Nuclear Regulatory Commission
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Withdrawn:
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ref2011.d020911a

Report: Annual Energy Outlook 2011
Scenario: ref2011 — Reference case
Datakey: d020911a
Release Date: April 2011

13. Natural Gas Supply, Disposition, and Prices
(trillion cubic feet, unless otherwise noted)

Supply, Disposition, and Prices	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2009-2035
Production																													
Dry Gas Production 1/	20.29	20.96	21.26	21.06	21.27	21.73	22.02	22.43	22.47	22.65	22.92	23.20	23.43	23.53	23.70	23.85	23.86	23.96	24.07	24.29	24.57	24.82	25.10	25.36	25.55	25.75	26.00	26.32	0.9%
Supplemental Natural Gas 2/	0.06	0.06	0.07	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.0%
Net Imports	2.93	2.64	2.74	2.75	2.64	2.72	2.71	2.69	2.63	2.55	2.42	2.22	1.90	1.60	1.38	1.23	1.15	1.03	0.88	0.91	0.81	0.77	0.78	0.72	0.64	0.52	0.37	0.18	-9.7%
Pipeline 3/	2.68	2.23	2.33	2.31	2.17	2.22	2.26	2.33	2.26	2.14	2.00	1.75	1.40	1.09	0.88	0.78	0.77	0.74	0.71	0.69	0.67	0.63	0.64	0.58	0.50	0.38	0.23	0.04	-14.0%
Liquefied Natural Gas	0.30	0.41	0.41	0.44	0.47	0.50	0.45	0.36	0.36	0.41	0.43	0.47	0.50	0.52	0.49	0.45	0.39	0.34	0.27	0.22	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	-4.1%
Total Supply	23.33	23.66	24.08	23.87	23.93	24.51	24.79	25.18	25.16	25.26	25.40	25.49	25.40	25.20	25.14	25.14	25.07	25.12	25.12	25.26	25.44	25.66	25.94	26.14	26.26	26.34	26.43	26.57	0.4%
Consumption by Sector																													
Residential	4.87	4.75	4.77	4.76	4.78	4.79	4.81	4.81	4.83	4.82	4.83	4.83	4.85	4.83	4.83	4.83	4.85	4.83	4.83	4.83	4.84	4.83	4.82	4.82	4.82	4.80	4.79	4.78	0.0%
Commercial	3.13	3.11	3.10	3.22	3.24	3.28	3.33	3.38	3.41	3.43	3.46	3.48	3.49	3.50	3.52	3.53	3.55	3.56	3.58	3.60	3.62	3.65	3.68	3.71	3.73	3.76	3.79	3.82	0.8%
Industrial 4/	6.65	6.14	6.55	6.95	7.19	7.60	7.83	8.05	8.09	8.11	8.16	8.19	8.24	8.21	8.14	8.13	8.13	8.10	8.08	8.06	8.04	8.06	8.08	8.08	8.06	8.04	8.03	8.02	1.0%
Natural Gas-to-Liquids Heat and Power 5/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--
Natural Gas to Liquids Production 6/	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--
Electric Power 7/	6.67	6.89	7.44	7.01	6.80	6.87	6.87	6.98	6.89	6.95	7.00	7.02	6.84	6.69	6.68	6.67	6.59	6.66	6.66	6.60	6.95	7.13	7.34	7.51	7.60	7.69	7.76	7.86	0.5%
Transportation 8/	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.05	0.05	0.06	0.06	0.07	0.07	0.08	0.09	0.10	0.10	0.11	0.12	0.12	0.13	0.14	0.14	0.15	0.15	0.16	0.16	7.5%
Pipeline Fuel	0.65	0.64	0.65	0.64	0.64	0.64	0.65	0.65	0.64	0.64	0.64	0.64	0.64	0.63	0.63	0.63	0.63	0.62	0.62	0.62	0.63	0.63	0.64	0.64	0.64	0.64	0.65	0.65	0.1%
Lease and Plant Fuel 9/	1.22	1.16	1.29	1.27	1.24	1.22	1.20	1.20	1.20	1.20	1.20	1.20	1.21	1.20	1.20	1.20	1.19	1.19	1.19	1.19	1.19	1.20	1.20	1.21	1.22	1.23	1.24	1.25	0.3%
Total	23.22	22.71	23.83	23.86	23.91	24.44	24.72	25.11	25.10	25.20	25.34	25.43	25.34	25.14	25.09	25.09	25.02	25.07	25.07	25.22	25.40	25.62	25.90	26.11	26.23	26.31	26.41	26.55	0.6%
Discrepancy 10/	0.11	0.95	0.26	0.01	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.02	--
Natural Gas Prices																													
(2009 dollars per million Btu)				4.75																									
Henry Hub Spot Price	8.94	3.95	4.43	4.48	4.50	4.56	4.57	4.66	4.74	4.76	4.81	4.87	5.05	5.24	5.39	5.58	5.80	5.97	6.10	6.24	6.31	6.35	6.40	6.49	6.62	6.74	6.87	7.07	2.3%
Average Lower 48 Wellhead Price 11/	7.98	3.62	3.98	3.99	3.98	4.04	4.05	4.13	4.20	4.22	4.26	4.31	4.47	4.64	4.77	4.94	5.13	5.29	5.40	5.52	5.59	5.62	5.66	5.75	5.86	5.96	6.09	6.26	2.1%
(2009 dollars per thousand cubic feet)																													
Average Lower 48 Wellhead Price 11/	8.18	3.71	4.06	4.09	4.09	4.15	4.16	4.24	4.31	4.33	4.37	4.43	4.59	4.76	4.90	5.07	5.27	5.43	5.54	5.67	5.73	5.77	5.81	5.90	6.01	6.12	6.24	6.42	2.1%
Delivered Prices																													
Residential	13.99	12.20	11.31	10.56	10.44	10.39	10.28	10.39	10.50	10.61	10.74	10.90	11.16	11.38	11.55	11.75	11.96	12.15	12.31	12.51	12.63	12.74	12.85	12.99	13.14	13.33	13.52	13.76	0.5%
Commercial	12.32	9.94	9.15	9.30	9.03	8.80	8.52	8.60	8.68	8.74	8.84	8.96	9.19	9.37	9.51	9.68	9.88	10.03	10.16	10.32	10.43	10.49	10.57	10.67	10.79	10.93	11.06	11.28	0.5%
Industrial 4/	9.32	5.39	4.93	4.99	4.99	5.03	5.04	5.10	5.16	5.19	5.24	5.32	5.50	5.67	5.82	5.98	6.17	6.33	6.46	6.60	6.68	6.72	6.76	6.83	6.95	7.07	7.21	7.40	1.2%
Electric Power 7/	9.35	4.94	5.20	4.84	4.76	4.75	4.71	4.79	4.83	4.87	4.92	4.99	5.13	5.28	5.41	5.57	5.74	5.91	6.02	6.16	6.24	6.30	6.36	6.45	6.55	6.66	6.79	6.97	1.3%
Transportation 12/	17.67	13.05	12.37	12.35	12.30	12.30	12.27	12.29	12.32	12.33	12.37	12.44	12.56	12.71	12.81	12.93	13.07	13.19	13.27	13.38	13.44	13.46	13.49	13.55	13.62	13.70	13.80	13.94	0.3%
Average 13/	10.84	7.47	7.02	6.78	6.70	6.64	6.58	6.62	6.70	6.75	6.82	6.92	7.13	7.32	7.47	7.65	7.85	8.01	8.15	8.29	8.38	8.43	8.48	8.56	8.68	8.80	8.95	9.14	0.8%
(nominal dollars per million Btu)																													
Henry Hub Spot Price	8.86	3.95	4.47	4.58	4.65	4.79	4.89	5.09	5.27	5.41	5.58	5.77	6.10	6.45	6.76	7.12	7.53	7.90	8.21	8.56	8.82	9.04	9.28	9.59	9.96	10.34	10.76	11.28	4.1%
Average Lower 48 Wellhead Price 11/	7.89	3.62	4.01	4.08	4.12	4.25	4.33	4.51	4.67	4.79	4.94	5.11	5.40	5.71	5.99	6.30	6.67	6.99	7.27	7.58	7.81	8.00	8.21	8.49	8.82	9.15	9.52	9.99	4.0%
(nominal dollars per thousand cubic feet)																													
Average Lower 48 Wellhead Price 11/	8.10	3.71	4.12	4.19	4.23	4.36	4.45	4.63	4.79	4.92	5.07	5.24	5.55	5.86	6.14	6.46	6.84	7.18	7.46	7.77	8.01	8.21	8.43	8.71	9.05	9.39	9.77	10.24	4.0%
Delivered Prices																													
Residential	13.86	12.20	11.41	10.80	10.79	10.92	11.00	11.34	11.69	12.05	12.46	12.90	13.48	14.01	14.49	14.99	15.54	16.08	16.58	17.15	17.65	18.14	18.63	19.16	19.78	20.46	21.15	21.95	2.3%
Commercial	12.20	9.94	9.23	9.51	9.33	9.25	9.12	9.38	9.66	9.94	10.25	10.61	11.10	11.54	11.93	12.35	12.83	13.27	13.69	14.16	14.57	14.94	15.32	15.76	16.25	16.78	17.34	18.00	2.3%
Industrial 4/	9.24	5.39	4.97	5.10	5.16	5.28	5.39	5.56	5.75	5.90	6.08	6.30	6.65	6.99	7.29	7.63	8.02	8.38	8.69	9.05	9.33	9.57	9.80	10.09	10.46	10.84	11.28	11.82	3.1%
Electric Power 7/	9.26	4.94	5.24	4.94	4.93	5.00	5.04	5.23	5.38	5.53	5.71	5.91	6.20	6.50	6.79	7.11	7.45	7.81	8.11	8.45	8.73	8.97	9.22	9.52	9.87	10.23	10.63	11.13	3.2%
Transportation 12/	17.50	13.05	12.46	12.62	12.72	12.93	13.13	13.42	13.71	14.02	14.36	14.73	15.20	15.65	16.06	16.50	16.98	17.44	17.87	18.35	18.78	19.17	19.56	20.01	20.50	21.03	21.59	22.25	2.1%
Average 13/	10.74	7.47	7.06	6.94	6.93	6.98	7.02	7.22	7.46	7.67	7.91	8.19	8.61	9.01	9.37	9.76	10.20	10.60	10.97	11.37	11.71	12.00	12.29	12.64	13.06	13.51	14.00	14.58	2.6%

1/ Marketed production (wet) minus extraction losses.
2/ Synthetic natural gas, propane air, coke oven gas, refinery gas, biomass gas, air injected for Btu stabilization, and manufactured gas commingled and distributed with natural gas.
3/ Includes any natural gas reassilled in the Bahamas and transported via pipeline to Florida, as well as gas from Canada and Mexico.
4/ Includes energy for combined heat and power plants, except those whose primary business is to sell electricity, or electricity and heat, to the public.
5/ Includes any natural gas used in the process of converting natural gas to liquid fuel that is not actually converted.
6/ Includes any natural gas converted into liquid fuel.
7/ Includes consumption of energy by electricity-only and combined heat and power plants whose primary business is to sell electricity, or electricity and heat, to the public. Includes small power producers and exempt wholesale generators.
8/ Compressed natural gas used as vehicle fuel.
9/ Represents natural gas used in well, field, and lease operations, and in natural gas processing plant machinery.
10/ Balancing item. Natural gas lost as a result of converting flow data measured at varying temperatures and pressures to a standard temperature and pressure and the merger of different data reporting systems which vary in scope, format, definition, and respondent type. In addition, 2008 and 2009 values include net storage injections.
11/ Represents lower 48 onshore and offshore supplies.
12/ Compressed natural gas used as a vehicle fuel. Price includes estimated motor vehicle fuel taxes and estimated dispensing costs or charges.
13/ Weighted average prices. Weights used are the sectoral consumption values excluding lease, plant, and pipeline fuel.
-- = Not applicable.

Note: Totals may not equal sum of components due to independent rounding. Data for 2008 and 2009 are model results and may differ slightly from official EIA data reports.

Sources: 2003 supply values; and lease, plant, and pipeline fuel consumption: Energy Information Administration (EIA), Natural Gas Annual 2008, DOE/EIA-0131(2008) (Washington, DC, March 2010)
2003 supply values; and lease, plant, and pipeline fuel consumption; and wellhead price: EIA, Natural Gas Monthly, DOE/EIA-0130(2010/07) (Washington, DC, July 2010)
Other 2008 and 2009 consumption based on: EIA, Annual Energy Review 2009, DOE/EIA-0384(2009) (Washington, DC, August 2010).
2008 wellhead price: Bureau of Energy Management, Regulation and Enforcement; and EIA, Natural Gas Annual 2008, DOE/EIA-0131(2008) (Washington, DC, March 2010).
2008 residential and commercial delivered prices: EIA, Natural Gas Annual 2008, DOE/EIA-0131(2008) (Washington, DC, March 2010).
2009 residential and commercial delivered prices: EIA, Natural Gas Monthly, DOE/EIA-0130 (2010/07) (Washington, DC, July 2010). 2008 and 2009 electric power prices: EIA, Electric Power Monthly, DOE/EIA-0226, April 2009 and April 2010, Table 4.13.B. 2008 and 2009 industrial delivered prices are estimated based on: EIA, Manufacturing Energy Consumption Survey and industrial and wellhead prices from the Natural Gas Annual 2008, DOE/EIA-0131(2008) (Washington, DC, March 2010) and the Natural Gas Monthly, DOE/EIA-0130(2010/07) (Washington, DC, July 2010). 2008 transportation sector delivered prices are based on: EIA, Natural Gas Annual 2008, DOE/EIA-0131(2008) (Washington, DC, March 2010) and estimated state taxes, federal taxes, and dispensing costs or charges.
2009 transportation sector delivered prices are model results.

Projections: EIA, AEO2011 National Energy Modeling System run ref2011.d020911a.