## AGENDA OF XXXXII MEETING OF THE EMPOWERED STEERING COMMITTEE FOR IMPLEMENTATION OF THE MONTREAL PROTOCOL

Date	:	16 <sup>th</sup> March, 2018	
Time	:	11.00 A.M.	
Venue	:	Kaveri Conference Hall, Prithvi Block, 4th Floor Ministry of Environment, Forest and Climate Change Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi – 110 003	
Item No. 1	:	Confirmation of Minutes of XXXXI meeting of the Empowered Steering Committee (ESC)	
Item No. 2	:	Action taken on decisions of the XXXXI ESC	
Item No. 3	:	Overview of Stratospheric Ozone Layer Monitoring in India – Presentation by India Meteorological Department, Ministry of Earth Sciences	
Item No. 4	:	National Cooling Action Plan (NCAP)	
Item No. 5	:	Kigali Amendment to the Montreal Protocol on Substances that deplete the ozone layer- Issues related to financial and technical support for Energy Efficiency in Article 5 countries- Conference Room Paper submitted by India, Saudi Arabia, Kuwait, Lebanon, and Bahrain and African Group.	
Item No. 6	:	HCFC Phase out Management Plan (HPMP) stage-II	
		<ul> <li>(a) Investment Projects</li> <li>(b) Enabling Activities- UN Environment Component</li> <li>(c) Service Sector Plan under HPMP Stage-II</li> </ul>	
Item No. 7	:	Progress of Hydrochlorofluorocarbon (HCFC) Phase- out Management Plan (HPMP) Stage-I	
		<ul> <li>(a) Investment Projects</li> <li>(b) Enabling components (awareness and communication, enforcement training, capacity building and trade controls</li> </ul>	

		(c) Servicing Sector Plan	
Item No. 8	:	Submission of Article 7 of the Montreal Protocol to the Ozone Secretariat and Country Programme Progress Report (CPPR) to the Multilateral Fund Secretariat for the year 2016.	
Item No. 9	:	Collaborative Research Programme on low Global Warming Potential (GWP) alternatives to Hydrofluorocarbons (HFCs)	
Item No. 10	:	Service Sector plan by Electronic Sector Skill Council of India (ESSCI), National Skill Development Corporation, Ministry of Skill Development Under Pradhan Mantri Kaushal Vikas Yojana (PMKVY)	
ltem No. 11	:	Fiscal Incentives Scheme	
ltem No. 12	:	World Ozone Day 2017	
Item No. 13	:	Proposed audit of HCFC-22 production facilities regarding pricing of domestically produced HCFC- 22	
Item No. 14	:	Major Publications /Outreach and Awareness Activities	
Item No. 15	:	International Recognition – Awards	
Item No. 16	:	Any other matters with permission of the Chair	

#### ANNOTATED AGENDA OF XXXXII MEETING OF THE EMPOWERED STEERING COMMITTEE FOR IMPLEMENTATION OF THE MONTREAL PROTOCOL

#### Item No. 1 : Confirmation of Minutes of XXXXI meeting of the Empowered Steering Committee (ESC)

Minutes of the XXXXI meeting of the ESC held on 19<sup>th</sup> December, 2016 were circulated to all the Members **(Enclosure-1, pages 1-13)**. No comments have been received. The minutes may be confirmed.

Item No. 2 : Action taken on decisions of the XXXXI ESC

S. No.	Decision taken in XXXX ESC	Action taken on the decision
1	Agenda Item No. 2	
	The proposed audit of production of HCFC-22 should be completed by the end of February, 2017 including finalization of the report	Third Party consultant has submitted the final report <i>(Enclosure-2 pages 14-36)</i> for audit of production facilities regarding pricing of domestically produced HCFC- 22. The report will be taken up for consideration at Agenda Item No. 13
2	<u>Agenda Item No. 4 – HPMP</u> <u>Stage-II</u>	
	The balance amount of Rs. 22	Details under Agenda Item No. 6 on HPMP Stage-II.
	lakhs to the IPUA and Rs. 25.20 lakhs to the RAMA to be released after the IPUA and RAMA re- verifying/resurveying the actual number of eligible units and meeting all the milestones and deliverables as per the MOA.	UNDP had hired M/s Price Water House Coopers Private Limited (PWC) for verifying the enterprises included in the survey by RAMA and IPUA for participation in HPMP Stage-II.
		It is submitted that the balance amount of Rs. 22 lakhs to the IPUA and Rs. 25.20 lakhs to the RAMA related to meeting the remaining milestones. The results of re-verification of foam and RAC manufacturing enterprises are detailed at Agenda item No. 6.
		Both RAMA and IPUA submitted strategy for phase- out among both the sectors. Copies of the strategy submitted by RAMA and IPUA are at <i>Enclosure-3 pages 37-</i> <i>40 and Enclosure-4 pages</i> <i>41-43.</i>
3	Agenda Item No. 5- Progress of HPMP Stage-I	
	(i) One MOA with M/s Synergy Telecommunication for extension of implementation period till December 2016.	(i) The conversion project of M/s Synergy Telecomm- unication under HPMP Stage-I completed after extension of

		MoA till 31 <sup>st</sup> March, 2018.
	(ii) To extend the MOA for the three enterprises viz. M/s Lambda Eastern Telecommunication Ltd., M/s Isolloyd Engineering Technologies Ltd. and M/s Empire Home Appliances Ltd. in Foam manufacturing and two system houses M/s Pine Resin & Chemicals and M/s Amrit Chem, for extension till December, 2017 for project implementation.	(ii) The conversion project of M/s Isolloyd Engineering Technologies Ltd. and M/s Empire Home Appliances Ltd. under HPMP Stage-I completed after extension of MoA till 31 <sup>st</sup> March, 2018.
	(iii) To release the balance payments of US \$ 25,17,395 to 20 enterprises participating under HPMP Stage-I (against the work completed), and the balance payment of Rs. 2,50,000 to the consultant (appointed for carrying out verification of the enterprises), after conducting a fresh due diligence and certification through a third party to the effect that the works under HPMP-I as per the MOA and agreement with Ex-Com have been fully and satisfactorily completed.	(iii) Details Included in Agenda Item No. 7 on progress of HPMP Stage-I.
4	Agenda Item No. 7 – Collaborative Research Programme It was decided that a meeting will be held at the level of Secretary with the enterprises to secure their consent to the proposed arrangements. The MoAs will be accordingly amended and prepared for approval of ESC.	Details are given at Agenda Item No. 9 on Collaborative Research Programme on Iow Global Warming Potential (GWP) alternatives to Hydrofluorocarbons (HFCs)
5	Agenda Item No. 8 - Fiscal incentive scheme	

	The ESC accepted the	A letter has been sent to	
	Committee's report and the	Department of Revenue,	
	recommendations and decided	Ministry of Finance for	
	that the recommendations would	issuance of a revised	
	have immediate effect. The ESC	notification based on the	
	also suggested wider publicity of	decision of 41st ESC dated	
	the duty exemption scheme for	19th December, 2016. A copy	
	HCFC based eligible projects as	of the letter along with	
	per the provisions of the	suggested modifications in the	
	notifications of the Ministry of	notification is at <i>Enclosure-5</i>	
	Finance.	pages 44-48. A letter has also	
		been sent to industry	
		association of Automobile Air-	
		Conditioners Manufacturers	
		(Enclosure-6 pages 49)	
		informing the decision of the	
		ESC regarding the proposal of	
		fiscal incentive to extension of	
		projects moving to alternatives	
		of Chlorofluorocarbons (CFCs)	
6	Agenda Item No. 9 - Procedure		
	The ESC delegated to the Secretary (EF&CC), the power to decide the procedure subject to confirmation by the ESC in its next meeting.	Since the last ESC meeting in December, 2016, all the files related to disbursement of funds are being approved once by Secretary, EFCC in his capacity as Chairman, ESC. The same applies for MoAs/LoAs with UNDP, UNEP and GIZ. All these are then being reported to ESC for post facto approval.	

Indian Meteorological Department (IMD) is the nodal agency to measure the ozone levels in India. IMD has established a National Ozone Centre. The centre maintains and control a network of Ozone Monitoring Stations located at New Delhi, Ranichauri, Guwahati, Nagpur, Pune, Kodaikanal, Thiruvananthapuram, Vanarasi, Port Blair and Maitri (Antarctica).The ozone data measured is regularly sent to World Ozone Data Centre, Canada.

#### The proposal for approval of ESC:

To take note of the Stratospheric Ozone Layer Monitoring being undertaken in India and other related issues

#### Item No. 4 : National Cooling Action Plan (NCAP)

#### **Background**

The 28<sup>th</sup> Meeting of the Parties (MOP) to the Montreal Protocol on Substances that Deplete the Ozone Layer, held in October, 2016 adopted an amendment to the Protocol for phasing down the Hydrofluorocarbons (HFCs), a Green House Gas (GHG), within a specific time frame in the interest of protecting environment for adverse effects of its Global Warming Potential (GWP). Under the Kigali Amendment, the developed and the developing countries have a differentiated time schedule for phase down of HFCs.

The Montreal Protocol had no arrangement till date to incentivise improvement in energy efficiency in case of use of new refrigerant and technology. Under the Kigali Amendment, it has been agreed that the Multilateral Fund (MLF) for the implementation of the Montreal Protocol will fund maintenance and/or increase in the energy efficiency with new technology.

#### Development of National Cooling Action Plan- India's Perspective Plan for 20 years

Cooling requirement is cross sectoral and an essential part for economic growth. There is considerable use of cooling and air conditioning in different Sectors of the economy such as industries, residential and commercial buildings, cold chain, transport (personal, commercial, metro and railways, ships). With growth of economy there is rapid increase in cooling demand and need for air conditioning. Hydrochlorofluorocarbons (HCFCs) and Hydrofluorocarbons (HFCs) are used as refrigerants in air conditioning and as blowing agents in insulation foam manufacturing. Under the Montreal Protocol, phase out of HCFCs is underway. Recently, under the Kigali Amendment to the Montreal Protocol phase down of Hydrofluorocarbons (HFC) has been agreed to. This would have significant climate benefits.

Dovetailing maintaining and/or enhancing energy efficiency of Refrigeration and Air conditioning equipment with refrigerant transition will enhance the overall climate benefit. Integrated actions with respect to cooling across sectors will have a higher impact than either of the actions taken in isolation.

The NCAP seeks to provide an integrated vision towards cooling across sectors encompassing *inter alia* reducing cooling demand, refrigerant transition, enhancing energy efficiency and better technology options with a 20 year time horizon.

Accordingly a committee for developing a National Cooling Action Plan was constituted with the approval of Hon'ble MEFCC *(Enclosure-7, pages 50-52)* with following Terms of Reference:

- Understand the growth of refrigerants and associated technologies across the world.
- Examine the rate of growth / penetration of cooling technologies including future projection.
- Understand the factors responsible for energy efficiency and its linkage to the HFC phase-down.
- Recommend policy changes/steps required to attain the objective of promotion of low GWP refrigerants and not-in-kind technologies to improve energy efficiency.

A series of stakeholder consultations and workshops have been organized since the constitution of the Committee. More recently, a National level stakeholder consultation was held under the Chairmanship of Additional Secretary on the development of NCAP on the 17<sup>th</sup> January, 2018, which was attended by around 80 experts from industries, academia, think tank and concerned Government Departments/organizations. The summary record of discussions is at **Enclosure-8, pages 53-71.** 

#### **Constitution of the thematic Working Groups**

Based on the outcomes of the deliberations held in stakeholder meetings on 20<sup>th</sup> December, 2017 and 17<sup>th</sup> January, 2018, the following thematic Working Groups (*Enclosure-9, pages 72-76*) constituted for the development of relevant documentation:

S. No.	Name of the Thematic Group	Members of thematic group
1	Space Cooling and Cold Chain	<ol> <li>Alliance for Energy Efficient Economy (AEEE)</li> <li>Representative of Bureau of Energy Efficiency (BEE)</li> <li>Representative of National Centre for Cold-chain development (NCCCD)</li> <li>Representative from Ministry of Urban Development</li> <li>Representative of Indian Polyurethane</li> </ol>

2	Air-condoning and Refrigeration technology	Association (IPUA) VI. Representative of Refrigeration and Air- conditioning Manufacturers Association (RAMA) VII. Representative from Ozone cell I. Representative of RAMA II. Representative of BEE III. Representative of Indian Society of Heating, Refrigerating and Air Conditioning Engineers (ISHRAE) IV. Representative from IIT, Delhi
3	R&D and Production Sector-Alternative Refrigerants and technologies	<ul> <li>IV. Representative from IIT, Delhi</li> <li>V. Representative from Ozone cell</li> <li>I. Representative of Council of Scientific &amp; Industrial Research (CSIR)- Indian Institute of Chemical Technology (IICT)</li> <li>II. Representative of Refrigerant Gas Manufacturers Association (REGMA)</li> <li>III. Representative of RAMA</li> <li>IV. Representative of BEE</li> </ul>
4	Servicing Sector	<ul> <li>V. Centre for Science and Environment</li> <li>VI. Council for Energy, Environment and Water (CEEW)</li> <li>VII. Representative from Ozone cell</li> <li>I. Council for Energy, Environment and Water</li> </ul>
		<ul> <li>(CEEW)</li> <li>II. Representative of Electronic Sector Skill Council of India (ESSCI)</li> <li>III. Representative of Refrigeration and Air- conditioning Service Sector Society (RASSS)</li> <li>IV. Representative of ISHRAE</li> <li>V. Representative from Ozone cell</li> </ul>
5	Transport Air- conditioning (car, bus, train and Metro air- conditioning)	<ol> <li>The Energy and Resources Institute (TERI)</li> <li>Representative of Automobile Component Manufacturers Association (ACMA)</li> <li>Representative of Society for Indian Automotive Manufacturers (SIAM)</li> <li>Representative of BEE</li> <li>Representative from Ozone Cell</li> </ol>
6	-	<ul> <li>I. TERI</li> <li>II. Representative of BEE</li> <li>III. Representative of Energy Efficiency Services Ltd. (EESL)</li> <li>IV. Representative of Indian Institute of Management (IIM), Ahmedabad</li> <li>V. Representative of REGMA</li> <li>VI. Representative of RAMA</li> <li>VII. Representative from Ozone Cell</li> </ul>

First meeting of the Committee for Development of a NCAP was held under the Chairmanship of Secretary, (EF&CC) on 1st March 2018. The Committee reviewed the progress so far including details of stakeholder consultations, the thematic groups constituted and their TOR and the way forward.

The following timeline was proposed for the development of NCAP:

Assessment and Compilation of documentation by the Working Groups of identified thematic areas	February to May 2018
Draft Plan	June 2018
Stakeholder Consultations	July 2018
Proposed Launch	World Ozone Day – 16 <sup>th</sup> September 2018

It was agreed to have the next meeting of the Committee during the 3<sup>rd</sup> week of April 2018.

The proposal for approval of ESC:

Ex-post facto approval is requested for the following:

- (i) To note the Constitution of the Committee for the development of the National Cooling Action Plan with the approval of Competent Authority.
- (ii) Ex-post facto approval is requested for Constitution of thematic Working Groups for development of sectoral report / documentation for inclusion in the National Cooling Action Plan.
- (iii)To note the progress made towards the development of National Cooling Action Plan,
- (iv) To approve the time line for the development of National Cooling Action plan as stated in the table above with proposed launch on the World Ozone Day 2018 – 16th September, 2018

Item No. 5 : Kigali Amendment to the Montreal Protocol on Substances that deplete the ozone layer- Issues related to financial and technical support for Energy Efficiency in Article 5 countries- Conference Room Paper submitted by India, Saudi Arabia, Kuwait, Lebanon, and Bahrain and African Group.

> India introduced a Conference Room Paper (CRP) with other proponents in the 39<sup>th</sup> Open Ended Working Group (OEWG) held from 11<sup>th</sup> to 14<sup>th</sup> July, 2017 on the issues related to financial and technical support for energy efficiency in Article-5 Parties (*Enclosure-10, page 77*).

> The issue of energy efficiency was included in the Kigali Amendment to the Montreal Protocol on India insistence. It is a widely known fact that about 90 % of the total emissions of RAC equipment is because of energy consumption. The Kigali Amendment to the Montreal Protocol for phase down of HFC has significant climate benefits and has for the first time provided an opportunity for maintaining and/or enhancing energy efficiency within the realm of the protocol.

> Dovetailing maintaining and/or enhancing energy efficiency of RACHP equipment with refrigerant transition under HFC phase-down will enhance the overall climate benefit.

> The CRP was considered and deliberated in the 29th MOP held from 20th to 24th November, 2017. India was able to pilot after sustained and intensive negotiations the adoption of the CRP on the issues related to financial and technical support for energy efficiency in Article-5 Parties submitted by India and other proponents. It is a significant first step in dovetailing energy efficiency and refrigerant transition under the Montreal Protocol.

The decision is a significant first step towards maintaining and/or enhancing energy efficiency of Refrigeration and Air-Conditioning (RAC) equipment with refrigerant transition under HFC phase down, which will enhance the overall climate benefit. The decision is embodied in Decision XXIX/10 of the MOP (*Enclosure-11, pages 78-79*). The relevant extract of the Decision is quoted below:

"To request the Technology and Economic Assessment Panel in relation to maintaining and/or enhancing energy efficiency in the refrigeration, air-conditioning and heatpump sectors, including in high-ambient-temperature conditions, while phasing down hydrofluorocarbons under the Kigali Amendment to the Montreal Protocol in parties operating under paragraph 1 of Article 5, to assess the following items:

(a) Technology options and requirements including:

(i) Challenges to their uptake;

(ii) Their long-term sustainable performance and viability;

(iii) Their environmental benefits in terms of carbon dioxide equivalents;

(b) Capacity-building and servicing sector requirements in the refrigeration and air-conditioning and heat-pump sectors;

(c) Related costs including capital and operating costs;"

The proposal for approval of ESC:

- (i) To note the submission of a Conference Room paper by India and other like-minded parties on Issues related to financial and technical support for Energy Efficiency in Article 5 countries during 39<sup>th</sup> Open Ended Working Group Meeting at Bangkok held in July, 2017,
- (ii) To note Decision XXIX/10 of the Meeting of Parties of the Montreal Protocol at Montreal held in November, 2017 based upon the CRP introduced by India and other likeminded parties,
- (iii)To note the inclusion of Shri J.M. Bhambhure, Executive Vice-President, R&D and Technology, Bluestar by India on Efficiency Taskforce Energy of the Technology and Economic Assessment Panel for for preparing report а consideration of Parties vide Decision XXIX/10 of the Meeting of Parties of the Montreal Protocol.

#### Item No. 6 : HCFC Phase out Management Plan (HPMP) stage-II

#### a) Investment Projects

HPMP Stage-II for India was considered at the 77th meeting of the Executive-Committee (Ex-Com) meeting of the Multilateral Fund for Implementation of the Multilateral Fund for implementation of the Montreal Protocol held from 28th November -2nd December, 2016 at Montreal, Canada.

Under HPMP Stage-II, India has secured 48,315,261 USD from the Multilateral Fund for the Implementation of the Montreal Protocol for phasing out 8,190 MT or 769.49 ODP tonne of HCFC consumption between 2017 to 2023, in order to meet the compliance targets under Montreal Protocol for 2020. Out of 48.31 million USD, 3.4 million USD are towards Agency Support cost for UNDP, UN Environment and GIZ., 2.4 million USD are for Project Management Unit costs and 42.51 million USD are conversion costs for industry, Servicing sector and enabling activities.

The HPMP Stage-II was launched on 6th March, 2017 at New Delhi by late Shri Anil Madhav Dave, the then Hon'ble Minister of Environment. Forest and Climate Change in a stakeholder meeting where officers of the Ministries and Organizations of the Central Government, State Governments, representatives from industries, stakeholders including NGOs and implementing agencies associated with the implementation of the HPMP II viz. UNDP, GIZ and UNEP, were present. The HPMP Stage-II document launched by the then Hon'ble MEFCC is at Enclosure-12, pages 80-175. The HPMP Stage-II document inter alia includes the enterprise-wise allocation of funds to large and medium foam manufacturing enterprises and 6 large RAC enterprise based upon the approved funds allocated by Ex-Com subject to third party physical verification.

The summary of the total funding approved for industry conversion, servicing sector and enabling activities by the 77th Ex-Com to meet the 2020 phase-out target and beyond up to 2023 as per the Montreal Protocol phase-out schedule are as follows:

Component	omponent Agency Actual phase		Net Funding	
		out		Request (US\$)
		Consu	umption	
		MT	ODP	
Project		N/A	N/A	2,400,000
Management	UNDP			
Components				
Polyurethane		5800	638.02	24,000,000
Foam Sector	Lead			
	implementing			
Air-conditioning	agency	1140	62.72	12,511,459
Manufacturing				
Sector Plan				
Service Sector	Government	1250	68.75	5,100,000
Plan	of Germany			
<b>Enabling Activities</b>	UNEP			900,000
Total				44,911,459

A total of 419 enterprises with the following breakup had been considered for participation in HPMP Stage-II:

Foam Manufacturing Enterprises				
Large	24			
Medium	33			
Small	356			
Sub- Total	413			
Refrigeration and Air-conditioning Manufacturing Enterprises				
Large	6			
Sub-Total	6			
Total	419			

# Physical Verification of enterprises (Foam Manufacturing Sector)

UNDP, the Lead Implementing Agency for HPMP Stage-II, hired M/s Price Water House Coopers Private Limited (PWC) as a third party consultant for verification of the 413 enterprises in foam manufacturing sector, to verify their eligibility for funding and the consumption to be phased out in each enterprises.

On the date of compilation of Agenda the process of third party verification by PWC was ongoing. The PWC was submitting the

verification report in a tranche-wise fashion. On receipt of Verification report of PWC the UNDP undertakes technical scrutiny and forwards the names of enterprises to the Ozone Cell, MoEF&CC for participation in HPMP Stage-II.

The details of the verification process are summarized in the table below:

S. No	Particulars	No. of enterprises
1	Reports submitted to UNDP by PWC	88
2	Reports to be submitted to UNDP by PWC	8
1 5	Enterprises eligible but one or more documents pending	32
	Enterprise have not provided documents to establish eligibility for funding	55
5	Enterprises not eligible	7
6	Enterprise does not exist at the given address, incomplete contact details, Address of enterprise could not be located, locked and contact with owner could not be established	34
7	Duplicate entries	7
8	Enterprise not interested in HPMP stage-2 funding and no declaration provided, but declaration is provided	
	Total	413

S. No. 3-8 above are as per information provided by PWC and have not been forwarded by UNDP as yet. as the same are undergoing technical scrutiny,

### Additional applications received from enterprises in Foam Manufacturing sector for funding support under HPMP Stage-II

Since the approval of HPMP Stage-II, Ozone Cell, MoEF&CC has received around 62 additional applications for participation in HPMP Stage-II, with a total consumption of around 2500 MT of HCFC-141b. As a first step Ozone Cell, MoEF&CC had asked Indian Polyurethane Association (IPUA) to ascertain facts from the survey agency on the non-inclusion of these enterprises who have submitted application directly to Ozone Cell, MoEF&CC.

In response to Ozone Cell, MoEF&CC letter dated 21st August, 2017 and subsequent reminders dated 23rd October, 2017 and 9th November, 2017, IPUA vide their letter dated 19th December, 2017 provided enterprise-wise response. The

Summary is given below in the table:

Enterprises contacted but no response received by IPUA	22
Enterprises not contacted by IPUA	39
Total	61

While IPUA was responding to the query of the Ministry an additional application was received in the interim making the total applications received as 62.

These enterprises were not part of the survey earlier commissioned by IPUA for identification of enterprises for participation in HPMP Stage-II. IPUA being the industry association was tasked with responsibility of conducting the survey of enterprises in the whole country for participation in HPMP Stage-II.

The survey report submitted by IPUA formed the basis for development of HPMP Stage-II. The report was accompanied individual enterprise-wise survey forms. As per the IPUA survey, there were 24 Large, 33 Medium and 356 Small enterprises adding up to a total of 413 enterprises adding up to 4779 MT consumption of HCFC-141b. As already mentioned that a third party verification of these 413 enterprises is underway by M/s PWC to verify their eligibility for funding and the consumption to be phased out in each enterprises.

The details of the additional enterprises are at Enclosure-13, pages 176-181.

#### Physical Verification of enterprises (Refrigeration and Air-Conditioning Sector)

UNDP, the Lead Implementing Agency for HPMP Stage-II, hired M/s Price Water House Coopers Private Limited (PWC) as a third party consultant for verification of the 6 enterprises, to verify their eligibility for funding and the consumption to be phased out in each enterprises.

On the date of completion of Agenda the process of third party verification by PWC was ongoing. The PWC was submitting the verification report in a tranche-wise fashion. On receipt of Verification report of PWC the UNDP undertook technical scrutiny and forwarded the names of enterprises to the Ozone Cell, MoEF&CC for participation in HPMP Stage-II.

The details of the verification process are summarized below:

RAC enterprises verified by PWC	6
RAC enterprises forwarded for inclusion in	4
HPMP Stage-II	
Recommendations of PWC undergoing	2
technical scrutiny by UNDP	

Balance payments to Indian Polyurethane Association (IPUA) and Refrigeration and Air-conditioning manufacturers association (RAMA), for undertaking survey of enterprises in the foam and refrigeration and air conditioning sector respectively, for participation in HPMP Stage II

IPUA and the RAMA, were involved in the HPMP Stage-II preparation process. The two associations had the responsibility for carrying out survey of the Foam and Refrigeration and Air conditioning (RAC) manufacturing sectors respectively. Towards this, a Memorandum of Agreement (MOA) was signed by the Ozone Cell, MoEF&CC with the IPUA and RAMA.

The total value for the contract with RAMA is Rs. 63,00,000, out of which Rs. 37,80,000 has been paid, and Rs. 25,20,000 has to be paid. The total value of contract for IPUA is Rs. 55,00,000, out of which Rs. 33,00,000 has been paid, and Rs. 22,00,000 has to be paid.

	Total (INR)	Paid (INR)	Balance (INR)
RAMA	63,00,000	37,80,000	25,20,000
IPUA	55,00,000	33,00,000	22,00,000

Based on the milestones given in the MOA, two out of the five instalments of payment were released to both RAMA and IPUA and payment towards balance three instalments is yet to be made to both RAMA and the IPUA.

The status of the above apprised to the XXXXIst ESC, which had inter alia directed that the balance payments could be released only on reverification/resurvey of participating enterprises and RAMA and IPUA completing the milestones as per their MoAs. UNDP had hired PWC for verifying the enterprises included in the survey by RAMA and IPUA for participation in HPMP Stage-II.

With respect to meeting the milestones and deliverables by RAMA and IPUA, it is submitted that the balance amount of Rs. 22 lakhs to the IPUA and Rs. 25.20 lakhs to the RAMA related to meeting the remaining milestones.

The results of re-verification of foam and RAC manufacturing enterprises are detailed above.

Both RAMA and IPUA submitted strategy for phase-out among both the sectors. Copies of the strategy submitted by RAMA and IPUA are at Enclosure-3 pages 37-40 and Enclosure-4 pages 41-43.

The large RAC enterprises surveyed by RAMA for inclusion in HPMP stage II have been re-verified by PWC for inclusion in HPMP Stage II. In case of IPUA the process of reverification of enterprises is still continuing and a formal communication on the participation of enterprises need to be received from PWC/UNDP.

As the enterprises under RAC sector being included in HPMP Stage II have been re-verified by third party, it is for consideration that the release of instalments to RAMA may be processed as per procedure on completion of milestones. With regard to IPUA action as appropriate may be taken on receipt of final reverification report by PWC/UNDP.

#### The proposal for approval of ESC:

- (i) To note the results of the third party verification undertaken by M/s PWC commissioned by UNDP for the eligible enterprises for participation in HPMP Stage II both in foam and the RAC sector and recommendations of UNDP thereupon,
- (ii) To note that HPMP Stage II for India was launched in March, 2017 and to expedite the implementation of HPMP Stage II industry conversions at the earliest,

(iii) To process payment to RAMA as per procedure on completion of milestones based on the reverification of enterprises participating in HPMP stage II in RAC Sector, and to await the reverification of enterprises with respect to the foam sector and process for payments to IPUA subsequently as appropriate on consideration of reverification of enterprises.

#### (b) Enabling Activities- UN Environment Component

The UN Environment has been implementing activities under the enabling component for the servicing sector, building sector interventions, enforcement training, trade controls, policy and regulation and awareness generation.

The total funds allocated by MLF for enabling activities to be implemented by UN Environment is 900,000 USD for a period till 1.1.2023. The total amount will be disbursed in three tranches till 2022.

The list of activities to be undertaken as per the enabling component of UN Environment are given below:

UNEP supported non-investment component activities for India								
HPMP Stage-II First tranche								
onent 1: Policy and Enforcement Capacity Building								
Enforcement Capacity Building								
onent 2: Sector Based ODS Policy development								
Public Procurement policies for non HCFC alternatives								
Assist in framing Relevant National Standards for RAC Sector								
Building sector interventions								
Cold Chain Sector Interventions								
Energy Efficiency in RAC Service Sector Practices								
onent 3: Strengthening of RASSS								
Facilitating Refrigeration and Air-conditioning Servicing Sector Society								
(RASSS) strengthening and expansion								
Promoting RASSS and its services (to be done in tranche 2)								
onent 4: Awareness, Outreach and Communication								
Awareness workshops and Communication								

10.	Knowledge products
11.	Industry Roundtable and technology exhibition (to be done in tranche 2)
12.	Project Website

The sub-activities under each activity have been discussed with UN Environment. The component-wise agreed activities and sub-activities would form the part of the Project Cooperation Agreement, which would be si8gned between Ozone Cell and UN Environment. After which the activities under the enabling component would be initiated. The PCA for the first tranche of USD 300,000 is under finalization.

#### The proposal for approval of ESC:

To note that HPMP Stage II for India was launched in March, 2017 and to expedite the implementation of Enabling activities under HPMP Stage II at the earliest,

#### c) Service Sector Plan under HPMP Stage-II

As India is an Article 5 party to the Montreal Protocol and its amendments, it needs to phase-out HCFCs as per the accelerated phase-out schedule. The Servicing Sector has a significant consumption of HCFCs due to the extensive and increasing population of refrigeration and air-conditioning equipment. Sustainable phase-out needs to include in the service sector and to train the technicians in Good Servicing Practices leading to reduction in consumption and avoiding leaks of refrigerants to environment. GIZ has been selected as the implementing agency for HPMP implementation in India for the servicing sector.

Under HPMP Stage-II, out of the total funding of 44.91 million USD, 5.1 million USD has been approved for servicing sector to phase-out 68.75 ODP tonne of HCFC-22 from servicing sector from the baseline levels.

The following activities would be undertaken by GIZ as per HPMP Stage II project document.

S. No.	Activity								
1	Capacity technicians	0	/technicians	training	of	around	17,000	RAC	service

2	Institutional strengthening – training of staff of defence, railways and revision of syllabus of ITI
3	Technicians certification system
4	State of Art RAC training Centre
5	Technical Assistance – workshops for industry etc.
6	Impact monitoring

Based upon the HPMP Stage II proposal, the Ex-Com approved USD 5,100,000 as part of servicing sector plan which is to be implemented by GIZ. The total fund of USD 5,100,000 shall be disbursed in four instalments till 2022.

The activities under the servicing sector plan will be implemented through an Implementation Agreement between the Ozone Cell, MoEF&CC and GIZ.

The proposal for approval of ESC:

To note that HPMP Stage II for India was launched in March, 2017 and to expedite the implementation of Service Sector activities under HPMP Stage II at the earliest.

#### Item No. 7 : Progress of Hydrochlorofluorocarbon (HCFC) Phaseout Management Plan (HPMP) Stage-I

#### (a) Investment Projects

#### **Background**

Under HPMP Stage-I, a total of 30 enterprises in the foam sector have been covered in HPMP I, of these 30 enterprises, 15 large foam manufacturing enterprises, are involved in phase out of HCFC-141b and technical and financial assistance has been provided to 15 System Houses, which are involved in developing HCFC-141b free polyol formulations. These formulations are used in manufacture of foam products.

The progress of HPMP Stage-I was reported to the XXXXI<sup>st</sup> ESC meeting held on 19<sup>th</sup> December 2016.

In the Foam Manufacturing Sector, 10 enterprises completed their conversion projects and received complete payments while 5 enterprises were left where payments of balance amount were to be paid on completion of their projects. In case of System Houses, all 15 System Houses were to be paid balance amount under the HPMP Stage-I. The total balance amount to be disbursed was around USD 2.5 million to 20 enterprises (5+15).

The tabular summary of status **as on December 2016** is given below:

Category	Total	Completed	Remaining
Foam	15	10	5
Manufacturing			
Enterprises			
System	15	NIL	15
Houses			

The ESC had accorded its approval to release the balance payment after conducting a fresh due diligence and certification through a third party to the effect that the work under the investment project has been done as per the MoA and agreement with the Ex-Com has been fully and satisfactorily completed.

### XXIII

# Independent verification for completion of milestones of all enterprises under HPMP Stage I

Based upon the decision of ESC, for undertaking a third party verification, UNDP, the Lead Implementing Agency for HPMP Stage-I, hired PWC, as a third party consultant for verification of the work done under HPMP Stage-I. M/s PWC were asked to undertake an on-site filed verification of all 30 enterprises to check for completion of the milestones as given in the MoA.

A review meeting was taken by Joint Secretary on 21st 2017. where all 30 the enterprises. August. representatives of UNDP and representatives of PWC, were called to discuss the implementation of projects and findings of PWC report. It was decided that all the enterprises were to complete their activities as per the MoA by 30<sup>th</sup> September, 2017. PWC was subsequently to undertake filed verification with respect to completion MoA of activities as per the and obtain clarifications/additional documentation from enterprises, as required and submit their final report to UNDP for their further recommendation for release of payments and further endorsement by the Ministry.

UNDP vide its letters dated 30<sup>th</sup> June, 2017, 23<sup>rd</sup> October, 2017 and 18<sup>th</sup> December, 2017 submitted the report submitted by PWC after verification on site of projects implemented under HPMP-I of Montreal Protocol. Based on the UNDP recommendations and third party verification, funds were released to the enterprises, the present status after the third Party verification of enterprises as on 11.3.2018 are as follows:

Category	Total	Completed	Remaining
Foam	15	14	1
manufacturing			
enterprises			
System houses	15	5	10

The balance funds available under HPMP Stage I have reduced from 2.5 million to around 1 million.

The detailed enterprise-wise status for all 30 enterprises is given below:

Foam Manufacturing Enterprises:

(5 enterprises were pending, now all 4 enterprises completed activities)

		Status pres	sented befor	e the 41 <sup>st</sup>	
Sr. No.	Enterprise	Allocated Amount (USD)	Amount Released (USD)	Balance Amount (USD)	Status after Third Party Verification by M/s PWC
1.	Applicomp	10,31,007	10,31,007	0	Project Completed earlier. PWC after verification had reported, there was a saving of USD 25,632 which has been used for conversion project of M/s Value and M/s Videocon. UNDP is seeking additional clarification and would provide the review finding thereafter.
2.	Empire	7,68,569	6,14,855	1,53,714	Project Completed, since the XXXXI <sup>st</sup> meeting of ESC held on 19 <sup>th</sup> December, 2016.
3.	Haier	8,71,670	8,71,670	0	Project Completed.
4.	Techno	14,52,783	14,52,783	0	Project Completed earlier, PWC after verification had reported, there was a saving of USD 529,602. This would be used for setting up of new line. UNDP is seeking additional clarification and would provide the review finding thereafter.
5.	Value	5,90,486	5,90,486	0	Project Completed.
6. 7.	Videocon Whirlpool (Pune)	10,02,889 6,33,549	10,02,889 6,33,549	0	Project Completed. Project Completed.
8.	Whirlpool (Faridabad)	6,60,835	6,60,835	0	Project Completed.
9.	Sintex	12,65,183	10,12,146	2,53,037	Project Completed, since the XXXXI <sup>st</sup> meeting of ESC held on 19 <sup>th</sup> December, 2016.
10.	Synergy	14,30,811	8,58,487	5,72,324	Project Completed, since the XXXXI <sup>st</sup> meeting of ESC held on 19 <sup>th</sup> December, 2016.
11.	Industrial Foams	5,62,368	5,62,367	0	Project Completed.

12.	Blue Star	8,99,788	8,99,788	0	Project Completed.
13.	Isollloyd	6,65,468	3,99,281	2,66,187	Project Completed, since the XXXXI <sup>st</sup> meeting of ESC held on 19 <sup>th</sup> December, 2016.
14.	Lambda	7,59,196	4,55,518	3,03,678	According to PWC the HCFC- 141b consumption in the enterprise has been phased out. The funds disbursed earlier not been utilized. The Project site changed what is mentioned in the MoA. As per MoA cyclopentane storage tank was to installed and operational as part of conversion. The enterprise stated that they will not install cyclopentane storage tank. UNDP is seeking additional clarification and would provide the review finding thereafter.
15.	Rinac	5,90,486	5,90,486	0	Project Completed.

### System Houses

(out of 15 System Houses, 5 have completed works and rest are pending)

### **Completed**

		Status pres ESC	ented before		
Sr.	Enterprise	Allocated	Amount	Balance	Status after Third Party
No.		Amount	Released	Amount	Verification by M/s
		(USD)	(USD)	(USD)	PWC
1.	Organometalic	127,490	95,618	31,873	Project Completed, since
	Industries				the XXXXI <sup>st</sup> meeting of
2.	Industrial Foams	559,885	5,03,897	55,989	ESC held on 19 <sup>th</sup>
	P∨t. Ltd.				December, 2016.
3.	Shivathene	127,490	95,618	31,873	
	Linopack				
4.	Expanded	559,885	5,03,897	55,989	
	Polymer Systems				
	P∨t. Ltd.				
5.	Manali	559,885	5,03,897	55,989	
	Petrochemicals				
	Ltd.				

# <u>Pending</u>

		Status pres	sented befor		
Sr. No.	Enterprise	Allocated Amount (USD)	Amount Released (USD)	Balance Amount (USD)	Status after Third Party Verification by M/s PWC
6.	Jai Durga Polyurethane Industries	127,490	95,618	31,873	Based on PWC report, UNDP informed that the enterprise have completed the work as per MoA, but have not utilized the amount
7.	Gomati Impex (P) Ltd.,	256,614	1,92,461	64,154	disbursed. Accordingly Ozone cell vide its letter 16 <sup>th</sup> January, 2018
8.	Manya International	256,614	1,92,461	64,154	informed UNDP that the PWC to submit their findings on whether the enterprises have completed their milestones as per
9.	Shakun Industries	256,614	1,92,461	64,154	clause 5.2 of Memorandum of Agreement (MoA,) with due diligence and efficiency. The same needs to be forwarded alongwith
10.	Shiv Polymers	127,490	31,873	95,618	technical comments of UNDP. The same is still awaited from UNDP.

		Status presented before the 41 <sup>st</sup> ESC					
Sr. No.	Enterprise	Allocated Amount (USD)	Amount Released (USD)	Balance Amount (USD)	Status after Third Party Verification by M/s PWC		
11.	Amrit Poly Chem	256,614	1,92,461	64,154	Based on PWC report, UNDP informed that the		
12.	Royal Industries	256,614	1,92,461	64,154	enterprises have no completed the work as pe MoA, as well as have no utilized the amour disbursed.		
13.	Tandy Innovative	256,614	1,92,461	64,154			
14.	Pine Resins	127,490	95,618	31,873	aisbuisea.		

					Accordingly Ozone cell vide its letter 16 <sup>th</sup> January, 2018 informed UNDP to provide the enterprise-wise tabular summary on which milestones have been met and milestones that have not been completed based on PWC field verification findings along with technical comments of UNDP thereupon, for further processing of these cases. The same is still awaited from UNDP.
15.	Bestopuf	256,614	64,154	1,92,461	UNDP informed that as per PWC report, enterprise has completed the work as per MoA and have utilized US\$ 95,108 out of the total allocated funds. And UNDP proposed to release US\$ 30,955 and requested MoEF&CC to decide on the rest of the funds allocated i.e. USD 161,505.5. Accordingly Ozone cell vide its letter 16 <sup>th</sup> January, 2018 informed the following to the UNDP: (a) UNDP, as an implementing agency, is to provide the technical comments, stating that they agree with the definition of System House as articulated by PWC. This is important as in different countries, the definition of System House adopted by implementing agencies vary.

	(b) PWC should obtain documentary evidence showing that M/s Bestopuf was working as a System House as sought in the minutes of the meeting dated 21st August, 2017, (copy enclosed for ready reference) and submitted along with technical
	comments from UNDP. (c) Clear recommendation on the quantum of funds to be released to M/s Bestopuf. The same is still awaited from UNDP.

Extension has already been sought from the Ex-Com of the MLF for the completion of HPMP Stage I. The ExCom extended the date of completion till 31<sup>st</sup> December, 2017. The next meeting of the Executive is scheduled to be held in June 2018, wherein the progress will have to be reported.

### The proposal for approval of ESC:

(i) To note that vide decision taken in XXXXIst meeting of the ESC dated 19<sup>th</sup> December 2016, final payments had been released after obtaining approval of Secretary (EFCC) in his capacity of Chairman, ESC to the following enterprises after third party verification by PWC that all the milestones set out in the MoA have been met, and recommendation of UNDP to the effect, after further extension of time period of the MoA:

Foam N	Foam Manufacturing Enterprises					
S. No.	Name of Enterprise	Amount released (in USD)	MoA extended till			
1	M/s Empire	153,713.80	31 <sup>st</sup> March, 2018			
2	M/s Isolloyd	266,187.20	31 <sup>st</sup> March, 2018			
3	M/s Sintex	253,036.60	31 <sup>st</sup> March, 2018			

4	M/s Synergy	572,324.00	31 <sup>st</sup> March, 2018
	Sub total (A)	1,245,261.60	
System	Houses		·
S. No.	Name of Enterprise	Amount released (in USD)	MoA extended till
1	M/s Industrial Foam	55,989.00	31 <sup>st</sup> December,
			2017
2	M/s Shivathane	31,873.00	31 <sup>st</sup> December,
	Linopack		2017
3	M/s Manali	55,988.50	28 <sup>th</sup> February,2018
	Petrochemicals		
4	M/s Organomettalic	31,872.50	31 <sup>st</sup> March, 2018
	Industries		
5	M/s Expanded	55,988.50	31 <sup>st</sup> March, 2018
	Polymer systems		
	Sub total (B)	231,711.5	
	Total (A) + (B)	1,476,973.1	

- (ii) Ex-post facto approval of ESC is sought for extending the period of MoAs for the enterprises as per time line mentioned in the table at at paragraph (i) above.
- (iii) Noting that the Ex-Com of the MLF in its 80<sup>th</sup> meeting held in November, 2017 approved vide decision 80/20, the extension of the duration of HPMP Stage-I to 31 December, 2017, to obtain response from UNDP, the lead implementing agency as sought vide letters dated 16 January 2018 with respect to the 10 System Houses, where HPMP stage-I activities need to be completed, at the earliest, no later than a fortnight. Based on the response of UNDP, further appropriate action will be taken in the matter.

# **b)** Enabling components (awareness and communication, enforcement training, capacity building and trade controls

The UNEP has been implementing activities under the enabling component for the servicing sector, building sector interventions, enforcement training, trade controls, policy and regulation and awareness generation. The activities under the enabling component are implemented through a Small Scale Funding Agreement (SSFA) signed between the Ozone Cell, MoEF&CC and the UNEP. The details of SSFAs signed and the status has been given below:

Tranche received by UNEP	Sector	Project Cost (US \$)	Support Cost (US\$)	Total Cost (US\$)
First Tranche	Enabling Activities	250,000	30,402	280,402
First Tranche	Refrigeration Servicing Sector	180,800	21,986	202,786
Second Tranche	Refrigeration Servicing Sector and Enabling Activities	344,640	41,910	386,550
Third Tranche	Refrigeration Servicing Sector and Enabling Activities	86,160	10,478	96,638
т	otal	861,600	104,776	966,376

The status of Enabling activities was reported in the last meeting of ESC. All the remaining activities as on December 2016, are under implementation after identification of the following National Partners. Memorandum of Agreements have been signed with them after obtaining approval of Secretary (EFCC) in his capacity as Chairman, ESC. The MoAs are at page 283-311

National Partner	Activity
National Academy of Customs, Indirect Taxes & Narcotics (NACIN)	Capacity Building of customs and enforcement officers
The Energy and Resources Institute (TERI)	RAC Service Technicians Newsletter
Energy Efficiency Services Limited	HCFC phase out and building sector
(EESL)	<ul> <li>Publication of Awareness material and manuals</li> </ul>
	<ul> <li>Preparation of video films for RAC service technicians</li> </ul>
	Suggesting amendment to architecture curriculum to

			sues on C nergy effic		•
Centre and (CSE)		ement	highlightir s in	<u> </u>	India's ⁄Iontreal

Since then most of the activities under the enabling component of UN Environment has been completed. The following remaining activities are under advanced stages of completion:

- Production of newsletter for RAC Service technicians
- Preparation and updation of Training Materials for RAC service technicians
- Enforcement studies and campaigns with respect to illegal ODS trade
- Development of four (4) videos targeting RAC servicing sector
- Training of Trainers workshops at NACEN
- Training workshops for Supervisory Officers
- Risk profiling International resources
- Short work on videos at NACEN

Extension has already been sought from the Executive Committee of the Multilateral Fund for the completion of HPMP Stage I. The ExCom extended the date of completion till 31<sup>st</sup> December, 2017. The next meeting of the Executive is scheduled to be held in June 2018, wherein the progress will have to be reported.

The proposal for approval of ESC:

- (i) Ex-post facto approval is requested for the following:
  - MoA signed with National Academy of Customs, Indirect Taxes & Narcotics on 3<sup>rd</sup> October 2016
  - MoA signed with The Energy and Resources Institute on 10<sup>th</sup> November 2017
  - MoA signed with Energy Efficiency Services Ltd. on 6<sup>th</sup> July 2017 and supplementary MoA on 29<sup>th</sup> January 2018

- MoA signed with Centre for Science and Environment on 13<sup>th</sup> October 2017.
- (ii) To note that the deadline for completion of the HPMP Stage I as per ExCom decision 80/20 was 31.12.2017. UNEP to take appropriate action for completion of activities at the earliest.

#### c) Servicing Sector Plan

The activities under the RAC servicing sector have been carried out independently by the GIZ Proklima in cooperation with the UNEP and the Ozone Cell, MoEF&CC

The details of remaining activities implemented by GIZ under HPMP Stage-I are given below:

S.	Activity	Number
No.		
1.	Training of technicians Two days technicians training	Trained total 11276 through 408 training programs (expected to be trained was 10200)
	on "Good Servicing Practices	programs (expected to be trained was 10200)
	(GSPs), Leak Prevention and	Servicing - Trained total 9240 through 332
	Introduction to Alternate Refrigerants for Refrigeration	training programs
	& Room Airconditioning	Installation - Trained total 2036 through 76
	Appliances up to 2 ton' and one day training on	training programs
	Installation of Room Air-	
	conditioners up to 2 ton.	
	Institutional Strengthening	
2.	ITIs RAC teaching staff –	3 Training Completed - ATI Vidyanagar 28
		and 21 participants
		ATI Howrah – 23 participants
3.	Training of institutional users	One training for Defence at Secunderabad
	like Defence and Railways	completed – 25
		4 training programs for Indian Railways
		completed. Each at
		Lucknow (28), Delhi (29), Mumbai (25) and
		Chennai. (28)
4.	Promotion of Recovery and	Initial meetings with the reclamation centre
	Reclamation Centers on Pilot	entrepreneurs done
	basis	2 Reclamation Centre Awareness workshops

### XXXIII

	completed. One each
	at Ludhiana and Ahmedabad

All activities of HPMP Stage-I GIZ component have been completed

#### The proposal for approval of ESC:

To note that the activities under HPMP Stage I in the Service Sector component being implemented by GIZ have been completed within the stipulated time period as per ExCom decision 80/20. Item No. 8 : Submission of Article 7 of the Montreal Protocol to the Ozone Secretariat and Country Programme Progress Report (CPPR) to the Multilateral Fund Secretariat for the year 2016.

> As per the requirement of the Ex-Com of the MLF for the Implementation of the Montreal Protocol and as per the Article 7 of the Montreal Protocol, CPPR and the Article 7 data needs to be submitted to the Multilateral Fund Secretariat and the Ozone Secretariat respectively.

> As per Article 7 of the Montreal Protocol, the data on production, import, export and feedstock use of ODSs is to be submitted to the Ozone Secretariat by 30<sup>th</sup> September every year. The CPPR is to be submitted on an annual basis to the Multilateral Fund Secretariat. In the CPPR the chemical-wise consumption in various sub-sectors is reported.

> The Standing Committee on Monitoring Chaired by the Chairman, Central Pollution Control Board (CPCB) is responsible for reviewing and recommending the data for submission to the Ozone Secretariat.

> The data on production of ODSs is being collected from the producers. The data for import/export of ODSs is being collected from the Directorate General of Foreign Trade (DGFT), Directorate General of Commercial Intelligence & Statistics (DGCI&S) and Ministry of Agriculture respectively.

> The Meeting of Standing Committee on Monitoring was held on 22<sup>nd</sup> September, 2017 under the Chairmanship of Shri. S.P. Singh Parihar, Chairman, CPCB. The copy of the Minutes is placed at *Enclosure-14, pages 182-216*.

> The Committee noted the prescribed formats of data reporting under Article 7. The Committee also noted the process of acquisition of information and the sources from which data relating to ODSs are sought which includes, Producers, Consumers of Carbon tetrachloride, Metered Dose Inhalers (MDI) manufacturers, Directorate General of Commercial Intelligence and Statistics (DGCIS) and Ministry of Agriculture for methyl bromide.

The Committee, taking note of the detailed information and explanation on production, consumption, export, import of ODSs for the year 2016, the Committee recommended that the data for the year 2016 be submitted to the Ozone Secretariat and to the Multilateral Fund Secretariat with the approval of ESC. Keeping in view that the last date for submission of the data was 30th September, 2017, it was also recommended that the data be sent to the Ozone Secretariat with the approval of Secretary (EF&CC) in his capacity as Chairman of the ESC and ex-post facto approval of the ESC could be obtained at its future meeting.

Accordingly, the Article-7 data and CPPR were submitted to the Ozone Secretariat and to the Multilateral Fund Secretariat respectively.

The proposal for approval of ESC:

Ex-Post facto approval is requested for the following:

- (i) Article-7 data for the years 2016 (Enclosure-15, pages 217-227)
- (ii) CPPR data for the years 2016 (*Enclosure-16, Pages 228-233*)

# Item No. 9 : Collaborative Research Programme on low Global Warming Potential (GWP) alternatives to Hydrofluorocarbons (HFCs)

While preparing for negotiations before the Kigali Amendment to the Montreal Protocol, in a briefing meeting the then Hon'ble MoEFCC had desired that Research and Development needs to be carried out on non-Ozone Depleting Substances (ODSs), low GWP, cost effective alternative technologies to HFCs indigenously. In this regard, a Collaborative Research Programme on low GWP alternatives to HFCs was announced. It was proposed that the Collaborative Research Programme would have participation from Government (DST, CSIR), Research and Development and academia institutions, think tanks and industries.

The last meeting of ESC was apprised of the development and the committee deliberated on the way forward. The following had inter alia emerged from the deliberations viz. (i) the programme should be the outcome driven, (ii) an oversight mechanism should be there to steer the programme, (iii) there should be active participation of industry/stakeholders and (iv) as a source of funding the industries which are being financed under HPMP Stage-II through MLF may be asked to make contribution towards R&D.

This could be included as a clause in the MoA of industries who are availing MLF funding for conversion and that Secretary (EF&CC) could take a meeting of the industries to secure their consent for the proposed arrangements. As the verification of enterprises for participation in HPMP Stage-II is still ongoing. This meeting could not be arranged.

However, in the interim a D.O. letter from the then Hon'ble MEFCC was sent to Hon'ble Minister Science & Technology for active participation of DST /CSIR in the programme. A concept detailing the proposed framework of the programme was also sent which is at *Enclosure-17, pages 234-238* Through last year continuous engagements has been made with DST on this issue. In a recently held stakeholder meeting on the National Cooling Action Plan the importance for undertaking innovations and R&D was underscored. Most recently, a reference has been sent from Secretary (EFCC) to Secretary (DST) on the subject.

The proposal for approval of ESC:

- (i) To note the efforts being made to move ahead on the Collaborative Research programme and to further note that the programme was announced on World Ozone Day 2016.
- (ii) To expedite implementation of activities under the collaborative research programme in collaboration with DST / CSIR.

Item No. 10 : Service Sector plan by Electronic Sector Skill Council of India (ESSCI), National Skill Development Corporation, Ministry of Skill Development Under Pradhan Mantri Kaushal Vikas Yojana (PMKVY)

#### **Background**

Air conditioning and refrigeration is an important and critical sector both for social and economic development in the country. Air conditioning is becoming a necessity healthy working and living environment, and for refrigeration is an essential component of the cold chain for the preservation and distribution of perishable food. Cooling is also widely used in several industrial processes especially in chemical and pharmaceutical industry and transport including shipping of industrial products. The country has been witnessing a very rapidly growing building stock and urbanization. These developments have led to a rapid growth of air conditioning and refrigeration sector in the country.

### Overview of the Servicing Sector

Servicing sector is important not only because it consumes a large proportion of the total consumption of refrigerants like HCFCs and HFCs but also it has been the major source of emissions of these chemicals to the environment in the country. The servicing sector accounts for about 53% of the annual consumption of refrigerant. The refrigerant consumption in the Servicing Sector not only depends on the installed base of RAC equipment but also the quality of installation and servicing. The quality of servicing would also maintain the energy efficiency of the serviced equipment resulting in saving in electricity consumption. The service quality is directly linked with the knowledge and skill levels of service technicians. The use of proper servicing practices would not only result in savings in refrigerant and consumption and emissions but also reduce electricity consumption in the serviced equipment.

Most of the technicians engaged in this sector are from the unorganized sector without formal technical education and/ or training and these technicians have learnt by working in the field over several years. A shortterm upgradation of skills of these servicing technician and new entrants would go a long way to continue their livelihood and would also enhance employment opportunities with in the country as well as overseas.

# Needs of the Servicing Sector

Commonly used HCFC and HFC refrigerants have been non-flammable, non-toxic and with moderate operating pressures but usually with higher GWPs. Owing to the growing environmental concerns over the increased use of such high-GWP chemicals, the Parties to the Montreal Protocol decided through Decision XIX/6 that while accelerating the phase-out of HCFCs, to encourage Parties to promote the alternatives to HCFCs that minimize environmental impact, particularly on climate.

The Kigali amendment to the Montreal Protocol in October, 2016 for phase-down of HFCs has further moved the AC & R industry to go for low-GWP refrigerants which are mostly either mildly or highly flammable. These developments envisage that there will be considerable uptake of refrigerants like hydrocarbons (R-290), HFC-32, hydrofluoroolefins (HFOs) and blends of HFOs and HFCs. Most of these refrigerants are either flammable or toxic or both. Some of these refrigerants have very high operating pressures as well.

Broadly, the servicing sector in the countries would require a focused attention and interventions to upgrade their skills of these technicians and new technicians entering in this sector to keep them in business.

The Ozone Cell, MoEFCC had developed a project jointly with the Electronic Sector Skill Council of India (ESSCI) for upskilling and certifying 100,000 RAC service technicians under the Skill India Mission – Pradhan Mantri Kaushal Vikas Yojana (PMKVY) of Ministry of Skill development with the following outputs:

Sr. No.	Activities
1.	To train 100,000 Air conditioning service technicians on Good Servicing
	Practices and safe handling & servicing of air conditioners with alternative
	technologies including flammable refrigerants
2.	To develop/update training material for training of trainers and technicians material including presentations and instruction manuals, both for trainers and technicians.
3.	To development of a pool of trainers across the country to impart such
	trainings and conduct periodic refresher training programmes for trainers.
4.	To update the Qualification-Pack for service technicians to include good
	servicing practices, safety information and technologies based upon new
	alternative refrigerants.
5.	To develop an online certification scheme for trained technicians in close

	cooperation with GIZ Proklima, and in consultation with Industry and
	associations including RAMA and RASSS and its implementation of
	certification.
6.	To develop a Question Bank for evaluation of candidate's competency
	including knowledge, skills (hands-on skills) and personal attributes for
	Online certification test.
7.	To develop a minimum tools and equipment kit for the technicians and
	methodology in consultation with financial institution (s) for making
	available finances to these technicians.

The expenditure for implementation of the project would be borne by Ministry of Skill Development, Government of India through PMKVY. Cost of the proposed activities are as follows:

Output	Item	Unit cost	No. of units	Total cost
Updating Qualification Packs and Development of Assessment Method	Assessment and Certification	600	1,00,000	6,00,00,000
Developmentoftraining materialandpost-trainingresources	Candidate Handbook & Mobile App	500	1,00,000	5,00,00,000
	Branding, Mobilization, Award Function	500	1,00,000	5,00,00,000
Training of AC Technicians	Training Fee with 3 Trainer	2,000	1,00,000	20,00,00,000
Technicians	Training Consumables	500	1,00,000	5,00,00,000
	Kit for Technician	5,000	1,00,000	50,00,00,000
	Lunch & Snacks	600	1,00,000	6,00,00,000
Project Monitoring	Standards & Project Monitoring	500	1,00,000	5,00,00,000
Total				1,02,00,00,000

The proposal is under review of National Skill Development Corporation. Through this proposal not only the livelihood opportunities of the RAC service technicians working in the informal sector would be enhanced though upskilling and certification but most importantly this would have significant positive environmental impacts through reduction leakage of refrigerants and increase in the energy efficiency in the operation of RAC equipment. A copy of the proposal is at *Enclosure-18, pages 239-260.*  The proposal for approval of ESC:

- (i) To note the development of the joint proposal of the Ozone Cell and ESSCI for upskilling and certification of 100,000 RAC service technicians under the PMKVY scheme of Ministry of Skill Development and its submission to National Skill Development Corporation for funding support,
- (ii) To expeditiously move towards implementation of the proposal keeping in view significant environmental and societal benefits in terms of livelihood generation

#### Item No. 11 : Fiscal Incentives Scheme

The Technology and Finance Standing Committee (TFSC) is one of the Standing Committees of ESC and is responsible for considering of project proposals for availing the fiscal incentive scheme are appraised by the TFSC and upon appraisal recommended to the Empowered Steering Committee (ESC) chaired by Secretary EF&CC for approval for exemptions of Custom duty. The role of the TFSC is to undertake the necessary due diligence in appraising the projects.

Fiscal incentive scheme operating under notification of the Department of Revenue, Ministry of Finance, on providing fiscal incentives for conversion from Ozone Depleting Substance (ODS) to non-ODS technology. The last amendment to the notification was made in 2012. Vide the notification Customs Duty exemptions is provided to non-ODS technologies.

The relevant extract of the notification is quoted below:

"Goods required for,-

- (a) the substitution of ozone depleting substances (ODS);
- (b) the setting up of new capacity with non-ODS technology.

Explanation.-"Goods", for the purpose of this entry means goods which are designed exclusively for non-ODS technology"

The applications for exemption of customs duty which had been received in the past and lying pending since November, 2013 with the Ozone Cell were examined by the TFSC in its meeting held on 21<sup>st</sup> September, 2017. A copy of the Minutes of the meeting of the TFSC is placed at *Enclosure-19, pages 261-279.* 

The details of the approved proposals as stated in the minutes are given below:

(i) M/s Subros Ltd., Noida, had earlier submitted the following 5 proposals earlier (between November, 2013 to September, 2016) for availing exemption of Customs

Duty under the fiscal incentive scheme since November, 2013, which are pending for appraisal.

# (i) Project Proposal 1

The details of 10 pieces of equipment covered are shown in the table 1 below:

S.	Description of	P.O. No and	Qty	Price in JPY	Price in INR
No	equipment	Date		(FOB/CIF/)	
1	Electrical Test bench	7200000485	1	89,80,000/-	53,88,000/-
	RR A/c case	Dated		JPY	
		17.01.2014			
2	Auto Blower Case Heat	7200000486	1	76,00,000/-	45,60,000/-
	Sealing machine	Dated		JPY	
		17.01.2014			
3	Fan Balancing machine	7200000487	1	70,50,000/-	42,30,000/-
	SGB-3KEL	Dated		JPY	
		17.01.2014			
4	Injection molding	7200000503	1	4,54,00,000/-	2,72,40,000/-
	machine J850ADW-	Dated		JPY	
	3900H	25.06.2014			
5	Robot SAII-1000S for	7200000489	1	31,00,000/-	18,60,000/-
	850 T m/c	Dated		JPY	
		25.03.2014			
6	YRA-Fan Blower	7200000494	1	1,71,36,000/-	1,02,81,600/-
	injection mold (LH)	Dated		J Yen	
		23.05.2014			
7	YRA-Fan Blower	7200000494	1	2,32,67,500/-	1,39,60,500/-
	injection mold (RH)	Dated		J Yen	
		23.05.2014			
0		700000405	4	0.00.40.000/	5 57 00 000/
8	Case Injection mold (H)	720000495	1	9,28,48,000/-	5,57,08,800/-
	LH & RH	Dated		J Yen	
0	Case Blower Mold	24.05.2014 7200000499	1	22.500 /	20.10.000/
9		7200000499 Dated	1	33,500 /- USD	20,10,000/-
	(single cavity)	12.06.2014			
10	Guide Air Mold (Single	7200000499	1	21,500/-	12,90,000/-
	cavity)	Dated		USD	12,30,000/-
		12.06.2014			
		12.00.2014			
		I		otal cost in Rs.	12,65,28,900/
L					

## Table 1

S.	Description of	P.O. No and	Qty	Price in JPY	Price in INR
No	equipment	Date		(FOB/CIF/)	
Duty payable @ 7.5%					94,89,667/-

The cost of these imported equipment is approx. Rs. 12.65 crores and basic import duty on it @ 7.5% would be approx. Rs. 94.89 lakhs crores.

### (ii) Project Proposal 2

The details of 10 pieces of equipment covered are shown in the table 2 below:

			Table 2			
S. No	Description of equipment	P.O. No and Date	Qty	Price (FOB/CIF/)	Price in INR	
1	11.5 Fin Forming machine (GSR)	7200000516 Dated 21.10.2014	1	3,66,850/- USD	2,23,77,850/-	
2	11.5 D Core Assy Line (GSR)	7200000516 Dated 21.10.2014	1	5,63,155/- USD	3,43,52,455/-	
3	2 Row FF roller with cassette 11.5D & 3.0	7200000518 Dated 28.10.2014	1	23,63,200/- JPY	12,99,760/-	
4	2 Row FF roller with cassette 11.5D & 2.25	7200000518 Dated 28.10.2014	1	23,52,000/- JPY	12,93,600/-	
5	2 Row FF roller with cassette 11.5D & 3.5mm Fin Pitch	7200000518 Dated 28.10.2014	1	8,96,000/- JPY	4,92,800/-	
6	2 Row FF roller with cassette 11.5D & 3.0mm Fin Pitch	7200000518 Dated 28.10.2014	1	8,96,000/- JPY	4,92,800/-	
7	2 Row FF roller with cassette 11.5D & 2.25 / 2.50	7200000518 Dated 28.10.2014	1	8,96,000/- JPY	4,92,800/-	
8	ASTY Spray Fluxing System	720000526 Dated 31.01.2015	1	2,74,00,000/- JPY	1,50,70,000/-	
9	Pressure Pulsation Testing machine	7200000528 Dated 02.02.2015	1	49,21,000/- JPY	27,06,550/-	
10	Parco paint spray	7200000538	1	1,80,000/-	1,13,40,000/-	

S. No	Description of equipment	P.O. No and Date	Qty	Price (FOB/CIF/)	Price in INR		
	fluxing system	Dated 30.05.2015		USD			
	Total cost in Rs.						
	Duty payable @ 7.5%						

The cost of these imported equipment is approx. Rs. 8.99 crores and basic import duty on it @ 7.5% would be approx. Rs. 67.43 lakhs.

# (iii) Project Proposal 3

The details of 4 pieces of equipment covered are shown in the table 1 below:

	Table 3					
S. No	Description of equipment	P.O. No and Date	Qty	Price in JPY (FOB/CIF/)	Price in INR	
1	850 T Hyd Inj Molding M/c with accessories	7200000559 Dated 30.10.2015	1	2,35,46250/- JPY	1,31,85,900/-	
2	Bench Top Mdl LMXM6 spectromax with access	7200000562 Dated 19.11.2015	1	49,150/- USD	32,43,900/-	
3	Contour Measurement Surfcom NEX030 SD12	7200000563 Dated 19.11.2015	1	22,00,000/- JPY	12,32,000/-	
4	1000 T IMM J1000HD 5200 H(A)	7200000564 Dated 24.11.2015	1	5,24,00,000/- JPY	2,93,44,000/-	
				Total cost in Rs.	4,70,05,800/-	
	Duty payable @ 7.5%					

The cost of these imported equipment is approx. Rs. 4.70 crores and basic import duty on it @ 7.5% would be approx. Rs. 35.25 lakhs.

### (iv) <u>Project Proposal 4</u>

The details of 8 pieces of equipment covered are shown in the table 4 below:

Table 4

S. No	Description of equipment	P.O. No and Date	Qty	Price (FOB/CIF/)	Price in INR
1	160 SN2	7200000576	2	1,51,000/-	1,01,17,000/-

S. No	Description of equipment	P.O. No and Date	Qty	Price (FOB/CIF/)	Price in INR
	stamping press	Dated 11.02.2016		USD	
2	Double Heads uncoiler UAD300	7200000584 Dated 22.03.2016	2	23,200/- USD	15,54,400/-
3	Power straightner SLV-300	7200000584 Dated 22.03.2016	2	16,700/- USD	11,18,900/-
4	NC Servo Feeder NCF-300	7200000584 Dated 22.03.2016	2	21,000/- USD	14,07,000/-
5	Oil Lubricator SBT - 300	7200000584 Dated 22.03.2016	2	1,900/- USD	1,27,300/-
6	Fin Forming M/c No-2 GRS 11.5D	7200000585 Dated 08.04.2016	1	3,49,465/- USD	2,34,14,155
7	Core Assy M/c no-02 GRS 11.5D	7200000585 Dated 08.04.2016	1	4,85,160/- USD	3,25,05,720/-
8	GRS 11.5 D Fin Tray 45 Row	7200000585 Dated 08.04.2016	40 no	385/- USD	25,795/-
			То	tal cost in Rs.	7,02,70,270/-
	Duty payable @ 7.5%				

The cost of these imported equipment is approx. Rs. 7 crores and basic import duty on it @ 7.5% would be approx. Rs. 52.70 lakhs.

# (v) Project Proposal 5

The details of 9 pieces of equipment covered are shown in the table 5 below: **Table 5** 

# XLVII

S. No	Description of equipment	P.O. No and Date	Qty	Price in JPY (FOB/CIF/)	Price in INR		
1	Cylinderical Grinding Machine	7200000594 Dated 14.06.2016	1	85,000/- USD	56,95,000/-		
2	Fin Forming Machine- MFC Line	7200000598 Dated 27.07.2016	1	6,04,800/- USD	4,05,21,600/-		
3	Helium Leak Detecting System MFC	7200000603 Dated 03.08.2016	1	2,38,000/- USD	1,59,46,000/-		
4	11.5 D Fin Forming Machine	7200000606 Dated 16.08.2016	1	3,49,465/- USD	2,34,14,155/-		
5	11.5 D Core Assy Machine	7200000606 Dated 16.08.2016	1	4,85,160/- USD	3,25,05,720		
6	GR 11.5D Fin Tray 45- Row	7200000606 Dated 16.08.2016	40	15,400 USD	10,31,800/-		
7	Coil Winding M/c 10 S 11/10P08 P08	7200000608 Dated 16.08.2016	1	25,50,000 JPY	17,08,500/-		
8	Asty Flux Spray System	7200000609 Dated 17.08.2016	1	2,59,00,000/- JPY	1,73,53,000/-		
9	NBF KYK Condenser Line	7200000611 Dated 17.08.2016	1	5,80,00,000/- JPY	3,88,60,000/-		
	Total cost in Rs.						
	Duty payable @ 7.5%						

The cost of these imported equipment is approx. Rs. 17 crores and basic import duty on it @ 7.5% would be approx. Rs. 1.32 crore.

The company representative explained that the equipment's covered in the proposals were not only for increasing the capacity of the plant but also for improving the technology for better products. They need for expansion and upgradation of the Noida plant/ Manesar plant with these equipment's for catering to the increased demand from the car manufacturer M/s Maruti Suzuki Ltd.

The representative of M/s Subros Ltd., mentioned that as long time had elapsed since the time they had applied under the fiscal incentive schemes, M/s Subros Ltd., had procured all the equipment's after payment of Duty, except for 9 equipment's, which were released against Bank Guarantee based on a letter issued by the Ozone Cell, MoEF&CC wherein it was stated that said cases are under consideration. The Company in the present meeting is seeking Custom duty exemption for these 9 pieces of equipment's which were released against Bank Guarantee the details of which were presented and are given in below.

S. No.	EQUIPMENT	PO NO	Amount (in INR)	Duty @ 7.5% (in INR)
1.	INJECTION MOLDING MACHINE J850ADW-3900H	7200000503	2,72,40,000	20,43,000
2.	YRA FAN BLOWER INJECTION MOLD (LH)	7200000494	1,02,81,600	7,71,120
3.	YRA FAN BLOWER INJECTION MOLD (RH)	7200000494	1,39,60,500	10,47,038
4.	11.5 FIN FORMING MACHINE (GSR)	7200000516	2,23,77,850	16,78,339
5.	11.5 D CORE ASSEMBLY LINE (GSR)	7200000516	3,43,52,455	25,76,434
6.	ASTY SPRAY FLUXING SYSTEM	7200000526	1,50,70,000	11,30,250
7.	850 T HYDRAULIC INJECTION MOLDING MACHINE WITH ACCESSORIES	7200000559	1,31,85,900	9,88,943
8.	PARCO PAINT SPRAY FLUXING SYSTEM	7200000538	1,13,40,000	8,50,500
9.	160 SN2 STAMPING PRESS	7200000576	1,01,17,000	7,58,775

M/s Subros Ltd. also provided the copies of the letter issued by the Ozone Cell, MoEF&CC for release of equipment under Bank Guarantee. Copies of the letters issued by Ozone Cell, Purchase Order, Bill of Entry mentioning Bank Guarantee amount.

The Committee observed that the equipment being imported are general purpose manufacturing machinery for mobile air-conditioners and the equipment is needed for further expansion.

The Committee recommended the application for exemption of basic Custom duty to the equipment's listed in Table 6 above, subject to M/s Subros Ltd., submitting the following:

- a) An undertaking that the equipment would be specifically used only for the purpose as set out in the application proposal,
- b) An undertaking that the equipment being imported are not manufactured in India,
- c) An undertaking that, in case, the company envisages to sell the equipment the same needs to brought to the notice of Custom Authorities.

(ii) **M/s Bharat Seats Ltd.,** Gurgaon (Haryana), for duty exemption for import of one Polyurethane car seat cushion moulding line from Japan. The details of equipment submitted by M/s Bharat Seats Ltd., Gurgaon is provided in table below.

S. No	Description of equp.	P.O. No and date	Qty	Price in Yen	Price in INR
i	Conveyor system	6700000011	One set	1,19,01,000/-	73,78,620/-
ii	Pouring machine	Dated	One set	1,22,51,000/-	75,95,620/-
iii	New system for Iso B2	25 <sup>th</sup> Jan 2014	One set	1,95,37,000/-	1,21,12,940/-
iv	Electrical Parts		One set	1,30,89,000/-	81,15,180/-
	3,52,02,360/-				
	26,40,177/-				

V	Seaworthy	One set	3,22,20,020/-	19,97,640/-
	packing and			
	FOB			
	charges			

The fifth item in the list e.g., **sea worthy packing and FOB charges** is not eligible for duty exemption as these are not capital goods.

The total of four items in the table is therefore Rs. 3.52 crores and basic duty on it @ 7.5% would be Rs 26.40 lakhs approximately.

In their presentation before the Committee the company representative explained the various features of the machine mentioned in the table. He mentioned that the machine is suitable for automated foaming controls and has higher number of moulds to improve productivity. It was informed that M/s Bharat Seats Ltd., use water as a blowing agent in the presence of various additives and catalyst to produce micro porous foam in the seating systems.

M/s Bharat Seats Ltd., Gurgaon informed the Committee that the equipment's mentioned above have already been imported as a lot of time has passed since they had submitted the proposal. However, the equipment's have been released from Customs after payment of a "duty under Protest" and Provisional Assessment of Duty.

The Committee recommended the application for duty exemption of basic Custom duty to the equipment's listed in Table 7 above, subject to M/s Bharat Seats Ltd., Gurgaon submits the following:

- a) Submission of flow sheet, diagrams and photographs with the details of equipment's to be used as per the Table 7 above, especially "New System for Iso B2".
- b) An undertaking that the equipment would be specifically used only for the purpose as set out in the application proposal,
- c) An undertaking that the equipment being LI

imported are not manufactured in India,

- d) An undertaking that, in case, the company envisages to sell the equipment the same needs to brought to the notice of Custom Authorities,
- e) Submission of details of electrical equipment, and that the software is proprietary for use of the electrical equipment imported.

The TFSC had recommended the proposal of M/s Subros and M/s Bharat Seats after submission of the required documentation sought in the TFSC meeting.

b) As the tenure of the TFSC expired on 30<sup>th</sup> September 2017 the TFSC was reconstituted on 8<sup>th</sup> January, 2018 at (*Enclosure-20, pages 280-282*) On the recommendation of TFSC, Secretary EFCC approved the duty exemptions of the above mentioned equipments in his capacity as Chairman, ESC.

The proposal for approval of ESC:

Ex-post facto approval is requested for the recommendation of TFSC in its meeting held on 21<sup>st</sup> Spetember wherein the following long pending cases in Ozone Cell since 2014 were approved for duty exemption:

> (a)M/s Subros (5 cases) (b) M/s Bharat Seats

#### Item No. 12 : World Ozone Day 2017.

The International Day for the Preservation of the Ozone Layer is being organized every year in the country on 16th September, at national and state levels since 1995.

Booklet on "Montreal Protocol : India's Success Story", posters, stickers are published every year on the occasion of International Day for the Preservation of the Ozone Layer giving latest information on ODS phase-out in the country and technologies adopted for phasing-out of ODSs.

The 23rd World Ozone Day was organized on 16th September, 2017 at New Delhi with the theme: "Caring for all life under the Sun". A large number of stakeholders and school children participated in the event.

A pan-India awareness campaign launched by the Environment Ministry on the occasion. This campaign was among the most widespread countrywide engagements of the Ministry for awareness generation, carried out with the active partnership of States through schools and academic/research institutions spread across the country. The awareness campaign saw participation of students from more than 13, 000 schools and reached out to 214 districts across 16 states of the country.

The awareness campaign was implemented with active collaboration from State Governments, Regional Offices of the Ministry, Subordinate organizations and Autonomous bodies of the Ministry, State Nodal Agencies under the National Green Corp Scheme of the Ministry, and the ENVIS centers spread across the country. A special website was created for wider engagement participation and of stakeholders http://ozone30mp.nic.in.

Ten information posters for school students were developed on Montreal Protocol. These were disseminated across the country.

The following publications were launched by the Hon'ble Minister on the occasion:

- Handbook on HCFC Phase-out and Energy Efficiency in Buildings; and
- •The first edition of 'newsTRAC; and a newsletter for service technicians in Refrigeration and Airconditioning (RAC) sector.

These two publications were launched as part of the enabling component of India's HCFC Phase out Management Plan, for which United Nations Environment is the cooperating agency and Energy Efficiency Services Ltd. (EESL) and The Energy and Resources Institute (TERI) are the national implementing partners.

The following two videos were launched:

- India's achievements in implementation of Montreal Protocol, and
- HCFCs phase-out and Energy Efficiency in buildings.

On this occasion, the publication "Montreal Protocol: India's Success Story" was released by the Chief Guest and distributed to the participants. In addition, poster design, painting, slogan writing competitions were organized among school children. Prizes for the winning entries in each category of the competitions were awarded by the Chief Guest.

Piquor – on line selfie stand and infographic relating to past achievements of Montreal Protocol were arranged for wider public engagement.

# The proposal for approval of ESC:

To note the activities undertaken on the World Ozone Day 2017 and the 30<sup>th</sup> Anniversary of the Montreal Protocol

Item No. 13 Proposed audit of HCFC-22 production facilities regarding pricing of domestically produced HCFC-22

> The issue of price differential between domestic sale and international prices is being considered since the XXXVIIth ESC held in 2012. In the XXXIXth meeting of the ESC held in March, 2014, it was decided to conduct the audit of HCFC-22 production facilities regarding pricing of domestically produced HCFC- 22. As the audit was not conducted, the XXXXth meeting of the ESC held in April, 2016 reiterated that the audit may be conducted. This was again reiterated in the XXXXIst meeting held in December, 2016.

> The audit report of HCFC-22 production facilities regarding pricing of domestically produced HCFC- 22 has been received by the Ozone Cell. The following are conclusion and recommendations of the audit report:

# Conclusions

- The cost of production and cost of sales for the five plants varied over the years and between them.
- The national weighted average cost of production ranges from 115.76 INR/kg HCFC-22 to 132.29 INR/kg HCFC-22 between FY 2011-12 and 2015-16. The national weighted average cost of sales varies from 129.44 INR/kg HCFC-22 to 154.90 INR/kg HCFC-22 for the same period.
- The national weighted average annual sale price of total HCFC-22 sold (including both domestic and international sales) by the plants varied from 154.40 INR/kg HCFC-22 to 211.61 INR/kg HCFC-22 between FY 2011-12 and 2015-16.
- The sale price in domestic market varied between the companies and it ranges from 159.34 INR/kg HCFC-22 to 324.57 INR/kg HCFC-22 during FY 2014-15 & FY 2015-16, wherein the international sale price derived from the database available in public domain for FY 2014-15 & FY 2015-16 was

169.66 INR/kg HCFC-22 and 324.39 INR/kg HCFC-22 respectively

• The estimated profit margins for domestic sales are in the range of 1.9% and 133.7% for the last two financial years, wherein margins on exports are found to be under stress.

### Recommendation

- Ozone Cell might develop a uniform template for collection of cost data from each plant on an annual basis. This will provide common basis for comparison over the years.
- For a fair comparison within plants and comparison over the years, the costs should be divided into direct costs and allocated costs.
   Different plants have different methods of allocations and that needs to be streamlined. It would be better, if Ozone Cell establishes a harmonized structure of indirect cost allocations.
- It is also recommended to monitor main raw material prices including prices of domestically manufactured AHF and imported fluorspar from China.

The XXXIXth meeting of the ESC had decided that the issue of regulation of price differential will be considered on receipt of the audit report in consultation with stakeholders.

### The proposal for approval of ESC:

- (i) To note that the report on the audit of HCFC-22 production facilities regarding pricing of domestically produced HCFC- 22 has been submitted.
- (ii) Stakeholder consultation between producers and consumers may be organized to deliberate on the findings of the report. The outcomes of such deliberation to be reported to the next meeting of the ESC.

Item No. 14 : Major Publications /Outreach and Awareness Activities

- Handbook on HCFC Phase-out and Energy Efficiency in Buildings; and
- The two editions of "newsTRAC" a newsletter for service technicians in Refrigeration and Airconditioning (RAC) sector.
- Booklet on Implementation of Montreal Protocol
- The MoEFCC, Government of India hosted the South Asia Ozone Officers Annual Network meeting - 2017 at Agra, India from 23-26 May, 2017 in collaboration with the UN Environment. The meeting was attended by National Ozone Officers of South Asian countries and saw participation and the senior-most level from Ozone Secretariat and the Multilateral Fund. Senior officials from UN Environment, UNDP, GIZ and UNIDO along with representatives of various Government Organizations participated in the meeting. Mr. Ajay Narayan Jha, the then Secretary, Ministry of Environment, Forest and Climate Change. Government India. of inaugurated the meeting.
- An "Ozone2Climate Technology Roadshow" was also organized for the first time as part of the Network Meeting was organized to showcase non-ODS with low GWP technologies. The Roadshow saw active participation from the industry.
- MoEFCC, Government of India and UN Environment organized a side event on "An Integrated Approach to Cooling: Maximizing Climate Benefits under the Kigali Amendment" during the margins of the High-Level Segment of the Joint 11th COP to the Vienna Convention and 29th MOP to the Montreal Protocol.
- The Ozone Cell, MoEFCC along with UNDP, UN Environment and GIZ participated and set up stall in ACREX 2017 and ACREX 2018 – Asia's largest exhibition of Heating, Ventilation Air-conditioning and Refrigeration (HVACR) industry.

- Ozone Cell, MoEFCC also organized industry roundtables on the sidelines of ACREX 2017 and ACREX 2018, which saw vibrant industry participation.
- Several workshops / stakeholder consultations were organized on issues related to Montreal Protocol, Kigali Amendment and Energy Efficiency in relation to phase out of ozone depleting substances

### The proposal for approval of ESC:

To note the outreach and awareness activities being organized by the Ozone Cell in active collaboration with UNDP, UN Environment and GIZ and the industry on Montreal Protocol and related issues. On the 30th anniversary of the Montreal protocol, the Ozone Secretariat in cooperation with Government of Canada, hosted the Award distribution ceremony on 23rd November 2017 during the High level Segment of the 29<sup>th</sup> MoP.The Award were handed over by Ms Catherine Mckenna, Minister of Environment, Government of Canada, at the glittering Award Ceremony.

The awards recognized the achievements of individuals, groups and organizations that have demonstrated extraordinary contribution to the progress of protocol in last 10 years.

Late Shri Anil Madhav Dave, the then Hon'ble Minister of State (independent charge) environment, forest and climate change, Government of India was given the Ozone Award under the Political Leadership category for the Leadership provided by India during the Kigali Amendment Negotiations. On behalf of India, the award was received by Secretary, Ministry of Environment, Forest, and Climate Change. The Award ceremony was held in Montreal during the first day of high level segment of 29th MoP

The proposal for approval of ESC:

To note with appreciation the recognition of political leadership provided by the then Hon'ble Minister of State (independent charge) environment, forest and climate change, Government of India, Late Shri Anil Madhav Dave during the Kigali Amendment negotiations through an Ozone Award presented at the 29<sup>th</sup> Meeting of Parties held in Montreal. Item No. 16

Any other matters with permission of the Chair

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