

# The Smart Solution to Secondary Prepayment with MeterPay (PAYG)

Smart Metering Prepayment Schemes

Meterix Limited

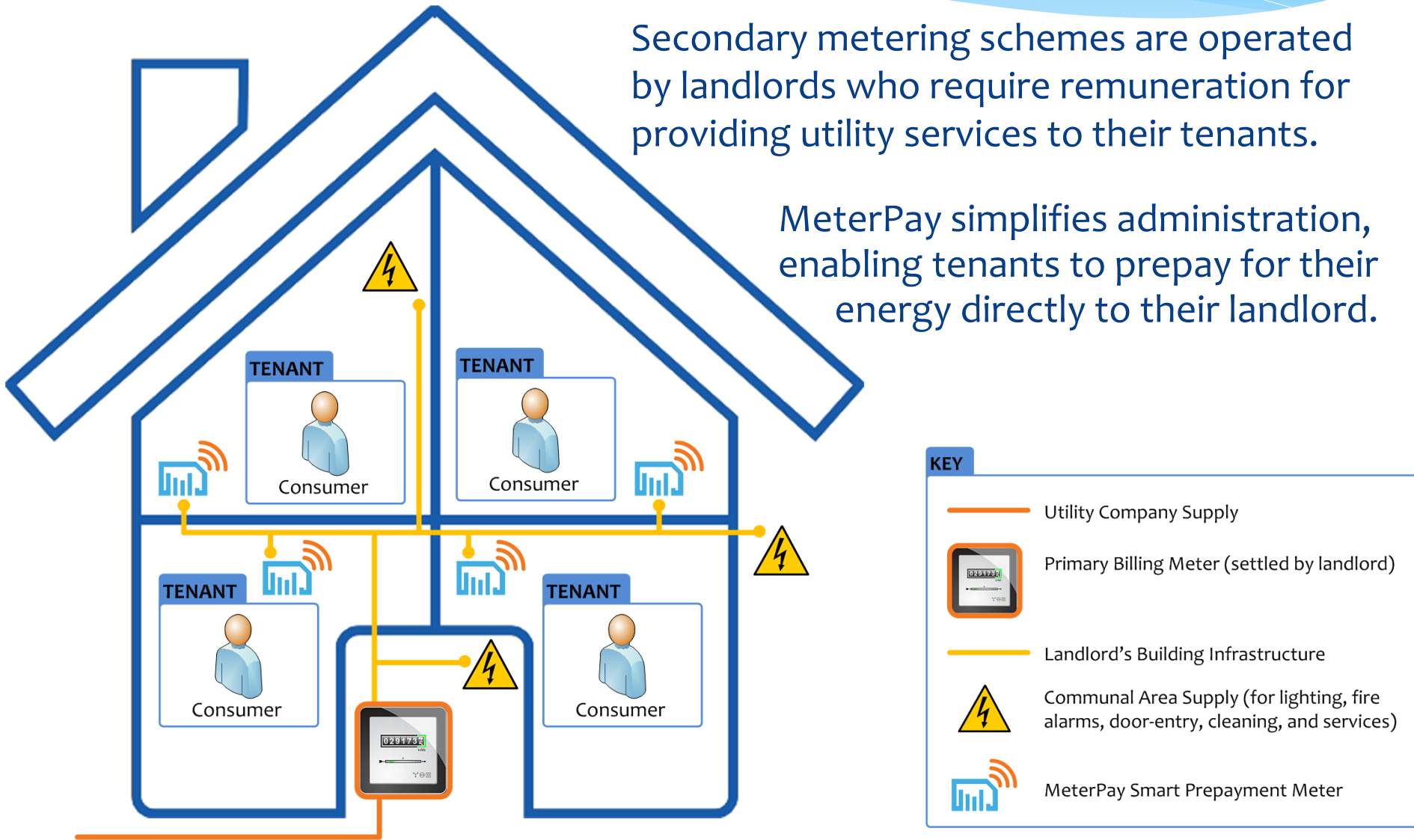
March 2016



# Secondary Metering Schemes

Secondary metering schemes are operated by landlords who require remuneration for providing utility services to their tenants.

MeterPay simplifies administration, enabling tenants to prepay for their energy directly to their landlord.



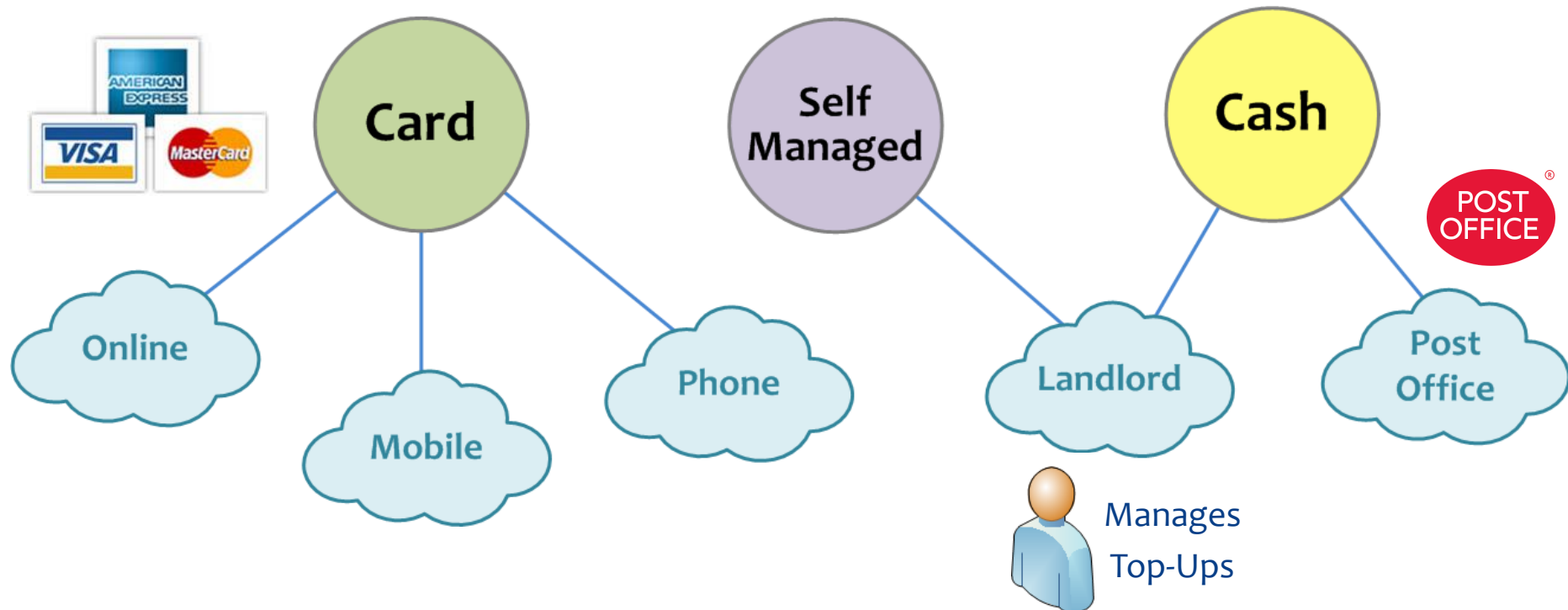
# Smart Prepayment (PAYG)

- \* Smart Meter technology allows landlords to manage their prepayment (Pay-as-you-Go) scheme online.
- \* Smart Meters stay connected with MeterPay through the mobile data network.
- \* After consumers complete top-up payments, credit is delivered to the smart meter in real time.
- \* Reduced management burden compared to coin/card-based prepayment schemes.
- \* Improved security (anti-tamper) with alarm based alerts to eliminate fraud.
- \* Automated meter reading, tariff management and deployment.

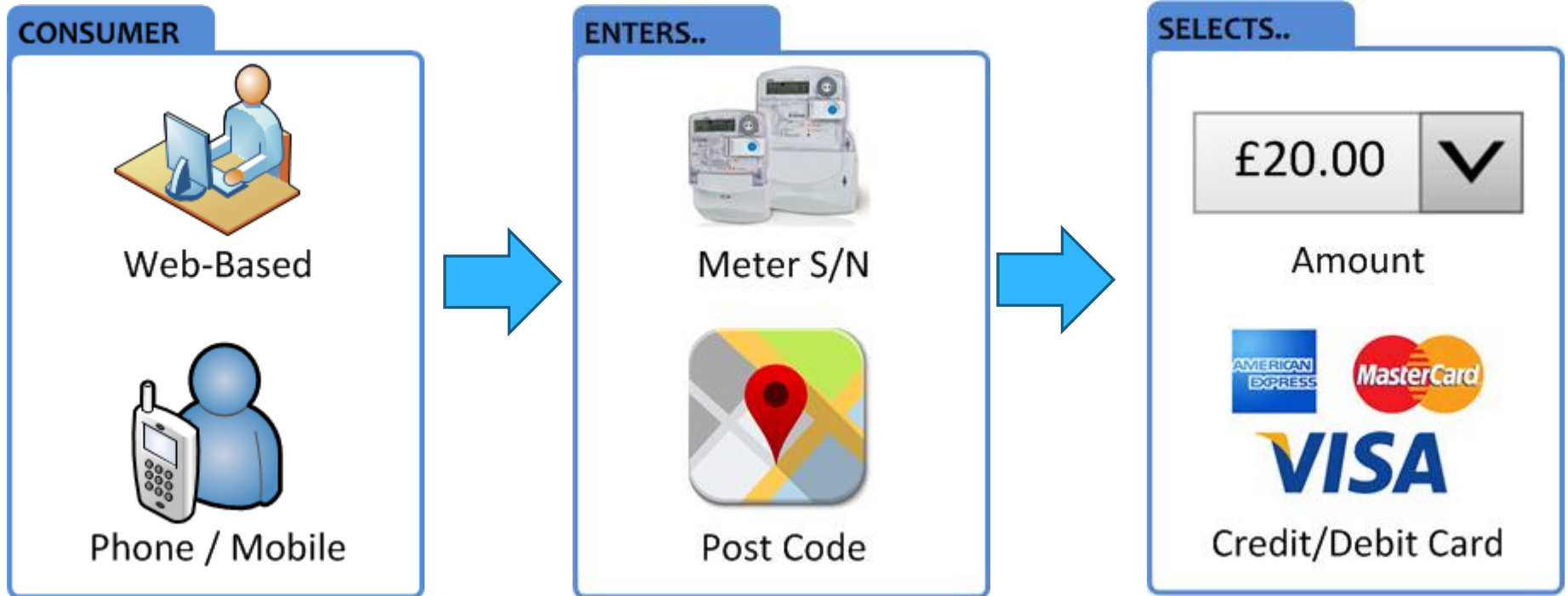


# Consumer's Payment Options

- \* Consumers can make a payment using a credit/debit card online (including mobile devices) or through an automated telephone payment line.
- \* Alternatively, landlords can manage available credit levels of MeterPay smart meters within their scheme, optionally collecting cash from their tenants.
- \* Consumers can top-up with cash through Post Office counters (Q3 2016).



# Card Top-Up Process



\* Consumers top-up credit conveniently and securely using a credit/debit card online or by phone.

# Credit Delivery Tracking



## DELIVERY

Payment Event



ZMMW-NZIX-ODRM-YJHK

2015-07-12 12:36:22 E GBP1.00 ▶ Cash Applied

TQ1 1JH 52152095 P Demo C

Refresh Tracking Status



Credit Delivery

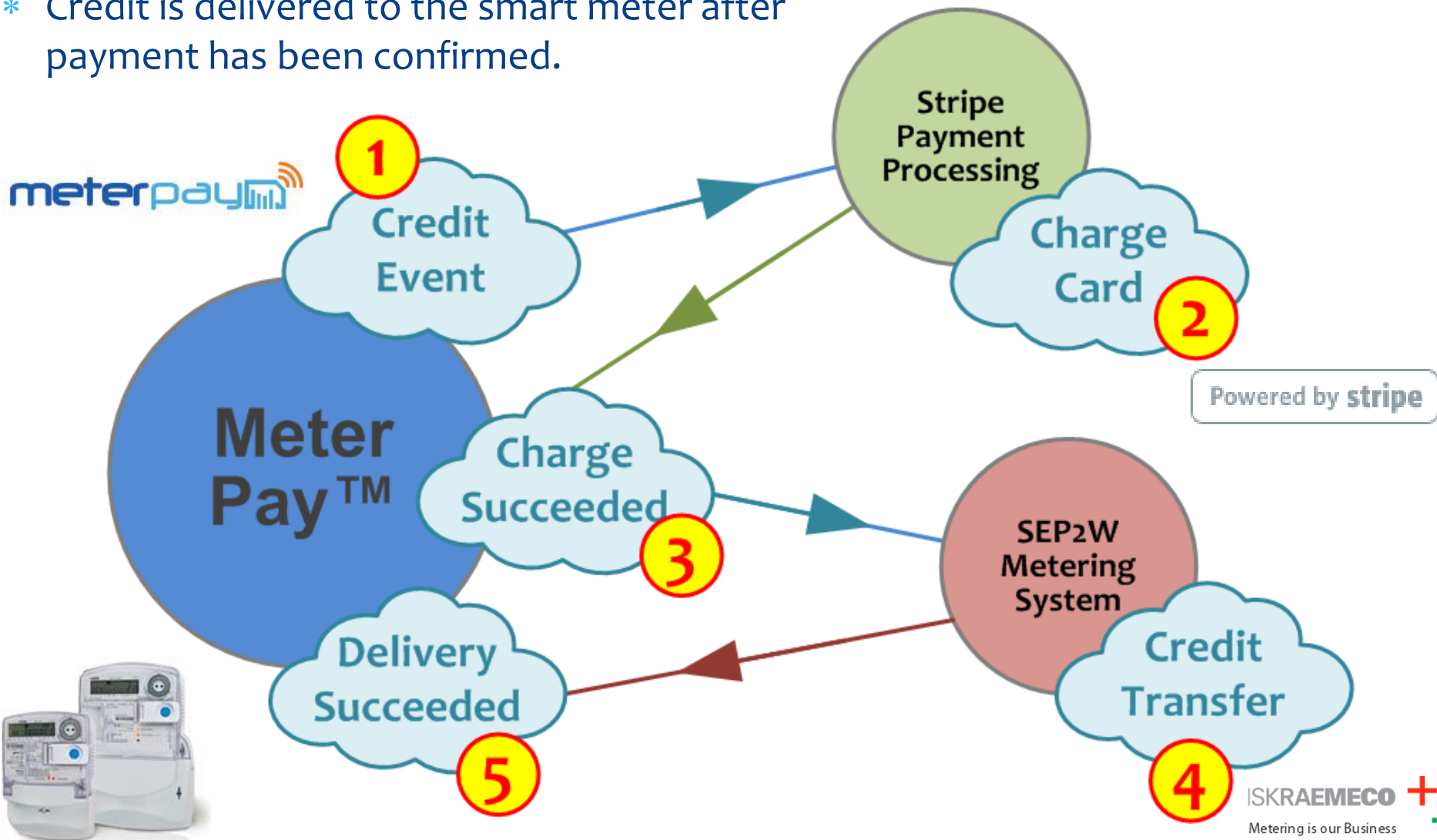
2015-07-12 12:36:23 90000072 Succeeded



- \* After the payment is approved, the consumer is given a tracking reference number to track real-time delivery of credit.

# Credit Transfer Flow

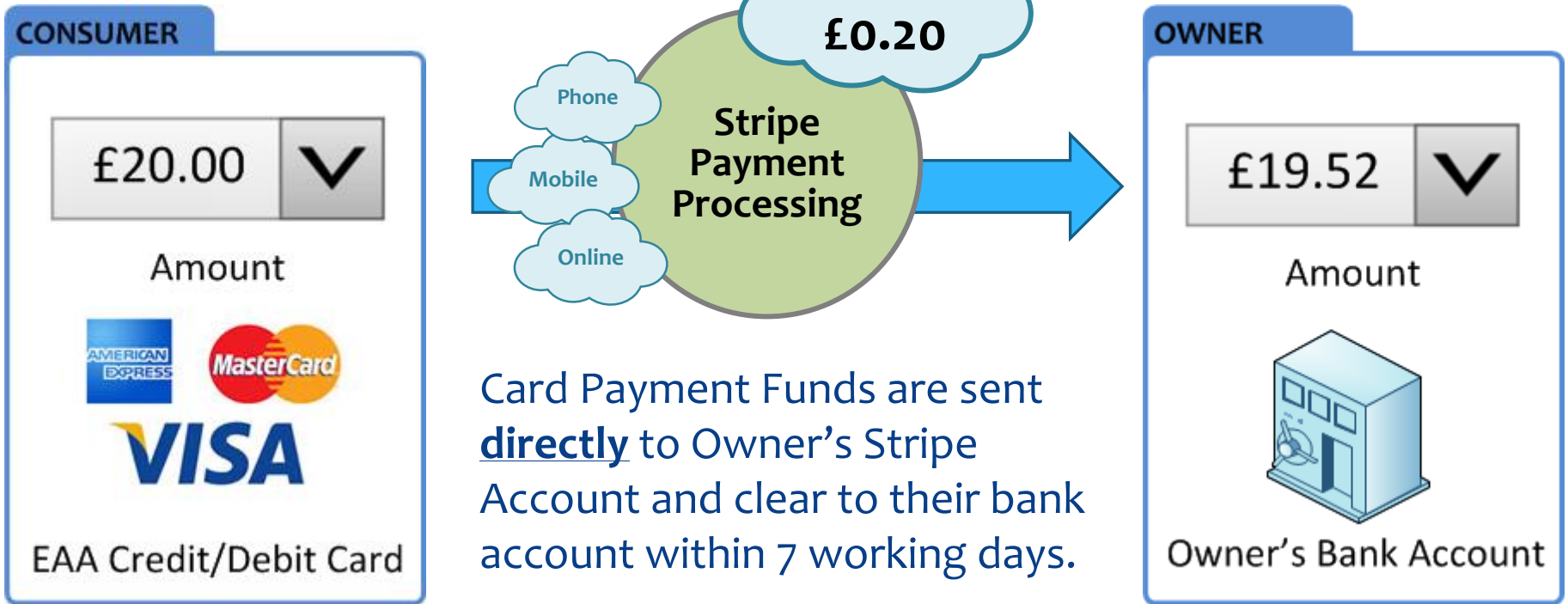
\* Credit is delivered to the smart meter after payment has been confirmed.





# Beneficiary Reconciliation Flow

Online merchant payment services are provided by Stripe.



\* European Economic Area includes 52 countries at 1.4% + 20p fee.

\* Other card origins processed for 2.9% + 20p fee.



# Financial Settlement



- \* Instant setup for new/existing Stripe merchant accounts.
- \* International prepayment schemes available (23 countries).
- \* Stripe accepts credit/debit card payment from any country and currency.
- \* Settlement (with 7 days) to any bank account based in these countries.
- \* Commission rates vary by transaction volume and currency/destination.

## CURRENT

Australia	Belgium <small>BETA</small>
Canada	France <small>BETA</small>
Denmark	Germany <small>BETA</small>
Finland	Italy <small>BETA</small>
Ireland	Luxembourg <small>BETA</small>
Norway	Netherlands <small>BETA</small>
Sweden	Spain <small>BETA</small>
United Kingdom	Japan <small>PRIVATE BETA</small>
United States	Mexico <small>PRIVATE BETA</small>
Austria <small>BETA</small>	Switzerland <small>PRIVATE BETA</small>

## FUTURE

Brazil	Singapore
Hong Kong	New Zealand

# MeterPay Concepts



## SCENARIO



Financial Benefactor



Multiple Users  
with **Owner** role

## DEPLOYMENT



Metering Place

## DEPLOYMENT



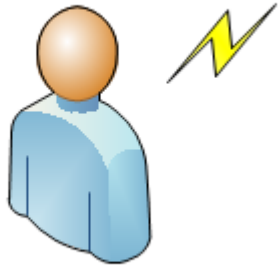
Metering Place

- \* **Scenario's** represent a single financial benefactor of payments for energy credits (i.e. the landlord).
- \* Multiple users can be assigned the **Owner** role within the scenario.
- \* Multiple Deployments supported within each Scenario.

# MeterPay System Roles



## CONSUMER



End User of Energy

- \* Tenants are assigned to a Metering Point through the **Consumer** role.

## OWNER



Scheme Operator

- \* Landlords are assigned the **Owner** role.
- \* Many users can be many **Owner's**.

## PARTNER

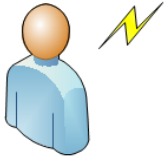


Technical Management

- \* **MeterPay Partners** provide sales, installation and customer services to their clients.

# Consumer Functions

## CONSUMER



End User of Energy

- \* View their assigned Meter Point, Smart Meter and read current available credit.
- \* Payment link to online purchase of top-up credit.

## METER POINT



[TRACK DELIVERY](#) [ADD CREDIT](#)

[HOME](#) ▾

[ABOUT US](#)

[SERVICES](#)

[TECHNOLOGY](#)

[CONTACT](#)



[My Meter](#)

[My Recharge](#)

[My Credits](#)

My Meter



Old Brewery Works



TQ1 1JH

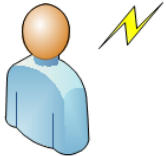


Active

Meter Point	Meter	Serial Number	Assigned Tariff	Status	Actions
Lab 3-Phase	ISKRAEMECO MT382	52127865	Prepayment	Active ▶ £39.69	

# Consumer - MeterPay Recharge

## CONSUMER



End User of Energy

- \* Automated smart meter top-up feature.
- \* Level /Amount is selected with authorised card.
- \* E-mail notifications sent to Consumer when due.

## AUTO-RECHARGE

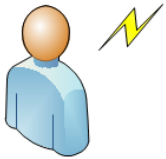
The screenshot shows the MeterPay website interface for the 'AUTO-RECHARGE' section. At the top right, there are links for 'TRACK DELIVERY' and 'ADD CREDIT'. The navigation menu includes 'HOME', 'ABOUT US', 'SERVICES', 'TECHNOLOGY', and 'CONTACT'. The main content area is titled 'My Recharge' and features three panels:

- Recharge Level:** Set to £ 3.00. Description: "When your Available Credit falls below this level we will Recharge your meter."
- Recharge Amount:** Set to £ 10.00. Description: "We will Recharge your Meter with this amount of credit amount."
- Payment Card:** Set to 4242 (Last 4). Description: "We will use the Visa Credit Card ending in 4242 to take the payment."

A 'Disable Auto-Recharge' option with a gear icon is located in the top right corner of the main content area.

# Consumer - Payment History

## CONSUMER



End User of Energy

- \* Search/Query their Credit Top-Up history.
- \* Download/Email printable/csv report.



## CREDITS HISTORY

[HOME](#)
[ABOUT US](#)
[SERVICES](#)
[TECHNOLOGY](#)
[CONTACT](#)

[TRACK DELIVERY](#)
[ADD CREDIT](#)

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**Credit Events**

Meter Place

Meter Point

From Date

To Date

Action

Successful Credits Only

---

Details

Summary

Reports

**2015-07-07 16:40:11**

**£5.00 Charge Accepted: Old Brewery Works [TQ1 1JH] - Lab 3-Phase**

Charge was accepted by banking system and delivery job was submitted.

<> Charge ID: ch\_16LyB3AhxBctf2pVOI4gYkII

<> Event ID: evt\_16LyB5AhxBctf2pVz2FG11UW

✓ Status: Succeeded

<> Delivery Event: 95000060

⚡ Meter S/N: 52127865

🔧 Job: 90000058 ▲ Failed

**2015-06-23 17:30:13**

**£10.00 Cash Applied: Old Brewery Works [TQ1 1JH] - Lab 3-Phase**

Cash Payment was applied successfully.

<> Cash Payment ID: cash\_NMNBMGU2ZGQ00DK0

<> Reference: Testing SC

✓ Status: Succeeded

<> Delivery Event: 95000034

⚡ Meter S/N: 52127865

🔧 Job: 90000034 ✓ Delivered

## PRINTABLE REPORT

Report Date: 2015-07-14

Generated on MeterPay.net

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**Report Details:**

Currency: GBP

**Report Criteria:**

Meter Place: Old Brewery Works

Meter Point: Lab 3-Phase

From Date: ALL

To Date: ALL

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MeterPay Credit Report

Date / Time	Reference Number	Description	Status	Payments	Cash	Credit
2015-07-07 16:40	Y7U2-2KE1-02EH-0B0E	TQ1 1JH - Old Brewery Works - Lab 3-Phase	Charge Accepted	£5.00	£0.00	£5.00
2015-06-23 17:30	0B0E-0P22-05Q0-02E0	TQ1 1JH - Old Brewery Works - Lab 3-Phase	Cash Applied	£0.00	£10.00	£10.00
2015-06-21 00:07	22E0-Y2FM-02K2-12C2	TQ1 1JH - Old Brewery Works - Lab 3-Phase	Cash Applied	£0.00	£1.00	£1.00
2015-06-20 22:57	0270-02MG-VNF1-02DL	TQ1 1JH - Old Brewery Works - Lab 3-Phase	Cash Applied	£0.00	£1.00	£1.00
2015-06-19 09:35	02BE-Y2GM-02BE-02F2	TQ1 1JH - Old Brewery Works - Lab 3-Phase	Cash Applied	£0.00	£50.00	£50.00
2015-06-18 17:10	0278-02K1-02E3-02E8	TQ1 1JH - Old Brewery Works - Lab 3-Phase	Charge Accepted	£5.00	£0.00	£5.00
2015-06-14 09:50	02Q0-02TY-VN11-02JL	TQ1 1JH - Old Brewery Works - Lab 3-Phase	Cash Applied	£0.00	£1.00	£1.00
2015-05-21 22:10	0200-02GM-02L2-02Q2	TQ1 1JH - Old Brewery Works - Lab 3-Phase	Charge Accepted	£5.00	£0.00	£5.00
2015-05-21 19:55	0205-02TY-VN12-02D8	TQ1 1JH - Old Brewery Works - Lab 3-Phase	Charge Accepted	£5.00	£0.00	£5.00
2015-05-21 18:30	02A1-02DM-VN13-02K4	TQ1 1JH - Old Brewery Works - Lab 3-Phase	Charge Accepted	£5.00	£0.00	£5.00
2015-05-21 18:10	Y200-02JG-MK13-02D0	TQ1 1JH - Old Brewery Works - Lab 3-Phase	Charge Accepted	£5.00	£0.00	£5.00
<b>REPORT TOTALS:</b>				<b>£30.00</b>	<b>£63.00</b>	<b>£93.00</b>

## SUMMARY

Details

Summary

Reports

Successful Credits

**11**

MeterPay successfully processed 11 Credit Events..

Credit Value

**£93.00**

The successful credits had a total value of £93.00..

Online Payment

**£30.00**

£30.00 of these credits were made by Online Payment..

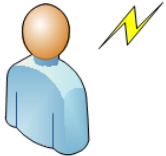
Cash Payment

**£63.00**

£63.00 of these credits were added as Cash Payments..

# Consumer – Consumption Charts

CONSUMER

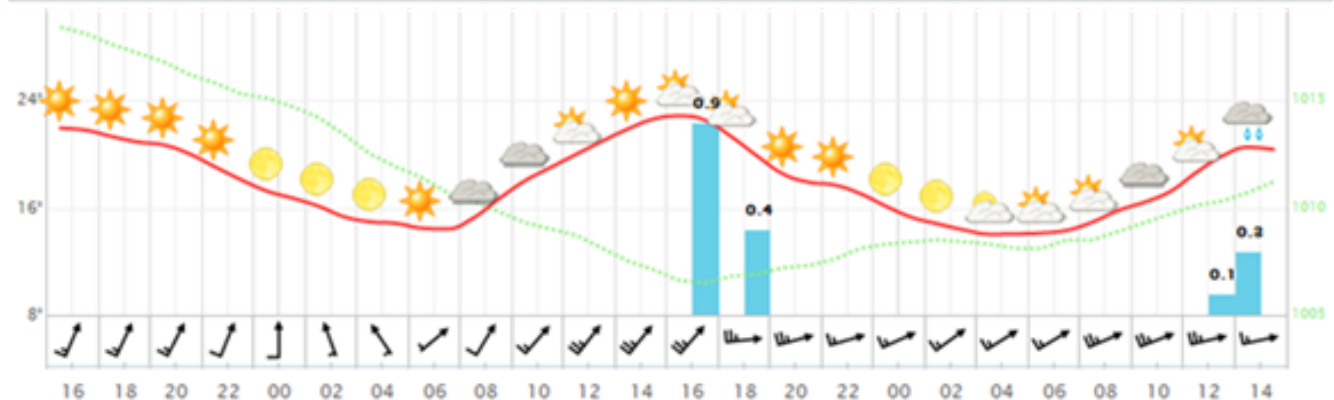
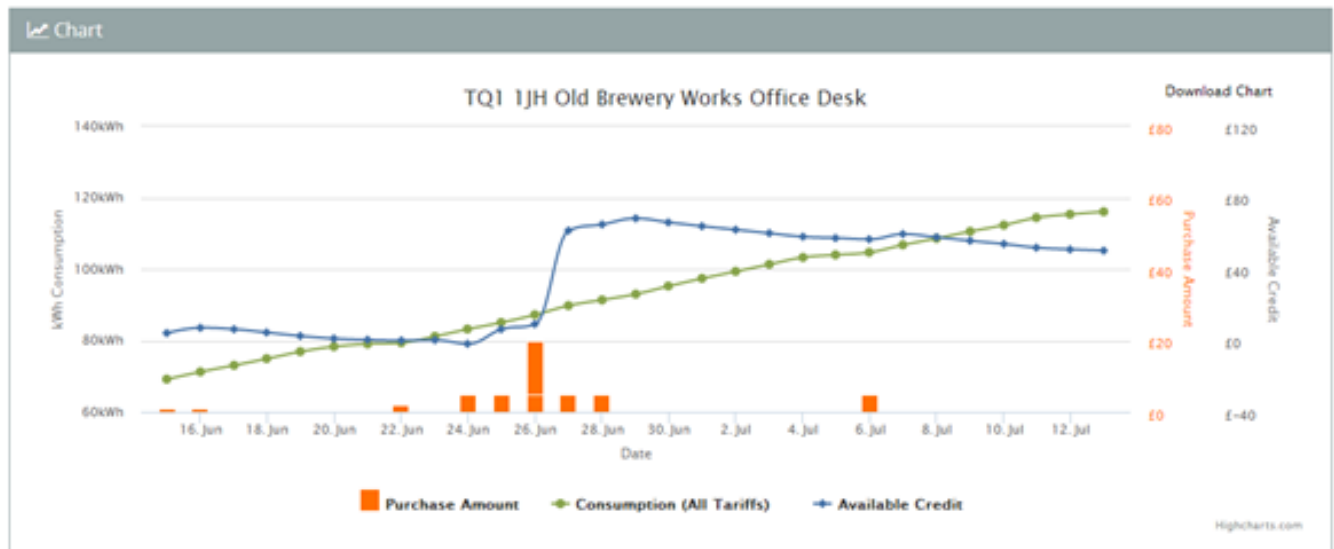


End User of Energy

- \* Generate and drill-down to detailed consumption charts.
- \* Download/Print PDF format.
- \* Climate data analysis (Q4 2016)



## CHARTS





# Owner Functions

OWNER



Scheme Operator

- \* MeterPay **Owners** have access to Consumer functions with management rights to Metering Places.

## METER PLACES



HOME

ABOUT US

SERVICES

TECHNOLOGY

CONTACT



TRACK DELIVERY ADD CREDIT

Meter Place

Change Meter Place Settings



Meterix House



WC2H 8JH



Active

Meter Point	Meter	Serial Number	Assigned Tariff	Status	Actions
Flat 1 Electric	ISKRA EMECO ME382	12345678	Prepayment Domestic	Supplying	[M] [I] [E] [L]
Flat 2 Electric	ISKRA EMECO ME382	23456789	Prepayment Domestic	Emergency	[M] [I] [E] [L]
Flat 3 Electric	ISKRA EMECO ME382	34567890	Prepayment Domestic	Disconnected	[M] [I] [E] [L]
Flat 4 Electric	ISKRA EMECO ME382	45678901	Prepayment Domestic	Supplying	[M] [I] [E] [L]
Unit 1 Electric (Office)	ISKRA EMECO MT382-AM550	87654321	Prepayment Commercial	Pending	[M] [I] [E] [L]
Unit 2 Electric (Shop)	ISKRA EMECO MT382	98765432	Prepayment Commercial	Supplying	[M] [I] [E] [L]

Add New Meter Point

- \* View, Create and Maintain deployments.
- \* Meter Places represent buildings / deployments.
- \* Meter Points represent supply locations.
- \* Assign / Invite user of Meter Point the **Consumer** role.
- \* Invite colleagues as **Owner** roles.

# Owner - Dashboard

OWNER



Scheme Operator

DASHBOARD

Old Brewery

My Deployments My Meters My Tariffs £ My Credits My Accounts My Events My Charts

CARDS (£)  
50.00

LAST WEEK	LAST MONTH
0.00	30.00

Successful Charges 100%

0 declined charges valuing £0.00

CASH (£)  
184.00

LAST WEEK	LAST MONTH
8.00	175.00

Charge to Cash Ratio 27%

73% of your credits were cash payments

Meter Place 1	92%
Meter Place 2	85%
Meter Place 3	64%

Scenario Overview

 <b>6 Active Meters</b> You have 6 active MeterPay smart meters.	 <b>No Banking Details</b> Click here to setup.	 <b>Subscription</b> Your MeterPay subscriptions are up-to-date.
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Old Brewery Works Demo B	Old Brewery Works Demo C	Old Brewery Works Factory 3 Phase	Old Brewery Works Lab 3-Phase
 £3.49	 £10.73	 (£41.45)	 £39.65
Last Seen: 1 hour ago	Last Seen: 1 hour ago	Last Seen: 1 hour ago	Last Seen: 1 hour ago
Available Credit: £3.49	Available Credit: £10.73	Available Credit: (£41.45)	Available Credit: £39.65

Events

mplace.mpldesc - mplace.mplpc

£ My Credits (Last 60 days)

- \* Dashboard feature to view **Scenario** details.
- \* Shows Credit, Alarm, Event and Activity Status from single page view.
- \* Most Active Meter Points.
- \* MeterPay system status updates.

# Owner – Meter Functions

## OWNER



Scheme Operator

- \* Configure MeterPay smart meter alarms, notifications, and log books.



General



M-Bus



Power Failure



Power Quality



Alarms



Communication



Disconnector



Fraud

## METERS

### Your MeterPay Smart Meters



Manufacturer's Documentation

### Iskra Mx382 Smart Electricity Meter for MeterPay

MeterPay support a wide range of Smart Meters and associated technology for Multi-Utility measurement through a technical partnership with Iskraemeco.

Iskraemeco is the industry leader and supplier of energy metering equipment incorporating innovative communication technologies. A world leading company in energy metering systems and services encompassing experience with innovation to satisfy the needs for the electricity, gas and water metering billing markets.

### Mx382 Family of Smart Meters

The Mx382 family feature single and polyphase smart electricity meters, based on GSM/GPRS/UMTS communication which provides the most reliable data transmission in smart residential and mid-size commercial environments. This future-proof investment includes:

- M-Bus Supported for Multi-Utility.
- Terminal Cover size options.
- Remote connection/disconnection.
- Extensive anti-tampering features.
- Optional in-house display.
- Secure encrypted communication.
- Photovoltaic friendly design.
- Import/Export energy measurement.

Serial Number	Model	Assigned To	Smart Meter Logs	Warranty Expiration
52127865	ME382-D3	Meterix Park - Timer	[Icons: Bell, Document, M-Bus, Padlock, Power Plug, Lightning Bolt, Heart]	2016-10-16
52152095	ME382-D3	Meterix House - Demo C	[Icons: Bell, Document, M-Bus, Padlock, Power Plug, Lightning Bolt, Heart]	2017-03-23
52152164	ME382-D3	Meterix House - Demo A	[Icons: Bell, Document, M-Bus, Padlock, Power Plug, Lightning Bolt, Heart]	2017-03-23
52152192	ME382-D3	Meterix Demo - Flat 1	[Icons: Bell, Document, M-Bus, Padlock, Power Plug, Lightning Bolt, Heart]	2016-10-16
52152204	ME382-D3	Meterix House - Office Desk	[Icons: Bell, Document, M-Bus, Padlock, Power Plug, Lightning Bolt, Heart]	2017-03-23
52192311	ME382-D3	Meterix Park - Factory 3-Phase	[Icons: Bell, Document, M-Bus, Padlock, Power Plug, Lightning Bolt, Heart]	2017-03-23
66225441	ME382-D3	Meterix House - Demo B	[Icons: Bell, Document, M-Bus, Padlock, Power Plug, Lightning Bolt, Heart]	2016-11-10

- \* Hardware warranty expiration dates with extension purchase.
- \* Full technical support package.

## TECHNICAL



# Owner - Tariff Management

OWNER

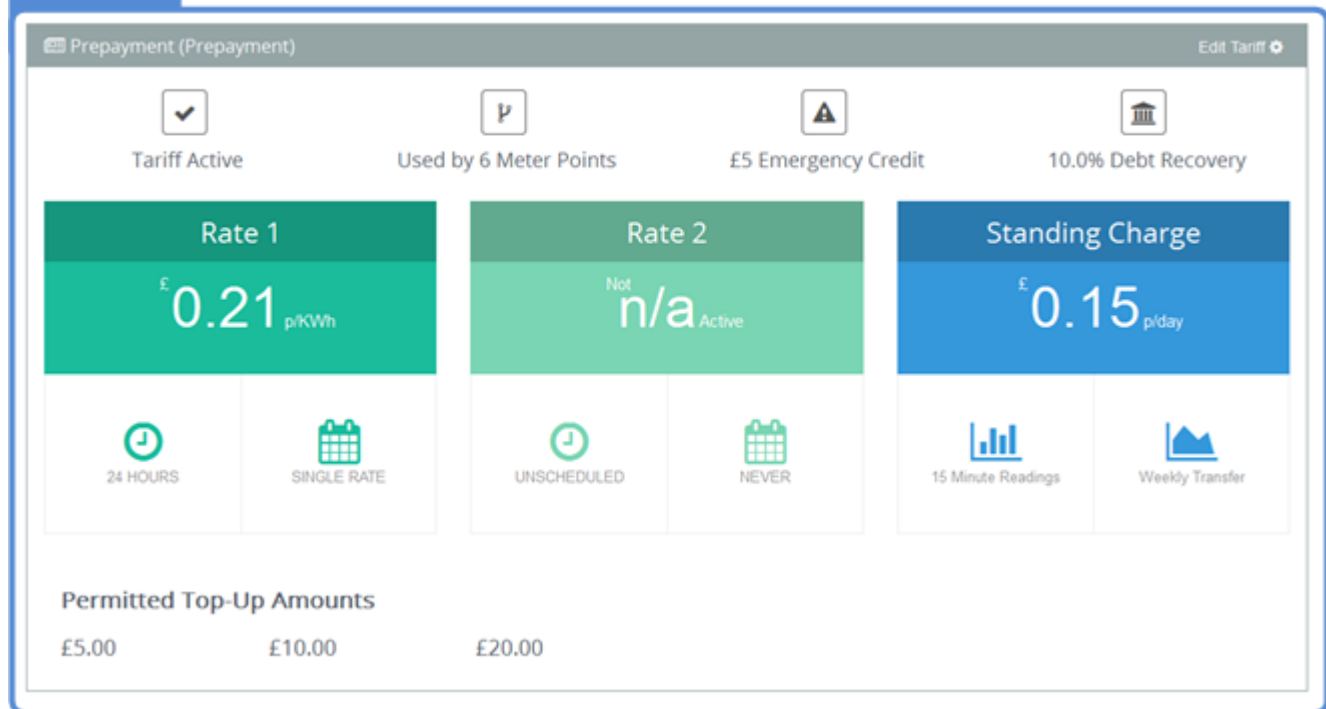


Scheme Operator

- \* Single/Dual Rate Prepayment consumption tariffs.
- \* Pause Prepayment (landlord supply) between tenancies.
- \* Smart Prepayment timer for time-based top-up. (Q2 2016)
- \* Remote disconnect/reconnect mode.

- \* Configure and assign multiple tariff groups.
- \* Immediate or Scheduled deployment.
- \* Load Profile recorded every 15 minutes.
- \* Automated meter reading.

## TARIFFS



Prepayment (Prepayment) Edit Tariff

Tariff Active       Used by 6 Meter Points       £5 Emergency Credit       10.0% Debt Recovery

Rate 1		Rate 2		Standing Charge	
£ 0.21 p/kWh		Not n/a Active		£ 0.15 p/day	
<input type="checkbox"/> 24 HOURS	<input type="checkbox"/> SINGLE RATE	<input type="checkbox"/> UNSCHEDULED	<input type="checkbox"/> NEVER	<input type="checkbox"/> 15 Minute Readings	<input type="checkbox"/> Weekly Transfer

Permitted Top-Up Amounts

£5.00      £10.00      £20.00

# Owner - Debt Management

OWNER



Scheme Operator

- \* Create debt ledger entries for consumer accounts.
- \* Flexible repayment configuration by Tariff.
- \* Reclaim debt from portion of top-up payments or directly through smart meter standing charge.

LEDGER

## Ledger Entry

GBP - Ledger Amount

0.00

£

Set to a negative amount to indicate the consumer is in debt.

Description

This ledger description is visible to the consumer.

£

Public: Visible to Consumer.

Your Notes

Your notes are not visible to the consumer.

Private: Your notes relating to this entry.

Go Back

Add Ledger Entry

ACCOUNT

40000024 -

Configure

Assigned	Removed	Meter Point	Recharge	Active	Notes
2015-11-26	2016-03-24	2000	Inactive	Disabled	

Account

PIN

E-Mail

4000

This consumer has a Zero (0) account balance.

Date	Type	Description	Currency	Amount	Action
2016-Feb-01	Debit	Share Of Outstanding Bill £80 To Be Paid	GBP	(£26.67)	
2016-Mar-01	Credit	Account Credit from Transaction: ZGZ	GBP	£25.00	<a href="#">Transaction Details</a>
2016-Mar-23	Credit	Account Credit from Transaction: NWX	GBP	£1.67	<a href="#">Transaction Details</a>
			Total	(£0.00)	
			Account Balance	£0.00	

# Owner – Accounts Integration

OWNER




- \* Xero Accounting Integration
- \* Top-Up credits accounted as Sales transactions.
- \* Cost Accounting for card transactional fees.
- \* Choice of Cash payment accounting.



XERO

Xero Accounting Integration Configure

Once your Xero integration is configured, Card payments you receive through Stripe and Cash Payments processed through MeterPay will be automatically sent as invoices in Xero. If you would prefer to reconcile manually, you can select the single credits you wish to transact as invoices in Xero.



Xero Demo £ Currency

Meterix Limited ⚡ Sales: #200

Bank Fees: #404  Stripe Charge

[Manually import A Transaction](#)

INVOICE

Awaiting Payment [Go to MeterPay](#) Email Print PDF 1 Invoice Options

To	Date	Due Date	Invoice #	Reference	Total
us-es@email.com No address Add address	Today	+7 Days	INV-XXXX XXXX:XXXX:XXXX:XXXX		9.51

Amounts are Tax Exclusive

Item Code	Description	Quantity	Unit Price	Disc %	Account	Tax Rate	Amount GBP
	Card payment received for MeterPay Smart Meter SN 52152152 Unit 1, Meterix House, WC2H 9JQ.	1.00	10.00		Sales	No VAT	10.00
	Stripe Commission Charge	1.00	(0.49)		Bank Fees	No VAT	(0.49)
Subtotal							9.51
Total No VAT							0.00
<b>TOTAL</b>							<b>9.51</b>



QuickBooks.



- \* Additional accountancy integrations will be developed upon request (Sage/KashFlow/QuickBooks).



# Owner – Event Notification

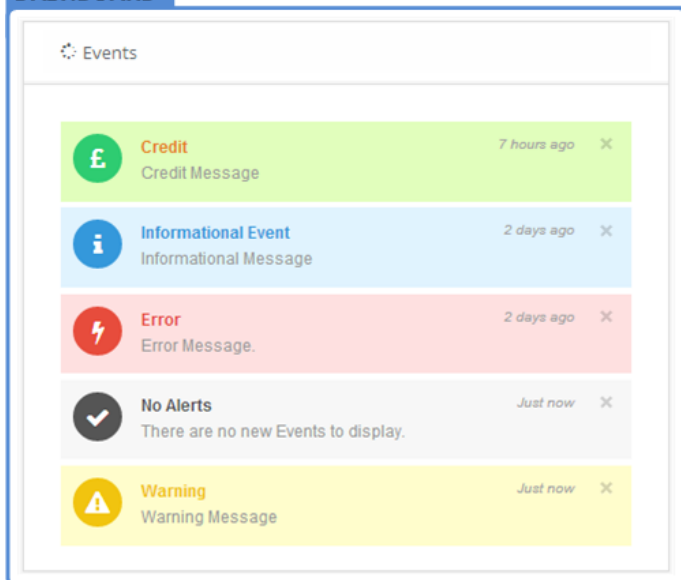
OWNER








Scheme Operator

- \* MeterPay records system events for all operations for review.
- \* Smart Metering alarms configuration for:
  - \* Fraud Detection (anti-tampering).
  - \* Power Down supply power disconnection (power cut).
  - \* Connectivity diagnostics (mobile signal / network operator).
  - \* Watchdog Smart Meter diagnostics alarms.

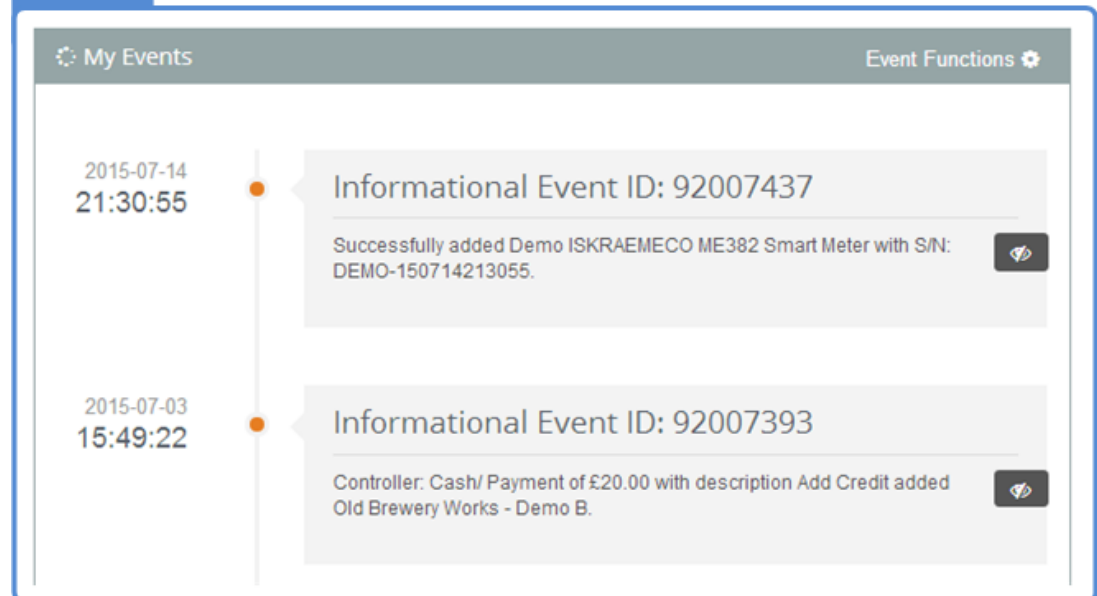
DASHBOARD








Events

- Credit** 7 hours ago   
Credit Message
- Informational Event** 2 days ago   
Informational Message
- Error** 2 days ago   
Error Message.
- No Alerts** Just now   
There are no new Events to display.
- Warning** Just now   
Warning Message

EVENTS



My Events Event Functions 

- 2015-07-14 21:30:55   
Informational Event ID: 92007437  
Successfully added Demo ISKRAEMECO ME382 Smart Meter with S/N: DEMO-150714213055. 
- 2015-07-03 15:49:22   
Informational Event ID: 92007393  
Controller: Cash/ Payment of £20.00 with description Add Credit added Old Brewery Works - Demo B. 



# MeterPay Development Roadmap

- \* Continuing development to provide prepayment services for Water, Heat, Gas multi-utility sub-metering (2016).
- \* Smart Timer release (Q2 2016).

## MULTI-FUEL

### MeterPay Smart Meter



### Compatible Sub-Meters



Water



Heat



Gas

## SMART TIMER



### Smart Timer

Shower

Laundry

Car/Boat Charging

# MeterPay Summary / Demo



- \* MeterPay is built on a translation framework to support multi-lingual deployments and handles multi-currency payments.
- \* MeterPay is fully brandable and customisable for client request.
- \* Take the 'Add Credit' Demo -



<https://demo.meterpay.net/credit>

**S/N: 66225441**

**Post Code: WC2H9JQ**



**4242 4242 4242 4242 EXP: 11/22 CCV: 123**