Parameters for Performance Review of Commodity

Cotton Seed Oil Cake

1. Background

a. Brief about the commodity such as sample picture, lifecycle and various varieties/grade of the commodity found in India

Cotton Seed Oil Cake is a processed commodity. When Raw Cotton (Kapas) is ginned, the Cotton Lint and Cotton seed get separated. When Cotton seed is crushed for extraction of oil, the by-product which remains after extraction of oil is called Cotton seed oil cake or Kapasia Khali in Hindi. Cotton seed oilcake extracted by scientific method is called Decorticated Cotton seed oil cake and that extracted by primitive method is called undecorticated cotton seed oilcake. More than 95% of the Cotton seed processed in India is extracted by the primitive method. Good quality oilcake is greenish yellow in colour. Cotton Seed Oilcake has 6% oil content in general and greater the oil content in Cotton Seed Oil cake, better is the quality.

Cotton seed oil cake is majorly used as cattle feed since it has around 25% protein content in it. Consumption of Cotton Seed Oil cake by cattle does add viscosity to the milk. Cotton seed oil cake, a leading protein supplement, provides necessary proteins for animal maintenance, growth and development and also conserves available supplies of grain and roughages. Cotton seed oil cake has six times protein of most grains and 10 to 20 times that of lower quality roughages. One pound of cotton seed oil cake is equivalent to two and a half to three pounds of grain in terms of nutrition to dairy animals. It is also used as fertilizer - either alone or in mixtures with other ingredients.

Crop Cycle:

Cotton seed oil cake is a processed commodity. Thus, crop cycle is not applicable for it. Generally, fresh production of Cotton seed oil cake starts after the new season Kapas arrivals begin in different regions of India. As soon as arrivals of Kapas starts in October, the further activities like ginning and crushing too start may be, with a gap of approx. 15 days and Cotton Seed Oil Cake generally starts from November onwards.

<table>
<tr><th>Life Cycle:
Value Chain of the Commodity</th><th>Major Varieties /Grade</th></tr>
<tr><td> 
</td><td>Major Varieties

Not Applicable. (It is Processed commodity)

NCDEX Quality Parameters

<table>
<tr><td>Moisture</td><td>9% (Max)</td></tr>
<tr><td>Oil Content</td><td>6.5% (Min)</td></tr>
<tr><td>Fibre</td><td>27% (Max)</td></tr>
<tr><td>Sand and Silica</td><td>2.5% (Max)</td></tr>
<tr><td>Protein</td><td>22% (Min)</td></tr>
<tr><td>Colour</td><td>Greenish yellow</td></tr>
</table>

Free from adulterants like Rice bran cake, Rice bran husk, Castor seed husk, Safflower cake (Kardi cake)</td></tr>
</table>

Table: Reference Years for Commodities

Sl. No.	A	B	C
Crop Season	**Kharif**	**Kharif (Long Duration Crop)**	**Rabi**
Crops	Bajra, Groundnut, Guar seed, Kapas, Maize, Sesame Seed,	Castor seed and Turmeric	Barley, Coriander, Jeera, Isabgol Seed and Yellow Peas
Relevant Processed commodities	Guar gum, 29 mm Cotton, Cotton seed Oil cake, Cotton Wash Oil and Crude Sunflower Oil	Castor Oil	-
Sowing Time	July onwards	July onwards	October onwards
Harvesting Time	October onwards	January onwards	March onwards
Reference Year Financial Year 2025-26 (Apr-Mar)			
Corresponding Years			
Production Year (PY)	2025-26 (July-Sept)	2024-25 (July-June)	2024-25 (July-June)
Marketing Year (MY)	2025-26 (Oct-Sept)	2025-26 (Jan/Feb-Dec/Jan)	2025-26 (Mar/Apr - Feb/Mar)
Calendar Year (CY)	2025 (Jan-Dec)	2025 (Jan-Dec)	2025 (Jan-Dec)
Relationship b/w Various Years	Current Financial Year = Current Production Year = Current Marketing Year = Current Calendar Year	Current Financial Year = Previous Production Year = Current Marketing Year = Current Calendar Year	Current Financial Year = Previous Production Year = Current Marketing Year = Current Calendar Year
Example	FY 2025-26 = PY 2025-26 = MY 2025-26 = CY 2025	FY 2025-26 = PY 2024-25 = MY 2025-26= CY 2025	FY 2025-26 = PY 2024-25 = MY 2025-26= CY 2025

Explanatory Notes:

- India is a vast country and various crops are sown and harvested at different point of time. However, two major crop seasons, are there i.e. Kharif & Rabi. Apart from it, Zaid/Summer season is also there.

- Crop seasons are classified based upon sowing time. Normally Kharif season sowing starts from mid-June/July and new crop arrivals begin from Oct/Nov. However, early/late sowing/harvesting also takes place. Rabi season sowing usually takes place mainly from October/November and harvesting starts from March/April. Early/late sowing/harvesting also takes place. Summer crops/Zaid crops are short duration crops mainly sown during January-March and harvested during April-June.

- “Production Year” is considered as “July to June”. With the start of monsoon rains during June/July the sowing of Kharif season starts and they are harvested during Sept/Oct. From Oct onwards the sowing of Rabi season crops starts and harvesting usually takes place during March/April. Thus, a single production cycle completes between July-Sept period covering Kharif, Rabi and Zaid crops. Thus, production year remains same for all season crops and the period corresponds to July-Sept.

- "Marketing Year" for each crops starts from beginning of the harvest time i.e. from start of new crop produce arrivals in the market. Thus, for Kharif crops Marketing Year is generally considered as "October to September", while for Rabi crops Marketing Year is considered as "April to March". However, Marketing Year may vary slightly for some of the crops depending upon early/late maturity/harvesting.

- For processed commodities, their production starts after the start of new season crop arrivals of their underlying crop.

b. Commodity fundamentals and balance sheet as per the following format (to be prepared based on publicly available information on best effort basis):

Table - Fundamentals & Balance sheet (quantity)

(In Lakh Tonnes)

Global Scenario	Previous FY (2024-25)	Current FY (2025-26)
Opening Stocks	NA	NA
Production	NA	NA
Imports	NA	NA
Total Supply	NA	NA
Exports	NA	NA
Domestic Consumption	NA	NA
Closing Stocks	NA	NA

NA: Data is not available in the public domain;

(In Lakh Tonnes)

Indian Scenario	Previous FY (2024-25) (P)	Current FY (2025-26)(P)
Opening Stocks	NA	NA
Production	79.27	77.59
Imports	NA	NA
Total Supply	NA	NA
Exports	NA	NA
Domestic Consumption	NA	NA
Closing Stocks	NA	NA

Note: Production figures are calculated from cotton production figures given by Committee on Cotton Production and Consumption (COCPC) in its meeting held on Apr 16, 2026, P= Provisional
Recovery rate of Cake from Cotton Seed is considered as 84%.
Stocks, imports, exports and consumption figures are not available.
New Season Cotton arrivals begins from October onwards, while that of Cotton Seed Oil Cake starts from November onwards.

(In Lakh Tonnes)

Rank	**Top 10 Major Producing Countries**			**Top 10 Major Consuming Countries**		
	Country	Previous FY (2024-25)	Current FY (2025-26)	Country	Previous FY (2024-25)	Current FY (2025-26)
	NA			NA		

NA: Data is not available in the public domain.

(In Lakh Tonnes)

Rank	**Top 10 Major Exporting Countries**			**Top 10 Major Importing Countries**		
	Country	Previous FY (2024-25)	Current FY (2025-26)	Country	Previous FY (2024-25)	Current FY (2025-26)
	NA			NA		

NA: Data is not available in the public domain.

(In Lakh Tonnes)

Top 10 Major producing states in India			
Rank	State	Previous FY (2024-25)	Current FY (2025-26)
	NA	NA	NA

NA: Data is not available in the public domain.

It is a processed commodity. Thus, no such categorization is applicable for this commodity. However, as per market feedback, major production states of Cotton seed oil cake in India are Gujarat, Maharashtra, Telangana, Andhra Pradesh and Punjab.

c. Major changes in the polices governing trade in the spot markets of the commodity

Date	Major Policies governing trade and related changes
NA	No policy changes were noted

d. Geo political issues in the commodity and its impact on Indian scenario.

Date	Event	Key Details	Key Implications/Impact
	No Geo political concerns related to Cotton Seed Oil Cake were observed during review period.		

2. Trading related parameter

a. Monthly and Annual traded volume (quantity in appropriate units)

Month	Year	Symbol	Traded volume (MT)	Annual Traded volume (MT)
Apr	2025	COCUDAKL	682,650	5,746,310
May	2025	COCUDAKL	582,360	
Jun	2025	COCUDAKL	699,360	
Jul	2025	COCUDAKL	661,860	
Aug	2025	COCUDAKL	361,800	
Sep	2025	COCUDAKL	225,000	
Oct	2025	COCUDAKL	119,110	
Nov	2025	COCUDAKL	151,120	
Dec	2025	COCUDAKL	449,820	
Jan	2026	COCUDAKL	642,730	
Feb	2026	COCUDAKL	588,840	
Mar	2026	COCUDAKL	581,660	

b. Annual traded volume as proportion of total deliverable supply (quantity in appropriate units)

Symbol	Traded volume (MT)	Deliverable supply(MT)	Proportion
COCUDAKL	5,746,310	7,759,000	0.74

c. Annual traded volume as proportion of total annual production (quantity in appropriate units)

Symbol	Traded volume (MT)	Production(MT)	Proportion
COCUDAKL	5,746,310	7,759,000	0.74

d. Annual average Open interest as proportion of total production

Symbol	Average Open Interest (MT)	Production(MT)	Proportion
COCUDAKL	67,020.20	7,759,000	0.01

e. Annual average Open interest as proportion of total deliverable supply

Symbol	Average Open Interest (MT)	Deliverable supply(MT)	Proportion
COCUDAKL	67,020.20	7,759,000	0.01

f. Monthly and Annual value of trade (in Rs. Crores)

Month	Years	Symbol	Traded Value (in Cr.)	Annual Value of Trade (in Cr.)
Apr	2025	COCUDAKL	1995.12	18,183.16
May	2025	COCUDAKL	1734.07	
Jun	2025	COCUDAKL	2197.13	
Jul	2025	COCUDAKL	2094.28	
Aug	2025	COCUDAKL	1204.64	
Sep	2025	COCUDAKL	701.70	
Oct	2025	COCUDAKL	346.54	
Nov	2025	COCUDAKL	439.03	
Dec	2025	COCUDAKL	1370.31	
Jan	2026	COCUDAKL	2141.27	
Feb	2026	COCUDAKL	1952.72	
Mar	2026	COCUDAKL	2006.35	

g. Monthly and Annual quantity of delivery (in appropriate units)

Expiry Month	Years	Symbol	Total Delivery (MT)	Annual quantity (MT)
Apr	2025	COCUDAKL	10,930	79,510
May	2025	COCUDAKL	12,550	
Jun	2025	COCUDAKL	680	
Jul	2025	COCUDAKL	3,310	

Aug	2025	COCUDAKL	30,720	
Sep	2025	COCUDAKL	3,800	
Dec	2025	COCUDAKL	2,890	
Jan	2026	COCUDAKL	4,770	
Feb	2026	COCUDAKL	2,470	
Mar	2026	COCUDAKL	7,390	

h. Monthly and Annual value of delivery (in Rs. Crores)

Expiry Month	Years	Symbol	Value in Cr	Annual Value of delivery in Cr.
Apr	2025	COCUDAKL	33.07	256.23
May	2025	COCUDAKL	38.96	
Jun	2025	COCUDAKL	2.17	
Jul	2025	COCUDAKL	10.62	
Aug	2025	COCUDAKL	100.41	
Sep	2025	COCUDAKL	11.28	
Dec	2025	COCUDAKL	8.89	
Jan	2026	COCUDAKL	16.19	
Feb	2026	COCUDAKL	8.37	
Mar	2026	COCUDAKL	26.26	

i. Monthly and Annual Average Open Interest (OI) (in appropriate units)

Month	Years	Symbol	Average Open Interest (MT)	Annual Average Open Interest (OI)
Apr	2025	COCUDAKL	109,718	67,020.20
May	2025	COCUDAKL	109,504	
Jun	2025	COCUDAKL	109,413	
Jul	2025	COCUDAKL	90,979	
Aug	2025	COCUDAKL	60,654	
Sep	2025	COCUDAKL	24,023	
Oct	2025	COCUDAKL	20,008	

Nov	2025	COCUDAKL	30,252
Dec	2025	COCUDAKL	41,799
Jan	2026	COCUDAKL	69,737
Feb	2026	COCUDAKL	71,252
Mar	2026	COCUDAKL	68,057

j. Annual average volume to open interest ratio

Symbol	Traded to Open interest
COCUDAKL	34.71%

k. Total number of unique members and clients who have traded during the financial year

Symbol	Member Count	Client Count
COCUDAKL	87	2,697

l. Ratio of open interest by FPOs/farmers/Hedge/VCP positions to total open interest (Annual average aswell as maximum daily value)

Annual average of ratio of open interest by FPOs/farmers/Hedge/VCP positions to total open interest

Symbol	VCPs/ Hedger
COCUDAKL	9.49%

Maximum daily value of ratio of open interest by FPOs/farmers/Hedge/VCP positions to total open interest

Symbol	VCPs/ Hedger
COCUDAKL	11.31%

Commodity wise client categorization is as per category details as provided by the members.

m. Number of unique FPOs / farmers and VCPs/hedgers who traded in the financial year

Commodity	Count
COCUDAKL	81

Commodity wise client categorization is as per category details as provided by the members**.**

n. Algorithmic trading as percentage of total trading

Commodity	%
COCUDAKL	9.60%

Qty. Involved

o. Delivery defaults

Symbol	Quantity Involved (MT)	Value (Cr)
COCUDAKL	370	1.20

Two instances of delivery defaults seen in FY 2025-26

3. Price Movements

a. Comparison, correlation and ratio of standard deviation of Exchange futures price vis-à-vis international futures price (wherever relevant comparable are available).

Cotton Seed Oil Cake not traded on any international Exchange.

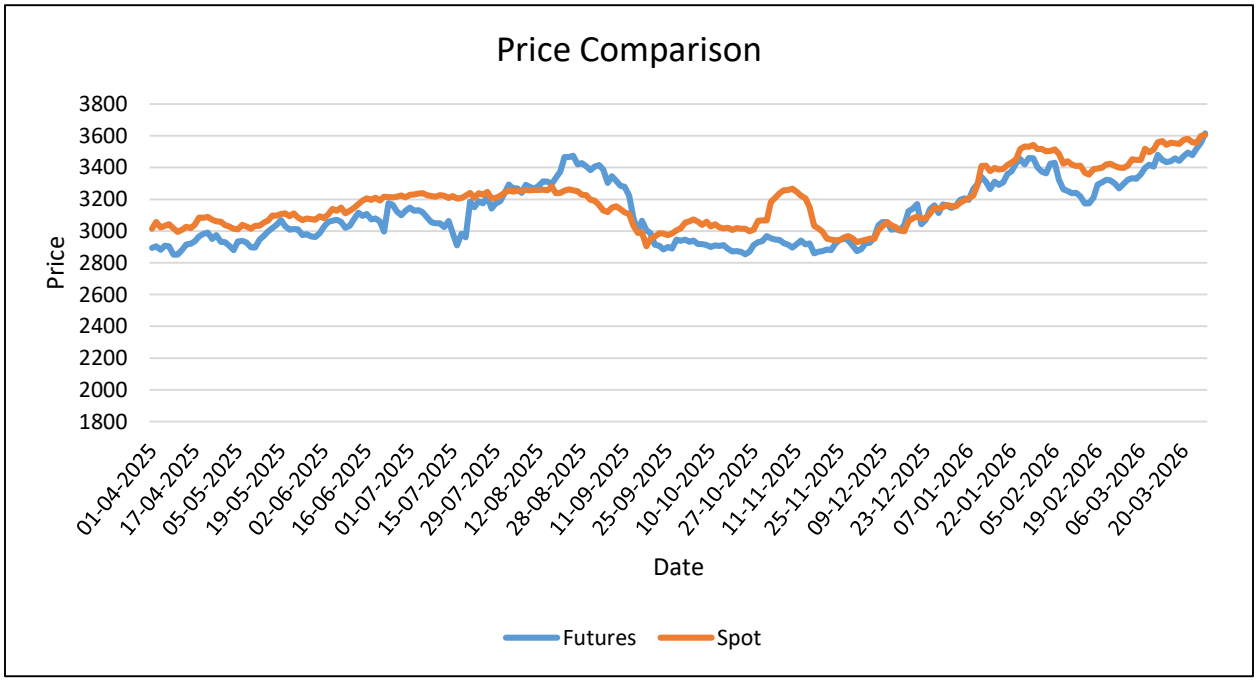
b. Comparison, correlation and ratio of standard deviation of Exchange futures price vis-à-vis international spot price (wherever relevant comparable are available) and domestic spot price (exchange polled price).

Cotton Seed Oil Cake not traded on any international Exchange.

c. Correlation between exchange futures & domestic spot prices along with ratio of standard deviation.

Correlation			
	Futures	*Spot*	*Mandi*
Futures	1		-
Spot	0.466055	1	-
Mandi	-	-	-

Standard Deviation			
	Futures	*Spot*	*Mandi*
Futures	1	0.711755	-
Spot	1.404979	1	-
Mandi	-	-	-



d. Correlation between international futures & international spot prices along with ratio of standard deviation(wherever relevant comparable are available).

Cotton Seed Oil Cake not traded on any international Exchange

e. Comparison of Exchange polled price and mandi price (in case of agricultural commodities) / other relevant price (in case non-agricultural commodities) at basis Centre.

NA

f. Maximum & Minimum value of daily futures price volatility and spot price volatility along with disclosure of methodology adopted for computing the volatility.

Spot Volatility		
	Month	**Value**
Maximum	Nov	0.010627
Minimum	Aug	0.004252

Future Price Volatility		
Volatility	**Month**	**Value**
Minimum	Sep	0.017593
Maximum	Oct	0.005907

Value of daily futures price volatility and Spot price volatility (April 2025- March 2026)

g. Number of times the futures contract was in backwardation/ contango by more than 4% for the near month contract in the period under review

Contango	22
Backwardation	19

4. Others parameters

a. Qualitative and quantitative measure for Hedge effectiveness ratio (Methodology in Annexure I) and basis Risk (Volatility of Basis) along with disclosure of methodology adopted for such calculations. (Volatility calculated by Square root of Standard Deviation of daily returns for the period from 1 April 2025 to 31 March 2026

Basis Volatility	2.135
Hedging Efficiency	43.01%

The methodology for hedge efficiency ratio calculation is appended as Annexure 1.

b. Details about major physical markets of the commodity vis-à-vis market reach in terms of availability ofdelivery centers (information to be provided state-wise and UT-wise).

State	Major Trading Centre	Exchange Delivery Centre
Gujarat	Kadi	**ADC**
	Rajkot	NA
	Surendranagar	
	Viramgam	
	Vijapur	
	Halvad	
	Dhrangadhra	
	Wakaner	
	Tankara	
	Morbi	
	Hadamtala	
	Gondal	
	Jasdan	
	Botad	

State	Major Trading Centre	Exchange Delivery Centre
Telangana / Andhra Pradesh	Hyderabad	NA
	Adilabad	

State	Major Trading Centre	Exchange Delivery Centre
Maharashtra	Wardha	**ADC**
	Akola	**Basis Centre**
	Yavatmal	NA
	Jalgaon	
	Beed	
	Parbhani	
	Aurangabad	
	Jalna	
	Amravati	
	Khamgaon	
	Hinganghat	

State	Major Trading Centre	Exchange Delivery Centre
Madhya Pradesh	Indore	NA
	Khargone	

State	Major Trading Centre	Exchange Delivery Centre
Punjab and Haryana	Abohar	NA
	Bathinda	
	Ludhiana	
	Hisar	
	Sirsa	

State	Major Trading Centre	Exchange Delivery Centre
Rajasthan	Sri Ganganagar	NA
	Bhilwara	
	Hanumangarh	
	Suratgarh	
	Jaipur	

c. Details about major physical markets of the commodity and average Open Interest for each month generated from those regions.

Month	Maharashtra	Rajasthan	Madhya Pradesh	Gujarat	Haryana	Delhi
Apr-25	93,669	29,298	17,640	49,611	11,273	6,703
May-25	91,310	28,655	20,516	49,907	12,085	6,185
Jun-25	78,287	32,336	33,251	46,979	11,909	6,477
Jul-25	54,482	34,130	30,684	37,569	6,291	6,664
Aug-25	38,648	21,388	24,043	19,786	2,261	6,648
Sep-25	9,826	11,328	9,785	8,010	721	2,261
Oct-25	9,824	11,295	3,068	8,058	1,098	820
Nov-25	19,976	15,513	3,774	10,242	1,648	884
Dec-25	30,651	20,793	5,474	15,993	2,659	1,484
Jan-26	47,233	21,898	6,886	29,627	17,766	2,956
Feb-26	44,104	23,286	5,293	30,623	22,638	2,345
Mar-26	43,585	24,909	3,713	27,908	21,064	1,919

d. Details, such as number and target audience, of stakeholders' awareness programs carried out by the exchange.

Following is the list of Awareness programmes, Stakeholder engagement programmes conducted by the Exchange in FY 2025-26:

Sr. No.	Program Type	Location	No. of Participants
1.	IEP	Mumbai	20
2.	IEP	Noida	31
3.	IEP	Delhi	31
4.	IEP	Hingoli	50
5.	IEP	Buldhana	52
6.	IEP	Roorkee	35
7.	IEP	Bhopal	87
8.	IEP	Karanja Lad	48
9.	IEP	Noida	42
10.	IEP	Hisar	55
11.	IEP	Delhi	45
12.	IEP	Delhi	42
13.	IEP	Ghaziabad	34
14.	IEP	Ghaziabad	36
15.	IEP	Ambala	48
16.	IEP	Chandigarh	60
17.	IEP	Noida	36
18.	IEP	Noida	30
19.	IEP	Sehore	65
20.	IEP	Aligarh	45
21.	IEP	Surendernagar	90
22.	IEP	Agar Malwa	36
23.	IEP	Dhasa	140
24.	IEP	Agra	100
25.	IEP	Amravati	65
26.	IEP	Delhi	43
27.	IEP	Ghaziabad	53
28.	IEP	Mumbai	65
29.	IEP	Delhi	41
30.	IEP	Ghaziabad	42
31.	IEP	Agra	50
32.	IEP	Andheri	45
33.	IEP	Noida	35
34.	IEP	Mussoorie	50
35.	IEP	Devgad (Ahilyanagar)	130
36.	IEP	Noida	35
37.	IEP	Yamunanagar	45
38.	IEP	Ghaziabad	39
39.	IEP	Noida	37

40.	IEP	Karnal	32
41.	IEP	Ghaziabad	36
42.	IEP	Ludhiana	61
43.	IEP	Noida	40
44.	IEP	Visakhapatnam	55
45.	IEP	Rajkot	19
46.	IEP	Ghaziabad	37
47.	IEP	Noida	36
48.	IEP	Ghaziabad	39
49.	IEP	Ghaziabad	40
50.	IEP	Varanasi	250
51.	IEP	Mahidpur	62
52.	IEP	Depalpur	64
53.	IEP	Basmat	320
54.	IEP	Delhi	39
55.	IEP	Delhi	36
56.	IEP	Kamargoan	53
57.	IEP	Jhatla	40
58.	IEP	Kaushambi	48
59.	IEP	Prayagraj	40
60.	IEP	Indore	69
61.	IEP	Yamunanagar	35
62.	IEP	Arvi	105
63.	IEP	Jalgoan	95
64.	IEP	Thikri	80
65.	IEP	Akola	55
66.	IEP	Ludhiana	35
67.	IEP	Rahuri	85
68.	IEP	Nagpur	57
69.	IEP	Borgaon Khurd	50
70.	IEP	Khamni-Shahpur	49
71.	IEP	Delhi	53
72.	IEP	Aurangabad	32
73.	IEP	Bhadgoan	52
74.	IEP	Lucknow	55
75.	IEP	Gorakhpur	35
76.	IEP	Bhusaval, Jalgoan	32
77.	IEP	Belagaum	69
78.	IEP	Manglore	50
79.	IEP	Amravati	30
80.	IEP	Akot	94
81.	IEP	Dehriya Sahu	70
82.	IEP	Adilabad	15

83.	IEP	Banglore	69
84.	IEP	Bhilai	53
85.	IEP	Kadi	49
86.	IEP	Hyderabad	73
87.	IEP	Online	32
88.	IEP	Latur	34
89.	IEP	Pune	27
90.	IEP	Mumbai	41
91.	IEP	Ahmedabad	136
92.	IEP	Ahmedabad	90
93.	IEP	Ahmedabad	107
94.	IEP	Jamshedpur	100
95.	IEP	Dehradun	100
96.	IEP	Chandigarh	400
97.	IEP	Sambhaji Nagar	750
98.	IEP	Webinar	40
99.	IEP	Webinar	31
100.	IEP	Webinar	40
101.	IEP	Webinar	29
102.	IEP	Webinar	38
103.	IEP	Webinar	38
104.	IEP	Webinar	35
105.	IEP	Webinar	41
106.	IEP	Webinar	40
107.	IEP	Webinar	38
108.	IEP	Webinar	39
109.	IEP	Webinar	55
110.	IEP	Webinar	100
111.	IEP	Webinar	70
112.	IEP	Webinar	45
113.	IEP	Webinar	40
114.	IEP	Webinar	32
115.	IEP	Webinar	62
116.	IEP	Webinar	36
117.	IEP	Webinar	39
118.	IEP	Webinar	39
119.	IEP	Webinar	35
120.	IEP	Webinar	32
121.	IEP	Greater Noida	40
122.	IEP	Ghaziabad	31
123.	IEP	Greater Noida	40
124.	IEP	Greater Noida	40
125.	IEP	Agra	30

126.	IEP	Agra	30
127.	IEP	Hathras	40
128.	IEP	Moradabad	60
129.	IEP	Moradabad	61

e. Steps taken / to be undertaken to improve hedging effectiveness of the contracts as well as to improvethe performance of illiquid contracts.

1. Identifying new value chain participants in the region of Lunkaransar, Khajuw
2. Conducted awareness programs at Arvi, Akot, Surendernagar, Dhasa, Sirsa, Bhatinda, Aurangabad and Adilabad
3. One to One meeting with market participants and hedgers.

5. Any other information to be disclosed as deemed important by the exchange or as suggested by the PAC

N.A

ANNEXURE I

Qualitative and quantitative measure for Hedge effectiveness ratio

Hedging Efficiency Methodology

Regression analysis is carried out between near month futures returns and NCDEX polled spot prices returns of the FY2025-26.

The R-Square value of the Regression analysis represents the Hedging Efficiency".

Note: -

Date for which spot prices were not available is not used for analysis.

Weekly returns are used for performing Regression Analysis.

The method used to calculate Hedging Efficiency does not consider liquidity risk because of this reason illiquid commodities can have high hedging efficiency.

References:

Ghosh, Ph.D, Nilanjan & Dey, Debojyoti & Moulvi, Nazir & Jain, Niteen & Sinha, Neha & Rachuri, Sarika. (2013). Hedging Efficiency—Measures and Empirical Study.