



# ENERGY ASSURANCE DAILY

Monday Evening, July 07, 2014

## Major Developments

### Update: Hurricane Arthur Knocks Out Power to Total of 83,400 Duke Energy Customers in North Carolina July 3-4; Downgraded Storm Moves North, Knocks Out Power to 19,000 Emera Customers in Maine and 262,000 Customers in Eastern Canada July 5

Hurricane Arthur made landfall as a Category 2 hurricane late Thursday, July 3, near Cape Lookout, North Carolina, before weakening to a tropical storm and hitting Maine and parts of Canada's eastern coast on Saturday, July 5. Duke Energy reported that a total of 83,400 customers in North Carolina lost power at some point during the storm but the highest number of outages at any single point during the storm was 22,000 at 11 p.m. Thursday. On Saturday Arthur made another landfall, as a tropical storm, in Bar Harbor, Maine, where it knocked out power to 19,000 Emera Maine customers along the coast. The storm continued north into Canada where more than 122,000 Nova Scotia Power customers in Nova Scotia and 140,000 NB Power customers in New Brunswick were left without power on Saturday night. NB Power had restored power to 77,000 customers yesterday but more trees fell on lines adding to the number of outages and pushing back restoration times for others. NB Power said Arthur's record high winds and heavy rainfall caused more damage to New Brunswick's power grid than any other storm in its history and therefore expects the majority of its customers to have power restored by Wednesday at midnight, with the remainder expected to be back online by the weekend. Nova Scotia Power reported 100,000 customers have had power restored since Saturday night and some customers won't be restored until Thursday. As of 3:30 p.m. EDT today, 108,152 customers remained without power, mostly in Canada. Duke Energy reported all power had been restored by late Saturday.

Hurricane Arthur Customer Power Outages			
July 3-7, 2014			
Electric Utility	State/Province	Peak	Latest Reported
Duke Energy	NC	22,000	0
Emera Maine	ME	19,000	1,966
NB Power	New Brunswick	140,000	80,569
Nova Scotia Power	Nova Scotia	122,000	25,617
<b>TOTAL*</b>		<b>303,000</b>	<b>108,152</b>

\*Total outages represent only electric utilities listed in this table. Peak outages occurred over a multi-day span, from July 3-5.

Sources:

Reuters, 23:16 July 5, 2014

<https://twitter.com/emera>

<http://www.duke-energy.com/news/releases/2014070401.asp>

[https://twitter.com/NB\\_Power](https://twitter.com/NB_Power)

<http://www.nbpower.com/html/en/outages/StormCentre.html>

<http://www.nbpower.com/Open/Outages.aspx>

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

[http://apps.bhe.com/about/outages/Outage\\_Map.cfm](http://apps.bhe.com/about/outages/Outage_Map.cfm)

[http://www.nbpower.com/html/en/about/media/media\\_release/2014/07-07-EN\\_Restoration\\_Update.html](http://www.nbpower.com/html/en/about/media/media_release/2014/07-07-EN_Restoration_Update.html)

<http://timesofindia.indiatimes.com/world/rest-of-world/Hurricane-Arthur-leaves-thousands-without-power-in-Canada/articleshow/37893947.cms>

[http://www.rigzone.com/news/oil\\_gas/a/133883/Hurricane\\_Arthur\\_Scythes\\_Through\\_Outer\\_Banks\\_of\\_North\\_Carolina](http://www.rigzone.com/news/oil_gas/a/133883/Hurricane_Arthur_Scythes_Through_Outer_Banks_of_North_Carolina)

<http://www.wcsh6.com/story/weather/2014/07/05/tropical-storm-arthur-causes-trouble/12256159/>

<https://twitter.com/emera>

### **Power Restoration Complete after Strong Thunderstorms Knock Out Power to 165,000 Customers in Pennsylvania July 3**

A line of severe thunderstorms with severe lightning, damaging winds and heavy rainfall moved through the central and eastern Pennsylvania July 3 creating widespread damage and interrupting electric service to about 155,000 PECO customers and more than 10,000 PPL Electric Utilities customers. PECO reported 95 percent of power was restored by July 5 and the remaining were to be restored by that evening. PPL reported all power was restored by 6 p.m. local time July 4.

<http://www.marketwatch.com/story/peco-working-to-restore-service-following-holiday-storms-2014-07-04>

<http://www.timesherald.com/general-news/20140704/severe-storms-leave-175k-without-power-in-pa>

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

<https://twitter.com/pecoconnect>

<https://www.pplelectric.com/my-account/outage-center/outage-map.aspx>

<https://twitter.com/pplelectric>

### **Strong Storms Knock Out Power to Over 20,000 Customers in Michigan July 6–7**

Strong storms moved across Michigan overnight Sunday into Monday morning knocking out power to 20,853 customers, including 13,516 Consumers Energy customers and 7,337 DTE Energy customers. Winds in the 90 miles per hour range were reported in Kentwood, Michigan, and crews from the National Weather Service were on site Monday to determine if it was a tornado or a micro-burst of straight line winds that caused much of the damage. As of 3:30 p.m. EDT today, 4,125 Consumers Energy customers and Detroit Edison had restored power to nearly all customers affected by the storm. Consumers Energy said its crews were making good progress restoring power and all should be restored late this evening.

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

<http://www.consumersenergy.com/outagemap>

<http://www.dteenergy.com/map/outage.html>

[http://wwmt.com/shared/news/features/top-stories/stories/wwmt\\_many-without-power-after-strong-storms-22492.shtml#.U7q9AfdUSk](http://wwmt.com/shared/news/features/top-stories/stories/wwmt_many-without-power-after-strong-storms-22492.shtml#.U7q9AfdUSk)

[http://www.mlive.com/news/grand-rapids/index.ssf/2014/07/possible\\_kentwood\\_tornado\\_brin.html](http://www.mlive.com/news/grand-rapids/index.ssf/2014/07/possible_kentwood_tornado_brin.html)

### **Midcontinent ISO Prevents Cyber Attack on Power Grid**

The Midcontinent Independent System Operator (MISO) said on Thursday it discovered and shut down a cyber security breach. An analysis on June 26 revealed the vulnerability on an external third-party server used by MISO's market monitor Potomac Economics, MISO's Chief Information Officer said. None of MISO's or Potomac's systems were compromised by the third-party server. MISO oversees the power system in 15 U.S. Midwest and Gulf Coast states and the province of Manitoba in Canada. After discovering the breach, MISO immediately severed the connections between the MISO and Potomac computers. The company said it contacted the appropriate authorities, including the U.S. Federal Energy Regulatory Commission, the U.S. Department of Homeland Security's Industrial Control Systems Cyber Emergency Response Team, and other power grid operators. Potomac is moving its web server to a different third party provider and expects to have its system back up in mid-July. MISO and Potomac did not name the third party that was compromised for security reasons.

Reuters, 16:56 July 3, 2014

### **FirstEnergy Energizes New 345 kV Transmission Line and Substation in Pennsylvania**

FirstEnergy Corp. completed a new transmission line and substation in Armstrong County, Pennsylvania, to help enhance service reliability for West Penn Power customers in Allegheny, Armstrong, Butler, and Westmoreland counties. A new 345 kV substation was constructed next to FirstEnergy's deactivated Armstrong Power Plant. The major component of the construction process was the installation of a large transformer that converts the power from 345 kV to 138 kV as it moves along the transmission system. In addition, a new control room was built to house transmission controls that were previously located at the Armstrong Plant. Construction work also included adding four new circuit breakers to the existing substation located on plant property that will remain in operation. The project also included a new 1.6-mile section of 345 kV transmission line connecting the new substation with an existing transmission line running between Homer City and Handsome Lake. The new line was installed on 15 steel monopole structures. The new substation equipment and line are owned by Trans-Allegheny Interstate Line Company, a FirstEnergy transmission affiliate.

[https://www.firstenergycorp.com/content/fecorp/newsroom/news\\_releases/firstenergy-energizes-new-transmission-line-and-substation-in-we.html](https://www.firstenergycorp.com/content/fecorp/newsroom/news_releases/firstenergy-energizes-new-transmission-line-and-substation-in-we.html)

## **Met-Ed Constructs New 69 kV Transmission Line, Rebuilds Another in Pennsylvania**

Edison Company (Met-Ed) said on Monday it was completing work on a new 69 kV transmission line, and rebuilding another, that connect substations between Reading and Muhlenberg Township in Pennsylvania. The project includes building almost five miles of new transmission line and rebuilding more than four miles of an existing circuit. Overall, more than 80 new steel, wood or laminate poles have been installed. In addition, new 69 kV circuit breakers have been added at the substations. Both lines are intended to be in service by the end of July and are expected to provide additional operational flexibility and redundancy in the Reading and Berks County areas.

[https://www.firstenergycorp.com/content/fecorp/newsroom/news\\_releases/met-ed-constructs-new-transmission-line-rebuilds-another-to-en.html](https://www.firstenergycorp.com/content/fecorp/newsroom/news_releases/met-ed-constructs-new-transmission-line-rebuilds-another-to-en.html)

## **Update: PPL's 1,111 MW Susquehanna Nuclear Unit 2 in Pennsylvania Restarts by July 5, Ramps Up to 92 Percent by July 7**

On the morning of July 6 the unit was operating at 66 percent after restarting and ramping up to 15 percent by July 5. The unit was shut June 26 due to extensive vibration monitoring equipment installed on the turbine, which indicated that a few turbine blades developed small cracks. The blades were replaced and additional maintenance was also completed.

<http://www.nrc.gov/reading-rm/doc-collections/event-status/reactor-status/2014/>

<http://finance.yahoo.com/news/operators-reconnect-unit-2-susquehanna-230400676.html>

## ***Petroleum***

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### **Phillips 66 to Shut Most Units for Repair at Its 146,000 b/d Borger, Texas Refinery Over July 4 Weekend**

Phillips 66 said it would shut most of the production units at its refinery in Borger, Texas, over the July Fourth weekend to start a month of repairs following a power outage early this week, said sources familiar with operations at the refinery. The company had already been planning to shut the refinery's 25,000 b/d delayed coking unit over the weekend for a three-week overhaul, sources told Reuters. Trade sources have said the refinery was planning a multi-unit overhaul this month to correct operational problems created by the power outage.

Reuters, 17:24 July 3, 2014

### **Phillips 66 Reports FCCU Normal after Feed Cut at Its 247,000 b/d Sweeny, Texas Refinery**

Phillips 66 reported a fluid catalytic cracking unit (FCCU) at its Sweeny refinery in Texas was brought back to normal operations after feed was stopped due to a pump malfunction, a filing with the Texas Commission on Environmental Quality showed. Feed was stopped to FCCU 3 due to the loss of a feed pump motor at an adjacent process unit, the filing said, adding that the feed rate was resumed following repairs on the pump.

Reuters, 18:41 July 3, 2014

### **Update: Marathon Restarts Hydrocracker at Its 451,000 b/d Galveston Bay, Texas Refinery June 2**

Marathon Petroleum Corp. restarted a 60,000 b/d hydrocracker by Wednesday at its Galveston Bay refinery in Texas City, Texas, said sources familiar with refinery operations on Thursday. The unit was taken out of production on Monday after a flange leak caused a pump to fail on the hydrocracker, which is called an ultracracker, the sources said.

Reuters, 16:18 July 3, 2014

### **Power Dip Hits Valero's 78,000 b/d Wilmington, California Refinery July 5**

Valero Energy Corp.'s Los Angeles-area refinery in Wilmington, California was hit by a dip in electrical power on Saturday, according to a notice filed by the refinery with California Emergency Management Agency. A shelter-in-place order was issued as the power loss led to a release of an unknown amount of acid gas, according to the notice. A shelter-in-place order tells plant workers and nearby residents to remain indoors to avoid exposure to hazardous chemicals.

Reuters, 17:23 July 6, 2014

## **Canadian National Railway Says Crude Rail Cars intact after Train Derailment in Alberta July 4**

A Canadian National Railway (CN) train carrying crude oil derailed near Whitecourt, Alberta, early on Friday morning, the company said, but there were no injuries or fire and the crude cars were intact. Five cars on the southbound train, including two containing crude, derailed at slow speed about nine miles east of Whitecourt, Alberta, at approximately 5 a.m. local time, a CN spokeswoman said. The company said cause was still under investigation and slight seepage from the valve on one of the cars was stopped and secured. Emergency and environmental response crews were on site, officials said. The Transportation Safety Board said it has deployed an investigator to the site  
Reuters, 12:26 July 4, 2014

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## ***Natural Gas***

### **Targa Reports Emergency Shutdown, Flaring at Its 150 MMcf/d Sand Hills Gas Plant in Texas July 3**

Targa reported an unknown error caused an inlet line emergency shutdown to activate, while switching refrigeration units. While correcting the emergency shutdown valve malfunction, the refrigeration unit stayed in operation with only two units running rather than the usual three. This caused the plant inlet to build pressure which routed the inlet gas to the emergency inlet flare, F-1. Maintenance technicians corrected the emergency shutdown valve position and rebooted the computer that controls the emergency shutdown valves. As soon as this was complete, a third refrigeration compressor could be started and the flaring at emergency inlet flare, F-1, ceased.

<http://www11.tceq.state.tx.us/oc/eer/index.cfm?fuseaction=main.getDetails&target=200628>

### **DCP Midstream Reports Engine Shut at Its 160 MMcf/d Goldsmith Gas Plant in Texas July 3**

DCP Midstream reported the NR20 5# engine went down due to mechanical failure causing a flaring event. Mechanics made repair and the engine was placed back online ending the flare event

<http://www11.tceq.state.tx.us/oc/eer/index.cfm?fuseaction=main.getDetails&target=200625>

### **Southern Union Reports Unit Shut, Low Pressure Flaring at Its Keystone Gas Plant in Texas July 6**

Southern Union reported it flared low pressure gas coming into the plant when unit 24 shut due to bad turbo thermocouple. The operator cleaned out the exhaust inlet thermocouple to turbo and put the unit back on line.

<http://www11.tceq.state.tx.us/oc/eer/index.cfm?fuseaction=main.getDetails&target=200646>

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## ***Other News***

### **Oil and Natural Gas Information Sharing and Analysis Center Forms to Protect Energy Infrastructure**

The American Petroleum Institute (API) expressed its support for the new Oil and Natural Gas Information Sharing and Analysis Center (ONG-ISAC), which will help protect infrastructure from cyber-attacks. While API helped form the center, it will exist as an independent organization to facilitate the exchange of information, help evaluate risks, and provide up-to-date security guidance to U.S. companies. The ONG-ISAC will be structured similar to other industry ISACs in order to allow participants to submit incidents either anonymously or with attribution via a secure web portal; circulate information on threats and vulnerabilities among ONG-ISAC members, other ISACs, vendors, and the U.S. government; provide industry participants with access to cyber security experts; alert participants of cyber threats deemed 'Urgent' or 'Elevated' in near real-time; and, coordinate industry-wide responses to computer-based attacks. The ONG-ISAC will serve as a central hub for the rapid collection and distribution of intelligence on cyber threats against U.S. energy networks.

<http://ongisac.org/>

<http://www.api.org/news-and-media/news/newsitems/2014/june-2014/oil-and-natural-gas-industry-forms-organization-to-strengthen-cyber-security>

### Libya to Restart Oil Export from Ras Lanuf and Es Sider – NOC

Libya plans to resume exports from the major eastern Ras Lanuf and Es Sider oil ports after government forces took over the terminals following the end of an almost year-long blockage by a rebel group, officials said on Sunday. State-run National Oil Corp (NOC) lifted force majeure from the two ports after the rebels agreed last week to end a blockade to press financial and political demands. Libya's current output was running at 325,000 b/d, an NOC spokesman said. Both ports used to export around 500,000 b/d before the closure but it could take some time to restart production as the connecting fields and pipelines are likely to require maintenance work after standing idle. Reuters, 10:50 July 6, 2014

## Energy Prices

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U.S. Oil and Gas Prices			
July 7, 2014			
	Today	Week Ago	Year Ago
<b>CRUDE OIL</b> <b>West Texas Intermediate U.S.</b> \$/Barrel	104.12	105.91	102.73
<b>NATURAL GAS</b> <b>Henry Hub</b> \$/Million Btu	4.29	4.38	3.54

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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