



Coal India Limited

Welcomes

**H.E. Milan Hovorka,
Ambassador, The Czech Republic to India
&
Czech Business Delegation**

**09th Nov 2017
CIL HQ, Kolkata**





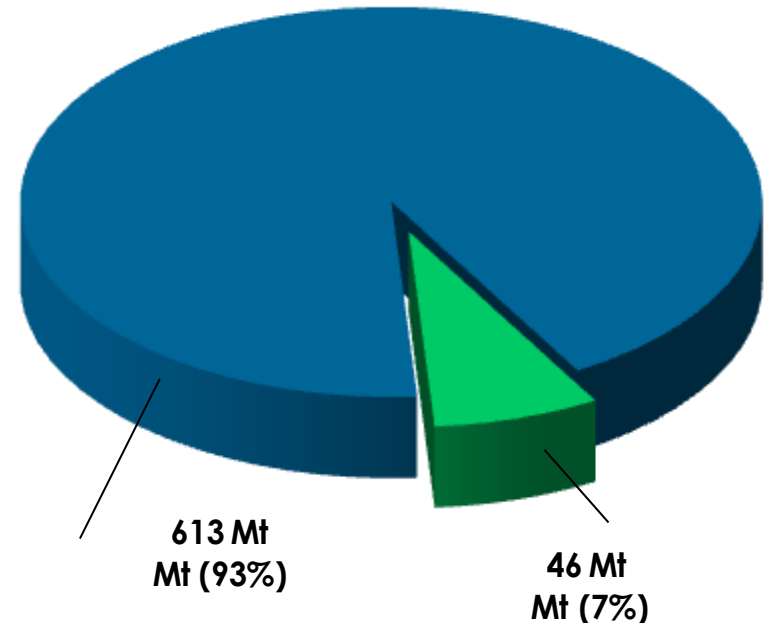
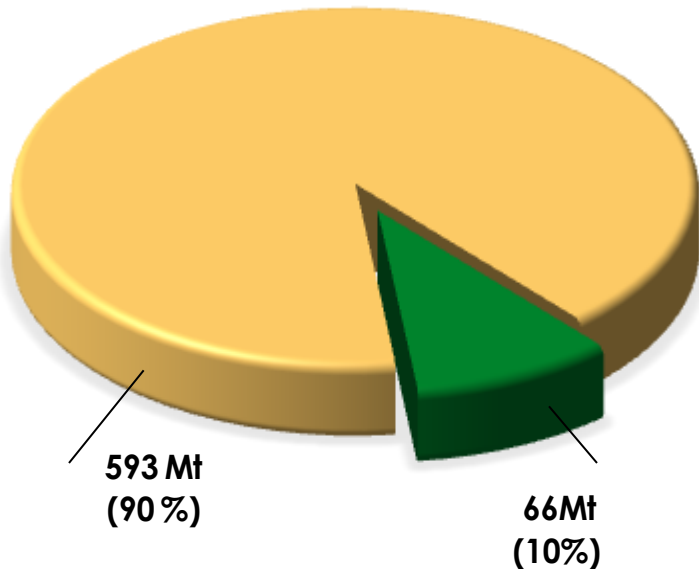
**A Presentation
on
“*Coal India Limited*
&
Business Opportunities”**



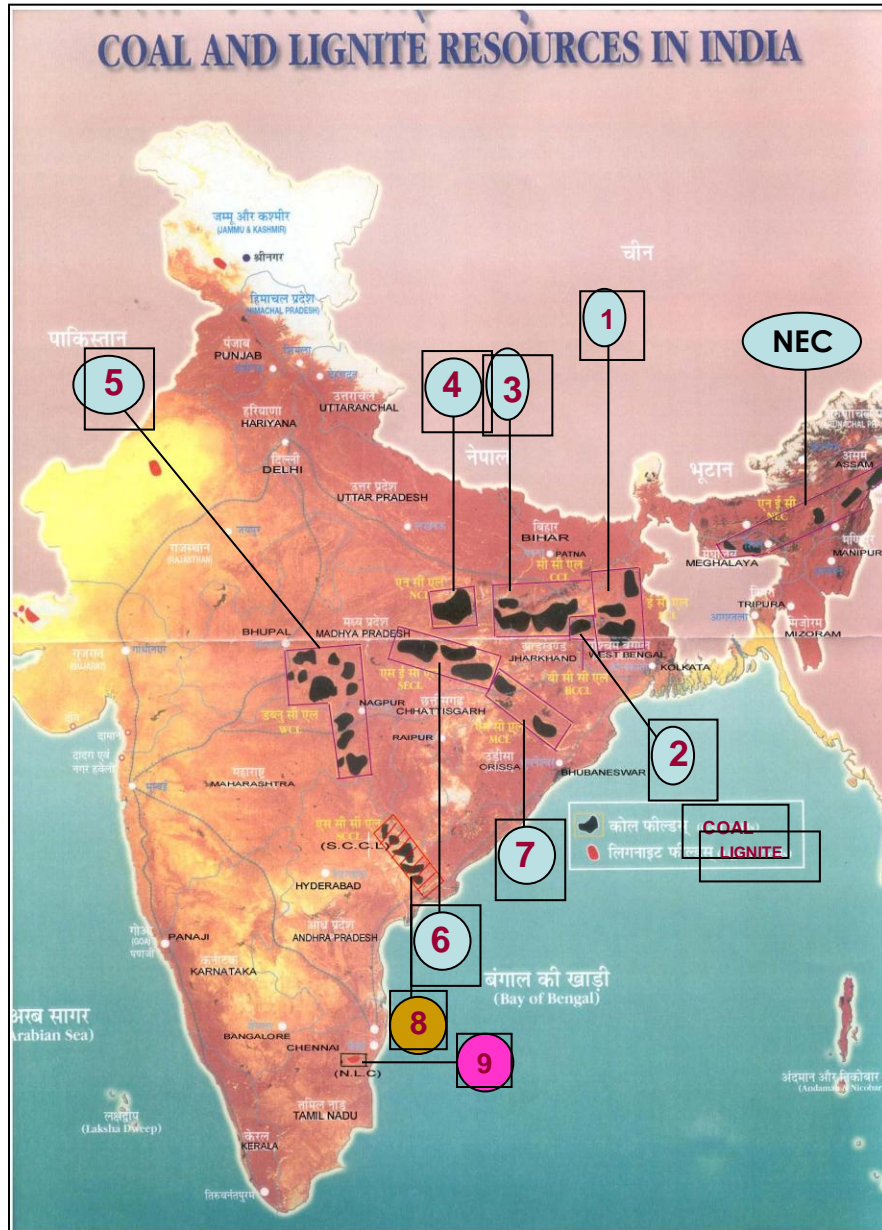
Coal Industry In India

- ❖ Total resources as on 01.04.2017 :- 315 Bt
 - Proved: 143 Bt ➤ Indicated: 139 Bt ➤ Inferred: 33 Bt
- ❖ 93% of production from opencast mines; 7% from underground mines
- ❖ Indian coal is generally high ash, ~ 4400 GCV, low sulphur
- ❖ All India Coal production in 2016-17: 659Mt

Types of Coal Produced in India



Major Indian Public Sector Coal Producing Companies



A. CIL - Coal Producing Subsidiaries

Eastern Coalfields Ltd.(ECL) (1975) (1)

Bharat Coking Coal Ltd.(BCCL) (1972) (2)

Central Coalfields Ltd.(CCL) (1975) (3)

Northern Coalfields Ltd.(NCL) (1985) (4)

Western Coalfields Ltd.(WCL) (1975) (5)

South Eastern Coalfields Ltd(SECL) (1985) (6)

Mahanadi Coalfields Ltd.(MCL) (1992) (7)

** A Small Unit Under CIL(HQ) -*

North Eastern Coalfields (NEC)

** Planning & Design Institute of CIL-*

Central Mine Planning & Design Institute (CMPDIL) (1975)

B. Singareni Collieries Co. LTD. (SCCL) (8)

C. Neyveli Lignite Corporation. (NLC) (9)

Coal India Ltd - Key highlights

Largest coal company in the world

- Coal Resources of about 88 Bt as on 01.04.2016
- Raw coal production (2016-17): 554.13 Mt: (84% share)
- Operates 394 mines across 8 states
- Operates 15 coal beneficiation facilities with capacity 36.80 Mtpa

Capitalize on growth in the Power sector

- Coal meets 54% of the total primary energy requirement of India
- With abundance of resources, coal to remain the most economic source of fuel for power generation and dominant contributors at least for next 20 years, in spite of Paris Protocol.
- Renewables and others would essentially play supplementary role.

Strategy for growth

- Continue to increase resource base
- Technological Improvement & Modernization of Mines

Key highlights

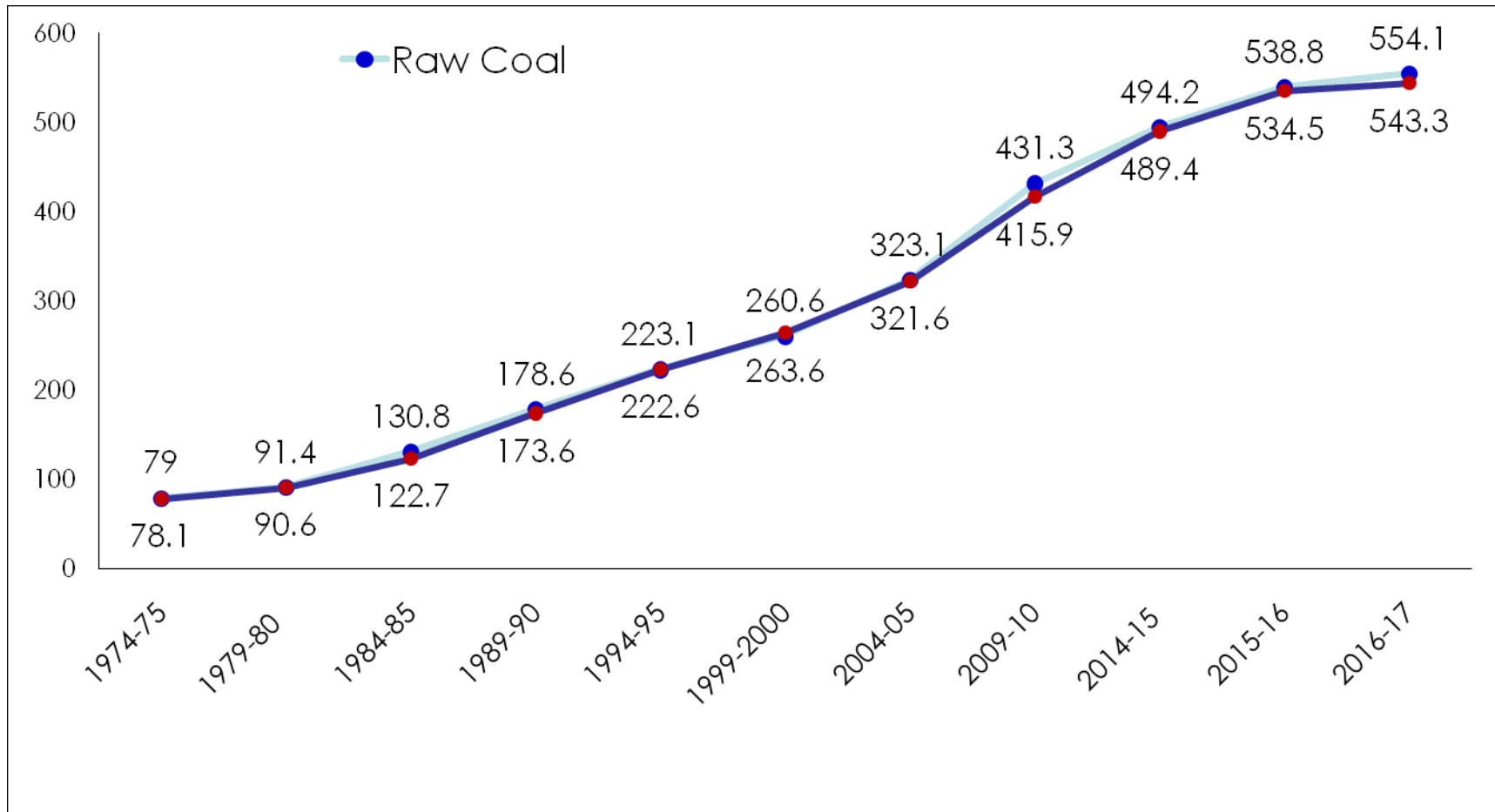
Focused expansion plans

- Roadmap prepared for achieving 1 Bt in 2019-20
- Plan to develop more number of new coal beneficiation facilities

Robust financial position

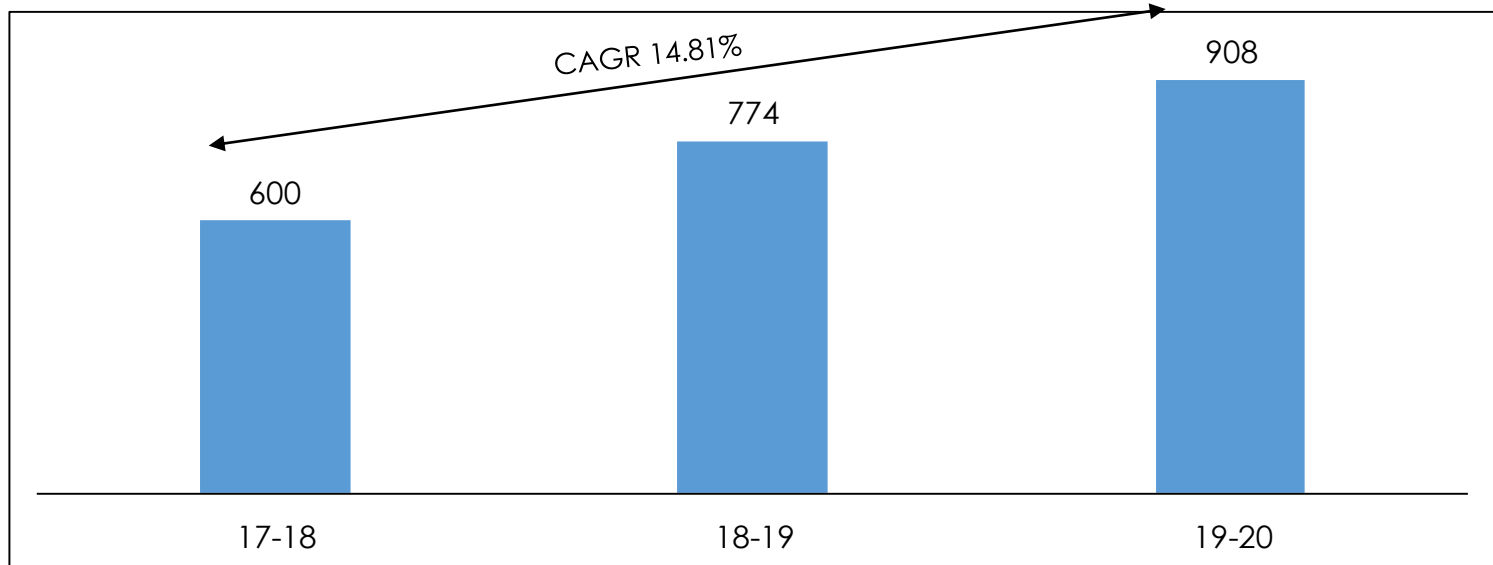
- Financial position 2016-17 (Conv rate Rs 65.50/\$ as on 07.11.2017)
 - Profit before Tax : Rs 14434 Crs (\$ 2.2 Billion)
 - Profit after Tax : Rs 9266 Crs (\$ 1.41 Billion)
 - Gross sales : Rs 122294 Crs (\$18.67 Billion)
 - Net Worth : Rs 24507Cr (\$ 3.74 Billion)

CIL- Trend of Production & Offtake (Figs in Mt)



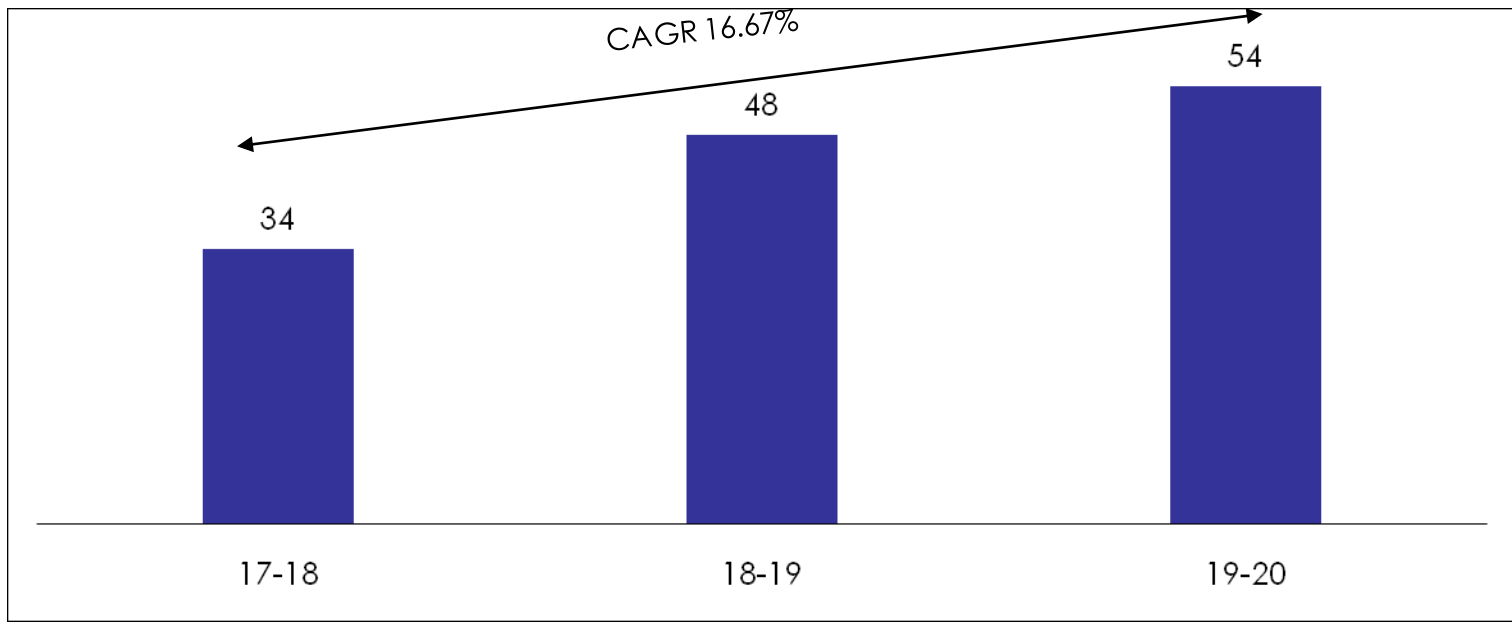
Item	1974-75	1979-80	1984-85	1989-90	1994-95	1999-2000	2004-05	2009-10	2014-15	2015-16	2016-17
Production	79	91.4	130.8	178.6	223.1	260.6	323.1	431.3	494.2	538.8	554.1
Off-Take	78.1	90.6	122.7	173.6	222.6	263.6	321.6	415.9	489.4	534.5	543.3

Production Projection (Million Tonne)



Present CAGR

UG Production Projection (Million Tonne)



Business Opportunities in CIL

- **Robust demand of coal as main energy source remains major driving force for investment opportunities in India (CIL production to enhance from 554 Mt of 16-17 to 908 Mt by 2019-20)**
- **Requirement of HEMM in Opencast mines (Shovels, Dumpers, Dozers, Drills etc.)**

Contd....

Opportunities in Underground Mining

The priority areas may include the following:

- ✚ **The technology & equipment for faster drivage of Incline /Drift**
 - ~ *About 30-35 km of drivage has been envisaged within next 5 years in mines of CIL*
 - ~ *CIL has identified 23 new projects with a capacity of about 13 Mt*
- ✚ **Deployment of modern and high productive underground mining technology for**
 - ~ **Steeply dipping seams at NEC**
 - ~ **Thick /Thin & Gassy seam deposits at ECL, BCCL & NCL**
- ✚ **Application of computer-based mathematical modeling and simulation techniques for formulating safer strata control designs and implementation of modern strata monitoring instruments for better strata management practices.**

- ✚ Usage of high voltage electrical energy for mechanized panels having high power demand for obvious advantages
- ✚ **Technology for combating fires in Jharia Coalfield**
- ✚ Application of modern real-time Environmental Monitoring System (EMS) for better management and control of below-ground environment

Contd...

- ✦ Installation of modern man-riding system for effective utilization of man-hours.
- ✦ Introduction of modern wireless communication technology and tracking system (use of RFID tags) for improving safety and management of invaluable human resources.
- ✦ Implementation of modern system and tools to deal with rescue operation in emergency/ event of disaster

Contd...

- **Introduction of GPS based tracking systems, Advanced IT initiatives and Communication technologies**
- **Exploration activities to augment coal reserves**
- **Infrastructure development of rail, road & power in coalfields, particularly in new emerging coalfields, which call for massive investment.**
- **Coal beneficiation technology**
- **Harnessing of Coal-bed Methane (CBM) / Coal Mine Methane / Abandoned Mine Methane, etc.**

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Equipment Projection* : OC

HEMM	Population as on 01.11.2016	2017-18	2018-19	2019-20	Total
Dragline (Cu.m.)					
> 24 +	18	0	1	2	03
Shovel (Cu.m.)					
42	7	2	3	1	6
20	4	0	4	5	9
10	84	0	4	6	10
5	152	1	4	6	11
Hydraulic Shovel (Cu.m.)					
>10 -15	16	0	12	23	35
5-10	138	34	18	20	72
2.2-4.5	200	22	24	7	53
1- 2	54	24	9	6	39

*Based on the assessment submitted by Subsidiary companies

Equipment Projection* : OC

HEMM	Population as on 01.11.2016	2017-18	2018-19	2019-20	Total
Dumper					
240T	58	36	12	16	64
190-200 T	0	0	49	62	111
150T	0	0	30	19	49
100T	634	39	107	31	177
60T	1013	227	636	86	949
35-40T	347	7	0	37	44
Surface Miner					
500 KW	20	5	0	1	06
1000KW	0	0	0	0	0

**Based on the assessment made by Subsidiary companies*

Equipment Projection* : OC

HEMM	Population as on 01.11.2016	2017-18	2018-19	2019-20	Total
Dozer (HP)					
850	64	4	8	15	27
410	446	27	47	85	159
320	365	58	28	30	116
Wheel Dozer (HP)					
450	35	7	7	3	17
Drill (MM)					
300 +	26	3	0	0	3
250	215	3	6	3	12
160	354	31	48	41	120

**Based on the assessment made by Subsidiary companies*

Equipment Projection* : UG

Equipment	Population as on 01.10.2017	2017-18	2018-19	2019-20	Total
Side Discharge Loader	660	130	130	130	390
Load Haul Dumper	342	60	60	60	180
Continuous Miner	12	6	4	7	17
Power Support Longwall face	2	2	2	1	5
Man Riding	20	5	5	5	15

** Requirement is inclusive of replacements also.*

Looking forward to a mutually
beneficial relationship



Thank you