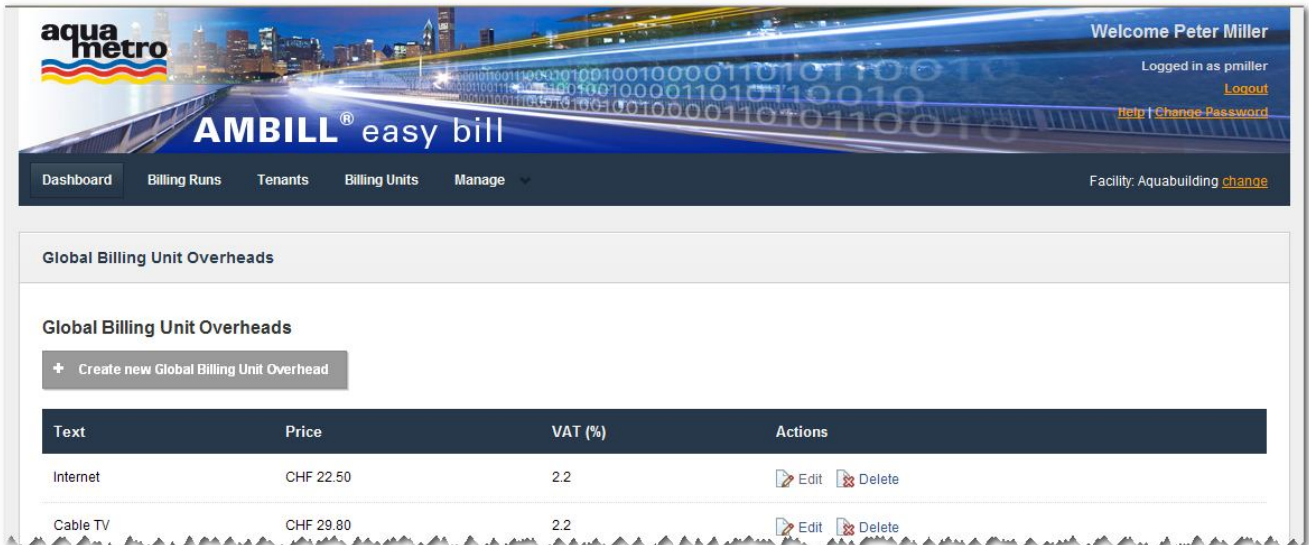


Image 59: Manage / Protocol Import

Additional overheads to be billed can be defined / edited here. When defining a new overhead, usually all billing units will be allocated. However, single billing units can be excluded from being billed with that specific overhead.

When creating a global billing unit overhead the following information can be entered:

Fieldname	Explanation	Entry
Text	Description of the overhead (e.g. Cable TV)	required
Price	Price of the overhead (VAT included or excluded)	required
VAT (%)	VAT in %	required
Included billing units	Choose the billing units you want to be billed with this item	required



## 4.14 Tenant / Customer Portal

The customer portal is a separate module which has to be either activated by an administrator (hosted version) or enabled on the dongle (standalone installation).

Using this module it is very easy for the tenant and also the administrator to see actual consumption values for all meters of a billing unit over a certain amount of time (yearly, monthly).



Image 60: Customer Portal, main view

If the portal is active all new tenants with an email address will receive a welcome mail explaining how to log in. Once a tenant has logged in successfully he gets the portal main view with some parameters and a column chart on which the consumption values are displayed.

Parameter name	Explanation						
Rental	For each rental (check-in until check-out or today) an entry is available.						
Meter	Several meters may be assigned to the rented billing unit.						
Year	This list will filter the drop down list "Time period" to one year.						
Time Period	It is possible to choose one of the following entries: <table border="1"> <tbody> <tr> <td>Rolling Year</td> <td>Shows always the last 12 months backwards, starting from the current month.</td> </tr> <tr> <td>Full Year</td> <td>Shows all months of one full year (January to December)</td> </tr> <tr> <td>Month</td> <td>Shows all days for one full month.</td> </tr> </tbody> </table>	Rolling Year	Shows always the last 12 months backwards, starting from the current month.	Full Year	Shows all months of one full year (January to December)	Month	Shows all days for one full month.
Rolling Year	Shows always the last 12 months backwards, starting from the current month.						
Full Year	Shows all months of one full year (January to December)						
Month	Shows all days for one full month.						

Dark green is the current month or day, light green is the value of the same time period of the previous year. Of course the customer portal can be also activated a at a later time. If that happens the welcome mail can be sent out over [Admin](#) / [Facilities](#) / [Show](#) / [Send Portal Invitations to Tenants](#) to all tenants currently in the system.

By clicking on [Show Table](#) a table with all values used for the chart pops up. If these values should be exported to a file this can be done by clicking on [Excel export](#).

The administrator can access the same view as a tenant by clicking on [Tenants](#) and then for a certain tenant on [Customer Portal](#). The view is exactly the same by means of data. The main menu bar is only visible for administrators.

# 5 Troubleshooting

## 5.1 Missing meter data in billing software

There are several possible reasons why meter values do not show up in the billing software:

Problem	Solution
Meters can't be added to AMBUS® Net	<p>Check whether the meter is still working correctly.</p> <p>Check the configuration of the meter, especially the primary address.</p> <p>Check whether the meter has been correctly attached to the network.</p> <p>Check whether the M-Bus network is working correctly.</p> <p>Check whether there is only one M-Bus Master in the system.</p>
AMBUS® Net can't be accessed over TCP/IP	<p>Make sure the AMBUS® Net is running.</p> <p>Make sure that the AMBUS® Net has been configured correctly:</p> <p>Check IP address (must be unique in the network)</p> <p>Check subnet mask</p> <p>Check gateway address</p> <p>Make sure you can Ping the AMBUS® Net from a computer within your network. If that works, try to access the device using a web browser.</p> <p>If it is a standalone installation, make sure you can Ping the AMBUS® Net from the billing server.</p> <p>The IP address of the AMBUS® Net must be either:</p> <p>In the same network segment as the computer you would like to access</p> <p>A gateway must be present and configured correctly to be able to exchange data between different network segments.</p>
Hardware setup is correct but no meter readings show up in the billing application	<p>Make sure that the AMBUS® Net logger settings have been set correctly. See "Logger settings" on page 10 for details.</p> <p>Meter readings of "today" are never imported. The billing software is always one day behind to make sure all readings will be fetched.</p>
Billing application is not accessible	<p>Hosted version:</p> <p>Make sure your internet connection is working.</p> <p>Try again later, maybe there is an interruption in your internet connection.</p> <p>Contact Aquametro to check if the server is working fine</p> <p>Standalone version:</p> <p>Make sure the server is running. Contact your system administrator to check.</p>

## 5.2 Error when downloading files from the billing software

If you receive the following message, please follow the steps described below:



- Open Internet Explorer
- Open menu "Tools"
- Select "Internet Options"
- Select tab "Advanced"
- Go to the section "Security"
- Check option "Do not save encrypted pages to disk"



## 5.3 License invalid

Please make sure that the USB SafeNet Dongle is attached to the server on which AMBILL easy bill is running. If you are using the hosted application and you get this message, please contact Aquametro.



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