



FaMe FM Smart Meter Management

(FaMe FM Energy Management)

Technical Information

(for Egypt Only)

(Electricity, Water and Gas)

(AMI Advanced Metering Infrastructure)



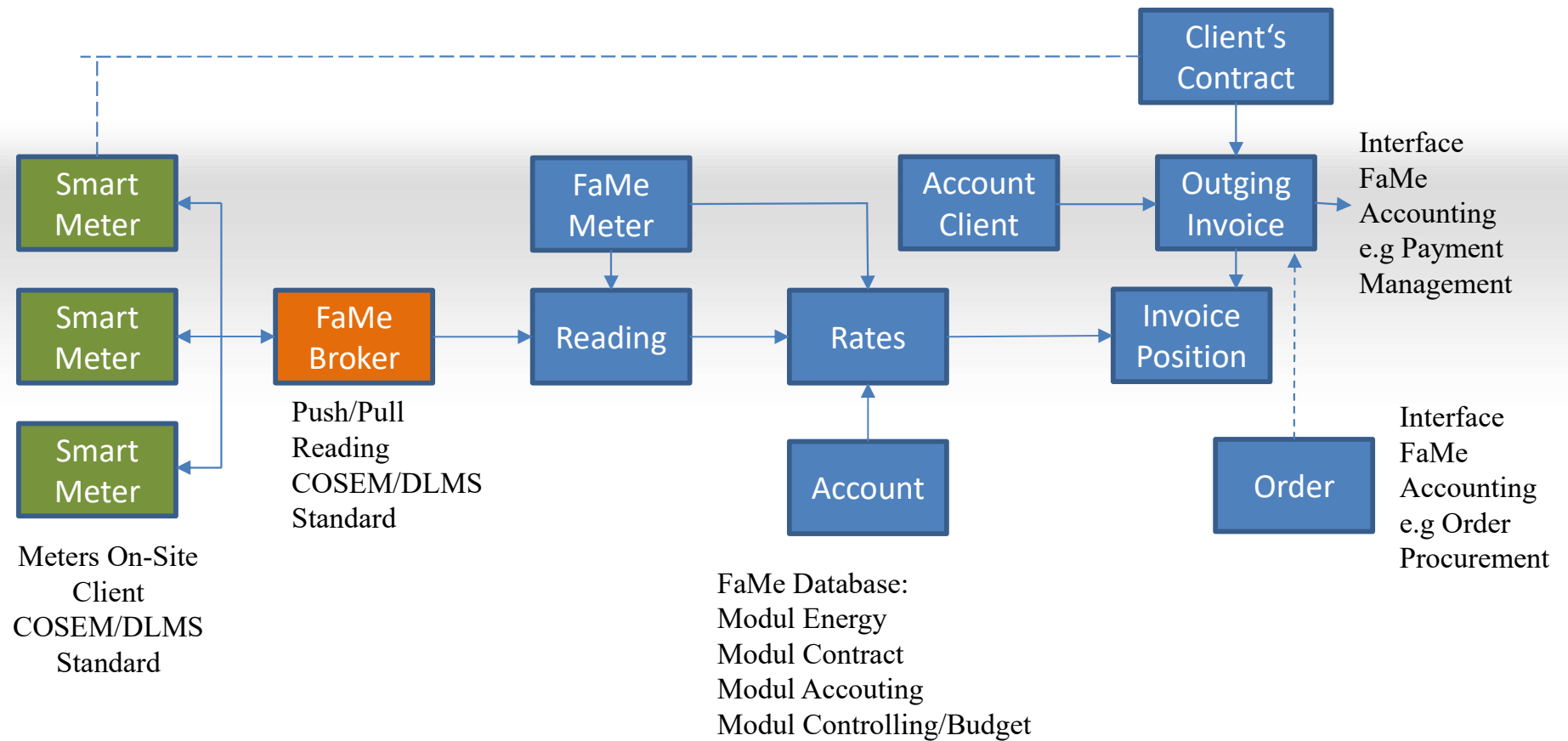


1. Energy Management became the most important task when it comes to operate Real Estate projects. As a result of the Electricity new law in year 2000 and its amendment up to law no 87 in 2015 which gave the right to the private sector to work in the energy activities while granting it the commercial status.
2. FaMe FM software GmbH developed its Energy Management Module (AMI Advanced Metering Infrastructure) especially for Egyptian market to be compatible with the Electricity new law and to provide end to end solution to the companies working in this field starting from:



- a) Reading consumption from smart meters (with COSEM/DLMS communication protocol or any other communication protocol).
- b) Calculating consumption according to the Government published price list segments.
- c) Up to consumption payments through FaMe Merchant portal and Miser Bank E-Payment Gateway using all types of E-payment debit or credit cards and wallets.

FaMe Meter System Overview

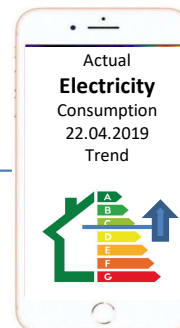
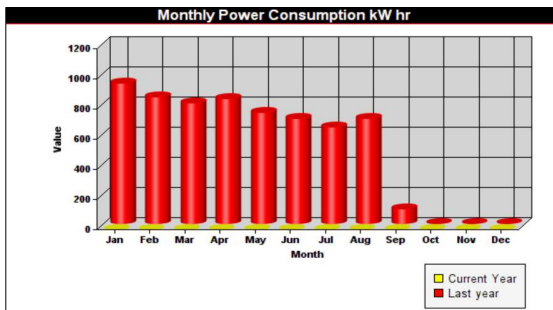
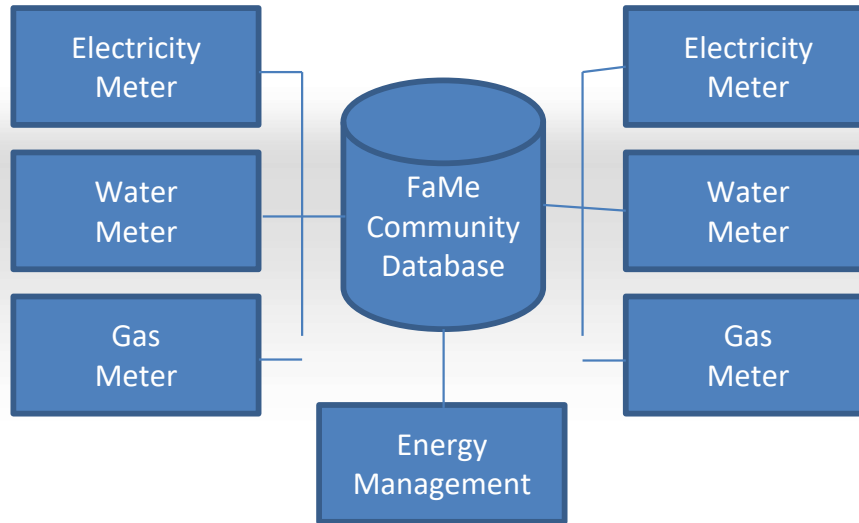


Compound Energy Management



POWER AND ENERGY

ENERGY DEVELOPMENT	GREEN ENERGY	WIND TURBINE	BIO ENERGY
PLANT CONSERVATION	ENERGY CONSUMPTION	SOLAR PANEL	RECYCLING BIN

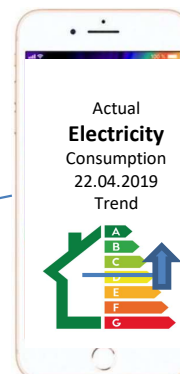
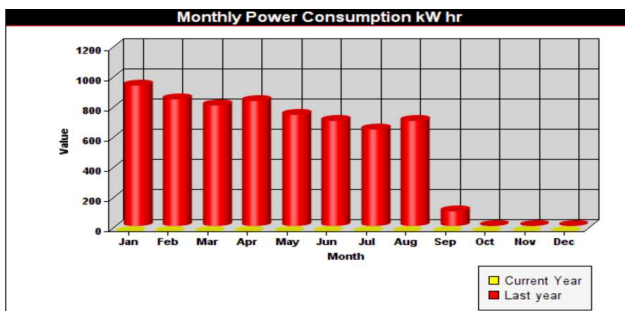
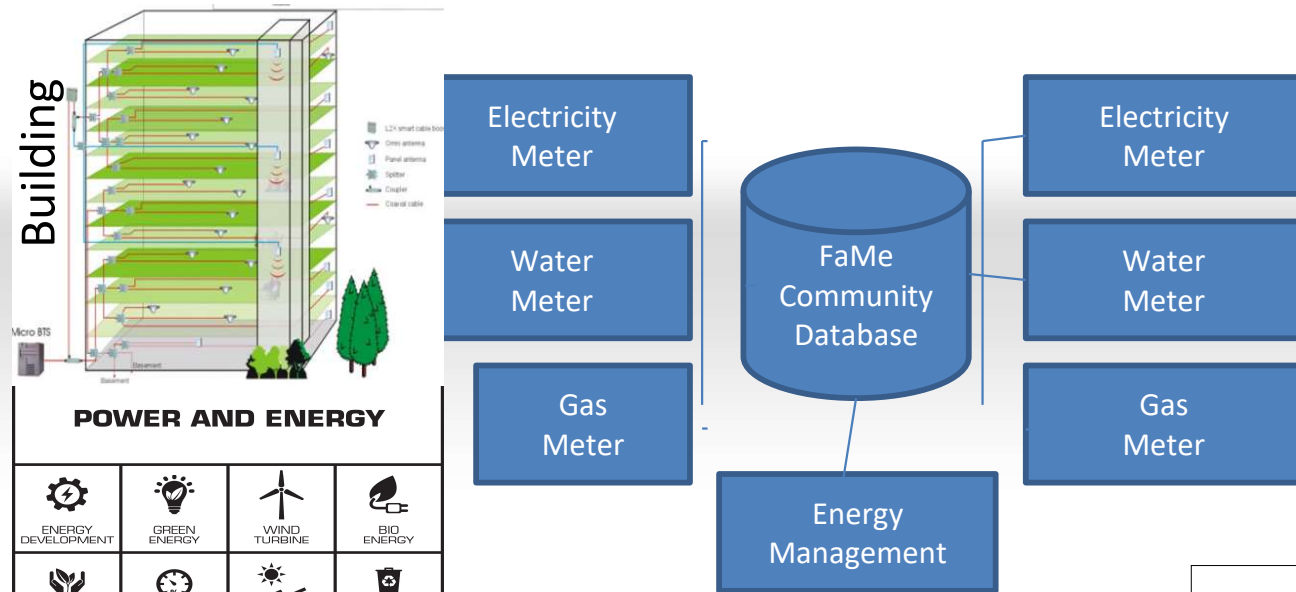


FAME

Invoice No: 2019-000002010028

Item	Description	Unit	Rate	Value
1	Electricity	kWh	1.000000	1000.00
2	Water	m ³	1.000000	1000.00
3	Gas	m ³	1.000000	1000.00
4	Other		1.000000	1000.00
5	Other		1.000000	1000.00

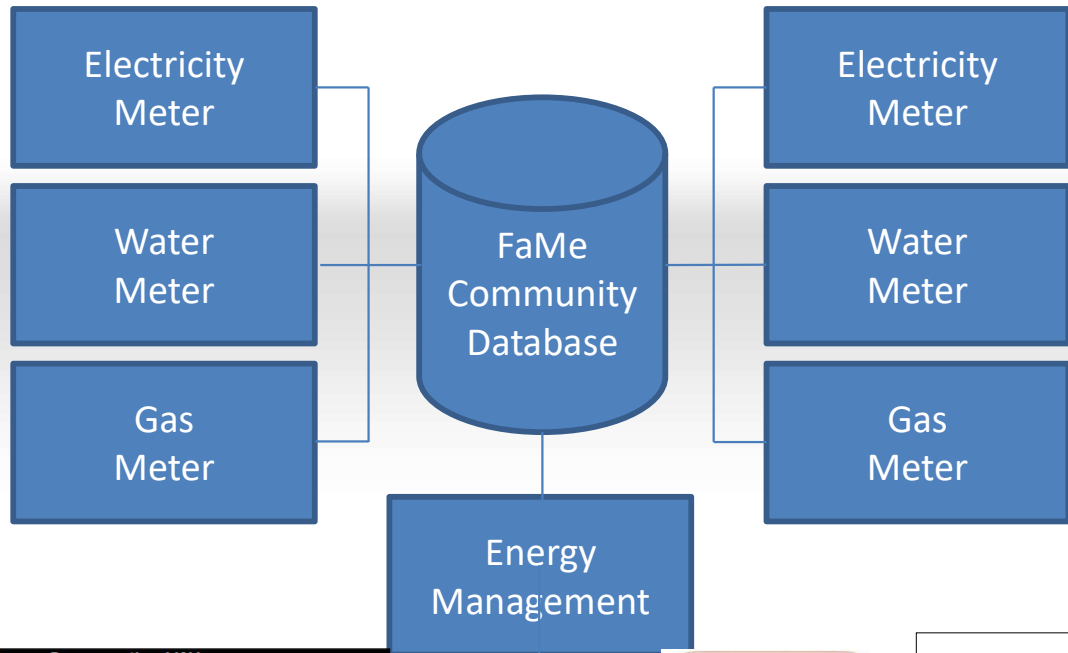
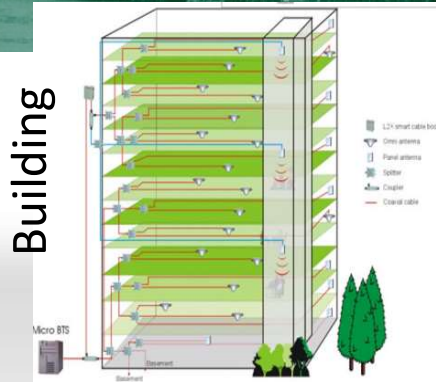
Office Building Energy Management



Invoice No. 2018-00000310028 Date: 31.03.2019

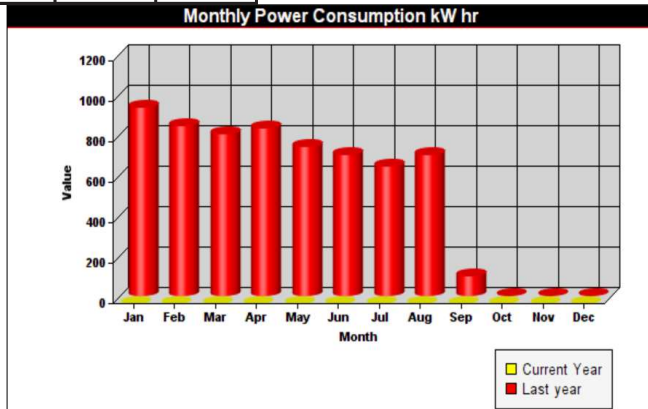
PKB	DESCRIPTION	QUANTITY	PRICE	AMOUNT	UNIT
1	Energy Meter 2 - Green rate Reading: 1000	1	1,000.00 USD	1,000.00 USD	5.00%
2	Energy Meter 2 - Yellow rate Reading: 1000	1	2,200.00 USD	2,200.00 USD	5.00%
3	Energy Meter 2 - Pink rate Reading: 2000	1	4,000.00 USD	4,000.00 USD	5.00%
4	Energy Meter 2 - Pink rate Reading: 3720x	1	111,612.00 USD	111,612.00 USD	5.00%
Amount (USD)				118,812.00 USD	
VAT Amount				5,940.10 USD	
Total price				124,752.10 USD	

Office Building Energy Management



POWER AND ENERGY

ENERGY DEVELOPMENT	GREEN ENERGY	WIND TURBINE	BIO ENERGY
PLANT CONSERVATION	ENERGY CONSUMPTION	SOLAR PANEL	RECYCLING BIN



FaMe Credit

Family Adflick
Ruhb Trough Road 4
EGYPT/CAIRO

Invoice No. 2018-000000310028

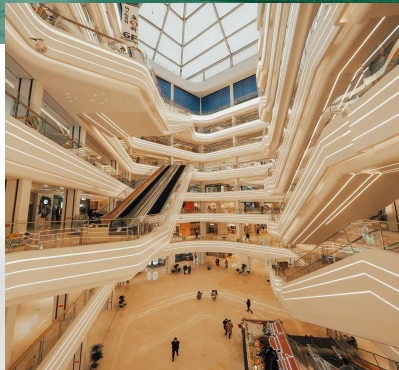
Date: 01.03.2019

PKC	DESCRIPTION	QUANTITY	PRICE	AMOUNT	VAT
1	Electric Meter 2 - Green rate Reading 1000	1	1,500.00 USD	1,500.00 USD	5.00%
2	Electric Meter 2 - Yellow rate Reading 1000	1	2,200.00 USD	2,200.00 USD	5.00%
3	Electric Meter 2 - Red rate Reading 1000	1	4,000.00 USD	4,000.00 USD	5.00%
4	Electric Meter 2 - Peak rate Reading 1000	1	11,000.00 USD	11,000.00 USD	5.00%

Amount inv: 18,700.00 USD
VAT amount: 936.10 USD
Total price: 19,636.10 USD

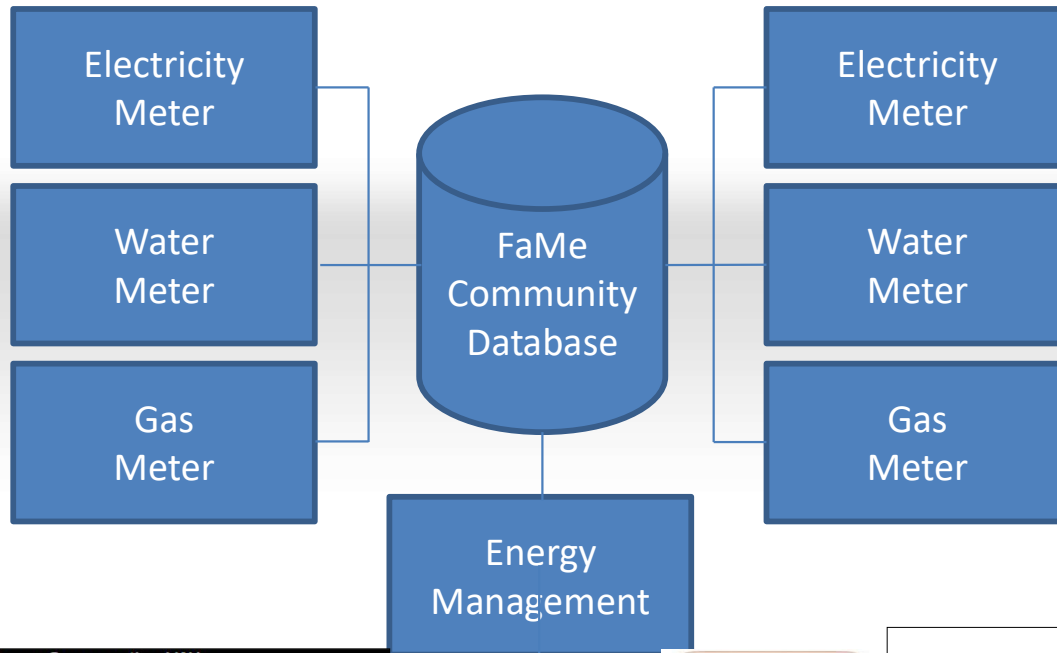
Shopping Mall Energy Management

Shopping Mall

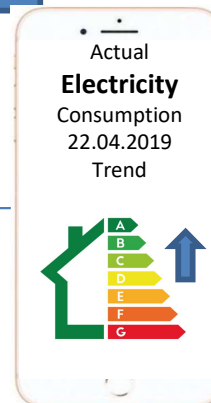
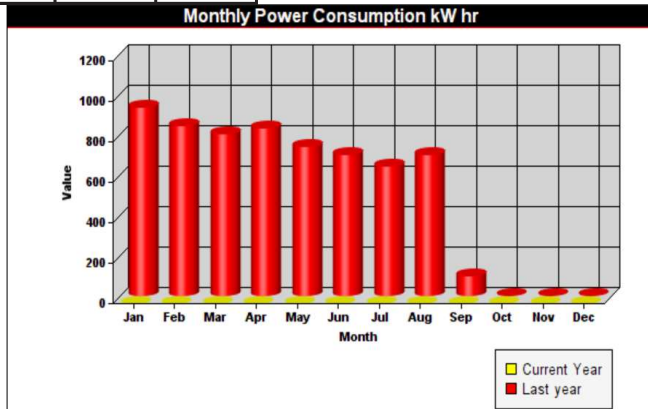


POWER AND ENERGY

ENERGY DEVELOPMENT	GREEN ENERGY	WIND TURBINE	BIO ENERGY
PLANT CONSERVATION	ENERGY CONSUMPTION	SOLAR PANEL	RECYCLING BIN



Shops



Invoice No: 2018-00000310028

PKA	DESCRIPTION	QUANTITY	UNIT PRICE	AMOUNT	TAX
1	Energy Meter 1 - Green rate Reading 1000	1	1,000.00 USD	1,000.00 USD	5.00%
2	Energy Meter 2 - Yellow rate Reading 1000	1	2,200.00 USD	2,200.00 USD	5.00%
3	Energy Meter 3 - Red rate Reading 2000	1	4,000.00 USD	4,000.00 USD	5.00%
4	Energy Meter 4 - Pink rate Reading 37004	1	111,610.00 USD	111,610.00 USD	5.00%
Amount paid				118,810.00 USD	
10% Advance				11,881.00 USD	
Total price				130,691.00 USD	

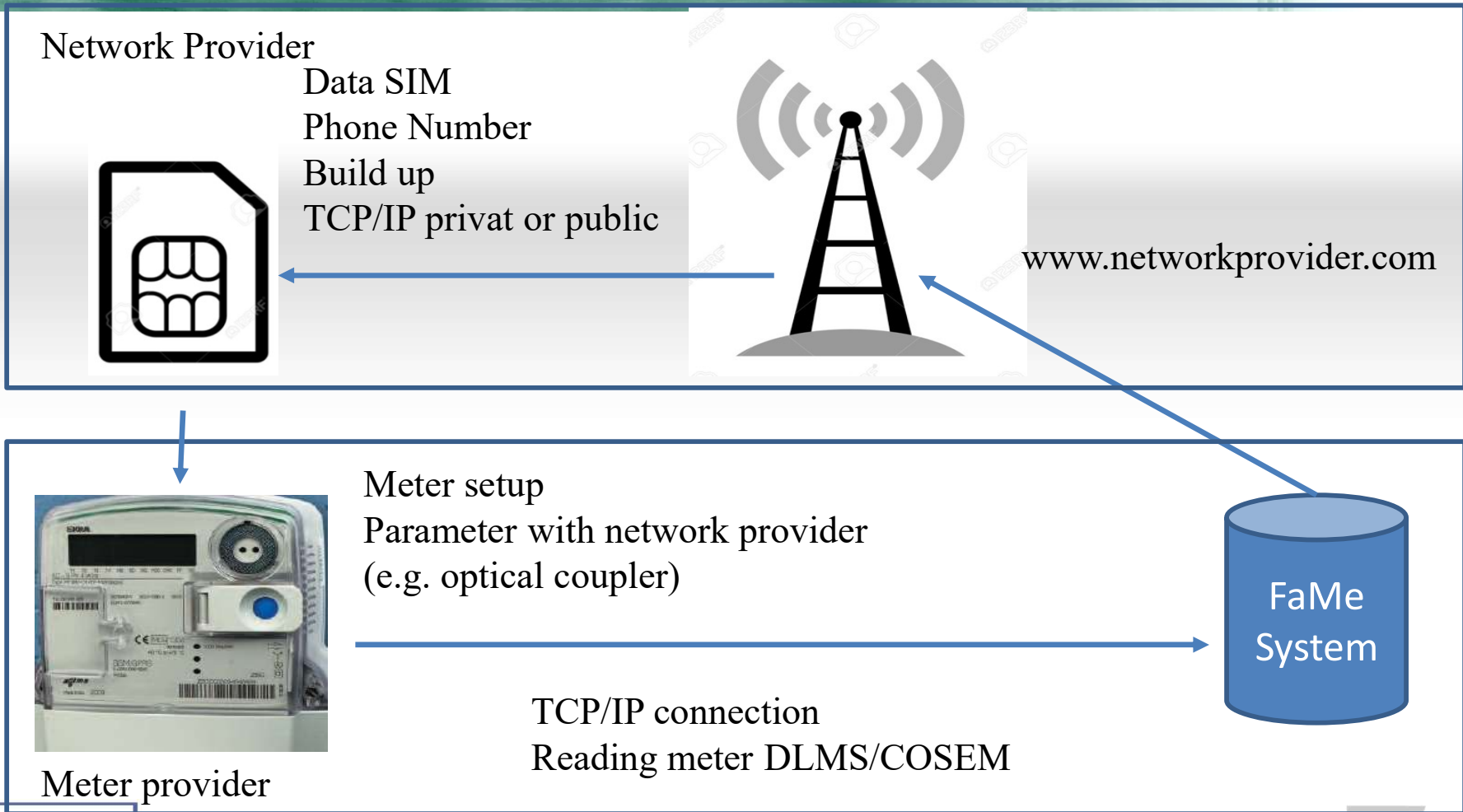




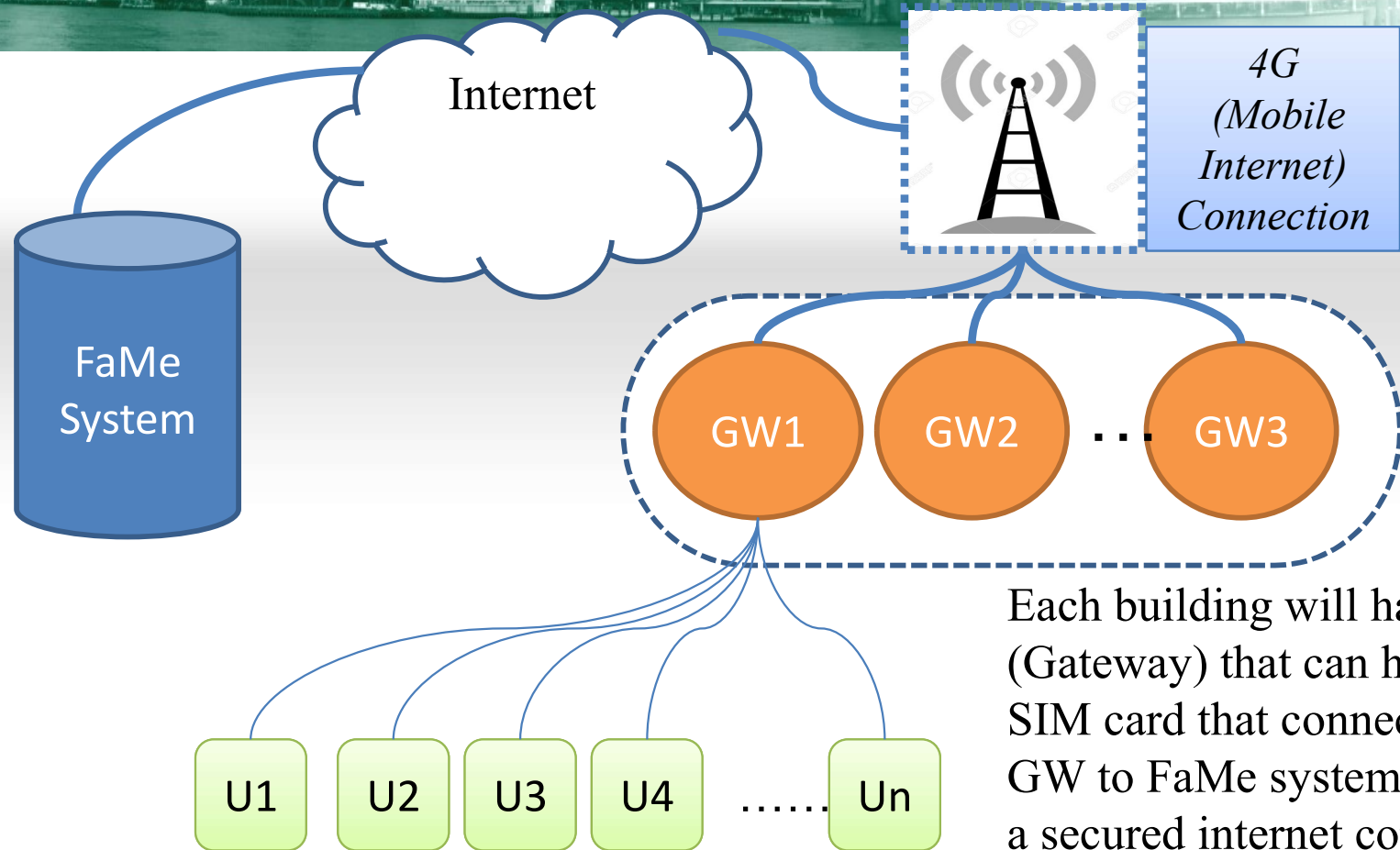
FaMe FM offers several options to measure the energy consumption:

- Manual meter reading and transferring the data via smartphone.
- Importing reading from other sources (e.g MS Excel sheets) to the full integration of BMS (Building Management system) for automated meter reading.
- Also, Via Bluetooth, RFID (Radio frequency identification and Barcode.
- Or other transmission standards as COSEM/DLMS using one of the following 3 ways of communication.

Option 1: Each Meter has a SIM CARD



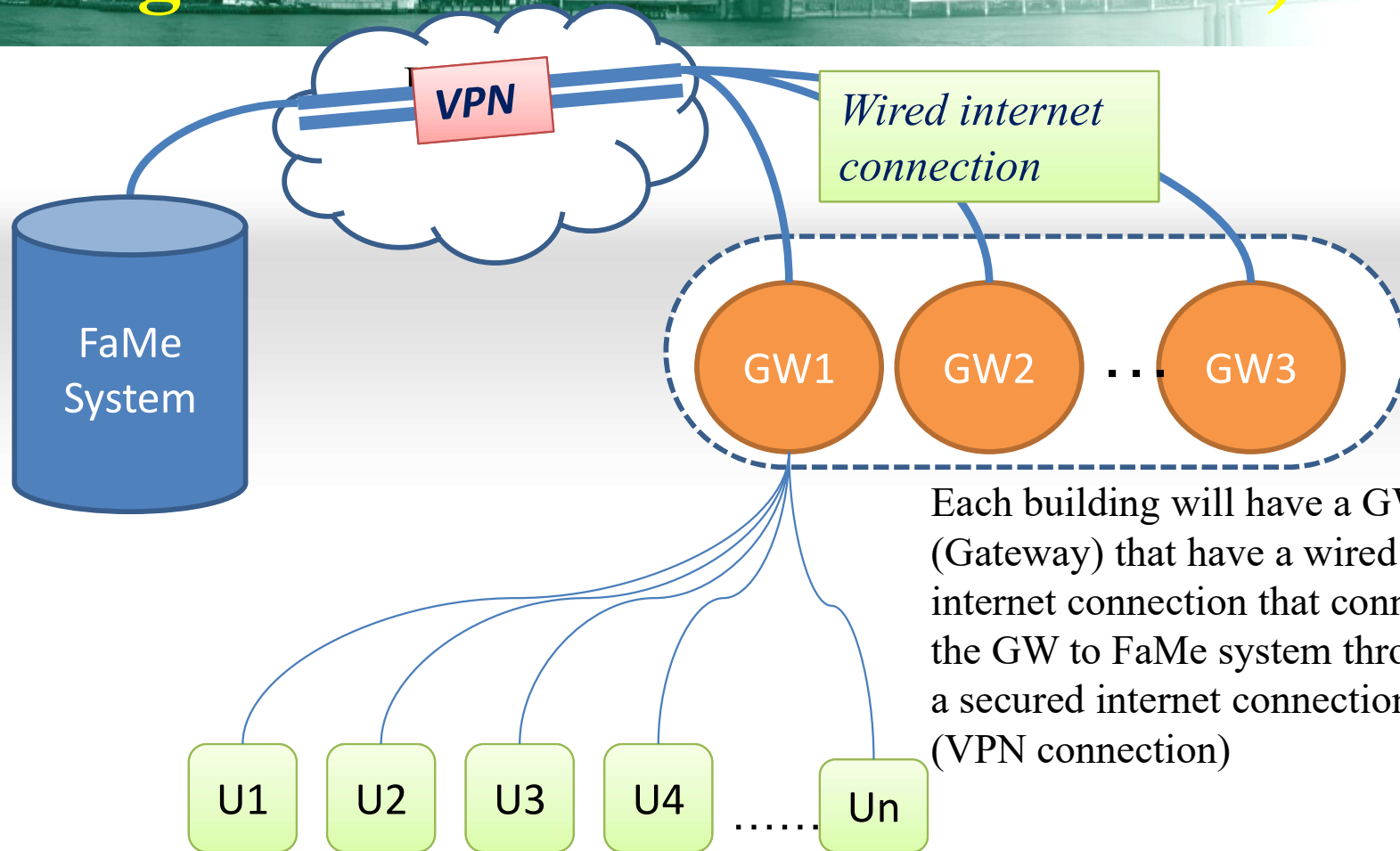
Option2: Gateway network structure (through 4G connection)



Each building will have a GW (Gateway) that can have a SIM card that connects the GW to FaMe system through a secured internet connection (VPN connection)

Each meter (unit) will be connected to the GW through wired LAN connection

Option3: Gateway network structure (through internet wired connection)



Each building will have a GW (Gateway) that have a wired internet connection that connects the GW to FaMe system through a secured internet connection (VPN connection)

Each meter (unit) will be connected to the GW through wired LAN connection



3. The solution advantages are:

- a) Handling all smart meter's brand names and types (water & Gas as well). It is only one solution.

<u>Serial No.</u>	<u>Type</u>	<u>Meter Type</u>	<u>Unit</u>	<u>Description</u>
<u>1</u>	Energy	Electric For Commercial	K.W.H.R	Kilowatt Hours
<u>2</u>	Energy	Water For Commercial	m ³	Kubik meter
<u>3</u>	Energy	Water For House	m ³	Kubik meter
<u>4</u>	Energy	Gas For House	m ³	Kubik meter
<u>5</u>	Energy	Gas For Commercial	m ³	Kubik meter
<u>6</u>	Energy	Electric For House	K.W.H.R	Kilowatt Hours
<u>7</u>	Energy	HEAT	BTU / HVAC	Thermal Un

Communication Protocol & Reading Interval

- Actual Meter
- Virtual Meter - Sum Sub meters
- Virtual Difference Main Meter - Sub meter
- Virtual Meter - Calculated
- Difference Meter
- Environment Mgt.
- No History
- Alarm Level 2
- COSEM/DLMS
- Alarm active
- BACnet Reading

Reading Interval/ الفاصل الزمني بين القراءات 6 Minute(s) Hour(s) Day(s) Week(s) Month(s)

next reading/ تاريخ وميعاد القراءة التالية 31.07.2019 23:00

previous reading/ القراءة السابقة

Actual Consumption Records

Total Records:: 169 Page 1 From 9 [All](#) [Customize](#) [Se](#)

Serial No.	Reading Date/ تاريخ بداية القراءة	Time / وقت بداية القراءة	Value	Consumption/ الأستهلاك الفعلى
1	07/31/2019	17:00:00	477945	974
2	07/31/2019	11:00:00	476971	2644
3	07/31/2019	05:00:00	474327	0
4	07/30/2019	23:00:00	474327	0
5	07/30/2019	17:00:00	474327	760
6	07/30/2019	11:00:00	473567	2435
7	07/30/2019	05:00:00	471132	0
8	07/29/2019	23:00:00	471132	0



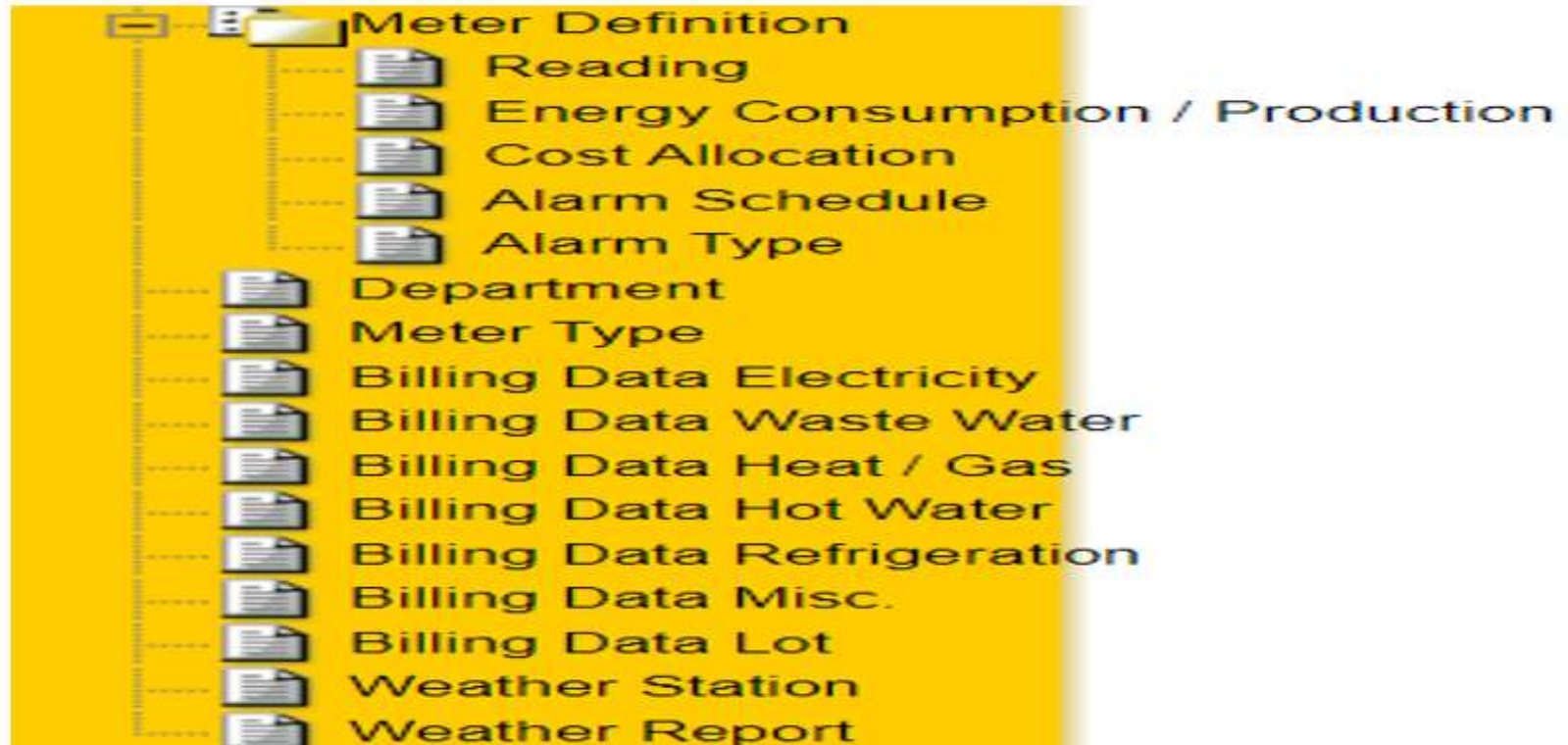
b) Implementing Electricity rates according to the government price list

Serial No.	Meter No. Device	Sort Order	Consumption	Standard Rate	Customer Service Fee / Month
1	SR66479802	1	,00	0,0000	9,00
2	SR66479802	2	50,00	0,4800	1,00
3	SR66479802	3	100,00	0,5800	2,00
4	SR66479802	4	200,00	0,7700	8,00
5	SR66479802	5	350,00	1,0600	11,00
6	SR66479802	6	650,00	1,2800	15,00
7	SR66479802	7	999,00	1,2800	25,00
8	SR66479802	8	999999,00	1,4500	40,00



Billing system

Postpaid OR Prepaid using FaMe FM Merchant website (Portal) for E-Payment method.





4. The Solution include the following modules functions:

- a. Basic (Engineering) Architecture.
- b. Asset Management.
- c. Full Accounting System.
- d. Contract Management.
- e. Maintenance Management.
- f. Warehouse Management
- g. CRM management.
- h. Reports.
- i. Dashboard.
- j. Language: English & Arabic.

Performance Dashboard



Measuring Point Z208 Wilhelm Exner House

Total Consumption in 24 hours: 4,402.700 kWh
 Maximal Consumption in 60 Minutes: 231.908 kWh
 Minimal Consumption in 60 Minutes: 136.262 kWh

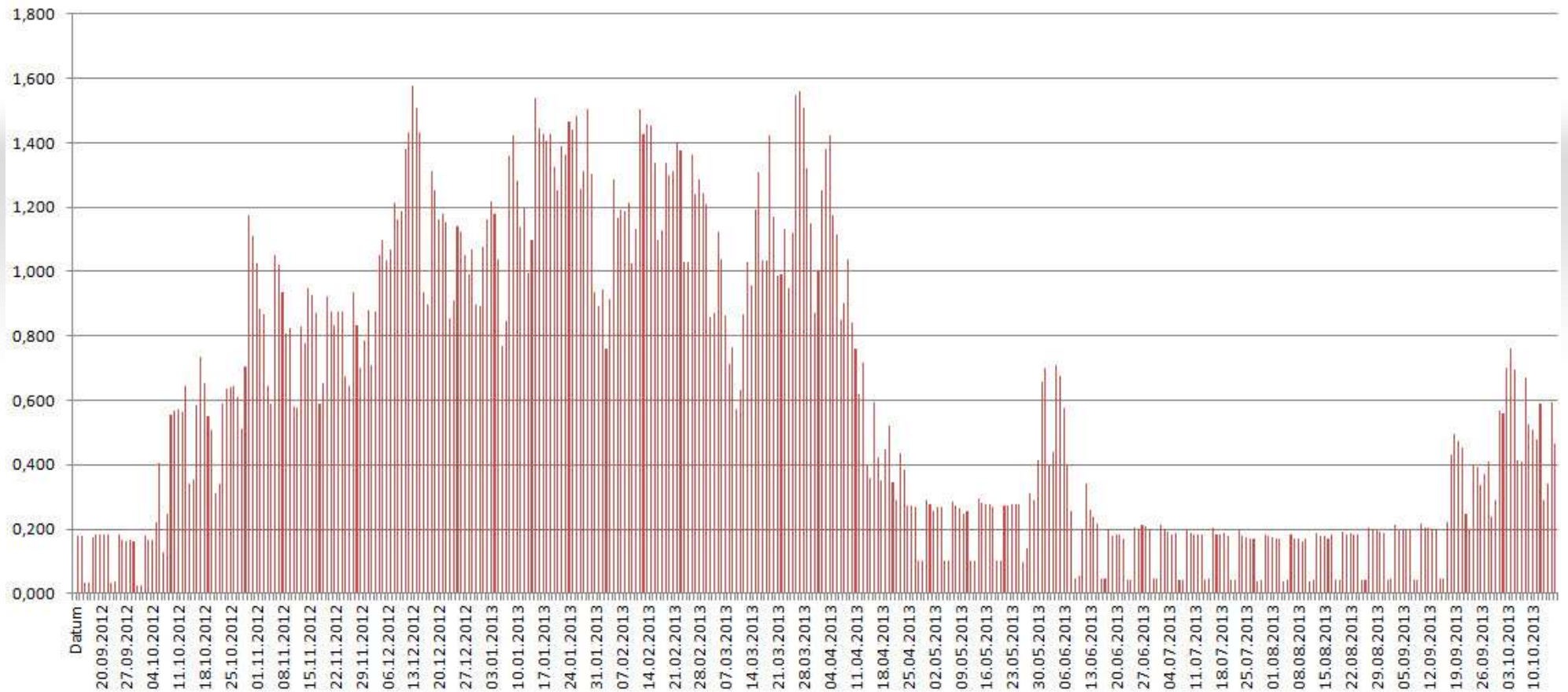
Measuring point Z208 - Thu 28.4.2016



one day back - one day forward

Consumption per hour					
from	to	kWh	from	to	kWh
0	1	137,812	12	13	229,036
1	2	137,642	13	14	227,378
2	3	136,262	14	15	231,908
3	4	138,294	15	16	231,006
4	5	140,752	16	17	221,778
5	6	141,182	17	18	214,220
6	7	166,536	18	19	196,876
7	8	190,328	19	20	185,664
8	9	207,860	20	21	156,040
9	10	224,024	21	22	147,068
10	11	230,374	22	23	140,984
11	12	229,552	23	24	140,124

Performance Dashboard



Performance Dashboard

Graphical Representation

Monthly Power Consumption

Monthly Water Consumption

Workorders

Resource Booking

Conference Room Utilization

Current Meter Peak

Conference Room Booking

AC-Fan-Overview

Utilization by Nationality

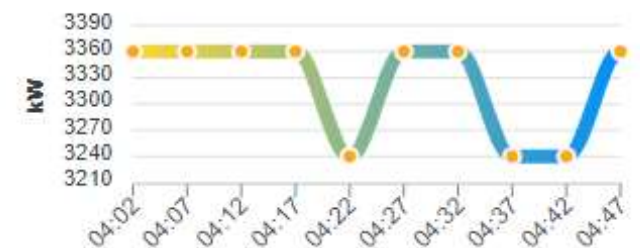
Utilization by Religion

Fan1 Meter Readings



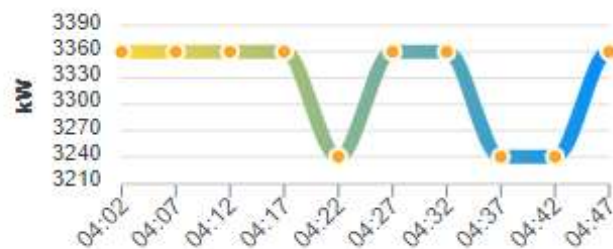
Intervals

Fan2 Meter Readings



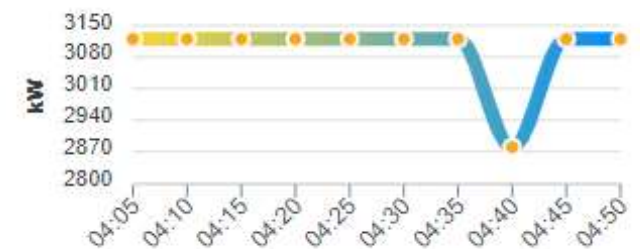
Intervals

Fan3 Meter Readings



Intervals

Fan4 Meter Readings

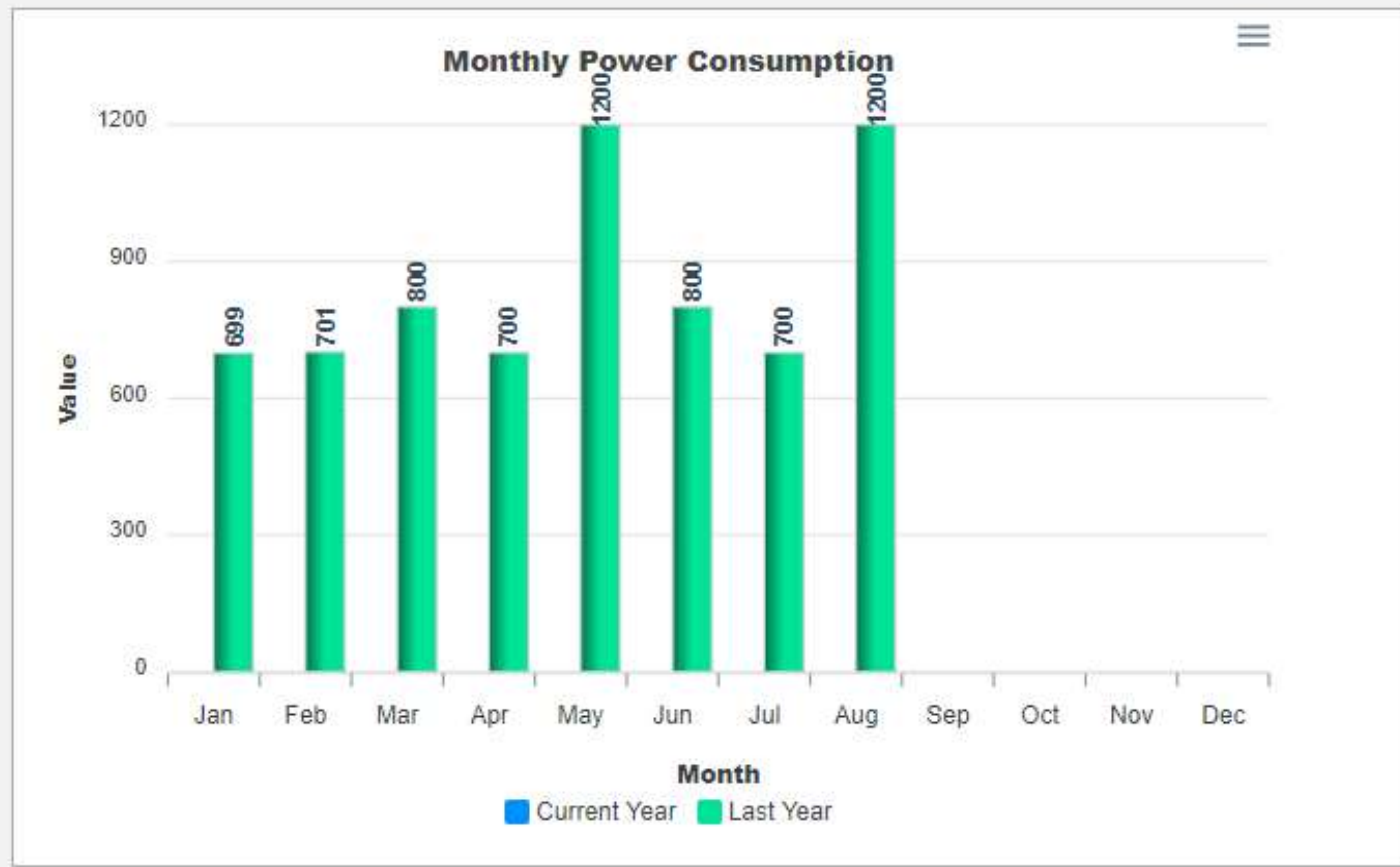


Intervals

Performance Dashboard

Graphical Representation

- Monthly Power Consumption
- Monthly Water Consumption
- Workorders
- Resource Booking
- Conference Room Utilization
- Current Meter Peak
- Conference Room Booking
- AC-Fan-Overview
- Utilization by Nationality
- Utilization by Religion





It is: Life Time Solution &
























- a. Oracle Enterprise Database.
- b. 100% web based with no Client installation.
- c. Access rights allocation at login.
- d. Fully customizable.
- e. Seamlessly integrated and scalable.
- f. Language is English / Arabic, Interface language English & Arabic.

English Language

- ◀ - ▶ +
- INT
- + Real Estate
- + Facility Management
- + Portfolio Management
- + Event Management
- + Controlling
- + Accounting
- + Staff
- + Document Management
- + Default Values
- + Reporting
- + Administration
- + CAD / BIM
- + Security
- + Self Service
- Start Page
- + My Menu

Smart Building Solution



 Main Application	 Service Request	 Dashboard	 Warehouse Dash...	 Weather	 Calendar	 Conference Room	 Loan Item
 Catering	 Maintenance ch...	 Cleaning	 Workorder	 Multi Checklists	 Import	 Visitor Security I...	 Print Business Ca...
 Key Management	 Status Rental Uni...	 Payments / Entry...	 Relocation Order	 iBMS	 CRM Overview P...	 Catering Register	 SCADA

Arabic Language

Smart Building Solution

- INT
- العقارات
- ادارة المرافق
- حقيبة الإدارة
- ادارة الحدث
- السيطرة على
- المحاسبه
- العمالين
- ادارة الوثائق
- القيم الافتراضيه
- التقارير
- الإدارة
- كاد
- الامن
- الخدمة الذاتية
- الرئيسيه
- My Menu

التطبيق الرئيسي	خدمة الحالة	لوحة القيادة	Warehouse Dash...	أداء	التقويم	غرفة المؤتمرات	بند القرض
تقديم الطعام	تغييرات الصيانة	تنظيف	طلبية العمل	قوائم	استيراد	إدارة الزائرين	Print Business Ca...
ادارة المفاتيح	نظرة عامة الملكية	تأكيد الفواتير	أمر إعادة التوطين	iBMS	CRM Overview P...	Catering Register	SCADA



With FaMe FM Energy Management solution:

1. No more meter reading errors and monthly accounting inaccuracies.
2. Only one solution to manage all energy commodities, instead of THREE different solutions for each energy commodity:
 - a. Meter Data Management (MDM)
 - b. Head End System (HES)
 - c. E-payment solution (Fawry, Aman, Masary, etc)
3. No administrative system, office and staff to collect the value of energy commodities consumption.



For more information, please visit the official website
of FaMe FM – Arabic version
<https://www.fame-online.de/ar>

Or

Call: +2 01008670788