F. No. 5-12/2016-Infra (ICC) भारतसरकार/ Govt. of India खाद्यप्रसंस्करणउद्योगमंत्रालय Ministry of Food Processing Industries पंचशीलभवन, अगस्तक्रांतिमार्ग Panchsheel Bhawan, August Kranti Marg नईदिल्ली/ New Delhi 110049

दिनांक/ Dated: 15.02.2017

Subject: Cost Norms for the facilities under Central Sector Scheme of Integrated Cold Chain and Value Addition infrastructure - reg.

The Ministry has issued revised operational guidelines for the scheme for Integrated Cold Chain and Value Addition Infrastructure effective from 29.08.2016. The scheme guidelines, inter alia, envisage that Cost norms of Mission for Integrated Development of Horticulture (MIDH) issued by Department of Agriculture, Co-operation and Farmers Welfare (DAC&FW), Ministry of Agriculture & Farmers Welfare will be followed wherever available. For facilities not covered under MIDH guidelines, cost norms as determined by the Ministry will be followed.

- 2. Based on feedback and consultations with concerned Ministries/ Departments/Institutions and stake holders, the Ministry has determined the cost norms for the facilitiesnot covered under Mission for Integrated Development of Horticulture (MIDH) guidelines of DAC&FW for the purpose of financial assistance.
- 3. Cost norms of plant & machinery and equipment for Fruits & Vegetables Processing Sector under the Scheme of Integrated Cold Chain and Value Addition Infrastructure are at **Annexure-I**.
- 4. Cost norms of plant & machinery and equipment for Marine/ Fisheries/ Meat & Poultry Processing Sector under the Scheme of Integrated Cold Chain and Value Addition Infrastructureare at Annexure-II.
- 5. Cost norms of plant & machinery and equipment for Dairy Sector under the Scheme of Integrated Cold Chain and Value Addition Infrastructureare at **Annexure-III**.
- 6. Grant-in-aid amount for the proposals received against the EoI dated31.08.2016 and approved by Inter Ministerial Approval Committee under the scheme of Integrated Cold Chain and Value Addition Infrastructure dated 29.08.2016 will be calculated based on the above cost norms and MIDH cost norms.

7. The cost of any other facilities/ components proposed to be created under the project and not covered under the cost norms may be considered by based on the quotations submitted along with the proposal subject to approval by the Inter Ministerial Approval Committee.

This has the approval of the competent authority.

Encl: as above

(संजय बाजपेई)/

Under Secretary to the Govt. of India Tel.No.011-26406584

Email: sanjai.bajpai@nic.in

ANNEXURE-I

Cost norms of plant & machinery and equipment for Fruits & Vegetables Processing Sector under the Scheme of Integrated Cold Chain and Value Addition Infrastructure

S.No.			Description		Cost (In Rs.)
1	IQF Tunnel [w	vithout refrigeration]	Associated Frozen Storage Capacity	Refrigeration cost of IQF & Associated Frozen Storage	Total
1.1	1 MT/hr.	85,00,000	1000 MT	140,00,000	225,00,000
1.2	2 MT/hr.	130,00,000	2000 MT	230,00,000	360,00,000
1.3	3 MT/hr.	220,00,000	3000 MT	290,00,000	510,00,000
1.4	4 MT/hr.	250,00,000	3000 MT	350,00,000	600,00,000
1.5	5 MT/hr.	280,00,000	3000 MT	400,00,000	680,00,000
2	IQF	Tunnel Only	Ref	frigeration	Total
2.1	1 MT/hr.	85,00,000		95,00,000	180,00,000
2.2	2 MT/hr.	130,00,000		150,00,000	280,00,000
2.3	3 MT/hr.	220,00,000		170,00,000	390,00,000
2.4	4 MT/hr.	250,00,000		200,00,000	450,00,000
2.5	5 MT/hr.	280,00,000		220,00,000	500,00,000
2.6	6 MT/hr.	318,00,000		250,00,000	568,00,000
3	Blast Freezer	[including refrigeration and	PEB structure]		Total
3.1	1 MT/Batch			35,00,000	35,00,000
3.2	2 MT/Batch			50,00,000	50,00,000
3.3	3 MT/Batch			70,00,000	70,00,000
4	Spiral Freezer	[without refrigeration]	Ref	frigeration	Total
4.1	250 Kg/hr.	130,00,000		150,00,000	280,00,000
4.2	500 Kg/hr.	170,00,000		180,00,000	350,00,000
4.3	1000 Kg/hr.	200,00,000		200,00,000	400,00,000

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S.No.	De	scription Cost (in Rs.)
5	Pre Proc. Line associated with IQF for Peas (I	ncluding Depodder, Blancher & Pre-chiller)	
5.1	1 MT/hr.		80,00,000
5.2	2 MT/hr.	1:	30,00,000
5.3	3 MT/hr.	18	80,00,000
5.4	4 MT/hr.	20	00,00,000
5.5	5 MT/hr.	2:	50,00,000
5.6	6 MT/hr.	30	00,00,000
6	Pre Proc. Line associated with IQF for other V	/egetables (other than Peas)	
6.1	Add on to sl. No. 5		70,00,000
7	Sorting Grading Line for other fruits & vegeta	bles [other than Apple]	
7.1	1 MT/hr.		15,00,000
7.2	2 MT/hr.		25,00,000
7.3	3 MT/hr.		30,00,000
7.4	4 MT/hr.		40,00,000
7.5	5 MT/hr.		50,00,000
8	Sorting, Grading & Packing Line for Apple (w	ith optical grader)	
8.1	5 MT/hr.		00,00,000
8.2	10 MT/hr.		80,00,000
8.3			25,00,000
9	Weighing & Packing Machine 1MT/hr.		65,00,000
10	Metal Detector		10,00,000



Notes: Fruits & Vegetables Processing Sector

- 1) The costs mentioned are basic cost of Plant & Machinery, exclusive of tax, freight, installation & commissioning charges
- 2) For the purpose of grant calculation basic cost of Plant & Machinery would be considered.
- The cost of any other facilities/ components proposed to be created under the project and not covered under the cost-norms may be considered by Technical Committee based on the quotations submitted along with the proposal and subject to approval by the Inter Ministerial Approval Committee.
- 4) If the capacity of components differs from those provided in cost norms, prorata cost may be considered by Technical Committee based on quotations submitted along with the proposal and subject to approval by the Inter Ministerial Approval Committee.
- 5) Programmable Logic Controller (PLC) and Supervisory Control and Data Acquisition (SCADA) shall be mandatory for all cold chain projects.
- 6) The cost of technical civil work (PEB structure other than frozen storage) will be Rs. 10,000 per square meter.
- 7) For stand-alone frozen storage, all inclusive cost would be Rs. 15,000 per MT including cost of technical civil wok, plant & machinery and refrigeration.
- 8) The thickness of PUF panels for insulation in frozen storage should be minimum 100 mm for floor, 120 mm for partition walls and 150 mm for outer walls.
- 9) 3.4 cubic mt. will create a capacity of 1 MT. for frozen storage.
- 10) For capacities of two tonne and higher, either screw compressor technology or a combination of reciprocating and screw compressor technology is advisable.

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ANNEXURE-II

Cost norms of plant & machinery and equipment for Marine/ Fisheries/ Meat & Poultry Processing Sector under the Scheme of Integrated Cold Chain and Value Addition Infrastructure

S.No.			Description	Cost (in Rs.)
1	IQF (freezing/ glazing/ hardening of shrimp) [without refrigeration]			
	Capacity	Tunnel Only	Refrigeration	Total
1.1	250 Kg/hr.	195,00,000	95,00,000	290,00,000
1.2	400 Kg/hr.	265,00,000	110,00,000	375,00,000
1.3	500 Kg/hr.	275,00,000	120,00,000	395,00,000
1.4	600 Kg/hr.	285,00,000	130,00,000	415,00,000
1.5	750 Kg/hr.	300,00,000	145,00,000	445,00,000
1.6	1000 Kg/hr.	375,00,000	170,00,000	545,00,000
2	Plate Freezer	[without refrigeration]	Refrigeration	Total
2.1	<u> </u>	25,00,000		70,00,000
3	Spiral Freeze	r [without refrigeration]	Refrigeration	Total
3.1	250 Kg/hr.	130,00,000	150,00,000	280,00,000
3.2	500 Kg/hr.	170,00,000	180,00,000	350,00,000
3.3	1000 Kg/hr.	200,00,000	200,00,000	400,00,000
4	Cooking Line			
4.1	250 Kg/hr.			130,00,000
4.2	500 Kg/hr.			150,00,000
4.3	750 kg/hr.			185,00,000
5	Weighing line			
5.1				45,00,000

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S.No.			Description	Cost (In Rs.)
6	Automatic Gra	ading Line		
	1 MT/hr.			40,00,000
6.2	2 MT/hr.			60,00,000
7	ice Maker			
	Tube Ice Make	er - 25 TPD		21,00,000
7.2	Tube Ice Make	r - 40 TPD		23,40,000
7.3	Tube Ice Make	r - 50 TPD		25,00,000
7.4	Tube Ice Make	r - 60 TPD		26,60,000
7.2	Flake Ice Make	er - 5 MT		15,00,000
7.2	7.2 Flake Ice Maker - 10 MT			19,00,000
7.2	Flake Ice Make	er - 20 MT		25,00,000
8	<u> </u>	[including refrigeration and		Total
8.1	1		•	0,000 35,00,000
8.2	J		-	0,000 50,00,000
8.3	3 MT/Batch		70,00	70,000,000
9	Spiral Freezer	[without refrigeration]	Refrigeration	Total
9.1		130,00,000		0,000 280,00,000
9.2	4	170,00,000	180,0	0,000 350,00,000
9.3	1000 Kg/hr.	200,00,000	200,0	0,000 400,00,000
10	Weighing & P	acking Machine 1MT/hr.		65,00,000
11	Metal Detecto	ır		10,00,000



Notes: Marine Sector

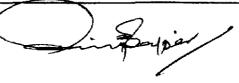
- The costs mentioned are basic cost of Plant & Machinery, exclusive of tax, freight, installation & commissioning charges
- 2) For the purpose of grant calculation basic cost of Plant & Machinery would be considered.
- The cost of any other facilities/ components proposed to be created under the project and not covered under the cost norms may be considered by Technical Committee based on the quotations submitted along with the proposal and subject to approval by the Inter Ministerial Approval Committee.
- 4) If the capacity of components differs from those provided in cost norms, prorata cost may be considered by Technical Committee based on quotations submitted along with the proposal and subject to approval by the Inter Ministerial Approval Committee.
- 5) Programmable Logic Controller (PLC) and Supervisory Control and Data Acquisition (SCADA) shall be mandatory for all cold chain projects.
- 6) The cost of technical civil work (PEB structure other than frozen storage) will be Rs. 10,000 per square meter.
- 7) The cost of technical civil work (RCC Structure) will be Rs. 15,000 per square meter.
- 8) Flooring in plants should be covered with alkali & acid resistant tiles and walls upto 5 feet should be covered with glazed tiles/ antibacterial paint with proper drainage.
- 9) Programmable Logic Controller (PLC) and Supervisory Control and Data Acquisition (SCADA) shall be mandatory for all cold chain projects.
- For frozen storage, all inclusive cost would be Rs. 15,000 per MT including cost of technical civil work, plant & machinery and refrigeration.
- 11) The thickness of PUF panels for insulation in frozen storage should be minimum 100 mm for floor, 120 mm for partition walls and 150 mm for outer walls.
- 12) 3.4 cubic mt. will create a capacity of 1 MT. for frozen storage.
- 13) For capacities of two tonne and higher, either screw compressor technology or a combination of reciprocating and screw compressor technology is advisable.

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ANNEXURE-III
Cost norms of plant & machinery and equipment for Dairy Sector under the Scheme of Integrated Cold Chain and
Value Addition Infrastructure

S.No.	Description	Cost (in Rs.)
1	Automatic Milk Collection Unit	94,000
2	Milk Chilling Centre with utilities	
2.1	50 KLPD	
2.1.1	Can Milk Reception Section	
2.1.2	CIP Kitchen (Single Circuit)]
2.1.3	SS Pipes and Fittings for the Plant	
2.1.4	Steam Generation and Distribution System	446,71,000
2.1.5	Chilled Water Generation And Distribution System	440,71,000
2.1.6	Water Distribution System	1
2.1.7	Electrical System]
	Laboratory and Accessories]
2.1.9	ETP	<u> </u>
	100 KLPD	
	Can Milk Reception Section	
	CIP Kitchen (3 Circuit)	
	SS Pipes and Fittings for the Plant	
	Steam Generation and Distribution System	638,48,000
	Chilled Water Generation And Distribution System	030,40,000
	Water Distribution System	
1	Electrical System	
1	Laboratory and Accessories	
2.2.9	ETP	
		

S.No.	Description	Cost (in Rs.)		
3	Bulk Milk Cooler			
3.1	1 KL	6,97,000		
	2 KL	8,67,000		
	3 KL	11,06,000		
3.4	5 KL	12,40,000		
4	5KL Mobile Milk Cooler	38,00,000		
5	Milk Processing Plant			
5.1	0.5 LLPD Milk Proc. Plant with White Butter & Paneer Manufacturing with utilities [Manual Plant]			
5.1.1	Milk Reception Section			
5.1.2	Milk Processing Section			
5.1.3	Milk Reconstitution Section			
5.1.4	Cream Processing Section			
5.1.5	5 Milk Packing Section			
5.1.6	White Butter Manufacturing Section (400 kg/hr.)			
5.1.7	Paneer Manufacturing Section (1TPD)			
5.1.8	Rinse Milk Section	1429,90,000		
5.1.9	Concentrated Chemical Section	1425,50,000		
5.1.10	Process and Tanker CIP Kitchen (3 Circuit)			
5.1.11	SS Pipes and Fittings for the Plant			
5.1.12	Steam Generation and Distribution System			
1	Chilled Water Generation and Distribution System			
5.1.14	Compressed Air Generation and Distribution System			
5.1.15	Water Treatment and Distribution System			
5.1.16	Electrical			
5.1.17	Laboratory Accessories			
5.1.18	ETP			



S.No.	Description	Cost (in Rs.)
5.2	1 LLPD Milk Proc. Plant with White Butter, Paneer, Curd, Lassi & Ice Cream Manufacturing with utilities [Manual Plant]	W
5.2.1	Milk Reception Section	
5.2.2	Milk Processing Section	
5.2.3	Milk Reconstitution Section	
5.2.4	Cream Processing Section	
5.2.5	Milk Packing Section	
5.2.6	White Butter Manufacturing Section (400 kg/h.)	
5.2.7	Paneer Manufacturing Section (2 to 3 TPD)	
5.2.8	Curd Manufacturing Section (5 TLPD)	
5.2.9	Ice Cream Manufacturing Section (3 TLPD)	
5.2.10	Rinse Milk Section	2528,36,000
5.2.11	Concentrated Chemical Section	
5.2.12	Process and Tanker CIP Kitchen (3 Circuit)	
5.2.13	Fermented Products CIP Kitchen (Single Circuit)	
5.2.14	SS Pipes and Fittings for the Plant	
5.2.15	Steam Generation and Distribution System	
5.2.16	Chilled Water Generation and Distribution System	
5.2.17	Compressed Air Generation and Distribution System	
5.2.18	Water Treatment and Distribution System	
5.2.19	Electrical	
5.2.20	Laboratory Accessories	
5.2.21	ETP	
5.3	2.5 LLPD Milk Proc. Plant with White Butter, Paneer, Curd, Lassi & Ice Cream Manufacturing	
	with utilities [Automatic Plant]	
5.3.1	Milk Reception Section	
5.3.2	Milk Processing Section	
	Dir Riper	1

S.No.	Description	Cost (In Rs.)
5.3.3	Milk Reconstitution Section	
5.3.4	Cream Processing Section	
5.3.5	Milk Packing Section	
5.3.6	White Butter Manufacturing Section (800 kg/h.)	
5.3.7	Paneer Manufacturing Section (2 to 3 TPD)	
5.3.8	Curd Manufacturing Section (10TLPD)	
5.3.9	Ice Cream Manufacturing Section (6 TLPD with Ice Candy)	
5.3.10	Rinse Milk Section	3473,61,000
5.3.11	Concentrated Chemical Section	
5.3.12	Process and Tanker CIP Kitchen (3 Circuit)	
5.3.13	Fermented Products CIP Kitchen (1 Circuit)	
5.3.14	SS Pipes and Fittings for the Plant	
5.3.15	Steam Generation and Distribution System	
5.3.16	Chilled Water Generation and Distribution System	
5.3.17	Compressed Air Generation and Distribution System	
5.3.18	Water Treatment and Distribution System	
5.3.19	Electrical ,Automation & Instrumentation	
5.3.20	Laboratory Accessories	
5.3.21	ETP	
6	Complete Road Milk Tanker	
	5 KL	18,63,000
	9 KL	21,28,000
6.3	15 KL	30,04,000



Notes: Dairy Sector

- 1) The costs mentioned are basic cost of Plant & Machinery, exclusive of tax, freight, installation & commissioning charges
- 2) For the purpose of grant calculation basic cost of Plant & Machinery would be considered.
- The cost of any other facilities/ components proposed to be created under the project and not covered under the cost norms may be considered by Technical Committee based on the quotations submitted along with the proposal and subject to approval by the Inter Ministerial Approval Committee.
- 4) If the capacity and quantity of components differs from those provided in cost norms, prorata cost may be considered by Technical Committee based on quotations submitted along with the proposal and subject to approval by the Inter Ministerial Approval Committee.
- 5) The cost of technical civil work (RCC Structure) will be Rs. 15,000 per square meter.
- For the projects creating milk and milk processing capacity of 30 KLPD, the cost of plant & machinery @ 65% of cost of 50 KLPD will be considered.
- 7) Flooring in milk and milk processing plants should be covered with alkali & acid resistant tiles and walls upto 5 feet should be covered with glazed tiles with proper drainage.
- 8) Programmable Logic Controller (PLC) and Supervisory Control and Data Acquisition (SCADA) shall be mandatory for all cold chain projects.
- 9) All processing equipment should be made of stainless steel of AISI 304/ 316 grade.
- All the major equipment of the plant should be designed, engineered and fabricated in accordance with the prevailing and applicable Indian Standards as laid down by BIS. Wherever Indian Standards are not available, international standards like EHEDG/3 A standards may be considered.

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