



# ENERGY ASSURANCE DAILY

Friday Evening, July 22, 2016

## Electricity

### Update: More Than 48,000 Customers Remain without Power across Northern Midwest July 22

Repairs continued Friday across northeastern Minnesota and northwestern Wisconsin as utilities worked to restore power following severe storms Thursday morning. Nearly 180,000 customers lost power during the storm on Thursday. As of 3:30 p.m. EDT Friday, 47,542 customers remained without power, including nearly 27,000 Minnesota Power customers. That utility said it expects to have power to most customers in areas outside of hard-hit Duluth restored by the end of the day. In Duluth, Minnesota Power expects to make significant progress today despite the severe damage to power poles and lines caused by fallen trees. However, as crews are restoring service to residential customers they are discovering that the damage is more extensive than first thought. Restoring power to some pockets in rural Duluth and other severely damaged neighborhoods may be extended through the weekend. Meanwhile, Xcel Energy, which serves customers in Minnesota and Wisconsin, expects full restoration by 8:00 p.m. local time today. Lake County Power in Minnesota said the restoration progress remains “incremental,” and that it could take days to restore power to all its customers affected by the storm. 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.

Northern Midwest Customer Power Outages			
July 21-22, 2016			
Electric Utility	State	Affected	Latest Reported
Xcel Energy	MN	40,000	308
Minnesota Power	MN	46,000	26,820
Lake County Power	MN	27,000	16,000
Xcel Energy	WI	20,000	2,227
Wisconsin Public Service	WI	17,000	442
We Energies	WI	20,000	1,745
Madison Gas & Electric	WI	9,700	672
<b>TOTAL*</b>		<b>179,700</b>	<b>48,214</b>

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

Sources:

[https://www.xcelenergy.com/emergency\\_notices/severe\\_weather\\_impacts\\_wi\\_and\\_mi\\_cooling\\_centers\\_open](https://www.xcelenergy.com/emergency_notices/severe_weather_impacts_wi_and_mi_cooling_centers_open)

[www.outagemap-xcelenergy.com/outagemap/?\\_ga=1.120576897.807006025.1469119350](http://www.outagemap-xcelenergy.com/outagemap/?_ga=1.120576897.807006025.1469119350)

<http://outagemap.mnpower.com/external/default.html>

[http://www.mnpower.com/Content/Documents/Company/PressReleases/2016/20160722\\_NewsRelease.pdf](http://www.mnpower.com/Content/Documents/Company/PressReleases/2016/20160722_NewsRelease.pdf)

<http://www.lakecountypower.coop/displaynewsreleaseall.php?id=508>

<https://accel.wisconsinpublicservice.com/outagesummary/view/outagegrid.aspx>

<http://www.we-energies.com/outagemapext/>

<http://www.wkow.com/story/32503226/2016/07/21/thousands-without-power-as-storms-heat-pass-through>

<http://www.jsonline.com/weather/severe-thunderstorm-watch-in-effect-until-9-pm-b99766105z1-387862842.html>

<http://www.channel3000.com/news/more-than-2000-people-without-power/40833264>

<https://www.mge.com/safety-outages/power-outages/outage-map/>

<http://www.we-energies.com/outagemapext/>

<http://www.alliantenergy.com/Customerservice/StormandOutageCenter/OutageSummary/index.htm>

## **PSE&G Prepares for Hot Weather and Potential Storms in New Jersey July 22**

With temperatures expected to be in the 90s for an extended period of time and potential storms in the forecast, Public Service Electric and Gas (PSE&G), New Jersey's largest utility, is monitoring weather conditions and has additional personnel on hand to handle any power interruptions. The utility's call centers also have extra personnel on duty to speak with customers, and additional appliance service technicians are scheduled to assist with air conditioner repairs. PJM Interconnection, the regional grid operator, expects to have sufficient power supplies available to meet the increased demand for electricity. The demand for electricity on Friday is forecasted to be 8,839 MW. PSE&G's all-time summer peak was 11,108 megawatts, set on August 2, 2006.

<https://www.pseg.com/info/media/newsreleases/2016/2016-07-22.jsp#.V5JAL6J66W4>

## **Midwest ISO Declares Maximum Generation Event Amid Generator Outages, High Temperatures July 21**

The Midwest Independent System Operator (MISO) Reliability Coordinator declared a "Maximum Generation Event Step 1b/c" and "NERC EEA Level 1" effective from 1:00 pm EST until 8:00 pm EST for the MISO Balancing Authority Area. The Event instructs generators in the Balancing Area to place all generation resources in use and start all off-line resources, but does not order the use of contingency reserves. According to MISO, the Event was declared because of forced generation outages, above normal temperatures, and higher than forecasted load.

<https://www.misoenergy.org/MarketsOperations/Notifications/Pages/MaximumGenerationEventStep-1bcanNERCEEA1Declaration.aspx>

## **FERC Directs NERC to Develop Risk Management Standards for Supply Chain Cyber Controls**

The Federal Energy Regulatory Commission (FERC) on Thursday acted to improve the cyber security of the bulk electric system by directing the North American Electric Reliability Corporation (NERC) to develop a new supply chain risk management standard that addresses risks to information systems and related bulk electric system assets. In Thursday's rule, FERC directed NERC to develop a forward-looking, objective-based Critical Infrastructure Protection (CIP) Reliability Standard that requires each affected entity to develop and implement a plan that includes security controls for supply chain management for industrial control system hardware, software, and services associated with bulk electric system operations. NERC is required to submit the new or modified Reliability Standard within one year of the effective date of the final rule. The final rule will take effect 60 days after publication in the *Federal Register*. Also Thursday, FERC issued a Notice of Inquiry (NOI) into modifying CIP standards regarding the protection of control centers that are used to monitor and control the bulk electric system in real time. FERC is seeking comment on possible modifications, and any potential impacts they may have on the operation of the bulk-power system, to address separation between the internet and the cyber systems in control centers that perform transmission operator functions, and computer administration practices that prevent unauthorized programs from running, known as "application whitelisting," for cyber systems in control centers. Comments on the NOI are due 60 days after publication in the *Federal Register*.

<http://www.ferc.gov/media/news-releases/2016/2016-3/07-21-16-E-8.asp#.V5JLqJ6540>

## **PSE&G's 1,092 MW Salem Nuclear Unit 2 in New Jersey Ramped Up to 28 Percent by July 22**

The unit shut on June 28 when an electrical short caused the main generator protection signal to activate and automatically trip the main turbine. The short occurred because water entered a duct system that runs between the generator and main power transformer. The reactor connected to the grid July 3 and reached 82% capacity early in the afternoon of July 4. But a power reduction began following the control room receiving the intermittent alarm, and the turbine and generator were taken offline later on July 4. The unit restarted and connected to the grid July 11 and had been holding at reduced output. On the morning of July 21 the unit was operating at 13 percent.

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

<http://www.nrc.gov/reading-rm/doc-collections/event-status/reactor-status/2016/20160702ps.html>

<http://www.platts.com/latest-news/electric-power/washington/pseg-nuclears-salem-2-unit-in-new-jersey-connects-21944029>

## **Update: Entergy's 1,207 MW Grand Gulf Nuclear Unit 1 in Mississippi Ramped Up to 37 Percent by July 22**

The unit is returning from an outage that began June 25 due to a turbine trip. Operators restarted the unit by July 21.

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

## **Indiana-Michigan Power's 1,060 MW D.C. Cook Nuclear Unit 2 in Michigan Reduced to 75 Percent by July 22**

On the morning of July 21 the unit was operating at full power.

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

## **Update: Energy Northwest's 1,107 MW Columbia Generating Station Nuclear Unit in Washington Ramped Up to 84 Percent by July 22**

On the morning of July 21 the unit was operating at 69 percent.

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

## **Update: AES's 332 MW Alamos Gas-fired Unit 3 in California Returns to Service by July 21**

The unit returned from an unplanned curtailment of 164 MW that began by July 20.

<http://content.caiso.com/unitstatus/data/unitstatus201607211515.html>

## **Update: AES's 336 MW Alamos Gas-fired Unit 4 in California Returns to Service by July 21**

The unit returned from an unplanned curtailment of 236 MW that began by July 20.

<http://content.caiso.com/unitstatus/data/unitstatus201607211515.html>

## **RRI Energy's 775 MW Ormond Beach Gas-fired Unit 2 in California Shut by July 21**

The unit entered an unplanned outage.

<http://content.caiso.com/unitstatus/data/unitstatus201607211515.html>

## **BHE Renewables' 276 MW Solar Star Unit 2 in California Shut by July 21**

The unit entered an unplanned outage.

<http://content.caiso.com/unitstatus/data/unitstatus201607211515.html>

## **FirstEnergy to Sell or Deactivate 136 MW Bay Shore Coal-fired Unit 1 in Ohio by October 2020; Retire 720 MW of Coal-fired Generation at the Sammis Plant in Ohio by May 2020**

FirstEnergy Corp. announced today that its FirstEnergy Solutions subsidiary will make operational changes to coal-fired units at two of its Ohio plants in response to challenging market conditions. The company plans to sell or deactivate the 136 MW Bay Shore Unit 1 in Oregon, Ohio, by October 2020. (Bay Shore Units 2–4 were deactivated in 2012 based on the impact of environmental rules.) In addition, Units 1–4 of the company's seven-unit W.H. Sammis Plant in Stratton, Ohio—collectively representing 720 MW of capacity—will be retired by May 2020. Units 5–7 will continue to provide 1,490 MW of coal-fired generation. In 2015, Bay Shore Unit 1 and Sammis Units 1–4 contributed about four percent of the electricity produced by the company's generating plants. Plant deactivations are subject to review for reliability impacts, if any, by PJM Interconnection, the regional transmission organization that controls the area where they are located. FirstEnergy does not intend to offer these units into the PJM capacity auction for the 2020–2021 timeframe.

[https://www.firstenergycorp.com/newsroom/news\\_releases/firstenergy-to-deactivate-units-at-two-ohio-power-plants-.html](https://www.firstenergycorp.com/newsroom/news_releases/firstenergy-to-deactivate-units-at-two-ohio-power-plants-.html)

## **Partial Shutdowns Proposed for 389 MW SRP's Coronado Coal-fired Unit 1 in Arizona**

The Arizona Department of Environmental Quality on Thursday reported it has proposed a revision to the air quality control permit for Salt River Project's (SRP) coal-fired Coronado Generating Station to assist in satisfying federal and state environmental protection requirements. This permit revision requires SRP to select the option of either installing a selective catalyst reduction system on the 389 MW Unit 1 or retire it by December 31, 2029. Until the time SRP decides either of these options, SRP will be required to seasonally curtail the operation of Unit 1 by selecting one of four interim operational strategies. The plant also operates the 384 MW coal-fired Unit 2, which recently installed a selective catalyst reduction system.

<http://www.srpnet.com/about/stations/coronado.aspx>

<http://www.azdeq.gov/notices/public-notice-permit-revision-no-63088-SRP>

<http://www.azcentral.com/story/money/business/energy/2016/07/21/partial-shutdowns-proposed-srp-salt-river-project-coronado-generating-station-coal-plant-northern-arizona/87389718/>

### **Husky Energy Pipeline Leaks Approximately 1,250 Barrels of Heavy Oil and Diluent into North Saskatchewan River July 21**

Husky Energy Inc. said late on Thursday it shut and isolated a pipeline on its Saskatchewan Gathering System after roughly 200,000 to 250,000 liters (1,258 to 1,572 barrels) of heavy oil and diluent spilled from the line, running into the North Saskatchewan River. The spill into the river was noticed as a sheen on the water Thursday morning. "My understanding is that the leak is stopped, the site is contained, and they are fully into clean-up phase," a spokeswoman for Saskatchewan's environment ministry said. The Saskatchewan Gathering System runs from Husky's heavy oil operations east of Lloydminster to the company's facilities in that city, where the oil is upgraded, used in asphalt, or shipped on to the oil sands hub of Hardisty, Alberta.

Reuters, 11:51 July 22, 2016

<http://www.cbc.ca/news/canada/saskatoon/saskatchewan-government-husky-energy-pipeline-leaks-oil-1.3690178>

### **Husky Energy Says Crude Oil Flexibility Project at 160,000 b/d Lima, Ohio Refinery to be Completed in 2018**

Husky Energy reported work continues on the initial stages of a crude oil flexibility project at its Lima refinery. The project will allow Husky to process up to 40,000 b/d of heavy crude feedstock. An initial heavy crude processing capacity of 8,000 b/d is expected to come online in the fourth quarter, with full capability completed in 2018.

Reuters, 06:30 July 22, 2016

### **Husky Energy's 135,000 b/d Toledo, Ohio Refinery Now Processing Hi-TAN Crude from Sunrise Energy Project**

Husky Energy reported its Toledo refinery is now able to process about 65,000 b/d of Hi-TAN crude to support production from the Sunrise Energy Project, while maintaining its overall capacity.

Reuters, 06:30 July 22, 2016

### **Citgo Reports Compressor Shutdown at Its 167,000 b/d Lemont, Illinois Refinery July 22**

Citgo Petroleum Corp. reported a compressor shutdown at its Lemont refinery Friday, according to a filing with the Illinois Emergency Management Agency.

22-Jul-2016 04:07

### **Repairs Underway at Tesoro's 166,000 b/d Martinez, California Refinery after Leak on July 17**

Tesoro reported a leak in an oil/gas pipeline at its Martinez refinery on July 17, according to the Contra Costa Health Services filing made public on Thursday. Operators quickly stopped and contained the leak, and cleanup has been completed, the filing said. The cause of the leak was identified and repairs are in process. Operations at the refinery are currently normal.

Reuters, 00:39 July 22, 2016

### **Motiva Reports Operational Upset at Its 235,000 b/d Convent, Louisiana Refinery July 21**

Motiva Enterprises LLC reported minor flaring at its Convent refinery after an operational upset to a unit.

Reuters, 17:23 July 21, 2016

### **Citgo Reports SRU Upset at Its Corpus Christi, Texas Refinery East Plant July 20**

Citgo said the sulfur recovery unit (SRU) experienced an upset during startup operations, according to a filing with the Texas Commission on Environmental Quality.

<http://www2.tceq.texas.gov/oce/eer/index.cfm?fuseaction=main.getDetails&target=239430>

## **Magellan's 340,000 b/d Saddlehorn Crude Oil Pipeline Expected to Start Commercial Service Next Month – FERC**

Magellan Midstream Partners' Saddlehorn pipeline, which moves crude from Colorado to Cushing, Oklahoma, is expected to start up commercial service next month, according to a recent filing with the U.S. Federal Energy Regulatory Commission (FERC). In May, Magellan said that linefill on the pipeline was slated to begin in the third quarter and the line would be fully operational in September. The Saddlehorn pipeline will be capable of transporting at least 340,000 b/d of crude oil from the DJ Basin, and potentially the broader Rocky Mountain area resource plays, to storage facilities in Cushing, Oklahoma owned by Magellan and Plains All American Pipeline, L.P. The pipeline's Platteville, Colorado origin and Cushing destination will each include one million barrels of storage. The pipeline is also being extended from Platteville to Carr, Colorado.

Reuters, 18:01 July 21, 2016

<http://ir.paalp.com/profiles/investor/ResLibraryView.asp?ResLibraryID=80047&GoTopage=1&Category=117&BzID=789&G=549>

<http://www.pnewswire.com/news-releases/saddlehorn-and-grand-mesa-to-combine-projects-through-undivided-joint-interest-in-dj-basin-crude-oil-pipeline-300180794.html>

---

## **Natural Gas**

### **SoCalGas Warns of Possible Natural Gas Curtailments in Southern California July 21**

Southern California Gas (SoCalGas) issued a notice Thursday that said, effective immediately, July 21, 2016 at 2:00 p.m. local time and until further notice, there is a gas curtailment watch for the company's Southern System, due to lack of supplies. This is the second notice this summer. The supply of gas available to consumers is tighter than usual this year because SoCalGas has only limited access to gas in its Aliso Canyon storage field in the Los Angeles area, which the company was forced to shut late last year after detecting a massive leak. The California Independent System Operator has not issued any warnings about power supplies on Friday. SoCalGas forecast gas demand could top 3.1 Bcf on Friday, which would be met by almost 2.7 Bcf of fuel from pipelines and 0.5 Bcf from storage withdrawals. SoCalGas said earlier this week it hopes to have Aliso Canyon partially back in service by the end of the summer.

Reuters, 11:57 July 22, 2016

<http://www.caiso.com/Pages/TodaysOutlook.aspx>

<https://scgenvoy.sempra.com/#nav=/Public/ViewExternalEbb.getMessageLedger%3FfolderId%3D1%26and%3D477>

### **Enbridge Reports Upset at Its 150 MMcf/d Tilden Gas Plant in Texas July 21**

Enbridge reported the upset Thursday morning occurred due to "instability with the electrical grid caused by the service provider," according to a filing with the Texas Commission on Environmental Quality.

<http://www2.tceq.texas.gov/oce/eer/index.cfm?fuseaction=main.getDetails&target=239486>

---

## **Other News**

Nothing to report.

---

## **International News**

### **Nigeria's Forcados Crude Exports Halted for at Least Another Month – Source**

Nigeria's Forcados crude oil exports are expected to remain halted for at least another month as pipeline repairs continue following a militant attack in February, an industry source familiar with the matter said. Forcados exports were between 250,000 and 300,000 b/d prior to an attack by a militant group, the Niger Delta Avengers, on an underwater pipeline in February.

[http://www.downstreamtoday.com/news/article.aspx?a\\_id=52884](http://www.downstreamtoday.com/news/article.aspx?a_id=52884)

## Libya's PFG to Start Lifting Oil Terminals Blockage over Next 3 Days – Spokesman

Libya's Petroleum Facilities Guard (PFG) will start lifting a blockade on eastern oil terminals over the next 3 days, though a resumption of exports will depend on the state of the ports, a spokesman said on Friday. The PFG has blockaded the major eastern terminals of Ras Lanuf, Es Sider and Zueitina for months, and promises earlier this year to reopen them have so far come to nothing. Ras Lanuf and Es Sider, Libya's biggest export terminals, have a combined potential capacity of 600,000 b/d, but both facilities have been damaged by fighting.

Reuters, 12:08 July 22, 2016

## Energy Prices

---

U.S. Oil and Gas Prices			
July 22, 2016			
	Today	Week Ago	Year Ago
<b>CRUDE OIL</b> <b>West Texas Intermediate U.S.</b> \$/Barrel	43.07	48.55	49.22
<b>NATURAL GAS</b> <b>Henry Hub</b> \$/Million Btu	2.70	2.77	2.88

Source: Reuters

## Links

---

***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

---

*Energy Assurance Daily* provides a summary of public information concerning current energy issues. Published Monday through Friday to inform stakeholders of developments affecting energy systems, flows, and markets, it provides highlights of energy issues rather than a comprehensive coverage. *Energy Assurance Daily* is updated online Monday through Friday after 5:00 p.m. ET. For more information, visit the Infrastructure Security and Energy Restoration (ISER) website at:

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

Please direct comments and questions to: [ead@oe.netl.doe.gov](mailto:ead@oe.netl.doe.gov)