



ENERGY ASSURANCE DAILY

Thursday Evening, February 25, 2016

Major Developments

Update: Widespread Storm System Knocks Out Power to Over 1.7 Million Customers across Eastern U.S., Canada February 23–25; 281,702 Remain Without Power February 25

A widespread, multi-impact storm system brought high winds and tornadoes to the Eastern U.S. and Canada, including snow and ice in the northern regions, beginning Tuesday night and into Thursday. Since the storm began, it has knocked out power to 1,720,226 customers, and impacts could continue to fluctuate as the system moves northeastward into New England and Canada this evening. As of 4:00 p.m. EST Thursday, 281,702 customers remained without power. Duke Energy, the hardest hit utility with more than 403,000 customer outages in North and South Carolina, said it had restored about 348,000 outages by 8:30 a.m. EST and that its crews would continue working until all impacted customers were restored. Hydro Quebec, which reported 250,000 customers without power, said strong winds and freezing rain were causing vegetation to fall on the power lines. The utility said it mobilized 350 crews to restore service and estimates that power should be restored for most affected customers by Thursday evening. Ameren Illinois, which reported 152,000 customers without power, on Thursday morning said more than 1,000 crews restored service to most customers after battling weather and hazardous working conditions throughout the day and night. The utility said more than 180 poles and 560 wires were damaged. Dominion Virginia Power, which reported 100,000 customers without power, said crews worked overnight to restore service to 90 percent of its customers impacted by the storm. Outages were widespread and some areas experienced significant damage from high winds and tornadoes. The utility expects to restore the remaining customers that can receive service by midnight tonight. Eversource, which reported 89,500 customers without power in Connecticut, said heavy rains and winds gusts upwards of 75 mph caused significant damage to the electric system. After assessing the widespread and vast destruction to the electric system, Eversource expects to have power restored for a majority of customers by 11:30 p.m. EST Friday. The table below shows total affected customers and the latest reported outages by utility. The “Affected” column shows either the total number of customers that lost power at one point or another during the outage event as reported by the utility or, when unavailable, the highest number of customers reported without power from various local news articles, utility outage websites, and utility company social media, which were checked at various times throughout the day.

Eastern U.S. and Canadian Customer Power Outages			
February 23–25, 2016			
Region/Electric Utility	State	Affected	Latest Reported
New England			
Eversource	CT	89,500	31,574
The United Illuminating Company	CT	3,800	865
Eversource	MA	5,130	2
National Grid	MA	18,500	1,076
Emera	ME	8,000	28
Central Maine Power	ME	10,000	798
Eversource	RI	13,000	386
National Grid	RI	16,000	277
Vermont Utilities	VT	2,500	43
New England Subtotal		166,430	35,049
Central Atlantic			
Pepco	DC	4,000	705
Baltimore Gas & Electric	MD	2,500	405
Jersey Central Power and Light	NJ	8,287	2,750

Public Service Electric and Gas (PSEG)	NJ	4,000	2,128
Atlantic City Electric	NJ	20,000	302
Central Hudson Gas and Electric	NY	3,000	127
Consolidated Edison NY	NY	25,000	5,583
New York State Electric and Gas	NY	10,777	8,145
Orange and Rockland	NY	14,000	1,900
PSEG Long Island	NY	87,000	7,220
PECO	PA	27,000	2,095
First Energy	PA	10,243	2,474
PPL	PA	28,200	1,245
Central Atlantic Subtotal		244,007	35,079
Southeast			
Alabama Power	AL	14,000	34
Entergy Arkansas	AR	1,578	33
Gulf Power	FL	20,000	36
Georgia Power	GA	26,365	619
Jefferson Electric Cooperative	GA	1,881	10
Entergy Louisiana	LA	30,500	7,939
Southwestern Electric Power Company	LA	1,630	1
Duke Energy	NC/SC	403,000	25,466
North Carolina Electric Cooperatives	NC	19,700	1
Energy United	NC	4,062	697
South Carolina Electric and Gas	SC	17,497	144
Laurens Electric Cooperative	SC	6,807	2
Dominion	VA	100,000	3,605
Appalachian Power	VA/WV	7,202	5,788
First Energy	WV	7,510	1,286
Southeast Subtotal		661,732	45,661
Midwest			
Ameren Illinois	IL	152,000	592
Commonwealth Edison	IL	13,600	251
Southwestern Electric Cooperative	IL	7,241	1,177
Eastern Illini Electric Cooperative	IL	3,000	0
NIPSCO	IN	39,000	3,477
Indianapolis Power and Light	IN	1,833	2
Consumers Energy	MI	81,000	11,407
Indiana Michigan Power	MI	4,000	2,237
DTE	MI	2,683	1,544
Ameren Missouri	MO	55,000	338
AEP	OH	11,700	135
Midwest Subtotal		371,057	21,160
Canada			
Hydro Quebec	Ontario/Quebec	250,000	121,877
Hydro One	Ontario/Quebec	27,000	22,876
Canada Subtotal		277,000	144,753
TOTAL*		1,720,226	281,702

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

Sources:

<https://twitter.com/alabamapower>

<http://www.uinet.com/wps/portal/uinet/customercaare/home-residential/storm>

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Electricity

Update: NMC's 522 MW Prairie Island Nuclear Unit 2 in Minnesota Ramps Up to 90 Percent by February 25

On the morning of February 24 the unit was operating at 30 percent after restarting on February 23. The Nuclear Regulatory Commission said one of the two reactors at the Prairie Island nuclear plant shut down automatically on December 17, 2015 after a problem developed in the unit's turbine, causing fire alarms to go off.

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

<http://www.nrc.gov/reading-rm/doc-collections/event-status/event/2015/20151218en.html>

Reuters, 6:31 December 17, 2015

Petroleum

Phillips 66 Reports No Impact to Operations from Brief, Weather-Related Power Outages at its 336,000 b/d Wood River, Illinois Refinery February 24

Phillips 66 said there was no impact to operations from brief, weather-related power outages in non-process areas of its Wood River, Illinois Refinery on Wednesday. Energy Intelligence Service Genscape had previously reported that the refinery had shut down a 64,000 b/d crude unit, a 30,000 b/d vacuum distillation unit, and a 16,000 b/d coker unit. The St. Louis region experienced heavy wet snow overnight, leading to power outages, including in the vicinity of the refinery, according to an outage map on Ameren's website. The energy provider Ameren would not disclose whether the refinery experienced a power outage. The units are in the western portion of the refinery, adjacent to a neighborhood that experienced power outages, according to a source familiar with the plant's operations. The refinery is supplied partially by crude out of Cushing, Oklahoma. The company did not clarify if the unit shutdowns were associated with the power outages.

Reuters, 17:44, February 24

CVR Reports Malfunction, Flaring at Its 70,000 b/d Wynnewood, Oklahoma Refinery February 18, 21, 22

CVR Energy Inc reported a malfunction and excess emissions from the hydrocracker and fluid catalytic cracker unit regenerator on February 18, 21, and 22.

Reuters, 2:25, February 24, 2016

Update: Monroe Energy Cuts Production at its 185,000 b/d Trainer, Pennsylvania Refinery February 25 after Briefly Restoring Production

Delta Airlines' Monroe Energy, on February 25, cut production rates by 10 percent at its Trainer refinery outside Philadelphia due to weak margins, according to a source familiar with the plant's operations. The company cut production rates to roughly 165,000 b/d earlier this month before restoring them briefly earlier this week. The current production cuts are expected to remain in place until early March, the source said. The refinery is maximizing jet fuel output while cutting back on gasoline, the source said.

Reuters, 9:35, February 25, 2016

HollyFrontier Reports Emissions at Its 85,000 b/d Tulsa West, Oklahoma Refinery February 17

Hollyfrontier Corp reported excess hydrogen sulfide emissions from its Tulsa West, Oklahoma refinery on February 17.

Reuters, 14:56, February 24, 2016

Valero Reports SRU Emissions at its 86,000 b/d Ardmore, Oklahoma Refinery February 19

Valero Energy Corp reported excess sulfur dioxide emissions from a sulfur recovery unit (SRU) on February 19.

Reuters, 15:01, February 24, 2016

Alon Defers California Rail Project, Refinery Restart

Alon USA Energy does not expect to move ahead with its California oil-by-rail project or the restart of its shuttered refinery in Bakersfield in the near future because of low oil prices, the chief executive said on Thursday. The company received a permit to build the rail project in September 2014 but the 70 percent plunge in oil prices from mid-2014 highs prompted the company to slow down work on it.

Reuters, 12:14, February 25, 2016

Western Refining Halts Pipeline Project, Reviews Capacity Expansion at Its 122,000 b/d El Paso, Texas Refinery

Western Refining said it put on hold plans to build a 60-mile crude oil pipeline from Wink to Crane, Texas, scheduled to begin construction this year, company executives said on Thursday. The company was also evaluating a planned 10 percent increase in capacity at its 122,000 b/d El Paso, Texas, refinery, scheduled for 2017, due to low refining margins.

Reuters, 10:54, February 25, 2016

Number of Crude Oil Trains Declined in 2015 as Crude Oil Prices Fell – AAR

The Association of American Railroads (AAR) said Wednesday 410,249 carloads of crude oil were carried across the U.S. last year, down from 493,126 carloads in 2014. But the number of crude oil carloads remains well above the 9,500 carloads railroads hauled in 2008 before the boom took off in the Bakken region of North Dakota and Montana. Oil prices have been hovering around \$30 per barrel down from prices above \$100 that were common a couple years ago.

Reuters, 22:31, February 24, 2016

Natural Gas

U.S. Exports First Shale Gas as LNG Tanker Sails from Sabine Pass Terminal in Louisiana February 24

The U.S. on Wednesday exported its first liquefied natural gas (LNG) cargo from the lower 48 states, after the Asia Vision LNG tanker set sail from Cheniere Energy's Sabine Pass export terminal in Louisiana. The first cargo of about 3 billion cubic feet of gas will go to Petrobras in Brazil, the executive vice-president of marketing at Cheniere said.

<http://www.reuters.com/article/idUSL3N1641GP>

Regency Reports Flaring at Its 290 MMcf/d Waha Gas Plant in Texas February 24

Regency reported acid gas was flared due to receiving high levels of carbon dioxide in the inlet gas stream. Some of the higher carbon dioxide gas that was coming into the plant was backed out and the acid gas compressor was reset and put back on line.

<http://www2.tceq.texas.gov/oc/eer/index.cfm?fuseaction=main.getDetails&target=228184>

Atlas Pipeline Reports Valve Leak at Its 195 MMcf/d Midkiff Gas Plant in Texas February 24

Atlas reported emergency maintenance on the east molecular sieve bed caused its Midkiff gas plant to use an alternate operating scenario to replace the molecular sieve material in the bed. The inlet gas was routed to the control flare.

<http://www2.tceq.texas.gov/oc/eer/index.cfm?fuseaction=main.getDetails&target=228233>

Western Gas Partners Acquires South Texas Pipeline System from Anadarko

Western Gas Partners LP on Wednesday announced a \$750 million deal to acquire full ownership of the Springfield Pipeline LLC from its current owner, Anadarko Petroleum Corp. Springfield Pipeline currently owns a 50.1 percent stake in the Springfield natural gas and oil gathering system from the Eagle Ford shale formation in southern Texas. It consists of 548 miles of gas lines with a capacity of 795 MMcf/d and another 241 miles of oil gathering lines with a capacity of 130,000 b/d. Western Gas will also acquire 24 compressor stations along with 260,000 barrels of oil storage capacity and 75,000 barrels per day of stabilization capacity.

<http://investors.westerngas.com/phoenix.zhtml?c=216318&p=irol-newsArticle&ID=2142924>

Sempra Energy, Woodside Subsidiaries Sign Development Agreement for NGL Project in Port Arthur, Texas

Sempra Energy on Thursday announced that its Sempra LNG & Midstream unit has entered into a Project Development Agreement with a subsidiary of Woodside Petroleum Ltd. to further advance the development of the proposed Port Arthur LNG natural gas liquefaction facility in Port Arthur, Texas. The proposed Port Arthur LNG liquefaction project, located at a site previously permitted for an LNG regasification terminal along the Sabine-Neches Ship Channel, initially would be designed to include two natural gas liquefaction trains with a total export capability of approximately 517 billion cubic feet per year, as well as LNG storage tanks and marine facilities for LNG ship berthing and loading. Additionally, a 3-mile portion of Highway 87 between the Intracoastal Waterway and Keith Lake Pass would be relocated and upgraded to accommodate the construction of a marine terminal berth for docking and loading of LNG ships. Last year, Port Arthur LNG obtained approval from the U.S. Department of Energy (DOE) to export up to 10 Mtpa of domestically produced LNG to all current and future Free Trade Agreement countries; the authorization to export LNG to countries with which the U.S. does not have a Free Trade Agreement is pending review by the DOE. In March 2015, Port Arthur LNG initiated the pre-filing process with the Federal Energy Regulatory Commission, which is anticipated to be completed later this year.

<http://sempra.mediaroom.com/index.php?s=19080&item=137125>

Other News

Nothing to report.

International News

Turkmenistan-Afghanistan-Pakistan-India Natural Gas Pipeline Achieves Major Milestones in 2015

In 2015, the Turkmenistan-Afghanistan-Pakistan-India natural gas pipeline (TAPI) shifted from theoretical concept to pragmatic initiative. That progress was due to three major breakthroughs: an agreement on the TAPI holding company's share structure; the selection of a leader for the consortium; and the groundbreaking ceremony, which was held in Turkmenistan on December 13. These recent actions have catapulted TAPI to South Asia's center stage, as it becomes clear the pipeline could develop into a major, much needed source of energy and stability for Afghanistan and the region. The proposed 1,735-km pipeline would transport 33 billion cubic meters per annum of natural gas from Turkmenistan's gigantic Galkynysh field, the second-largest gas field in the world, to Afghanistan, Pakistan, and India. The pipeline is seen as a source for much needed energy, revenues, jobs, and stability in the region. The pipeline would allow Turkmenistan to sell its excess gas, alleviate energy shortages in Afghanistan and Pakistan, as well as continue to fuel India's fast growing energy needs. The TPCL is mandated to build, own and operate the \$10 billion gas pipeline. The pipeline will fall under the TAPI Pipeline Company Limited (TPCL) consortium. In August 2015, the four state companies, Turkmengaz, Afghan Gas Enterprise, Inter State Gas Systems (Pakistan) Limited, and GAIL (India) Limited, endorsed Turkmengaz as the consortium leader for TPCL.

Turmengaz will get a 51 percent ownership stake, while the other three get a 5 percent stake each. The remaining 34 percent is being retained for international energy investors.

Reuters, 10:12, February 25, 2016

Energy Prices

U.S. Oil and Gas Prices			
February 25, 2016			
	Today	Week Ago	Year Ago
CRUDE OIL West Texas Intermediate U.S. \$/Barrel	31.30	30.72	50.15
NATURAL GAS Henry Hub \$/Million Btu	1.79	1.91	3.13

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

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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