

EXPERIENCE SHARING OF AGDSM PROJECT AT CESC MYSORE

Shri D Kiran, IRS

Managing Director

Chamundeshwari Electricity Supply Corporation
Limited (CESC), Mysore (Karnataka)



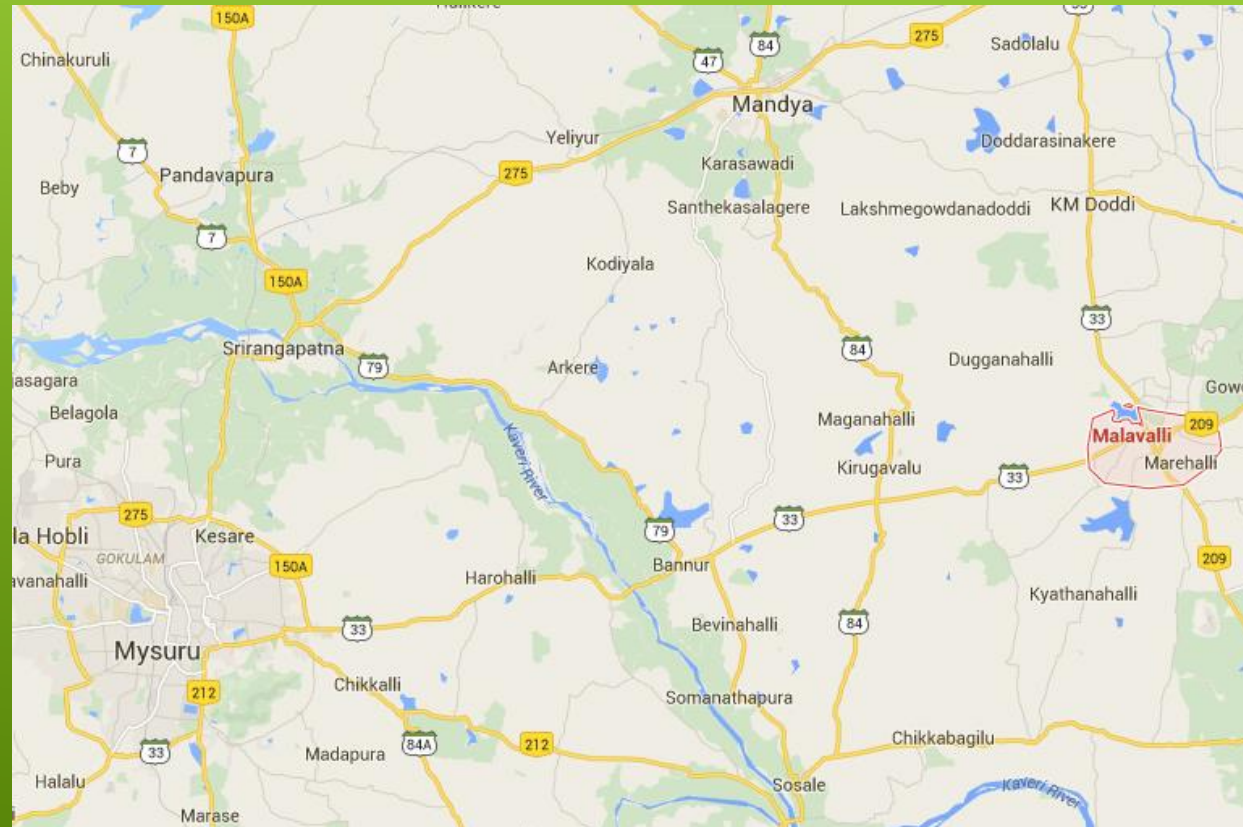
Agriculture Sector under CESC

- As per policy of Govt. of Karnataka, entire cost of supply to IP sets upto and inclusive of 10 HP is being borne by the GoK through tariff subsidy. Rs. 4.40 per unit is the Commission Determined Tariff (CDT) for Irrigation Pump Sets at CESC
- Total 2,90,172 nos. of Irrigation Pump Sets under CESC jurisdiction
- Agriculture consumers are 11 % of the total nos. of consumers under CESC
- 2624 MU Sales for Agriculture consumers which accounts to 47% of total figure of Sales for CESC
- Rs. 1,155 Crores provided as subsidy by GoK for IP sets to CESC



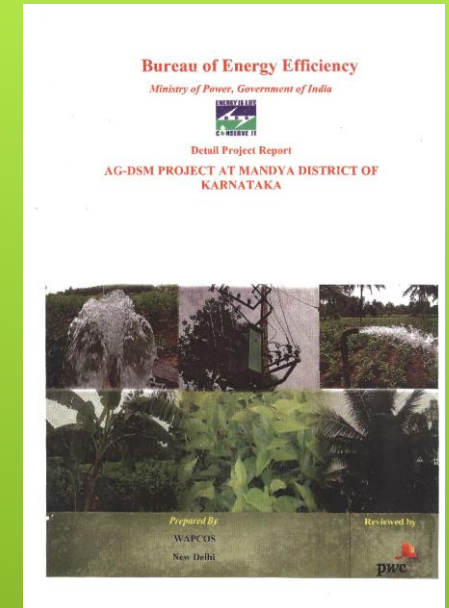
Target Area Selected for Pilot Project

Total 5 nos. of feeders were selected in Malavalli sub-station of Mandya District in the State of Karnataka (under CESC jurisdiction)



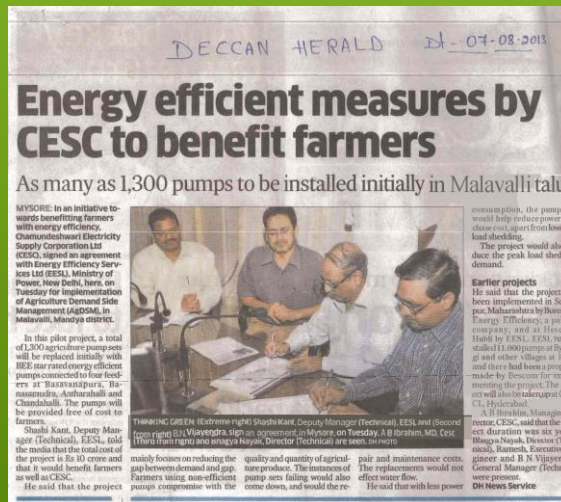
Preparation of DPR

- Bureau of Energy Efficiency (BEE) facilitated the preparation of Detail Project Report (DPR) for “AGDSM PROJECT AT MANDYA DISTRICT OF KARNATAKA”
- The DPR was prepared in the year 2011
- The DPR was prepared by M/s WAPCOS, New Delhi
- The DPR was reviewed by M/s PWC







Signing of Agreement with EESL

CESC and EESL signed the Energy Performance Agreement (EPA) for replacement of all 1337 nos. of existing inefficient pump sets with BEE Star Rated Energy Efficient Pump Sets (EEPS) on 6th August 2013



Stakeholders Involved

Name of Organization	Description	Role	Logo
Chamundeshwari Electricity Supply Corporation Limited	Govt. of Karnataka undertaking	Purchase of power, distribution and retail supply of electricity to its consumer. Responsible for repayment of energy savings to EESL	
Energy Efficiency Services Limited (EESL)	A JV of PSUs of Ministry of Power, Govt. of India	Government owned ESCO company who invested 100% capital in the AgDSM project at CESC	
Powergrid Corporation of India Limited (PGCIL)	A Navratna Company under Ministry of Power, Govt. of India	Project Management Consultant (PMC) for coordination with farmers for convincing them	
Aquasub Engineering	Leading manufacturer of pump sets in India since 50 years	Supply of BEE star rated submersible, monoblock and openwell submersible pump sets	

Implementation Phase

- CESC, EESL, PGCIL and Aquasub educated the farmers regarding benefits of using Energy Efficient Pump Sets (EEPS)
- Farmers were provided with free Electrical Control Panels with all necessary protection devices and Capacitor Banks to improve PF
- Farmers are provided with 6 years free Repair & Maintenance (R&M) during the project duration
- Service centers and customer call number has been set up to address any complaints raised by the farmers
- Farmers have expressed happiness with the performance of the new pump sets provided under the AgDSM project



Workshops and New EEPS with Control Panel



Outcomes of AgDSM Project

Total Nos. of Pump Sets replaced	=	1337
Energy consumption by old Pump Sets	=	8532.76 kW
Energy consumption of New Pump Sets	=	5384.09 kW
Total Energy Saving	=	3148.67 kW
Energy Saving Percentage	=	37 %



Benefits to CESC

- Annual Energy Savings = 56.68 lac units
- Reduction in CO₂ emissions per annum = approx. 4 tonnes
- Reduction in Oil Equivalent per annum = approx. 487 tonnes
- Monetary Savings per annum = Rs. 2.5 Cr per annum
- Monetary benefits to CESC (10% CESC and 90% EESL) = Rs. 25 lacs per annum



Other Benefits to CESC

- Reduced Transmission & Distribution Losses due to installation of Capacitor Banks with control panels
- Lesser transformer burnouts & line tripping due to overloading
- Avoidance of upgrading the existing transformers since load reduced
- Reduced peak load demand
- Betterment of farmers as their operational costs reduced since free 6 years Repair & Maintenance (R&M)



THANK YOU

