COAL BED METHANE & DISCOVERED SMALL FIELDS FINANCING OPTIONS DISCUSSION PAPER



Presentation by



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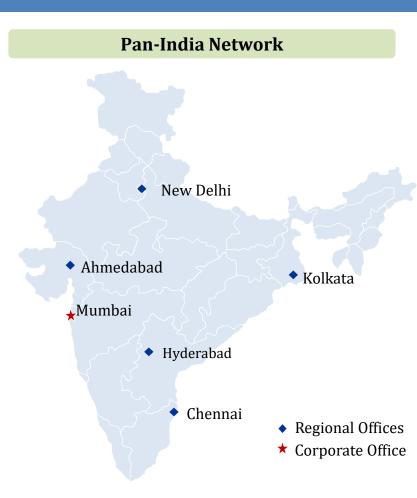
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SBI CAPITAL MARKETS LIMITED (SBICAP)

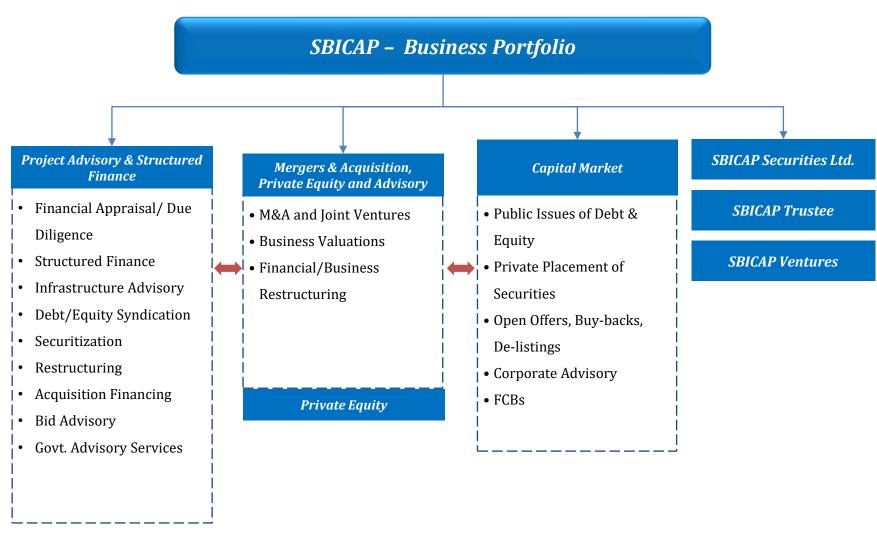
- One of the Oldest Investments banks in India Incorporated in 1986, dominating Indian markets for over 30 years
- ☐ Wholly owned subsidiary of SBI Strong support from India's largest Bank
- Pan India Presences Headquartered in Mumbai with 5 Regional Offices (*Delhi, Kolkata, Chennai, Hyderabad, Ahmedabad*) and 3 wholly owned subsidiaries
- ☐ Pioneer in Indian Project Finance Market with many 'firsts' to its credit including reserve based lending, securitisation in power sector, etc.
- ☐ **Pioneer in Privatisation in the Country** An advisor to Government of India on various crucial issues
- Long term association Established relationship with Domestic/ International FIs incl. Public/Private Banks, NBFCs, ARCs & Stressed Asset Funds



One of the oldest Investments Banks in India – Incorporated in 1986, dominating Indian markets for over 25 years



SBICAP





Clientele in Hydrocarbon Sector







































































CBM | Indian Scenario & SCBM Bid Round 2021

COAL BED METHANE (CBM)

- > Coal Bed Methane (CBM) is an unconventional source of Natural Gas
- > India has the fifth largest proven coal reserves in the world. Prognosticated CBM resources are about 92 TCF (2600 BCM) in 12 states
- > 33 CBM Blocks have been awarded during earlier 4 rounds under production sharing regime
- Commercial production of CBM is underway from blocks operated by Great Eastern Energy Corporation Ltd,
 Essar Oil and Reliance Industries Ltd

SPECIAL CBM (SCBM) BID ROUND-2021

- > Government of India has announced SCBM-2021 with 15 CBM blocks under the Hydrocarbon Exploration and Licensing Policy (HELP) through International Competitive bidding
- > All the offered blocks are in Category-III basin
- > There is no overlap with any existing/proposed Coal Blocks/Mines
- Each block falls in one state only
- > 100% participation from foreign companies/Joint ventures
- Availability of evacuation infrastructure



CBM | Growth Enablers in SCBM 2021

- No overlap with any existing/ proposed coal blocks and Uniform licensing system under HELP is now proposed to cover all hydrocarbons under single licensing framework which facilitates administrative issues
- Complete Marketing and Pricing freedom has been granted to address pricing concerns as against earlier formula based gas pricing
- > Availability of infrastructure through pipeline network under Pradhan Mantri Urja Ganga scheme facilitates gas evacuation and reach to consumers
- > 100% participation from foreign companies/Joint ventures is allowed which encourages wider participation
- > Electronic single window mechanism for faster processing to expedite regulatory and statutory approvals

Points for Consideration:

- Environmental challenges relating to discharged water, reduction in water levels etc.
- ✓ Issues relating to timely land acquisition as well as statutory clearance
- Deviation from production timeline and production quantity that was envisaged in FDPs particularly during early stages due to dewatering.
- Synchronization of evacuation/ transportation infrastructure along with project completion.



DSF | Indian Scenario & DSF Bid Round III

DISCOVERED SMALL FIELDS (DSF)

- For early monetization of unmonetized discoveries of National Oil Companies (NoCs), Government in September 2015 approved 69 marginal fields/discoveries for offer under DSF Policy. These Contract Areas are awarded under the new regime of Revenue Sharing Model.
- > **Salient Features of DSF Policy**: Single License for conventional and un-conventional hydrocarbon; No upfront signature bonus; Exploration allowed during entire contract period; Provision for sharing of common facilities; Full pricing and marketing freedom; Easy to administer Revenue Sharing Contracts;
- > **DSF Bid Round I** (launched on 25th May 2016): Offered 67 DSFs clubbed into 46 contract areas. Total 30 contracts for 43 DSFs were signed in March 2017 (Estimated In-place locked hydrocarbons reserves of 40 MMT of oil and 22 BCM of gas expected over a period of 15 years).
- > **DSF Bid Round II** (launched on 7th Feb 2018): Offered 59 DSFs clubbed into 25 contract areas (Estimated 189.61 MMT Oil and Oil equivalent gas in-place). Total 23 contracts comprising 57 DSFs were signed in March 2019.

DISCOVERED SMALL FIELD (DSF) BID ROUND-III

- > Government of India has announced DSF Bid Round III with 75 Discoveries across 32 Contract areas (11 onland, 15 shallow water and 6 deep water) through International Competitive bidding
- All the discoveries (19 onland, 54 shallow water and 2 deep water) are in producing/proven basins majorly in Cambay, Mumbai and KG Basins with low geological risks (Resource potential of ~230 MMT Oil equivalent/ 1.7 billion barrels of oil & oil equivalent of gas)
- Larger field area: 13,000+ sq. km.
- Pata availability: 24,659 LKM of 2D Seismic, 8,603 SKM of 3D seismic and 314 wells

DSF | Growth Enablers in DSF Round III

- > DSF are areas that has been discovered long back by National Oil Companies but could not be put into production due to various reasons
- Main objective of DSF policy was to bring these discoveries to production at the earliest so as to enhance the domestic production
 - DSF Policy allows full marketing and pricing freedom for the above discoveries
 - Royalty in line with HELP and No Cess
 - 100% participation allowed from Foreign Companies/ JV
- Prospect of owning an oilfield without having to invest in discovery was biggest pulling factor for many companies (including foreign companies and new private entrants) for investing in the lucrative business of hydrocarbons.
 - New participants in DSF rounds are Megha Engineering, OilMax Energy, GEM Laboratories, Sun Petrochemicals, Adani Welspun Exploration & Invenire Energy

Points for Consideration:

- ✓ Time for regulatory clearances and accuracy of seismic data.
- Field Development Plan reasonableness and approval.
- Synchronization of evacuation/ transportation infrastructure along with project completion.



Financing Options in E&P Sector

Exploration in Oil and Gas sector can be segregated into the following 3 stages based on various risks involved during extraction:

- 1. Exploration Stage: Potential Resources yet to be analysed/appraised
- 2. Developmental stage: Proven Reserve extraction plan
- 3. **Production stage**: Commencement of hydrocarbon extraction

Exploration Stage

Risks

- Unexplored hydrocarbon resources
- Uncertainty associated with commercial exploitation of resources

Financing Options

- In this stage, generally equity, equity-like financing or balance sheet reserves are deployed
- Globally in developed countries, VC and PE investors have also funded exploration activities
- However, India has not seen much participation from VC/PE investors



Financing Options in E&P Sector

Development Stage

Risks

- Risk relating to environmental/statutory clearances, land acquisition issues and project viability
- Reasonableness of Field Development Plans for optimal extraction of Hydrocarbon
- Reserve risk may result into delayed or lower production levels

Financing Options

- ➤ In this stage, Lenders may be approached for debt financing with a concrete projection of cash flows to part fund the capital expenditure
- ➤ In past, Lenders have funded certain entities with appropriate support (including SBLC) from Promoters

Production Stage

Risks

- Pricing Risk Risk on account of volatility in both oil & gas prices
- Production Risk Lower than expected production level

Financing Options

- Funding further expansion/development plan based on visibility of cash flows already established
- Reserve based lending to be used for further expansion or lowering of funding cost



CBM/DSF: Lenders' Perspective

Development Stage Funding					
Risk Factors	Risk Mitigation				
Land Acquisition	Lenders stipulate that majority of land should be in possession before funding commitment				
Field Development Plan	Lenders should be approached with detailed FDP along with implementation timelines. FDP to be approved by DGH.				
Environmental Risk	Prior environmental clearances should be in place				
Evacuation/ Transportation Risk	Appropriate evacuation/transportation infrastructure should be in place prior to commencement of production				
Production Risk	 Reserve certification from reputed agencies. Until production commences, Lenders seek direct comfort/support from promoters for supporting debt serviceability Balance sheet funding on Promoters strength along with charge on ring-fenced asset 				
Offtake Risk	Offtake arrangements with reputed international/domestic buyers				
Pricing Risk	Viability based on past average can be assessed				
Operator/ Promoter Risk	Sound financial strength and expertise to undertake activities of this nature				

Proven reserves certification, FDP approval along with appropriate support of strong Promoters balance sheet are pre-requisites for financing at this stage.



Reserves Based Lending (RBL)

- RBL enables independent producers to leverage producing assets for financing exploration/ appraisal activities. Focus is on assets which are in production or where production is expected to commence shortly.
- Loan amount determination: Projected NPV of cash flows out of future production from the underlying oil & gas assets based on reserve certification, approved production profile, expected oil/gas price, taxes/ royalties, Capex estimate, Opex assumptions, discounting rate etc.
- RBL facility can be drawn to develop and drill new wells or fields.
- Facility amount to be repaid from cash flows generated from sales of oil and gas produced.
- ❖ If substantial improvement in production profile in future then additional RBL funding can be explored.

**	Pre-red	uisites	for	RBL	funding:
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- ☐ **Reserve Reports**: Certification of Reserves by World Class Technical Agencies
- ☐ Approval of **Production profile/Field Development Plan**
- ☐ **Typical Security for Lenders**: Charge on Participating Interest/ Assets; Pledge over shares of the Borrower; Charge on cash flows/ Bank accounts etc.
- Regulator Consent to create Security in favour of lenders
- Appropriate escrow mechanism to capture future cash flows

Reserve Based Lending is favoured option for lenders globally.



Summary

*	SCBM Bid Round 2021 and DSF Bid Round III announced by the Government of India addresses various concerns associated in earlier rounds:				
		Complete Marketing and Pricing Freedom			
		Uniform licensing system under HELP to cover all hydrocarbons			
		Royalty in line with HELP and No Cess			
		100% participation from foreign companies/Joint ventures			
		Electronic single window mechanism			
		No overlap with any existing/ proposed coal blocks			
*		ding options during 3 stages of Oil & Gas exploration (i.e. Exploration, Development and Production) are inder:			
		Exploration Stage : Due to uncertainties associated at this stage, generally equity, equity-like financing/VC/PE are the options for funding.			
		Development Stage : Lenders to be approached for funding with approved field development plan and concrete projection of cash flows			
		Production Stage: Reserves Based Lending to be proposed for funding by Lenders.			



Thank You

