



Local Energy Matters

Covering the EPN area



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Local energy news

District heating system for Colchester

Colchester Borough Council and Colchester Amphora Energy Ltd have developed plans to install a district heating system in the proposed Northern Gateway housing and office development. The project, originally introduced in 2017, will significantly reduce carbon emissions from heating buildings.

District heating is a technology which has not been widely employed in the UK and therefore the project is of national interest. If successful, it will be used as a case study for successful implementation.

The district heat network will provide a range of benefits including reduced energy costs for customers, a solid foundation for the council to deliver sustainability targets and improved local infrastructure. It will be installed alongside ultrafast broadband connections to the new homes and businesses.

Cambridgeshire wins at Energy Efficiency Awards

Cambridgeshire County Council has been awarded the “East of England Council of the Year 2019” for its work to bring energy efficiency and community benefits to the county. Highlights include working with 55 schools across Cambridgeshire to help them save money £800,000 on energy bills and reduce emissions by 3,400 tonnes of carbon dioxide.

The Energy Investment Unit at Cambridgeshire County Council was also recognised for its collaboration with the Swaffham Prior Community Heat Scheme, which plans to deliver savings for households currently using oil heating by building a new heat network. Other initiatives included small-scale investments in LED lighting and other retrofitting, all contributing to the award at the Energy Efficiency Awards.

Planning approved for offshore wind farm

Published on Thursday 4 July, the UK Planning Inspectorate has approved Vattenfall’s application for the 1,800MW Norfolk Boreas wind farm. Vattenfall is looking to deploy more than 90 turbines, which will export power to the National Grid substation near Necton. The turbines will form part of a larger 3,600MW Vattenfall deployment, which will be enough to power approximately 2.3mn homes.

The Planning Inspectorate will send its recommendation to the UK Secretary of State for Business, Energy and Industrial Strategy by 30 September, with a final decision expected by 10 December.



Suffolk to host biggest UK solar farm

A solar farm made up of ground-mounted PV panels, covering an area of 1,500 hectares, could be built in West Suffolk. The proposed Sunnica Energy Farm, to be constructed by Tribus Energy and PS renewables, has a potential capacity of 500MW, enough to supply 100,000 houses with renewable energy. Two sites are planned near Newmarket and a third close to Freckenham near Red Lodge. The three planned sites will connect to the National Grid in Cambridgeshire, and as well as PV panels, the project plans to install up to 500MW battery storage across the three sites.

Because the development has a proposed capacity of more than 50MW of electricity, the project qualifies as a Nationally Significant Infrastructure Project (NSIP). The first stage of public consultations will run until 28th July.

The project has received a mixed response, with a “Say No to Sunnica” campaign group being formed, while other members of public have expressed support for the proposal and the possibility of large-scale renewable energy in their area.

The target date for the start of the installation is spring 2025, and the Development Consent Order (DCO) application will be submitted in summer 2020.

Pixie Energy host launch event for the Greater Norwich Smart Energy Community

Nigel Cornwall of New Anglia Energy hosted the launch of the Greater Norwich Smart Energy Community (or GNSEC) project on Wednesday 3 July, in association with energy consultancy company Pixie Energy.

Nigel presented the key principles and vision of the project, as well as the benefits that would be recognised to the local energy community. The presentation also included a high-level review of project timescales, with data collection beginning in October 2019 and from April 2020, installation of further smart technologies with the introduction of information and real-time price signals to allow for energy use reductions as well as cost savings.

Over twenty local stakeholders and prospective project participants attended, ranging from energy and water suppliers to local authorities.

The project has already invested in PV at three sites and electricity storage batteries at five others. It is looking to supplement this with output from existing local low-carbon generators and supply it to local consumers. The eventual aim is to establish a “virtual power plant” matching generation and consumption, based around electricity consumers who actively engage with the market.

Project leader Nigel Cornwall said: “This is an exciting project that draws on a range of commercial and technical innovations. I am delighted to be taking this forward in Norwich and Norfolk and show regional leadership as we implement smarter energy markets.”



Energy tariff headlines

New supplier entries diversify variable tariffs

June saw the addition of two new suppliers to Cornwall Insight's tariff analysis - Green. and Roar Power. Green. launched in June offering a variable tariff priced at £949/year on average, making it the sixth cheapest variable tariff and 36th cheapest tariff across the market.

Green. states that it will use machine learning to provide reports on energy usage, give the consumer suggestions of ways to save energy and predict energy usage, providing a prediction of future bills. The supplier offers "intelligent payments" via direct debit which will analyse usage and suggest a more accurate payment over time. It has also integrated Apple/Google Pay for topping up the account with credit.

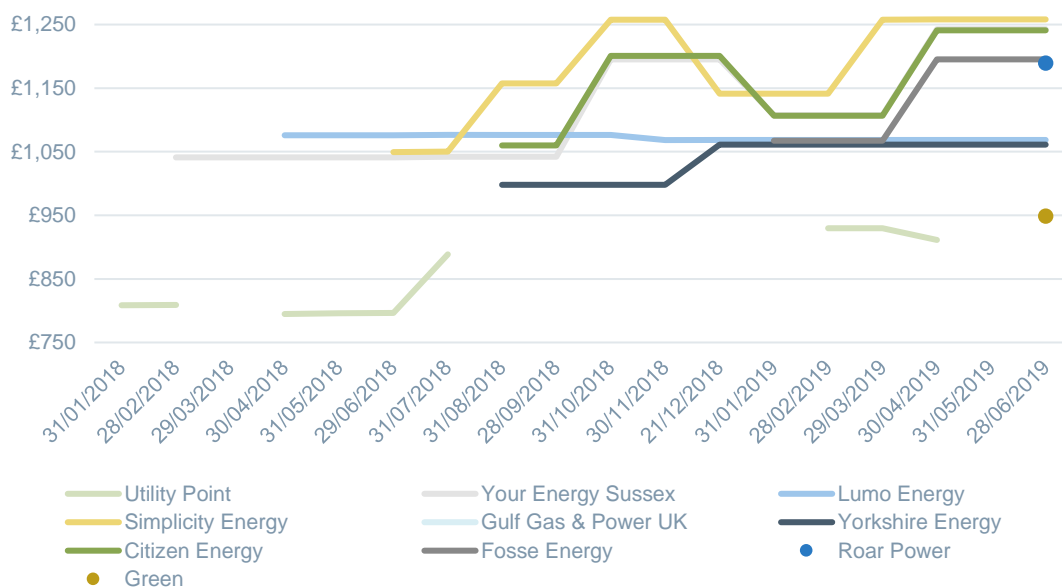
Roar Power, an ENGIE white label supplier in partnership with Norwich City Council, also launched in June. It offers tariffs only to customers in the Eastern region. One of its offerings is a community tariff, charged at £15 per fuel per year higher than other tariffs, with the additional income redistributed to those experiencing fuel poverty.

Its cheapest tariff is a two-year fixed tariff at £1,035/year in the Eastern region (the 30th cheapest fixed tariff in the region) while its variable tariff is priced at £1,189/year (26th cheapest variable tariff in the region).

What is a White Label?

A 'white label' is an organisation that does not hold an energy supply licence, but instead works in partnership with a licensed 'partner supplier' to offer tariffs to customers.

Figure 1: 2018 new supplier entrant variable tariff prices



Source: Cornwall Insight



East of England energy tariffs

Overview

In this section, we illustrate the cheapest tariffs in June for various customer types (A-G) in the East of England. Customer types are described in our 'Best buys' section overleaf and are based on typical annual electricity and gas consumption. The three main types of tariff are shown in the table below.

Tariff	Definition
Standard variable tariff (SVT)	A supply contract with an indefinite length, which has variable prices that can go up and down with the market.
Fixed tariff	Offers guaranteed standing charges and unit rates, usually until a defined end date.
Prepayment (PPM) tariff	A tariff for customers with prepayment meters, which requires payment for energy in advance by 'topping-up' using prepay cards or a key.

June prices

The average price of the lowest cost SVT this month was £841. Like last month, Outfox the Market and Symbio shared the title of cheapest overall SVT providers.

Lowest cost fixed tariff offerings this month averaged a price of £850 with the cheapest energy tariffs offered by Symbio Energy and Outfox the Market. However, Nabuh Energy offered the cheapest average mains gas-heated household tariff this month.

The best deals for PPM energy tariffs averaged £967 and were provided by two suppliers: Bulb (customer types A-D) and Nabuh Energy (customer types E-G).

Monthly price changes

This month, average prices across all customer types:

- **remained the same** for **SVT** tariffs at £841
- **increased** for the cheapest **fixed** by £7 (0.83%), and
- **remained the same** for **PPM** tariffs at £967

Useful Contacts

Citizens Advice is able to independently advise on your energy supply
(Contact: 03454 04 05 06)

The Energy Ombudsman can help to resolve disputes between you and your energy supplier (Contact: 0330 440 1624)

Best buys in East England

Key

SVT

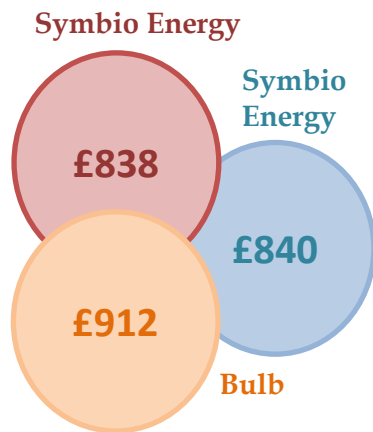
Fixed

PPM

A. Small electricity-heated

Gas - 0kWh

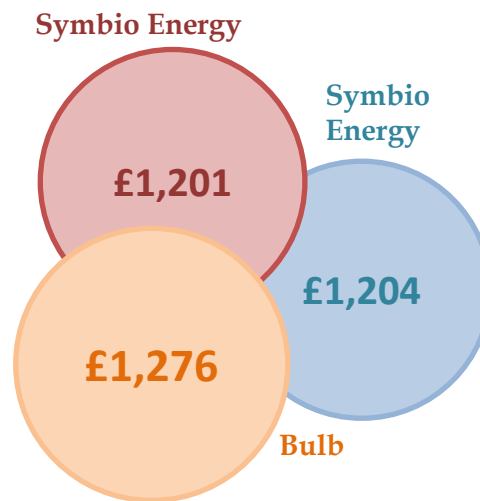
Electricity - 6,130kWh



B. Medium-large electricity-heated

Gas - 0kWh

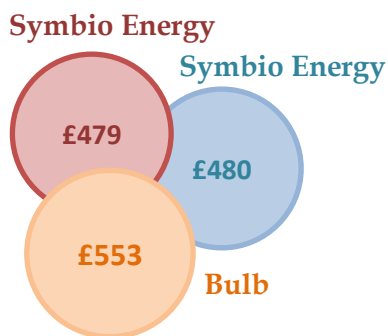
Electricity - 8,912kWh



C. Smaller non-metered fuel-heated homes

Gas - 0kWh

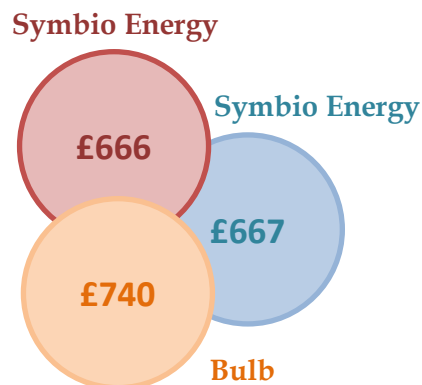
Electricity - 3,383kWh



D. All other non-metered fuel-heated homes

Gas - 0kWh

Electricity - 4,814kWh





E. Single adults in social rented flats		F. Younger working families in medium-sized rented homes	
Gas - 10,592kWh	Electricity - 2,640kWh	Gas - 13,595kWh	Electricity - 3,491kWh
<p>Outfox the Market</p> <p>£747 (Market), £928 (Nabuh Energy), £767 (Savings)</p>		<p>Outfox the Market</p> <p>£946 (Market), £1,145 (Nabuh Energy), £966 (Savings)</p>	

G. "Average" mains gas-heated households	
Gas - 15,280kWh	Electricity - 3,585kWh
<p>Outfox the Market</p> <p>£1,007 (Market), £1,212 (Nabuh Energy), £1,024 (Savings)</p>	

Switching Savings

New-entry suppliers often enter the GB retail market with innovative and disruptive technology to attract customers away from Big Six suppliers.

This month, we have calculated the savings that an average customer switching supply from one of the six biggest suppliers to one of the cheapest tariff suppliers would have made.

The potential savings are as follows:

- **SVT** customers switching could save **£377** per year
- **PPM** customers switching tariff could benefit from savings of **£209**.
- **Fixed** tariff customer switching is usually rarer due to exit fees.

However, if switching this month, fixed tariff customers could make savings of **£177** (excluding additional costs).

Six biggest suppliers:

British Gas
EDF
E.ON
npower
ScottishPower
SSE

Other local energy news

More than 1 in 10 households in fuel poverty

On 13th June, the government released a report on the annual fuel poverty statistics in England.

What is fuel poverty?

Fuel poverty is measured using the Low Income High Costs indicator. A household is considered fuel poor if their residual income after paying energy bills is below the official poverty line

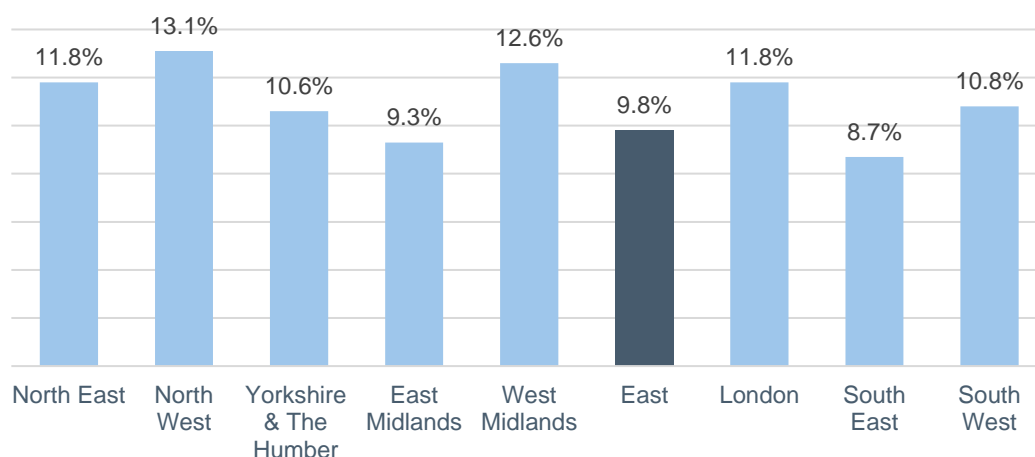
The report showed that:

- In 2017, there was a decrease of 0.2% in the proportion of households in fuel poverty, compared to 2016
- 10.9% of households were fuel poor in 2017 and the projected percentage for 2019 is marginally lower at 10.4%

According to the report, the main drivers for this decrease are improved energy efficiency, the prepayment price cap – which has reduced energy prices for low income households – and increased income for low income households, possibly due to the introduction of the National Living Wage.

Despite the decreased proportion of households in fuel poverty, there was an increase of 69,000 households that were fuel poor in 2017 compared to 2016. Levels of fuel poverty were the highest in the private rented sector where almost a fifth of households struggled to pay energy bills.

Percentage of houses in fuel poverty by region (2017)



Earlier this year, think tank E3G released a study that showed that 3,000 people in the UK are dying each year as a direct result of fuel poverty. A spokesperson for BEIS said: "This government is driving £6 billion into the root cause of fuel poverty...over the next ten years".





ADE find local energy vital to Net Zero carbon

Recent analysis from the Association for Decentralised Energy (ADE) has highlighted the importance of local energy production and management for meeting UK carbon targets. The report identifies that local onsite energy generation, including low carbon combined heat and power, and making use of waste heat through heat networks, will be important contributors.

The findings were in response to the Government's Net Zero report that was published in May. The ADE highlights the need for the UK to move away from gas and electricity into a future that incorporates smart energy systems designed around the needs of users.

The ADE plans to help facilitate this change in the energy system and in households. Some of the main changes mentioned include improving local flexibility services, driving widespread energy efficiency measures like insulation and more efficient appliances, as well as an increased use of heat networks to supply homes with clean heat.

The report suggested that by 2030 up to 1.5 million homes could be heated by heat networks, and by 2050 this number could be more than doubled. This switch to heat networks could play a key role in reaching Net Zero targets.

Energy Co-operative wins national business award

The Schools' Energy Co-operative Ltd has been awarded the prize of "Inspiring Co-op of the year" at the Co-operative of the Year Awards. The awards ceremony was organised by sector body Co-operatives UK and supported by The Co-operative Bank. Chair of the Co-op Mike Smyth and Project Director Laura Moreno were presented with the award at a gala dinner.

The Schools' Energy Co-op provides raises money in the local community to install solar panels on schools. Since it was launched in 2014, the co-operative has installed 1.7MW of panels on 50 schools across England. The 50th installation was completed on 20th June to celebrate clean air day. There are two Norfolk, three Cambridgeshire and four Essex schools in the cooperative.

Speaking after the announcement, Mike Smyth said "I am absolutely delighted that we have won the award for most Inspiring Co-op and grateful to everybody who voted for us. I certainly didn't expect us to win as we are a relatively small co-op and we were up against some much larger organisations. I think we won because the public recognised and identified with our core mission which is to help schools tackle climate change by generating renewable energy but also to support them financially in their educational and environmental work."

The instillations save schools money on electricity, which allows them to direct funds to other areas such as equipment for education and improving the school site for learning. The Co-op is currently seeking funding, via crowdfunding and share offers, to install panels on a further 53 schools that have agreed to proceed with instillations if funding is found.

Concerns for future of community energy sector

Community Energy England and Community Energy Wales identified that 2018 saw a decline in community energy installations. Their State of the Sector report, published on 22nd June, stated that “2018 was the toughest year yet for the community energy sector” with the findings illustrating that only 7.9MW capacity was installed in 2018, a reduction of 25.6MW from 2017.

The main factors that have caused this decrease include the removal of Feed-in Tariff (FiT) subsidy for small-scale generators, restrictions on planning for onshore wind and a lack of social investment tax relief for community energy projects going forward.

Despite these challenges, the report highlighted that community energy schemes are producing enough electricity for 64,000 homes. As part of a further poll supported by Co-op energy, 82% of respondents believe that the government should support community energy more than it does currently.

Onshore wind could reduce electricity costs by 7%

A report released by RenewableUK, on 16th July, suggests that the UK could need to install up to 35 GW of onshore wind capacity by 2035 to meet the 2050 net zero target. To reach this target, 1.4 GW of onshore wind would have to be deployed annually, but just 0.6 GW was deployed in 2018.

The report also highlighted the economic benefits of deployment of onshore wind. There could be a 7% reduction in electricity costs, which could save households £50 per year on their electricity bills. This is due to the expected decrease in onshore wind generation costs.

Today, wholesale power costs around £49/MWh and this could fall to £46/MWh by 2035. In comparison, gas generation costs are expected to rise due to the carbon price associated with emissions. Today, gas production costs around £56/MWh and could rise to over £90/MWh by 2035.

Deployment of onshore wind could also support 31,000 jobs and enable a £350mn export industry. The report mentioned that onshore wind employment is likely to be located in areas of high unemployment, which are most in need of high paying jobs.

Airport commits to £2mn solar farm

Peel Group is planning to invest £2mn in a new solar farm at Doncaster Sheffield Airport. The infrastructure group said that passenger numbers are predicted to double within the next five years, and it is looking to generate 25% of its energy from renewables. The Doncaster Sheffield Airport announced that the ground-mounted PV farm could be operational by 2020 and could supply 4MW, saving 220 tonnes of carbon a year. It will be located on the grounds of the airport.

The project was announced during a visit from the Aviation Minister Baroness Vere who said, ‘To bring about real change in transport, we need to do things differently...the aviation industry is acting now to safeguard our future.’



Electric vehicles update

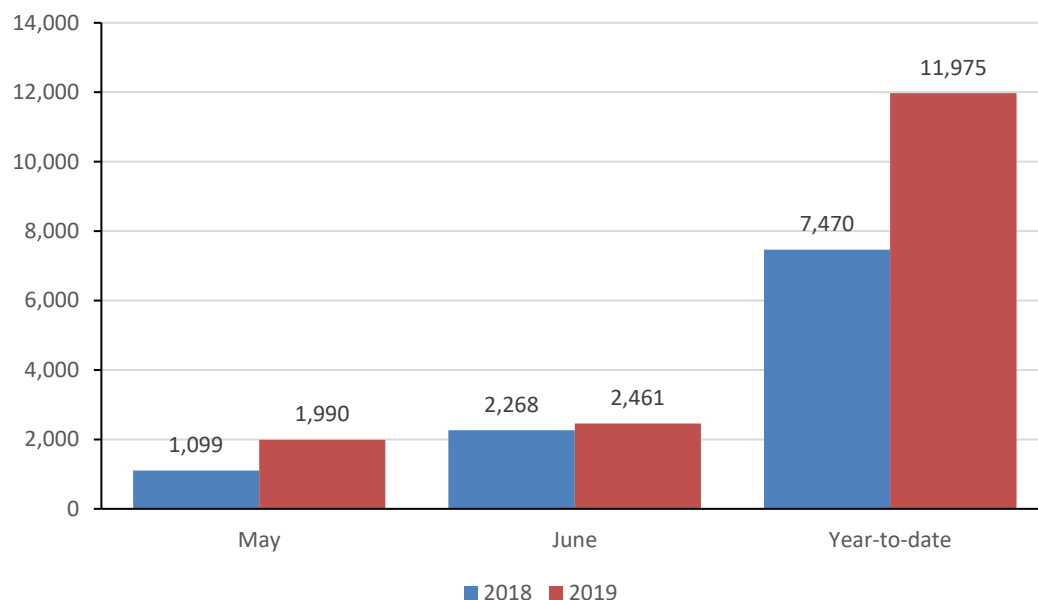
EV sales rise despite car market slow down

On 4 July, the Society for Motor Manufacturers and Traders (SMMT) published its June 2019 UK electric vehicle (EV) registration data.

The figures indicate that battery electric vehicles (BEV) sales were higher in July 2019 than May 2019. Year-to-date BEV sales for 2019 have increased by 62% on 2018, despite lower sales in the wider car and Plug-in Hybrid Electric Vehicle (PHEV) markets.

Figure 3 (below) compares UK BEV sales in 2018 with the current year.

Figure 3: UK BEV registrations



Source: Pixie Energy, data from the Society of Motor Manufacturers and Traders

Shell installs UK's first high-power EV charger

Shell has been developing charging options to provide electric vehicle drivers with faster and more powerful chargers. In London, Shell launched the UK's first 150kW electric vehicle charger at its Battersea Service Station. The charger can provide an 80% charge in approximately 30 minutes.

Bernie Williamson, Shell's General Manager for Retail UK, said: "More of our customer are driving electric vehicles and as they do we will offer them the ability to charge where it suits them – on the road, at home and at work. This new 150kW charger is the latest addition to our Shell Recharge offering, joining the range of 50kW chargers we have already installed on our forecourts. Our aim is to make charging up as simple and stress-free as possible."

New UK homes to be fitted with EV charge points

A proposal has been made by the Department for Transport to fit all new homes with electric car charge points. The proposal is a world first and would make car charging more convenient and cheaper for EV owners.

The government also announced plans to make all new charge points integrated with smart technologies. This means that the charge points would react to information such as energy prices and change charging times. This would allow cheaper off-peak charging automatically.

This proposal comes after the government's support for the installation of over 100,000 domestic EV charge points. Transport Secretary Chris Grayling said, "with record levels of ultra-low emission vehicles on our roads, it is clear there is an appetite for cleaner, greener transport."

The new proposal supports previous work to ensure that new homes are EV ready, as well as the wider Road to Zero Strategy published last year. The Road to Zero Strategy outlines the government's plans to support the transition to zero emission road transport.

Switching to an electric car could save you £41,000

Research by EDF Energy has suggested that the cost of charging an electric vehicle is just over £15,000, a saving of £41,000 compared to buying petrol or diesel fuel over the lifetime of the vehicle. Electric cars are still more expensive on average to buy, but it is expected that by 2024 they could be as affordable as petrol and diesel cars.

This research also found that 24% of people have stated that fuel costs have prevented them travelling and 35% said that thinking about the cost of fuel puts them off driving. As well as the cost of fuel, people are also concerned about the effects of driving on the environment.

Managing Director of Customers for EDF Energy Béatrice Bigois said, "This research shows that, not only will electric cars help motorists save money on their fuel costs, electric vehicles will help more people do more of the things they want to, like exploring more of the UK – all while helping the environment by reducing emissions".

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