

Competitor Research.

Subject: Pay at pump apps

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Apps Researched.

Esso

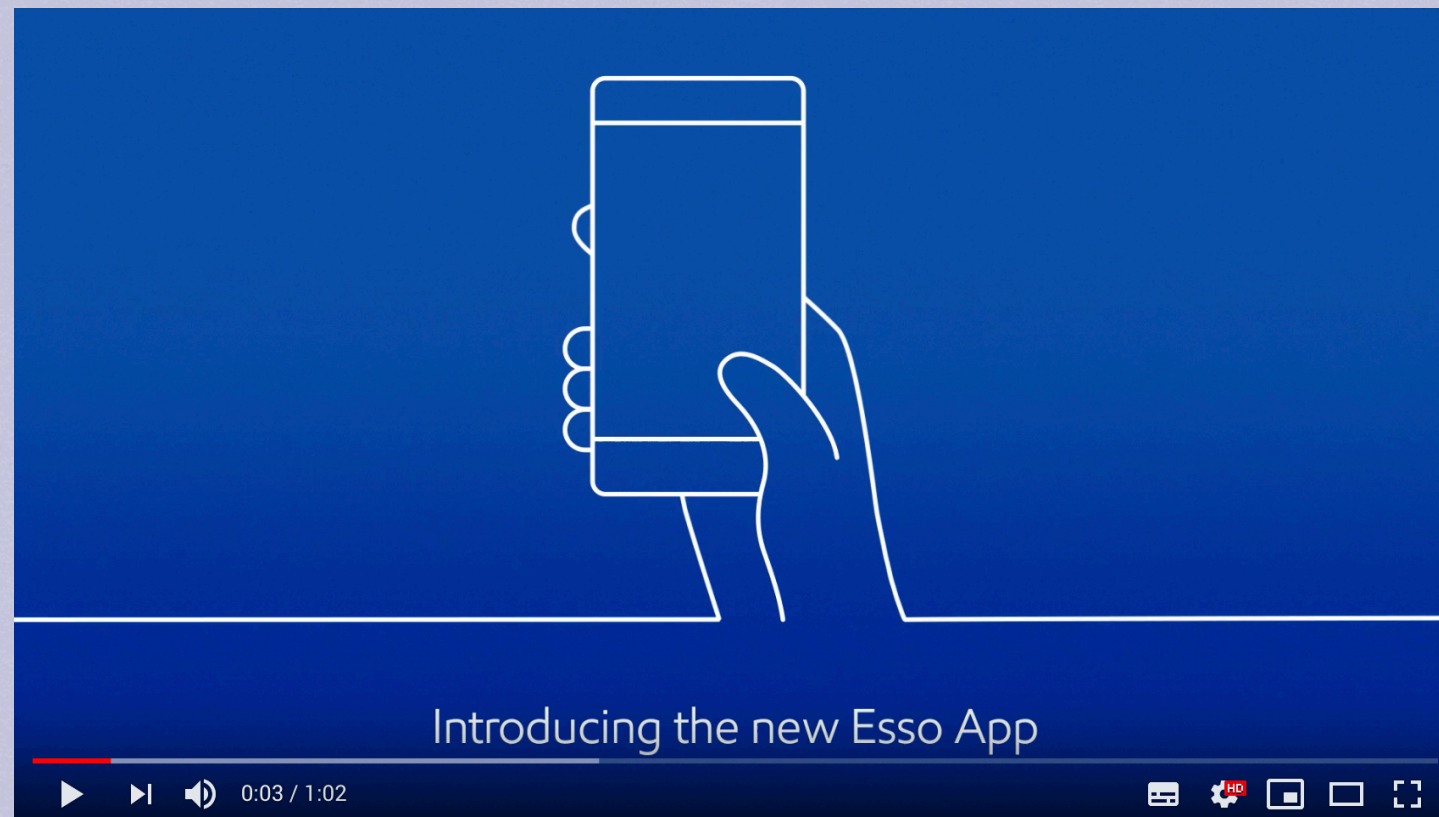


OVERVIEW

Say cheerio to queuing and pay with the new Esso App – a speedy and secure way to pay for your fuel from the comfort of your car. Pay for petrol or diesel at participating Esso branded stations with PayPal or Apple Pay for quick and secure payment. You can earn Tesco Clubcard points on your transactions (without the need to carry your card) We could let Esso put Pay+ payments in the app.

- 1 Its own app with on boarding
- 2 Automatically finds your location, you select pump
- 3 Tells you to start fuelling
- 4 Payment happens after fuelling
- 5 Fuel station locator
- 6 

VIDEO



SCREEN SHOTS

The screenshots show the following steps:

- 1** Mobile payment without the queue: Welcome to the new way to fuel. Just drive up to the pump and open the Esso App.
- 2** Quick and secure with PayPal: Select your pump. Please remain in your vehicle. Make sure you are parked at this pump and remain in your vehicle. Your Pre-Authorised Amount: £100.
- 3** Fill up and earn Tesco Clubcard points: Start fuelling now. Please get out of your vehicle and start fuelling. PUMP 6. You can fuel up to £100. Do not use your mobile while dispensing fuel or when walking on the forecourt.
- 4** Receipt on your phone. You're good to go!: Transaction Complete. Paid ✓. £36.96. Your payment has been successfully processed. Synergy Diesel 30.57 L. Tesco Clubcard 15 points.
- 5** Where to use the app: Esso Station Finder. Enter Postcode or City. MALTHURST EDEN PARK S/STN. MALTHURST SHORTLANDS S/STN.

BP me

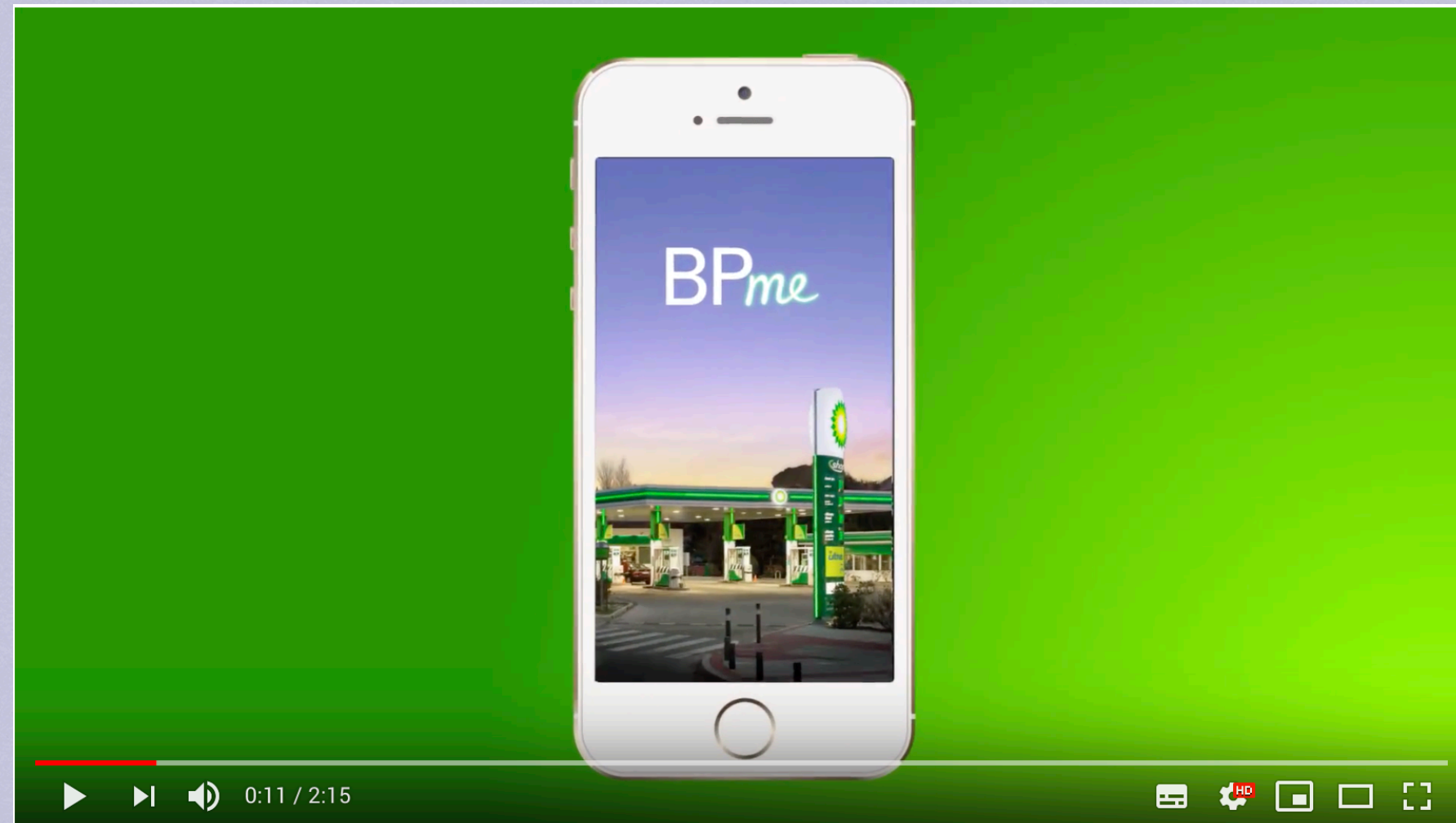


OVERVIEW

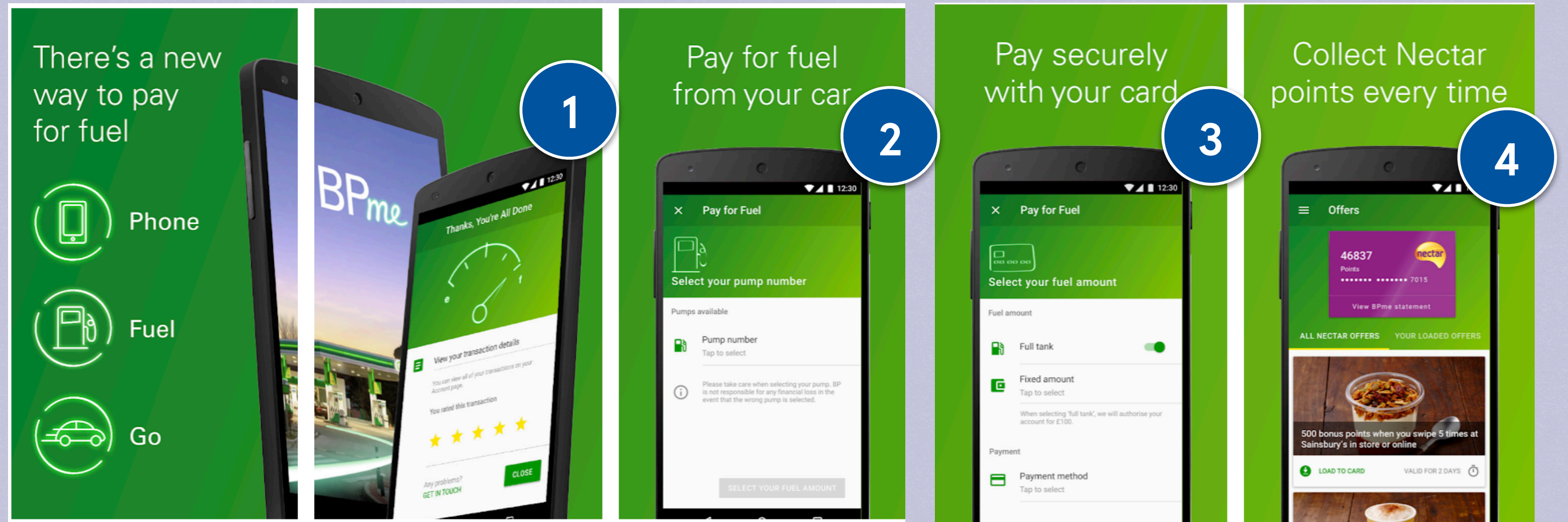
Drive up, enter the pump number and confirm your payment method and how much you want to fill. Briefly wait for the pump to unlock before getting out of the car to fill up. When you have finished fuelling, you can get on your way.

- 1 Simple and easy to pay
- 2 Make payment from inside the car
- 3 Pay with your card
- 4 Collects points also for using

VIDEO



SCREEN SHOTS



Shell



OVERVIEW

The Shell app provides you a faster and easier way to pay using our Fill Up & Go mobile payment service. You can also collect points and rewards with the Shell Drivers' Club.

1

Great, tag line

2

Good use of CTA

3

CTA Prominent to create account

4

First step is adding a card

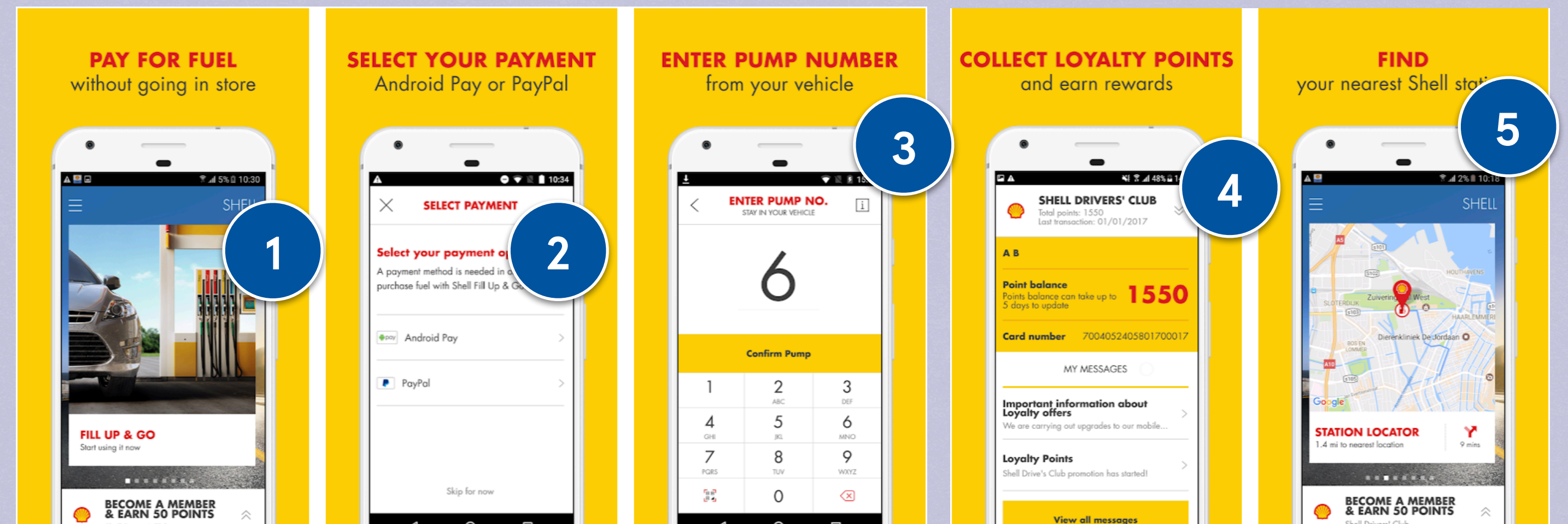
5

Notification open in the flow

VIDEO



SCREEN SHOTS



Caltex



OVERVIEW

A feature of the Caltex Australia App that lets you pay for fuel without the need to queue in store. Simply refuel your vehicle, open the app and enter your pump, and tap 'Pay now'

1

Good use of showing how easy it is.

2

Enter the pump number

3

Confirm the amount

4

Success screen

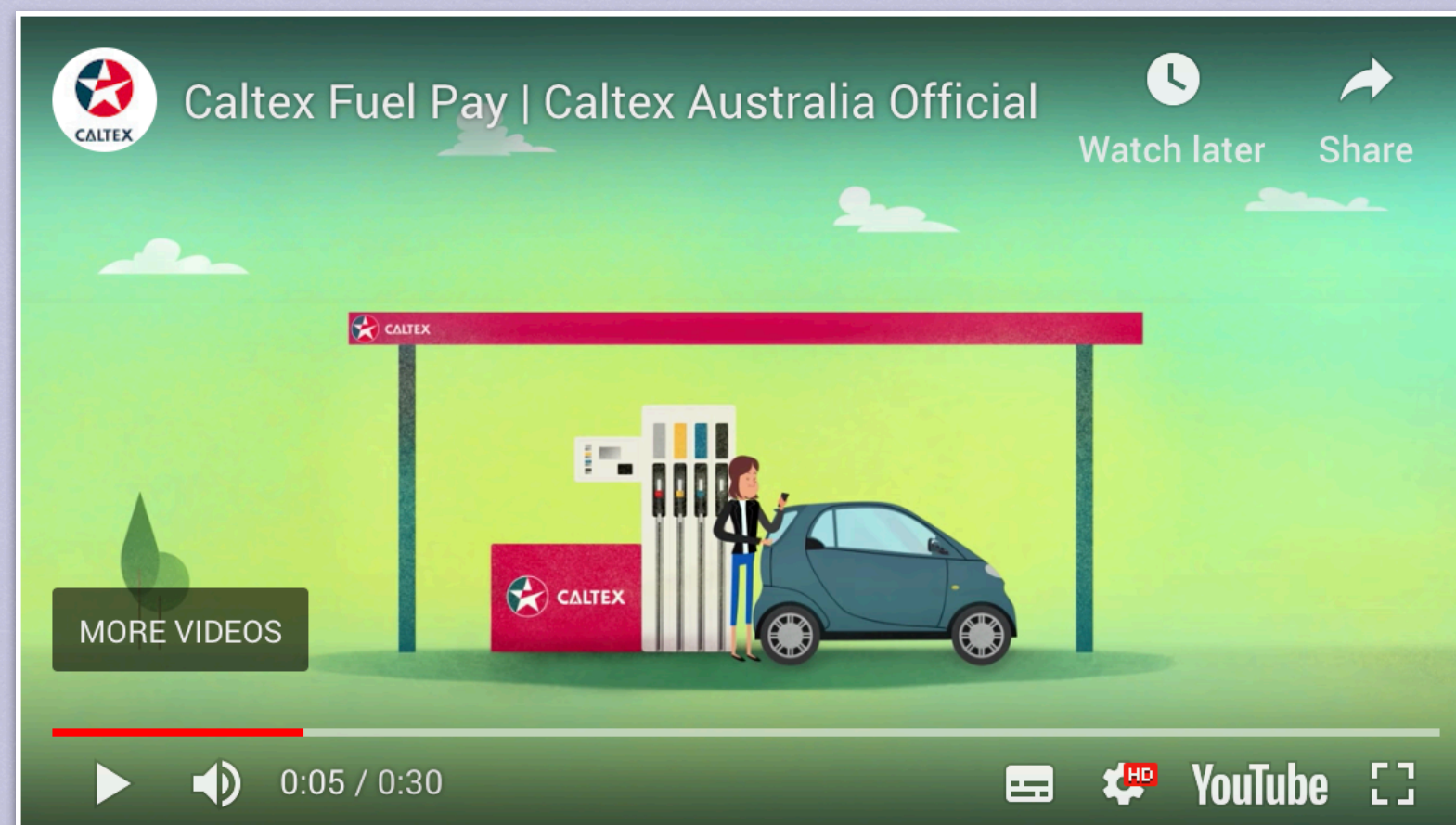
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Presenting offers while in app

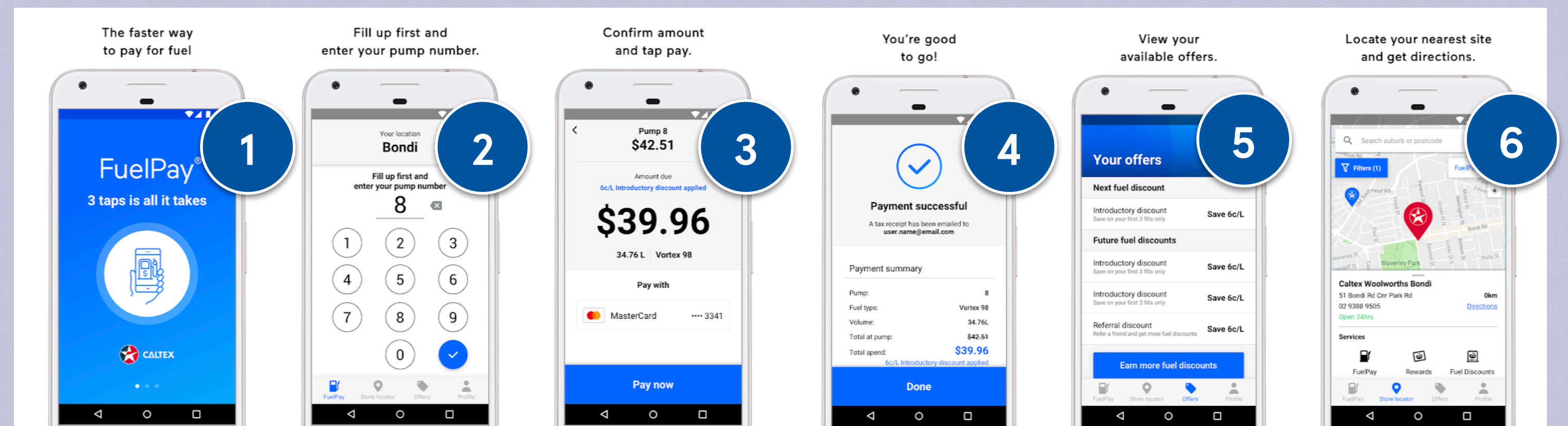
6

Uses Location preferences

VIDEO



SCREEN SHOTS



MyPilot



OVERVIEW

Save time and money with the myPilot app – the best way to get the most out of your stop at Pilot Flying J locations. With over 700 locations across the continent, you're sure to find a Pilot Flying J location nearby, Offers a bathrooms and showers service also.

1

Offers you an incentive to use the app

2

Shows offers and deals

3

Location finder for pumps

4

Shows the benefits of using the app

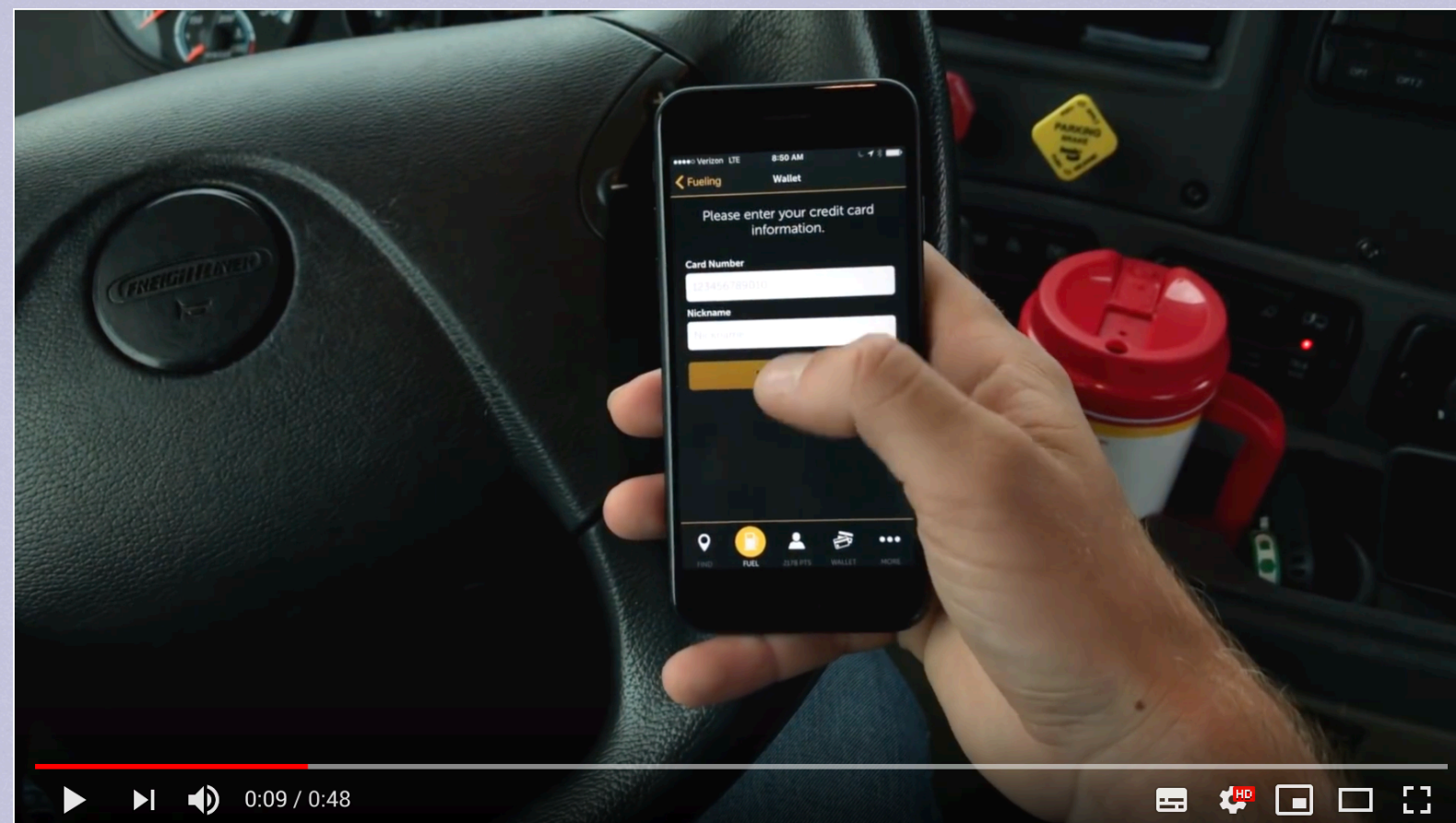
5

Process for showing fuelling

6

Promotes the use of other services

VIDEO



SCREEN SHOTS



Philips 66



OVERVIEW

Find the nearest Phillips 66 stations in your area, track KickBack® Points, hear about current promotions, It allows you to pay for your fuel at the pump.

1

Find fuel stations near you

2

Manage payment methods

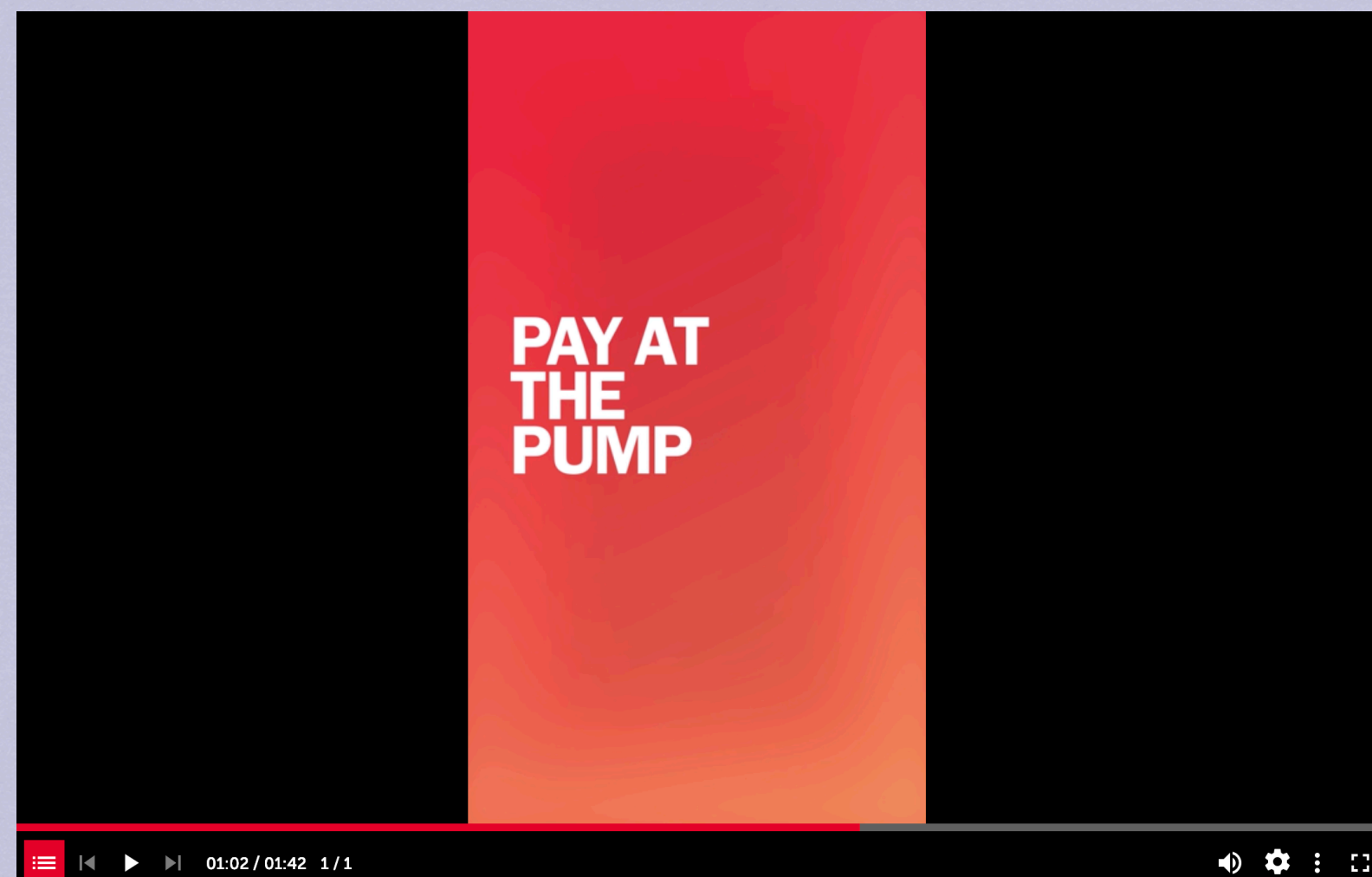
3

Select the pump number

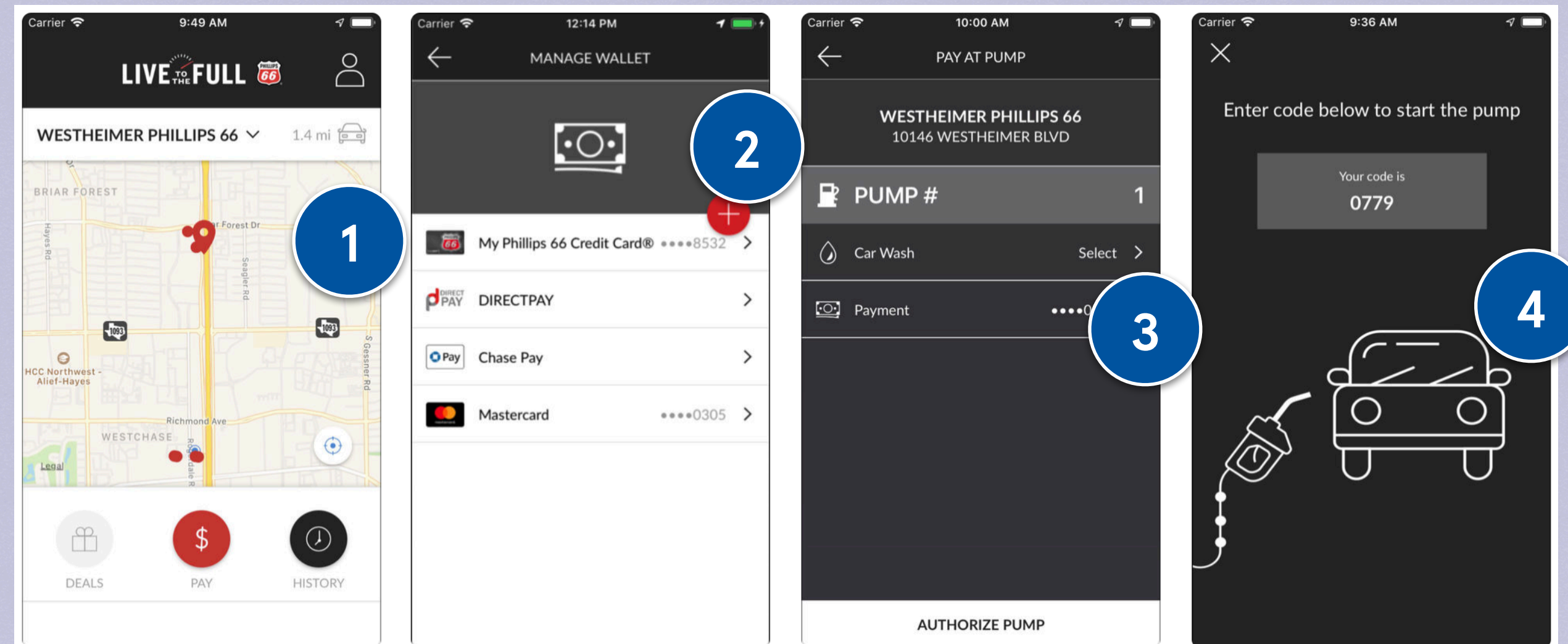
4

Authorise through a unique code to pay at pump

VIDEO



SCREEN SHOTS



Exxon Mobil

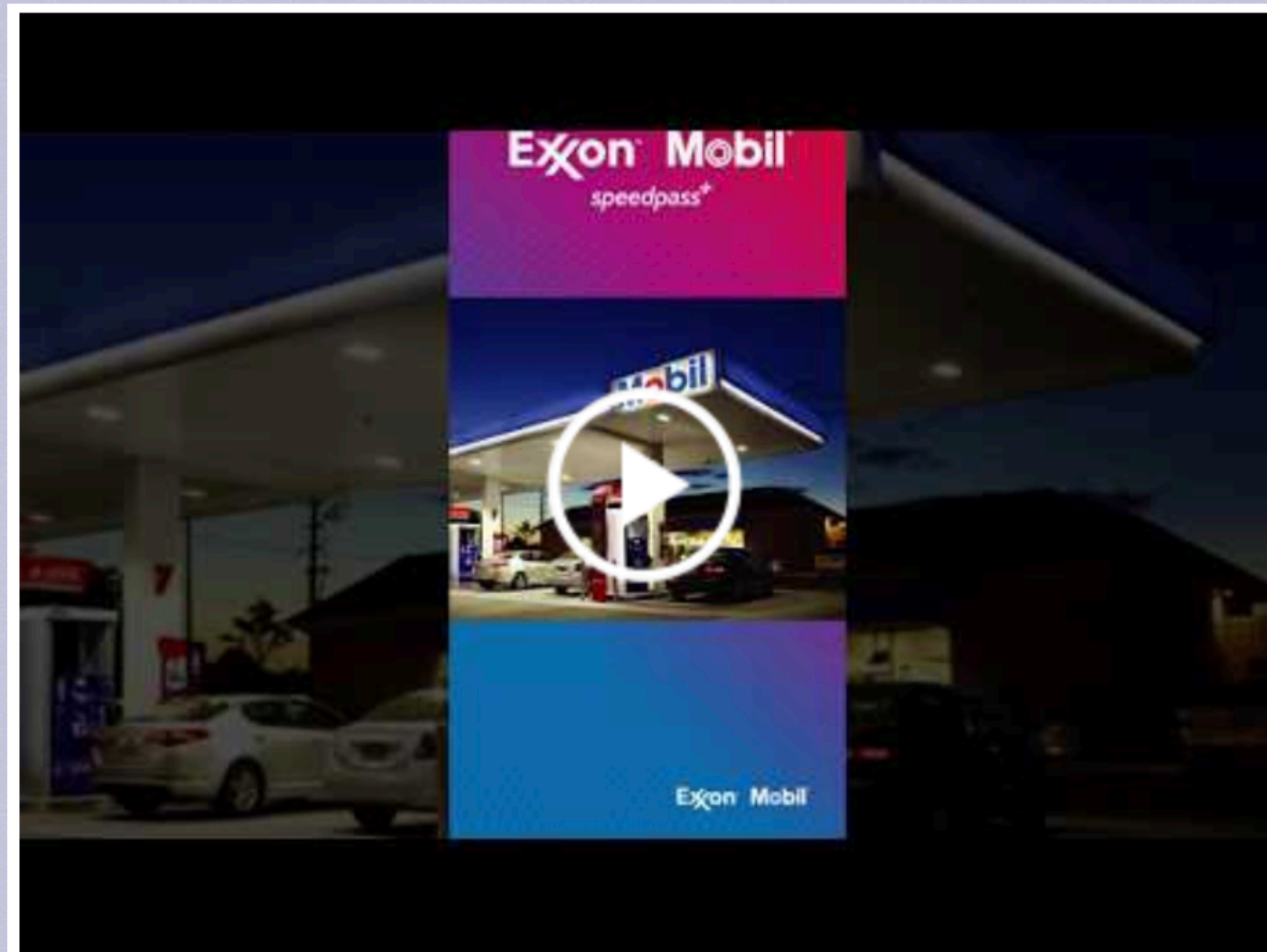


OVERVIEW

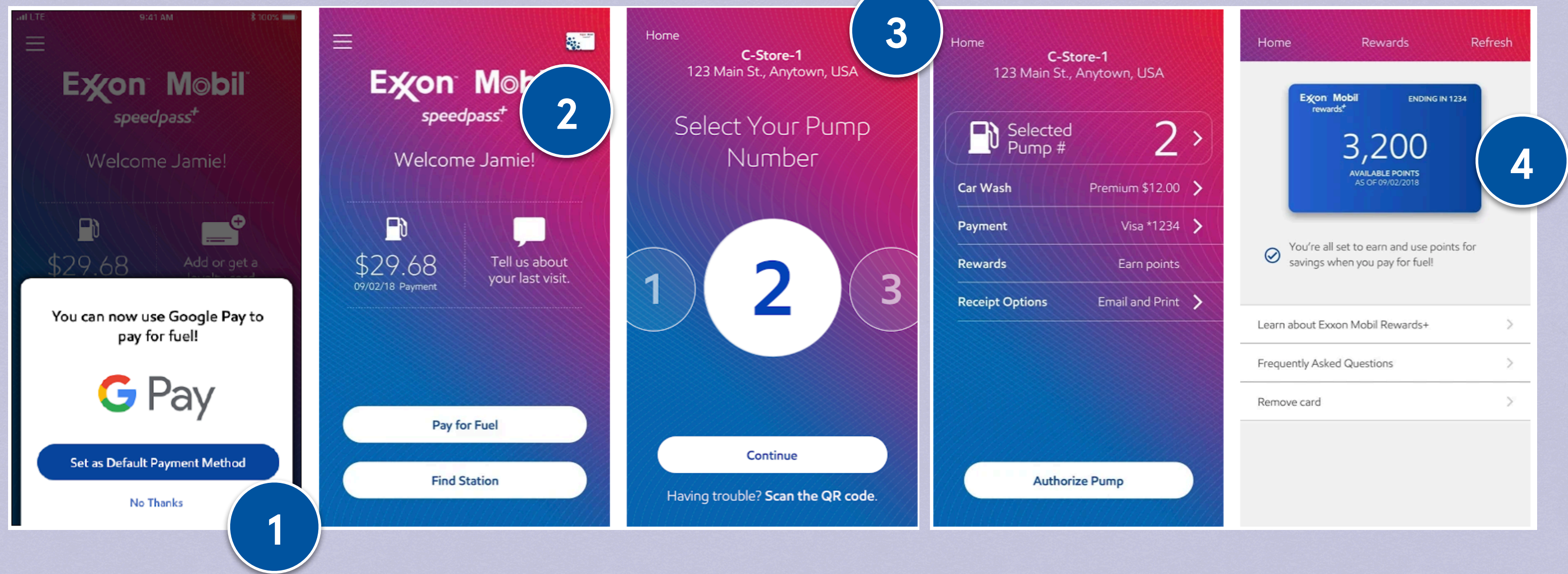
The quickest and easiest way to pay for fuel and earn rewards on every purchase. It is simple: just link your preferred payment method, add an Exxon Mobil Rewards+™ card and start earning on your next fuel purchase!

- 1 Uses Google pay for payment method
- 2 Marketed as speed pass
- 3 Choose pump
- 4 Get reward points

VIDEO



SCREEN SHOTS



Technology

QR technology

OVERVIEW



Phone scans QR

An alternative method could be that you could scan a QR code on the screen of the pump and you would be able to pay through your pay+ app. This would introduce a scanning feature to the app for payment.



Scanner scans phone QR

The current way that Pay+ make a payment is with scanning the QR code that appears on the phone at a till. A way we could use this at the pump would be to put a scanner at the fuel pump. This would keep the current payment method. But could be costly in equipment.

Who currently use these?

Snapcodes

Snapchat created the Snapcodes to make it easy for users to follow each other, and, at the height of Snapchat's popularity, millions of Snapcodes were being scanned each week. Brands could print their Snapcodes on posters and other promotional material in order to boost engagement as a form of **guerrilla marketing**.

Starbucks App

As of mid-2017, **nearly a third of all in-store payments are made via the Starbucks app** using QR codes. Starbucks is one of the few companies to successfully integrate mobile payments and digital wallet payments into their business model.

WeChat

China's most popular social media app successfully uses QR codes in nearly every way you can imagine. From **payments to marketing to sharing friend groups or profiles**, WeChat has made the QR code nearly ubiquitous in China.

NFC technology



OVERVIEW

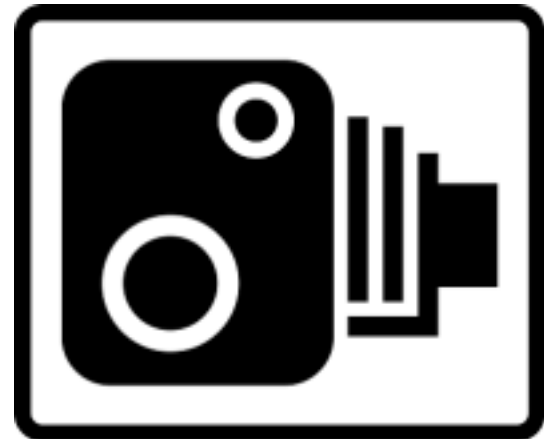
NFC, or Near Field Communication, is a technology that allows devices to exchange information simply by placing them next to one another. ... Smartphones use **NFC** to pass photos, contacts, or any other data you specify between **NFC** enabled handsets

HOW WE CAN USE THIS

Our app would have to adapt the way it pays by utilising apple pay / google pay. By drawing up a Tesco pay+ card to pay for petrol. This idea would work if we had a Pay+ bank card. Or if we could make a digital card from the payment details we have. This way we could utilise the NFC payment.



ANPR Technology



OVERVIEW

Automatic number plate recognition (ANPR) is a technology that uses optical character recognition on images to read vehicle registration plates to create vehicle location data

A solution where this could be used is. We ask customers for their Car registration in the Pay+ app then, if you want to fill up at the pump we have your registration stored so we would automatically know where you are and at what pump through the camera recognition system. Then after you have filled up all you would have to do would be to authorise the payment through the app, no need to even ask where you are. the cashier system could communicate with Pay+ to send you the amount to authorise payment. This could improve the experience and make it quick, easy and simple.



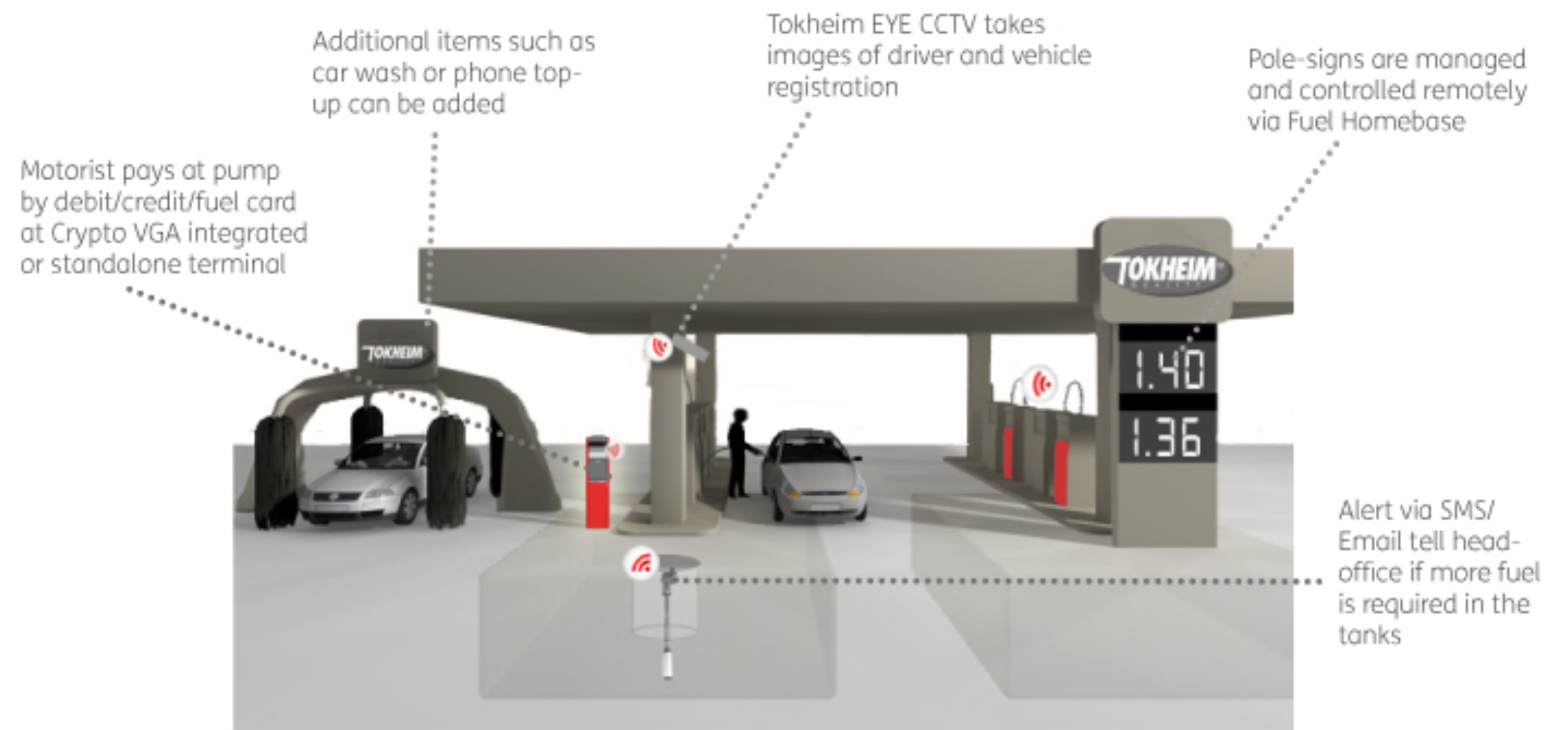
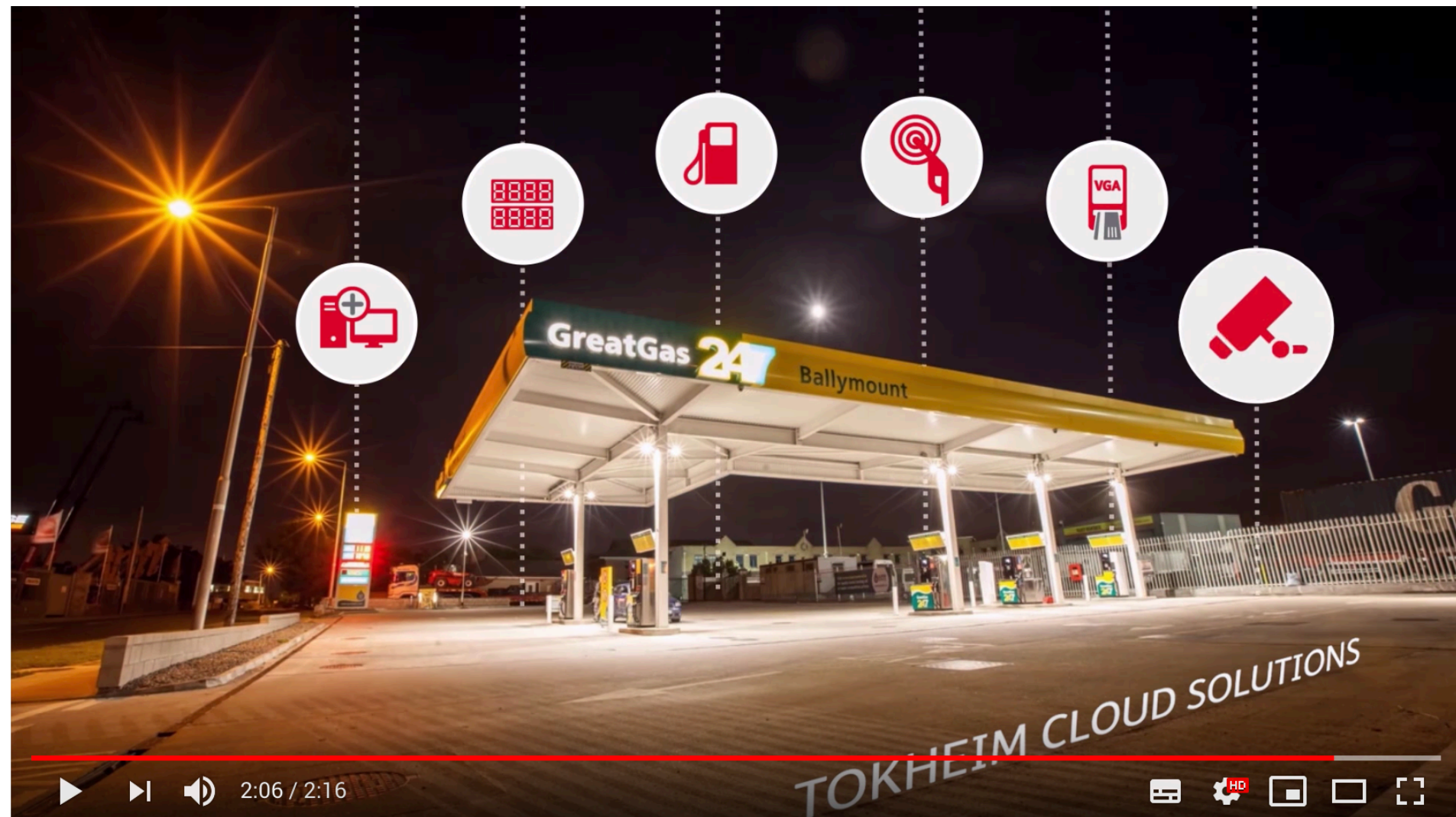
Tokheim



OVERVIEW

Tokheim Petrol Manager™ fuel management solution allows you to remotely manage fuel activities for your network of stations (unmanned or attended). It helps you to easily manage your network through alerts, view day reports, and see exactly how much fuel is stored in your tanks. You can also change your prices remotely via the Tokheim Petrol Manager application so you can manage your wetstock effectively from any location.

This is a system that could be utilised by us to handle the smart features around the pump.



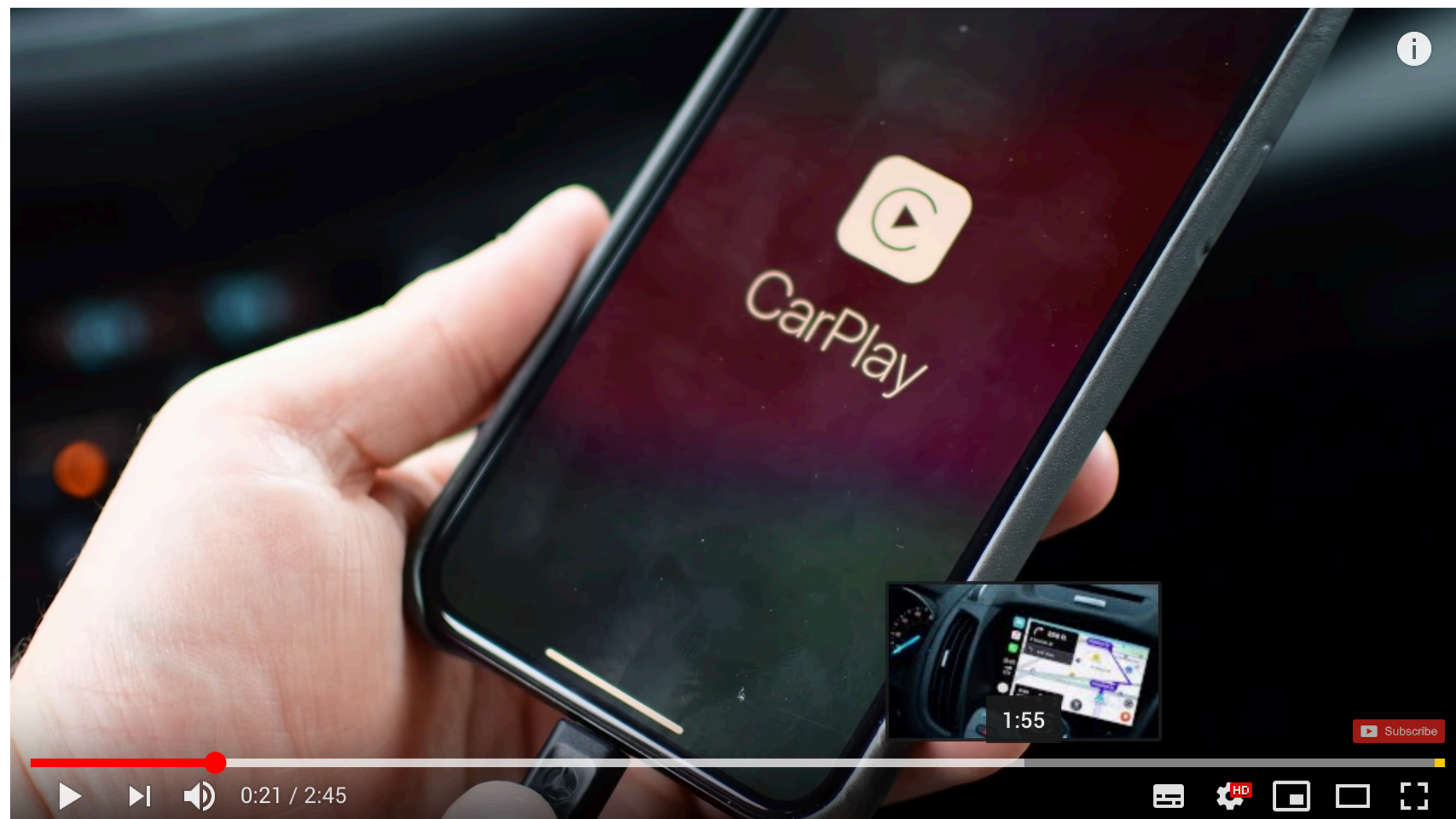
Car Play



OVERVIEW

Available on selected cars, CarPlay is a smarter, safer way to use your iPhone in the car. CarPlay takes the things you want to do with your iPhone while driving and puts them on your car's built-in display. You can get directions, make calls, send and receive messages, and listen to music

This would be a smooth transition as we would have to get our Tesco Pay+ app on the Car Play app store, if the user downloads the app they could potential pay from their fuel without taking out there phone.



IOTA Technology

IOTA & Volkswagen Will Release Blockchain Cars in 2019

This technology can allow vehicles and building to interact with one another, passing information through a network run on the blockchain. IOTA technology is slightly different as they use something called the Tangle, which allows scalability.

In the latest announcement by IOTA, they will be launching the Digital CarPass, which will see performance data tracked via IOTA, to ensure vehicle data collection is both reliable and secure. This is one of the latest 'real-world' integrations of IOTA, and is expected to be launched in 2019.



VOLKSWAGEN - PROOF OF CONCEPT

FIRMWARE / SOFTWARE UPDATE OVER THE AIR



By 2020 industry experts expect more than 250 million connected vehicles on the road. The need to perform frequent remote software updates of car components increases with the level of automation – especially with autonomous cars. IOTA envisions becoming the underlying protocol for car makers and suppliers to ensure secure updates and transparent access to audit trails.

THE CHALLENGES TODAY

Centralized ownership of data makes it difficult to ensure that the data are not tampered with. This lack of transparency leads to limited trust between parties and extensive documentation processes. Multipartner ecosystems create an in-transparent audit trail and proof of untampered data can't be ensured easily.

THE PROJECT GOALS

1. Documentation of over the air update (OTA) process steps on an immutable data storage medium and audit trail, where data integrity can be ensured.
2. Integration of IOTA technology into the existing legacy system to prove interoperability and production readiness.



CORE BENEFITS FOR VOLKSWAGEN

- Establish transparency and digital trust with customers, authorities and third parties.
- Ability to provide an evidence to external parties.
- Handle product recalls efficiently.
- Ability to record high volume of (incremental) updates and different software versions
- Tamper proof & transparent statistical recording

MORE OPPORTUNITIES

- **On Demand Features:** Request and configure car related features
- **V2V and V2I Communications:** Exchange information, data and resources
- **Ecosystem:** Use secure and immutable data to customize services like usage based insurance

Johann Jungwirth, Chief Digital Officer of Volkswagen and member of the Supervisory Board of the IOTA Foundation:

"Distributed Ledger Technologies (DLT) are crucial for the future of trusted transactions. IOTA has great potential to become a DLT leader with the Tangle approach."

VOLKSWAGEN

The Volkswagen Group is one of the world's leading automotive manufacturers. The Group maintains 120 production facilities in 31 countries, where it produces vehicles for customers in more than 150 countries. In 2017, the Volkswagen group delivered 10,741 million vehicles.



The IOTA Foundation was established in Germany as a formal, non-profit organisation ('gemeinnützige Stiftung') in 2017. To learn more about IOTA visit iota.org or reach out to contact@iota.org

<https://www.bitguru.co.uk/iota-news/iota-volkswagen-will-release-blockchain-cars-in-2019/>

Limitations.

Limitations

PAYING AT THE PUMP

One of the main limitations is that people feel uncomfortable to take their mobile phones out while being at the pump. We found some research conducted that mobile phones will not cause a fire to happen, which you can see in the video below, but this would be a barrier in the user experience as people don't feel comfortable to use a mobile phone near the pump.

VIDEO



IS IT ILLEGAL?

“On it, UKPIA outlines that the use of mobile phones on its members’ forecourts is merely “actively discouraged”, partly because of the risk of “serious distraction for people dispensing fuel or crossing the forecourt”.

The association also cites a “risk of incendive sparking”, while acknowledging the “low” risk. Nonetheless, UKPIA states that “mobile phones are not designed and certified for use in explosive atmospheres which exist temporarily around the pump and nozzle during refuelling as well as around the fill and vent pipes during petrol deliveries.

“Such use is expressly forbidden by law under the conditions of the petroleum licence and associated guidance.”



Key Points to take forward.

OBSERVATIONS

- Apps can locate you via location services
- Most make you chose a pump
- They allow different payment methods
- They offer reward points
- Good opportunity to cross sell
- Offer other services
- Most have fuel locators
- Most simplify the process in 3 steps
- Explainer videos seem to be key

SUMMARY

After conducting research on pay at pump I can see that there are multiple methods of approaching this problem. And companies are trying to simplify the design to a smaller amount of steps. When looking into emerging technologies we did find ways to bypass these steps and and make payment the experience of paying for fuel a 2 step process of fuelling the car and authorising payment after filling up. Although there could be constraints in technology.

The the easy method of doing this would be to utilise Car play to get access to vehicles and payment. And to include a section in the app that would cater for pay at pump.

Our easy entry point to the market could be to utilise the Esso app as they have already utilised Tesco Clubcard points their app. We could see we can get them involved involved in the process.

Thank you.