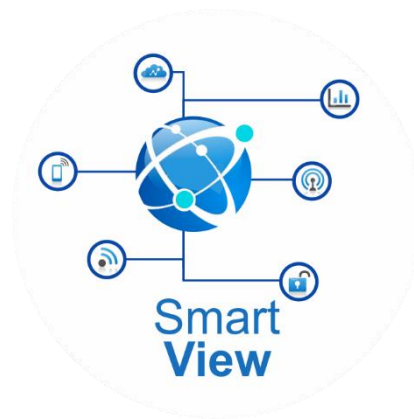


Smart-View

Standard Operating Procedure



Modification History

Issue	Description	Date	Author
1.0	First Release	16 March	Smart-View

Terms of use.....	4
Steps for registering a user account	4
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Terms of use

Introduction

1. Website

- User means all persons who access, view, download from, or use the **Smart-View** Meter Solution site and application whether on the computer or mobile. Users includes **Registered Account Holders**
- **Smart View site** means the website through which **Smart-View** provides the services.
- **Registered Account Holder** means a registered account holder either on the **Smart-View** meter solution who subscribes to the service personally or through an authorized agent.
- **Register** means the action whereby the account holder indicates that they want utilize the **Smart-View** service.

2. Electronic Communications

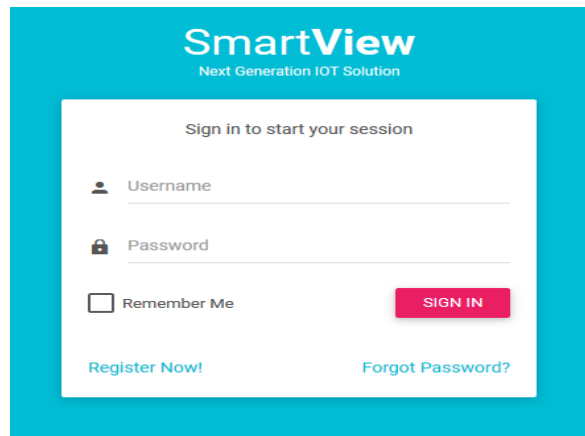
- When a user Registers on the **Smart-View** website or sends feedback to the **Smart-View** forum, the user consents to receiving communications from the **Smart-View** team electronically and agrees that all notices, disclosures and other communications sent by the **Smart-View** satisfies any legal requirements, including but not limited to, the requirement that such communications are considered to be in writing with the same legal stature as a written document.
<https://support.smartviewtechnology.co.za/index.php>

3. User Name and Password

- The account holder undertakes to ensure that the username and password are neither easily accessible nor disclosed to any unauthorized person. Storing the username and password on a computer or network will be regarded as negligence.
- The account holder undertakes to report any actual or attempted unauthorised access to the Smart-View Forum, without delay, via the support/Feedback desk that is provided on the Website

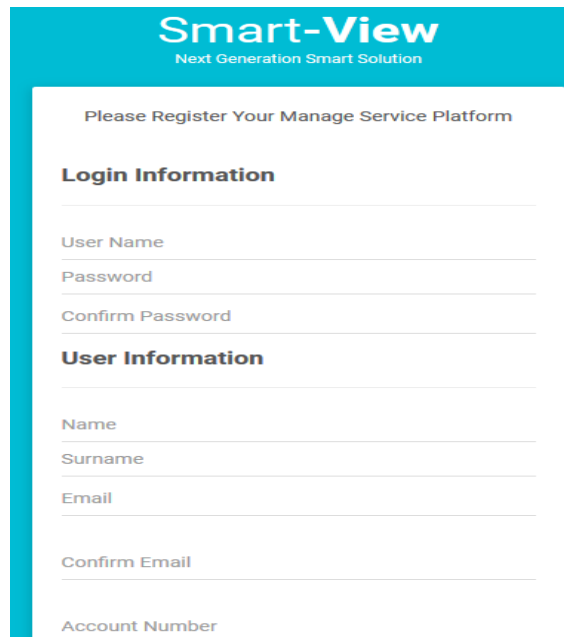
[Steps for registering a user account](#)

1. Type the Smart-View address in your web browser <https://utilities.smartviewtechnology.co.za>



The image shows the SmartView login page. At the top, it says "SmartView" and "Next Generation IOT Solution". Below that, it says "Sign in to start your session". There are three input fields: "Username" with a person icon, "Password" with a lock icon, and "Remember Me" with a checkbox. To the right of the "Remember Me" checkbox is a red "SIGN IN" button. At the bottom left, there is a link "Register Now!" and at the bottom right, there is a link "Forgot Password?".

2. If you are not an existing user click 'Register Now' as shown above you will be redirected to the page below



The image shows the Smart-View registration page. At the top, it says "Smart-View" and "Next Generation Smart Solution". Below that, it says "Please Register Your Manage Service Platform". There are two main sections: "Login Information" and "User Information". The "Login Information" section has three input fields: "User Name", "Password", and "Confirm Password". The "User Information" section has four input fields: "Name", "Surname", "Email", and "Confirm Email". At the bottom, there is an input field for "Account Number".

Login Information

- **Username field:** Enter username
- **Password:** Enter password
- **Confirm password:** Re-enter the password to confirm you typed it correctly

User Information

- **First name:** Enter your first name
- **Last name:** Enter your last name

- **Email Address:** Enter your email address
- **Account Number:** Enter account number

The image shows a form with three main sections: **Address Information**, **Customer Type**, and **Billing Date**. The **Address Information** section contains input fields for Erf Number, House Number, Street Name, Suburb, Town, and Country. The **Customer Type** section has a dropdown menu currently open, displaying a list of options: -- Select --, Domestic Non Indigent, Domestic Indigent, Schools, Sporting Bodies, Religious Institution, Charities, and Government. A blue arrow points from the dropdown menu to the text below.

Address Information

- **Erf Number:** Enter your Erf number
- **House Number:** Enter your residential house number (Unit Number if you live in a complex or flat)
- **Street Name:** Enter your street name
- **Suburb:** Enter your suburb name
- **Town:** Enter your town name
- **Country:** Enter your country name

Customer Type

- **Drop-down:** Select the customer type from the drop-down

Billing Date


- **Calendar:** Select the date you usually receive your monthly bill.

The records below have been edited and serve primarily as a means of communicating and showing where the user will find certain values, which need to be entered while registering on SmartView. no such account exist and your personal information will not be shared with anyone other than the landlord for customers who live in complexes or town houses.

Page 1 of 2

Civic Centre
 12 Hertzog Boulevard 8001
 PO Box 655 City 8001
 VAT registration number
 430034857

MR. D Moloyi
7 Constantia Road
BELHAR
7578



Tax invoice number 18007508374

Customer VAT registration number

Account number 348003040

Distribution code

Business partner number 200348560

Computer generated tax invoice
 Tel: 086 010 3089 - Fax: 086 010 3090
 Tel: International calls: +27 72 401 2012
 E-mail: accounts@city.gov.za
 Correspondence: Director: Revenue, PO BOX 655, city 8001
 Web address: www.city.gov.za

Account summary as at 12/10/2017		Due date 06/11/2017
At 7 Constantia Road, Belhar/ Erf 37929		
Previous account balance		805.16
Less payments (17/09/2017)	Thank You	436.90-
Arrears (a)	Payable immediately	368.26
Latest account - see overleaf		370.32
Current amount due (b)	Payable by 06/11/2017	370.32
	Total (a) + (b)	738.58
Total (a) + (b) above	738.58	
Total liability	738.58	

The Street address can be located here

E.g. Street Number: 7

The ERF and street name can be located here on your bill

Erf:37929

I Am Not A Robot

76wxu

Verification

Term & Conditions!

I have read and accept the terms

REGISTER

I AM NOT A ROBOT

- **Verification:** Enter the number displayed in the box
- **Register:** click Register to complete and submit the registration process you will then receive an email with further instructions to complete registration.

Additional Information

- **Account Management:** this is where the user will update their respective information. This is completed before the user can proceed with creating a section, adding a tariff and adding a meter.
- **Billing:** the billing portion consists of two sections. 1. Main Invoice, 2. Individual Billing Management.
 - a. **Main invoice** will give you a reported bill based on your consumption on both water and electricity the portion will highlight the reading on the billing date, Last Reading and Units used. Further displaying the tariffs, which, are used to generate your bill with included Tax payment.
 - b. **Individual Billing** will give you a reported bill based on your consumption on Individual meters both for water and electricity the portion will highlight the reading on the billing date, Last Reading and Units used. Further displaying the tariffs, which, are used to generate your bill with included Tax payment for individual meters.
- **Section Management:** a user can create different section which, have a meter allocated to.
- **Meter Management:** Users can add multiple meters and assign them to a section.
- **Meter Readings Management:** meter readings management provide the user with the capability to update a reading for any respective date. The reading entered should either be equal or greater than the previous day's reading.
- **Maps:** this indicates geographic placement of the meter.
- **Water Tariff Management:** Here the user will add their respective tariff consisting of water usage limit and rate as assigned by the municipality.
- **Electricity Tariff Management:** here the user will add their respective KWh, KVA and KvaR tariffs, as assigned by the municipality.
- **Add Water Reading, Add Electricity Reading:** This section is designed for the user to enter readings on a daily basis. Unless the user has, a IOT Device. Users who choose not to purchase a IOT Device may add their readings manually. Without adding sufficient readings, the user will not be guaranteed receiving accurate results for estimated month end, daily average, and the amount they are consuming in rands for each section.

The following steps should be considered when you first login to Smart-View and add your data for the first time.

✓ Update your Account information

The user needs to provide full account details and may switch between water electricity or water and electricity dependent on their preferred selection. For a main user who has Sub-Accounts (preferably a property owner with tenants), they add and view sub-accounts on their account page.

Property owners who want to monitor consumption levels of their tenant are responsible for setting Water and Electricity Tariffs as well as assigning meters to their tenants. Sub – Accounts are well utilized for Businesses who are renting a portion of their property to either a partner firm or a company renting office space.

Users may update their username, change their passwords, and set their billing date amongst many other features provided under Account Management.

Account information such as water, electricity, carbon emission Limit, carbon factor, base and penalty are updated on the User Account profile. This action needs to take place before the user can proceed with any other section.

✓ **Billing:**

Main Invoice: The main invoice portion of the billing section is an invoice which, provides the user with accurate readings based on their current amount they are due to pay from the last billing date to the current day. As a user continues to enter readings towards the next billing date the invoice is a great tool to have as the user has a better view of how much they are already set to pay before the billing date.

Individual Billing Management: The individual billing management portion of the billing section is an invoice which, provides the user with accurate readings based on their current amount they are due to pay from the last billing date to the current day, for individual water and electricity meters. This is a smarter way to keep track of meters assigned to a section, which consumes the most on a daily, weekly and monthly basis. As a user continues to enter readings towards the next billing, date the invoice is a great tool to have as the user has a better view of how much they are already set to pay before the billing date. This could help the user monitor an individual section more often and find means of consuming less per section.

✓ **Section Management**

On section management, the user will add the different sections where the meters are located. An example of a section would be if there is an outside cottage in a home, with an electricity supplied by its own dedicated meter the user may then update the Sections to Home and a Main Sub Section to Cottage to be able to monitor both usages separately.

A user can have multiple meters assigned to one of the three section divisions. The section are as follows

Main – Section:

Main Sub –Section:

Sub – Section:

Users may create as many sections as they desire, and have different meters assigned to each section. If a user selects an incorrect division for their subsection, they may always click on the ID on the Section Management table and make changes. **Under Usage Management** the user has tables (Bar Graphs) representing each Division, these graphs are a smart tool for the user to have, due to the capability of the user being able to identify which division is consuming the most, be it water or electricity.

✓ **Update Water and Electricity Tariff Management**

You must enter the rates before adding a meter.

✓ **Update Meter Management**

Once Tariff rates are set, a meter may be added, and assigned to a section. Calculation of the meter reading will be based on the tariff rates the user has set.

✓ **Add Water reading**

- A user will enter daily readings for any respective meter and select a reading date for the assigned meter.
- The reading date has to be the current date. Meter readings cannot be less than the previous date.

✓ **Add Electricity reading**


- A user will enter daily readings for any respective meter and select a reading date for the assigned meter.
- The reading date has to be the current date. Meter readings cannot be less than the previous date.

✓ **Meter Readings Management**

- If a reading for a certain date needs to be updated the user can do so editing the meter reading this will change the figure and calculations will take place, updating the amounts for each respective section.

Account Management

Smart-View



Demo Account

MAIN NAVIGATION

- Home
- Usage Management
- Account Management
- Billing
- Section Management
- Meter Management
- Meter Readings Management
- Maps
- Water Tariff Management
- Electricity Tariff Management
- Add Water Reading
- Add Electricity Reading



On the Left panel click on Account Management. Select Account and the screen below will appear.

Account

Account Data

Account

Copy CSV Excel PDF Print Search:

ID	Name	Surname	Account Number	End Of Billing Day	Customer Type	Penalty	Base	Erf	Service Street Number	Service Street Name	Suburb	Town	Country
10	Demo	Account	7494639	16	Government	1.000	1.000	38362	The Atrium on 5th	5th Street	Sandton	Johannesburg	SA

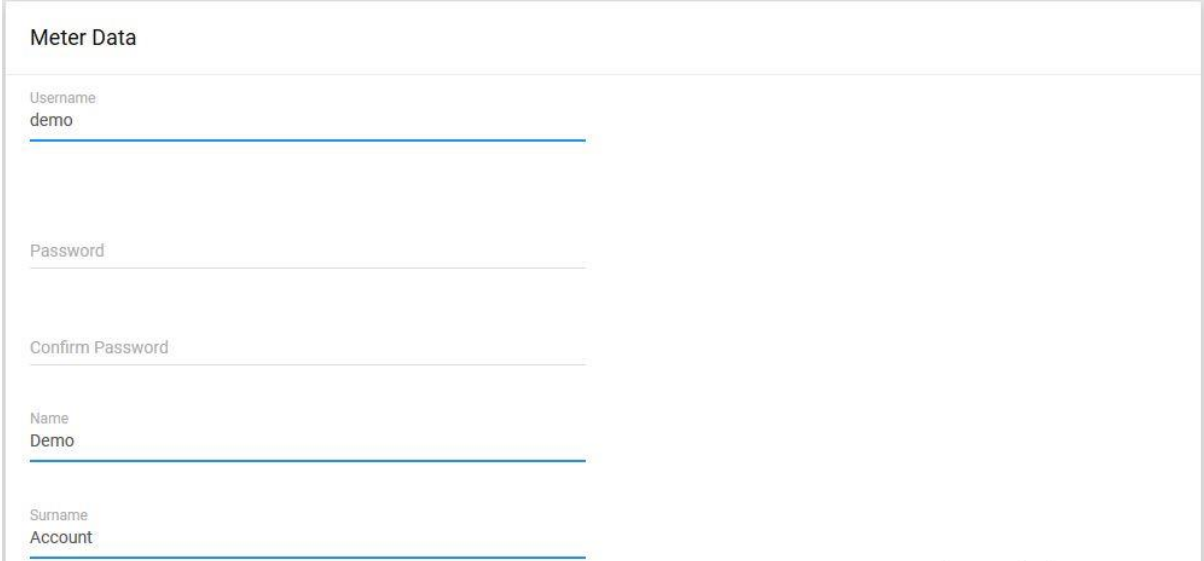
Showing 1 to 1 of 1 entries

Previous 1 Next

- Account information is saved during the registration process, and may be updated on the platform once the user has signed in. The main Account holder can add subaccounts, for instance if the Landlord overseeing a complex would like to monitor the tenants' utility usage, the Landlord can create Main Sub-sections for meters that are assigned to electricity (yard lights) and water (commune pool, sprinklers), meters utilized by everyone in the complex. After creating main Sub-sections, the Landlord can then create Sub-section for all tenants

within the complex monitoring their usage respectively. The user can do this by navigating to sections and create different sections where meters are assigned.

- User information can be updated and edited at any given time by clicking on ID.

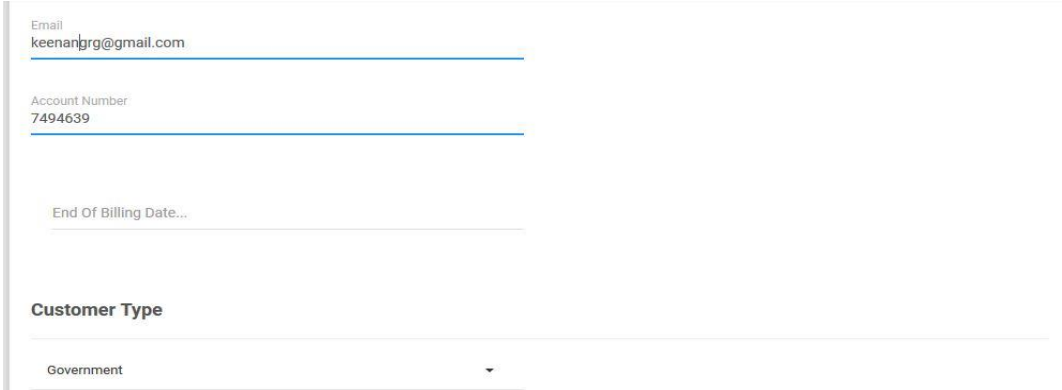


The screenshot shows a form titled "Meter Data" with the following fields:

- Username:** demo
- Password:** (empty)
- Confirm Password:** (empty)
- Name:** Demo
- Surname:** Account

The following fields may be updated on the Account Management page.

- **Username:** your personal username which you use to login to the platform
- **Password:** user's personal password
- **Name:** user's actual name
- **Surname:** user's actual surname



The screenshot shows an "Account Management" form with the following fields:

- Email:** keenanrg@gmail.com
- Account Number:** 7494639
- End Of Billing Date:** (empty)
- Customer Type:** Government

- **Email:** Enter your Email Address
- **Account Number:** users water and electricity account number
- **End of billing Date:** billing date (when is the user due to pay the bill each month)

- **Customer Type:** category in which user belongs to.

Service Types

Water & Electricity

Water Usage Limit Numbers only Min. Value: 1

Electricity Usage Limit Numbers only Min. Value: 1

Carbon Emission Limit Numbers only Min. Value: 1

Carbon Factor Numbers only Min. Value: 1

Base Numbers only Min. Value: 1

Penalty Numbers only Min. Value: 1

... Numbers only Min. Value: 1

- **Service Types:** The user selects type(s) of services they would like to monitor. The user can select Water, Electricity or both Water and Electricity.
- **Water Usage Limit:** the set limit for the household
- **Electricity Usage Limit:** the set limit for the household
- **Carbon Emission Limit:** legal requirements governing air pollutants released into the atmosphere. Emission standards set quantitative limits on the permissible amount of specific air pollutants that may be released from specific sources over specific timeframes
- **Carbon Factor:** The Carbon Factor is used to calculate equivalent CO2 emissions for each fuel energy use.
- **Base:** The value used when calculating carbon emission usually set by local authority.
- **Penalty:** how much the user will be charged if they exceed their limit

Erf
38362

Service Street Number
The Atrium on 5th

Service Street Name
5th Street

Suburb
Sandton

Town
Johannesburg

Country
SA

Numbers only Min. Value: 1

- **Erf:** Plot number.
- **Service Street Number:** your street number.
- **Service Street Name:** your street name.
- **Suburb:** the suburb in which you stay.
- **Town:** the town in which you live.
- **Country:** the country you are currently in.
- **Submit:** once the user has filled in the necessary account information they may click the submit button.

Account statements can be exported into different file formats, i.e. PDF, Excel spreadsheets, and CSV. Statement may also be printed.

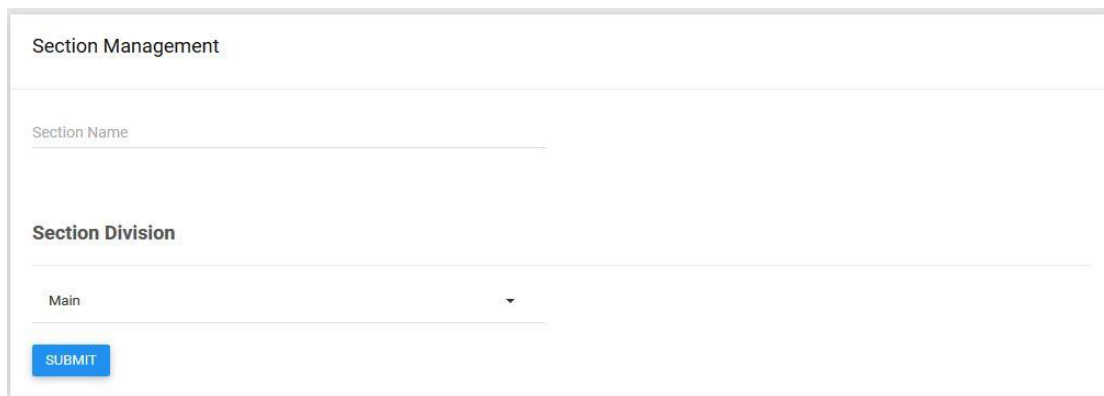
Section Management

Sections management provides the user an opportunity to create various section where meters are assigned and supplying either water or electricity. The amount of sections a user can add are endless, readings and calculations are done according to the section a user assigns a meter to. However, the user needs to specify the Section's Division.

Main – Section (e.g. may be a Building)

Main Sub –Section (e.g. may be a division within the building)

Sub – Section (e.g. may be a specific office within a building's division)




The screenshot shows a web form titled "Section Management". It contains two input fields: "Section Name" and "Section Division". The "Section Division" field is a dropdown menu currently showing "Main". Below the fields is a blue "SUBMIT" button.

When creating a section, a user needs to do the following:

- **Section Name:** specify the section name
- **Section Division:** assign a Section division to the specified name if the section Name is Main-House and the meter is assigned to supply water or electricity to the main house then the user will select Main on Section Division.
- **Submit:** upon submitting, a user will be taken to the Section Management page where they will see all sections, which, have been created.

Water Tariff Management

Smart-View



Demo Account

MAIN NAVIGATION

- Home
- Usage Management +
- Account Management +
- Billing +
- Section Management +
- Meter Management +
- Meter Readings Management +
- Maps +
- Water Tariff Management**
- Electricity Tariff Management +
- + Add Water Reading +
- + Add Electricity Reading +

On the Left, panel click on Water Tariff Management. Select Water Tariff and the screen below will appear.

Water Tariff Management

Water Tariff Data

DATA Add Tariff

Copy CSV Excel PDF Print Search: _____

ID	Usage Limit	Rate
5	35.000	2.000
ID	Usage Limit	Rate

Showing 1 to 1 of 1 entries

Previous **1** Next

Tariff Data

Usage Limit Numbers only

Rate Numbers only

User will add the Usage limit in Litres and the rate applied to the Usage limit; Example 35 litres (Usage Limit) @ R2 (RATE).

User may click submit to save changes.

By clicking on the ID number, a user can edit a pre-existing tariff.

Water Tariff Data

DATA ⋮


Search:

ID	Usage Limit	Rate
5	35,000	2,000
ID	Usage Limit	Rate

Showing 1 to 1 of 1 entries

Previous Next

Water Tariff Data

DATA Add Tariff 

[Copy](#) [CSV](#) [Excel](#) [PDF](#) [Print](#) Search: _____

ID	Usage Limit	Rate
5	35.000	2.000
ID	Usage Limit	Rate

Showing 1 to 1 of 1 entries


[Previous](#) [1](#) [Next](#)



User will have to set a Usage limit and a rate upon entering both figures the user can proceed to submit and will return to the Water Tariff Data table where they can choose to add additional tariffs or edit pre-existing ones. As seen below,

Electricity Tariff Management

Smart-View



Demo Account

MAIN NAVIGATION

- Home
- Usage Management +
- Account Management +
- Billing +
- Section Management +
- Meter Management +
- Meter Readings Management +
- Maps +
- Water Tariff Management +
- Electricity Tariff Management** ←
- + Add Water Reading +
- + Add Electricity Reading +

On the Left, panel click on Electricity Tariff Management. Select Electricity Tariff and the screen below will appear.

Electricity Tariff Data

Tariffs Add Tariff

Copy CSV Excel PDF Print Search:

ID	Tariff Name	Factor	Rate	Base
10	Tariff1	kWh	2.50	20.000
11	Tariff2	kVaR	3.50	15.000
12	Tariff3	kVA	4.50	10.000
ID	Tariff Name	Factor	Rate	Base

Showing 1 to 3 of 3 entries

Previous **1** Next

Electricity Tariff Data

Electricity Factor

Tariff Name

kVaR

Rate Numbers only

Base Numbers only

SUBMIT

User will add the Tariff Name the Electricity Factor whether it is kVaR, kWh or KVA then set a rate and a base.

Because the kWh is the amount used to calculate the amount of electricity consumed users will only be able to add the kWh amount once and assign a rate to it, user will however be able to update the kWh rate and amount at any given stage.

User may click submit to save changes.

Electricity Tariff Data

Tariffs

Copy CSV Excel PDF Print Search:

ID	Tariff Name	Factor	Rate	Base
10	Tariff1	kWh	2.50	20.000
11	Tariff2	kVaR	3.50	15.000
12	Tariff3	kVA	4.50	10.000
ID	Tariff Name	Factor	Rate	Base

Showing 1 to 3 of 3 entries

Previous **1** Next

By clicking on the ID number, a user can edit a pre-existing tariff.

Meter Management

By clicking on the three dots on the top right corner as indicated by the blue arrow pointing downwards, a user will be able to add water meters. Respectively the user will do the same for electricity.

- Once Tariff rates have been set for either water or electricity. The user can proceed to add a meter and assigning the meter to a section.



Meter Data

Water Meters Add Water Meter ⋮

Copy CSV Excel PDF Print Search: _____

Device Number	Device Manufacture	Meter Number	Section	User
3749D0	ASM LXH	SN170995684	Main	Demo
7D478E	Kamstrup	57443785	Main	Demo

Showing 1 to 2 of 2 entries

Previous **1** Next

Meter Data

IOT Device ID

Device ID _____

Meter Number _____

Pulse/Litre _____ Numbers only

Assign Section

Main-Praxis Office 1 _____

Meter Manufacture

ASM LXH - SA1508 20mm _____

Sub Account

Demo - Account _____

SUBMIT

Adding a Water Meter

- ✓ When a user adds a new meter, the following steps need to be taken into consideration.
- **IOT Device ID:** If the user is an owner of an IOT device, the user must enter the Device ID. In addition, an IOT device can be fitted onto the meter and sends data from the meter to the smart-view server. This updates meter readings automatically. IOT devices ID may only be entered once as they are assigned to individual meter. Device ID below highlighted in yellow.



- **Meter Number:** the user will enter the Meter serial number.
- **Pulse/Litre :** this is dependent on the number of pulses the meter output per Litre.
- **Section:** the user will assign the meter to its respective section.
- **Meter Manufacturer:** the user will select the meter manufacturer from the drop-down list.
- **Sub Account:** if a user only has a main account the sub-account section will be set to the main user, however if a main user has multiple sub-accounts the user can assign meters to relevant individuals.



Electricity Meters

Add Electricity Meter

Copy CSV Excel PDF Print Search: _____

Device Number	Device Manufacture	Meter Number	Section	User
14298810991	Kamstrup	7A39C3	Main	Demo

Showing 1 to 1 of 1 entries

Previous **1** Next

Meter Data

IOT Device ID

Device ID _____

Meter Number _____

Pulse/kWh _____ Numbers only

Section

Main-Praxis Office 1 .

Tariff kWh

Tariff1 Rate- 2.50 .

Tariff kVA

Tariff3 Rate- 4.50 .

Tariff kVArh

Tariff2 Rate- 3.50 .

Meter Manufacture

ASM LXH - SA1508 20mm .

Sub Account

Demo - Account .

SUBMIT

Adding an Electricity Meter

- ✓ When a user adds a new meter, the following steps need to be taken into consideration.
- **IOT Device ID:** If the user is an owner of an IOT device, the user must enter the Device ID. In addition, IOT device is a pickup, which is plugged onto the meter and sends data from the meter to the smart-view server. This updates meter readings automatically. IOT devices ID may only be, entered once as they are assigned to individual meters. Device ID below highlighted in yellow.



- **Meter Number:** the user will enter the Meter serial number.
- **Pulse/kWh:** this is dependent on the number of pulses the meter output per kWh.
- **Section:** The user will assign the meter to its respective section.
- **Tariff kWh:** this is the actual tariff which, will be taken into account when calculations are made. Normally set by the local area authority.
- **Tariff kVA:** this is reactive power rate.
- **Tariff kVArh:** this is the apparent power rate.
- **Meter Manufacturer:** the user will select the meter manufacturer from the drop-down list.
- **Sub Account:** if a user only has a main account the sub-account section will be set to the main user, however if a main user has multiple sub-accounts the user can assign meters to responsible party then click Submit.

User can update their water and electricity meters by clicking on the device numbers, if a user desires to change the section the meter is assigned to, the meter number the device number or device manufacturer the user may do so at any given moment.

The user may export the data on each table in the following formats. CSV Excel PDF or even print. A search option has been put in place for user who have larger sum of meters, this will help.