



Domestic Natural Gas Price Expectations April 19-September 19

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Industry Research

As per the New Domestic Gas policy, 2014 the government is poised to revise the domestic natural gas price every six months i.e. April-September and October-March.

We believe the prices of domestic natural gas for the April 2019-September 2019 period will increase from the current \$3.36/mmBtu to approximately, \$3.97/mmBtu, resulting in an 18% increase.

(CARE Ratings had predicted the prices to rise to \$3.43/mmBtu in the previous price revision period)

The domestic natural gas price is determined by the formula which has been decided according to the New Domestic Gas price formula, which considers the prices of natural gas in USA (Henry Hub), UK (New Balancing Point), Canada (Alberta Gas) and Russia (Russian Natural Gas). Prices of gas in these hubs are market linked.

Rise in the natural gas price will result in the increase in the cost of manufacturing of urea and petrochemicals where natural gas is used as a feedstock. There will be a rise in the prices of CNG and PNG which will affect the consumers. Increase in price of Natural gas will also affect the margins of the power sector and sponge iron industry where it used for the generation of energy.

Rise in the domestic natural gas price will result in increasing the WPI marginally as crude petroleum and natural gas has a 2.46% weight and in that natural gas has a 0.46% weight.

On the other hand rise in the domestic natural gas prices augurs well for upstream gas exploration companies (ONGC, OIL India, Vedanta, Reliance) as it will result in the increase of realisations of their gas operations.

The price of natural gas for areas produced in deep water, ultra deep water and high pressure high temperature areas will also be revised.

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### Annexure

### Table 1: Domestic Natural Gas Prices (USD/mmBtu) on a Gross Calorific Basis (GCV) Basis

|  | Domestic Natural Gas Price | % change (+/-) |
|--|----------------------------|----------------|
| 1 <sup>st</sup> Nov'14 – 31 <sup>st</sup> Mar'15 | 5.05                       |                |
| 1 <sup>st</sup> Apr'15 – 30 <sup>th</sup> Sep'15 | 4.66                       | -7.7%          |
| 1 <sup>st</sup> Oct'15 – 31 <sup>st</sup> Mar'16 | 3.82                       | -18.0%         |
| 1 <sup>st</sup> Apr'16 – 30 <sup>th</sup> Sep'16 | 3.06                       | -19.9%         |
| 1 <sup>st</sup> Oct'16 – 31 <sup>st</sup> Mar'17 | 2.50                       | -18.3%         |
| 1 <sup>st</sup> Apr'17 – 30 <sup>th</sup> Sep'17 | 2.48                       | -0.8%          |
| 1 <sup>st</sup> Oct'17 – 31 <sup>st</sup> Mar'18 | 2.89                       | 16.5%          |
| 1 <sup>st</sup> Apr'18 – 30 <sup>th</sup> Sep'18 | 3.06                       | 5.9%           |
| 1 <sup>st</sup> Oct'18 – 31 <sup>st</sup> Mar'19 | 3.36                       | 9.8%           |

Source: PPAC

Domestic natural gas price is determined as per the formula given below;

# P = <u>VHH PHH + VAC PAC + VNBP PNBP + VR PR</u>

## VHH + VAC + VNBP + VR

Where

- (a) VHH = Total annual volume of natural gas consumed in USA & Mexico.
- (b) VAC = Total annual volume of natural gas consumed in Canada.
- (c) VNBP = Total annual volume of natural gas consumed in EU and FSU, excluding Russia.
- (d) VR = Total annual volume of natural gas consumed in Russia.

(e)PHH and PNBP are the annual average of daily prices at Henry Hub (HH) and National Balancing Point (NBP) less the transportation and treatment charges.

(f) PAC and PR are the annual average of monthly prices at Alberta Hub and Russia respectively less the transportation and treatment charges.

The Government also implemented the decision to allow marketing and pricing freedom for gas produced from High Pressure High Temperature, Deepwater and Ultra Deepwater areas, with a ceiling price arrived at on the basis of landed price of alternative fuels with a view to incentivize monetization of domestic gas resources in difficult areas. This means the producers have a maximum amount/ ceiling price which they can charge for the gas produced from difficult fields.

The sources from which data was obtained and the assumptions considered for the purpose of calculation/determination of gas price ceiling for the gas produced from discoveries in Deep- water, Ultra- Deepwater and High pressure-High Temperature are:



- 1. Landed price of fuel oil
- 2. Weighted average import landed price of substitute fuels: (I) Coal (II) Fuel oil (III) Naphtha
- 3. Landed price of imported LNG

Table 2: Domestic Gas price for gas produced from difficult fields (USD/mmBtu) on a Gross Calorific Value (GCV) basis

|  | Ceiling Prices for Gas from HP-HT/Deep/Ultradeepwater | % change (+/-) |
|--|---|----------------|
| 1 <sup>st</sup> Apr'16 – 30 <sup>th</sup> Sep'16 | 6.61  |                |
| 1 <sup>st</sup> Oct'16 – 31 <sup>st</sup> Mar'17 | 5.30  | -19.8%         |
| 1 <sup>st</sup> Apr'17 – 30 <sup>th</sup> Sep'17 | 5.56  | 4.9%           |
| 1 <sup>st</sup> Oct'17 – 31 <sup>st</sup> Mar'18 | 6.30  | 13.3%          |
| 1 <sup>st</sup> Apr'18 – 30 <sup>th</sup> Sep'18 | 6.78  | 7.6%           |
| 1 <sup>st</sup> Oct'18 – 31 <sup>st</sup> Mar'19 | 7.67  | 13.1%          |
| Source: PPAC                                     |   |                |

For the calculation of domestic gas price, the weighted average prices are based with a lag of one quarter.

| Period considered of International Gas calculation | Domestic Gas Price Period                        |
|--|--|
| Jan'14- Dec'14                                     | 1 <sup>st</sup> Apr'15 – 30 <sup>th</sup> Sep'15 |
| July'14- June'15                                   | 1 <sup>st</sup> Oct'15 – 31 <sup>st</sup> Mar'16 |
| Jan'15- Dec'15                                     | 1 <sup>st</sup> Apr'16 – 30 <sup>th</sup> Sep'16 |
| July'15- June'16                                   | 1 <sup>st</sup> Oct'16 – 31 <sup>st</sup> Mar'17 |
| Jan'16- Dec'16                                     | 1 <sup>st</sup> Apr'17 – 30 <sup>th</sup> Sep'17 |
| July'16- June'17                                   | 1 <sup>st</sup> Oct'17 – 31 <sup>st</sup> Mar'18 |
| Jan'17- Dec'17                                     | 1 <sup>st</sup> Apr'18 – 30 <sup>th</sup> Sep'18 |
| July'17- June'18                                   | 1 <sup>st</sup> Apr'18 – 30 <sup>th</sup> Sep'18 |
| Jan'18- Dec'18                                     | 1 <sup>st</sup> Apr'19 – 30 <sup>th</sup> Sep'19 |

Source: CARE Ratings

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