THE NEW BMW i3.

PIERS SCOTT.
GENERAL MANAGER- PRODUCT AND INTERNAL COMMUNICATIONS.
THE NEW BMW i3.

MARK BURTON.
PRODUCT OPERATIONS MANAGER – SMALL CARS.
BMW i.
40 YEARS OF ELECTRIC VEHICLES.

1972: BMW 1602 Lead Battery
1987: BMW 325 NaS Battery
1992: BMW E1 NaS Battery
1993: BMW 325 NaNiCl Battery
1996: BMW 325 NaNiCl Battery
2008: MINI E Li-Ion Battery
2010: BMW Concept ActiveE Li-Ion Battery
2013: BMW i3 Li-Ion Battery

PIONEERING PROGRESSION WITH ELECTRIC DRIVE TRAIN TECHNOLOGY.
PIONEERING MOBILITY CONCEPTS. MINI E.

- Worldwide trial of 612 vehicles, 52 in the UK
- 136 UK participants
- 12 months study in 2009-2010
- 258,105 miles driven
- Average 93 miles per charge
- Cars charged 2.9 times per week
- 29 miles driven per day on average
- 96% would consider buying an electric car
- 9/10 believed charging suited daily routine
**PIONEERING MOBILITY CONCEPTS. BMW ACTIVE E.**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicles worldwide</td>
<td>1,000 vehicles</td>
</tr>
<tr>
<td>Olympic Fleet</td>
<td>160 utilised on the 2012 Olympic Fleet</td>
</tr>
<tr>
<td>Retained in 2013</td>
<td>20 retained in 2013 extensive fleet use</td>
</tr>
<tr>
<td>Customer availability</td>
<td>Available to retail and corporate customers</td>
</tr>
<tr>
<td>Loans availability</td>
<td>Loans available across the leasing industry</td>
</tr>
<tr>
<td>Test drives</td>
<td>Over 1,600 test drives</td>
</tr>
<tr>
<td>Powertrain</td>
<td>Utilises the same powertrain as BMW i3</td>
</tr>
<tr>
<td>Acceleration</td>
<td>0-62 in 9 secs</td>
</tr>
<tr>
<td>Mileage per charge</td>
<td>Average 100 miles per charge</td>
</tr>
</tbody>
</table>

**Additional Details:**
- 0-62 in 9 secs
- Average 100 miles per charge
A CHANGING CUSTOMER APPROACH TO URBAN MOBILITY.
DRIVING TRENDS MATCH FINDINGS OF MINI E AND ACTIVE E TRIALS.

- Average daily commute is 13.1 miles each way.
- Cost of charging for daily commute from 27p.
- Average UK annual mileage: 8,500.

MINI E Average daily mileage: 29
UK Average daily mileage driven: 25

Source (DfT)
BMW i - BUILT FROM THE GROUND UP.
USE OF REGENERATIVE ENERGY GLOBALLY.

- 50% energy
- 70% water
- 100% renewable energy

€530 million investment by BMW Group and SGL.
100% hydro electric energy used at the Moses Lake plant.
Wind turbine energy used to power Leipzig, Landshut and Wackersdorf plants.
## BMW i - A Holistic Approach to E-Mobility

Not Just a New Product.

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Car 1" /></td>
<td><img src="image2.png" alt="Car 2" /></td>
<td><img src="image3.png" alt="Material" /></td>
<td><img src="image4.png" alt="Architecture" /></td>
</tr>
</tbody>
</table>

### Integrated Approach of BMW i

<table>
<thead>
<tr>
<th>New Processes</th>
<th>New Mobility Services</th>
<th>New Support for Customers</th>
<th>New Electric Drivetrain</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image5.png" alt="Process" /></td>
<td><img src="image6.png" alt="Services" /></td>
<td><img src="image7.png" alt="Support" /></td>
<td><img src="image8.png" alt="Drivetrain" /></td>
</tr>
</tbody>
</table>
THE NEW BMW i3 DESIGN - EXTERIOR.
A FRESH INTERPRETATION OF BMW DESIGN.
THE NEW BMW i3 DESIGN - EXTERIOR.
THE FUTURE OF URBAN MOBILITY.
THE NEW BMW i3 DESIGN - EXTERIOR. INNOVATIVE AND PIONEERING DESIGN FEATURES.
THE NEW BMW i3 DESIGN - INTERIOR. SOPHISTICATION BLENDED WITH SUSTAINABILITY.

Layering design continues from the exterior

Premium, sustainable interior

“Floating” dashboard

No transmission tunnel
THE NEW BMW i3 DESIGN - INTERIOR.
CLASS LEADING INFOTAINMENT AND COMMUNICATION.

- Two interface screens as standard
- 5.5” digital instrument cluster
- 6.5” central information display with iDrive controller
- Business navigation and Bluetooth as standard
THE NEW BMW i3 DESIGN - INTERIOR.
PRACTICAL AND SPACIOUS INTERIOR AND STORAGE AREAS.

- Split folding rear seats
- Extended storage with cargo net below dashboard
- Cupholders front and rear
- Flat loading area
- Storage space under bonnet
BMW i - BUILT FROM THE GROUND UP. INNOVATIVE LIFEDRIVE ARCHITECTURE.
BMW i - BUILT FROM THE GROUND UP.
REVOLUTIONARY MATERIALS FOR USE IN AUTOMOTIVE PRODUCTION.

- First use of series Carbon Fibre Reinforced Plastic in automotive production.
- Composite material out of carbon fibres and a synthetic matrix.
- Outstanding suspension and high level of energy absorption in a crash.
- Resistant against corrosion, acids and solvents.
- Shows no fatigue over a long service life.

Extremely durable and incredibly light 50% lighter than steel 30% lighter than aluminium
BMW i – BUILT TO BE ELECTRIC. BUILDING FROM THE GROUND UP, NOT A CONVERSION.

BMW i3 has significant weight advantage

<table>
<thead>
<tr>
<th>Car</th>
<th>Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMW i3</td>
<td>1,195</td>
</tr>
<tr>
<td>BMW 118d</td>
<td>1,425</td>
</tr>
<tr>
<td>Renault Zoe</td>
<td>1,468</td>
</tr>
<tr>
<td>Nissan Leaf</td>
<td>1,493</td>
</tr>
<tr>
<td>Vauxhall Ampera</td>
<td>1,732</td>
</tr>
</tbody>
</table>

(Battery weight: 230kg)
BMW i - BUILT FROM THE GROUND UP. CFRP STRENGTH VISIBLE IN CRASH TESTING.
BMW i - BUILT FROM THE GROUND UP. CFRP STRENGTH VISIBLE IN CRASH TESTING.
THE NEW BMW i3 DRIVE TRAIN.
ELECTRIC POWER EXPLAINED.

- Modular lithium-ion battery system.
- Motor turns transmission which turns the wheels.
- Electricity measured in kWh.
- kWh common measure for home energy supply.
- No starter, fuel system, engine oil, air filter, oil filter, clutch or gearbox.
- Simpler to maintain and service.
THE NEW BMW i3 DRIVE TRAIN.
OPTIMISED MODULAR BATTERY SYSTEM.

- 125kw mechanical power, 170 hp.
- 250Nm torque.
- Entire weight: 365kg (battery 230kg).
- 19kw capacity battery.
- 8 modules each with a total of 12 cells.
- Replacement at modular level.
- 8 year battery warranty, 100,000 miles.
THE NEW BMW i3.
PROVIDING AN EXHILARATING DRIVING EXPERIENCE.

Dynamic rear wheel drive performance.
Whilst average daily mileage covered in the UK is just 25 miles, range anxiety is still a concern of many potential buyers of EVs.

**THE NEW BMW i3. RANGE EXTENDER i3 AVAILABLE FROM LAUNCH.**

- Helps to overcome range anxiety.
- 650cc, two cylinder 35hp petrol engine is housed in rear of the i3.
- Traction is permanently electric unlike Plug-in Hybrids.
- Effectively doubles the BMW i3's driving range.
- Powers a generator which maintains the battery charge level.
- 13g/km CO₂ emissions and an increase in weight of just 150kg.
## THE NEW BMW i3. PERFORMANCE STATISTICS.

<table>
<thead>
<tr>
<th></th>
<th>BMW i3</th>
<th>MINI Cooper S</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Output</strong></td>
<td>125KW (170hp) / 250Nm</td>
<td>135KW (184hp) / 240Nm</td>
</tr>
<tr>
<td><strong>Top Speed</strong></td>
<td>93mph</td>
<td>139mph</td>
</tr>
<tr>
<td><strong>Acceleration</strong></td>
<td>0-62mph: 7.2 s</td>
<td>0-62mph: 7.2 s</td>
</tr>
<tr>
<td><strong>Electric Range (real world)</strong></td>
<td>80-100 miles</td>
<td>N/A</td>
</tr>
</tbody>
</table>
THE NEW BMW i3. THREE KEY CHARGING METHODS AVAILABLE.

**Standard on BMW i3**

**AC Fast Charge**
- 7.4kW charge
- Approx. 3 hours charging time
- Standard charging method for domestic wallboxes and many public charging points
- Standard on BMW i3

**DC Rapid Charge**
- Up to 50kW DC charge
- 0.5-1 hour charge
- Ideal for public locations where short charging is necessary

**Optional**

**Standard charging**
- 2.4kW charge
- 8-10 Hours charge
- Ideal for occasional use where 32 Amp AC not available
THE NEW BMW i3.
EXTENSIVE LEVELS OF STANDARD EQUIPMENT.

- 19” alloy wheels
- Multifunction leather steering wheel
- Automatic A/C
- Cruise Control
- Rear PDC
- 6.5” screen and iDrive Touch Controller
- Rear-view mirror, auto dimming
- Front armrest
- Extra 12V sockets
- Business Navigation
- BMW Emergency Call
- ‘U’ Shaped LED Daytime running light
- Extended storage with split folding seats
- 5.5” Digital instrument cluster
- Extra 12V sockets
- DAB digital radio
- BMW Apps Interface
- Drive Performance Control/ECO PRO+
- Rain sensor/auto. headlight
- Bluetooth/USB
- Advanced ConnectedDrive Services and BMW Online
- 32A AC Fast Charge
- 5.5” Digital instrument cluster
THE NEW BMW i3 INTERIOR WORLDS.
STANDARD UPHOLSTERY AND TRIM.
THE NEW BMW i3 INTERIOR WORLDS.
LOFT.
+ £1,000 above Standard Interior World
THE NEW BMW i3 INTERIOR WORLDS.
LODGE.

+ £1,500 above Standard Interior World
THE NEW BMW i3 INTERIOR WORLDS.
SUITE.

+ £2,000 above Standard Interior World
THE NEW BMW i3.
ALLOY WHEEL AND COLOUR PROGRAMME.

Capparis White
Arravani Grey
Laurus Grey
Ionic Silver
Andesit Silver
Solar Orange

Standard 19” light alloy wheel
Optional 19” light alloy wheel
Optional 19” light alloy wheel
Optional 20” light alloy wheel
THE NEW BMW i3 AND CONNECTED DRIVE. CONNECTIVITY AS STANDARD.
THE NEW BMW i3 AND CONNECTED DRIVE.
RANGE ASSISTANT.

Charging completed.
THE NEW BMW i3 AND CONNECTED DRIVE.
CHARGING STATIONS.
THE NEW BMW i3 AND CONNECTED DRIVE.
BMW i REMOTE APP: VEHICLE STATUS AND PRECONDITIONING.

Vehicle information

1326 mi
Vehicle status OK

DOORS AND WINDOWS
- Doors: open
- Windows: closed
- Boot: closed
- Lights: off

SERVICE REQUIREMENTS

BMi i3
STATUS
Last update: 30/08/2013 07:20

98 MI
ELECTRIC RANGE
08:30
UNTIL TOMORROW

Preconditioning on
Off-peak tariff

08:30
not plugged in

Departure time 1
On weekdays
To start charging immediately, deactivate the function "Charging with off-peak tariff" in the settings.
THE NEW BMW i3 AND CONNECTED DRIVE.
BMW i REMOTE APP: CHARGING STATIONS AT A DESTINATION.
THE NEW BMW i3 AND CONNECTED DRIVE. STANDARD MEDIA AND ONLINE SERVICES GIVE COHESIVE CONNECTIVITY.
THE NEW BMW i3 AND BMW i3 WITH RANGE EXTENDER.

PRICING.

BMW i3: £25,680 OTR

BMW i3 Range Extender: £28,830 OTR

8 year, 100,000 mile battery warranty. 3 year vehicle warranty.

Pricing includes Plug-in Car Grant of £5,000.
THE NEW BMW i3 CHARGING AND OWNERSHIP COSTS. MONTHLY CHARGING COSTS OFFER CONSIDERABLE CUSTOMER SAVINGS.

| Monthly cost to charge BMW i3 on standard tariff | £21 |
| Monthly cost to charge BMW i3 on Economy 7 Tariff | £9 |
| Monthly cost to fuel diesel car achieving average of 50mpg | £87 |
| **Potential monthly savings** | **£78** |
| **Potential annual savings** | **£936** |

- Based on average mileage of 8,000 per annum.
- Calculation based on competitive mpg achieved against current diesel cost.
- Savings just based on fuel and before other taxation benefits.
- Less than £2 for a full charge.
THE NEW BMW i3 CHARGING AND OWNERSHIP COSTS. BENEFICIAL OWNERSHIP COSTS FOR CORPORATE CUSTOMERS – 3 YEARS.

<table>
<thead>
<tr>
<th></th>
<th>BMW i3</th>
<th>BMW i3 with Range Extender</th>
<th>Audi A3 1.6 TDI SE 3dr</th>
<th>Audi A4 2.0 TDIe SE</th>
<th>VW Golf 2.0 TDI SE DSG 5dr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exhaust CO₂ emissions</td>
<td>0 g/km</td>
<td>13 g/km</td>
<td>99 g/km</td>
<td>112 g/km</td>
<td>119 g/km</td>
</tr>
<tr>
<td>3 year fuel/charging cost</td>
<td>£420</td>
<td>£723 (assumed 10% mileage via fuel)</td>
<td>£2,562</td>
<td>£2,964</td>
<td>£2,817</td>
</tr>
<tr>
<td>BIK % of P11D to tax</td>
<td>0% - 5%</td>
<td>5%</td>
<td>14% - 17%</td>
<td>17% - 20%</td>
<td>18% – 21%</td>
</tr>
<tr>
<td>3 year BIK cost (40%)</td>
<td>£613</td>
<td>£2,027</td>
<td>£3,698</td>
<td>£5,902</td>
<td>£5,423</td>
</tr>
<tr>
<td>Total Individual Costs</td>
<td>£1,033</td>
<td>£2,750</td>
<td>£6,260</td>
<td>£8,866</td>
<td>£8,240</td>
</tr>
<tr>
<td>Employer NI Costs</td>
<td>£211</td>
<td>£699</td>
<td>£1,276</td>
<td>£2,036</td>
<td>£1,871</td>
</tr>
</tbody>
</table>

- BIK at 0% for all zero emission vehicles.
- Corporate Write-Down Allowance is guaranteed until at least 2018.
- VED also at £0 per annum over life.
GOVERNMENT SUPPORT.
FURTHER OWNERSHIP BENEFITS AVAILABLE TO ALL CUSTOMERS.

**Plug-in Car Grant.**
- 25% percent vehicle price subsidy (up to a maximum of £5,000).
- Applies to private and business customers.
- Expected to last until mid 2015 but may be extended.

**Tax Benefits.**
- 100% capital allowance for businesses (until 2018).
- Zero road fund licence.
- Currently zero BIK (until 2015).

**London Congestion Charge.**
- Currently all vehicles under 100g/km CO₂.
- From 1 July 2013 exemption will apply to vehicles <75g/km.
- Both a BMW i3 with and without a Range Extender will be exempt from the congestion charge.

**Department for Transport**
**HM Revenue & Customs**
**C**
THE NEW BMW i3.
BORN ELECTRIC.

New vehicle from the ground-up
Sustainable production processes
Class-leading driving dynamics

Optimised interior space
Advanced connectivity as standard
Flexible mobility, maintenance and charging services
THE NEW BMW i3.

THANK YOU FOR YOUR ATTENTION.