



# ENERGY ASSURANCE DAILY

Friday Evening, April 01, 2016

## Electricity

### Severe Storms, Tornadoes Knock Out Power to Over 76,000 Customers in South March 31–April 1

Severe storms bringing heavy rain, hail, and tornadoes knocked out power to 76,666 customers across the Southern region beginning Thursday afternoon with impacts expected to last through Friday. As of 3:30 p.m. EDT Friday, 8,460 customers remained without power. 4-County Electric Power Association, the hardest hit utility with 12,000 customers outages, reported close to 20 broken power poles and significant downed power lines, which were delaying restoration efforts. Entergy Mississippi, which reported 7,700 customer outages, said it expects full power restoration by 6:00 p.m. CDT Friday. The table below shows total affected customers and the latest reported outages by utility. The “Affected” column shows the total count of customers that lost power at one point or another over the course of the storm for each utility. These outages may not have occurred concurrently and are not the same as peak outages.

Southern U.S. Customer Power Outages			
March 31–April 1, 2016			
Electric Utility	State	Affected	Latest Reported
Alabama Power	AL	1,500	32
Florida Power and Light	FL	6,390	977
Flint Energies	GA	6,040	1,188
Georgia Power	GA	1,945	686
Murray Electric	KY	8,000	0
West Kentucky Rural Electric	KY	6,000	0
LG&E	KY	2,200	5
Warren Rural Electric Cooperative Corp.	KY	2,000	0
Bowling Green Municipal Utilities	KY	500	0
Entergy Louisiana	LA	2,096	841
Central Louisiana Electric Company	LA	841	239
4-County Electric Power Association	MS	12,000	300
Entergy	MS	7,700	2,000
Duke Energy	NC	3,000	491
South Carolina Electric & Gas	SC	1,200	348
Nashville Electric Service	TN	2,794	6
Knoxville Utility Board	TN	899	72
CPS	TX	4,804	89
Austin Energy	TX	3,300	63
El Paso Electric	TX	1,134	0
CenterPoint	TX	855	418
Oncor	TX	820	514
AEP Texas	TX	648	191
<b>TOTAL*</b>		<b>76,666</b>	<b>8,460</b>

\*Total outages represent only electric utilities listed in this table.

Sources:

<https://twitter.com/alabamapower>

<http://www.fplmaps.com/>

<https://twitter.com/flintenergies>

[http://outagemap.georgiapower.com/external/default.html?hp=tm\\_po\\_view\\_outage\\_map](http://outagemap.georgiapower.com/external/default.html?hp=tm_po_view_outage_map)

<https://www.facebook.com/MurrayElectricSystem>

<https://twitter.com/wkrecc>  
[http://www.etrviewoutage.com/external/la.aspx?\\_ga=1.259742474.1497457220.1456345079](http://www.etrviewoutage.com/external/la.aspx?_ga=1.259742474.1497457220.1456345079)  
<http://outage.cleco.com/external/default.html>  
<https://twitter.com/4CountyElectric>  
<https://www.facebook.com/EntergyMS>  
<https://twitter.com/EntergyMS>  
[http://www.etrviewoutage.com/external/ms.aspx?\\_ga=1.134579186.2004688020.1454947100](http://www.etrviewoutage.com/external/ms.aspx?_ga=1.134579186.2004688020.1454947100)  
<http://outagemap.duke-energy.com/ncsc/default.html>  
<http://www.nespower.com/OutageMap/default.aspx>  
[https://www.kub.org/wps/portal/Customers/Home/SafetyAndOutages/OutageMap!/ut/p/b1/04\\_Sj9Q1NjU1MjExMteP0I\\_KSyzLTE8syczPS8wB8aPM4i2NXA08jLONPP19QiwMPL0MTHwMPFyMDNzN9XOjHBUB\\_EOdZg!!/](https://www.kub.org/wps/portal/Customers/Home/SafetyAndOutages/OutageMap!/ut/p/b1/04_Sj9Q1NjU1MjExMteP0I_KSyzLTE8syczPS8wB8aPM4i2NXA08jLONPP19QiwMPL0MTHwMPFyMDNzN9XOjHBUB_EOdZg!!/)  
[http://outagemap.cpsenergy.com/CPSSStaticMapsEXT/CPSSStaticMapV2\\_EXT.html](http://outagemap.cpsenergy.com/CPSSStaticMapsEXT/CPSSStaticMapV2_EXT.html)  
<https://austinenergy.com/outages/>  
<http://www.centerpointenergy.com/en-us/residential?sa=ar>  
<http://stormcenter.oncor.com/external/default.html>  
<https://www.aeptexas.com/outages/outageMap.aspx>  
<http://www.epelectric.com/outage-map>  
[http://www.bgdailynews.com/news/severe-storm-sweeps-through-area/article\\_22a73bac-f788-11e5-9341-93cfdeddae97.html](http://www.bgdailynews.com/news/severe-storm-sweeps-through-area/article_22a73bac-f788-11e5-9341-93cfdeddae97.html)  
<http://www.foxnews.com/us/2016/04/01/tornadoes-slam-deep-south-severe-storms-head-toward-carolinas.html>  
<http://www.westkentuckystar.com/News/Local-Regional/Western-Kentucky/Substation-Down-City-of-Murray-Without-Power.aspx>

### **Substation Fire Knocks Out Power to 10,000 BC Hydro Customers in British Columbia March 31**

BC Hydro on Thursday night reported 10,000 customers had power knocked out due to a fire in its Armstrong substation in North Okanagan, British Columbia. The utility said power was fully restored by Friday morning.

<https://twitter.com/bchydro>  
<https://www.bchydro.com/power-outages/app/outage-list.html>  
<http://www.castanet.net/news/Vernon/162105/Thousands-without-power>

### **Update: Energy Northwest's 1,107 MW Columbia Generating Station Nuclear Unit in Washington Ramps Up to 71 Percent by April 1**

On the morning of March 31 the unit had restarted and was operating at 15 percent. The unit was shut from full power unexpectedly on Monday in order to investigate an issue with a valve that was discovered during a maintenance test. The plant is expected to be running at 100 percent power by the weekend, a public affairs supervisor said.

<http://www.nrc.gov/reading-rm/doc-collections/event-status/reactor-status/2016/>  
Reuters, 1:45 March 30, 2016  
Reuters, 13:03 March 31, 2016

### **Update: NMC's 522 MW Prairie Island Nuclear Unit 1 in Minnesota at Full Power by April 1**

On the morning of March 31 the unit was operating at 40 percent, reduced from full power on March 29.

<http://www.nrc.gov/reading-rm/doc-collections/event-status/reactor-status/2016/>

### **Update: Entergy's 1,207 MW Grand Gulf Nuclear Unit 1 in Mississippi Restarts by March 31, Ramps Up to 52 Percent by April 1**

On the morning of March 31 the unit had restarted and was operating at 4 percent. The unit shut on March 29 from 30 percent due to a turbine trip.

<http://www.nrc.gov/reading-rm/doc-collections/event-status/reactor-status/2016/>  
<http://www.nrc.gov/reading-rm/doc-collections/event-status/event/2016/20160330en.html>

### **Update: Solar Partners' 123 MW Ivanpah Solar Unit 1 in California Returns to Service by March 31**

The unit returned from an unplanned outage that began on March 30.

<http://content.aiso.com/unitstatus/data/unitstatus201603311515.html>

## **Update: Solar Partners' 133 MW Ivanpah Solar Unit 3 in California Returns to Service by March 31**

The unit returned from an unplanned outage that began on March 30.  
<http://content.aiso.com/unitstatus/data/unitstatus201603311515.html>

## **EDF Renewable's 110 MW Catalina Solar Unit in California Shut by March 31**

The unit entered an unplanned outage.  
<http://content.aiso.com/unitstatus/data/unitstatus201603311515.html>

## **AES's 226 MW Huntington Beach Gas-fired Unit 1 in California Reduced by March 31**

The unit entered an unplanned curtailment of 116 MW.  
<http://content.aiso.com/unitstatus/data/unitstatus201603311515.html>

## **SCE's 239 MW Vincent Wind Units in California Shut by March 31**

The units entered an unplanned outage.  
<http://content.aiso.com/unitstatus/data/unitstatus201603311515.html>

## **La Paloma Generating Co.'s 260 MW Gas-fired Unit 1 in California Shut by March 31**

The unit entered an unplanned outage.  
<http://content.aiso.com/unitstatus/data/unitstatus201603311515.html>

## **Wisconsin Governor Enacts Energy Bill Ending Moratorium on Nuclear Energy Development April 1**

Governor Scott Walker on Friday signed Assembly Bill 384 into law, which changes the approval process for nuclear power plant construction and to the state's overall energy policies. Currently, state regulators cannot approve nuclear energy facility development unless a federal facility for storing waste exists and the plant does not burden ratepayers.

<http://walker.wi.gov/newsroom/press-release/governor-scott-walker-signs-bill-law-changing-approval-process-nuclear-power>

Reuters, 10:31 April 1, 2016

## ***Petroleum***

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### **Phillips 66 Reveals Upgrade Plans at Its Refineries in Illinois, Montana**

Phillips 66 said it was planning upgrades at its 336,000 b/d Wood River, Illinois refinery and its 59,000 b/d Billings, Montana refinery in order to process additional heavy Canadian crude. The company will invest \$200 million to modernize a fluid catalytic cracking plant at the Wood River site, but did not disclose a timeline for the work. Other activities at the Wood River site include expanding the refinery's ultra-low sulfur diesel output and increasing capacity to process an additional 18,000 b/d of diluted heavy crude, which are slated to start-up in the third quarter of 2016. In Billings, a \$300 million upgrade project to run 100 percent heavy crudes as well as crude oil with high acid content was slated for completion by 2017.

Reuters, 15:00 March 31, 2016

### **U.S. Drillers Cut 14 Oil, Gas Rigs Decreasing Total to 450 - Baker Hughes**

The number of rigs drilling for oil and natural gas in the U.S. fell for the 15th straight week to the lowest level since at least 1940, Baker Hughes data showed on Friday. Drillers cut 14 oil and gas rigs in the week ending April 1, bringing the total rig count down to 450, Baker Hughes said. That compares with 1,028 oil and gas rigs operating in the same week a year ago. In 2015, drillers cut on average 22 oil and gas rigs per week for a total of 1,142 for the year, the biggest annual decline since at least 1988.

Reuters, 13:34 April 1, 2016

### **FERC Delays Evaluation on PennEast's Pipeline Project from New Jersey to Pennsylvania to December**

The Federal Energy Regulatory Commission (FERC) on Thursday set a December 16 deadline for issuing a notice of availability of the final environmental impact statement for the proposed PennEast Pipeline, and a March 2017 deadline for a federal decision on authorization. PennEast had requested a final deadline of August. The 118-mile PennEast Pipeline would deliver Marcellus Shale natural gas from Dallas, Pennsylvania, and terminate at Transco's pipeline interconnection near Pennington, New Jersey.

<http://penneastpipeline.com/overview/>

[http://elibrary.ferc.gov/idmws/file\\_list.asp?accession\\_num=20160329-3066](http://elibrary.ferc.gov/idmws/file_list.asp?accession_num=20160329-3066)

<http://www.prnewswire.com/news-releases/penneast-pipeline-project-delayed-300244048.html>

Reuters, 5:30 April 1, 2016

### **PSE&G Reports Explosion during Natural Gas Pipeline Test in New Jersey March 30**

Public Service Electric and Gas Company (PSE&G) on March 30 reported that a new natural gas line, which was being tested with pressurized air, failed and caused an explosion in Bayonne on March 30. The explosion injured three contractors and two police officers. Utility officials stated that a temporary cap blew off after the system was over-pressurized, but the incident remains under investigation.

<http://abc7ny.com/news/2-police-officers-3-workers-hurt-in-bayonneexplosion/1268777/>

### **Enbridge Reports Upset Due to Lightning Strike at Its Pittsburg Gas Plant in Texas March 30**

Enbridge reported its Pittsburg gas plant experienced an upset due to a lightning strike, which resulted in an electrical short in the "SCOT unit." This caused a plant shut down and resulted in an emission event. The equipment was brought back online, and the thermal oxidizer and flare were utilized to mitigate emissions.

<http://www2.tceq.texas.gov/oce/eer/index.cfm?fuseaction=main.getDetails&target=230391>

## *Other News*

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Nothing to report.

## *International News*

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### **Saudi Arabia Oil Output Freeze Primarily Contingent upon Iran Output Freeze – Deputy Crown Prince**

Saudi Arabia will agree to freeze crude oil production levels only if Iran, Russia, Venezuela, Organization of the Petroleum Exporting Countries (OPEC) countries, and all main producers do so, the kingdom's deputy crown prince said. Iran has said it will not join fellow OPEC and non-OPEC members at an upcoming conference in Doha, Qatar on April 17 to discuss output freezes. Qatar has said about 15 members of OPEC and non-OPEC producers, accounting for about 73 percent of global oil output, support the initiative. Top OPEC producer Saudi Arabia, and Russia—a non-member—agreed in February to freeze output levels, but said at the time the deal was contingent on other producers joining in. Iran is expected to add half a million barrels of oil supply a day within a year from its existing oilfields after the recent lifting of economic sanctions, but developing new fields would take time, the head of the International Energy Agency said on Wednesday.

Reuters, 7:02 April 1, 2016

## Energy Prices

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U.S. Oil and Gas Prices			
April 1, 2016			
	Today	Week Ago	Year Ago
<b>CRUDE OIL</b> <b>West Texas Intermediate U.S.</b> \$/Barrel	35.13	30.09	50.07
<b>NATURAL GAS</b> <b>Henry Hub</b> \$/Million Btu	1.94	1.72	2.62

Source: Reuters

## Links

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***This Week in Petroleum*** from the U.S. Energy Information Administration (EIA)

<http://www.eia.gov/oog/info/twip/twip.asp>

Updated every Wednesday.

***Weekly Petroleum Status Report*** from EIA

[http://www.eia.gov/oil\\_gas/petroleum/data\\_publications/weekly\\_petroleum\\_status\\_report/wpsr.html](http://www.eia.gov/oil_gas/petroleum/data_publications/weekly_petroleum_status_report/wpsr.html)

Updated after 10:30 AM & 1:00 PM ET every Wednesday.

***Natural Gas Weekly Update*** from EIA

<http://www.eia.gov/oog/info/ngw/ngupdate.asp>

Updated after 2:00 PM ET every Thursday.

### ENERGY ASSURANCE DAILY

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<http://www.oe.netl.doe.gov/ead.aspx>

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