

# PRESS KIT



**2012 International Geneva Motor Show**

**DRIVE THE CHANGE**



## INTRODUCTION

Renault has chosen the 82<sup>nd</sup> International Geneva Motor Show for the first public appearance of **ZOE, the first affordable car for everyday use, from just €15,700<sup>1</sup>, to have been designed from the ground up as an electric vehicle.** ZOE packs the industry's most advanced technology, including no fewer than six 'world premiere' features designed to deliver user-friendliness, range and connectivity.

ZOE comes in the wake of the status-enhancing Fluence Z.E. saloon, Kangoo Z.E. van (both launched in 2011) and the innovative city car Twizy to make Zero Emission mobility a reality for ordinary motorists - one of the pledges of **Renault's 'Drive the Change' signature.**

Through its 'Renault 2016 – Drive the Change' plan, and thanks to its growing range of electric vehicles, along with work on its internal combustion engines, Renault has made a commitment to reduce its global carbon footprint by 10 per cent by 2013, and by a further 10 per cent between 2013 and 2016. The fruit of this strategy can now be seen on the street.

**With regard to its internal combustion engines,** Renault has chosen the Geneva Motor Show to reveal the latest phase of its powertrain strategy.

Its Energy range sees the addition of two new internal combustion engines: the petrol Energy TCe 90 and the diesel Energy dCi 90. All the powerplants that feature in the Renault Energy range deliver **a raft of innovations aimed at enhancing powertrain performance while at the same time returning low fuel consumption and CO<sub>2</sub> emissions.**

Meanwhile, the **Mégane Collection 2012 line-up, which stands out as the flagship of Renault's quality drive,** includes three new engines that all combine driving enjoyment, fuel efficiency and hallmark reliability for even greater appeal. The model embodies the Renault group's expertise in the realm of quality, which extends from the design to the sale of all the vehicles it markets.

**Last but by no means least, after an initial series of four concept cars, Renault's new design strategy is now visible in its showrooms. Indeed, New Twingo and ZOE both feature the brand's new front-end styling signature, not to mention Twizy which creates a class of its own...**

*"ZOE will be the spearhead of the Renault Z.E. range and the version on show at Geneva represents the model's final design. In addition to its compact size, attractive styling and affordable price tag, it showcases Renault's technological excellence when it comes to electric vehicles. ZOE also heralds the beginning of a new era of electric mobility for all and confirms our commitment to electric vehicles. It marks an important step for Renault which has a 110-year history of making major innovations a concrete reality for ordinary motorists. Our range of Energy engines is a further illustration of our 'innovation for all' drive. This range of eight engines – two of which are being unveiled today – benefits directly from our success in Formula 1 and combines performance, driving pleasure, and low fuel consumption and CO<sub>2</sub> emissions."* **Carlos Ghosn, Chairman and Chief Executive Officer, Renault**

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<sup>1</sup> Price in France (€5,000 tax incentive deducted)

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<sup>2</sup> Price in France (€5,000 tax incentive deducted)

## **INNOVATION FOR ALL: QUITE SIMPLY REVOLUTIONARY, WITH ZOE AT THE CUTTING EDGE IN TERMS OF ELECTRIC POWER**

### **ZOE MARKS A NEW ERA OF ELECTRIC VEHICLES FOR ALL**

**ZOE** is Renault's solution to Zero Emission mobility for all. In addition to being a first class choice for everyday use and readily affordable (from just €15,700<sup>3</sup>) ZOE is the first pure-electric car to be designed from the ground up as such. ZOE is packed with the latest technology and boasts no fewer than six world premieres geared to enhancing user-friendliness, range and connectivity.

For the first time, the conditions necessary for the widespread roll-out of electric vehicles are well and truly in place.

Unveiled at the 2012 Geneva Motor Show, Renault ZOE will go on sale this autumn. Its launch marks the beginning of a new era: an era of electric vehicles for all.



#### **ZOE's world premiere features**

1. The first mass-market electric vehicle with a price from just €15,700<sup>3</sup>.
2. The first mass-market electric vehicle to be homologated with an NEDC<sup>4</sup> cycle range of 210 km.
3. The first vehicle equipped with 'Range OptimiZEr, that improves the real-world range, depending on driving conditions. For example, in suburban use, the owner will achieve between 100 km and 150 km.
4. The first electric vehicle capable of being charged at any level of power – in between 30 minutes and nine hours – thanks to the Chameleon charger.
5. The first electric vehicle to enable the massive roll-out of fast-charging stations, which are easier and up to four times cheaper for local governments.
6. The first Renault vehicle to be presented with Renault R-Link, a multimedia system featuring a seven-inch touch screen tablet, navigation and connected services.

<sup>3</sup> Price in France (€5,000 tax incentive deducted)

<sup>4</sup> New European Driving Cycle

## Style imbued with purity and emotion

ZOE's final design is being world-premiered at the 2012 Geneva Motor Show. Designed as a pure-electric car from the ground up, ZOE is a compact hatchback with sleek, fluid lines. Its agile, dynamic looks express driving enjoyment, while its signature headlights feature LEDs that permanently light up recesses situated either side of the front air intake. Like Twingo and Twizy, ZOE features the Renault brand's new design identity.

### Exterior styling

*"We wanted ZOE's design to embody both a sense of breakthrough technology and core automotive styling cues. The car's eco-friendly dimension is expressed in its pure lines which appear to flow along the bodywork. Its contemporary proportions combined with sculpted volumes make ZOE a reassuring and captivating car."* **Agneta Dahlgren-Hermine (ZOE Design Project Manager)**



### Interior design



*"ZOE's interior design reflects its modern, 'eco' character, with a bright colour scheme evocative of purity, plus the latest interactive technology in the form of the Renault R-Link tablet. The dashboard moulding has been designed to resemble the blade of a wind turbine."* **Dominique Marzolf (Interior Designer)**

### Electric mobility for all, from just €15,700<sup>5</sup>

Today, for the first time, it is possible to buy an electric vehicle at a price close to that of a diesel-engined city car in markets where tax incentives are available. For example:

- In France, tax-paid prices for ZOE start from €15,700 (with tax incentive of €5,000 deducted).
- In the United Kingdom, where a subsidy of £4,333 is available, tax-paid prices for ZOE start from £13,650 (equivalent to €16,450 at current exchange rates).

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<sup>5</sup> Price in France (€5,000 tax incentive deducted)

Even in countries where tax incentives are not currently available, prices for ZOE are still particularly attractive. In Switzerland, for example, ZOE's catalogue price is CHF 22,800, which is equivalent to approximately €18,900 at current exchange rates).

The cost of leasing the battery starts from €79/month (price for a 36-month contract and a distance travelled of 12,500km/year), inclusive of comprehensive breakdown assistance (which covers flat batteries).

Since March 6, it has been possible to pre-order ZOE in 11 countries at a bespoke website (Renault-ZE.com). Customers who reserve ZOE will be offered a test drive and will be contacted on a priority basis as soon as the car goes on sale.

### **ZOE, a raft of innovations for a new form of motoring**

More than 60 patents have been filed for ZOE's design. Range, interactivity and occupant wellbeing are at the core of the vehicle's innovations.

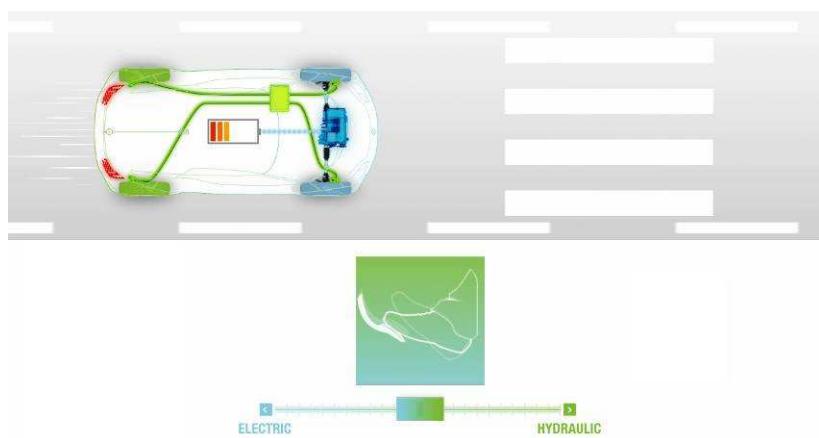
#### ***ZOE, the first mass-market electric vehicle to be homologated with an NEDC cycle range of 210 km***

In terms of autonomy, Renault has developed the 'Range Optimizer', that combines three major innovations (new-generation regenerative braking, a heat pump and MICHELIN EnergyTM E-V tyres). Due to this, the range of ZOE is the highest of the electric vehicles in mass production. In the NEDC cycle, ZOE is homologated with a range of 210km. In real conditions, for example, in suburban use, the owner will generally achieve around 100km in cold weather and 150km in temperate conditions.

#### **New-generation**

#### **regenerative braking**

recovers practically all of the energy otherwise wasted during braking, without any significant impact on ZOE's on-road dynamics. The car offers a perfectly smooth drive with no jarring electric motor braking. The system works in two ways:



- The kinetic energy produced under deceleration and braking is recovered by the motor so that it can be converted into electricity to charge the battery. This feature is also fitted to Fluence Z.E. and Kangoo Z.E.
- When the driver presses the brake pedal, the system intelligently distributes the braking effort between applying the brake pads and the electric motor brake with a view to maximising the use of the electric motor brake and charging of the battery.

The **heat pump** provides excellent thermal comfort without detracting from the vehicle's range. This system, which operates in the same way as reverse-cycle air-conditioning, consumes very little electricity. It produces warm or cool air by simply reversing the cycle of operation. The heat pump generates approximately 2kW of cooling or 3kW of heat with just 1kW of electricity. The cabin temperature is also more constant since it is not affected by the heat given off by the motor.

The **MICHELIN Energy™ E-V tyre** is a Michelin innovation co-developed with Renault as a world premiere for ZOE. The tyre features enhanced energy efficiency to maximise vehicle range. Its rubber compound, tread design and sidewalls have been engineered to withstand ZOE's high torque and address the specific demands of electric vehicles, yet it still delivers the same safety and handling performance as all other Michelin tyres. Available in 15- and 16-inch versions, this tyre is fitted to all ZOE models as original equipment.

#### ***The Chameleon charger revolutionises electric vehicle charging***

ZOE is the only electric vehicle to feature the Caméléon charger. Patented by Renault, this charger is compatible with all power levels up to 43kW. Charging batteries at a charging station can take between 30 minutes and nine hours. For example, ZOE can be charged in an hour at 22kW. This intermediate power level extends battery life and puts less pressure on the power grid than the fast-charging of batteries at 43kW.

#### ***The Chameleon charger allows fast-charging at charging stations at a quarter of the cost***

Fast-charging stations are currently equipped with high-power chargers. Now that the Caméléon charger is fitted to the vehicle, there is no longer any need for chargers at charging stations. New fast-charging stations will be opened which are easier and more cost-effective. They will cost less than €3,000, a quarter of the cost of existing fast-charging stations.

***Charging stations of this type are being previewed on the Renault stand at the Geneva Motor Show.***



### **Brand-new Renault R-Link multimedia system on ZOE**

ZOE is the first Renault vehicle to be presented with Renault R-Link, Renault's brand-new integrated, connected multimedia system. To enable drivers to control its functions without taking their eyes off the road, R-Link features a large seven-inch display, steering wheel-mounted controls and speech recognition. R-Link also delivers integrated connectivity with motoring services and applications available from the R-Link Store. When released, R-Link Store will offer more than 50 applications adapted for life on the move thanks to an active partnership with application developers. These apps will be downloadable directly inside the car or via owners' My Renault account.



R-Link also includes a host of new functions dedicated to electric motoring and range management: histogram of energy consumption, display of energy flows and pre-programming of battery charging. The navigation system offers bespoke services such as a display of the vehicle's operating radius based on the range remaining in the battery, suggestions for the most energy-efficient itineraries and the location of nearby battery charging stations (depending on country), as well as their real-time availability. R-Link also lets drivers view their eco-driving performance and improve their technique with 'eco-scoring' and tips (general and personalised).

### **Connected services for remote communication and monitoring**

ZOE drivers will be able to use their mobile phone or computer to:

- access range-related information using the 'My Z.E. Connect' package, available on ZOE from the entry-level version.
- monitor their vehicle via the 'My Z.E. inter@ctive' Pack which includes:
  - remote operation (on/off) of battery charging if the vehicle is connected to a charging station.
  - remote programming of charging (from a PC only) with the option of taking advantage of preferential rates from electricity suppliers.
  - immediate or delayed activation of the cabin pre-conditioning system.

### **Enjoyment, relaxation and wellbeing on board**

#### ***A relaxing, enjoyable drive***

Driving ZOE is a unique experience which gives new meaning to the term 'driving pleasure'. The synchronous electric motor with rotor coil has a power output of 65kW and instantly

delivers maximum torque of 220Nm. Acceleration and pull-away are responsive from low speeds. Driving is more relaxing thanks to the silent ride and smooth, gearshift-free acceleration.

For stress-free driving in built-up areas, ZOE is fitted with 'Z.E. Voice', an alarm which warns pedestrians that the vehicle is approaching. 'Z.E. Voice' can be heard from 1 to 30kph and was the subject of special design work to create a bespoke sound identity for ZOE. The driver can choose between three different sounds, while it is possible to turn off the warning system by simply pressing a button.

#### ***The perfect temperature inside ZOE's cabin***

Programmable **pre-conditioning** heats or cools ZOE's cabin when the vehicle is charging. When the driver gets into the car, the cabin is just the right temperature and the energy used for the thermal comfort system is not drawn from the battery.

#### ***The air breathed in by ZOE's occupants is purer***

An activated charcoal cabin air filter traps most bad smells and pollutants. It also filters substances just a few microns in size, such as pollen and soot.

#### ***The 'Zen' version embodies the world of ZOE***

The choice of colours and materials for the 'Zen' version recalls purity and wellbeing: white, blue and chrome, plus a soft-feel dashboard. ZOE Zen is fitted with 'Take Care by Renault' equipment as standard.



Launched with Renault Latitude, the 'Take Care' signature is a guarantee of premium features dedicated to occupant wellbeing and travelling comfort. In addition to the pre-conditioning function and active charcoal cabin filter, it includes:

- **A relaxing or stimulating scent diffuser.** The effectiveness of the scents has been proven by a study conducted by the German institute Psyrecon<sup>6</sup>.

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<sup>6</sup> Study conducted in December 2010 among 60 participants. Boasting 25 years' experience, Psyrecom is a German institute specialised in psychophysiological research.

- A **dual-mode purifying and relaxing air ioniser**: the purifying function eliminates the bacteria found in the cabin air. The relaxing function generates negative ions to produce a balance with the positive ions, which are present in high concentrations in a confined space such as a car's interior.
- A **toxicity sensor**: this system detects excessive pollution levels and automatically switches on the air recycling mode in the cabin.
- **Teflon® upholstery protection**, for easier cleaning: this invisible, odourless treatment is both waterproof and stain-proof.

## ZOE underpins Renault's environmental commitment

Like all electric vehicles, ZOE emits no CO<sub>2</sub>, NOx, CO or fine particles. It also signals the disappearance of unpleasant smells and 'engine' noise during road use. Well-to-wheel CO<sub>2</sub> emissions depend on the energy-generation mix of each country. Emissions total 62 g / km of CO<sub>2</sub> in Europe, versus 89 g / km for the new Toyota Prius. They are even lower in France at just 12 g / km of CO<sub>2</sub>.

From 2013, ZOE's local content rate will be 55 per cent following the introduction of the Renault electric motor which will be produced at the company's Cléon plant. This high rate helps to reduce the carbon footprint of logistics activities.



ZOE complies with the very latest criteria required to qualify for the Renault eco<sup>2</sup> signature:

- It is manufactured at Renault's ISO 14001-certified factory at Flins, France.
- As required by Renault's eco-friendly hallmark, its CO<sub>2</sub> emissions are less than 120g/km.
- ZOE is 85 per cent recyclable, while nine per cent of the plastic it contains is sourced from recycling.

### ZOE: 'Made in France' electric vehicle excellence

- ZOE was designed at the Renault Technocentre.
- Lardy, a department devoted to electric motors and batteries.
- ZOE is manufactured at Renault's Flins factory, where batteries will be made at a later date.
- From 2013, the electric motor will be made at the Cléon factory, France.

## Technical data

DIMENSIONS	
Length (mm)	4,084
Overall width (mm)	1,730
Height (unladen) (mm)	1,568
Wheelbase (mm)	2,588
Boot capacity (litres)	338
Number of seats	5
Front / rear overhang (mm)	836 / 661
Front / rear track (mm)	1,506 / 1,489
MOTOR	
Type	Synchronous with rotor coil
Power (kW) / (hp)	65 / 88
Maximum torque (Nm)	220
Transmission	Reducer gear
BATTERY	
Type	Lithium-ion
Capacity (kWh)	22
Range (NEDC)	210 km
Top speed (kph)	135
CHARGER	
Type	Single or three phase supply up to 43kW
Charge time	<ul style="list-style-type: none"> <li>▪ 3kW (16A single phase wall box) = 9 hours</li> <li>▪ 22kW (32A three-phase charging station) = 1 hour</li> <li>▪ 43kW (63A three-phase charging station) = 30 minutes</li> </ul>

## TWO NEW ENERGY ENGINES

Renault is unveiling two new engines from the Energy line-up at the Geneva Motor Show: the brand-new Energy TCe 90 three-cylinder turbo petrol powerplant and an Energy dCi 90 diesel engine derived from the Energy dCi 110 which was unveiled at the 2011 Frankfurt Motor Show. These two new powerplants bring the total number of engines in the Energy range to eight – all launched within the space of just 16 months.

### Energy powerplants: Renault's technological excellence in F1 channelled for mass-market road cars

Renault has secured 10 Constructors' world titles in Formula 1 and is widely recognised as a leading engine supplier, more than capable of taking on the other top engine specialists on the race track. From the two-cylinder 16hp Type K voiturette which won the Paris-Vienna road race in 1902 to Renault's involvement in Formula 1, Renault has demonstrated its constant drive for innovation over the 110 years of its existence by developing reliable, high-performance engines with a twin objective: driving enjoyment and fuel efficiency.

History has been made again with the Energy range of powerplants. Based on new-generation downsizing from Renault's experience in F1, these engines are packed with technologies that have never before been found on units of their size. They offer genuine driving enjoyment and bring down the vehicle's running costs. Vehicles powered by Energy engines boast record low fuel consumption and CO<sub>2</sub> emissions, with reductions of up to 25 per cent in certain cases.

*"F1 provides us with an extraordinary proving ground to test new technologies in extreme conditions. Our 30-year commitment to the sport has enabled us to develop our downsizing expertise, combat friction and ensure reliability. We'll be supplying engines to four F1 teams in 2012 – proof of our excellence on the track – and we'll provide Nissan and Daimler with mass-market engines – proof of our performance on the road," says Carlos Tavares.*

### The Renault Energy TCe 90 three-cylinder turbo petrol engine: the fuel economy champion



Renault is taking the wraps off its first three-cylinder engine: the Energy TCe 90, a powerplant which is poised to revolutionise the market. Although small in size, it is big on advanced technology.

The product of a brand-new Renault design, this three-cylinder, 899cc turbo petrol engine is all-aluminium.

Renault's engine specialists had a clear brief in the development phase: maximise driving enjoyment, while keeping down fuel consumption in every possible way in order to reduce running costs. Featuring a very low inertia turbo (the lowest on the market) combined with Variable Valve Timing (VVT), the Energy TCe 90 boasts the best driving enjoyment/fuel economy equation on the market.

The Energy TCe 90 will be launched in the future Clio and will gradually replace the current TCe 100, without sacrificing driving pleasure despite its 25 per cent reduction in cubic capacity.

### **Fuel consumption and CO<sub>2</sub> emissions slashed by 25 per cent<sup>7</sup>**

Renault's engineers took full advantage of the new three-cylinder engine architecture (see box below) to achieve an optimum air-fuel ratio on the Energy TCe 90 unit, even at peak power (from 2,000 to 4,000rpm), in order to bring down fuel consumption in all driving conditions. The result is a 25 per cent reduction in NEDC combined cycle fuel consumption and CO<sub>2</sub> emissions compared to the engine it replaces

Contribution	Percentage
Downsizing and gear ratio optimization	- 8%
3 cylinders benefits	- 4%
Combustion efficiency & thermal management	- 3 %
Friction reduction (inc. Variable Oil Pump)	- 2%
Stop & Start – Energy smart management	- 5 %
Vehicle Friction Improvement	- 3%
<b>Total Reduction</b>	<b>- 25%</b>

### **90hp and 135Nm, for a cubic capacity of just 899cc**

The new engine develops 90hp at 5,000rpm and torque of 135Nm available across a broad rev-band, guaranteeing all the driving enjoyment of a 1.4-litre naturally aspirated engine.

With 90 per cent of torque available from 1,650rpm, it delivers smooth response from low engine speeds. Driving is smoother with less frequent gear-changes in built-up areas. Peak torque of the sprightly, free-revving Energy TCe 90 is 5,500rpm.

### **The expert input of F1 engine specialists**

Following the example set by Philippe Coblenze, who worked on the Energy dCi 130, Jean-Philippe Mercier was tasked with engineering the new three- and four-cylinder Energy TCe powerplants. Jean-Philippe Mercier worked on Formula 1 engines at Viry-Châtillon for 20 years and managed the design office there from 2004 to 2007. The Energy TCe 90 benefited from his expertise in three key areas.

- A comprehensive grasp of 'square' engine architectures.

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<sup>7</sup> Fuel consumption and emissions based on the latest amendment of EC regulation 692/2008

- Reducing friction: the Energy TCe 90 features materials with low friction coefficients which are used in F1, such as Diamond-Like Carbon (DLC) coated cam followers, graphite-coated piston skirts, and Physical Vapor Deposition (PVD) coating of the piston rings.
- Guaranteed reliability: the Energy TCe boasts a specific power output of 100hp/litre – a first for an engine of this size.

### ***And a raft of other technologies...***

- Stop & Start technology: this system automatically detects the position of each piston for ultrafast start-up. It is combined with deceleration/braking energy recovery. Otherwise wasted energy produced under deceleration/braking is recovered by the alternator.



MOTEUR ENERGY TCe 90  
CONSOMMATION ET CO2 RÉDUITS DE 20%

DRIVE THE CHANGE 

temperature by 15 per cent on average.

- Other systems which help to reduce friction are the variable displacement oil pump and a Teflon®-coated timing chain.
- Also of note is the engine's harmonics-rich signature pitch that recalls the sound made by six-cylinder powerplants.

- High tumble effect: optimised flow of the fuel mix inside the combustion chamber for fast, stable combustion.
- Thermal management technology: speeds up the rate at which an engine reaches its ideal working

### **Class-leading petrol engine efficiency**

This performance has been achieved thanks to painstaking development work which has resulted in the market's fastest airflow 'tumble' effect inside the cylinders. Combustion is virtually instantaneous and takes full advantage of the downsizing to three cylinders:

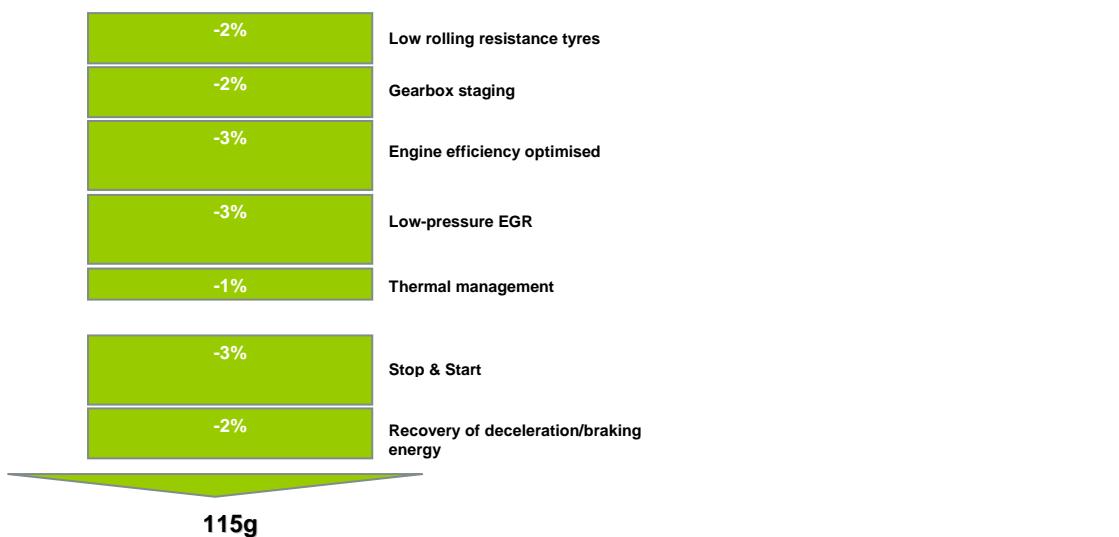
- Downsizing: a technique which involves reducing the cubic capacity of an engine in order to reduce fuel consumption, while maintaining performance thanks to turbocharging. The resulting saving in fuel consumption is estimated to be five per cent.
- Removing a cylinder: reduces friction by 20 per cent compared with a four-cylinder engine architecture of the same cubic capacity, leading to a four per cent saving in fuel consumption.
- Three-cylinder pulse: combined with a longer exhaust phase, the natural air pulsation at the heart of the engine is twice as powerful as that of an equivalent four-cylinder engine. This natural turbocharging means that less demand is made of the turbo which is in turn more efficient, directly benefiting fuel consumption.

## **Thanks to the Energy dCi 90, Kangoo becomes the most fuel-efficient 'ludospace' in its class**

The Geneva Motor Show offers Renault the opportunity to reveal the Energy dCi 90 engine. Derived from the Energy dCi 110, it will initially power Kangoo and Kangoo Express. This new engine is perfectly in tune with Renault's Energy powerplant strategy inasmuch as it delivers outstanding fuel efficiency and significantly reduces vehicle running costs without sacrificing driving enjoyment.

Kangoo boasts **record low fuel consumption of just 4.4 litres/100km** (NEDC combined cycle) and CO<sub>2</sub> emissions of 115g/km<sup>8</sup>, down 16 per cent. To further reduce running costs, oil change intervals have been increased to 40,000km or every two years (whichever threshold is reached first).

Equipped with Stop&Start technology, the 1.5 dCi 90hp features a fixed geometry turbocharger. The engine has been transformed with the incorporation of the technological DNA of the Energy dCi 110 unit which powers the latest Mégane and Scénic Collection 2012 ranges. Available from 1,750rpm, torque of 200Nm ensures genuine driving pleasure with crisp acceleration from low revs. The 90hp version will be launched in May, followed in June by an Energy dCi 75 variant delivering 75hp and 180Nm.



### **Addressing future emissions standards**

During the design and validation phases, Renault's engine specialists incorporated criteria into the brand's Energy powerplants to ensure compliance with forthcoming Euro6 emissions legislation. From mid-2012, Renault will launch a Euro6-ready Energy dCi 130 version on markets that offer tax incentives.

<sup>8</sup> Fuel consumption and emissions based on the latest amendment of EC regulation 692/2008

## An unprecedented roll-out for the Energy range of engines: eight engines introduced in a period of just 16 months

Six diesel engines, plus two petrol engines<sup>9</sup>

### ▪ Mégane Collection 2012 and Scénic Collection 2012

Engine	Type	Mégane Collection 2012	Scénic Collection 2012	Saving compared with engine replaced
Energy dCi 110	Diesel 1.5 Common Rail	90g/km 3.5 litres/100km*	105g/km 4.0 litres/100km*	15%
Energy dCi 130	Diesel 1.6 Common Rail	104g/km 4.0 litres/100km*	114g/km 4.4 litres/100km*	20%
Energy TCe 115	Petrol 1.2 Turbo Direct injection	119g/km 5.3 litres/100km*	135g/km 5.9 litres/100km*	25%

(\*) NEDC combined cycle

### ▪ Laguna

Engine	Type	Laguna Saloon/Coupé	Laguna Estate	Saving compared with engine replaced
2.0 Energy dCi 130 and 150	Diesel 2.0 Common Rail	118g/km* 4.4 litres/100km	120g/km 4.5 litres/100km*	12%

(\*) NEDC combined cycle

### ▪ Kangoo

Engine	Type	Kangoo	Kangoo Express	Saving compared with engine replaced
Energy dCi 75 and 90	Diesel 1.5 Common Rail	115g/km* 4.4 litres/100km	115 g/km 4.4 litres/100km*	16%

(\*) NEDC combined cycle

### ▪ Clio IV\*\*

Engine	Type	Saving compared with engine replaced
Energy TCe 90	Petrol 0.9 Turbo	25%*

(\*) NEDC combined cycle; (\*\*) Estimation based on Clio IV compared with Clio III,

<sup>9</sup> Fuel consumption and emissions based on the latest amendment of EC regulation 692/2008

## THE ELECTRIC REVOLUTION CONTINUES WITH TWIZY, THE JOKER IN THE EV PACK

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The time has come: Twizy is ready to electrify the city! This surprising Unidentified Driving Object will be available throughout the Renault sales network from March 15, 2012. At the affordable tax-paid price of just €6,990, it represents a true revolution in urban mobility for all motorists.

### CAR OR BIKE? NEITHER... IT'S A NEW CONCEPT OF URBAN MOBILITY

#### **Small is beautiful, and practical...**

Twizy's dimensions are barely bigger than those of a three-wheel scooter. Compact, yet nippy thanks to its electric motor, it is much more agile than a conventional car. In the city, it cuts journey times by 25 per cent compared to a compact city car, mostly thanks to time saved looking for a parking space. Twizy is the only four-wheeler that can park at right angles to the pavement. If you stretch your arms out wide, that's roughly the length of the space you need!

#### **...with good handling and safety**

It looks like a two-wheeler, yet it offers the safety levels of a car: Twizy is stable thanks to its four wheels, and equipped with features like seat belts and driver airbag... It even offers effective protection from the weather.



### **100% FUN, 100% ELECTRIC**

#### **An electric motor and four versions**

Depending on the power of its electric motor, Twizy can be driven with or without a licence (for Twizy 45, according to national legislation). Customers can choose between an entirely open structure or sides with doors. Whatever the options, Twizy guarantees a unique driving experience!

#### **Rapid recharging, everywhere**

At the front end of Twizy is a flap which conceals the charging cable. The latter simply needs to be connected to any 220V outlet, with a complete charge taking only 3½ hours. With a range of 100km, Twizy can be driven all over town. And it takes just a few minutes to charge the battery sufficiently for your drive home.

## DEVELOPED BY THE DESIGNERS AT RENAULT SPORT TECHNOLOGIES!

### Nimble, easy to drive and smart

With a kerb weight of just 450kg, Twizy is at least half the weight of a normal car. Thanks to its direct steering, it drives like a car, yet it's even more fun. At just 2.34 metres in length and 1.23 metres wide, Twizy is THE breath of fresh air in the city.

### Handling by RST

Twizy may be fun... but it's just as efficient as a car. Its chassis was developed by Renault Sport Technologies, which means it is also sure-footed, thanks to optimised engineering coupled with a very low centre of gravity.

### Setting new safety standards for a quadricycle

The rules for quadricycles – four-wheel motorbikes – are not the same as for cars... Little matter, because Twizy still gets full benefit of Renault's expertise in automotive safety. It's like a huge helmet which protects its occupants.

## THERE'S JUST ONE TYPE OF TWIZY: YOURS!

### Three models, four body colours... and much more

Twizy comes in three versions: Urban, Color and Technic. The body shell can be specified in white, black, grey, red or even two-tone. The doors, glove box lids and seat trim can be selected in black, blue, red or green. The same is true for the alloy wheels, which are adapted to the colour scheme. Everybody can choose their own style.

### Personalising Twizy

Renault has the answer for those who want to take the customisation of their vehicle that little bit further. The two sets of decals which will be available when Twizy is launched are on display on the Renault stand at the Geneva Motor Show.



### Every possible accessory

Hands-free telephony, a 50-litre carrier bag, a leg cover for protection against the elements, a rear parking sensor... Twizy can be adapted to every need and desire, proving that it's perfectly possible to be simple yet well-designed!



**FOR FURTHER INFORMATION, please refer to the press pack for the Twizy media road tests which start on March 8.**

**TWIZY SURPRISES IN STORE... WE LOOK FORWARD TO SEEING YOU ON OUR STAND AT 4:15pm FOR A BIG SURPRISE! A SURPRISE THAT IS SURE TO CAUSE A STIR...**



- In May 2011, Renault stepped up the criteria with which its vehicles must comply in order to qualify for the Renault eco<sup>2</sup> signature.
- To qualify for the Renault eco<sup>2</sup> signature, a vehicle must be manufactured in an ISO 14011-certified factory and emit **less than 120g / km of CO<sub>2</sub> (or run on biofuels)**, while more than seven per cent of the **plastic it contains must be sourced from recycling**.
- Renault has chosen the International Geneva Motor Show to showcase its three latest 'Renault eco<sup>2</sup> champion' vehicles.

The Renault range's flagship vehicles when it comes to low CO<sub>2</sub> emissions are:

<b>Renault eco<sup>2</sup> champion vehicles:</b>	<b>New Twingo dCi 75</b>	<b>Mégane Collection 2012 Energy dCi 110</b>	<b>Kangoo Energy dCi 90</b>
<b>FACTORY</b> (ISO 14 001-certified)	Novo mesto (Slovenia)	Palencia (Spain)	Maubeuge (France)
<b>DURING ROAD USE</b> CO <sub>2</sub> emissions	85g/km (from mid-2012)	90g/km	115g/km
<b>RECYCLING</b> Proportion of plastic sourced from recycling	12.5%	12.2%	11.9%

- Renault's policy when it comes to protecting the environment is focused on reducing the ecological footprint of its vehicles at every phase of their lifecycle, from their production and delivery, to their use on the road and to recycling.
- Renault is proud to reaffirm that its target is to become Europe's number one manufacturer with regard to low CO<sub>2</sub> emissions. The average emissions for the range of vehicles it markets in Europe is (134g/km) feature among the very lowest (ACEA average: 140g / km of CO<sub>2</sub>). This figure is expected to fall further to 120g / km by 2013, and to less than 100g / km by 2016, thanks to a strategy founded on reducing the fuel consumption of its internal combustion engines and on promoting the use of electric vehicles. Renault is on target to reach the figure of 95 g / km of CO<sub>2</sub> stipulated by the European Commission in Brussels for automobile manufacturers by 2020.

## MÉGANE COLLECTION 2012 – THE FLAGSHIP FOR RENAULT'S QUALITY MADE CAMPAIGN

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With three new engines that combine driving pleasure, fuel economy and reliability giving it ever-increasing appeal, the Mégane Collection 2012 stands out as a flagship for Renault quality. It expresses the state-of-the-art thinking which the Group applies to all its vehicles, from their design through to the sale to the customer.



*"Mégane is a powerful ambassador for the quality of Renault vehicles thanks to its outstanding reliability and perceived quality, which have improved with every evolution of the model. Mégane is destined to become the worldwide quality benchmark for all Renault vehicles."* Jean-Pierre Vallaude, Senior Vice-President, Quality

### Germany's ADAC rates Mégane's reliability as "excellent"

As the Renault brand's best-selling model (after Clio), with sales (excluding Scénic versions) exceeding 235,000 units worldwide in 2011 and 730,000 units since its launch at the end of 2008, Mégane today stands out as one of the most reliable cars in its segment. This reliability is recognised in publications such as *L'Automobile Magazine* and has been confirmed by independent organisations such as Germany's highly respected automobile club, the ADAC, which has placed it at the top end of its ratings. Thanks to Renault's policy of continuous improvement, Mégane III has seen a 40 per cent reduction in first-year reliability-related incidents compared to its predecessor.

### A MORE MODERN FRONT-END APPEARANCE: INTEGRITY AND FINISH ARE CORE PRIORITIES

For Mégane Collection 2012, the model's successful styling has been fine-tuned for a **fresher look**, with the front end now featuring LED daytime running lights **for a distinctive new**

**lighting signature.** The bumper is finished in gloss black, with chrome highlights, and the range of wheels has been entirely refreshed. All these touches reveal the attention that has been paid to perceived quality, seen as a key priority for Renault. The interior has been further refined with new upholstery, including a two-tone leather/Alcantara pack available in three colour combinations. The Bose version becomes an equipment level in its own right and, finally, the GT and GT-Line models are distinguished by special boomerang-shaped LED lights, upholstery topstitched in red, a sports steering wheel with thumb grips, and Renault Sport monogrammed door treads and dashboard trim strip.

## ENGINES: THE MOST ECONOMICAL CAR IN ITS CLASS

As the first car to host the all-new Energy dCi 110 diesel engine, incorporating Stop&Start technology, Mégane Collection 2012 becomes the most economical model in its segment with NEDC Combined cycle fuel consumption figure of just 3.5 litres/100km. CO<sub>2</sub> emissions drop by 15 per cent to reach the 90g/km mark. With the range also featuring the petrol-fuelled Energy TCe 115 (119g/km) and the diesel Energy dCi 130 (104g/km), Mégane Collection

Energy  
dCi 110



2012 is the first model to feature three new Energy engine options, each combining driving pleasure with economy at the pump. Incorporating the latest in downsizing thinking drawn from Renault's experience in F1, these three engines display technology content never before seen on power units at this level of the

market; all three are equipped with Stop&Start systems and deceleration/braking energy recovery. Thanks to their carefully-tuned acoustics, the Energy engines produce a discreet, cushioned sound, with noise levels halved compared with the engines they replace. When it comes to reliability, the Energy dCi 130 and Energy TCe 115 are built around the same quality standards as the 1.9 litre dCi 130 and TCe 130 which, respectively, saw first-year on-the-road technical incidents halved over the space of three years and cut by 40 per cent over two years.

## PACKED WITH TECHNOLOGY FOR COMFORT AND SAFETY

More than ever, enhancing everyday safety, making driving easier and maximising comfort on board are seen as priorities for Renault. Mégane Collection 2012 features the Visio System®, which uses a camera within the interior mirror mount on the windscreen to enhance night-time vision and ensure driver alertness by automatically switching between dipped and main beam headlamps and by sounding a warning should the vehicle stray out of lane. Nor has comfort been forgotten: a new function maintains brake pressure for a few seconds to assist hill starts, and a rear-view camera is added to the park-assist system.

**FOR FURTHER INFORMATION please refer to the Mégane Collection 2012 media road test press pack**

## THE DEPLOYMENT OF RENAULT'S NEW IDENTITY CONTINUES

With four concept cars already having broken cover and New Clio on its way, Renault's design strategy is now rolling out for real on production cars: New Twingo is already on the streets and the Geneva Motor Show marks the unveiling of ZOE. And then there's the totally unique Twizy... In the spotlight is Laurens van den Acker, Director of Industrial Design at Renault.



**"As part of the 'Renault – Drive the Change 2016' plan, you launched a design strategy centred on the different stages of the human lifecycle. Could you remind us of the key aspects of this concept?**

*Given that Renault is a brand which is centred on human values, the company's design strategy is guided by three key words: simplicity, sensuousness and warmth. I therefore naturally wanted our design vision to revolve around the life stages of our customers, with each one illustrated by a concept car. The stages we have covered so far are: falling in love (DeZir), exploring the world (Captur), starting a family (R-Space), the world of work (Frendzy), plus taking time off for leisure and, finally, attaining wisdom.*

**When do you expect to show the two final concept cars representing the last two stages of this lifecycle?**

*It is still too soon to say. But it's not only concept cars that make our design strategy visible: the strategy is now also being applied to production cars as we gradually introduce the new across-the-range frontal design identity. We wanted to give New Twingo more personality and it became the first tangible example of our strategy, while ZOE carries on the trend – in anticipation of the unveiling of New Clio.*

**What distinguishes this new face?**

*The big, proud, vertically-set Renault diamond is clearly visible, but each vehicle will have its own distinct personality. New Twingo, for instance, is particularly expressive. We've made it warmer and more cheerful, as well as more sensuous and seductive – returning to the spirit of the original Twingo. With New Clio, we will be going even further down this road, since it is inspired*



*entirely by the DeZir concept. This is just the beginning of a long and beautiful adventure for Renault with the new face of a range that I hope will prove attractive to the majority of motorists.*

**How have you integrated the new face on ZOE, which is the star of this show?**

*Very well, I believe! The new face is part and parcel of the car's cheeky and charming expression and provides the ideal location for the recharging flap – behind the central Renault*



*logo. The logo itself is finished in blue-tinted chrome – the signature colour of our electric vehicles. ZOE packages all Renault's electric-car expertise into a design that is expressive, confident and contemporary. It brings to mind **pure energy**, not only through its extremely fluid exterior lines, which project a natural energy, but also through the*

*clear harmony of its light-coloured interior and its dashboard, which is shaped like the blade of a wind turbine.*

**Twizy is truly something different. How does it fit into the new design strategy?**

*It was function that dictated Twizy's design. The passenger compartment is a kind of protective cell. You could imagine Twizy as a shell placed on top of a mechanical platform that has the smallest possible footprint on the road. The shape of this shell, as well as the way it fits around the passenger, make for even better visibility in traffic. Having the four wheels set further out than the passenger compartment gives it unique proportions. The round headlights that are part of the new identity convey friendliness, while the broad glass roof and windscreen provide both safety and clarity. They also emphasise the fact that Twizy is open to the world."*

**Keep a check on the highlights of Renault's presence at the International Geneva Motor Show:**

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