

TATA SOLAR

PRESENTATION

By NAGINENI NATURAL RESOURCES PVT. LTD.

N.V.Subba Rao
08-Jul-13

NAGINENI NATURAL RESOURCES

Table of Contents

Introduction	3
Anantapur Project Status.....	3
Mahbubnagar Project Status	3
Energy Trends in India.....	4
Tata Solar/BP Solar	6
Tata Power	6
How do NNR and TATA work together?	7
EPC Only.....	7
EPC + PPA	7
Any Other Mechanism	7
NNR's Goals.....	8
TATA's Goals	8
Types of Suppliers/EPC Contractors	8
Advantages of TATA signing PPA with NNR.....	9
Annexure – I.....	10
Supporting Material.....	10

Introduction

NNR is founded by the professionals with wide international experience and whose commitment is clear. Currently NNR has been working on 300MW Solar farms.

Anantapur Project Status

- Size - 100MW
- Land - already acquired and converted into non-agriculture
- APTRANSCO - applied for evacuation permission in March, 2013, and expected any time.
- Miscellaneous Permissions - Applied through single window and expected any time.
- Financial Closure - Some EPC contractors are willing to provide bridge finance till the completion of the project.
- PPA - talking to open access consumers

Mahbubnagar Project Status

- Size - 200MW
- Land - Land acquisition will be completed in next two months including conversion.
- APTRANSCO - applied for evacuation permission in March, 2013, and got permission late June 2013.
- Miscellaneous Permissions - Applied through single window and expected any time.
- Financial Closure - Some EPC contractors are willing to provide bridge finance till the completion of the project.
- PPA - talking to open access consumers

Energy Trends in India

- India's per capita electricity consumption is 500 units where as it is 3,500 units, 12,000 units, 6,750 units and 767 units for China, USA, Japan and North Korea respectively.
- India's coal consumption in 2011 was 721 million tones where as the production was, just 640 million tones. Hence the shortage is more than 11%.
- India's crude oil consumption in 2011 was 3.4 million barrels per day where as the production was 0.8 million barrels per day. That is the shortage was whooping 76%!!!
- As per the stats of 2010, the total energy consumption was 21.92 quadrillion Btu where as the production was 15.29 quadrillion Btu. Hence the shortage was 30.25%!!! So we depend around one third of our energy requirements on imports where as USA 23.70% and China 10.4%
- Within last 10 years the increase in international coal prices is more than 3 times. Similarly the increase in natural gas prices is more than 2.5 times. The increase in crude oil prices is more than 3 times. Hence the rate of increase in prices is more than 11% compounding!!!
- At least to catch up with China, at current levels, we need to increase our Electricity production by seven times!! We are already depending on imported energy for more than 30% at our current levels. We don't have unlimited domestic coal, crude oil and natural gas. The hydro capacity is already exhausted. Like all around the world, we have strong resistance for Nuclear energy. Hence we are only left with renewable sources like solar and wind.

- The Central Government is already moving in the direction of deregulation of the prices including petroleum products, rail charges, electricity tariffs, coal (imported for the time being), natural gas, etc. It is not far away to make the domestic coal prices at par with international coal prices like in the case of natural gas. Hence once the input subsidy for thermal and gas power plants are removed, the cost of power will be same or more than the solar power today. But these costs will keep increasing since these conventional power plants depend on fossil fuels which are scarce. On the average the percentage increase has been more than 11% each year.
- Based on all the above facts and trends, it makes business sense to sign long term PPAs for solar power at around Rs.7/unit (at plant which is bankable).

Tata Solar/BP Solar

- Tata Solar is a Tata Group Company
- An EPC contractor

Tata Power

- Independent Power Producer (IPP)
- Power distributor

NAGINENI NATURAL RESOURCES

How do NNR and TATA work together?

EPC Only

- Tata may not win the project
- Other EPC contractors are much more competitive not only in price but also in other areas like financing and payment terms

EPC + PPA

- The PPA should be bankable.
- The PPA can be from TATA Power which is a distributor and IPP.
- The PPA can be from some other TATA group company which can consume power by becoming captive consumer and avail waiver of cross subsidy surcharge.
- Bridge funding from other EPC contractors/suppliers.
- Part of EPC work to TATA group. The amount of work depends on negotiations with other players.

Any Other Mechanism

- All options are on the table
- We are ready to discuss any optimum solution which must be a win-win solution for both.

NNR's Goals

- Bankable PPA
- Bridge funding to start work immediately
- Selection of Suppliers/EPC contractors

TATA's Goals

- Win EPC contract

Types of Suppliers/EPC Contractors

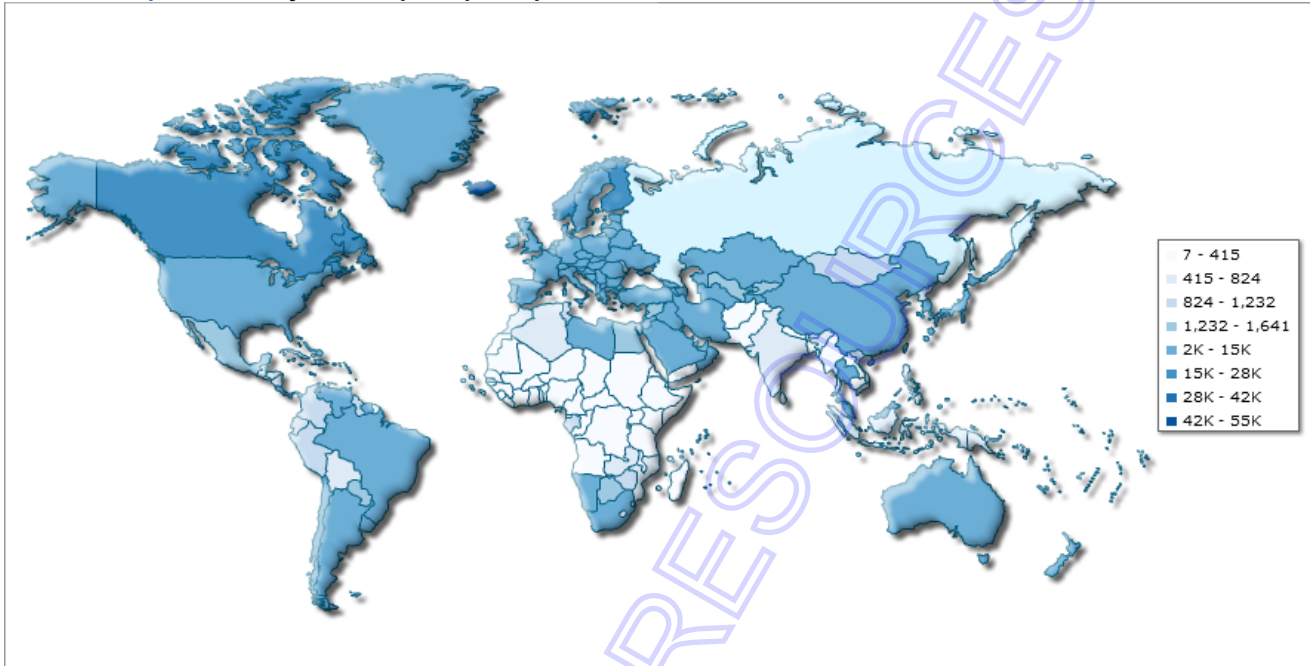
- Ready to supply all equipment including panels, invertors, cables, etc.
- Ready to execute EPC contract
- Ready to bring in bridge funding and develop and commission the project.
- Exit partly or fully after commissioning the project for premium by bring in equity investors and cheap loans.

Advantages of TATA signing PPA with NNR

- Assured long term power supply at reasonable prices.
- Current Solar prices reached grid parity with certain consumers like commercial and expected for the rest of the consumers in next two to three years. Once the subsidies for conventional power are removed for the producers and consumers, these costs are almost equal or more than the solar power!!! Anyway the Government is moving in that direction.
- Tata Power is also power distributor.
- The average rate a commercial consumer paying in Bangalore is more than Rs.10.50/unit including diesel backup.
- NNR has critical mass of capacity
- Project is ready to start with all major permissions
- NNR is Founded by professionals who have wide international exposure
- NNR's Promoters' commitment for the company is clear.
- NNR's promoters are committed to transparency.
- TATA is in EPC business
- TATA is a huge consumers of power
- Setting up solar farms on their own by TATA is time and energy consuming, if not capital.
- TATA can also become captive power consumers by just investing three to four months of power bill in advance and enjoy the benefits of waiver of cross subsidy surcharge and capital appreciation along with assured cheaper power supply for next 25 years.
- TATA can get EPC contract business. They just need to reinvest part of their fees as EPC contractors to avail captive facility, if interested.
- NNR's land bank is private, not given by the Government. Hence the company's value will keep going up, if not for the business, but for the own land bank.

Annexure - I
Supporting Material

Thematic Map > Electricity consumption per capita - World



Source: [CIA World Factbook](#) - Unless otherwise noted, information in this page is accurate as of January 1, 2012

See also: [Electricity consumption per capita bar chart](#)

Country Name	Electricity consumption per capita (kWh per person)	Year of Estimate
Iceland	52,621	2012
Norway	24,558	2012
Kuwait	16,090	2012
Canada	16,020	2012
Finland	15,788	2012
Sweden	14,510	2012
United Arab Emirates	13,281	2012
Luxembourg	12,676	2012
United States	11,920	2012
Australia	10,238	2012
Cayman Islands	10,226	2012
Qatar	9,628	2012
Taiwan	9,503	2012
Korea, South	9,314	2012
New Zealand	9,016	2012
Bahrain	8,395	2012
Belgium	8,122	2012
Austria	7,989	2012
Singapore	7,696	2012
Brunei	7,471	2012

Slovenia	7,362	2012
Switzerland	7,255	2012
Andorra	7,037	2012
France	7,023	2012
Japan	6,750	2012
Netherlands	6,724	2012
Germany	6,697	2012
Saudi Arabia	6,576	2012
New Caledonia	6,434	2012
Macau	6,332	2012
Montenegro	6,237	2012
Israel	6,213	2010
Bahamas, The	6,031	2012
Hong Kong	6,031	2012
Russia	6,017	2012
Trinidad and Tobago	5,908	2012
Estonia	5,830	2012
Czech Republic	5,823	2012
Denmark	5,785	2012
Spain	5,686	2012
Greece	5,529	2012
Ireland	5,527	2012
United Kingdom	5,467	2012
Puerto Rico	5,272	2012
Slovakia	5,245	2012
Italy	5,059	2012
Falkland Islands (Islas Malvinas)	5,035	2008
Kazakhstan	5,029	2012
Serbia	4,879	2012
Malta	4,858	2012
Portugal	4,477	2012
South Africa	4,347	2012
Macedonia	4,334	2012
Oman	4,288	2012
Hungary	4,275	2012
Croatia	4,212	2012
Greenland	4,149	2012
Libya	4,078	2012
Bulgaria	4,021	2012
China	3,494	2012
Poland	3,441	2012
Chile	3,302	2012

	3,284	2012
Belarus	3,222	2012
Malaysia	3,215	2012
Nauru	3,173	2012
Venezuela	3,061	2012
Ukraine	3,001	2012
Lithuania	2,921	2012
Latvia	2,836	2012
Bosnia and Herzegovina	2,784	2012
Seychelles	2,686	2012
Iran	2,621	2012
Turkmenistan	2,572	2012
Suriname	2,571	2012
Argentina	2,481	2012
Uruguay	2,400	2012
Saint Kitts and Nevis	2,383	2012
Lebanon	2,365	2012
Romania	2,355	2012
Brazil	2,286	2012
Jamaica	2,215	2012
Albania	2,196	2012
Tajikistan	2,150	2012
Georgia	2,025	2012
Turkey	2,019	2012
Azerbaijan	1,980	2012
Thailand	1,962	2012
Armenia	1,953	2012
Saint Lucia	1,899	2012
Namibia	1,814	2012
Costa Rica	1,795	2012
Iraq	1,788	2012
Jordan	1,736	2012
Mauritius	1,701	2012
Panama	1,654	2012
Grenada	1,627	2012
Mexico	1,579	2012
Uzbekistan	1,412	2012
Kyrgyzstan	1,360	2012
Botswana	1,358	2012
Egypt	1,304	2012
Paraguay	1,299	2012
Syria	1,287	2012
















































	1,282	2012
Dominican Republic	1,276	2012
Moldova	1,220	2012
Antigua and Barbuda	1,202	2012
Saint Vincent and the Grenadines	1,185	2012
Tunisia	1,164	2012
Peru	1,159	2012
Dominica	1,106	2012
Vietnam	1,104	2012
Mongolia	1,061	2012
Gabon	995	2012
Zimbabwe	988	2012
Ecuador	980	2012
Fiji	973	2012
El Salvador	945	2012
Guyana	927	2012
Swaziland	870	2012
Colombia	858	2012
Algeria	816	2012
Honduras	788	2012
Korea, North	767	2012
Morocco	665	2012
Bolivia	612	2012
Belize	611	2012
Guatemala	579	2012
Zambia	551	2012
Philippines	524	2012
Samoa	507	2012
Indonesia	507	2012
India	498	2012
Nicaragua	462	2012
Cape Verde	456	2012
Papua New Guinea	437	2012
Mozambique	433	2012
Sri Lanka	431	2012
Pakistan	391	2012
Tonga	350	2012
Laos	339	2012
Djibouti	336	2012
Bhutan	257	2012
Ghana	246	2012
Cameroon	243	2012

	208	2012
Kiribati	201	2012
Yemen	188	2012
Angola	186	2012
Cote d'Ivoire	163	2012
Nepal	162	2012
Western Sahara	160	2012
Vanuatu	156	2012
Mauritania	151	2012
Bangladesh	149	2012
Senegal	136	2012
Kenya	133	2012
Equatorial Guinea	125	2012
Solomon Islands	124	2012
Congo, Republic of the	122	2012
Lesotho	122	2012
Gambia, The	111	2012
Sudan	111	2012
Nigeria	107	2012
Cambodia	104	2012
Togo	97	2012
Malawi	96	2012
Burma	85	2012
Congo, Democratic Republic of the	82	2012
Liberia	80	2012
Guinea	79	2012
Tanzania	73	2012
Benin	68	2012
Comoros	66	2012
East Timor	59	2012
Uganda	58	2012
Madagascar	47	2012
Guinea-Bissau	40	2012
Burkina Faso	40	2012
Niger	38	2012
Eritrea	37	2012
Ethiopia	37	2012
Haiti	32	2012
Central African Republic	29	2012
Mali	29	2012
Somalia	29	2012
Burundi	26	2012

	20	2012
Sierra Leone	10	2012
Chad	8	2012
Afghanistan	8	2012

NAGINENI NATURAL RESOURCES

Rank	Country	Electricity consumption per capita (kWh per person)
1	Iceland	52,620.99
2	Norway	24,557.76
3	Kuwait	16,090.31
4	Canada	16,020.37
5	Finland	15,787.78
6	Sweden	14,510.44
7	United Arab Emirates	13,281.1
8	Luxembourg	12,675.96
9	United States	11,919.8
10	Guam	10,261.77
11	Australia	10,238.21
12	Cayman Islands	10,226.41
13	Qatar	9,628.04
14	Taiwan	9,502.93
15	Korea, South	9,314.27
16	Bermuda	9,212.51
17	New Zealand	9,015.83
18	Saint Pierre and Miquelon	8,453.1
19	Bahrain	8,395.09
20	Belgium	8,121.97
21	Austria	7,989.3
22	Aruba	7,862.68
23	Singapore	7,695.91
24	Brunei	7,470.9
25	Virgin Islands	7,451.91
26	Slovenia	7,362.45
27	Switzerland	7,255.05
28	Andorra	7,036.74
29	France	7,022.63
30	Japan	6,749.73
31	Netherlands	6,724.19
32	Germany	6,696.93
33	Jersey	6,636.19
34	Saudi Arabia	6,576.34
35	New Caledonia	6,434.35
36	Macau	6,331.91
37	Montenegro	6,236.75
38	Israel	6,212.82
39	Bahamas, The	6,031.34
40	Hong Kong	6,030.6
41	Russia	6,017.5
42	Trinidad and Tobago	5,908.43
43	Estonia	5,829.57
44	Czech Republic	5,822.76
45	Denmark	5,785.2
46	Spain	5,686.29

47	Greece	5,528.51	
48	Ireland	5,527.29	
49	United Kingdom	5,467.34	
50	Faroe Islands	5,432.17	
51	Gibraltar	5,373.01	
52	Puerto Rico	5,272.39	
53	Slovakia	5,245.22	
54	Italy	5,058.66	
55	Falkland Islands (Islas Malvinas)	5,035.03	
56	Kazakhstan	5,028.53	
57	Serbia	4,878.65	
58	Malta	4,858.04	
59	Portugal	4,477.13	
60	South Africa	4,347.43	
61	Macedonia	4,333.52	
62	Oman	4,287.82	
63	Hungary	4,274.76	
64	Croatia	4,212.01	
65	Greenland	4,149.41	
66	Libya	4,077.76	
67	Bulgaria	4,021.07	
68	Montserrat	3,962.04	
69	Turks and Caicos Islands	3,513.54	
70	China	3,493.79	
71	Poland	3,441.34	
72	Chile	3,301.62	
73	Barbados	3,284.29	
74	Belarus	3,221.84	
75	American Samoa	3,215.83	
76	Malaysia	3,214.54	
77	Nauru	3,173.38	
78	Kosovo	3,089.52	
79	Venezuela	3,060.83	
80	Ukraine	3,000.84	
81	Lithuania	2,921.36	
82	Latvia	2,835.85	
83	Bosnia and Herzegovina	2,784.01	
84	Cook Islands	2,761.44	
85	Seychelles	2,685.95	
86	Iran	2,620.81	
87	Turkmenistan	2,571.8	
88	Suriname	2,570.71	
89	Argentina	2,481.48	
90	Uruguay	2,400.25	
91	Saint Kitts and Nevis	2,383.39	
92	Lebanon	2,365.29	
93	Romania	2,355.31	

94	Brazil	2,286.26	■
95	French Polynesia	2,269.85	■
96	Jamaica	2,215.16	■
97	Niue	2,198.58	■
98	Albania	2,195.57	■
99	Tajikistan	2,149.74	■
100	Georgia	2,024.97	■
101	Turkey	2,018.82	■
102	Azerbaijan	1,980.28	■
103	Thailand	1,961.51	■
104	Armenia	1,952.54	■
105	Saint Lucia	1,899.15	■
106	Namibia	1,813.63	■
107	Costa Rica	1,794.73	■
108	Iraq	1,788.03	■
109	Jordan	1,736.09	■
110	Mauritius	1,701.32	■
111	Micronesia, Federated States of	1,677.2	■
112	Panama	1,653.82	■
113	Grenada	1,627.36	■
114	Mexico	1,578.6	■
115	Uzbekistan	1,412.26	■
116	Maldives	1,374.06	■
117	Kyrgyzstan	1,359.72	■
118	Botswana	1,358.42	■
119	British Virgin Islands	1,343.59	■
120	Egypt	1,303.65	■
121	Paraguay	1,299.38	■
122	Syria	1,286.69	■
123	Cuba	1,282.14	■
124	Dominican Republic	1,275.7	■
125	Moldova	1,220.45	■
126	Antigua and Barbuda	1,202	■
127	Saint Vincent and the Grenadines	1,185.08	■
128	Tunisia	1,163.71	■
129	Peru	1,159.07	■
130	Dominica	1,106.45	■
131	Vietnam	1,103.59	■
132	Mongolia	1,061.32	■
133	Gabon	994.83	■
134	Zimbabwe	988.15	■
135	Ecuador	980.05	■
136	Fiji	972.75	■
137	Saint Helena	962.73	■
138	El Salvador	945.06	■
139	Guyana	927.34	■

140	Swaziland	870.28	█
141	Colombia	858.11	█
142	Algeria	816.22	█
143	Honduras	788.27	█
144	Korea, North	766.6	█
145	Morocco	664.52	█
146	Bolivia	612.34	█
147	Belize	611.5	█
148	Guatemala	578.83	█
149	Zambia	551.04	█
150	Philippines	524.21	█
151	Samoa	507.31	█
152	Indonesia	507.15	█
153	India	498.39	█
154	Nicaragua	461.96	█
155	Cape Verde	455.72	█
156	Papua New Guinea	436.92	█
157	Mozambique	432.9	█
158	Sri Lanka	431.44	█
159	Pakistan	390.72	█
160	Tonga	350.46	█
161	Laos	338.58	█
162	Djibouti	336.27	█
163	Bhutan	256.66	█
164	Ghana	245.82	█
165	Cameroon	242.57	█
166	West Bank	209.72	█
167	Sao Tome and Principe	208.16	█
168	Kiribati	200.59	█
169	Yemen	187.55	█
170	Angola	186.36	█
171	Cote d'Ivoire	163.26	█
172	Nepal	161.69	█
173	Western Sahara	160.06	█
174	Vanuatu	156.12	█
175	Mauritania	151.44	█
176	Bangladesh	148.62	█
177	Senegal	135.93	█
178	Kenya	133.4	█
179	Equatorial Guinea	124.72	█
180	Solomon Islands	124.09	█
181	Congo, Republic of the	122.3	█
182	Lesotho	122.25	█
183	Gambia, The	111.17	█
184	Sudan	110.71	█
185	Nigeria	106.63	█
186	Cambodia	104.26	█

187	Togo	96.52	
188	Malawi	95.51	
189	Burma	84.82	
190	Congo, Democratic Republic of the	82.01	
191	Liberia	80.15	
192	Guinea	78.6	
193	Tanzania	73.14	
194	Benin	68.03	
195	Comoros	65.59	
196	East Timor	59.1	
197	Uganda	58.2	
198	Madagascar	46.9	
199	Guinea-Bissau	39.97	
200	Burkina Faso	39.57	
201	Niger	38.3	
202	Eritrea	36.95	
203	Ethiopia	36.81	
204	Haiti	31.53	
205	Central African Republic	29.42	
206	Mali	29.41	
207	Somalia	29.05	
208	Burundi	25.9	
209	Rwanda	20.26	
210	Sierra Leone	9.83	
211	Chad	8.47	
212	Afghanistan	7.6	
213	Northern Mariana Islands	0.01	
214	Gaza Strip	0	

Source: [CIA World Factbook](#) - Unless otherwise noted, information in this page is accurate as of January 1, 2012

See also: [Electricity consumption per capita map](#)

Related News

[Top Solar Power Countries Per Capita & Per GDP \(CleanTechnica Exclusive\)](#)

CleanTechnica - 6/26/2013 1:35:19 PM

Update: Also see the new top solar power countries vs top US solar states rankings. Following up on my top solar power state rankings, below are rankings of the top solar power countries per capita and ... leading the world with aggressive ...

[Top wind power countries in the world, per capita](#)

reneweconomy.com.au - 6/20/2013 11:50:53 PM

In the past, I have created rankings of the top wind power countries per capita, per GDP, and per TWh of electricity production ... China — which many identify as a world leader in wind power due to its high total installation figure — is #19 per ...

[Health care spending around the world](#)

KSDK - 7/3/2013 8:22:11 PM

Also from the OECD, reviewed smoking rates, alcohol consumption, and obesity, as well as life expectancy. These are the countries spending ... But because of its high per capita GDP - the second-highest in the world in 2012 at nearly \$80,000, according ...

[Metro cities get stingy, emerging cities splurge](#)

Hindustan Times - 7/6/2013 9:15:54 PM

The dynamics of purchasing power of an average Indian are changing fast with big metros losing out to smaller cities. The latest data on per capita consumption in the last few years shows that upcoming towns like Gurgaon, Pune and Kochi have thumped Delhi ...

[Did Regulation Cause Drop in California Energy Consumption?](#)

Wall Street Journal - 6/18/2013 6:45:27 PM

Electricity consumption per capita in California stopped increasing in the 1970s, around the same time policymakers had also enacted stricter energy-efficiency policies, such as mandates on buildings and appliances. As electricity consumption ...

[Musings: What China's 'Small City-ization' Does For Energy Demand?](#)

rigzone.com - 7/1/2013 2:19:29 PM

According to Chinese Premier Li Keqiang ... By boosting the percentage of urban residents, China hopes to lift per capita income. So what does all this mean for China's future energy consumption, and especially for its use of oil? Given the country ...

['Fruit, vegetable use falling despite health consciousness'](#)

India Infoline Ltd - 7/5/2013 10:18:31 AM

A study by Rabobank has found that western Europe and US per capita ... consumption of fruits and vegetables In more than half of the European countries as well as in the United States (US), intake of fruit and vegetables is still below the World Health ...

[Does cell-phone use cause cancer?](#)

Jamaica Gleaner - 7/6/2013 6:49:45 AM

There is no doubt that the convenience of cell-phone use has transformed the way we do ... But believe it or not, the country ranks only 79th in the world for per capita subscribership. Several countries like St Kitts and Nevis, with a per ...

[Materials consumption surge reflects Asian economic shift](#)

www99.bangkokpost.com - 7/1/2013 7:38:38 AM

metal ores and industrial minerals 8.6 times, fossil fuels 5.4 times, and biomass 2.7 times. The general increase of material usage because of economic growth is not the only noticeable development. As well, there has been a highly visible shift away from ...

[World energy system adapting to changing global dynamics: report](#)

Channel NewsAsia - 6/25/2013 4:21:08 PM

SINGAPORE - BP has released its annual Statistical Review of World ... that global energy consumption has slowed to 1.8 per cent in 2012 from 2.4 per cent in 2011, and well below the 10-year average of 2.6 per cent. And consumption in countries in ...

[Malta's GDP per capita was below the EU27 average in 2012](#)

gozonews.com - 6/19/2013 9:18:45 AM

Based on first preliminary estimates for 2012, Gross Domestic Product (GDP) per capita expressed in Purchasing Power ... EFTA countries, one acceding state, four candidate countries and two potential candidate countries. Actual Individual Consumption ...

[GDP per capita in the Member States ranged in 2012 - Eurostat](#)

SteelGuru - 6/22/2013 2:27:11 AM

These figures for GDP per capita, expressed in PPS, are published by Eurostat, the statistical office of the European Union. They cover the 27 EL) Member States, three EFTA countries, one acceding state, four candidate countries and two potential candidate ...

[Washington Ranks at the Bottom of the List in Beer Consumption](#)

Seattle Post Intelligencer - 7/3/2013 10:06:35 AM

You are reading Washington Ranks at the Bottom of the List in Beer Consumption by Kendall Jones, as originally posted on The Washington Beer Blog. So, are you saddened to hear that Washington ranks so low in terms of beer consumption? I bet you ...

[Will Congo's Poor Benefit from World's Largest Dam Project?](#)

Common Dreams - 7/4/2013 1:54:27 PM

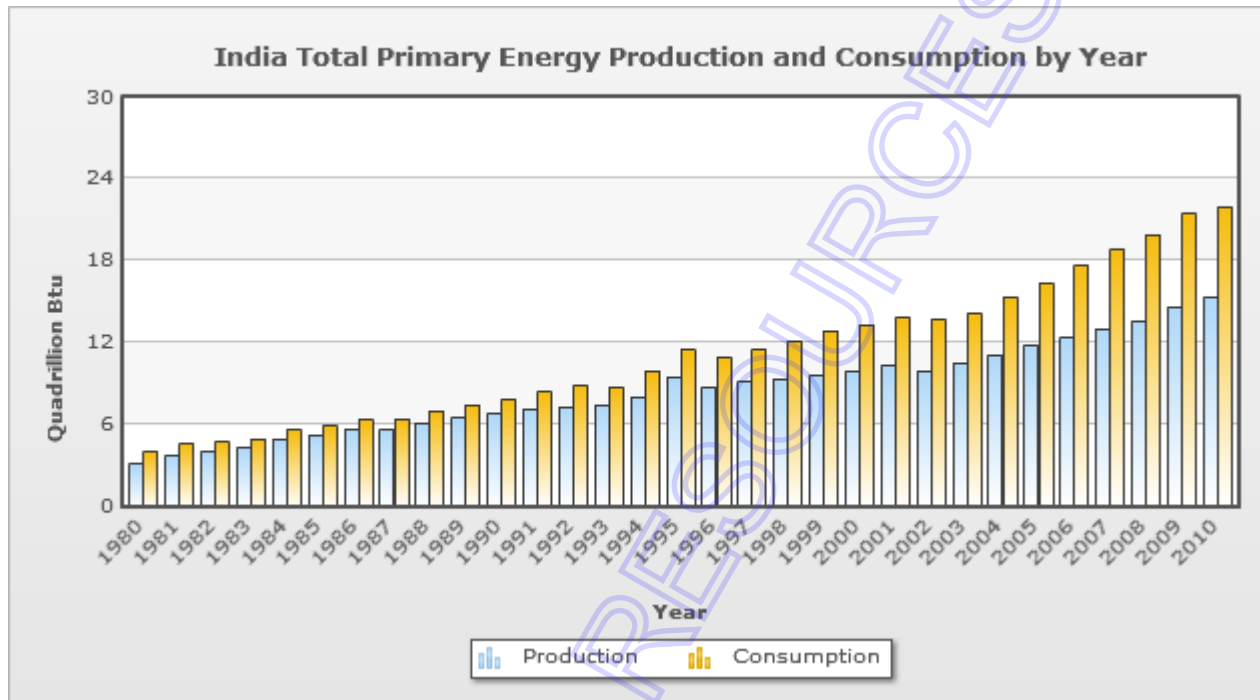
Africa's poorest nation, the Democratic Republic of Congo (DRC), plans to build the world ... energy gap, the DRC is fourth from the bottom, surpassed only by Ethiopia, Eritrea, Tanzania and Togo in lowest number of electricity use per capita.

[American power in the 21st century will be defined by the 'rise of the rest': Joseph S. Nye Jr.](#)

Cleveland Plain Dealer - 7/6/2013 2:53:31 AM

In the last century, the United States rose from the status of second-tier power to being the world's sole superpower. Some worry that the United States will be eclipsed in this century by China, but that is not the problem. There is never just one ...

NAGINENI NATURAL RESOURCES



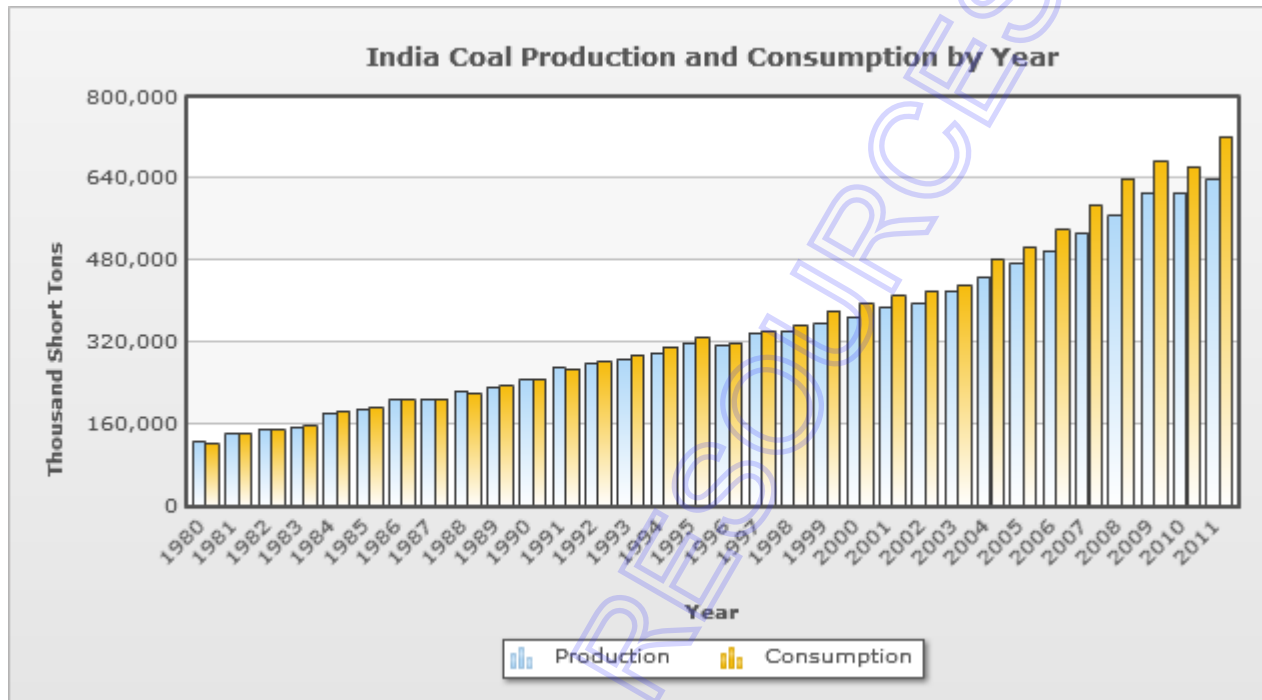
Source: [United States Energy Information Administration](#)

Total Primary Energy Definition: Energy in the form that it is first accounted for in a statistical energy balance, before any transformation to secondary or tertiary forms of energy. For example, coal can be converted to synthetic gas, which can be converted to electricity; in this example, coal is primary energy, synthetic gas is secondary energy, and electricity is tertiary energy.

year	production	consumption
1980	3.10	4.04
1981	3.73	4.63
1982	3.98	4.74
1983	4.34	4.99
1984	4.95	5.65
1985	5.27	5.91
1986	5.68	6.36
1987	5.64	6.45
1988	6.17	7.05
1989	6.47	7.46
1990	6.82	7.88
1991	7.16	8.37
1992	7.33	8.85
1993	7.49	8.74
1994	8.00	9.96
1995	9.48	11.44
1996	8.75	10.90
1997	9.17	11.49
1998	9.37	12.03
1999	9.59	12.87
2000	9.83	13.33
2001	10.29	13.84
2002	9.95	13.66

2003	10.51	14.11
2004	11.09	15.32
2005	11.74	16.33
2006	12.39	17.63
2007	13.03	18.81
2008	13.57	19.90
2009	14.57	21.42
2010	15.29	21.92

NAGINENI NATURAL RESOURCES



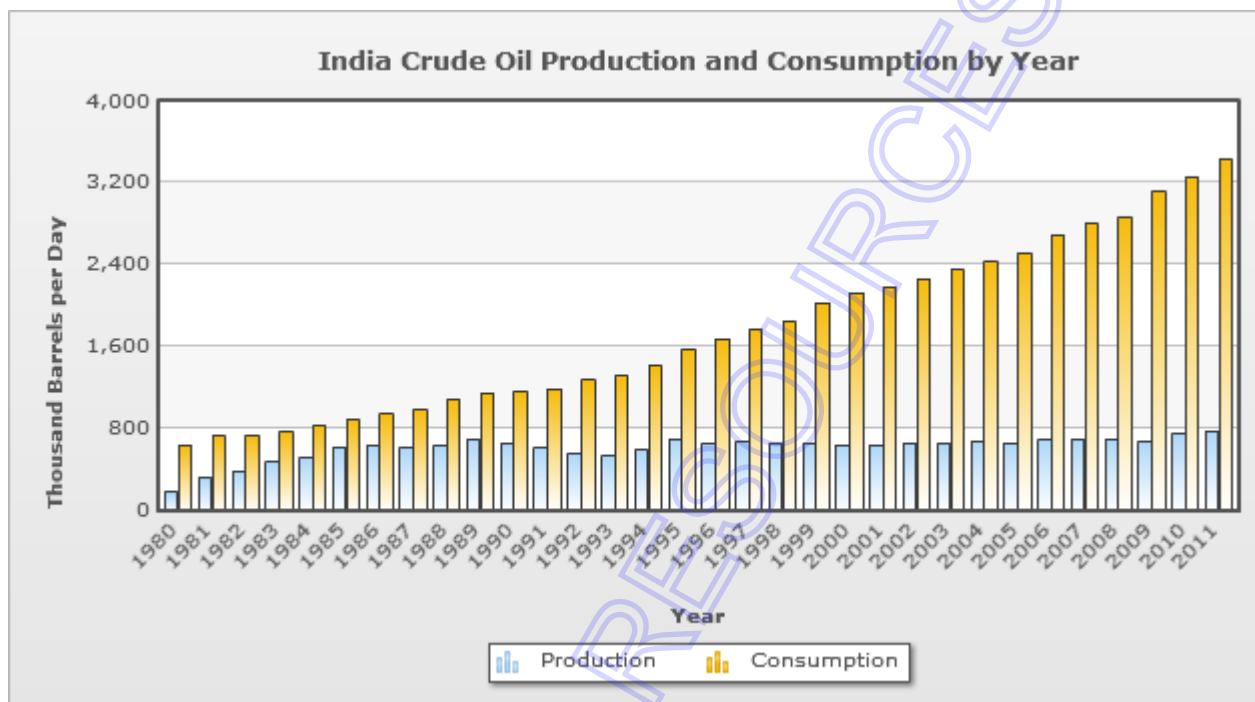
Source: [United States Energy Information Administration](#)

Coal Definition: A readily combustible black or brownish-black rock whose composition, including inherent moisture, consists of more than 50 percent by weight and more than 70 percent by volume of carbonaceous material. It is formed from plant remains that have been compacted, hardened, chemically altered, and metamorphosed by heat and pressure over geologic time.

year	production	consumption
1980	125,845.40	122,928.70
1981	142,947.70	144,012.60
1982	149,364.30	150,294.60
1983	155,891.10	157,906.10
1984	183,867.70	186,706.20
1985	189,934.90	194,065.20
1986	208,396.40	208,829.60
1987	210,728.90	210,933.90
1988	226,404.80	221,892.00
1989	233,784.80	236,378.50
1990	247,569.20	247,863.50
1991	269,934.00	269,813.80
1992	279,483.30	281,854.40
1993	288,092.40	295,959.60
1994	300,807.50	312,526.20
1995	320,556.60	329,291.30
1996	314,853.20	318,616.50
1997	338,052.40	343,008.40
1998	343,076.80	354,649.90
1999	356,264.80	381,413.00
2000	370,018.40	396,193.80
2001	388,675.00	411,844.50
2002	395,625.10	419,532.00

2003	420,525.20	432,047.60
2004	446,683.00	481,400.30
2005	473,266.30	504,908.20
2006	500,192.50	539,485.50
2007	531,521.30	587,255.30
2008	568,447.60	640,524.50
2009	613,402.10	674,878.00
2010	611,718.90	662,585.00
2011	639,627.20	721,418.70

NAGINENI NATURAL RESOURCES



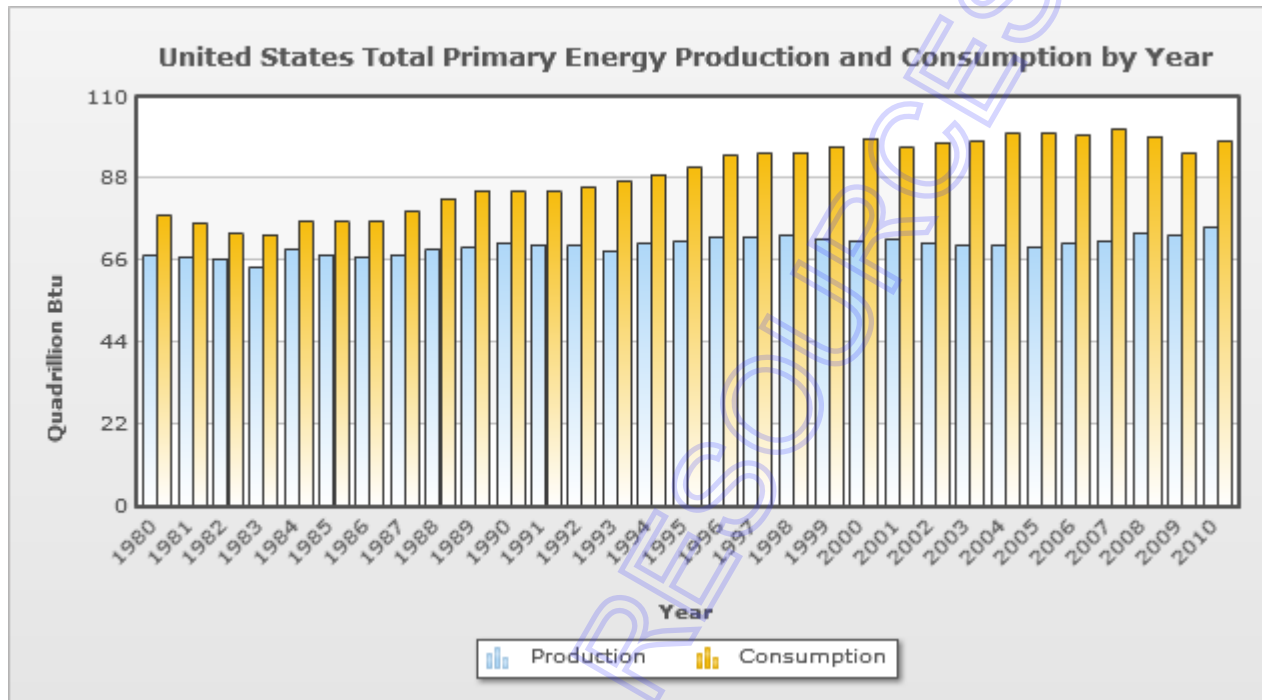
Source: [United States Energy Information Administration](#)

Crude Oil Definition: A mixture of hydrocarbons that exists in liquid phase in natural underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Depending upon the characteristics of the crude stream, it may also include 1. Small amounts of hydrocarbons that exist in gaseous phase in natural underground reservoirs but are liquid at atmospheric pressure after being recovered from oil well (casing head) gas in lease separators and are subsequently comingled with the crude stream without being separately measured. Lease condensate recovered as a liquid from natural gas wells in lease or field separation facilities and later mixed into the crude stream is also included; 2. Small amounts of nonhydrocarbons produced with the oil, such as sulfur and various metals; 3. Drip gases, and liquid hydrocarbons produced from tar sands, oil sands, gilsonite, and oil shale. Liquids produced at natural gas processing plants are excluded. Crude oil is refined to produce a wide array of petroleum products, including heating oils; gasoline, diesel and jet fuels; lubricants; asphalt; ethane, propane, and butane; and many other products used for their energy or chemical content.

year	production	consumption
1980	182.00	643.00
1981	325.00	729.00
1982	390.00	737.00
1983	480.00	773.00
1984	519.00	824.00
1985	620.00	894.90
1986	630.00	947.44
1987	609.00	987.85
1988	635.00	1,083.78
1989	700.00	1,149.78
1990	660.00	1,168.33
1991	615.00	1,190.32
1992	561.15	1,274.91
1993	534.00	1,311.07
1994	589.90	1,413.27
1995	703.45	1,574.67
1996	651.02	1,680.92
1997	674.62	1,765.49
1998	661.42	1,844.37
1999	652.66	2,031.25

2000	646.34	2,127.44
2001	642.40	2,183.73
2002	664.75	2,263.44
2003	660.03	2,346.33
2004	683.11	2,429.62
2005	664.66	2,512.43
2006	688.61	2,690.90
2007	697.53	2,800.75
2008	693.71	2,864.00
2009	680.43	3,112.74
2010	751.30	3,255.39
2011	782.34	3,426.00

NAGINENI NATURAL RESOURCES



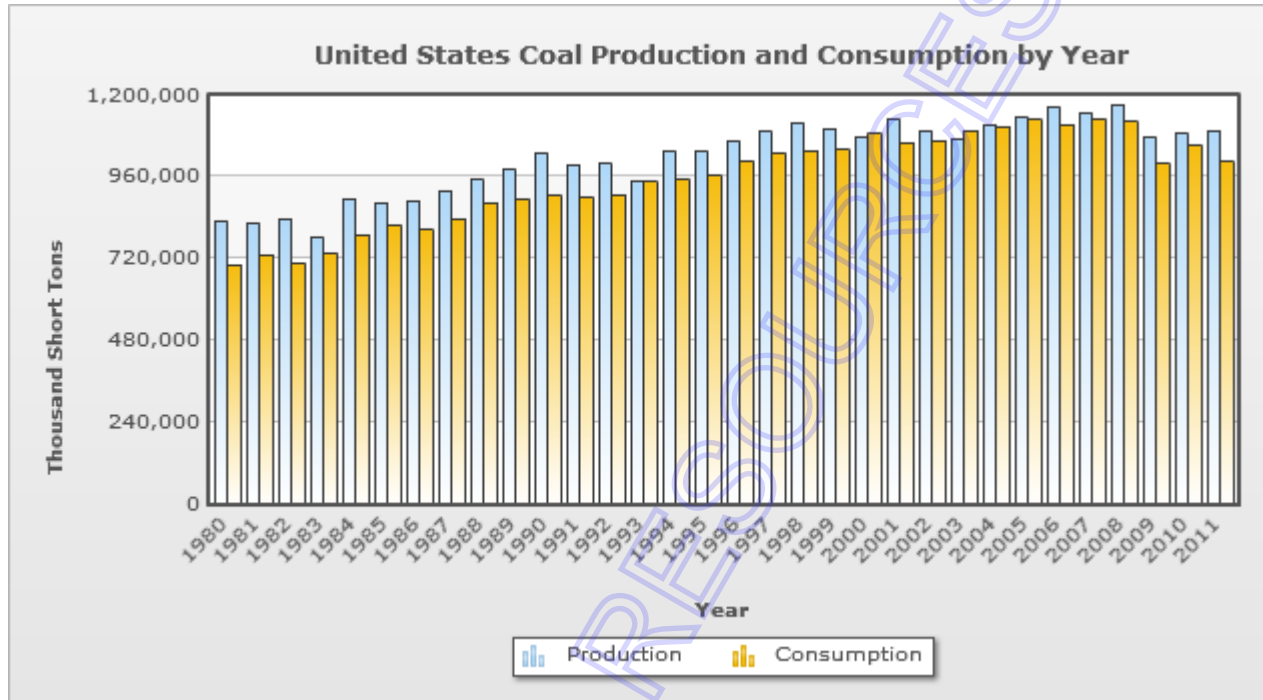
Source: [United States Energy Information Administration](#)

Total Primary Energy Definition: Energy in the form that it is first accounted for in a statistical energy balance, before any transformation to secondary or tertiary forms of energy. For example, coal can be converted to synthetic gas, which can be converted to electricity; in this example, coal is primary energy, synthetic gas is secondary energy, and electricity is tertiary energy.

year	production	consumption
1980	67.18	78.07
1981	66.95	76.11
1982	66.57	73.10
1983	64.11	72.97
1984	68.84	76.63
1985	67.70	76.39
1986	67.07	76.65
1987	67.54	79.05
1988	68.92	82.71
1989	69.32	84.79
1990	70.71	84.49
1991	70.36	84.44
1992	69.96	85.78
1993	68.31	87.42
1994	70.73	89.09
1995	71.17	91.03
1996	72.49	94.02
1997	72.47	94.60
1998	72.88	95.02
1999	71.74	96.65
2000	71.33	98.81
2001	71.73	96.17
2002	70.71	97.65

2003	69.96	97.98
2004	70.22	100.16
2005	69.44	100.28
2006	70.75	99.63
2007	71.40	101.30
2008	73.22	99.27
2009	72.64	94.56
2010	74.80	98.04

NAGINENI NATURAL RESOURCES



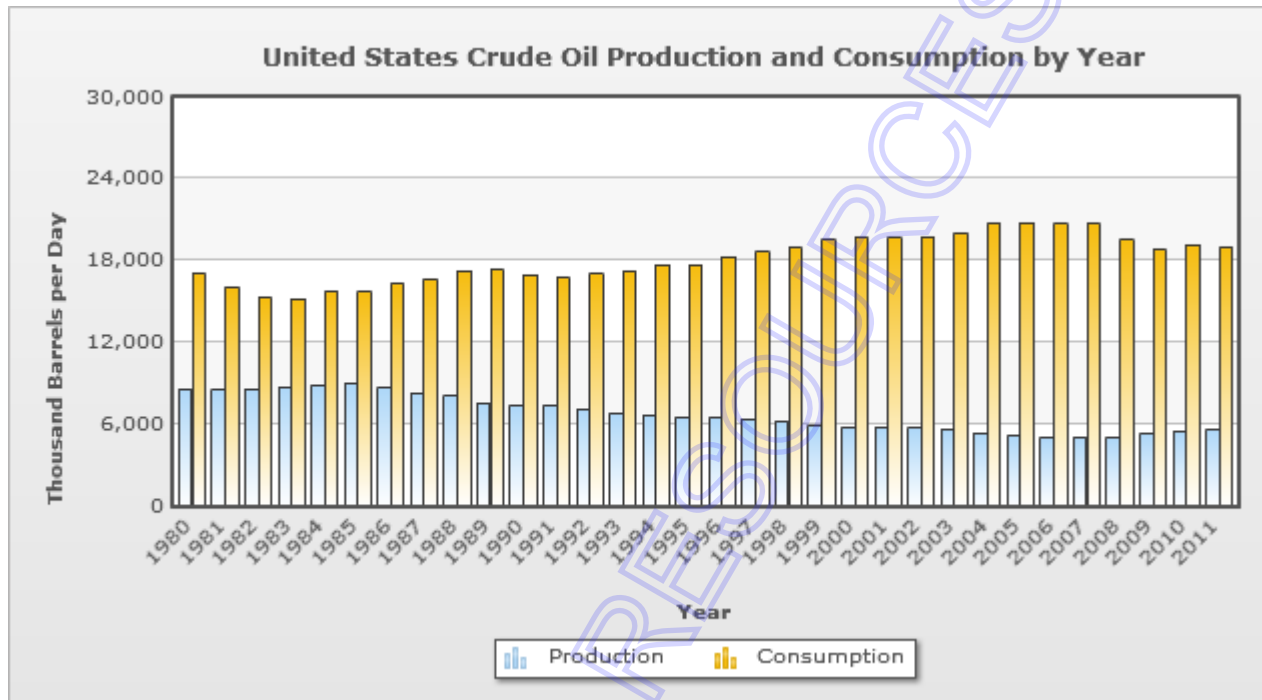
Source: [United States Energy Information Administration](#)

Coal Definition: A readily combustible black or brownish-black rock whose composition, including inherent moisture, consists of more than 50 percent by weight and more than 70 percent by volume of carbonaceous material. It is formed from plant remains that have been compacted, hardened, chemically altered, and metamorphosed by heat and pressure over geologic time.

year	production	consumption
1980	829,700.00	702,729.80
1981	823,775.00	732,626.80
1982	838,112.00	706,910.60
1983	782,091.00	736,672.30
1984	895,920.80	791,295.70
1985	883,638.40	818,048.70
1986	890,314.90	804,230.90
1987	918,761.40	836,940.60
1988	950,264.50	883,641.80
1989	980,729.00	894,999.90
1990	1,029,076.00	904,497.60
1991	995,984.10	899,226.80
1992	997,544.90	907,654.80
1993	945,424.30	944,081.30
1994	1,033,504.00	951,285.90
1995	1,032,974.00	962,103.80
1996	1,063,856.00	1,006,321.00
1997	1,089,932.00	1,029,544.00
1998	1,117,535.00	1,037,103.00
1999	1,100,432.00	1,038,647.00
2000	1,073,612.00	1,084,095.00
2001	1,127,689.00	1,060,146.00
2002	1,094,283.00	1,066,355.00

2003	1,071,753.00	1,094,861.00
2004	1,112,099.00	1,107,255.00
2005	1,131,498.00	1,125,978.00
2006	1,162,750.00	1,112,292.00
2007	1,146,635.00	1,127,998.00
2008	1,171,809.00	1,120,549.00
2009	1,074,923.00	997,477.60
2010	1,084,368.00	1,051,307.00
2011	1,094,336.00	1,003,066.00

NAGINENI NATURAL RESOURCES



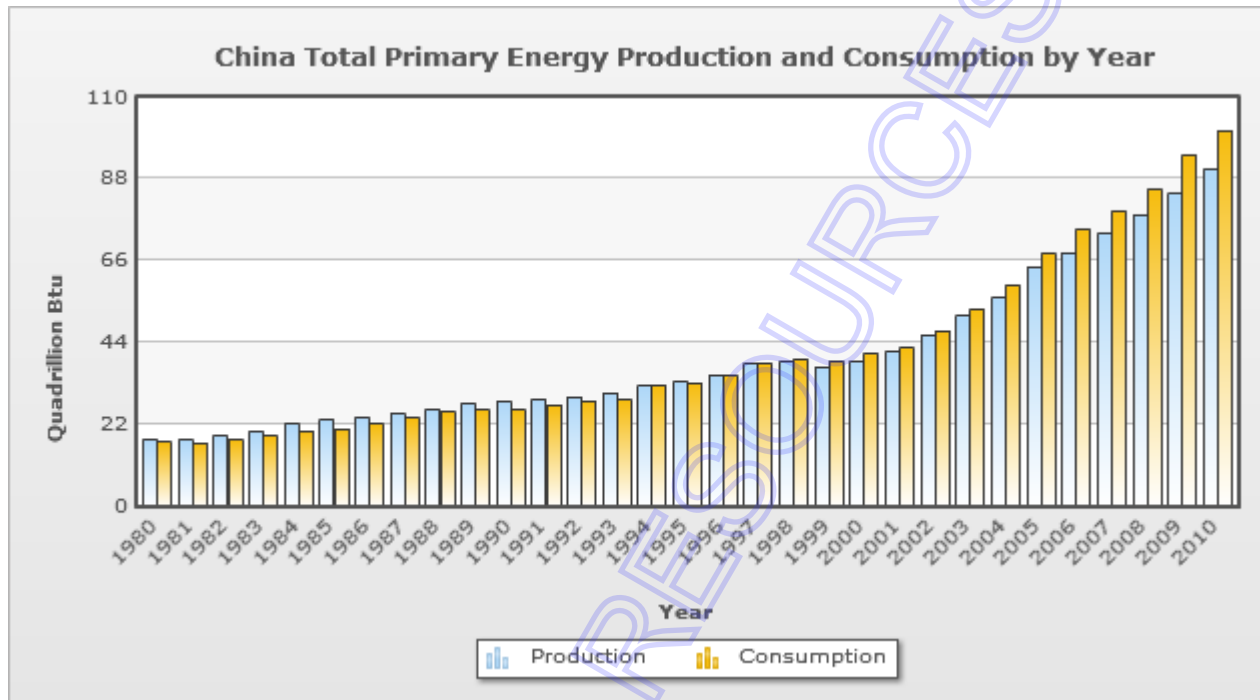
Source: [United States Energy Information Administration](#)

Crude Oil Definition: A mixture of hydrocarbons that exists in liquid phase in natural underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Depending upon the characteristics of the crude stream, it may also include 1. Small amounts of hydrocarbons that exist in gaseous phase in natural underground reservoirs but are liquid at atmospheric pressure after being recovered from oil well (casing head) gas in lease separators and are subsequently comingled with the crude stream without being separately measured. Lease condensate recovered as a liquid from natural gas wells in lease or field separation facilities and later mixed into the crude stream is also included; 2. Small amounts of nonhydrocarbons produced with the oil, such as sulfur and various metals; 3. Drip gases, and liquid hydrocarbons produced from tar sands, oil sands, gilsonite, and oil shale. Liquids produced at natural gas processing plants are excluded. Crude oil is refined to produce a wide array of petroleum products, including heating oils; gasoline, diesel and jet fuels; lubricants; asphalt; ethane, propane, and butane; and many other products used for their energy or chemical content.

year	production	consumption
1980	8,597.00	17,056.00
1981	8,572.00	16,058.00
1982	8,649.00	15,296.00
1983	8,688.00	15,231.00
1984	8,879.00	15,725.61
1985	8,971.00	15,726.42
1986	8,680.00	16,280.63
1987	8,349.14	16,665.04
1988	8,140.00	17,283.31
1989	7,613.00	17,325.15
1990	7,355.31	16,988.50
1991	7,416.55	16,713.84
1992	7,171.12	17,032.86
1993	6,846.67	17,236.73
1994	6,661.58	17,718.16
1995	6,559.64	17,724.59
1996	6,464.52	18,308.90
1997	6,451.59	18,620.30
1998	6,251.83	18,917.14
1999	5,881.46	19,519.34

2000	5,821.60	19,701.08
2001	5,801.40	19,648.71
2002	5,744.08	19,761.30
2003	5,644.07	20,033.51
2004	5,435.14	20,731.15
2005	5,185.74	20,802.16
2006	5,088.55	20,687.42
2007	5,076.95	20,680.38
2008	5,000.37	19,497.97
2009	5,352.88	18,771.40
2010	5,478.72	19,180.13
2011	5,651.88	18,949.43

NAGINENI NATURAL RESOURCES



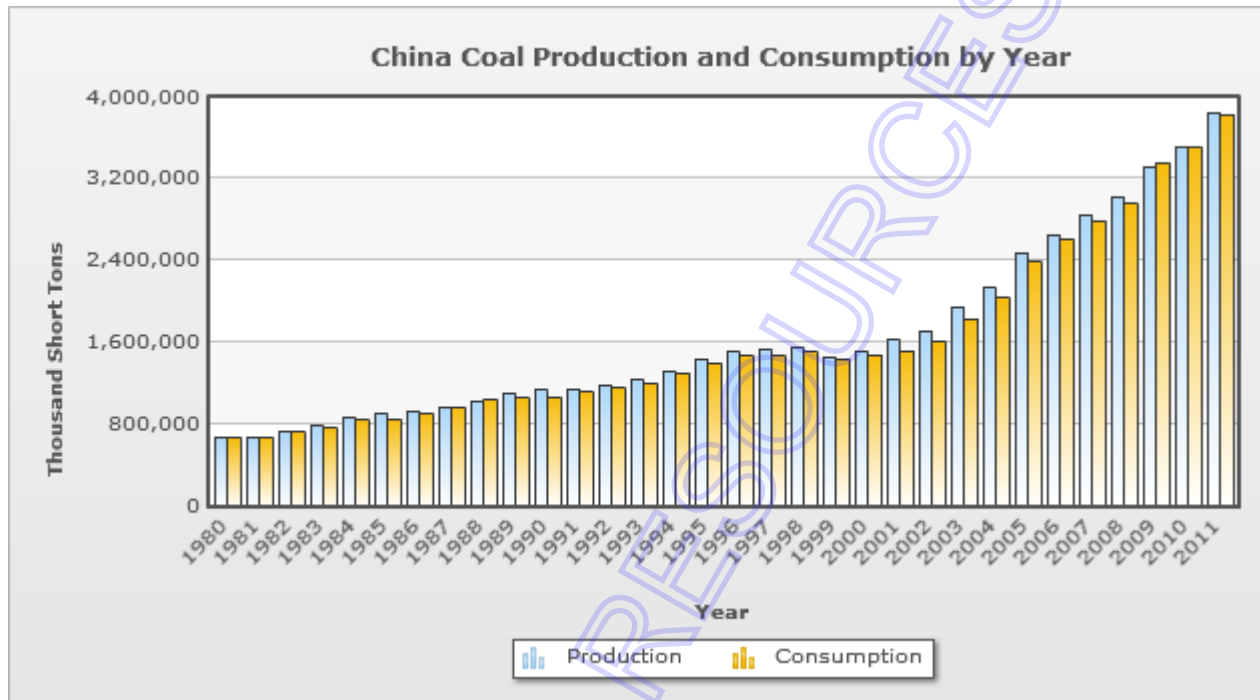
Source: [United States Energy Information Administration](#)

Total Primary Energy Definition: Energy in the form that it is first accounted for in a statistical energy balance, before any transformation to secondary or tertiary forms of energy. For example, coal can be converted to synthetic gas, which can be converted to electricity; in this example, coal is primary energy, synthetic gas is secondary energy, and electricity is tertiary energy.

year	production	consumption
1980	18.12	17.29
1981	17.95	17.19
1982	18.92	17.93
1983	20.24	19.01
1984	22.13	20.45
1985	23.31	21.01
1986	24.04	22.24
1987	24.94	23.76
1988	26.15	25.45
1989	27.78	25.96
1990	28.39	26.00
1991	28.82	27.36
1992	29.53	28.47
1993	30.58	28.65
1994	32.51	32.48
1995	33.54	33.25
1996	35.10	34.99
1997	38.44	38.27
1998	38.89	39.54
1999	37.50	39.02
2000	38.78	40.94
2001	41.67	42.58
2002	46.23	47.29

2003	51.25	52.96
2004	55.92	59.47
2005	63.95	67.92
2006	68.23	74.28
2007	73.28	79.37
2008	78.36	84.95
2009	84.06	94.37
2010	90.39	100.88

NAGINENI NATURAL RESOURCES



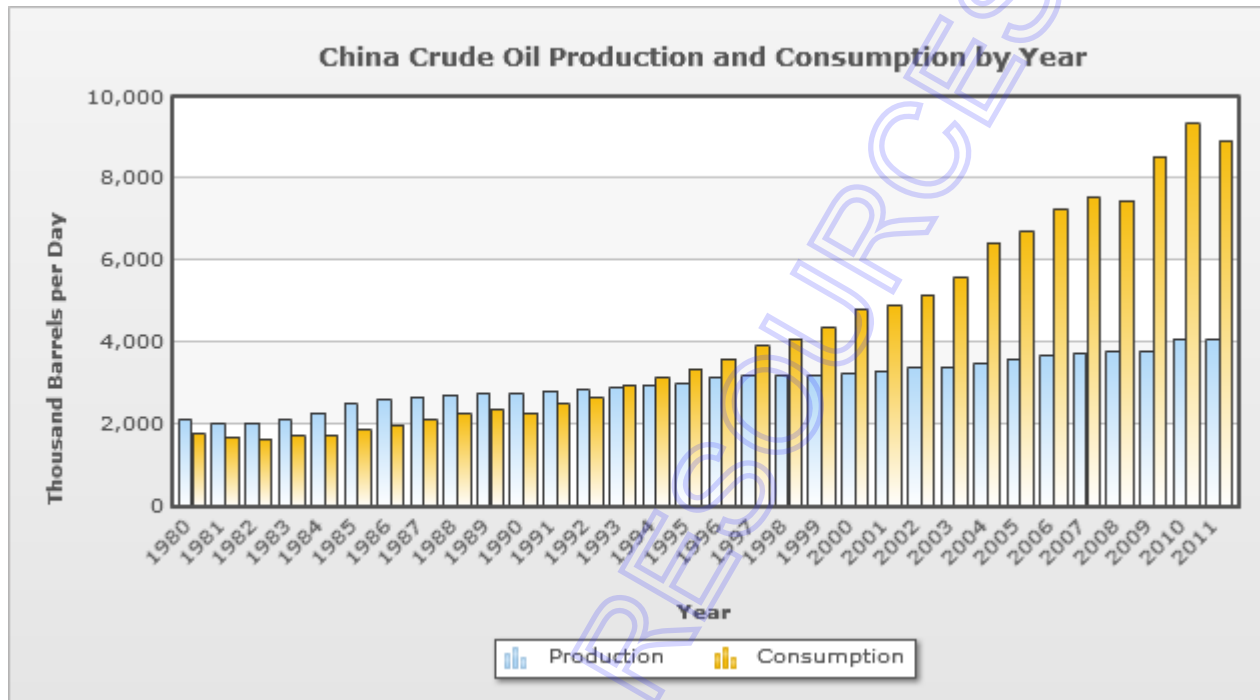
Source: [United States Energy Information Administration](#)

Coal Definition: A readily combustible black or brownish-black rock whose composition, including inherent moisture, consists of more than 50 percent by weight and more than 70 percent by volume of carbonaceous material. It is formed from plant remains that have been compacted, hardened, chemically altered, and metamorphosed by heat and pressure over geologic time.

year	production	consumption
1980	683,587.40	678,511.30
1981	685,240.80	679,906.80
1982	734,503.10	725,981.20
1983	787,634.60	768,223.90
1984	869,977.20	844,845.60
1985	906,408.60	856,096.90
1986	930,394.90	907,163.70
1987	967,785.30	971,986.20
1988	1,025,006.00	1,042,611.00
1989	1,106,886.00	1,058,302.00
1990	1,135,260.00	1,069,014.00
1991	1,151,122.00	1,117,333.00
1992	1,184,489.00	1,155,388.00
1993	1,233,405.00	1,205,472.00
1994	1,316,700.00	1,303,034.00
1995	1,443,279.00	1,401,074.00
1996	1,505,832.00	1,469,161.00
1997	1,531,762.00	1,469,977.00
1998	1,546,349.00	1,509,366.00
1999	1,459,841.00	1,437,497.00
2000	1,514,054.00	1,481,867.00
2001	1,625,972.00	1,523,839.00
2002	1,716,604.00	1,608,370.00

2003	1,951,928.00	1,834,611.00
2004	2,132,343.00	2,033,364.00
2005	2,477,879.00	2,384,804.00
2006	2,647,755.00	2,608,471.00
2007	2,844,311.00	2,788,086.00
2008	3,021,900.00	2,953,217.00
2009	3,301,803.00	3,350,859.00
2010	3,505,520.00	3,501,780.00
2011	3,844,943.00	3,826,869.00

NAGINENI NATURAL RESOURCES



Source: [United States Energy Information Administration](#)

Crude Oil Definition: A mixture of hydrocarbons that exists in liquid phase in natural underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Depending upon the characteristics of the crude stream, it may also include 1. Small amounts of hydrocarbons that exist in gaseous phase in natural underground reservoirs but are liquid at atmospheric pressure after being recovered from oil well (casing head) gas in lease separators and are subsequently comingled with the crude stream without being separately measured. Lease condensate recovered as a liquid from natural gas wells in lease or field separation facilities and later mixed into the crude stream is also included; 2. Small amounts of nonhydrocarbons produced with the oil, such as sulfur and various metals; 3. Drip gases, and liquid hydrocarbons produced from tar sands, oil sands, gilsonite, and oil shale. Liquids produced at natural gas processing plants are excluded. Crude oil is refined to produce a wide array of petroleum products, including heating oils; gasoline, diesel and jet fuels; lubricants; asphalt; ethane, propane, and butane; and many other products used for their energy or chemical content.

year	production	consumption
1980	2,114.00	1,765.00
1981	2,012.00	1,705.00
1982	2,045.00	1,660.00
1983	2,120.00	1,730.00
1984	2,296.00	1,740.00
1985	2,505.00	1,885.00
1986	2,620.00	2,000.00
1987	2,690.00	2,120.04
1988	2,730.00	2,275.00
1989	2,756.50	2,379.52
1990	2,774.00	2,296.40
1991	2,835.00	2,498.80
1992	2,845.00	2,661.60
1993	2,890.00	2,959.49
1994	2,939.29	3,160.61
1995	2,990.00	3,363.16
1996	3,131.34	3,610.09
1997	3,200.34	3,916.27
1998	3,198.19	4,105.83
1999	3,195.00	4,363.60

2000	3,248.76	4,795.72
2001	3,300.00	4,917.88
2002	3,389.65	5,160.71
2003	3,408.87	5,578.11
2004	3,485.31	6,437.48
2005	3,608.62	6,695.44
2006	3,672.74	7,263.33
2007	3,728.82	7,534.08
2008	3,790.18	7,467.52
2009	3,795.96	8,539.73
2010	4,078.36	9,330.18
2011	4,058.69	8,924.00

NAGINENI NATURAL RESOURCES

Coal, Australian thermal coal Monthly Price - Indian Rupee per Metric Ton

Range 6m 1y 5y 10y 15y 20y

Jun 2003 - May 2013: 3,950.289 (327.46 %)



Description: Coal, Australian thermal coal, 12000- btu/pound, less than 1% sulfur, 14% ash, FOB Newcastle/Port Kembla, Indian Rupee per Metric Ton

Unit: Indian Rupee per Metric Ton

Currency:

Compare to:

Source: [World Bank](#)

See also: [Energy production and consumption statistics](#)

See also: [Top commodity suppliers](#)

See also: [Commodities glossary](#) - Definitions of terms used in commodity trading

Month	Price	Change
Jun 2003	1,206.34	-
Jul 2003	1,206.26	-0.01 %
Aug 2003	1,246.23	3.31 %
Sep 2003	1,311.78	5.26 %
Oct 2003	1,337.20	1.94 %
Nov 2003	1,458.92	9.10 %
Dec 2003	1,660.88	13.84 %
Jan 2004	1,838.41	10.69 %
Feb 2004	2,025.00	10.15 %
Mar 2004	2,360.12	16.55 %
Apr 2004	2,506.40	6.20 %

May 2004	2,735.79	9.15 %
Jun 2004	2,903.92	6.15 %
Jul 2004	3,027.83	4.27 %
Aug 2004	2,941.81	-2.84 %
Sep 2004	2,735.00	-7.03 %
Oct 2004	2,777.70	1.56 %
Nov 2004	2,553.35	-8.08 %
Dec 2004	2,462.03	-3.58 %
Jan 2005	2,486.70	1.00 %
Feb 2005	2,334.97	-6.10 %
Mar 2005	2,383.73	2.09 %
Apr 2005	2,401.83	0.76 %
May 2005	2,391.16	-0.44 %
Jun 2005	2,381.53	-0.40 %
Jul 2005	2,374.53	-0.29 %
Aug 2005	2,296.03	-3.31 %
Sep 2005	2,129.07	-7.27 %
Oct 2005	2,038.98	-4.23 %
Nov 2005	1,864.71	-8.55 %
Dec 2005	1,870.16	0.29 %
Jan 2006	2,054.32	9.85 %
Feb 2006	2,265.76	10.29 %
Mar 2006	2,370.54	4.62 %
Apr 2006	2,546.38	7.42 %
May 2006	2,559.26	0.51 %
Jun 2006	2,584.63	0.99 %
Jul 2006	2,625.70	1.59 %
Aug 2006	2,540.10	-3.26 %
Sep 2006	2,327.26	-8.38 %
Oct 2006	2,146.11	-7.78 %
Nov 2006	2,211.00	3.02 %
Dec 2006	2,379.02	7.60 %
Jan 2007	2,436.45	2.41 %
Feb 2007	2,503.12	2.74 %
Mar 2007	2,612.47	4.37 %
Apr 2007	2,534.54	-2.98 %
May 2007	2,447.52	-3.43 %
Jun 2007	2,690.29	9.92 %
Jul 2007	2,914.83	8.35 %
Aug 2007	3,032.75	4.05 %
Sep 2007	2,958.13	-2.46 %
Oct 2007	3,166.98	7.06 %
Nov 2007	3,574.84	12.88 %
Dec 2007		

	3,845.40	7.57 %
Jan 2008	3,870.34	0.65 %
Feb 2008	5,618.95	45.18 %
Mar 2008	5,113.19	-9.00 %
Apr 2008	5,275.63	3.18 %
May 2008	6,011.73	13.95 %
Jun 2008	7,329.07	21.91 %
Jul 2008	8,261.45	12.72 %
Aug 2008	7,287.17	-11.79 %
Sep 2008	7,322.59	0.49 %
Oct 2008	5,628.39	-23.14 %
Nov 2008	4,843.49	-13.95 %
Dec 2008	4,099.05	-15.37 %
Jan 2009	4,186.08	2.12 %
Feb 2009	3,975.19	-5.04 %
Mar 2009	3,351.01	-15.70 %
Apr 2009	3,409.85	1.76 %
May 2009	3,354.19	-1.63 %
Jun 2009	3,653.73	8.93 %
Jul 2009	3,835.51	4.98 %
Aug 2009	3,753.42	-2.14 %
Sep 2009	3,510.37	-6.48 %
Oct 2009	3,557.81	1.35 %
Nov 2009	3,931.82	10.51 %
Dec 2009	4,151.94	5.60 %
Jan 2010	4,773.18	14.96 %
Feb 2010	4,675.20	-2.05 %
Mar 2010	4,600.76	-1.59 %
Apr 2010	4,774.74	3.78 %
May 2010	4,910.26	2.84 %
Jun 2010	4,898.59	-0.24 %
Jul 2010	4,820.33	-1.60 %
Aug 2010	4,479.23	-7.08 %
Sep 2010	4,680.11	4.48 %
Oct 2010	4,637.63	-0.91 %
Nov 2010	5,152.34	11.10 %
Dec 2010	5,724.71	11.11 %
Jan 2011	6,441.84	12.53 %
Feb 2011	6,251.43	-2.96 %
Mar 2011	6,079.89	-2.74 %
Apr 2011	5,825.63	-4.18 %
May 2011	5,729.95	-1.64 %
Jun 2011	5,771.08	0.72 %
Jul 2011		

	5,746.45	-0.43 %
Aug 2011	5,827.80	1.42 %
Sep 2011	6,294.36	8.01 %
Oct 2011	6,298.78	0.07 %
Nov 2011	6,179.69	-1.89 %
Dec 2011	6,292.12	1.82 %
Jan 2012	6,392.15	1.59 %
Feb 2012	6,164.14	-3.57 %
Mar 2012	5,794.19	-6.00 %
Apr 2012	5,749.65	-0.77 %
May 2012	5,579.32	-2.96 %
Jun 2012	5,234.32	-6.18 %
Jul 2012	5,249.48	0.29 %
Aug 2012	5,417.05	3.19 %
Sep 2012	5,199.97	-4.01 %
Oct 2012	4,644.45	-10.68 %
Nov 2012	5,035.87	8.43 %
Dec 2012	5,434.87	7.92 %
Jan 2013	5,398.73	-0.66 %
Feb 2013	5,466.78	1.26 %
Mar 2013	5,301.73	-3.02 %
Apr 2013	5,112.95	-3.56 %
May 2013	5,156.63	0.85 %

Top Companies

[Coal India Limited](#)

Website: <http://coalindia.nic.in/>

Location: Kolkata, India

Estimated Production: 361 million tonnes per year

Related News

News headlines are only available to registered users. Registration is **free** and only takes a moment. [Login](#) to read the headlines.

Coal, Colombia Monthly Price - Indian Rupee per Metric Ton

Range 6m 1y 5y 10y 15y 20y

Jun 2003 - May 2013: 2,652.958 (188.65 %)



Description: Colombian Coal, Indian Rupee per Metric Ton

Unit: Indian Rupee per Metric Ton

Currency:

Compare to:

Source: [World Bank](#)

See also: [Energy production and consumption statistics](#)

See also: [Top commodity suppliers](#)

See also: [Commodities glossary](#) - Definitions of terms used in commodity trading

Month	Price	Change
Jun 2003	1,406.30	-
Jul 2003	1,528.05	8.66 %
Aug 2003	1,520.47	-0.50 %
Sep 2003	1,587.57	4.41 %
Oct 2003	1,859.87	17.15 %
Nov 2003	1,988.09	6.89 %
Dec 2003	2,032.22	2.22 %
Jan 2004	2,092.93	2.99 %
Feb 2004	2,154.93	2.96 %
Mar 2004	2,189.97	1.63 %
Apr 2004	2,183.49	-0.30 %
May 2004	2,383.69	9.17 %

Jun 2004	2,889.69	21.23 %
Jul 2004	3,335.86	15.44 %
Aug 2004	3,242.81	-2.79 %
Sep 2004	3,261.44	0.57 %
Oct 2004	3,256.37	-0.16 %
Nov 2004	3,186.05	-2.16 %
Dec 2004	2,992.87	-6.06 %
Jan 2005	2,792.56	-6.69 %
Feb 2005	2,579.13	-7.64 %
Mar 2005	2,382.20	-7.64 %
Apr 2005	2,267.98	-4.79 %
May 2005	2,230.57	-1.65 %
Jun 2005	2,168.40	-2.79 %
Jul 2005	2,274.83	4.91 %
Aug 2005	2,246.73	-1.23 %
Sep 2005	2,193.19	-2.38 %
Oct 2005	2,012.08	-8.26 %
Nov 2005	1,885.75	-6.28 %
Dec 2005	1,963.30	4.11 %
Jan 2006	2,058.31	4.84 %
Feb 2006	2,221.87	7.95 %
Mar 2006	2,471.95	11.26 %
Apr 2006	2,504.58	1.32 %
May 2006	2,413.49	-3.64 %
Jun 2006	2,498.51	3.52 %
Jul 2006	2,464.50	-1.36 %
Aug 2006	2,580.13	4.69 %
Sep 2006	2,282.99	-11.52 %
Oct 2006	2,284.79	0.08 %
Nov 2006	2,296.23	0.50 %
Dec 2006	2,309.84	0.59 %
Jan 2007	2,269.74	-1.74 %
Feb 2007	2,327.36	2.54 %
Mar 2007	2,359.33	1.37 %
Apr 2007	2,189.33	-7.21 %
May 2007	2,092.63	-4.42 %
Jun 2007	2,351.97	12.39 %
Jul 2007	2,384.57	1.39 %
Aug 2007	2,573.96	7.94 %
Sep 2007	2,543.84	-1.17 %
Oct 2007	2,928.72	15.13 %
Nov 2007	3,600.87	22.95 %
Dec 2007	3,790.97	5.28 %
Jan 2008		

	4,023.11	6.12 %
Feb 2008	4,656.30	15.74 %
Mar 2008	4,560.30	-2.06 %
Apr 2008	4,423.38	-3.00 %
May 2008	5,147.74	16.38 %
Jun 2008	6,160.94	19.68 %
Jul 2008	7,314.34	18.72 %
Aug 2008	6,816.56	-6.81 %
Sep 2008	6,794.96	-0.32 %
Oct 2008	5,450.36	-19.79 %
Nov 2008	4,437.74	-18.58 %
Dec 2008	3,812.55	-14.09 %
Jan 2009	3,794.87	-0.46 %
Feb 2009	3,442.60	-9.28 %
Mar 2009	2,938.28	-14.65 %
Apr 2009	2,960.71	0.76 %
May 2009	2,688.78	-9.18 %
Jun 2009	2,717.37	1.06 %
Jul 2009	2,794.05	2.82 %
Aug 2009	2,778.34	-0.56 %
Sep 2009	2,561.45	-7.81 %
Oct 2009	2,604.70	1.69 %
Nov 2009	2,567.35	-1.43 %
Dec 2009	2,692.88	4.89 %
Jan 2010	2,896.15	7.55 %
Feb 2010	2,788.35	-3.72 %
Mar 2010	2,761.16	-0.98 %
Apr 2010	3,083.78	11.68 %
May 2010	3,598.71	16.70 %
Jun 2010	3,730.98	3.68 %
Jul 2010	3,827.11	2.58 %
Aug 2010	3,687.60	-3.65 %
Sep 2010	3,642.90	-1.21 %
Oct 2010	3,784.37	3.88 %
Nov 2010	4,100.87	8.36 %
Dec 2010	4,838.95	18.00 %
Jan 2011	5,236.20	8.21 %
Feb 2011	5,074.14	-3.10 %
Mar 2011	5,241.28	3.29 %
Apr 2011	5,317.41	1.45 %
May 2011	5,162.93	-2.91 %
Jun 2011	5,130.15	-0.63 %
Jul 2011	5,100.21	-0.58 %
Aug 2011		

	5,229.67	2.54 %
Sep 2011	5,318.32	1.70 %
Oct 2011	5,099.29	-4.12 %
Nov 2011	5,151.68	1.03 %
Dec 2011	5,177.20	0.50 %
Jan 2012	4,933.20	-4.71 %
Feb 2012	4,444.89	-9.90 %
Mar 2012	4,458.62	0.31 %
Apr 2012	4,571.64	2.54 %
May 2012	4,330.66	-5.27 %
Jun 2012	4,410.68	1.85 %
Jul 2012	4,504.59	2.13 %
Aug 2012	4,768.12	5.85 %
Sep 2012	4,424.70	-7.20 %
Oct 2012	4,102.16	-7.29 %
Nov 2012	4,314.67	5.18 %
Dec 2012	4,451.23	3.17 %
Jan 2013	4,265.22	-4.18 %
Feb 2013	4,337.09	1.69 %
Mar 2013	4,279.24	-1.33 %
Apr 2013	4,080.90	-4.63 %
May 2013	4,059.26	-0.53 %

Related News

News headlines are only available to registered users. Registration is **free** and only takes a moment. [Login](#) to read the headlines.

Coal, South African export price Monthly Price - Indian Rupee per Metric Ton

Range 6m 1y 5y 10y 15y 20y

Jun 2003 - May 2013: 3,266.250 (261.34 %)



Description: Coal, South African export price, Indian Rupee per Metric Ton

Unit: Indian Rupee per Metric Ton

Currency:

Compare to:

Source: [World Bank](#)

See also: [Energy production and consumption statistics](#)

See also: [Top commodity suppliers](#)

See also: [Commodities glossary](#) - Definitions of terms used in commodity trading

Month	Price	Change
Jun 2003	1,249.79	-
Jul 2003	1,363.92	9.13 %
Aug 2003	1,386.68	1.67 %
Sep 2003	1,565.22	12.88 %
Oct 2003	1,665.26	6.39 %
Nov 2003	1,783.82	7.12 %
Dec 2003	1,763.80	-1.12 %
Jan 2004	1,874.77	6.29 %
Feb 2004	1,912.73	2.02 %
Mar 2004	1,913.13	0.02 %
Apr 2004	2,075.85	8.51 %
May 2004	2,378.04	14.56 %

Jun 2004	2,847.02	19.72 %
Jul 2004	3,153.99	10.78 %
Aug 2004	2,948.53	-6.51 %
Sep 2004	2,811.98	-4.63 %
Oct 2004	2,732.71	-2.82 %
Nov 2004	2,740.57	0.29 %
Dec 2004	2,387.59	-12.88 %
Jan 2005	2,249.87	-5.77 %
Feb 2005	2,036.44	-9.49 %
Mar 2005	1,979.16	-2.81 %
Apr 2005	2,023.03	2.22 %
May 2005	1,995.17	-1.38 %
Jun 2005	2,141.16	7.32 %
Jul 2005	2,234.01	4.34 %
Aug 2005	2,159.48	-3.34 %
Sep 2005	2,047.61	-5.18 %
Oct 2005	1,938.57	-5.32 %
Nov 2005	1,741.40	-10.17 %
Dec 2005	1,871.98	7.50 %
Jan 2006	1,982.95	5.93 %
Feb 2006	2,189.95	10.44 %
Mar 2006	2,423.92	10.68 %
Apr 2006	2,466.60	1.76 %
May 2006	2,288.62	-7.22 %
Jun 2006	2,412.16	5.40 %
Jul 2006	2,400.86	-0.47 %
Aug 2006	2,493.91	3.88 %
Sep 2006	2,248.40	-9.84 %
Oct 2006	2,237.62	-0.48 %
Nov 2006	2,162.11	-3.37 %
Dec 2006	2,262.41	4.64 %
Jan 2007	2,223.07	-1.74 %
Feb 2007	2,280.43	2.58 %
Mar 2007	2,354.26	3.24 %
Apr 2007	2,164.88	-8.04 %
May 2007	2,049.80	-5.32 %
Jun 2007	2,314.47	12.91 %
Jul 2007	2,346.57	1.39 %
Aug 2007	2,456.40	4.68 %
Sep 2007	2,533.76	3.15 %
Oct 2007	2,889.20	14.03 %
Nov 2007	3,539.74	22.52 %
Dec 2007	3,717.22	5.01 %
Jan 2008		

	3,961.68	6.58 %
Feb 2008	4,568.90	15.33 %
Mar 2008	4,479.59	-1.95 %
Apr 2008	4,353.32	-2.82 %
May 2008	5,084.55	16.80 %
Jun 2008	6,096.71	19.91 %
Jul 2008	7,185.83	17.86 %
Aug 2008	6,737.12	-6.24 %
Sep 2008	6,732.08	-0.07 %
Oct 2008	5,336.05	-20.74 %
Nov 2008	4,379.92	-17.92 %
Dec 2008	3,757.59	-14.21 %
Jan 2009	3,731.38	-0.70 %
Feb 2009	3,399.29	-8.90 %
Mar 2009	3,002.37	-11.68 %
Apr 2009	3,148.48	4.87 %
May 2009	2,816.43	-10.55 %
Jun 2009	2,875.97	2.11 %
Jul 2009	2,963.82	3.05 %
Aug 2009	3,104.49	4.75 %
Sep 2009	2,961.07	-4.62 %
Oct 2009	3,006.50	1.53 %
Nov 2009	3,094.04	2.91 %
Dec 2009	3,441.29	11.22 %
Jan 2010	3,992.88	16.03 %
Feb 2010	3,861.72	-3.28 %
Mar 2010	3,774.63	-2.26 %
Apr 2010	3,947.06	4.57 %
May 2010	4,162.26	5.45 %
Jun 2010	4,321.77	3.83 %
Jul 2010	4,247.08	-1.73 %
Aug 2010	4,093.20	-3.62 %
Sep 2010	3,950.88	-3.48 %
Oct 2010	4,041.55	2.29 %
Nov 2010	4,631.31	14.59 %
Dec 2010	5,205.27	12.39 %
Jan 2011	5,565.01	6.91 %
Feb 2011	5,351.87	-3.83 %
Mar 2011	5,443.74	1.72 %
Apr 2011	5,505.16	1.13 %
May 2011	5,408.05	-1.76 %
Jun 2011	5,337.82	-1.30 %
Jul 2011	5,164.16	-3.25 %
Aug 2011		

	5,355.09	3.70 %
Sep 2011	5,518.30	3.05 %
Oct 2011	5,459.73	-1.06 %
Nov 2011	5,346.33	-2.08 %
Dec 2011	5,484.62	2.59 %
Jan 2012	5,443.42	-0.75 %
Feb 2012	5,176.94	-4.90 %
Mar 2012	5,204.91	0.54 %
Apr 2012	5,249.23	0.85 %
May 2012	5,095.18	-2.93 %
Jun 2012	4,779.92	-6.19 %
Jul 2012	4,849.13	1.45 %
Aug 2012	4,950.91	2.10 %
Sep 2012	4,682.21	-5.43 %
Oct 2012	4,384.96	-6.35 %
Nov 2012	4,691.69	7.00 %
Dec 2012	4,852.11	3.42 %
Jan 2013	4,678.00	-3.59 %
Feb 2013	4,575.18	-2.20 %
Mar 2013	4,501.68	-1.61 %
Apr 2013	4,459.90	-0.93 %
May 2013	4,516.04	1.26 %

Top Companies

[BHP Billiton Energy Coal South Africa](#)

Website: <http://www.bhpbilliton.com/>

Location: Johannesburg, South Africa

Estimated Production: 48 million tonnes per year

Related News

News headlines are only available to registered users. Registration is **free** and only takes a moment. [Login](#) to read the headlines.

Crude Oil (petroleum) Monthly Price - Indian Rupee per Barrel

Range 6m 1y 5y 10y 15y 20y

Jun 2003 - May 2013: 4,163.580 (319.30 %)



Description: Crude Oil (petroleum), simple average of three spot prices; Dated Brent, West Texas Intermediate, and the Dubai Fateh, Indian Rupee per Barrel

Unit: Indian Rupee per Barrel

Currency:

Compare to:

Source: [World Bank](#)

See also: [Energy production and consumption statistics](#)

See also: [Top commodity suppliers](#)

See also: [Commodities glossary](#) - Definitions of terms used in commodity trading

Month	Price	Change
Jun 2003	1,303.98	-
Jul 2003	1,321.85	1.37 %
Aug 2003	1,363.37	3.14 %
Sep 2003	1,232.46	-9.60 %
Oct 2003	1,316.78	6.84 %
Nov 2003	1,325.54	0.67 %
Dec 2003	1,365.45	3.01 %
Jan 2004	1,427.10	4.51 %
Feb 2004	1,417.91	-0.64 %
Mar 2004	1,515.65	6.89 %
Apr 2004	1,480.99	-2.29 %

May 2004	1,702.46	14.95 %
Jun 2004	1,617.64	-4.98 %
Jul 2004	1,746.44	7.96 %
Aug 2004	1,950.09	11.66 %
Sep 2004	1,919.99	-1.54 %
Oct 2004	2,145.88	11.77 %
Nov 2004	1,905.09	-11.22 %
Dec 2004	1,719.20	-9.76 %
Jan 2005	1,876.73	9.16 %
Feb 2005	1,946.25	3.70 %
Mar 2005	2,225.13	14.33 %
Apr 2005	2,215.05	-0.45 %
May 2005	2,079.33	-6.13 %
Jun 2005	2,348.85	12.96 %
Jul 2005	2,454.20	4.49 %
Aug 2005	2,699.14	9.98 %
Sep 2005	2,707.45	0.31 %
Oct 2005	2,608.22	-3.67 %
Nov 2005	2,514.02	-3.61 %
Dec 2005	2,578.31	2.56 %
Jan 2006	2,768.69	7.38 %
Feb 2006	2,647.01	-4.39 %
Mar 2006	2,709.89	2.38 %
Apr 2006	3,056.56	12.79 %
May 2006	3,115.52	1.93 %
Jun 2006	3,145.13	0.95 %
Jul 2006	3,368.54	7.10 %
Aug 2006	3,341.97	-0.79 %
Sep 2006	2,858.12	-14.48 %
Oct 2006	2,634.90	-7.81 %
Nov 2006	2,607.54	-1.04 %
Dec 2006	2,722.71	4.42 %
Jan 2007	2,367.73	-13.04 %
Feb 2007	2,542.87	7.40 %
Mar 2007	2,667.95	4.92 %
Apr 2007	2,744.03	2.85 %
May 2007	2,655.56	-3.22 %
Jun 2007	2,779.56	4.67 %
Jul 2007	2,977.47	7.12 %
Aug 2007	2,862.54	-3.86 %
Sep 2007	3,102.55	8.38 %
Oct 2007	3,246.01	4.62 %
Nov 2007	3,599.69	10.90 %
Dec 2007		

	3,527.12	-2.02 %
Jan 2008	3,575.83	1.38 %
Feb 2008	3,724.64	4.16 %
Mar 2008	4,109.92	10.34 %
Apr 2008	4,365.33	6.21 %
May 2008	5,171.75	18.47 %
Jun 2008	5,631.69	8.89 %
Jul 2008	5,677.98	0.82 %
Aug 2008	4,919.52	-13.36 %
Sep 2008	4,524.05	-8.04 %
Oct 2008	3,535.80	-21.84 %
Nov 2008	2,648.14	-25.10 %
Dec 2008	2,020.10	-23.72 %
Jan 2009	2,144.56	6.16 %
Feb 2009	2,055.52	-4.15 %
Mar 2009	2,407.13	17.11 %
Apr 2009	2,517.58	4.59 %
May 2009	2,819.83	12.01 %
Jun 2009	3,302.59	17.12 %
Jul 2009	3,136.03	-5.04 %
Aug 2009	3,461.09	10.37 %
Sep 2009	3,312.26	-4.30 %
Oct 2009	3,461.10	4.49 %
Nov 2009	3,611.89	4.36 %
Dec 2009	3,491.65	-3.33 %
Jan 2010	3,541.88	1.44 %
Feb 2010	3,461.46	-2.27 %
Mar 2010	3,607.99	4.23 %
Apr 2010	3,744.14	3.77 %
May 2010	3,457.51	-7.66 %
Jun 2010	3,479.77	0.64 %
Jul 2010	3,492.91	0.38 %
Aug 2010	3,533.47	1.16 %
Sep 2010	3,503.86	-0.84 %
Oct 2010	3,629.80	3.59 %
Nov 2010	3,793.46	4.51 %
Dec 2010	4,068.37	7.25 %
Jan 2011	4,205.30	3.37 %
Feb 2011	4,442.32	5.64 %
Mar 2011	4,888.11	10.04 %
Apr 2011	5,162.95	5.62 %
May 2011	4,856.74	-5.93 %
Jun 2011	4,747.57	-2.25 %
Jul 2011		

	4,791.52	0.93 %
Aug 2011	4,548.23	-5.08 %
Sep 2011	4,812.40	5.81 %
Oct 2011	4,920.06	2.24 %
Nov 2011	5,340.76	8.55 %
Dec 2011	5,488.30	2.76 %
Jan 2012	5,475.69	-0.23 %
Feb 2012	5,540.75	1.19 %
Mar 2012	5,927.55	6.98 %
Apr 2012	5,892.63	-0.59 %
May 2012	5,659.74	-3.95 %
Jun 2012	5,083.60	-10.18 %
Jul 2012	5,372.19	5.68 %
Aug 2012	5,849.31	8.88 %
Sep 2012	5,800.66	-0.83 %
Oct 2012	5,475.37	-5.61 %
Nov 2012	5,536.01	1.11 %
Dec 2012	5,525.53	-0.19 %
Jan 2013	5,705.06	3.25 %
Feb 2013	5,786.01	1.42 %
Mar 2013	5,580.74	-3.55 %
Apr 2013	5,375.04	-3.69 %
May 2013	5,467.56	1.72 %

Top Companies

[Saudi Aramco](#)

Website: <http://www.saudiaramco.com/>

Location: Dhahran, Saudi Arabia

Estimated Production: 8.5 million barrels per day

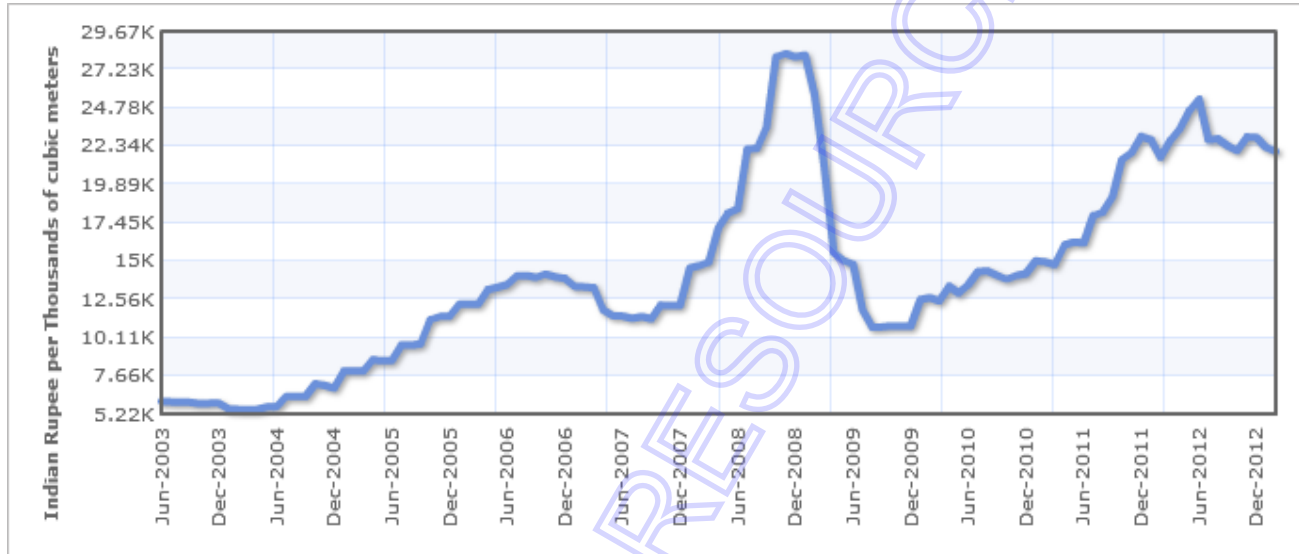
Related News

News headlines are only available to registered users. Registration is **free** and only takes a moment. [Login](#) to read the headlines.

Russian Natural Gas Monthly Price - Indian Rupee per Thousands of cubic meters

Range 6m 1y 5y 10y 15y 20y

Jun 2003 - Feb 2013: 15,957.490 (265.01 %)



Description: Natural Gas, Russian Natural Gas border price in Germany, Indian Rupee per Thousands of cubic meters

Unit: Indian Rupee per Thousands of cubic meters

Currency:

Compare to:

Source: [International Monetary Fund](#)

See also: [Energy production and consumption statistics](#)

See also: [Top commodity suppliers](#)

See also: [Commodities glossary](#) - Definitions of terms used in commodity trading

Month	Price	Change
Jun 2003	6,021.40	-
Jul 2003	6,008.64	-0.21 %
Aug 2003	5,969.78	-0.65 %
Sep 2003	5,958.73	-0.19 %
Oct 2003	5,882.60	-1.28 %
Nov 2003	5,899.39	0.29 %
Dec 2003	5,908.59	0.16 %
Jan 2004	5,546.60	-6.13 %
Feb 2004	5,524.95	-0.39 %
Mar 2004	5,493.60	-0.57 %
Apr 2004	5,503.97	0.19 %

May 2004	5,667.93	2.98 %
Jun 2004	5,702.23	0.61 %
Jul 2004	6,315.35	10.75 %
Aug 2004	6,356.32	0.65 %
Sep 2004	6,322.82	-0.53 %
Oct 2004	7,153.24	13.13 %
Nov 2004	7,048.33	-1.47 %
Dec 2004	6,871.50	-2.51 %
Jan 2005	7,970.75	16.00 %
Feb 2005	7,956.20	-0.18 %
Mar 2005	7,958.57	0.03 %
Apr 2005	8,676.50	9.02 %
May 2005	8,626.96	-0.57 %
Jun 2005	8,645.70	0.22 %
Jul 2005	9,607.83	11.13 %
Aug 2005	9,627.37	0.20 %
Sep 2005	9,691.49	0.67 %
Oct 2005	11,230.73	15.88 %
Nov 2005	11,457.13	2.02 %
Dec 2005	11,440.09	-0.15 %
Jan 2006	12,243.33	7.02 %
Feb 2006	12,224.73	-0.15 %
Mar 2006	12,264.56	0.33 %
Apr 2006	13,171.98	7.40 %
May 2006	13,306.68	1.02 %
Jun 2006	13,496.09	1.42 %
Jul 2006	14,048.35	4.09 %
Aug 2006	14,073.42	0.18 %
Sep 2006	13,946.98	-0.90 %
Oct 2006	14,158.87	1.52 %
Nov 2006	13,968.47	-1.34 %
Dec 2006	13,899.18	-0.50 %
Jan 2007	13,392.29	-3.65 %
Feb 2007	13,338.80	-0.40 %
Mar 2007	13,297.46	-0.31 %
Apr 2007	11,881.54	-10.65 %
May 2007	11,498.45	-3.22 %
Jun 2007	11,489.99	-0.07 %
Jul 2007	11,334.37	-1.35 %
Aug 2007	11,446.89	0.99 %
Sep 2007	11,312.95	-1.17 %
Oct 2007	12,176.38	7.63 %
Nov 2007	12,153.83	-0.19 %
Dec 2007		

	12,153.83	0.00 %
Jan 2008	14,556.88	19.77 %
Feb 2008	14,688.80	0.91 %
Mar 2008	14,920.67	1.58 %
Apr 2008	17,149.09	14.94 %
May 2008	18,046.56	5.23 %
Jun 2008	18,344.09	1.65 %
Jul 2008	22,144.77	20.72 %
Aug 2008	22,197.72	0.24 %
Sep 2008	23,554.77	6.11 %
Oct 2008	28,052.94	19.10 %
Nov 2008	28,261.20	0.74 %
Dec 2008	28,052.76	-0.74 %
Jan 2009	28,167.00	0.41 %
Feb 2009	25,640.84	-8.97 %
Mar 2009	21,170.41	-17.43 %
Apr 2009	15,502.04	-26.77 %
May 2009	15,026.13	-3.07 %
Jun 2009	14,790.72	-1.57 %
Jul 2009	11,857.23	-19.83 %
Aug 2009	10,750.00	-9.34 %
Sep 2009	10,776.70	0.25 %
Oct 2009	10,848.63	0.67 %
Nov 2009	10,813.32	-0.33 %
Dec 2009	10,827.49	0.13 %
Jan 2010	12,549.05	15.90 %
Feb 2010	12,658.06	0.87 %
Mar 2010	12,431.87	-1.79 %
Apr 2010	13,376.38	7.60 %
May 2010	12,967.71	-3.06 %
Jun 2010	13,511.17	4.19 %
Jul 2010	14,309.12	5.91 %
Aug 2010	14,366.70	0.40 %
Sep 2010	14,070.70	-2.06 %
Oct 2010	13,815.62	-1.81 %
Nov 2010	14,071.65	1.85 %
Dec 2010	14,195.70	0.88 %
Jan 2011	15,014.91	5.77 %
Feb 2011	14,956.51	-0.39 %
Mar 2011	14,770.97	-1.24 %
Apr 2011	16,026.79	8.50 %
May 2011	16,194.52	1.05 %
Jun 2011	16,146.65	-0.30 %
Jul 2011		

	17,908.24	10.91 %
Aug 2011	18,109.59	1.12 %
Sep 2011	19,089.25	5.41 %
Oct 2011	21,466.67	12.45 %
Nov 2011	21,934.82	2.18 %
Dec 2011	22,949.16	4.62 %
Jan 2012	22,738.80	-0.92 %
Feb 2012	21,628.09	-4.88 %
Mar 2012	22,663.47	4.79 %
Apr 2012	23,442.04	3.44 %
May 2012	24,588.58	4.89 %
Jun 2012	25,334.53	3.03 %
Jul 2012	22,748.10	-10.21 %
Aug 2012	22,801.63	0.24 %
Sep 2012	22,351.53	-1.97 %
Oct 2012	22,058.23	-1.31 %
Nov 2012	22,929.83	3.95 %
Dec 2012	22,886.40	-0.19 %
Jan 2013	22,270.58	-2.69 %
Feb 2013	21,978.90	-1.31 %

Top Companies

[Gazprom](#)

Website: <http://www.gazprom.com/>

Location: Moscow, Russia

Estimated Production: 540 billion cubic meters (BCM) per year

Related News

News headlines are only available to registered users. Registration is **free** and only takes a moment. [Login](#) to read the headlines.

Sudheer Pal Singh | New Delhi July 03, 2013 Last Updated at 00:30 IST

Power producers stare at uncertain future

Recent decisions by the Cabinet, including raising gas prices, will raise production costs steeply. Will discoms, given their poor health, purchase expensive power?



The march to power for the Congress-led United Progressive Alliance government in the 2014 general elections is sure to be short-circuited, thanks to a series of policy decisions in recent months. In less than a year, the government has created the ground for an unprecedented jump in power tariffs, something that is not going to go down well with many voters.

The decisions include doubling the price of natural gas to \$8.4 per million metric British thermal units (mmBtu), allowing the additional cost incurred by companies on imported coal to be passed on to consumers and increasing domestic coal prices by an average 11 per cent. And all of this has happened amid an ongoing drive to revise tariff in order to restore the health of financially-ill distribution companies. What could be the combined cost of this sudden spate of moves to burden the consumer with a historic rise in power bills in the name of "energy pricing reforms"? A Business Standard analysis shows this cost runs into thousands of crore annually.

Gas price and consumers

India generates 912 billion units (BUs) of power annually. Of this, around 7.5 per cent or 65 BUs come from gas-based plants. Gas-based Independent Power Producers (IPPs) currently produce power at a cost of Rs 4.20 per unit (a fixed cost of Rs 2 per unit and a variable cost of Rs 2.20 per unit). With the gas price having been doubled, this cost of generation will rise by as much as 48 per cent to Rs 6.20 per unit. As fuel cost is allowed as a pass-through in levelised tariff (the average fixed and variable tariff over the entire term of the power purchase agreement) in India, the entire additional cost will be loaded on to tariffs to be paid by the consumer. Spreading this higher cost to the entire generation portfolio, the decision will raise power tariffs by 15 paise per unit. This means an additional cost of Rs 13,680 crore for the consumers.

The impact would also be seen on power companies, most of which are highly burdened with debt and are battling delayed payments by discoms. Take, for example, Gurgaon-based infrastructure major Lanco Infratech which is urging the government to roll back the price increase. The company, India's second largest gas-based IPP, operates 1,600 megawatt (Mw) of gas-based capacity in two states-Kondapalli in Andhra Pradesh and Tanjore in Tamil Nadu. The increased price of gas, coupled with a weak rupee, would push up variable cost for Lanco by up to Rs 3 per unit, Chief Operating Officer (finance) T Adibabu told Business Standard. "The gas price increase is a major negative for our business. It may not help unless discoms are financially enabled to buy costly power. The government should look at rolling back this price increase if the financial health of discoms is not improved," he says. But why should higher input cost be a problem for companies if fuel cost is a pass-through? "Where are the consumers of costly power? These days, consumers are refusing to buy power even at Rs 2 per unit," Adibabu explains.

Spillover effect

Other companies likely to be impacted by the decision include big names in the infrastructure space like GMR Infrastructure, GVK Power and Infrastructure, Reliance Power and state-owned NTPC. A major cause of concern for these companies is the fall of gas-based power in merit-order dispatch which dictates that low cost power be supplied first into the grid. The revised generation cost of Rs 6.20 per unit for these companies is in stark contrast to the average cost of generation for coal-based power plants at Rs 3.50 per unit. However, even this is likely to go up soon.

Interestingly, the average cost of production of public sector oil explorers like ONGC and Oil India stands at \$ 3.7 per mmBtu and \$3.2 per mmBtu, respectively. According to A K Banerjee, director (finance) of ONGC, even at \$ 4.2 per mmBtu, the company is getting a minor margin, though it would not be enough for further exploration and investments. At a price of \$8.4 per mmBtu, ONGC's net profit may zoom by another Rs 8,500 crore, while it would add Rs 1,050 crore to the bottom line of Oil India. The major private sector gainers due to the decision are Reliance Industries and Cairn India.

The ministry's logic behind increasing gas prices is that it would boost further investments in the oil and gas sector. Oil India has noted that it would review its Rs 19,000-crore capex plans for the next four years and has also asked its team to come up with a new exploration strategy. On the other hand, Reliance Industries and British Petroleum had already lined up plans to invest \$5 billion to exploit 4 trillion cubic feet of discovered reserves in the eastern coast in the next three to four years. A petroleum ministry calculation itself says that every dollar price increase would lead to a loss of Rs 10,040 crore per annum for the power sector, at 70 per cent plant load factor for 28,000 MW capacity.

Finance minister P Chidambaram had indicated that power and fertilizer sectors would be insulated from the price increase, either by tweaking it or by having a separate input price for the sectors. "The power and fertilizer sectors are asked to submit a proposal on how the industry can be protected from the gas price increase. It is likely that the government will pay an additional subsidy to the sectors," says a senior official close to the development. Still, there is no clarity on the quantum of sharing of the burden by the government in these sectors.

POWER REFORMS

- The government has doubled the price of natural gas to \$8.4 per million metric British thermal units
- It has allowed the additional cost incurred by companies on imported coal to be passed on to consumers
- The cost of power generation will rise by as much as 48 per cent to ~6.20 per unit as a result of the increase in gas prices
- Infrastructure companies fear gas-based power will fall in merit-order dispatch which dictates that low cost power be supplied first into the grid
- Oil and gas explorer, including Reliance Industries and Cairn India, will be among the major gainers from the move

Coal costs

The Union Cabinet, on 21 June, approved a proposal to allow power companies to pass on to consumers the higher cost of imported coal to be used in plants. This coal would either be shipped by state-owned Coal India to be supplied to power generators or IPPs would import it themselves. The idea is to fill the 15 per cent void in supply from Coal India to meet 80 per cent annual contracted quantity (ACQ) of power plants of 78,000 Mw capacity commissioned, or likely to be commissioned, between April 2009 and March 2015. Coal India says it would be able to meet the rest 65 per cent of the ACQ through domestic linkages.

Business Standard calculated the cost of implementing the Cabinet's decision to arrive at a likely estimate of the impact on consumers due to higher tariffs resulting from high-cost coal imports. The calculation is based on assessing the volume of coal imports to be undertaken to bridge the shortfall and deducting the cost of extra coal if it were to be supplied by Coal India under notified prices, from the total value of imports. The 78,000 Mw capacity would have to be supplied at least 214 MT, or 65 per cent of their coal requirement, by state-owned Coal India domestically.

The balance 15 per cent, or 32 MT, of coal demand would have to be met through imports. Companies would have to shell out upwards of Rs 14,080 crore for sourcing the costly imports at a price of \$80 per tonne (Rs 4,400 per tonne at a rupee-dollar conversion rate of 55). Indonesian coal from East Kalimantan, which represents a bulk of Indian thermal coal imports, with calorific value of 5,800 kilocalorie per kilogram that landed at Vizag port on 17 June was priced at \$76 per tonne. The same coal, if sourced from Coal India under the notified prices, would cost Rs 3,520 crore at an average cost of Rs 1,100 per tonne charged from power utilities currently. The balance of the two, Rs 10,560 crore, would be the cost to be borne by consumers on an annual basis. With power ministry set to advise the Central Electricity Regulatory Commission to allow this pass-through on a case-to-case basis, coupled with necessary amendments in the coal distribution policy and tariff guidelines, the stage is set for a nationwide tariff rise between 20 paise and 25 paise per unit.

Cost Impact

Coal India on May 28 increased prices of low-grade coal, used largely by power companies, by up to 11 per cent. This, the miner says, would add Rs 2,500 crore to its coffers annually. While coal prices are theoretically decontrolled in India, the government continues to wield significant control over prices. Coal India increased prices of lowest grade coal by 11.1 per cent from existing Rs 360 per tonne to Rs 400 per tonne. Prices of grade-6 coal were increased 10.3 per cent from Rs 1,450 per tonne to Rs 1,600 per tonne. This left the consumers severely miffed as the price revision meant a 10-12 paisa per unit increase in generation cost to be passed on in tariffs. Overall, this was the sixth time Coal India had increased prices since they were deregulated in 2000.

The high electricity rates driven by increasing cost of generation on fuel front is supplemented by the states' own tariff revisions. Two factors—a December 2011 order of the appellate tribunal of electricity and the Centre's financial restructuring package (FRP) of August 2012—have goaded the distribution utilities to take steps to revise tariffs. Almost every Indian state and Union Territory has raised tariffs over the past one-and-a-half year. The FRP is aimed at dissolving the over Rs 2 lakh crore accumulated losses of all the state utilities put together. Clearly, if tariff increase alone holds the key for transformation of the distribution sector, the power sector is on its way to reforms. Experts, however, disagree and point out that the twin issues of high line losses and huge agricultural subsidies have to be tackled for any meaningful transformation of the sector.