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Share Price Data

Company	Currency	Price 10/12/15	Price 19/11/15	Percentage Difference
Vestas Wind Systems A/S	DKK	453.2	431.6	5.00%
Electricite de France SA	EUR	13.39	15.065	-11.12%
E.ON	EUR	8.535	9.09	-6.11%
Alstom SA	EUR	27.735	29.145	-4.84%
Enel S.p.A.	EUR	3.974	4.102	-3.12%
BP plc	GBX	350.95	385.15	-8.88%
BG Group plc	GBX	975.6	1038.5	-6.06%
Royal Dutch Shell Plc	GBX	1522	1666	-8.64%
National Grid plc	GBX	911	939.5	-3.03%
Gazprom PAO	RUB	135.6	147.5	-8.07%
Exxon Mobil Corporation	USD	75.69	80.3	-5.74%
Chevron Corporation	USD	89.3	90.83	-1.68%
PetroChina Company Limited (ADR)	USD	66.21	70.86	-6.56%
ConocoPhillips	USD	49.22	53.56	-8.10%
First Solar, Inc.	USD	54.35	53.28	2.01%
BHP Billiton Limited (ADR)	USD	25.13	29.12	-13.70%
Nordic American Tanker Ltd	USD	14.97	15.15	-1.19%
Sinopec Shanghai Petrochemical Co. (ADR)	USD	34.5	39.99	-13.73%
ABB Ltd (ADR)	USD	18.04	18.83	-4.20%
Petroleo Brasileiro SA Petrobras (ADR)	USD	4.73	5.09	-7.07%
Energy Transfer Partners LP	USD	32.77	40.27	-18.62%
Duke Energy Corp	USD	67.43	68.49	-1.55%
Tesla Motors Inc	USD	227.07	221.8	2.38%
Enbridge Inc (USA)	USD	31.91	37.3	-14.45%
TransCanada Corporation (USA)	USD	32.76	32.75	0.03%

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Industry News

- Of the technical advances transforming the energy business, none is potentially more important than storage. Used on a sufficient scale, it could make heat and light available to those living in subsistence conditions and radically alter the world's energy mix. But it is important to demolish two myths. First, the technological advances are not about to transform the energy system to the point where a large proportion of consumers defect from existing distribution systems. Second, it does not require a dramatic breakthrough to become economic.²

- John Arnold, the legendary energy trader formerly of the hedge fund Centaurus Advisors, expects half of the U.S. energy industry to go bankrupt next year if the price of oil does not rebound.

Either way, bankruptcies among the industry will pick up as OPEC maintains production levels and as energy companies lose the ability to keep hedging against falling prices, he said.³

- During past oil market slumps, big energy companies went on merger-and-acquisition sprees to consolidate. This time around, they are turning to decidedly less sexy deals: selling pipelines, storage tanks and fuel terminals to raise money. They are finding a growing band of investors willing to snap them up at premium prices, betting that midstream energy assets will be dependable cash cows.⁴
- E.ON has invested in an American energy storage start-up. It aims to make energy storage “a fundamental part of a cleaner, more intelligent and distributed energy infrastructure”. Greensmith’s software helps optimise the performance of energy storage by lowering costs and maximising the system’s return on investment. E.ON has bought stakes in more than a dozen start-ups in the US, Europe and Australia.⁵

² From: <http://www.ft.com/intl/cms/s/0/081860a2-9dc1-11e5-8ce1-f6219b685d74.html#axzz3twfYcE8M>

³ From: <http://www.cnbc.com/2015/12/10/arnold-half-of-us-energy-industry-may-go-under.html>

⁴ From: <http://www.wsj.com/articles/energy-company-assets-on-the-block-as-oils-plunge-bites-1449753310>

⁵ From: <https://www.energylivenews.com/2015/12/10/e-on-invests-in-us-energy-storage-start-up/>



Political Developments and National Trends

- One is a European country known as “the powerhouse of Europe” that struggles against soggy winters and seemingly endless gray skies. The other is a digitally driven American state, known as “the Golden State,” for its abundant sunshine and year-round growing season. One is determined to lead an energy transformation through carefully drafted laws and regulations; the other is driven by an inventive spirit of boundary-pushing and experimentation.⁶
- In Italy, the price of solar power can now compete with other sources of energy. As government incentives expire, solar energy producers have to become more creative to make the most of their clean power. A fruit and vegetable market in Bologna has Europe's biggest solar roof, and uses its solar panels to power electric cars.⁷

The graphic features the GEC logo (a globe made of blue squares) and the text "GEC Global Energy Certification™". It includes a text box on the left and a grid of six energy-related images on the right.

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⁶ From: http://www.nytimes.com/2015/12/11/world/europe/california-and-germany-opposites-with-a-common-energy-goal.html?_r=0

⁷ From: <http://www.bbc.com/news/world-europe-35048533>



Green Vehicles

- According to survey done by the EV advocacy group Plug-In America, almost two-thirds of early production Tesla Model S sedans suffer battery component failure before 60,000 miles. To be clear, the survey was small—327 Tesla owners responded—providing strong anecdotal, if not scientific, evidence. Still, over 200 failed drivetrains are significant, even for a new and experimental company⁸
- South Korea plans to put over one million alternative-energy vehicles on its roads by the end of the decade. On Tuesday, South Korea's Ministry of Trade, Industry, and Energy (MTIE) announced plans that would increase the number of traditional gasoline-electric hybrids, plug-in electric hybrids (PHEV), pure electric vehicles (EV), and hydrogen fuel cell cars to 20 percent of all sales by the year 2020.⁹
- Ford Motor Company appears to have an eye on the future of automotive industry as it zooms its plans to manufacture electric vehicles by 2020. The company's budgetary outlay for this shift in automotive technology is expected at \$4.5 billion. The automakers investment shift to greener production appears to be ill-timed as the current US market is strong for traditional vehicles, nurtured by the low fuel prices.¹⁰
- By 2050, all new cars sold in the UK must be emissions-free, under an ambitious accord signed by a combination of 13 countries and US states at the United Nations climate change conference in Paris this month. With Germany, the Netherlands, Norway and others, the UK has agreed to promote greener motoring and transport and increase the sales of zero emissions vehicles as fast as possible; to the point where every vehicle sold has zero emissions by 2050.¹¹
- Many of the [car manufacturing] companies argue that regulators should concentrate less on the number of zero-emissions cars on the road and more on the number of zero-emissions miles driven. That can best be achieved, they say, by getting more drivers into plug-in hybrids — which can travel 25 to 50 miles or more on electricity before a gas engine kicks in and extends the range.¹²

⁸ From: <http://fortune.com/2015/12/10/tesla-model-s-reliability/>

⁹ From: <http://www.hybridcars.com/1-million-green-cars-on-south-korean-roads-by-2020/>

¹⁰ From: <http://www.wallstreetscope.com/ford-motor-company-nysef-4-5b-budget-for-green-vehicles-by-2020/25533820/>

¹¹ From: <http://www.theweek.co.uk/67605/paris-conference-all-new-uk-cars-to-be-zero-emissions-by-2050>

¹² From: <http://www.latimes.com/business/autos/la-fi-hy-plugin-hybrids-20151120-story.html>



Green Energy

- The [UK] government has shocked the renewable energy industry by proposing a massive hike in VAT on solar panels and wind turbines from next summer. The moves, announced by the revenue and customs authority, HMRC, made “a mockery of (David) Cameron’s claims to climate leadership” say critics and come amid proposed cuts of almost 90% in some solar subsidies.¹³
- What do Sydney’s Young Henrys brewery, Shoalhaven Heads’ Bowling and Recreation Club, and Bendigo library have in common? They’re all hosts to some of Australia’s first solar power projects funded and run by local people in community energy groups. Projects like these are becoming increasingly popular in Australia. The Coalition for Community Energy (C4CE) 2015 national community energy strategy states that there were 19 community energy groups operating in early 2015, with a further 59 projects in development.¹⁴
- The United Nations Sustainable Development Goals have such a grand, evocative ring, and they include a goal on energy, a huge concern for everyone’s future. So what does the goal ask for -- and can we meet it? Affordable: Solar energy was not affordable when NASA first used it in space, but its price has fallen 100-fold since the 1970s, and in many parts of the world it is now a financially viable long-term option. Wind energy is now the cheapest kind of new power. The more we increase the efficiency of our buildings, vehicles and appliances, the less they will cost to run.¹⁵
- As diplomats in Paris draw closer to a deal to tackle climate change, the outlook for the coal sector is starting to darken. Nearly 200 nations at the United Nations-run summit are expected to finalize a sweeping climate deal by this weekend. Top leaders, including U.S. President Barack Obama, are calling for a shift in the world’s energy supplies away from high-carbon sources, such as coal, and toward cleaner alternatives.¹⁶

¹³ From: <http://www.theguardian.com/business/2015/dec/09/vat-hike-tax-renewable-energy-wind-power-solar-panels-hmrc>

¹⁴ From: <http://www.theguardian.com/sustainable-business/2015/dec/08/australia-community-solar-energy-project-take-on-the-big-energy-companies>

¹⁵ From: http://www.huffingtonpost.ca/development-unplugged/sustainable-energy-age_b_8751660.html

¹⁶ From: <http://www.ibtimes.com/paris-climate-talks-2015-dark-days-ahead-coal-sector-nations-close-deal-2220630>