

Office of Electricity Delivery and Energy Reliability

Infrastructure Security and Energy Restoration

ENERGY ASSURANCE DAILY

Tuesday Evening, April 26, 2011

Major Developments

Storms Blast South-Central United States, Killing at Least Seven People and Knocking Out Power to More than 270,000 Customers April 25-26

Severe thunderstorms and possible tornadoes blasted the south-central United States on April 25-26, killing seven people in Arkansas, destroying homes, and knocking out power to more than 270,000 customers across several states, multiple news, official, and company sources reported. Storms and possible tornadoes were expected to continue throughout the region on April 26, according to forecasts. Outages occurred in other states, but the following table lists only those states where 10,000 or more customers lost electricity, based on available data.

| South-Central U.S. Customer Power Outages April 25 – 26, 2011 | | | | |
|--|-------|---------|-----------------|--|
| Electric Utility | State | Peak | Latest Reported | |
| Entergy | AR | 88,020 | 46,652 | |
| First Electric Cooperative | AR | 14,000 | 10,631 | |
| Carroll Electric | AR | 7,000 | 105 | |
| Craighead Electric | AR | 1,000 | 250 | |
| Knoxville Utilities Board | TN | 44,231 | 6,338 | |
| Clarksville Department of Electricity | TN | 16,000 | 6,000 | |
| Southwest Tennessee Electric | TN | 12,240 | 5,019 | |
| Jackson Energy Authority | TN | 12,000 | 3,000 | |
| Gibson Electric Membership Corporation | TN | 10,000 | 1,400 | |
| Paris Board of Public Utilities | TN | 10,000 | 10,000 | |
| Memphis Light, Gas, and Water | TN | 9,000 | 1,083 | |
| Entergy | LA | 23,240 | 1,556 | |
| Beauregard Electric | LA | 7,800 | 699 | |
| Entergy | MS | 16,723 | 3,924 | |
| TOTAL* | | 271,254 | 96,657 | |

^{*}Total outages only represent electric utilities listed in this table.

Sources:

http://www.cnn.com/2011/US/04/26/arkansas.storms/index.html?hpt=T2

Entergy (Arkansas): http://viewoutage.entergy.com/ar.aspx,

http://www.entergy.com/News_Room/newsrelease.aspx?NR_ID=2121 First Electric Cooperative: https://ebill.firstelectric.coop/outage/,

http://www.todaysthv.com/news/article/154770/2/Deaths-injuries-damage-reported-across-Arkansas

Carroll Electric: http://www.outageentry.com/dvosm/dvOSM2.php?Client=cecar,

http://www.digitaljournal.com/article/305987

Craighead Electric: http://www.craigheadelectric.coop/content/severe-storms-knock-out-power

Knoxville Utilities Board: http://www.kgis.org/website/kub_outage/mainpage.htm,

http://www.knoxnews.com/news/2011/apr/26/knoxville-thousands-without-power-after-storm/Clarksville Department of Electricity: http://www.clarksvillede.com/Storm 4262011.html ,

 $\underline{\text{http://www.tennessean.com/article/20110426/NEWS01/110426006/-1/UPDATES/Trees-power-lines-downed-from-overnight-storms-stronger-system-expected-}$

Southwest Tennessee Electric: http://stemconline.com/2011/04/26/outage-update-1130-a-m/,

http://www.jacksonsun.com/article/20110426/NEWS01/110426016/Southwest-Tennessee-Electric-reports-almost-

4-000-homes-regain-power?odyssey=tab|topnews|text|FRONTPAGE

Jackson Energy Authority: http://www.jacksonsun.com/article/20110426/NEWS01/110426014,

 $\underline{http://www.jacksonsun.com/article/20110426/NEWS01/110426031/About-3-000-JEA-customers-still-without-power?odyssey=tab|topnews|text|FRONTPAGE$

Gibson Electric Membership Corporation:

 $\frac{http://www.jacksonsun.com/article/20110426/NEWS01/110426030/About-1-400-Gibson-Electric-customers-without-power?odyssey=tab|topnews|text|FRONTPAGE$

Paris Board of Public Utilities:

http://www.parispi.net/articles/2011/04/26/news/local_news/doc4db6f9b24d373596215408.txt

Memphis Light, Gas and Water: http://azimuth.mlgw.org/OutageSummary.php,

http://www.commercialappeal.com/news/2011/apr/26/officials-predict-another-stormy-day-1500-mlgw-cus/

Entergy (Louisiana): http://viewoutage.entergy.com/la.aspx

Beauregard Electric: http://outage.beci.org/MilsoftOutageWeb/, <a href="http://www.kplctv.com/story/14515120/thousands-page-4515

without-power-after-overnight-storms

Entergy (Mississippi): http://viewoutage.entergy.com/ms.aspx, http://www.wapt.com/r/27672953/detail.html

Power Outages Lead BP to Shut all Units at 475,000 b/d Texas City, Texas Refinery, Disrupts Operations at Valero's 214,000 b/d and Marathon's 76,000 b/d Texas City Refineries April 25-26

Power outages led BP to shut all of the units at its 475,000 b/d Texas City, Texas refinery and forced offline units at Valero's 214,000 b/d and Marathon's 76,000 b/d refineries in Texas City on April 25-26, news and company sources reported. Marathon and Valero were restarting units by April 26, but BP's refinery remained offline, as of latest reports. The first outage occurred at BP's refinery, late on April 25. That disruption caused flaring, prompted BP to declare an emergency, and led the city – in a bid to prevent citizens from inhaling the flare's smoke – to issue a shelter-in-place order. The shelter-in-place order was lifted early on April 26. The incident might also have caused a brief fire, based on news sources. BP shut all of the facility's units by this morning, a company spokesman said. The spokesman said there was "no current estimate" when the plant might resume service; he said no injuries had been reported. Power outages struck Marathon and Valero's refineries early on April 26. Those outages triggered flaring, forced shut units, and led city officials to declare a second shelter-in-place order. That shelter-in-place order was lifted early this afternoon, and Marathon and Valero were both restarting units, as of latest reports. It remained uncertain what caused the power outages. One news source, citing "officials," said "a build-up of salt on power line insulators, caused by drought and windy conditions" might have led to the outages. The disruption led Enterprise Product Partners and Genesis Energy to divert flows along their jointly-owned, 400,000 b/d, 390-mile Cameron Highway Oil Pipeline away from Texas City.

http://www.reuters.com/article/2011/04/26/us-bp-texascity-idUSTRE73P1VQ20110426

http://onlinejournal.com/artman/publish/article_8954.shtml

http://www.marketwatch.com/story/marathon-restarting-texas-city-refinery-2011-04-26

http://today.msnbc.msn.com/id/42761336/ns/us news-life/

http://af.reuters.com/article/energyOilNews/idAFWEN182220110426

http://www.bloomberg.com/news/2011-04-26/valero-texas-city-refinery-regains-power-units-restarting.html

http://www.myfoxhouston.com/dpp/news/local/110426-texas-city-shelter-place-lifted

 $\underline{http://af.reuters.com/article/energyOilNews/idAFN2627474520110426?sp=true}$

Electricity

Calpine's 751 MW Pastoria Gas-Fired Unit in California Reduced by April 25

According to the California Independent System Operator, the unit reported an unplanned curtailment of 521 MW by April 25.

http://www.caiso.com/unitstatus/data/unitstatus201104251515.html

Reliant Energy Services, Inc.'s 495 MW Meldyn Gas-Fired Unit 2 in California Reduced by April 25

According to the California Independent System Operator, the unit reported an unplanned curtailment of 490 MW by April 25.

http://www.caiso.com/unitstatus/data/unitstatus201104251515.html

San Diego Gas & Electric's 566 MW Palomar Gas-Fired Unit in California Reduced by April 25

According to the California Independent System Operator, the unit reported an unplanned curtailment of 291 MW by April 25.

http://www.caiso.com/unitstatus/data/unitstatus201104251515.html

AES's 226 MW Huntington Beach Gas-Fired Unit 1 in California Shut by April 25

According to the California Independent System Operator, the unit reported an unplanned outage by April 25. http://www.caiso.com/unitstatus/data/unitstatus201104251515.html

Update: Southern's 1,152 MW Vogtle Nuclear Unit 1 in Georgia at Full Power by April 26

A failed breaker caused the unit to shut automatically on April 20, Southern Company said on April 22. The Nuclear Regulatory Commission reported that on the morning of April 25 the unit was operating at 30 percent. http://edition.cnn.com/2011/US/04/22/georgia.nuclear.plant/index.html

http://www.nrc.gov/reading-rm/doc-collections/event-status/event/2011/20110421en.html

Information derived from the NRC Power Reactor Status Reports:

http://www.nrc.gov/reading-rm/doc-collections/event-status/reactor-status/2011/

Constellation's 565 MW Nine Mile Point Nuclear Unit 1 in New York Reduced to 78 Percent by April 26

The Nuclear Regulatory Commission reported that on the morning of April 25 the unit was operating at full power. Information derived from the NRC Power Reactor Status Reports:

http://www.nrc.gov/reading-rm/doc-collections/event-status/reactor-status/2011/

Entergy's 510 MW Vermont Yankee Nuclear Unit in Vermont Reduced to 76 Percent by April 26

The Nuclear Regulatory Commission reported that on the morning of April 25 the unit was operating at full power. Information derived from the NRC Power Reactor Status Reports:

http://www.nrc.gov/reading-rm/doc-collections/event-status/reactor-status/2011/

After Trip, AEP to Restart 558 MW Welsh Coal-Fired Unit 1 in Texas April 25-27

The unit tripped on April 25-26, but American Electric Power (AEP) expected to restart the unit on April 25-27, the company said in separate filings with state regulators.

http://www11.tceq.state.tx.us/oce/eer/index.cfm?fuseaction=main.getDetails&target=153714 http://www11.tceq.state.tx.us/oce/eer/index.cfm?fuseaction=main.getDetails&target=153712

MiaSolé to Triple Solar Panel Manufacturing Capacity in California to 150 MW/Year by End of 2011

MiaSolé plans to triple its capacity to produce copper indium gallium selenide (CIGS) thin-film photovoltaic solar panels by the end of 2011, the company said on April 26.

http://www.miasole.com/sites/default/files/MiaSole release Apr 25 2011.pdf

Petroleum

Mechanical Failure Leads Holly Corporation to Shut Crude Unit at 125,000 b/d Tulsa, Oklahoma Refinery by April 25

A mechanical failure led Holly Corporation to shut a crude unit at its Tulsa refinery, the company said on April 25. Holly said the shutdown – projected to last for several days – was expected to reduce the facility's crude throughput by approximately 50 percent. The company discovered the failure on April 22. A fire occurred at the refinery on the same day; it was not clear if the incidents were related.

http://www.hollycorp.com/press_release.cfm?id=354

http://www.businessweek.com/ap/financialnews/D9MOVIGO0.htm

Update: Kinder Morgan to Restart 300,000 b/d, 715-Mile, Alberta-to-British Columbia and U.S. Northwest Trans Mountain Oil-and-Oil Product Pipeline April 26 – Small Leak Led to Shutdown on April 22

Kinder Morgan Energy Partners LP planned to restart the line this afternoon, the company said, after the discovery of a small "product seep" led it to halt operations on April 22. The company excavated the leak site and discovered no visible oil. It was still investigating the cause of the incident, but a Canadian official referred to the "volumes" as "small." The affected line delivers crude oil and oil products from Edmonton, Alberta to British Columbia, according to the company's website. It transports crude oil and condensates to multiple refineries in the northwestern United States.

http://af.reuters.com/article/energyOilNews/idAFN2627020620110426

http://www.edmontonjournal.com/Trans+Mountain+pipeline+restart+Tuesday/4676545/story.html

http://online.wsj.com/article/SB10001424052748704132204576284951013449130.html

http://www.kindermorgan.com/business/canada/transmountain.cfm

 $\underline{http://www.vancouversun.com/Kinder+Morgan+shuts+down+Trans+Mountain+pipeline+possible+leak/4671098/st} or y.html$

Reuters, 11:46 April 25, 2011 DJN, 11:14 April 25, 2011

After Brief Shutdown, Valero Restarts SRU at 144,000 b/d Benicia, California Refinery April 25-26

A sulfur recovery unit (SRU) shut briefly at the facility on April 25, but the company restarted the unit by April 26 and said that the incident had not materially impacted production. Reuters, 12:15 April 26, 2011

Despite Wildfire Threat, Holly Continues Operations at 105,000 b/d Artesia, New Mexico Refinery April 25 – Facility Clear of Threat by April 25

http://www.reuters.com/article/2011/04/25/refinery-operations-holly-artesia-idUSN2522877820110425 http://www.kob.com/article/stories/s2081025.shtml

SRU Shutdown Causes SO2 Release at Tesoro's 93,500 b/d Kapolei, Hawaii Refinery

It was not clear why the sulfur recovery unit (SRU) shut or when the company expected to resume normal operations.

Reuters, 00:16 April 26, 2011

Refinery Disruptions in Texas City, Low Supplies to Blame as U.S. Gasoline Futures Rise to Highest Rate in 33 Months – Prices Rose to \$3.3739/Gallon on NYMEX April 26 http://www.bloomberg.com/news/2011-04-26/gasoline-rises-to-33-month-high-as-texas-refineries-lose-power.html

Enterprise Products Partners, Energy Transfer Partners Plan 400,000 b/d, Oklahoma-to-Texas Crude Oil Pipeline

Enterprise Products Partners L.P. and Energy Transfer Partners L.P. plan to construct a pipeline that would deliver more than 400,000 b/d of crude oil from Enterprise's 3.1 million barrel crude oil storage facility in Cushing, Oklahoma, to Enterprise's ECHO crude oil storage and terminal facility in southeast Harris County, Texas, the companies announced on April 26. Energy Transfer's 240-mile, 24-inch natural gas pipeline in East Texas would comprise approximately 40 percent of the proposed 584-mile system; the companies would construct the remaining 354 miles of pipeline. The project would also add approximately 500,000 barrels of storage capacity at facilities to be constructed at Enterprise's new Houston crude oil terminal. The pipeline is expected to begin service in the fourth quarter of 2012.

http://phx.corporate-ir.net/phoenix.zhtml?c=80547&p=irol-newsArticle&id=1554345&highlight=

Transocean's "Numerous Systems Deficiencies, and Acts and Omissions" Contributed to Deepwater Horizon Disaster: U.S. Coast Guard Report

http://www.chicagotribune.com/news/nationworld/sns-rt-usreport-us-oil-spitre73n1pg-20110424,0,1598091.story

Refinery Disruptions in Texas City, Low Supplies to Blame as U.S. Gasoline Futures Rise to Highest Rate in 33 Months – Prices Rose to \$3.3739/Gallon on NYMEX April 26 http://www.bloomberg.com/news/2011-04-26/gasoline-rises-to-33-month-high-as-texas-refineries-lose-power.html

Update: Gas Leak Prompts Statoil to Halt Production at Recently-Restarted 70,000 Boe/d Njord Oil-and-Gas Platform Offshore Norway

A natural gas leak led Statoil to shut the platform on April 24, the company said. Statoil had resumed partial production at Njord on April 16, about two weeks after it halted operations to inspect damage to the site's riser pipes.

http://af.reuters.com/article/energyOilNews/idAFLDE73P02L20110426

Natural Gas

Southern Star Central Gas Completes 4 Million Dth Expansion at Elk City Natural Gas Storage Facility in Kentucky April 1

Southern Star Central Gas Pipeline opened the expansion on April 1, the company said on April 26. The expansion boosted the company's daily deliverability by 40,000 Dth/d and increased its storage capacity by 4 million Dth. http://www.sscgp.com/News/Elk_City_042611.pdf

Other News

Kinder Morgan Completes Rail Terminal and Related Ethanol Handling Assets at Pasadena Terminal in Texas by April 26

Kinder Morgan Energy Partners, L.P. finished constructing its Deer Park Rail Terminal (DPRT) and related ethanol handling assets at its Pasadena Terminal along the Houston Ship Channel in Texas, the company said on April 26. The project included a new ethanol unit-train facility capable of handling 14,000 b/d of ethanol, an offloading rail rack for unit-trains of approximately 100 railcars, and an 80,000 barrel storage tank. The company also extended an existing ethanol pipeline by 2.4 miles so that product could be moved from the DPRT to the Pasadena terminal. Kinder Morgan expects to expand the facility to handle 20,000 b/d of ethanol.

http://phx.corporate-ir.net/phoenix.zhtml?c=119776&p=irol-newsArticle&ID=1554528&highlight=

Energy Prices

| U.S. Oil and Gas Prices April 26, 2011 | | | | |
|--|--------|----------|----------|--|
| | Today | Week Ago | Year Ago | |
| CRUDE OIL West Texas Intermediate U.S. \$/Barrel | 111.37 | 107.74 | 84.34 | |
| NATURAL GAS Henry Hub \$/Million Btu | 4.37 | 4.23 | 4.07 | |

Source: Reuters

Energy Notes

Winds Cut Power to More than 12,600 Wisconsin Public Service Customers in Wisconsin April 26

http://www.wisconsinpublicservice.com/outagesummary/view/outagegrid.aspx http://www.greenbaypressgazette.com/article/20110426/GPG0101/110426017/Power-outage-hits-west-side-Green-Bay-area-Notre-Dame-cancels-classes?odyssey=tab|topnews|img|GPG-News

Provincial Government Okays SaskPower's Plans to Develop 110 MW Unit and Associated CO2 Capture/Storage Facility at Boundary Dam Power Station in Saskatchewan, Canada April 26 – Project to Enter Service in 2014

http://www.gov.sk.ca/news?newsId=ae413247-80ce-4c9a-b7e3-4cc39e89da94 http://www.calgaryherald.com/technology/Saskatchewan+give+green+light+clean+coal+project/4676174/story.html

Fotowatio Renewable Ventures Breaks Ground on Proposed 30 MW Webberville Solar Project near Austin, Texas – Company to Open Facility by End of 2011

http://www.prnewswire.com/news-releases/frv-contracts-with-res-americas-to-build-landmark-project-for-austin-energy-120689499.html

FCC Boiler Malfunction Leads to Emissions Event at Motiva's 285,000 b/d Port Arthur, Texas Refinery by April 25

http://www11.tceq.state.tx.us/oce/eer/index.cfm?fuseaction=main.getDetails&target=153710 Reuters, 19:40 April 25, 2011

Update: After Weekend Fire at Pemex's 245,000 b/d Salamanca Refinery in Mexico, State-Run Company Looking to Purchase Gasoline

Reuters, 10:11 April 26, 2011

Gas Leak Leads to Explosion, Destroys Home in Brentwood, New York April 24 http://www.wpix.com/wpix-li-brentwood-blast-story,0,2197370.story

SRU Shutdown Leads to Flaring at Goldsmith Gas Plant in Texas April 25 – Unit Restarted within Hours

http://www11.tceq.state.tx.us/oce/eer/index.cfm?fuseaction=main.getDetails&target=153715

Links

This Week in Petroleum from the Energy Information Administration (EIA) http://tonto.eia.doe.gov/oog/info/twip/twip.asp
Updated every Wednesday.

Weekly Petroleum Status Report from EIA

http://www.eia.doe.gov/oil_gas/petroleum/data_publications/weekly_petroleum_status_report/wpsr.html Updated after 10:30 AM & 1:00 PM EST every Wednesday.

Natural Gas Weekly Update from EIA

http://tonto.eia.doe.gov/oog/info/ngw/ngupdate.asp

Updated after 2:00 PM EST every Thursday.

ENERGY ASSURANCE DAILY

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

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