



# NATIONAL MOTOR REPLACEMENT PROGRAM

## PROGRAM OBJECTIVE

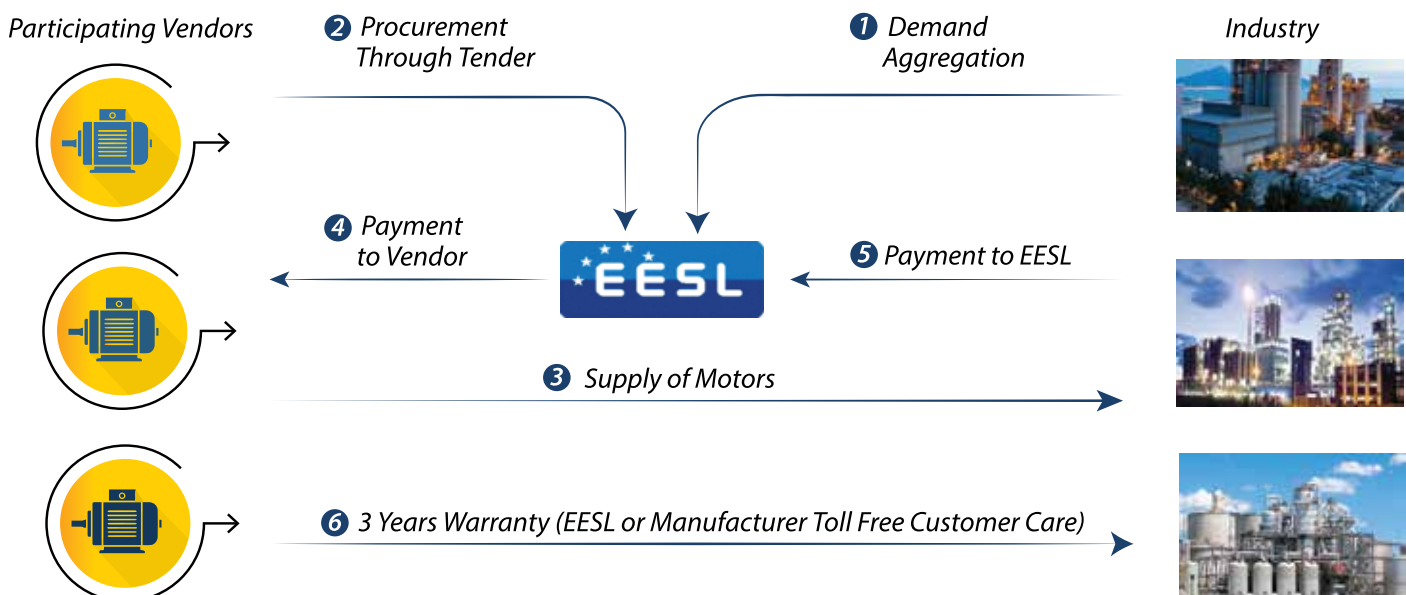
The primary objective of National Motor Replacement Program (NMRP) is to enable easier and faster adoption of premium efficiency IE3 motors by addressing the barrier of paying a higher & upfront cost by the industry. The program aims to replace the currently installed lower efficiency motors which are old and have been rewound multiple times over its lifetime, with new IE3 motors.

## WHY NMRP

UNIQUE PROGRAM FEATURES	TECHNICAL FEATURES	OPERATING PARAMETERS
<ul style="list-style-type: none"> <li>• 20 - 25 % reduction from Retail/ Supply price</li> </ul>	<ul style="list-style-type: none"> <li>• 3 Phase TEFC Induction Motor</li> </ul>	<ul style="list-style-type: none"> <li>• Voltage &amp; Frequency 415 V (+/- 10%), 50 Hz (+/- 5%)</li> </ul>
<ul style="list-style-type: none"> <li>• 3 years extended warranty provided on all motors</li> </ul>	<ul style="list-style-type: none"> <li>• Ratings covered - 0.75 kW to 75 kW</li> </ul>	<ul style="list-style-type: none"> <li>• Pole - 2, 4 &amp; 6</li> </ul>
<ul style="list-style-type: none"> <li>• Entire investment to be done by EESL (optional)</li> </ul>	<ul style="list-style-type: none"> <li>• IE3 Efficiency as per IS 12615</li> </ul>	<ul style="list-style-type: none"> <li>• Mounting - Foot &amp; Flange</li> </ul>
<ul style="list-style-type: none"> <li>• Repayment can be done in quarterly instalments</li> </ul>	<ul style="list-style-type: none"> <li>• VFD Suitable motors</li> </ul>	<ul style="list-style-type: none"> <li>• Continuous Duty (S1) and IP 55</li> </ul>
<ul style="list-style-type: none"> <li>• Value addition services like Pre despatch Inspection, Walk through Audit*, Technical training, National Dash Board</li> </ul>	<ul style="list-style-type: none"> <li>• DE Side: Ball Bearing NDE Side: Ball Bearing upto 225 Frame; Insulated Bearing 250 Frame onwards</li> </ul>	<ul style="list-style-type: none"> <li>• Ambient Temp. – 50 deg. C</li> </ul>

\* - optional, case to case basis

## OPERATING MODEL



# BUSINESS MODELS

## PMC MODEL

- Entire upfront cost investment by industry
- Total Project Cost = Motor Cost + EESL PMC fees



## ESCO MODEL

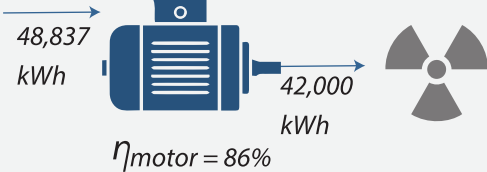
- Entire upfront cost investment by EESL
- Total Project Cost = Motor Cost + PMC fees + Financing cost



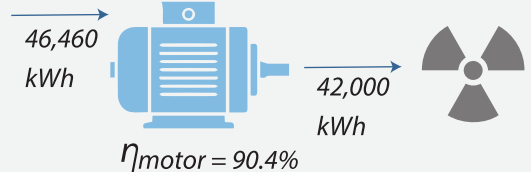
## CASE SITUATION

MOTOR RATING – 7.5 kW (4 pole) | ANNUAL OPERATING HOURS – 7,000 | LOADING – 80% | ELECTRICITY TARIFF – Rs. 7 / kWh

**OLD**



**NEW**



ANNUAL ENERGY SAVINGS – 2,377 kWh | ANNUAL MONETARY SAVINGS – Rs. 16,639

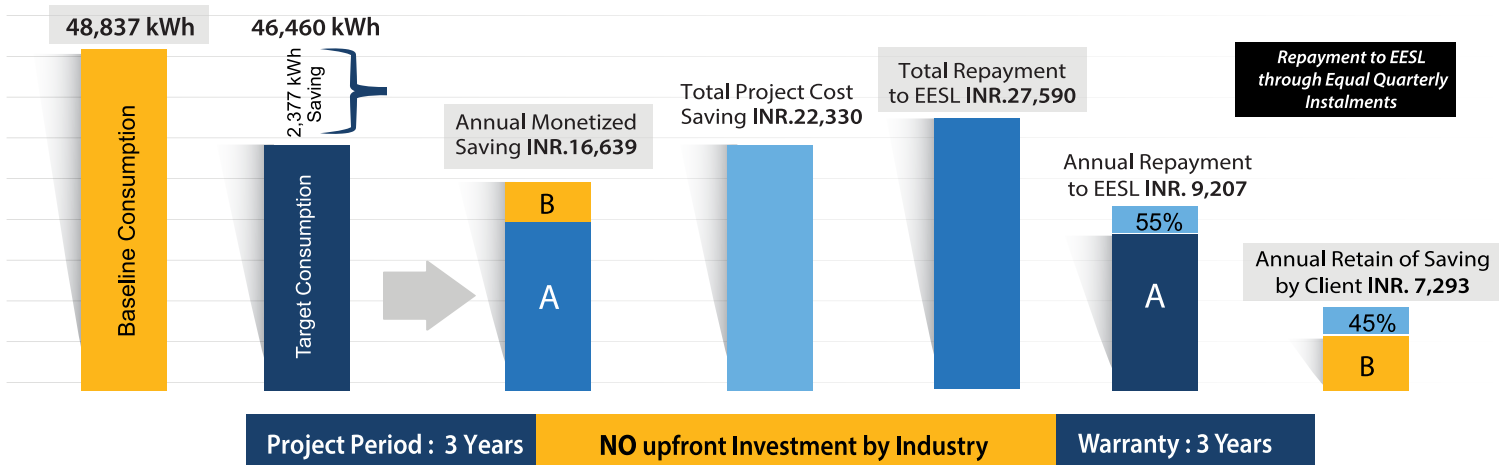
### PMC MODEL

Particulars	Value
Capital Cost of Motors	Rs. 20,300
PMC Fees	Rs. 2,030
Total Project Cost	Rs. 22,330
Payback Period	1 year 4 months

### ESCO MODEL

Particulars	Value
Capital Cost of Motors	Rs. 20,300
PMC Fees + Finance cost	Rs. 7,293
Total Project Cost Cost	Rs. 27,590
Payback Period	1 year 8 months

## REPAYMENT THROUGH MONETIZED ENERGY SAVINGS

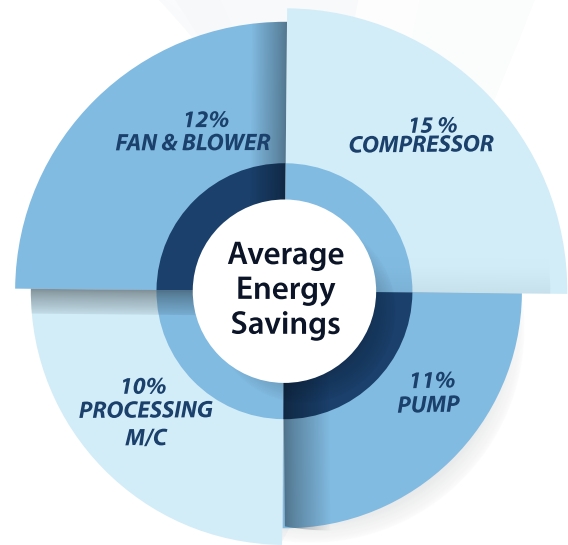


## LEARNING FROM THE FIELD

### Pilot Demonstration

- Field performance assessment of 36 Motors of different ratings being used for different applications to establish technical performance.
- 24 hours of Performance monitoring baseline data before and after implementation were measured.

Parameters	Value
• Average energy savings	10-15%
• Average reduction in motor temperature	2%
• Average increase in speed	2%



## HOW TO PARTICIPATE UNDER NMRP



Apply online on web portal using following link <https://motor.eeslindia.org/login>

## ABOUT EESL

Energy Efficiency Services Limited (EESL) is a Super-Energy Service Company (ESCO), which enables consumers, industries and governments to effectively manage their energy needs through energy efficient technologies. EESL is promoted by the Ministry of Power, Government of India as a Joint Venture of four reputed public-sector undertakings - NTPC Limited, Power Finance Corporation Limited, REC Limited, and POWERGRID Corporation of India.

### CONTACT DETAILS:

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