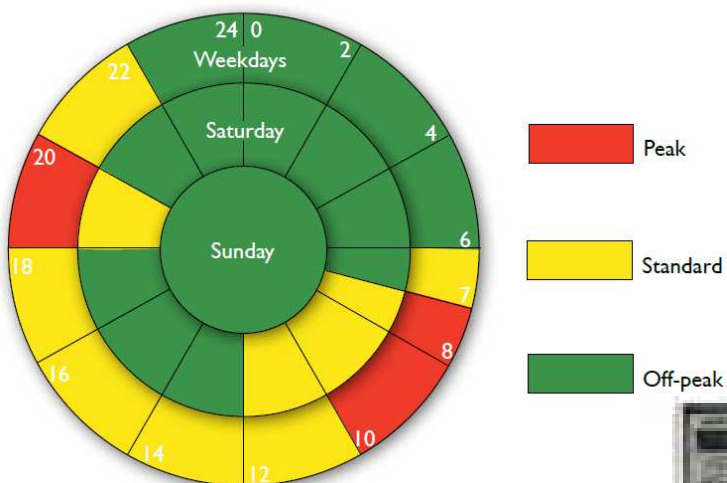


# Course 120

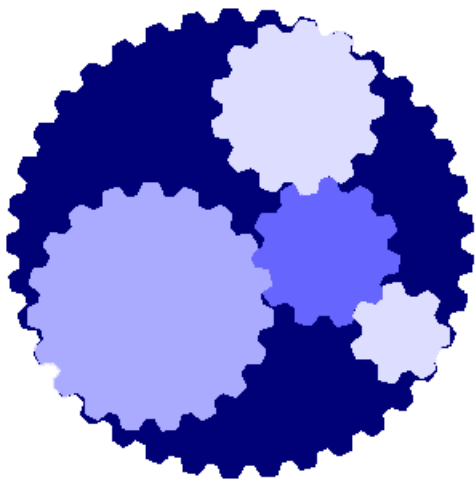
## Accountant Role:

### ***Configuring Tariffs, Time of Use Calendars and Meter Accounts***

**MEGAFLEX** **MINIFLEX** and **RURAFLEX**



# **The NEXT Generation AMR**



***Plug and Play  
Scada***

- **Gives you the power to  
configure your own  
AMR, via an easy to use  
Web interface**

**At SDG Technologies we believe in empowering the customer.**

**This extends to the Tariffs:**

**Plug and Play Scada encapsulates a powerful Tariff Engine that allows the customer to set up any tariff that he needs to, from water, gas to electricity, including Time of Use, Demand, Block Tariffs, and many more.**

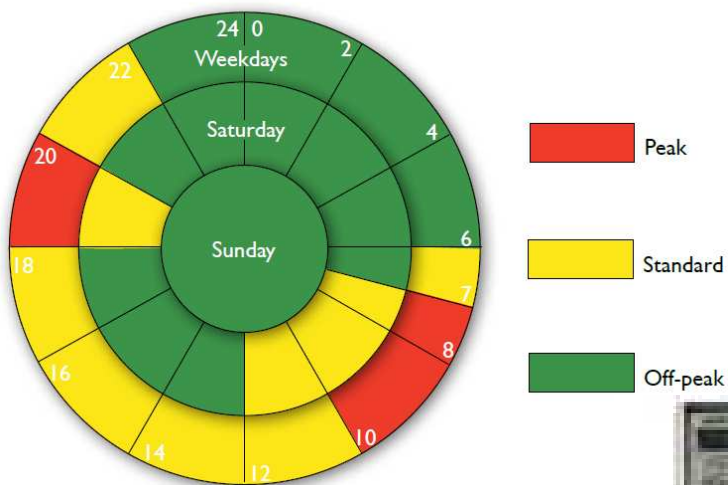
**Plug and Play Scada also supports multiple currencies, Time Zones and Daylight saving modes concurrently on the same server, depending on the customer's situation.**

# Course 120

## Accountant Role:

### ***Configuring Tariffs, Time of Use Calendars and Meter Accounts***

**MEGAFLEX** **MINIFLEX** and **RURAFLEX**



**Once you have done this Course, you should be able to:**

- Add and Configure a Tariff *Entity* on Plug and Play Scada.
- Add and Configure a Time of Use Calendar *Entity* on Plug and Play Scada.
- Create a Meter Account *Entity* on Plug and Play Scada.

# MODULE 1: Adding a Simple Tariff

## *Step 1: Login*



The screenshot shows a Mozilla Firefox browser window with the title "PnPSCADA Login - Mozilla Firefox". The address bar displays "https://set.pnpscada.com". The page features the "Plug and Play Scada" logo, which consists of a blue gear-like icon with a white plug inside. Below the logo, there is a message for new users: "» New users: [Click here](#) to sign up for your free account." A welcome message follows: "Welcome, Please enter your Login Name and Password below." The login form includes two input fields: "Login Name:" and "Password:", each followed by a text box. Below these fields is a "Login" button. A note states: "Note: This site uses Cookies, JavaScript and Popups, and won't function properly without them. If you have them turned off, please turn them on to continue. By logging in to this site you agree to all [terms and conditions](#)." Below the note, it says: "If you have lost your password, click [here](#)." In the bottom right corner, there is a "SECURED" badge with a globe icon and the text "CLICK TO VERIFY". The status bar at the bottom shows "Connecting to set-l.pnpscada.com..." and a lock icon.

**PnPSCADA Login**

**Plug and Play Scada**

» New users: [Click here](#) to sign up for your free account.

Welcome, Please enter your Login Name and Password below.

Login Name:

Password:

Login

Note: This site uses Cookies, JavaScript and Popups, and won't function properly without them. If you have them turned off, please turn them on to continue. By logging in to this site you agree to all [terms and conditions](#).

If you have lost your password, click [here](#).

SECURED

Connecting to set-l.pnpscada.com...

- To start adding *Entities* on the system, the first step is to log in:
- Go to the log in page at: **set.pnpscada.com** (our training server)
- If you do not already have an account, press the link at the top where it says:

» **New users:** [Click here](#) to sign up for your free account.

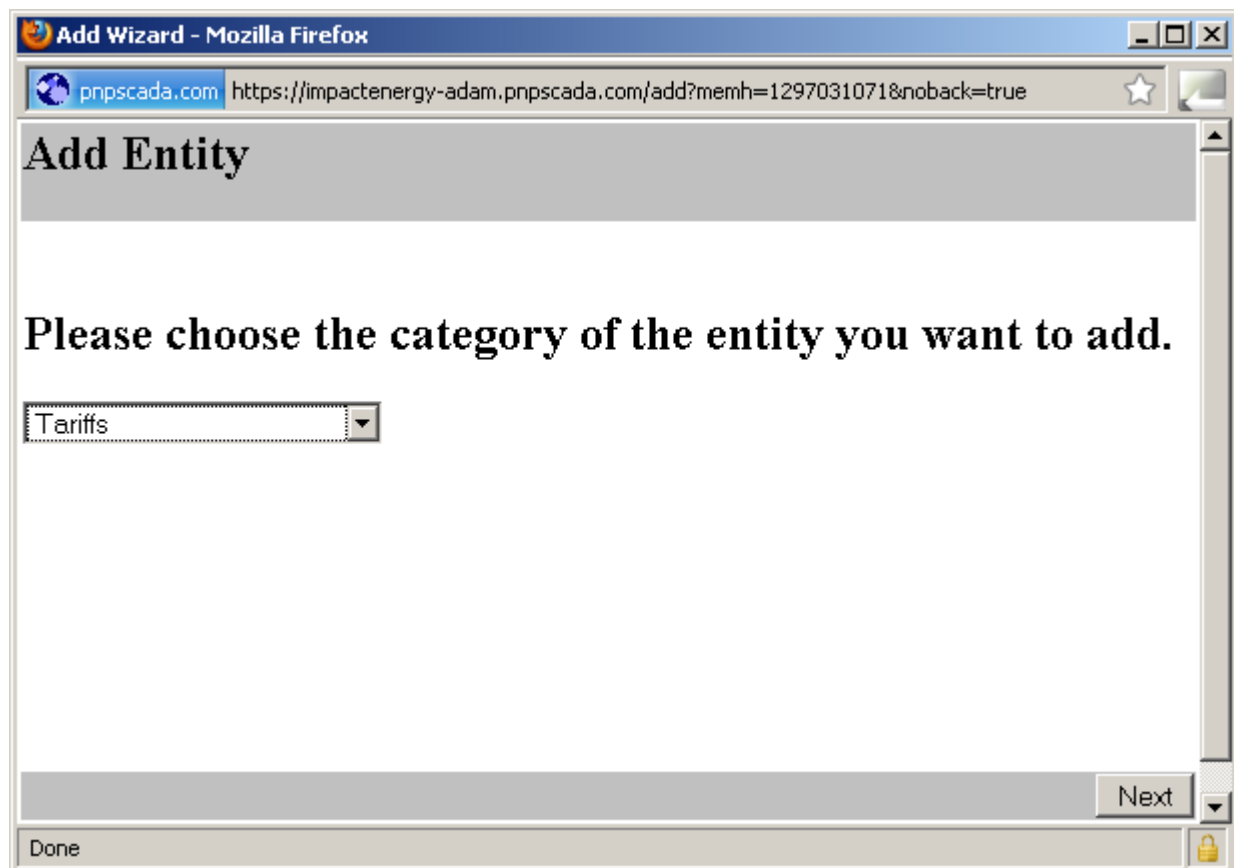
## ***Step 2: Add New***





- The basic building blocks in Plug and Play Scada are called *Entities*.
- An *Entity* can be anything from a Meter to a Login account, a Role, an Organization, a Tariff, a Time Of Use calendar, a Meter Account, etc.
- To add any kind of *Entity* on the system, click the Add New button at the bottom of the overview screen.
- Alternatively, go to the File menu (next to Home), and click on New.

## ***Step 3: Category***



The screenshot shows a web browser window titled "Add Wizard - Mozilla Firefox". The address bar displays the URL "https://impactenergy-adam.pnpscada.com/add?memh=1297031071&noback=true". The page content includes the heading "Add Entity" and the instruction "Please choose the category of the entity you want to add." Below this is a dropdown menu with "Tariffs" selected. A "Next" button is located at the bottom right of the form area. The status bar at the bottom shows "Done" and a lock icon.

**Add Entity**

Please choose the category of the entity you want to add.

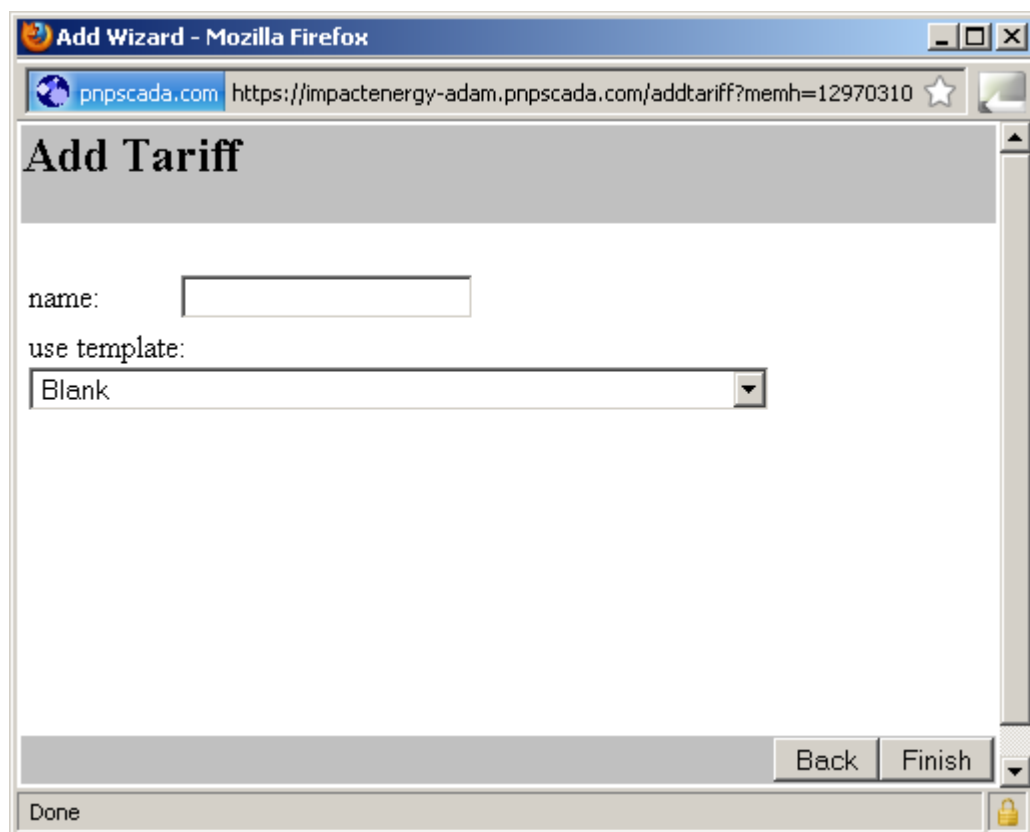
Tariffs

Next

Done

- Select the Category of the *Entity* you want to add:
- In our case it would be Tariffs.
- Push Next.

# ***Step 4: Selecting a Template & Adding the Tariff***



The screenshot shows a Mozilla Firefox browser window titled "Add Wizard - Mozilla Firefox". The address bar displays "pnpscada.com" and the URL "https://impactenergy-adam.pnpscada.com/addtariff?memh=12970310". The page content is titled "Add Tariff". Below the title, there is a form with two fields: "name:" followed by a text input box, and "use template:" followed by a dropdown menu currently showing "Blank". At the bottom of the form area, there are "Back" and "Finish" buttons. The status bar at the very bottom of the browser window shows "Done" and a lock icon.

**Add Tariff**

name:

use template:

Done

- Select the Template of the tariff closest to this one that is available to you on the system under 'use template'
- Enter the Tariff Name next to 'name', for Example 'Business Rate'.
- Push Finish to add the Tariff.

# ***Step 5:***

## ***Select the Tariff under Overview***

**PnPSCADA Overview - Mozilla Firefox**

File Edit View History Bookmarks Tools Help

pnpskada.com https://sdg-adam.pnpkada.com/overview?memh=1297039938

PnPSCADA Overview PnPSCADA Overview mult-e-net san people... Multenet | Ne



# **Plug and Play**

Home File **Edit** View Tools

- meter Totals
- Reallocate Etron/TimeSmart meters
- Meter Account
- Meter Account PCP Baseline
- Meter Details
- Advanced Meter Settings
- Instr. Profile Labels
- Calendar Rate Periods
- Calendar Day Patterns
- Calendar Week Patterns
- Calendar Seasons
- Calendar Holidays
- Calendar Year Pattern
- Tariff Line Items**
- Tariff Line Item Dependencies**
- Tariff Periods**
- Tariff Rates**
- Tariff Details**
- Login Account
- Role

## **Overview**

**Selected Entity**

**Tariffs**

**Tariff**

**ID:432**

**Name: Bloemfontein**

[unselect entity](#)

[remove entity](#)

You are logged on to your account on PnPSCADA

You have [10 other accounts](#) on other pnpkada.com accounts

You have [2 RMS Accumulators](#) on your account

You have [4 Breaker/Connector](#) on your account

You have [14 TOU Calendars](#) on your account

You have [12 Eleton/Supplies](#) on your account

Done

- Select the new Tariff on Overview.
- If you open the Edit menu, you will see a number of Bold options.
- These are the options that should be used, typically in order from top to bottom, to define your tariff further.
- The options are:
  - Tariff Line Items
  - Tariff Line Item Dependencies
  - Tariff Periods
  - Tariff Rates
  - Tariff Details
- Go to Tariff Line Items first:

# Step 6:


## Tariff Line Items

PnPSCADA Tariff: Tariff Items - Mozilla Firefox

File Edit View History Bookmarks Tools Help

pnpscada.com https://sdg-adam.pnpscada.com/tariffItem?memh= moxa

PnPSCADA Tariff: Tariff Items



# Plug and Play Scada

[Home](#) [File](#) [Edit](#) [View](#) [Tools](#) Tariff : Bloemfontein [Help](#) [Inbox](#) [Log-out marinusvz](#)

## Tariff Items, tariff: 432 Bloemfontein

Description	Utility	Tariff Item Type	Units	Time of Use	Graph Color	
Basic	Electricity	Fixed charge	month	n.a.		<a href="#">edit</a> <a href="#">delete</a>
Consumption	Electricity	Consumption (Diff between Meter Totals)	kWh	n.a.		<a href="#">edit</a> <a href="#">delete</a>
Maximum Demand	Electricity	Maximum Demand (non TOU)	kVA	n.a.		<a href="#">edit</a> <a href="#">delete</a>
						<a href="#">add new</a>

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Done



- On this screen you see a list of all the chargeable items on your bill.
- Typical line items include Consumption, Basic Charge, Maximum Demand and Surcharge.
- A line item is every item that is part of a tariff that has its own rate, including percentages.
- To add a new line item, click [add new](#)
- To edit or delete an existing line item, click the [edit](#) or [delete](#) link next to it on the right.
- [add new](#) and [edit](#) both goes to the next screen, which is the Tariff Line Item Edit screen:

# Step 7:

## Tariff Line Item Edit

PnSCADA Tariff: Change Tariff Item - Mozilla Firefox

File Edit View History Bookmarks Tools Help

pnpscada.com https://sdg-adam.pnpscada.com/tariffItemEdit?memh=1297039951&TARIFF

PnSCADA Tariff: Change Tariff Item

Home File Edit View Tools Tariff : Bloemfontein Help Inbox

### Tariff Item, tariff: 432 Bloemfontein

Description: Consumption Utility: Electricity

Tariff Type: Consumption (Diff between Meter Totals)

Taking into account:

Active Energy, Import/Forward (P1): ☒ Active Energy, Export/Reverse (P2): ☐

Reactive Energy, Forward Lagging (Quadrant 1): ☐ Reactive Energy, Forward Leading (Quadrant 4): ☐

Reactive Energy, Reverse Leading (Quadrant 2): ☐ Reactive Energy, Reverse Lagging (Quadrant 3): ☐

Enable Banding on Consumption: ☐

Graph Units: kW Bill Units: kWh

Graph Color

Red:	50	%	<input type="color"/>
Green:	50	%	<input type="color"/>
Blue:	0	%	<input type="color"/>

Cancel Change

Done

- The most important fields in this screen are the three on top:
  - the Description, which is what the item will be called on the Bill;
  - the Utility, which should be Electricity, Water or Gas (the same for all lines);
  - and the Tariff Type, which identifies the Billing Algorithm used for calculating the quantity of this Tariff Line Item.
- Based on the Algorithm chosen, different options will become visible in the screen.
- Some parameters of note are the Graph Color in the bottom left, the Graph unit, and the Bill unit.
- If a Time of Use (TOU) Algorithm has been selected, a Time Of Use selection field will become visible, where you can choose an existing Rate Period and Season as defined in one of your Time Of Use Calender *Entities*. More on that in Module 2 of this Course.
- For an exhaustive and up to date description of all Algorithms, select Help on this screen. Please feel free to Experiment with the Algorithm selector to get a feel for the different tariff types.
- You should use your Billing Authority's Tariff Booklet and carefully configure each line item in your chosen tariff one by one, to the best of your ability, on these screens, before you continue on to the Tariff Line Item Dependencies screen.
- Don't worry at this stage if it isn't exactly right: Later on, when you've configured Meter Accounts, we'll show you how you can check and fix your tariffs against existing bills.

# ***Step 8:***

## ***Tariff Line Item Dependencies***

The screenshot shows a web browser window titled "PnPSCADA Tariff: Tariff Item Dependencies - Mozilla Firefox". The address bar shows the URL "https://sdg-adam.pnpasca.com". The page features the "Plug and Play Scada" logo and navigation links: Home, File, Edit, View, Tools, Tariff: Bloemfontein, Help, Inbox, and Log-out marinusvz. The main heading is "Tariff Line Item Dependencies, tariff: 432 Bloemfontein". Below this, there is a section for "Setting dependencies for:" with a dropdown menu set to "Surcharge". Under "Dependencies:", there are three checkboxes: "Basic" (unchecked), "Consumption" (checked), and "Maximum Demand" (checked). A "Set" button is located below the checkboxes. At the bottom, a copyright notice states "©2008 SDG Technologies cc. All rights strictly reserved. Please review our Terms and Conditions." The browser status bar at the bottom shows "Done".

**PnPSCADA Tariff: Tariff Item Dependencies**

File Edit View History Bookmarks Tools Help

pnpscada.com https://sdg-adam.pnpasca.com

**Plug and Play Scada**

[Home](#) [File](#) [Edit](#) [View](#) [Tools](#) [Tariff : Bloemfontein](#) [Help](#) [Inbox](#) [Log-out marinusvz](#)

### Tariff Line Item Dependencies, tariff: 432 Bloemfontein

Setting dependencies for: Surcharge

Dependencies:

Basic ☐

Consumption ☒

Maximum Demand ☒

Set

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Done

- To set the dependencies for a particular line item, select it on the drop down list, and check the boxes of the line items it depends on.
- If the ordering of your line items is important to you, make items lower on the list dependent on line items higher on the list.
- Additionally, Surcharges and Discounts are normally calculated on some line items, excluding other line items, for example, the Voltage Surcharge is typically only levied on Energy related line items, and not on the Basic Charge:  
A Surcharge should be set up to only have dependencies on the line item according to which the percentage is calculated.
- Press the Set button to commit your settings.

# ***Step 9:***

## ***Tariff Periods***


The screenshot shows a web browser window titled "PnPSCADA Tariff: Tariff Periods - Mozilla Firefox". The address bar shows the URL "https://sdg-adam.pnpscada.ci". The page header includes a logo with four interlocking gears and the text "Plug and Play Scada". Navigation links include "Home", "File", "Edit", "View", "Tools", "Tariff : Bloemfontein", "Help", "Inbox", and "Log-out marinusvz". The main content area is titled "Tariff Periods, tariff: 432 Bloemfontein". Below this, it says "Select a Tariff Period:" followed by a list box showing "From: 2010-06-14 To: 2010-06-15". At the bottom, there are input fields for "From:" (2010-06-14) and "To:" (2010-06-15), each with a calendar icon, and three buttons: "Add", "Change", and "Delete". The status bar at the bottom left says "Done".

PnPSCADA Tariff: Tariff Periods - Mozilla Firefox

File Edit View History Bookmarks Tools Help

pnpscada.com https://sdg-adam.pnpscada.ci

PnPSCADA Tariff: Tariff Periods

 **Plug and Play Scada**

[Home](#) [File](#) [Edit](#) [View](#) [Tools](#) [Tariff : Bloemfontein](#) [Help](#) [Inbox](#) [Log-out marinusvz](#)

**Tariff Periods, tariff: 432 Bloemfontein**

Select a Tariff Period:

From: 2010-06-14 To: 2010-06-15

From: 2010-06-14 To: 2010-06-15

Add Change Delete

Done

- You have to add at least one Tariff Period for a Tariff to work.
- Plug and Play Scada allows the historical rates for previous years to be kept on the system.
- Every year when the new Tariff Booklet comes out, you should create a new Tariff Period on this screen, and leave the existing (old) Tariff Periods alone.
- Please note that the 'from' date normally quoted in Tariff Books is from midnight the morning, and the 'to' date quoted is normally until midnight the evening, which in Plug and Play Scada has the syntax of midnight morning the next day.
- 24:00 is an invalid time in Plug and Play Scada.
- So a Period normally quoted: “1 July 2010 to 30 June 2011” are actually put into Plug and Play Scada as “2010-07-01 to 2011-07-01”.
- If you want to change a period, select the Tariff Period in the List first, then edit the From and To, and then press Change.
- Please note that if your tariff is a Time of Use tariff, all its periods needs to fit inside the global start and end of the TOU a Calendar/s it depends on.
- Tariff Periods cannot overlap, and must be exactly consecutive.
- When you're done on this screen, move on to Tariff Rates:


# ***Step 10:***

## ***Tariff Rates***

**PnPSCADA Tariff: Tariff Rates - Mozilla Firefox**

File Edit View History Bookmarks Tools Help

[PnPSCADA Tariff: Tariff Rates](#) [https://sdg-adam.pnpscar](#) [moxa](#)

 **Plug and Play Scada**

[Home](#) [File](#) [Edit](#) [View](#) [Tools](#) [Tariff : Bloemfontein](#) [Help](#) [Inbox](#) [Log-out marinusvz](#)

### Tariff Rates, tariff: 432 Bloemfontein

Tariff Item:	2009-07-01 to 2010-07-01	2010-07-01 to 2011-07-01
Basic	R 200	R 250
Consumption	R 0.13	R 0.27
Maximum Demand	R 1.5	R 2.3
Surcharge	2 %	0 %

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Done



- This is where you define how much things cost:
- On the Tariff Rates screen you set up Price per Unit for each Tariff Line Item for each Tariff Period.
- The price will be in your Tariff currency, for example ZAR (Rands).
- Please be careful for tariffs that are defined in your Tariff Book in cents. Remember that the Rates field on Plug and Play Scada takes Rands, so you have to divide the cent price by 100 to get the Rands price.
- Surcharge and Discount 'rates' are defined as percentages.
- Press the Set button to commit your settings.
- Almost done. Lets move to Tariff Details:

# ***Step 11:***

## ***Tariff Details***

PnPSCADA Tariff - Mozilla Firefox

File Edit View History Bookmarks Tools Help

pnpscada.com https://sdg-adam.pnpscada.com/tariffG

PnPSCADA Tariff

# Plug and Play Scada

Home File Edit View Tools Tariff : Bloemfontein Help Inbox Log-out marinusvz

## Tariff 432 Bloemfontein

Tariff Name: Bloemfontein

**Internationalization Settings:**

Currency Symbol: R

Currency Symbol Alignment: ☒ Preceding Amount ☐ Appended to Amount

Tax Type: VAT

Tax Percentage: 14

Change

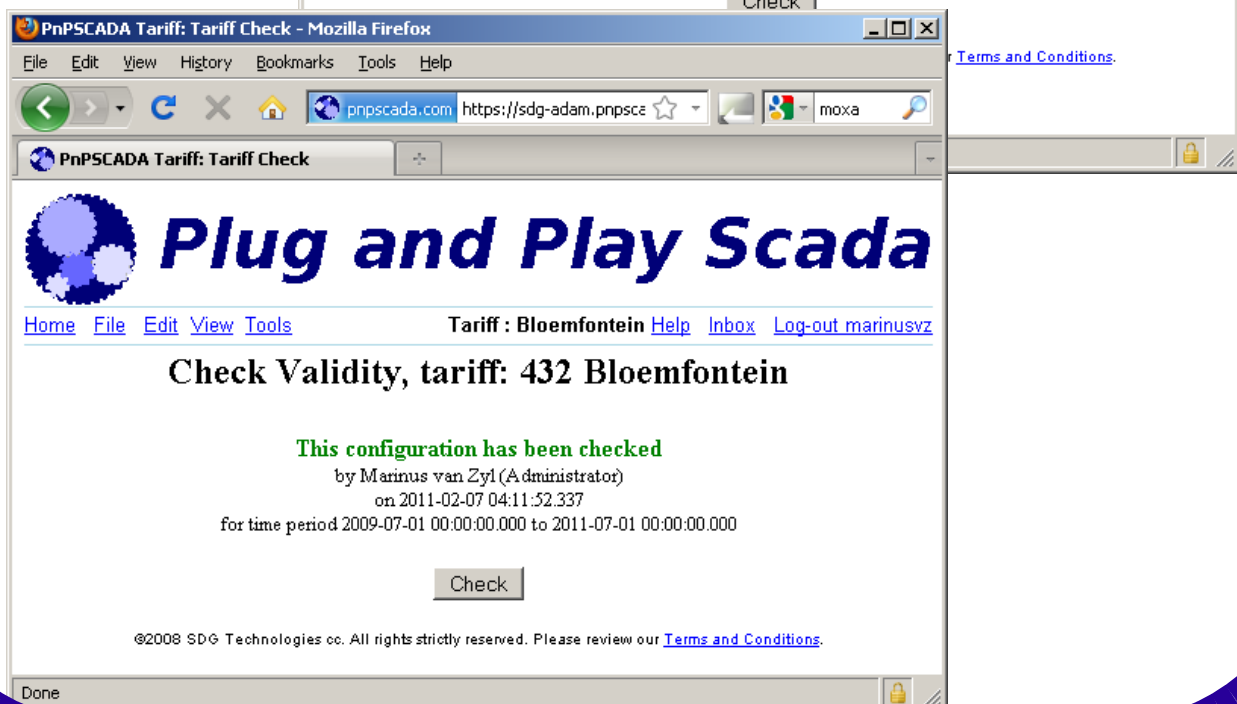
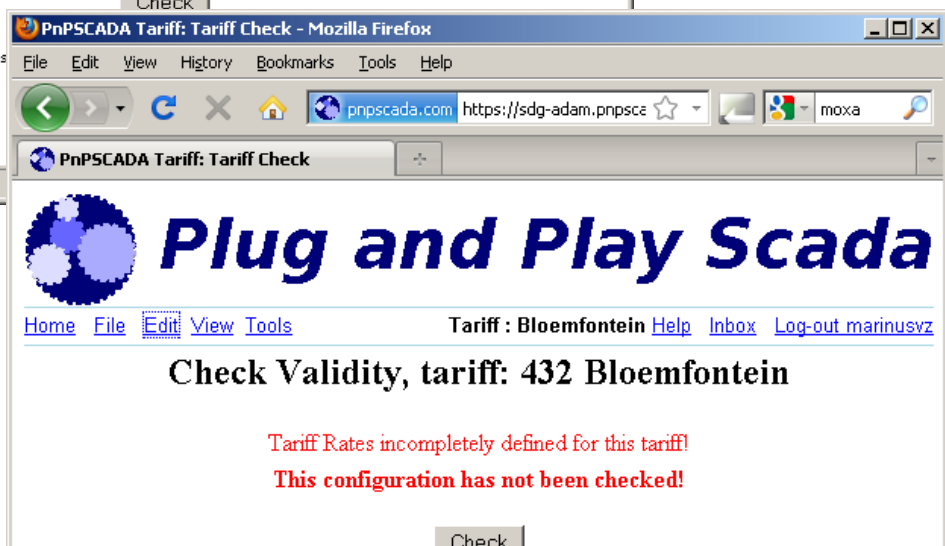
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Done

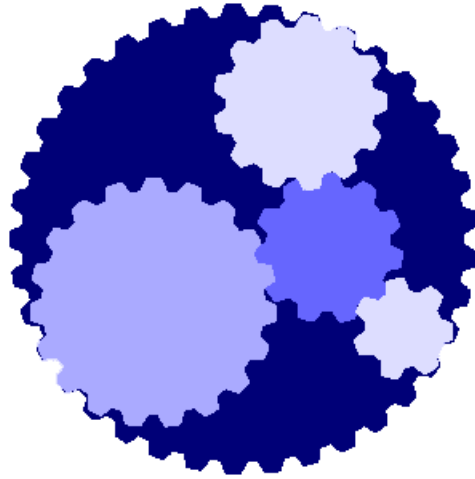
- On this page you can change your Tariff name.
  - And also change your Internationalization Settings:
  - You can set your Currency Symbol. Special Characters like the English Pound sign ( £ ) or the Japanese Yen is also supported.
  - Does the currency symbol precede or follow the amount?
  - Specify your tax percentage, and abbreviation.
- 
- All that remains now, is for the Tariff to be checked:  
next go to Tools->Check Tariff Validity:

# Step 12:

## Check Tariff Validity



- If you believe you're done with the Tariff Setup, come to this page and press the Check button.
- If the System detect any fault with your Tariff setup, it will fail the Check, and report where the problem lies. Go and fix it, and then come back and try to Check again.
- If your Tariff is not checked, various functionalities throughout the Billing system may give warnings or work incorrectly.
- Always Check your Tariffs when you're done, until no errors are reported.
- Once the tariff is checked, your name and the date when you Checked the Tariff will be recorded.
- This enables you to re-assure clients that you know where the problem is and that you addressed it, in the (un)likely event that some inconsistency crept into the configuration of the tariff! In South Africa, where we have some of the world's most complex tariffs, this happens more than one would care to admit. It also often happens that a utility actually charges slightly differently than what their tariff booklet stipulates.
- Recording a Name and a Date next to the Tariff Check allows your organization to stay in control and to stay accountable.
- If anything is changed in the Tariff setup after being Checked, it will automatically be invalidated again, and it will have to be re-Checked.



# Exercise

# Module 1

## **Exercise:**

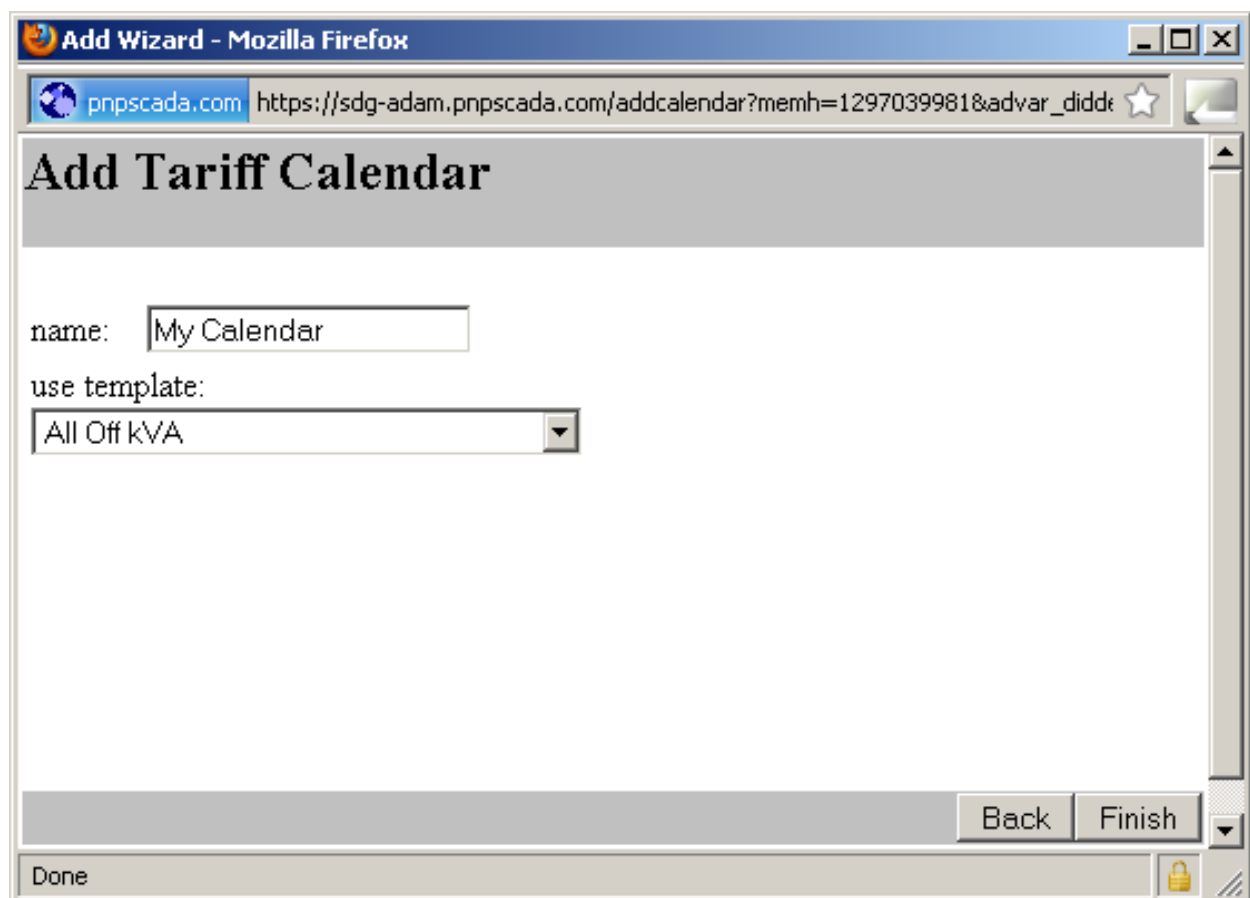
Add the most basic tariff in your Tariff Book to your account in Plug and Play Scada.

If you have Seasonal differences in charges, first complete Module 2's Exercise (where you set up a Calendar), and then come back to this Exercise.

Call the Lecturer if you have any questions, and when you're done.

# **MODULE 2: Adding a Time of Use Calendar**

## ***Step 1: Adding the Calendar***



The screenshot shows a web browser window titled "Add Wizard - Mozilla Firefox". The address bar displays the URL: [https://sdg-adam.pnpscada.com/addcalendar?memh=1297039981&advar\\_diddk](https://sdg-adam.pnpscada.com/addcalendar?memh=1297039981&advar_diddk). The page title is "Add Tariff Calendar".

The form contains the following fields:

- name:** A text input field containing "My Calendar".
- use template:** A dropdown menu with "All Off kVA" selected.

At the bottom right of the form area, there are two buttons: "Back" and "Finish".

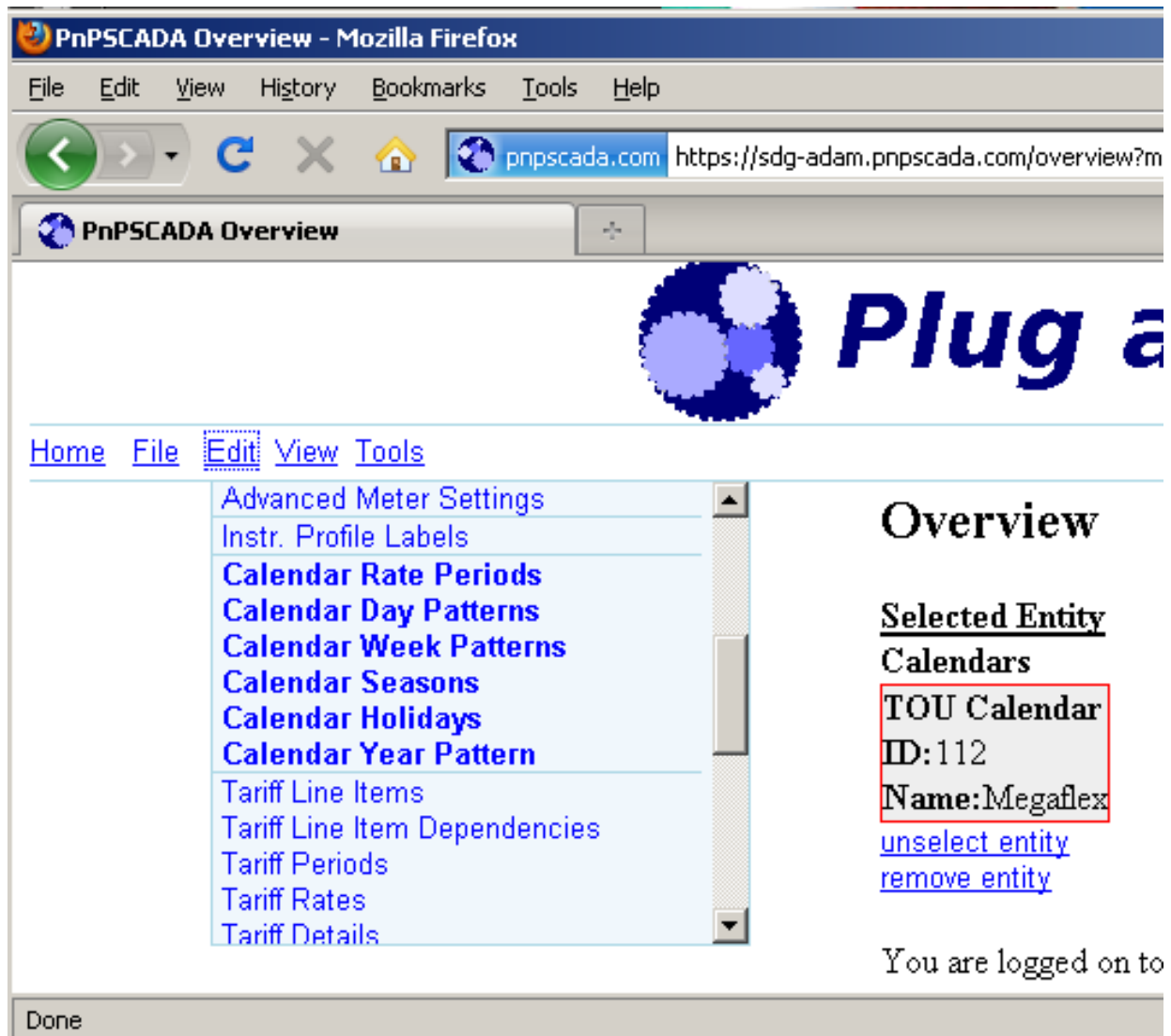
The status bar at the bottom of the browser window shows "Done" and a lock icon.



- Log in to Plug and Play Scada.
- Add a Calendars entity:
- Add a Tariff Calendar, and give it a nice name.
- Choose the closest Calendar available to what you want under 'use template'.
- Push the Finish button to add the Calendar.

## ***Step 2:***

# ***Select the TOU Calendar under Overview***



- Select the new TOU Calendar on Overview.
- If you open the Edit menu, you will see a number of Bold options.
- These are the options that should be used, typically in order from top to bottom, to define your TOU Calendar further.
- The options are:
  - Calendar Rate Periods
  - Calendar Day Patterns
  - Calendar Week Patterns
  - Calendar Seasons
  - Calendar Holidays
  - Calendar Year Pattern
- Go to Calendar Rate Periods first:

# ***Step 3:***

## ***Calendar Rate Periods***


The screenshot shows a web browser window titled "PnPSCADA TOU Calendar: Rate Periods - Mozilla Firefox". The address bar shows the URL "https://sdg-adam.pnpscada.com". The page features a logo with three interlocking gears and the text "Plug and Play Scada". Navigation links include "Home", "File", "Edit", "View", "Tools", "TOU Calendar : Megaflex", "Help", "Inbox", and "Log-out me". The main heading is "Rate Periods, calendar: 112 Megaflex". Below this, there are two input fields: "Rate Period Name:" and "Ordering priority:". To the right of these is a "Select Rate Period:" dropdown menu with options: "2: Off-Peak", "1: Standard", and "0: Peak". At the bottom of the form are three buttons: "Add", "Change", and "Delete". A footer contains the copyright notice "©2008 SDG Technologies co. All rights strictly reserved. Please review our [Terms and Conditions](#)." and a status bar at the very bottom shows "Done".

PnPSCADA TOU Calendar: Rate Periods - Mozilla Firefox

File Edit View History Bookmarks Tools Help

https://sdg-adam.pnpscada.com

PnPSCADA TOU Calendar: Rate Periods

 **Plug and Play Scada**

[Home](#) [File](#) [Edit](#) [View](#) [Tools](#) [TOU Calendar : Megaflex](#) [Help](#) [Inbox](#) [Log-out me](#)

### Rate Periods, calendar: 112 Megaflex

Rate Period Name:

Ordering priority:

Select Rate Period:

- 2: Off-Peak
- 1: Standard
- 0: Peak

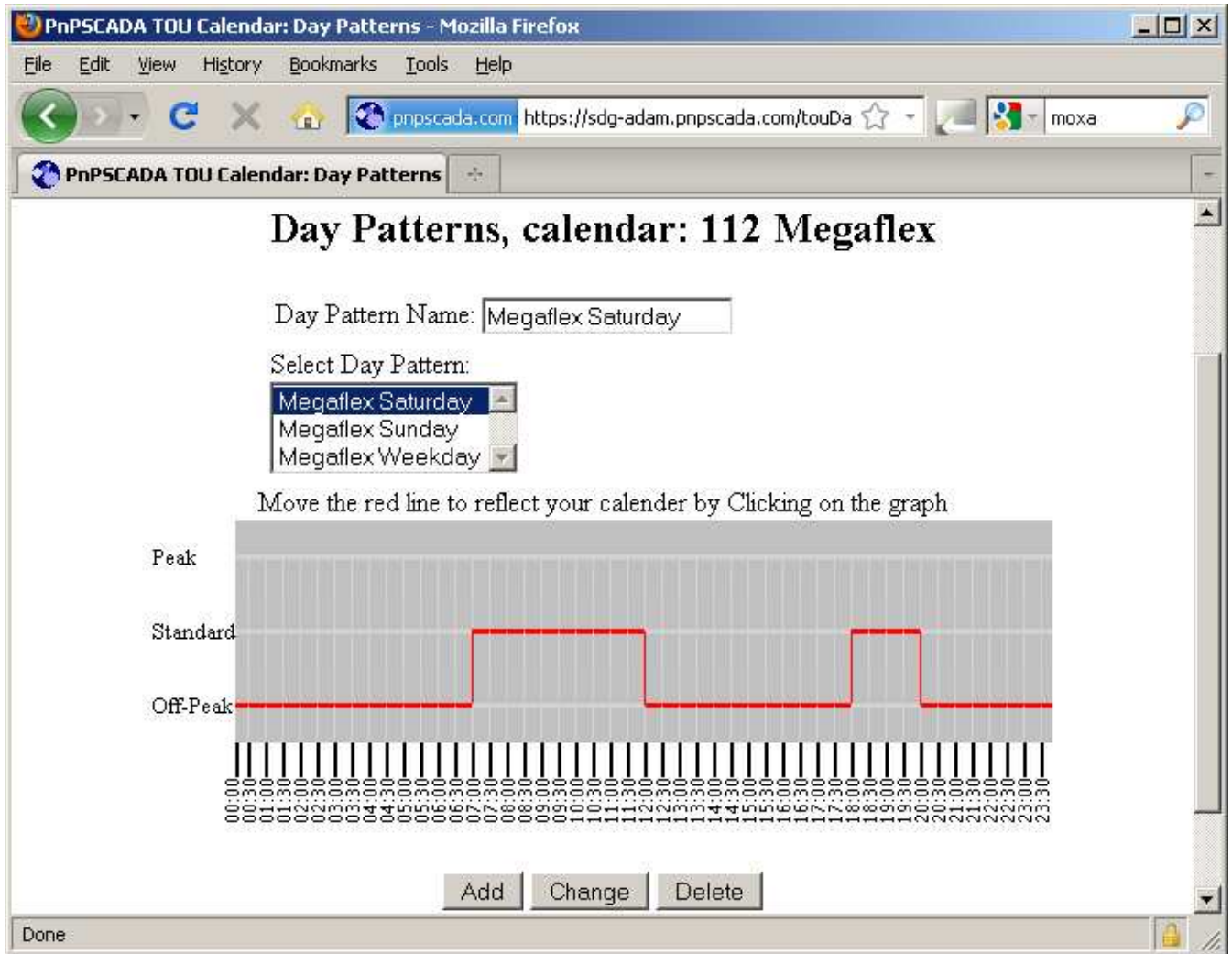
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Done

- Over here, specify the Rate Period Names that applies to your tariff, for example Peak, Standard, Off-Peak; or MD on, MD off.
- If you want to add new Rate Periods, add them here without deleting the old Rate Periods: the current Rate Periods possibly have dependencies in the other Calendar Edit screens that has to be removed first.
- Once you have the Rate Periods you want, go to Calendar Day Patterns:

# ***Step 4:***

## ***Calendar Day Patterns***



- Define the different Day patterns you have in your TOU Calendar.
- For instance, in the TOU Rose for the Megaflex Calendar at the beginning of this Course, you can see it has three week-related tiers: Sunday, Saturday and Week Days.
- To specify which hours on the various days are which Rate Periods, select the Day Pattern Name.
- A Grey field with a red line will be displayed. Drag the red line to the different Rate Period levels for the different times of day with your mouse.
- If you want to commit your changes, you have to press the Change button while the relevant Day Pattern is selected.
- Once again, do not delete old Day Patterns yet, since other Menu items lower down might still have dependencies on the old Day Patterns. Once we've finished configuring the new patterns, we can come back and delete the old records.
- The next screen is Calendar Week Patterns:

# ***Step 5:***

## ***Calendar Week Patterns***

The screenshot shows a web browser window titled "PnPSCADA TOU Calendar: Week Patterns - Mozilla Firefox". The address bar shows the URL "https://sdg-adam.pnps...". The page features a logo with three interlocking gears and the text "Plug and Play Scada". Navigation links include "Home", "File", "Edit", "View", "Tools", "TOU Calendar : Megaflex", "Help", "Inbox", and "Log-out marinusv...". The main heading is "Week Patterns, calendar: 112 Megaflex".

The form contains the following elements:

- Week Pattern Name:** A text input field.
- Select Week Pattern:** A dropdown menu with "Megaflex" selected.
- Select Day Pattern per Week Day:** A table with 7 rows (Sun to Sat) and 2 columns. Each row has a day label and a dropdown menu.
- Buttons:** "Add", "Change", and "Delete".

At the bottom, there is a copyright notice: "©2008 SDG Technologies co. All rights strictly reserved. Please review our [Terms and Conditions](#)."

Select Day Pattern per Week Day:	
Sun	Megaflex Sunday
Mon	Megaflex Sunday
Thue	Megaflex Sunday
Wed	Megaflex Sunday
Thur	Megaflex Sunday
Fri	Megaflex Sunday
Sat	Megaflex Sunday



- Define the different Week patterns you may have in your TOU Calendar.
  - For instance, Megaflex has only one. However, some countries have different Time of Use patterns during summer and winter.
  - Remember to select the Week pattern on the left if you want to view or change a week pattern.
- 
- The next screen is Calendar Seasons:

# ***Step 6:***

## ***Calendar Seasons***

The screenshot shows a web browser window titled "PnPSCADA TOU Calendar: Seasons - Mozilla Firefox". The address bar displays "https://sdg-adam.pnpscada.com/touSe". The page features a logo of interlocking gears and the text "Plug and Play Scada". A navigation bar includes links for "Home", "File", "Edit", "View", "Tools", "TOU Calendar : Megaflex", "Help", "Inbox", and "Log-out marinusvz". The main heading is "Seasons, calendar: 112 Megaflex". Below this, there is a form with a "Season Name:" text input field, a "Select Season:" dropdown menu showing "High Season" and "Low Season", and three buttons: "Add", "Change", and "Delete". A footer contains the copyright notice "©2008 SDG Technologies co. All rights strictly reserved. Please review our [Terms and Conditions](#)." The status bar at the bottom shows "Done" and a lock icon.

PnPSCADA TOU Calendar: Seasons - Mozilla Firefox

File Edit View History Bookmarks Tools Help

pnpscada.com https://sdg-adam.pnpscada.com/touSe

PnPSCADA TOU Calendar: Seasons

 **Plug and Play Scada**

[Home](#) [File](#) [Edit](#) [View](#) [Tools](#) [TOU Calendar : Megaflex](#) [Help](#) [Inbox](#) [Log-out marinusvz](#)

**Seasons, calendar: 112 Megaflex**

Season Name:

Select Season:

High Season  
Low Season

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Done

- Over here, specify the seasons you have per year in your Time of Use Calendar.
- Megaflex, for instance, has a High Season and a Low Season.
- Your TOU Calendar must have at least one Season to function correctly.
- Once again, do not delete a Season yet, since there might be a dependency on it in your Year Pattern. Come back at the end when the old seasons have been removed out of the Year Pattern, and delete the obsolete Seasons then.
- The next screen is: Calendar Holidays!

# ***Step 7:***

## ***Calendar Holidays***

The screenshot shows a web browser window titled "PnPSCADA TOU Calendar: Holidays - Mozilla Firefox". The address bar shows the URL "https://sdg-adam.pnpkada.com/touHo". The page has a menu bar with "Home", "File", "Edit", "View", and "Tools". The main content area is titled "Holidays, calendar: 112 Megaflex". Below this title, there is a form with a "Holiday Name:" label and an empty text input field. Below the input field is a "Select Holiday:" label and a dropdown menu. The dropdown menu is open, showing a list of holiday options: "Heritage Day", "National Womens Day", "Youth Day", "Public Holiday", "Workers day", "Freedom Day", "Family Day", "Good Friday", "Human Rights Day", and "New Years Day". Below the dropdown menu are three buttons: "Add", "Change", and "Delete". At the bottom of the page, there is a copyright notice: "©2008 SDG Technologies cc. All rights strictly reserved. Please review our [Terms and Conditions](#)." The status bar at the bottom of the browser window shows "Done".

PnPSCADA TOU Calendar: Holidays - Mozilla Firefox

File Edit View History Bookmarks Tools Help

pnpskada.com https://sdg-adam.pnpkada.com/touHo

PnPSCADA TOU Calendar: Holidays

Home File Edit View Tools TOU Calendar : Megaflex Help Inbox Log-out marinusvz

### Holidays, calendar: 112 Megaflex

Holiday Name:

Select Holiday:

- Heritage Day
- National Womens Day
- Youth Day
- Public Holiday
- Workers day
- Freedom Day
- Family Day
- Good Friday
- Human Rights Day
- New Years Day

Add Change Delete

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Done

- Over here, specify the Holidays you have per year in your Time of Use Calendar. You only need to enter Holidays that have special day patterns defined in the Year Pattern.
- Next screen: Calendar Year Pattern (almost done)

# Step 8:

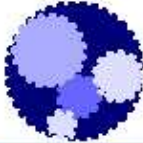
## Calendar Year Pattern

PnPSCADA TOU Calendar: Year Pattern - Mozilla Firefox

File Edit View History Bookmarks Tools Help

pnpscada.com https://sdg-adam.pnpscada.com/touYe. moxa

PnPSCADA TOU Calendar: Year Pattern



# Plug and Play Scada

[Home](#) [File](#) [Edit](#) [View](#) [Tools](#) [TOU Calendar : Megaflex](#) [Help](#) [Inbox](#) [Log-out marinusvz](#)

## Year Pattern, calendar: 112 Megaflex

Year Pattern Name:

Time Zone:  Ignore Daylight Saving? ☒

Season Sequence:

Date (MM-DD)	Season	Week Pattern	
06-01	High Season	Megaflex	Delete
09-01	Low Season	Megaflex	Delete
...	High Season	Megaflex	ADD

Exception Days:

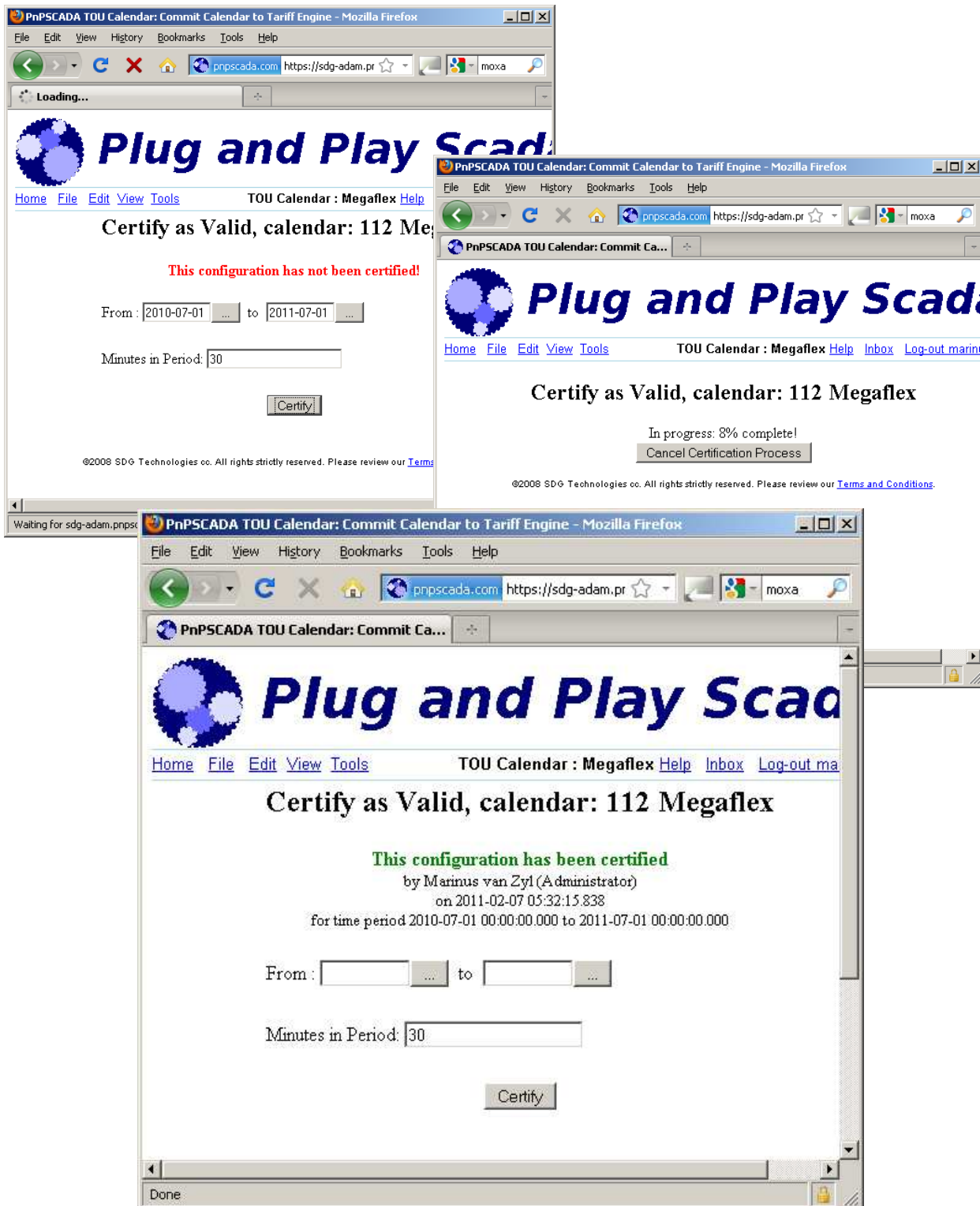
Date (YYYY-MM-DD)	Holiday	Day Pattern	
2005-01-01	New Years Day	Megaflex Sunday	Delete
2005-03-21	Human Rights Day	Megaflex Saturday	Delete
2005-03-25	Good Friday	Megaflex Sunday	Delete
2005-03-28	Family Day	Megaflex Sunday	Delete
2005-04-27	Freedom Day	Megaflex Saturday	Delete
2005-05-01	Workers day	Megaflex Sunday	Delete
2005-05-02	Public Holiday	Megaflex Saturday	Delete

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Done

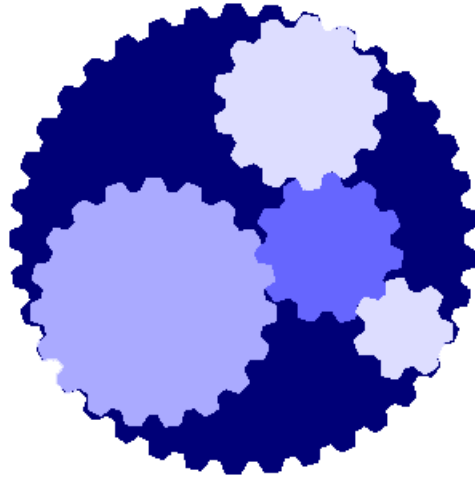
- Here you can change your Calendar Name.
- You can also set your Calendar's Time Zone, and specify whether you want to ignore Daylight Saving (if applicable) or not.
- Thirdly, you can set the commencement day and month of each season (cyclical every year), as well as the Week Pattern that applies during that season.
- Lastly, you may enter absolute dates of Exception days, each with its own Day Pattern.
- Press Change to save all changes on the screen.
- Your Calendar is now defined.
- Before it can work, you have to populate the Database with the appropriate Time Of Use tables, go to:  
'Tools->Certify TOU Calendar as Valid'.

# Step 9: Certify as Valid





- By Certifying the Calendar, you're testifying that it is correct.
- Certifying a Calendar can take a long time: the web page will update periodically to report the progress.
- Only one Calendar can be certified per server at the same time.
- When certification is completed, the accountable Name and the Date will be remembered next to it, so that if there turns out to be a problem, at least you can tell the customer that you've found the culprit, and that the problem has been sorted out.
- If you have meters on meter accounts with shorter profile periods, you need to specify the shorter profile period in the 'Minutes in Period' field on this screen, before pushing the Certify button.
- If anything is changed in the setup of the Calendar, it is immediately invalidated again, as well as any Tariffs that use it.
- Once a TOU Calendar has been properly certified, its rate-period-season combinations will be available to be selected on the Tariff Line Item edit screen.
- Your Calendar is now ready to be used in a TOU-related Tariff Line Item.



# Exercise

# Module 2

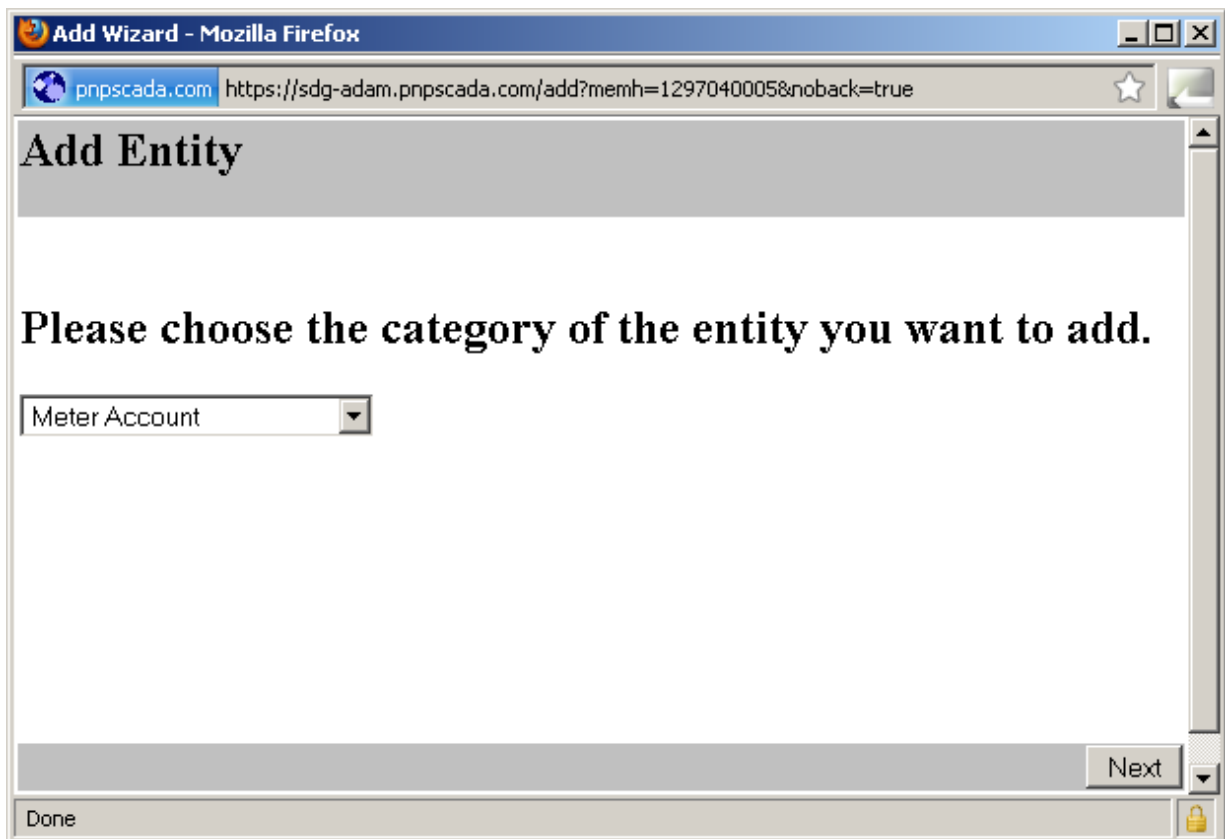
## **Exercise:**

Add the most basic Time of Use or Season dependent tariff in your Tariff Book to your account in Plug and Play Scada, using a TOU Calendar.

Call the Lecturer if you have any questions, and when you're done.

# **MODULE 3: Adding a Meter Account**

## ***Step 1: Add New***



**Add Wizard - Mozilla Firefox**

pnpscada.com https://sdg-adam.pnpscada.com/add?memh=1297040005&noback=true

### Add Entity

Please choose the category of the entity you want to add.

Meter Account

Next

Done

- To Add a new Meter Account, click Add New in the Overview screen (Home), and select Meter Account as the Category of entity to add.
- Click Next.

## Step 2: Specify Initial Meter/s

**Add Wizard - Mozilla Firefox**

pnpscada.com https://sdg-adam.pnpscada.com/add

### Adding a Meter Account

**This entity needs 1 or more Meters with Profile to function.**

Please choose a Meter:

- Elster A1140: 38900001 Unit 1
- Elster A1140: 38900010 Unit 10
- Elster A1140: 38900002 Unit 2
- Elster A1140: 38900003 Unit 3
- Elster A1140: 38900004 Unit 4
- Elster A1140: 38900005 Unit 5
- Elster A1140: 38900006 Unit 6
- Elster A1140: 38900007 Unit 7
- Elster A1140: 38900008 Unit 8
- Elster A1140: 38900009 Unit 9

... Add New

Back Next

- Select the Meter to add to the Meter Account from the drop box, or if your box is full, select the button with the three ellipses [...], and Browse for the meter you want.
- You can use the \* wildcard in the search box.
- Click Next.

## ***Step 3: Specify Initial Tariff/s***

**Add Wizard - Mozilla Firefox**

pnpscada.com https://sdg-adam.pnpscada.com/add

### Adding a Meter Account

**This entity needs 1 or more Tariffs to function.**

Please choose a Tariff:

...

Add New

- Tariff: 518 AA
- Tariff: 543 ab
- Tariff: 514 ABC
- Tariff: 515 ABC
- Tariff: 516 ac
- Tariff: 430 Albert Luthuli
- Tariff: 432 Bloemfontein
- Tariff: 429 Businessrate 2
- Tariff: 466 CP Business <100kVA <1MWh
- Tariff: 467 CP Business <100kVA <2MWh
- Tariff: 468 CP Business <100kVA <3MWh

Back Next



- Select the Tariff to add to the Meter Account from the drop box, or if your box is full, select the button with the three elipses [...], and Browse for the tariff you want.
- You can use the \* wildcard in the search box.
- Click Next.

# Step 4:

## Adding the Meter Account itself

**Add Wizard - Mozilla Firefox**

pnpscada.com https://sdg-adam.pnpscada.com/addmaccount.jsp?memh=1297040010&advar\_diddep=done

### Add a Meter Account

Account Name:  Account Number:  (optional)

Meter Allocation to Account: *tip: use negative portions to facilitate check metering*

Meter Serial Number	Meter Point Name	Portion
38900002	Unit 2	+1.0

Tariffs:

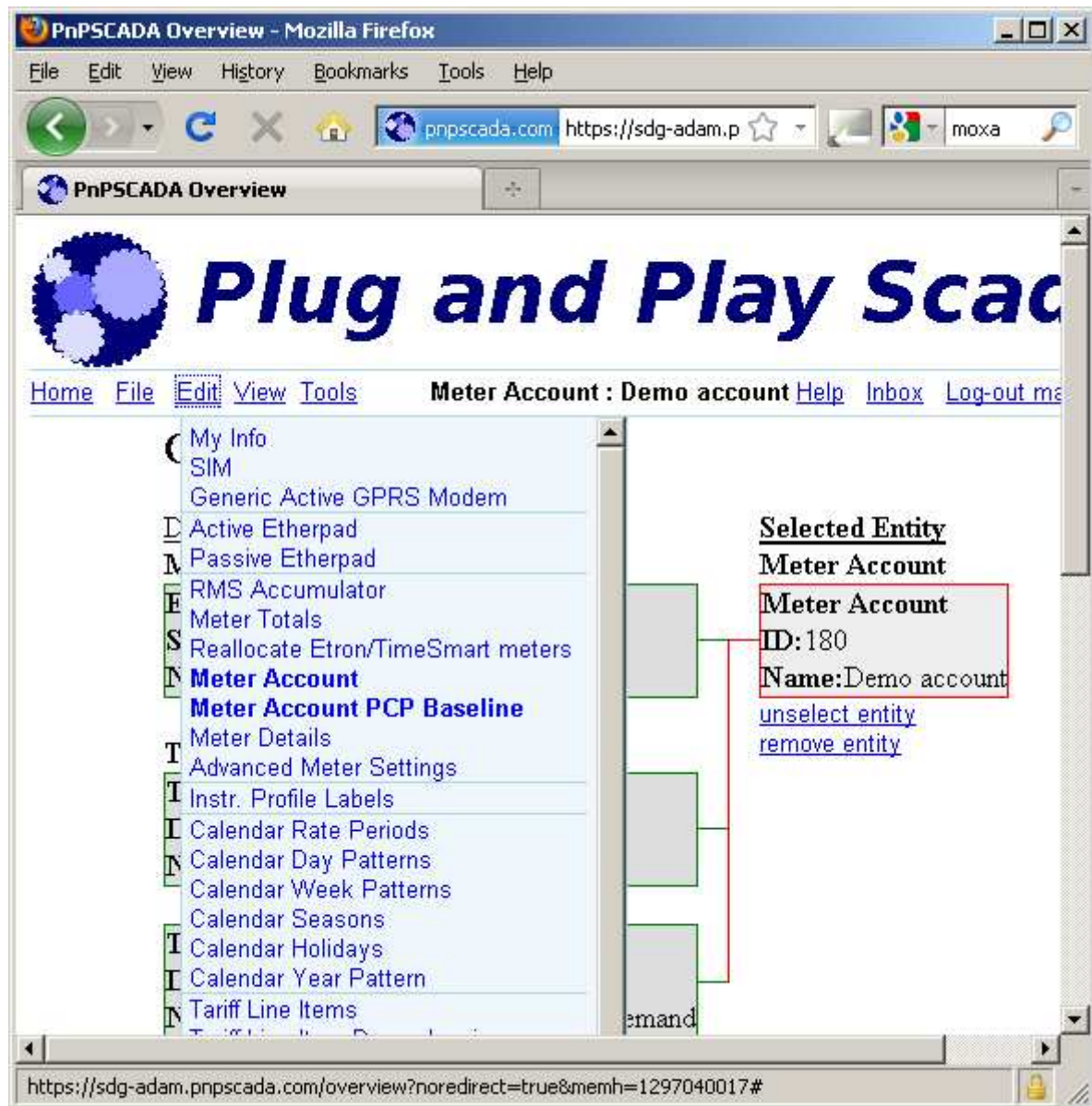
	Tariff	Default	Notified Demand (kVA)	Start Date (YYYY-MM-DD)
432	Bloemfontein	<input checked="" type="radio"/>	n.a.	2011-02-07

Back Finish

Done

- Enter the Name of the Meter Account, and optionally the Meter Account Number.
- You can specify the Portion of the Meter/s that must be allocated to this Meter Account under 'Meter Allocation to Account'.
- To Specify additional Account related Numbers per Meter Account, first Add the Meter Account here, and then Edit is later, like you did for the Tariff and Calendar.
- Click Finish to Add the Meter Account

# Step 5: Select the Meter Account in Overview



- Select the new Meter Account in Overview, then go File->Object Dependencies.
- Go to Edit->Meter Account to specify further options:

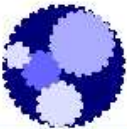
# Step 6: Edit - Meter Account

**PnPSCADA Meter Account - Edit - Mozilla Firefox**

File Edit View History Bookmarks Tools Help

pnpscada.com https://sdg-adam.pnpscada.com/editmacc

**PnPSCADA Meter Account - Edit**



## Plug and Play Scada

[Home](#) [File](#) [Edit](#) [View](#) [Tools](#) **Meter Account : Demo account** [Help](#) [Inbox](#) [Log-out marinusvz](#)

Account Name:  Account Number:

[hide extra account numbers](#) Region:

Lot Number:  Stand Number:

**Meter Allocation to Account:** *tip: use negative portions to facilitate check metering*

	Meter Serial Number	Meter Point Name	Portion
<input checked="" type="checkbox"/>	38900008	Unit 8	<input type="text" value="1"/>

[Add more...](#)

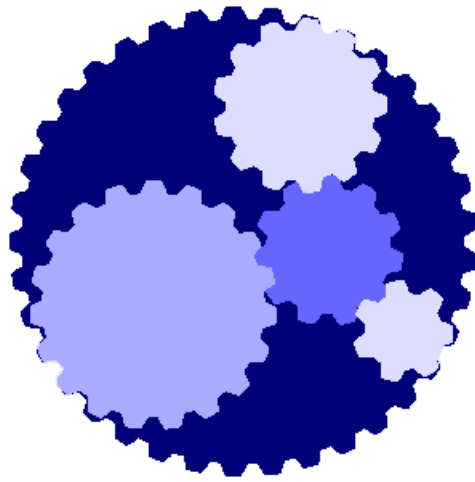
**Tariffs:**

	Tariff	Default	Notified Demand (kVA)	Start Date (YYYY-MM-DD)
<input checked="" type="checkbox"/>	437 Ekurhuleni Tariff C 400V kVA Demand	<input checked="" type="radio"/>	<input type="text" value="n.a."/>	<input type="text" value="2009-03-16 00:00:00"/>
<input checked="" type="checkbox"/>	433 Ekurhuleni Tariff B	<input type="radio"/>	<input type="text" value="n.a."/>	<input type="text" value="2009-03-16 00:00:00"/>

[Add more...](#)

Done

- Select 'show extra account numbers' to enable the 3 extra account numbers (optional)
- You can customize these account numbers to your situation, for instance the MDA Property Management System requires the Account Number to be the tenant code, the Region to be called Site Code, the Lot Number to be called Building, and the Stand Number to be replaced with Shop Number.
- You can customize these extra account numbers to say whatever you wish, it doesn't affect the internal working of Plug and Play Scada, and is meant purely to facilitate interoperation with external systems.



# Exercise



# Module 3

## **Exercise:**

Add a Meter Account in Plug and Play Scada, using one of your previously added Tariffs and any available Meter.

View the last week's profile by going to View->Profile Graph.

Pull a Provisional Bill for the last week's profile by going to View->Provisional Bill.

Read the start date and end date of the Provisional Bill, and the total Amount, and tell the Lecturer what they are.

Call the Lecturer if you have any questions, and when you're done.