



Institute for  
**Industrial  
Productivity**



# Knowledge Exchange Platform-SPARC



**Knowledge Exchange  
Platform**

*Transmitting Knowledge through Best Practices*

## **Service Package for Advancing Resource Conservation (SPARC)**

- As PAT is moving in to the subsequent cycles of implementation, the targets for energy efficiency are expected to become more challenging, with the need to
  - (i) build the capacity of the industry, particularly at the plant level
  - (ii) enhance the knowledge of the industry on cutting edge innovative technologies, and
  - (iii) provide hand holding support to implementation of energy management practices.
- To help the industry in enhancing their capacity and bridge these gaps, KEP has introduced a value added service called SPARC-Service Package for Advancing Resource Conservation in March, 2017, which is a package of advisory and information services aimed to address these needs and to guide the industry on a more energy efficient growth trajectory.

## SPARC- Journey So far

- The progress reports received from members of SPARC, such as **JK Lakshmi Cement Ltd. (Sirohi & Durg plant), My Home Industries Pvt. Ltd., Dalmia Cement (Bharat) Ltd., Raymond Ltd., Arvind Ltd. and Vedanta Ltd.** show that they have achieved significant energy saving:
- **21 Million kWh/year, 652 tonne of coal/year & 8 kL of oil/year** energy savings achieved through in-plant capacity building and small group activity under SPARC.
- Majority of these savings have been achieved in past 4 months and represents 30 % energy saving opportunities identified through small group activity. **This translates to monetary savings of about INR 90 million/year .**

# Savings Achieved under KEP-SPARC

- SPARC- Journey So far- Monetary Savings = 899 Lakhs/year( OR 89.9 Million Rs./year)

Name of the Plant	Tentative targets considered by SGA Teams during June-December,2017	Savings achieved till February 2018
JK Lakshmi Cement Limited, Sirohi (Rajasthan)	650kW and 3kcal/kg clinker	kW saved = 498 kW Energy saved= 39,44,160 kWh/year Monetary saving = Rs. 214.56 lakhs / year
JK Lakshmi Cement Limited, Durg (Chhattisgarh)	310 kW	kW saved = 110.8 kW Energy saved= 5,54,000 kWh/year Monetary saving = Rs. 38.78 Lakhs / year
My Home Industries Private Limited ( Telangana)	375 kW and 10 kcal/kg of clinker	kW saved = 145 kW Energy saved = 4,85,296 kWh/year Monetary saving= Rs. 24.37 Lakhs/year
Arvind Limited, Gandhinagar (Gujarat)	227 kW and 800 tonnes of coal per year	kW saved= 87.85kW Energy saved = 6,76,445 kWh/year Fuel saved = 2.29 tonnes of Coal per year Monetary saving = Rs. 66.51 Lakhs/year
Vedanta Limited, Jharsuguda (Odisha)	5370 kW and 138kg of HFO	KW saved = 1335 KW Annualized Saving = 1,16,90,220 kWh/year Annualized monetary savings @ Rs. 3.45 / KWH = Rs. 403.31 Lakhs/year Annualized Saving (Oil) = 45,625kg/year Annualized monetary savings (Oil) @Rs. 38 / kg = Rs. 17.34 Lakhs year
Raymond Ltd, Vapi (Gujarat)	485 kW and 975 tonnes of Coal	kW saved= 170 kW Energy Saved = 11,90,000 kWh/year Fuel saved = 410 tonnes of coal Monetary saving = Coal = Rs 26.65 Lakhs, Power = Rs. 89.25 Lakhs, Total = Rs. 115.9 Lakhs/year
Dalmia Cement (Bharat) Limited, Dalmiapuram (Tamil Nadu)	760 kW and 2 kcal/kg clinker	kW saved= 280 kW Energy Saved = 19,53,530 kWh/year Fuel saved = 239.96 tonnes of coal/year Monetary saving = 18 Lakhs Rs/ year
<b>TOTAL SAVINGS ACHIEVED ( SGA Project implementation process has begun and majority of the projects are under investigation/under implementation)</b>		<b>Electrical Energy Savings Achieved :2,04,93,651/year ( 204.93 Lakhs /year OR 20.49 Million kWh/year)</b>  <b>Thermal Energy Savings Achieved:</b> a) Coal: 652 Tonne/Year b) Oil: 48 kL/year

## Targets achieved

- Target considered in June- December 2017=8,177 kW
- Achieved as on February= 2, 627 kW ( 32 % of Target)

***“Considering SGA project was initiated during June 2017-December,2017 in 7 member plants and majority of the identified projects are under consideration/implementation / under financial sanctions, achievement of 32 % of targets in a span of 4 months, on an average, is really commendable”.***

# Industry Feedback on KEP-SPARC Initiative

- ***“JK Lakshmi cement believes in dynamic changes through consistent perseverance in order to evolve and improve our existing process for the betterment of organization. Under the umbrella of KEP SPARC initiative, we had formed 07 no. of cross functional team voluntarily with a target to reduce specific energy consumption by identifying and analyzing the opportunity and working upon them to grab objective. All the team had worked on their decided targets with equal enthusiasm throughout the small group activity and resulted in achievement to save around 498 unit/hr electrical energy consumption. The journey has not come to end here, this is the beginning of new model and I believe that the future of this organization is in a good hand of these future leaders.” - Mr. P.L.Mehta , Sr. Vice President (Works)***



***“I am happy that the energy conservation framework has grown in strength and team has shouldered the energy reliance of the plant. It has brought all the members under the ambit of energy conservation and sensitized the workforce on how essential it is to conserve energy for sustainable operation. It is worth mentioning that Capacity Building program and Small Group Activity implemented under KEP SPARC initiative has immensely helped and motivated our young team to identify wonderful ideas and implement them under SGA. Under SPARC membership model this year 60 nos of opportunities were identified (both in power and smelter) having potential saving of around 5 MW from which 1.33 MW has already been achieved by the team without any additional investment. Initiatives undertaken by plant engineers has made a huge impact on energy efficiency.”-***

***Mr. G.G.Pal ,  
Head , Smelter,  
Vedanta Ltd.***



# Industry Feedback on KEP-SPARC Initiative

*“ BEE has been doing a commendable job in bringing together all the industries in India in the area of industrial energy efficiency. With their continual support and enthusiasm, I am sure we will go a long way in achieving all the goals of energy efficiency and conservation. It is an absolute delight for me to say that in the three day SGA workshop, the participants came up with different and innovative ideas, and the projects accumulated from them have given us an estimated saving of INR 2.5 crores. The five day training programme and workshop has been an eye opening experience for every one of us involved. As the saying goes “The less you burn, the more you earn”, I sincerely thank BEE and IIP for enlightening us on the importance of energy conservation through Knowledge Exchange Platform.”*

**Mr. Harish Chatterjee**

Vice President (Manufacturing)

Raymond Limited



*“The need of energy management has been given the highest importance due to the rapid growth of process industries causing substantial energy consumption in the textile operations. Effective energy management and continuous energy efficiency at plant level can be achieved through collective learning, which was facilitated through the Capacity Building Workshop and Small Group Activities (SGA) organized under the KEP-SPARC initiative. This has helped in encouraging and strengthening the ability of plant engineers at operational level to assess the performance and implement solutions within their area of operation to achieve energy efficiency.”*

**Mr. Susheel Kaul**

CEO- Lifestyle fabrics

Arvind Limited



# Industry Feedback on KEP-SPARC Initiative

*“Knowledge exchange platform” is an excellent initiative to capitalize the energy saving opportunity at grass root level. It promotes working of cross functional teams, focusing on particular segment of plant to achieve the energy savings . KEP shares best practices within industry which helps in adoption of innovative technologies leading to efficient plant operation. In addition these initiatives motivate plant personnel towards the journey of excellence.”*

**-Mr. D. K. Mehta**

Senior Vice President (Works)  
JK Lakshmi Cement Limited,  
Durg



*“The KEP SPARC has ignited our Team towards energy conservation ideas. It is an excellent platform for knowledge and practices sharing.””*

**- Mr. R.A Krishna Kumar**

Executive Director

Dalmia Cement (Bharat) Limited,  
Dalmiapuram



# Industry Feedback on KEP-SPARC Initiative

***““The SPARC & SGA have enhanced the skills of the employees trained through KEP in identifying the energy saving potentials and helped to monitor the Energy Performance Indicators with systematic approach. The trained employees expressed their opinion that the inputs given had enriched their knowledge. They were motivated to take the responsibility for improving the energy performance by putting their collective efforts in their respective areas. It also contributed significant improvement and development in terms of energy performance and thus the employee feel immense self-satisfaction for their contribution to the organization Total 9 small groups with 50 employees were trained from 13th to 17th June'17 at MHIPL and all put together shown the indicative potential of energy saving of 375 kW and thermal saving of 7 Kcal / Kg of clinker. Certainly it is felt that the training has improved individual skills and achieved the target of 145 kW with annual saving of Rs. 24.37 Lakhs /year and continuing their best efforts.”***



**Mr. Ranjith Rao J**

Managing Director

My Home Industries Pvt. Ltd.



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