

Department of Heavy Industry

1. Development of Automobile Industry: National Automotive Testing & R&D Infrastructure Project (NATRIP) (CS)

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2019-20			OUTCOME 2019-20			
	2019-20	Output	Indicators	Targets 2019-20	Outcome	Indicators	Targets 2019-20
259.23	1.	Support for creation of infrastructure for Automotive Testing and Research & Development	1.1. Number of Labs & Test Tracks completed: No. of Test Tracks at ICAT completed	1	1. Create a state-of-the-art Testing, Validation and R&D infrastructure in the country	1.1. No. of units operational to carry out the testing and certification for emission standards, vehicle safety and performance: At ICAT: No. of Test Tracks	1
			1.2. Number of Labs & Test Tracks completed: No. of Test Tracks at NATRAX completed	1		1.2. No. of units operational to carry out the testing and certification for emission standards, vehicle safety and performance: At NATRAX: No. of Test Tracks	1
			1.3. Number of Labs & Test Tracks completed: No. of Lab- APSL at GARC <sup>29</sup> , (1 Lab is under progress)	*		1.3. No. of units operational to carry out the testing and certification for emission standards, vehicle safety and performance: No. of Lab- APSL at GARC <sup>30</sup> (1 Lab is under progress)	*

\* Targets not amenable for this indicator

<sup>29</sup> APSL at GARC is under progress and as per the completion schedule of one major equipment supplier, the lab is expected to be completed by August, 2020. Hence not included for the outputs 2019-20 and outcomes 2019-20.

<sup>30</sup> This is the financial outlay approved for the FY 2019-20 by the Cabinet for the Scheme and as per Scheme's Gazette Notification S.O. No. 1300(E) dated 8th March 2019.

## 2. Development of Automobile Industry: Development Council for Automobile and Allied Industries (DCAAI) (CS)

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2019-20			OUTCOME 2019-20		
	2019-20	Output	Indicators	Targets 2019-20	Outcome	Indicators
25	1. Research and Development Activities for automobile industries supported, Firms/manufacturers supported for skill development for automobile industries.	1.1 No. of studies approved for R&D Activities for automobile industries	10	1. To promote scientific and industrial research in Auto Sector, promoting improvement and innovation in auto design.	1.1 Increase number of Research and Development projects completed for Auto mobile	1
		1.2 No. of studies completed for R&D activities	5		1.2 No of innovation adopted in automobile industries	2
		1.3 No. of firms/manufacturers supported for skill development for automobile industries	100			
		1.4 No. of promotional activities undertaken at North East Region	1			

### 3. Development of Capital Goods Sector: Enhancement of competitiveness in the Indian Capital Goods Sector (CS)

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2019-20			OUTCOME 2019-20		
	2019-20	Output	Indicators	Targets 2019-20	Outcome	Indicators
110	1. Technology development through Centre of Excellence	1.1. No. of Centre of Excellence (CoE) projects approved.	*	1. Enhancement of competitiveness of Indian Capital Goods Sector through R&D and Technology Development for new machines.	1.1. % of completion of Centres of Excellence (CoE) project at CMTI Bangalore	50%
		1.2 No of Centre of Excellence (CoE) projects completed	3		1.2. % of completion of Centres of Excellence (CoE) project at IIT Madras	80%
	2. Common Engineering facility centre to facilitate value added service in manufacturing	2.1. No. of Common Engineering Facility Centres (CEFC) approved.	*		1.3. % of completion of Centres of Excellence (CoE) project at PSG College of Technology, Coimbatore	100%
		2.2. No. of Common Engineering Facility Centres (CEFC) completed.	*		1.4. % of completion of Centres of Excellence (CoE) project at Sitarc, Coimbatore	100%
	3. Technology Acquisition Fund programme (TAFP) for	3.1 No. of Technological Acquisition Fund Programme (TAFP) projects	*		1.5. % of completion of Centres of Excellence (CoE) project at IIT Delhi	30%

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2019-20			OUTCOME 2019-20			
	2019-20	Output	Indicators	Targets 2019-20	Outcome	Indicators	Targets 2019-20
		technology acquisition or transfer of advance machinery, supported to be given capital goods manufacturing units, individual or in consortium form	approved				
			3.2 No. of Technological Acquisition Fund Programme (TAFP) projects completed	2		1.6. % of completion of Centres of Excellence (CoE) project at IIT Kharagpur	50%
	4.	Creation of Integrated Industrial Facility	4.1. No. of Integrated Industrial Facility (IIF) approved.	*		1.7. % of completion of Centres of Excellence (CoE) project at HEC – Excavator	100%
			4.2 No. of Integrated Industrial Facility (IIF) completed	*		1.8. % of completion of Centres of Excellence (CoE) project at IISC Wipro	70%
					2. Enhancement of competitiveness of Indian Capital Goods Sector through Creation of common physical infrastructure in the form of CEFCs	2.1. % of completion of Common Engineering Facility Centre (CEFC) at Chakan, Pune	70%
						2.2. % of completion of Common Engineering Facility Centre (CEFC) at HEC Ranchi	80%
						2.3. % of completion of Common Engineering Facility Centre (CEFC) at	60%

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2019-20			OUTCOME 2019-20			
	2019-20	Output	Indicators	Targets 2019-20	Outcome	Indicators	Targets 2019-20
						Bardloi, Surat	
						2.4. % of completion of Common Engineering Facility Centre (CEFC) at Kirloskar	50%
						2.5. % of completion of Common Engineering Facility Centre (CEFC) at IIT Delhi	50%
						2.6. % of completion of Common Engineering Facility Centre (CEFC) at IISC Bangalore	50%
						2.7. % of completion of Common Engineering Facility Centre (CEFC) at CMTI Industry 4.0 Bangalore	50%
						2.8. % of completion of Common Engineering Facility Centre (CEFC) at Korus	50%
						2.9. % of completion of Common Engineering Facility Centre (CEFC) at CMTI Precision Lab	70%
				3. Enhancement of competitiveness of Indian Capital Goods Sector through		3.1. % of completion of Technological Acquisition Fund Programme (TAFP) project: TAFP by Allied Engineering Pvt. Ltd on	100%

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2019-20			OUTCOME 2019-20			
	2019-20	Output	Indicators	Targets 2019-20	Outcome	Indicators	Targets 2019-20
					Technology Acquisition	Manufacturing of Heavy Duty High Reliability Electrical Specialised Power cables.	
						3.2. % of completion of Technological Acquisition Fund Programme (TAFP) project : TAFP by industrial processors & metalizer Pvt Ltd on cutting edge Robotic laser cladding Technology for Hydro Turbines indigenously using Tungsten Carbide Powder.	50%
						3.3. % of completion of Technological Acquisition Fund Programme (TAFP) project : TAFP by PTC industries Ltd on Development and Commercialization of Titanium casting with ceramic shelling technology	100%
					4. Enhancement of competitiveness of Indian Capital Goods Sector through Setting up of Integrated	4.1. % of completion of Integrated Industrial Facility (IIIF)	70%

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2019-20			OUTCOME 2019-20			
	2019-20	Output	Indicators	Targets 2019-20	Outcome	Indicators	Targets 2019-20
					Industrial Facility for Machine Tool sector		

\* Targets not amenable for this indicator

#### 4. Development of Capital Goods Sector: R&D project for Development of Advanced Ultra Supercritical (AUSC) Technology for thermal power plants (CS)

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2019-20			OUTCOME 2019-20		
	2019-20	Output	Indicators	Targets 2019-20	Outcome	Indicators
134	1. Designing of Adv-USC Technology for Thermal Power Plants in order to improve power plant efficiency	1.1. Preliminary designing of Steam turbine rotor and casting, Blade profile for high pressure turbine.  -Finalization of modified design input parameters based on final report of turbine design reviewer (Yes/No)	Yes	1. Installation of Demonstration power plant.	1.1. Establishment of Design, manufacturing, tooling and testing technology for AUSC Thermal Power Plant(Physical progress in %age)	100%
		1.2. Establishment of turbine rotor test rig at BHEL- corp. R&D, Hyderabad (Yes/No)	Yes		1.2. Capacity addition of Thermal Power Plant based on AUSC technology.	*
		1.3. Design of Fire Side Corrosion Test Rig and not commissioning of the test facility.	Yes		1.3. Annual production of power in TPP using AUSU Technology.	*

<sup>31</sup> Outcome-installation of demonstration power plant" is in Phase-II of the project. Phase-II of the project is still to be approved and will be executed by NTPC hence no target set for Outcome Indicator Sl. No. 1.2 & 1.3.

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2019-20			OUTCOME 2019-20			
	2019-20	Output	Indicators	Targets 2019-20	Outcome	Indicators	Targets 2019- 20 <sup>31</sup>
			-Operation of Fire Side Corrosion Test Rig. Finalization of spares and plan for future tests(Yes/No)				
			1.4. Establishment of manufacturing technology of Inconel 740 Alloy pipes of Man Steam pipe lines; -Qualification of bending process (Yes/No)	Yes			
			1.5. Establishment of manufacturing technology of Inconel 740 Alloy pipes of Man Steam pipe lines; Qualification of welding (Yes/No)	Yes			
			1.6. Turbine bimetallic weld in rotor and casing. -Establishment of Welding technology (Yes/No)	Yes			
			1.7. Machining of turbine welded rotor and casing. -Establishment of Machining technology. (Yes/No)	Yes			
			1.8. Machining of Inconel 817blades; -Establishment of Machining technology. (Yes/No)	Yes			
			1.9 Material design data & Materials evaluation completion in a phased manner.	Yes			



FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2019-20			OUTCOME 2019-20			
	2019-20	Output	Indicators	Targets 2019-20	Outcome	Indicators	Targets 2019- 20 <sup>31</sup>
			-Creep data of 10C/625M dissimilar weld joint (Yes/No)				

\* Targets not amenable for this indicator

#### 5. Development of Capital Goods Sector: Industry Association and PSUs for undertaking promotional activities (CS)

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2019-20			OUTCOME 2019-20		
	2019-20	Output	Indicators	Targets 2019-20	Outcome	Indicators
0.50	1. To provide financial/ logo support to Industry/ Organisation/ PSUs/Autonomous Bodies for Promotional/ Awareness Oriented Activities for the Capital Good Sectors	1.1. No. of awareness workshop conducted	18	1. To create awareness / promotion about the latest development / technology in capital goods sector especially MSMEs and other industrial units of Capital Goods Sector	1.1. % increase in participants in events over last year	50%
		1.2. No. of trade exhibition held	3			

**6. Development of Automobile Industry: Faster Adoption and Manufacturing of Electric & (Hybrid) Vehicles in India (CS)**

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2019-20			OUTCOME 2019-20		
	2019-20	Output	Indicators	Targets 2019-20	Outcome	Indicators
500	1. Promote easy adoption of EVs through demand incentives	1.1. No. of EVs to be supported in current year through demand incentives on Electric Buses	1650	1. Increase in adoption of electric and hybrid vehicles	1.1. Share of EVs in total number of new vehicles sold in %	0.52%
		1.2. No. of EVs to be supported in current year through demand incentives on Four Wheelers(EV)	1650	2. Improve India's global position in EV industry	2.1. Employment generated (in terms of Number of people)	3.4 Lakh
		1.3. No. of EVs to be supported in current year through demand incentives on Three Wheelers (Electric) including E-Rikshaws	16500		2.2. % Increase of EVs models in the market.	10%
		1.4. No. of EVs to be supported in current year through demand incentives on Two Wheelers (Electric)	33000	3. Reduce emissions and increase fuel savings	3.1. Total fuel saved (Billion litres)	1.68
		1.5. Demand incentives to be disbursed	Rs. 271.26 Crore		3.2. Total Emission savings ('000 Tons CO2)	765
	2. Establish a network	2.1. Number of charging	330			

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2019-20			OUTCOME 2019-20			
	2019-20	Output	Indicators	Targets 2019-20	Outcome	Indicators	Targets 2019-20
	of charging stations in all million plus cities, state capitals, designated smart cities and highways	station to be setup in current year: In Cities					
		2.2. Number of charging station to be setup in current year: on Highways	66				
		2.3. No. of operational charging stations as percentage of total charging stations set up till date	100%				
	3. Create stakeholder awareness and interest through IEC activities	3.1. No. of IEC activities to be conducted in current year	3 Nos.				
		3.2. Estimated reach (in number of people) of IEC activities	16500				
	4. Registration of OEMs under the Scheme	4.1. Total number of OEMs to be registered under the scheme	5				
		4.2. Total number of EV models to be approved under the scheme.	9				