NEWS SEPTEMBER 2O19

Ending fossil fuel subsidies 'could easily fund clean energy transition'

Fossil fuels still receive larger subsidies than those given to renewable, says sustainable development organisation

Reallocating between 10% and 30% of global fossil fuel subsidies to clean energy projects would be enough to fund a transition to clean energy, according to a new report by the International Institute for Sustainable Development (IISD). The IISD study asserts that fossil fuel subsidies – which total $372bn per year, compared to the $100bn of support renewable energy receives remain a key barrier to the transition to a clean energy system.

The report suggest a 'subsidy swap', where the funds freed up from reforming fossil fuel subsidies are redirected to finance renewable energy, energy efficiency and public transport.

'Often fossil fuel subsidies are inefficient, costly to governments and undermine clean alternatives,' said Richard Bridle, IISD Senior Policy Advisor. 'All countries should be looking to identify where swaps can kick-start their clean energy transitions.'

The report points to four countries – India, Indonesia, Zambia and Morocco – where governments have already initiated efforts to redirect fossil fuel subsidies. India has cut petroleum subsidies by 75% since 2014, freeing up funds to support the development of its wind and solar industries, while Indonesia has saved approximately $15bn through subsidy reforms, savings which have been reinvested in infrastructure, social programmes and welfare schemes.

However, the report suggests the more needs to be done not only to reduce subsidies, but to reallocate them to fund the energy transition.

'Public money is far better spent delivering the clean energy transition than propping up the fossil fuel industry,' said Bridle. 'Currently, there are far more subsidies directed toward fossil fuels than toward supporting renewable energy. The reform of subsidies alone is not enough to meet global emissions targets, but it is a good first step.'

'Ultimately, the cost of each energy source should reflect its social and environmental impacts. That means increasing taxes on dirty energy and redirecting subsidies to align with government priorities,' concluded Bridle

At a macro level, financial flows are already changing, says the report – globally, fossil fuel subsidies have fallen and global investments in renewable energy have exceeded investments in fossil since 2008. Also global installed renewable capacity additions have exceeded those for fossil fuel.

New York announces 1.7GW offshore wind energy deal

The Governor of New York, Andrew Cuomo, and former Vice President Al Gore have announced the winners of New York's first comprehensive offshore wind solicitation. The project will see the construction of two offshore wind farms in Long Island waters, with a combined capacity of 1.7GW.

Contracts for the Empire Wind and Sunrise Wind developments were awarded to Equinor and to a joint venture between Orsted and US Energy Company Ever source as part of the largest single renewable energy procurement in US history.

Equinor's Empire Wind farm will be made up of between 60 and 80 turbines with a combined capacity of 816MW. The Sunrise Wind project will have a capacity of 880MW. Investments in both facilities will total approximately $3bn.

The announcements coincided with Governor Cuomo's signing of the climate leadership and Community Protection Act (CLCPA), which requires New York state's utility companies to produce 70% of electricity from renewable sources by 2030, calls for 100% carbon – free electricity generation by 2040, and a net zero carbon economy by 205. It also sets a goal to develop 9 GW of offshore wind energy by 2035.

'The environment and climate change are the most critically important policy priorities we face,' Governor Cuomo said. 'They literally will determine the future – or the lack thereof. But cries for a new green movement are hollow political rhetoric if not combined with aggressive goals and a realistic plan on how to achieve them. With this agreement, New York will lead the way in developing the largest source of offshore wind power in the nation.'

In late July, French utility EDF confirmed that its long – delayed nuclear reactor at Flamanville has suffered another setback due to faulty welding. Now, the company says, commissioning is not expected until the end of 2022.

When construction of the facility started in 2007, its target launch date was 2012 – meaning that its completion is now on course to be delayed by more than a decade. In June, French nuclear safety regulator ASN ordered EDF to repair eight welds in the reactor's containment building.

Issues with the welding were first reported in July 2018, at which point EDF had already delayed the loading of fuel until the end of this year, adding and additional €400mn to the plant's budget. Flamanville was originally meant to cost €3.3bn, but this figure is now in excess of €10.9bn. Newly revised cost estimates for the project are expected in the coming months.

The nuclear power station at Flamanville is one of three plants being built in Europe using next – generation European Pressurised Reactor designs. The other two are Finland's Olkiluoto and the UK's Hinkely Point C. Olkiluoto is facing costly delays of its own – Finnish utility Teollisuuden Vioma Oyj (TVO) announced in July that it was further delaying the commercial launch of the 1.6GW Olkiluoto 3 reactor by six months to July 2020.

Fuel will be loaded into the reactor in January and the initial connection to the grid and test period will commence in April next year, TVO said after receiving a new schedule from plant supplier Areva – Siemens. The Project is already more than a decade behind schedule.

According to a statement from TVO, the latest delays at Olkiluoto are the result of ongoing modification outage work 'not progressing as expected'.

Globally, just one EPR reactor – China's Taishan 1 – is already operational today. A second reactor at the same site is scheduled to come online later this year.

The most recent estimates from EDF Energy – which is jointly spearheading the development of Hinkley Point C along with a Chinese partner – say that it will be at least six years until the project generates any power. If work had gone according to original, pre – construction plans, the site would have been operational more than a year ago.

Once complete, the Hinkley Point C reactor – presently the UK's largest construction site – is expected to generate 7% of the country's electricity.

Tow new renewable project for Amazon

Amazon has announced it will build two new wind farms – one in Cork, Ireland, and one in Pittsylvania Country, Virginia – to provide renewable power to its Amazon Web Services data centres.

The wind farms – which have expected generation capacities of 23MW and 45MW respectively – are set to come online in 2020. The data centres hat receive electricity from the farms are essential for the fast and secure operation of Amazon's online services.

They are the latest additions to Amazon's renewable energy portfolio. Globally, the company says it has 66 renewable energy projects – including 51 solar rooftops – with a generating capacity of 1,300 MW.

'Playing a significant role in helping to reduce the sources of human – induced climate change is an important commitment for Amazon,' said Kara Hurst, Amazon's Director of Sustainability. 'Major investments in renewable energy are a critical step to address our carbon footprint globally.'

Amazon has previously committed to reach 100% renewable energy generation, and in 2018 it surpassed 50%. However, in February 2019, Greenpeace accused the company of essentially abandoning its 100% goal – for which it had not set a deadline – despite its public commitment to it.

Meanwhile, tech rival Apple has recently been named the top US commercial solar energy installer, with 393MW installed in the past three years. Amazon came in second in the rankings by the solar Energy Industries Association, with 330MW installed.

ExxonMobil looking to sell UK North Sea assets.
ExxonMobil is preparing to sell its UK North Sea portfolio, including its three main hubs – Penguins, Shearwater and Gannet – for $2bn, according to media reports.

The oil major currently produces some 5% of the UK's oil and gas through its joint venture with Shell.

If a sale goes through, it would make ExxonMobil the third major US oil company to exit the UK North Sea after Chevron and ConocoPhillips sold their North Sea assets earlier this summer. Chrysaor acquired ConocoPhillips' North Sea portfolio for $2.7bn in April 2019, its biggest deal since buying Shell's North Sea assets for $3.8bn in 2017. Shortly thereafter, Chevron sold its North Sea assets to Israeli – owned Ithaca Energy for $1.6bn.

'Combined with its Norwegian assets, which ExxonMobil recently announced its intention to market, this could see the super major reach one – third of the way to meeting its $15bn divestment target,' comments Neivan Boroujerdi, Principal Analyst, North Sea Upstream at Wood Mackenzie.

He adds: 'In a recent report, we highlighted the UK and Norway amongst nearly $50bn worth of assets we think the company could divest. An active phase of portfolio high – grading will complement and strange then its aggressive investment – led strategy, centred on its flagship projects in Guyana, US tight oil and LNG.'

'Nevertheless, the UK business is attractive. It is highly cash generative, with operating costs around half of the UK average. Most of the value lies in three main hubs – Penguins, Shearwater and Gannet. Focus for any new buyer will be on increasing recovery and pushing out abandonment costs.'

However, Boroujerdi adds: 'Given the portfolio is operated through a 50:50 joint venture with Shell, investment plans will need to be aligned with the Anglo – Dutch major, which is juggling opportunities in its own global portfolio.'

Wintershall Dea has begun drilling four production wells on the Dvalin gas field in the Norwegian Sea, getting ready for the field to come onstream in 2020. Dvalin is to be developed as a four – well subsea tie – back to the Equinor – operated Heidrun field. Drilling of the production wells from the Transocean Arctic rig is expected to last approximately one year. Wintershall Dea is operator of the Dvalin development, holding a 55% interest, partnered by Petoro 35% and Edison 10%. Estimated reserves are put at 113.3mn boe.

Eni it to sell a 20% participating interest in the East Spingarn area, offshore East Kalimantan in Indonesia, to Neptune Energy. The sale includes the Merakes development and Merakes East discovery. The two companies are already partners in the Muara Bakau area, which includes the Jangkrik field, located in the Kutei Basin, offshore East Kalimantan, where Eni is the joint venture operator with a 55 participating interest share. The Merakes development project will be connected to the Jangkrik floating production unit, with gas production shipped to the Bontang LNG plant.

Eni and BP have entered into a gas exploration and production sharing agreement for block 77 with the government of Oman. During the exploration phase Eni and BP will each hold a 50% interest in the EPSA, with Eni acting as operator.

Equinor (operator 36%) with partners Neptune 25%, OMV 24% and Repsol 15% ($0.28bn) in a water injection plant on the Gudrun field to improve reservoir recovery and extend the field life by three years, to 2032, compared to the original plan.

BP unveils new Chinese and Indian fuelling joint ventures

BP is planning a joint venture with China's Didi Chuxing that will build electric vehicle (EV) charging infrastructure across China, the world's largest market for EVs. The two companies have already opened a pilot site in Guangzhou the capital of Guangzhou Province, with 10 fast – charging units, ranging from 60-120 kW.

China currently accounts for around 50% of the world's battery electric vehicles (BEVs) today. By 2030, around 80% of EV charging in China is expected to be done at destination, forecourt and fleet hub charge points.

BP plans to become a leading fuel provider for both conventional and electrical vehicles in its businesses worldwide. Following the acquisition in 2018 of BP Chargemaster, the UK's leading EV charging company, BP is now beginning roll out of ultra – fast charges at sites in the UK. It has also invested in innovative fast – charging battery technology firm StoreDot.

In other news, Reliance Industries Limited (RIL) and BP are planning to form a new 51:49 joint venture that will include a fuel retail service station network and aviation fuels business across India. India is expected to be the fastest – growing fuels market in the world over the next 20 years, with the number of passenger cars in the country estimated to grow almost six – fold over the period.

Aramco to take stake in Reliance downstream

Saudi Aramco has signed a non – binding letter of intent (LOI) regarding the proposed acquisition of a 20% stake in Reliance Industries' (RIL) Oil to Chemical division, which is responsible for the company's refining, petrochemicals and fuels marketing businesses. The deal has been valued at $75bn and is one of the largest foreign investments in India to date.

Saudi Aramco and RIL have a long – standing crude oil supply relationship of over 25 years. Saudi Aramco is the world's largest and lowest cost – per – barrel producer of crude oil, is geographically close to India, and offers a wide range of crude supply options. To date it has supplied approximately 2bn barrels of crude oil for processing at RIL's refinery at Jamnagar.

The Jamnagar refinery is claimed to be the largest and most complex refinery in the world, with deep integration of refining and petrochemical activities across multiple manufacturing facilities. The proposed investment would result in Saudi Aramco supplying 500,000 b/d Arabian crude oil to the Jamnagar refinery on a long – term basis.

The terms of the deal are yet to be finalised. However, according to market analyst Wood Mackenzie, company officials have said Reliance will get roughly $15bn, including some debt adjustments, for the 20% stake when the sale closes later this year.

Germany to drive European LNG regasification capacity growth

Germany is set to have 635bn cf of new build LNG regasification capacity, contributing 31% of Europe's capacity growth by 2023, according to GlobalData.

Whilhelmshaven Floating and Brunsbuttel are the two upcoming announced regasification terminals in Germany during the 2019 to 2023 period. Both are expected to start operations in 2022, with the Whilhelmshaven Floating terminal expected to add the highest regasification capacity of $353bn cf by 2023.

Following Germany, GlobalData identifies Spain as the second highest country in terms of regasification capacity growth in Europe, adding a newbuild regasification capacity of 339bn cf by 2023. Spain's EI Musel terminal is expected to have the highest capacity among planned and announced terminals, with 247bn cf of capacity by 2023.

Meanwhile, Croatia has no active regasification terminals currently. The country is expected to add all of its newbuild capacity growth from two planned regasification terminals, Croatia Floating and Hrvatska, by 2023. Of these, the Hrvatska terminal is expected to have the highest regasification capacity, about 212bn cf.

The Abu Dhabi National Oil Company (ADNOC) is taking a 10% stake in global storage terminal owner and operator VTTI. IFM Global Infrastructure Fund and Vitol hold the remaining interest (45% each) in the independent storage company, which owns 15 hydrocarbon storage terminals across 14 different countries. The deal provides ADNOC access to storage capabilities across some of its key export markets such as Asia, Africa and Europe, while also securing additional facilities at the port of Fujairah, UAE its main storage hub.

Brazil's natural gas market reforms have taken a major step forward, with plans in place which are set to open up opportunities across the gas value chain, and boost investment in the country's pre – salt. The National Council for Energy Policy recently unveiled its roadmap for opening the gas market to third party investment, which it hopes will drive gas prices down by increasing competition along the gas value chain. The plan includes granting third parties access to transportation and allowing producers to sell gas output to companies other than Petrobras.

The European Commission has approved Croatian government plans to fund the construction and operation of a floating LNG terminal at Krk island, in the northern Adriatic Sea. The European Union (EU) executive said a direct €100mn subsidy from the Croatian government complied with EU state

aid rules. It gave the same verdict to a planned 'security of supply fee' which will enable Pliancro, the Croatian gas transmission operator, to raise additional levies to cover the terminal's costs, in case they exceed operating revenues. The terminal is designed to transport up to 2.6bn cm/y of natural gas into Croatia, from 2021. The EU's Connecting Europe Facility is also supporting the project, with an additional €101.4mn.

Australia on track to become world's largest LNG exporter

Australia is on track to surpass Qatar as the world's largest LNG exporter, according to Australia's Department of Industry, Innovation, and Science (DIIS). Meanwhile, the US Energy Information Administration (EIA) reports that Australia already surpasses Qatar in LNG export capacity and exported more LNG than Qatar in November 2018 and April 2019. Within the next year, as Australia's newly commissioned projects ramp up and operate at full capacity, the EIA expects Australia to consistently export more LNG than Qatar.

Australia's LNG export capacity increase from 2.6bn cf/d in 2011 to more than 11.4bn cf/d in 2019. Australia LNG exports will grow to 10.8bn cf/d by 2020-2021 once the recently commissioned Wheatstone, Ichthys, and Prelude FLNG projects ramp up to full production. Prelude FLNG, located offshore in north – western Australia, was the last of the eight new LNG export projects that came online in Australia in 2012 through 2018 as part of a major LNG capacity buildout.

Total LNG export capacity in north – western Australia is now 8.1bn cf/d. In eastern Australia, three LNG export project were completed in 2015 and 2016 on Curtis Island in Queensland – Queensland Curtis, Gladstone, and Australia Pacific – with a combined nameplate capacity of 3.4bn cf/d. All three projects in eastern Australia use natural gas from coalbed methane as a feedstock to produce LNG.

Most of Australia's LNG is exported under long – term contracts to three countries – Japan, China and South Korea. An increasing share of Australia's LNG exports in recent years has been sent to China to serve its growing natural gas demand. The remaining volumes were almost entirely exported to other countries in Asia, with occasional small volumes exported to destinations outside Asia.

For several years, Australia's natural gas markets in eastern states have been experiencing natural gas shortage and increasing prices, reports the EIA, because CBM production at some LNG exports facilities in Queensland has not been meeting LNG export commitments. During these shortfalls, project developers have been supplementing their own production with natural gas purchase from the domestic market. The Australia government has implemented several initiatives to address domestic natural gas production shortage in eastern states.

Several private companies have proposed to develop LNG import terminals in south – eastern Australia. Of the five proposed LNG import projects, Port Kembla LNG is at the most advanced stage, having secured the necessary sitting permits and an offtake contract with Australian customers. If built, the Port Kembla project will use the floating storage and regasification unit (FSRU) Hoegh Galleon, starting in January 2021.