Electric City Cars

New Dawn The Electric City Cars of the Twenty First Century

In the second decade of the twenty first century the internal combustion engine powered city cars popularity is on the wain as the popular trend is to purchase ever bigger cars and adverse legislation making them uneconomical to produce. But the gap could be filled by the new breed of electric city cars that manufacturers around the world are producing or developing in increasing numbers.

A False Dawn Early Electric Cars

This year over twenty two companies are either offering for sale or planning to do so in the near future an electric car. The year is not 2020 but 1900, one hundred and twenty years ago.
Today the electric car is becoming fashionable, the cutting edge of technology, but the electric car is nothing new and a hundred years ago it had passed its first flush of popularity and was to decline into relative obscurity for the next ninety years. At the beginning of the last century fleets of battery electric taxis where running in Berlin,Paris, London and New York. In Berlin the authorities operate a small fleet of battery electric fire engines and ambulances and the post office a large fleet of battery electric postal delivery vans. Another surprising fact is that by nineteen sixteen over twenty seven thousand battery electric truck where in use in the USA. It seemed to be the beginning of a new age. Electric cars where easy to drive, very similar to cars today that are fitted with an automatic gearbox and of course electric starters, that by the way we're first used in an hybrid car early in the last century. Whereas early cars fitted with an internal combustion engine were very complicated with a wealth of levers, pedals and other things that were required to keep a car running and had to be started by hand, an arduous and some times dangerous activity. Added to that at that time, they were generally oily and created lots of fumes. In time these drawbacks where reduced or eliminated.
Electric cars have been around for almost as long as cars with internal combustion engines, but with only limited success as a viable form of personal transport. This has been due to limitations off the batteries available that are used to store the energy required to propel the car, this limited the electric cars range of action, confining them to use near their base which was usually in a town or city. Therefore until recent times all electric cars were city car wether large or small.
The earliest record of an electric car is for experiments carried out by Jeantaud and de Parrodil in France in 1881. Jeantaud was a coach builder and produced electric cars from 1893 to 1906. In 1899 Frenchman Camille Jenatzy in a car of his own making was the first to record a speed of 100KPH/60MPH, and the first car to be offered for sale from Ferdinand Porsche the creator of the Volkswagen, was the battery powered Lohner-Porsche Chaise in 1900. Although Porsche retained an interest in electric drive, an engine soon replaced the batteries.
The early electric car manufacturers were most numerous in the United States, with twenty-six companies offering cars for sale between 1898 and 1905, with even more between 1905 and 1922. Great Britain was almost as enthusiastic with thirteen models on offer between 1898 and 1905. After 1905 interest fell off in Britain with only a couple of cars available at any one time for the next eighty years. German and French manufacturers produced about twenty models each between 1898 and 1905. After 1905 interest dropped off to the same level as Great Britain with one difference, in the nineteen forties there were ten makes marketing electric cars in France. This was most probably due to the complete lack of conventional cars and or petrol to run them at that time. The two models available in Spain and one in the Netherlands that were produced at a similar time came about for the same reason. Only one electric car has been produced in Austria in 1900, Italy has produced three models one hundred and ten years, Belgium two and Canada five. Japan has produced one in the nineteen forties,Switzerland one at the beginning of twentieth century and Poland in the Nineteen seventies. Attempts to produce a viable electric car were made in the nineteen seventies in the UK, Italy and the USA, but were handy capped by the only batteries available, the lead acid type.

Some representative examples of the electric car 1900 to 1978.
Extracted from G.N Georgano's New Encyclopaedia of Motorcars.

B.G.S manufactured various types of electric vehicles in France from 1899 to 1906 including dogcarts phaetons an d family buses. The picture is of 1900 models that had established a long distance record of 262Km.

The picture is of a 1901 Columbia dogcart, produced by the Electric Vehicle Company of Hartford Connecticut . They manufactured electric vehicles between 1901 and 1907.

Detroit Electric of Detroit Michigan USA, was a prolific and long lived manufacturer of electric car, they producing cars from 1907 to 1938 with peak production between 1912 and 1020 and with annual production of over a thousand before the first World War.
The picture is of a 1914 Detroit brougham.

The Automatic, produced by the Automatic Electric transmission Company of Buffalo, New York, in 1921 was small two seat car with a maximum speed of 25MPH, a range of sixty miles and a price of $1,200.

Vehicles Electrique's Stela, of Lyons, France, manufactured electric cars from 1941 to 1944. It has been suggested it was the largest producer of electric cars in wartime France. The picture is of the Type RCA of 1942, a five seat saloon, some of which were used for taxi work in Lyons during that period.

The B.M.A. Hazelcar was produced in Hove, Sussex, UK, from 1952 to 1954. With a speed of 18 to 20 MPH, a range of fifty to sixty miles and a price of £535, it's not surprising that only six where sold.

The Enfield 8000 two seat coupe was produced by the Enfield Automotive Ltd, of London, then Cowes Isle of Wight, Uk, from 1969 to 1976, with one hundred and eight examples produced with a price of £2,808 in 1975.

Teilhol Voiture Electrique, of Ambert, Puy-de-Dome, France, produced a range of three wheeled electric cars from 1975. The model shown here is the Citadine electric 3-wheeler of 1978.

Into the Twenty First Century

During the eighties and nineties as alternative battery type became available, numerous established auto manufacturers produce prototypes and limited production runs based on their existing city car models, such as the Fiat Seicento Elettra that was produced from 1995 to 2005 and the Citroen Saxo Electrique that was produced from 1996 until 2003.

Also in the nineteen nineties and at the beginning of the twenty first century a number of emerging companies offered for sale ultra light models taking advantage of the newer batteries available and up to date technology.

The first of these was produced in Denmark in 1991 by Kewit, later renames and relaunched as the Buddy in Norway in 2013.

Next was the Pivco in Norway in 1995, which formed the basis of the Think City.

The Nissan Hypermini of 1999 to 2001. Only 219 were produced.

The REVAi in India 2001. Known as the G-Wiz in the UK.

The Ford Think made in Finland from 2001 to 2002 that evolved into the Think City of 2008 to 2012.

In 2007, the first of a new wave of electric versions of existing city cars, was the Smart Fortwo Electric Drive, From 2018 renamed Fortwo EQ.

In 2007 AIXOM a French maker of microcars first produced an electric version of their Mega City model. Their next electric models was the eCity and eCity Coupe in 2013, both microcars.

This was followed in 2009 by the electric version of the Mitsubishi Miev city car, the I-MiEV that was produced in Japan and also available in Europe in Peugeot iOn and Citroen C-Zero versions. These where produced until 2015.

The Italian Tazzari Zero electric microcar, was first produced inn 2010 and still offered for sale in 2020.

In China Chery began production of an electric version of their QQ3 city car in 2010 the S18, or Rich M1 EV. A later version based on the second generation of the QQ3 the eQ was in production in 2014. Also from China the Wheego LiFe was battery electric microcar that was sold in the USA from 2011 to 2013.

The Pininfarina design studio created a design for an electric microcar that when in production in2011, the Bollore Bluecar. It didn't go on general sale, only being available on lease. The car was also used for a car sharing programme in Paris.

The Renault Twizy more a Quadricycle than a microcar, was first offered for sale in 2012 and still available to purchase in 2020.

Production in India began in 2013 of the replacement for the REVAi, the Mahindra e20 also called the Reva NXR . It was in production until 2017.

In twenty thirteen there were a couple of EV versions of existing city cars made specially for the US market. One was the Chevrolet Spark and the other a Mexican produced Fiat 500. The Spark was only in production until 2016, but the 500 was available until 2019.
Also in 2013 in Europe another EV version of an existing city car was produced, the VW Up EV.

Roewe a sub brand of SAIC Motors of China, began producing the E50 model in 2013 for the Chinese market, a four seat electric city car. Their latest model is the Roewe Clever, Roewe Marvel X, produced from 2020.

At the beginning of the second decade of the century that Zhidou, a sub brand the Geely company in China began production of their first electric microcar the two seat D1. The D1 was replaced by the D2, which was also sold as the Zotye E20 in 1915.

Zotye Auto first produced its Cloud 100, a four seat city car EV version of their Z100 model that was based on the Suzuki Alto, in 2014. They also had two new models for 2015, the E30 a Smart copy and the E200 a two or four seat microcar.

Geely has another sub brand that began producing an EV version of their Panda city car in 2014, the Kandi K11, and a micro car in 2015 the Kandi K10, followed by the k12 microcar in 2016.

In India in 2016 Mahindra began producing the E20 Plus a four seat city car from 2016 to 2019.

SAIC-GM-Wuling a Chinese joint venture company, produced their first electric microcar the Baojun E100 in 2017. It was joined by an updated model the E200 in 2018. The latest new model the E300, that is produced in two, three and four seat form since 2020. All remain in production to the present.

The Chinese company Great Wall, began production of their Ora R1 Black Cat and Ora R2 White Cat models in 2018 as did Chery with their Ruitesi Q2.

Smart had begun production of an Electric Drive version of the ForFour model in France the ForFour EQ.

There where more new micro and city cars in the market in China in the following couple of years, the BYD E1 city car in 2019, the BAIC Kitten and Big cat models from SIAC, the Wuling Hongguang Mini E, the Leapmotor T03 and the Levdeo L3 in 2020.

BYD E1

Wuling Hongguang Mini E

The new electric city cars produced in Europe in 2020 where version of existing models. The second generation VW e-Up, and the associated SEAT and Skoda versions, the e MiiL and the CITIGO e iv. Also Fiat began production of a second generation 500, the 500-E.

The Future

As for the future, there are numerous new models under development, near production or just concepts. In France Citroen have the Ami 2 microcar, in the UK the Swedish Unity microcar is under development, from Spain the Seat Mirimo a quadricycle is promised and in Japan Toyota and Nissan have showcased models.

Toyota BEV Concept

Nissan IMk Concept

Citroen AMI 2

Uniti

SEAT Minimo