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AN INITIATIVE OF ENERGY MANAGEMENT CENTRE

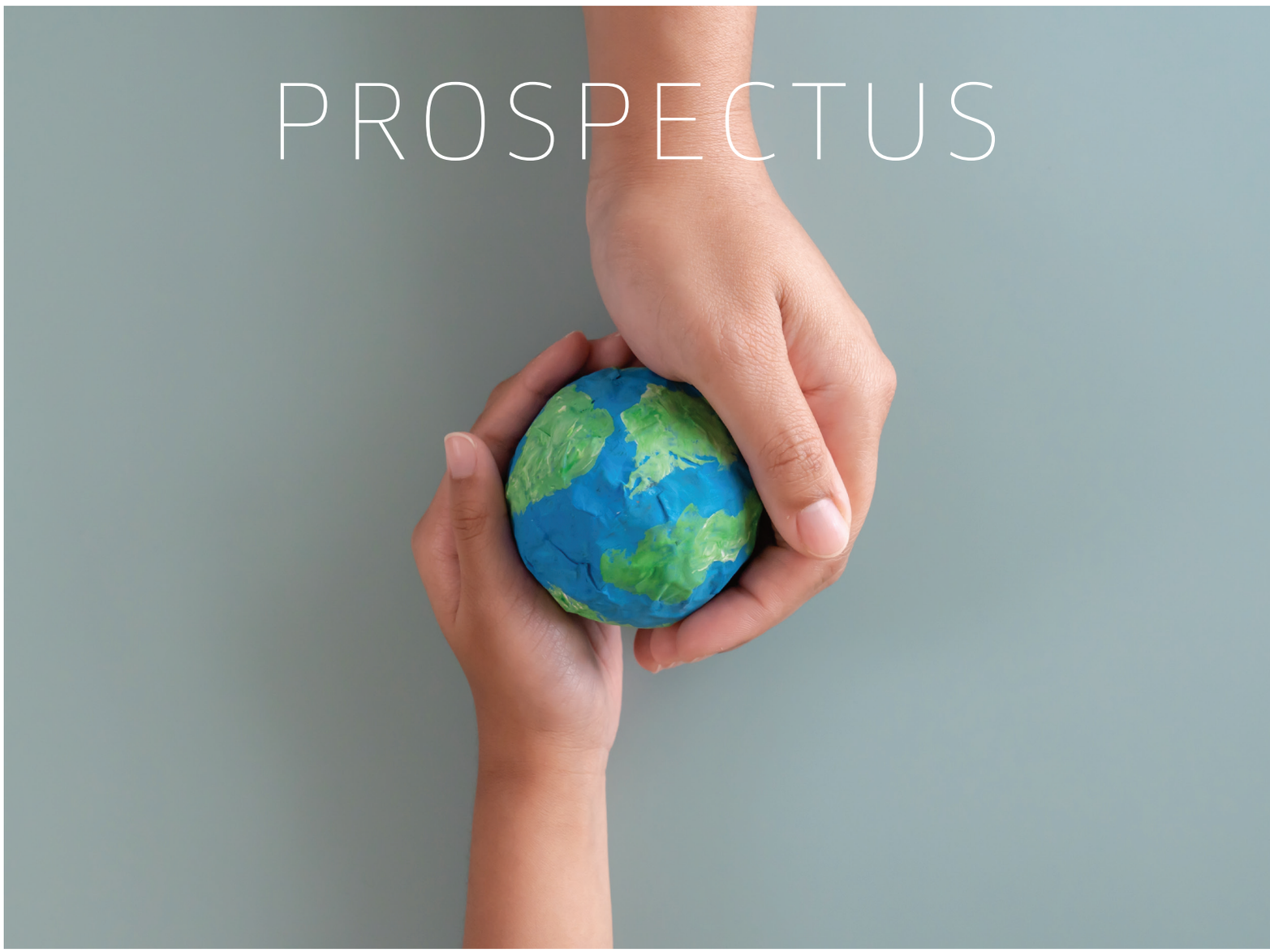
ENERGY CLUB KERALA

Programme by

BUREAU OF ENERGY EFFICIENCY
Government of India, Ministry of Power

SETTING UP OF SCHOOL LEVEL ENERGY CLUBS

PROSPECTUS



emc KERALA

ENERGY MANAGEMENT CENTRE - KERALA

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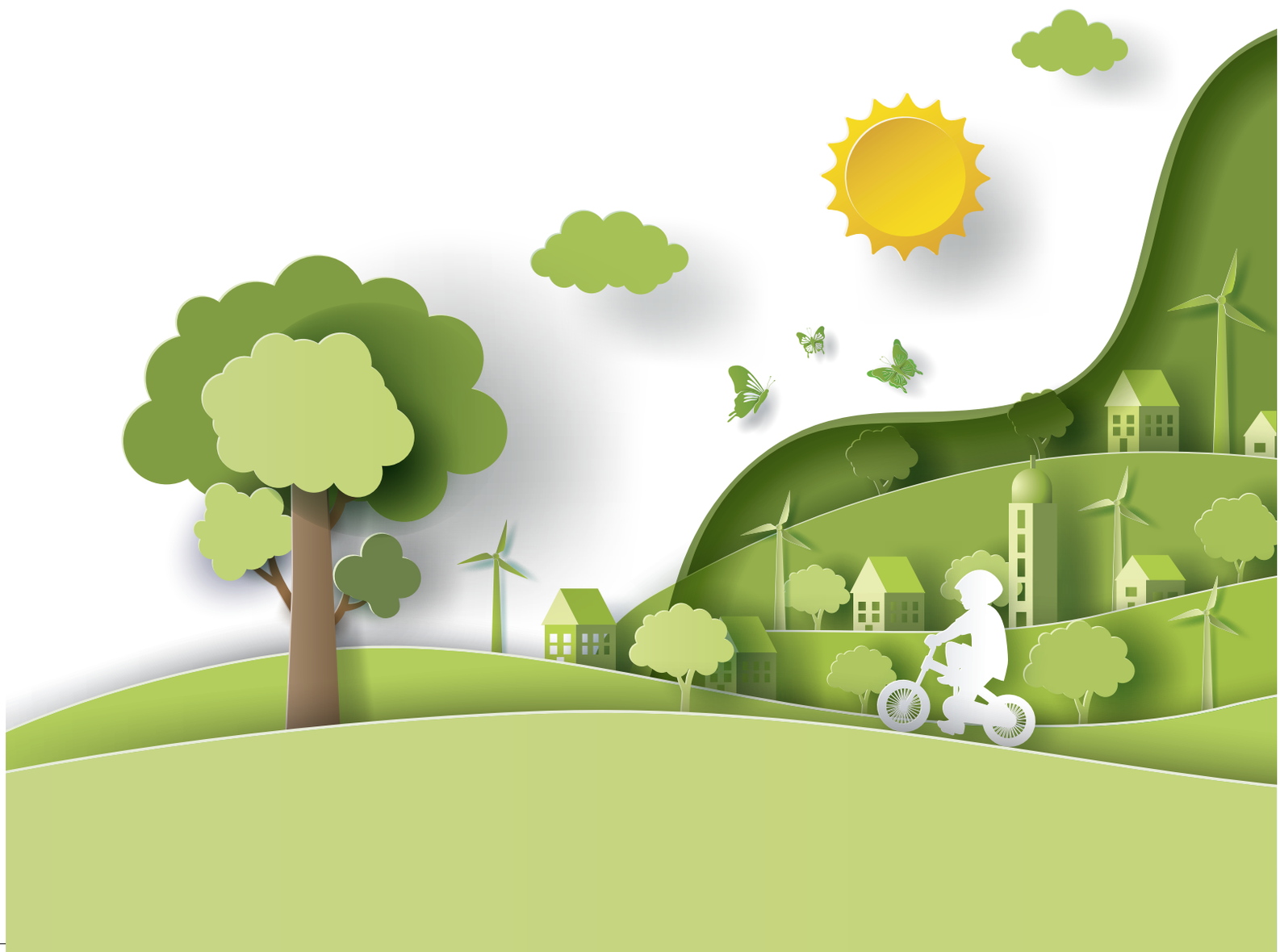


Introduction

Energy is one of the most critical components of infrastructure, crucial for the economic growth and welfare of nations. The existence and development of adequate infrastructure is essential for sustained growth of an economy. India's power sector is one of the most diversified in the world. The sources of power generation range from conventional sources such as coal, natural gas, oil, hydro and nuclear power to viable non- conventional sources such as wind, solar, as well as agricultural and domestic waste. Electricity demand in the country has increased rapidly and is expected to rise further in the years to come. In order to meet the increasing demand for electricity in the country, massive addition to the installed generating capacity is required. The total installed capacity of power stations in India stood at 4,17,668 Megawatt (MW) as of 31st May 2023. Total generation capacity/availability of power for Kerala is 6,331.54 MW. Out of the total, 45 % is from Renewable Energy Sources (Hydro, Solar & Wind).

Energy conservation refers to judicious use of energy while reducing its consumption through energy efficient technologies and behavioural practices without reducing the required output and comfort. Energy conservation enables increased environmental quality by reduced carbon footprints, improves national energy security, provides better personal financial security and higher savings. It is at the top of the sustainable energy hierarchy. It also lowers energy costs by preventing future resource depletion and reserve for our future generations. Energy efficiency aims to reduce the amount of energy required to provide products and services. For example, installing LED lights or utilizing natural skylights at your home reduces the amount of energy required to attain the same level of illumination compared with using traditional incandescent, discharge & CFL light bulbs.

Improvements in energy efficiency are generally achieved by adopting more efficient technologies or production process or by application of commonly accepted methods to reduce energy losses. Reducing energy use is also seen as a solution to the problem of reducing greenhouse gas emissions.

Setting Up of Energy Clubs

Energy Management Centre – Kerala (EMC) is the State Designated Agency for implementing the provisions of EC Act 2001 in Kerala State. EMC, since its inception, has been actively involved in organizing different types of awareness programs on energy conservation for the students of educational institutions. The Energy Clubs of EMC are aimed at awareness creation among students on energy conservation and environment friendly energy technologies as this would help in inculcating a habit in the younger generation on the judicious use of the scarce and depleting energy resources. This is one of the flagship projects of EMC, formed to spark off an initiative for curbing energy wastage through active measures and also popularizing the importance of energy conservation and energy efficiency measures among students. The activities of Energy Clubs for the academic year 2023-24is themed for sharing the ideas to "Beat Plastic Pollution".

ENERGY CLUB ACTIVITIES FOR THE YEAR 2023-24

School Level

- All schools (Government, Aided, Unaided, CBSE and ICSE) shall enroll in the programme through the PMS portal of EMC. Schools including Lower Primary schools, Upper Primary schools, High schools and Higher Secondary Schools should be enrolled before October 20, 2023. (https://emcpms.kerala.gov.in)
- Each school should make an Energy Club committee comprising School Principal/Headmaster/Headmistress, PTA President, student representative and Energy Club School Coordinator (designated teacher) as the Convener.
- Each Energy Club should have minimum 20 students as members in the Energy Club and should conduct a lecture on Energy Conservation and Energy Efficiency as part of the activities of the Club.
- The Energy Club in each school following State Syllabus shall conduct the following competitions at the school, as applicable to the category of students at the school, before November 20, 2023.

Table 1: Competitions for Schools following State Syllabus

Sl. No.	Competition	Category	Mode
1	Essay Writing Competition - English	HSS	Mandatory
2	Essay Writing Competition - Malayalam	HSS	Mandatory
3	Essay Writing Competition - English	HS	Mandatory
4	Essay Writing Competition - Malayalam	HS	Mandatory
5	Poster Competition	UP	Mandatory
6	Pencil Drawing Competition	LP	Mandatory

- The Energy Club in each school following CBSE/ICSE Syllabus shall conduct the following competitions at the school, as applicable to the category of students at the school, before November 20, 2023.

Table 2: Competitions for Schools following CBSE/ICSE Syllabus

Sl. No.	Competition	Category	Mode
1	Essay Writing Competition - English	HSS	Mandatory
2	Essay Writing Competition - English	HS	Mandatory
3	Poster Competition	UP	Mandatory
4	Pencil Drawing Competition	LP	Mandatory

- The Energy Club shall also encourage active participation of students in the Save Energy Campaign, conducted by the EMC in association with the Navakeralam Karma Padhathi, for promoting energy awareness among students.
- The School EC Co-ordinator shall educate students about the importance of energy conservation and various measures for saving energy, referring the Save Energy Campaign Pamphlet issued by EMC.

  (Link for accessing the pamphlet:

  https://drive.google.com/file/d/125nmRd0nlWSYeYyzOX5ZMH6QNNKuxSaz/view?usp=sharing)

- Students participating in the Save Energy Campaign must collect the images of latest Electricity bill from the home and shall share to the School EC Co-ordinators.
- Such students must convey the Energy saving steps to the family members.
- Students are also required to collect and submit bills of two upcoming billing cycles to the School EC Co-ordinator.
- The School EC Co-ordinator is required to collect the findings of the energy audit conducted by each participating student, and shall upload the details using the Google Form link (https://forms.gle/XGfJ2gSQhpSR9U8K6) in the presence of the respective student.

- The school shall send the Activity Report of Energy Club by November 25, 2023, incorporating the details of the members of the Energy Club, lecture conducted by the Club, details of 1st and 2nd prize winners in each competition (as in Table 1 or Table 2), the details of participants from school in the Save Energy Campaign. The format of the Activity Report is given in Annexure II. The activity report shall also be accompanied by the photographs of lecture conducted, competitions conducted at school and drawings/ essays of 1st and 2nd prize winners.

National Energy Conservation Day Activities at School

- On December 14th - National Energy Conservation Day (NECD), all Energy Clubs shall conduct activities for popularizing the energy conservation and energy efficiency measures. The activities may be any/a combination of the following:
    - Awareness Campaigns
    - Rally
    - Plays like skit, mime, etc.
    - Exhibitions
- The Clubs can also conduct other events of similar nature. However, the Clubs are advised to design events so as to give importance to awareness creation among local public, rather than just students.
- The Energy Clubs shall send the report of NECD activities conducted before December 30, 2023.

District Level

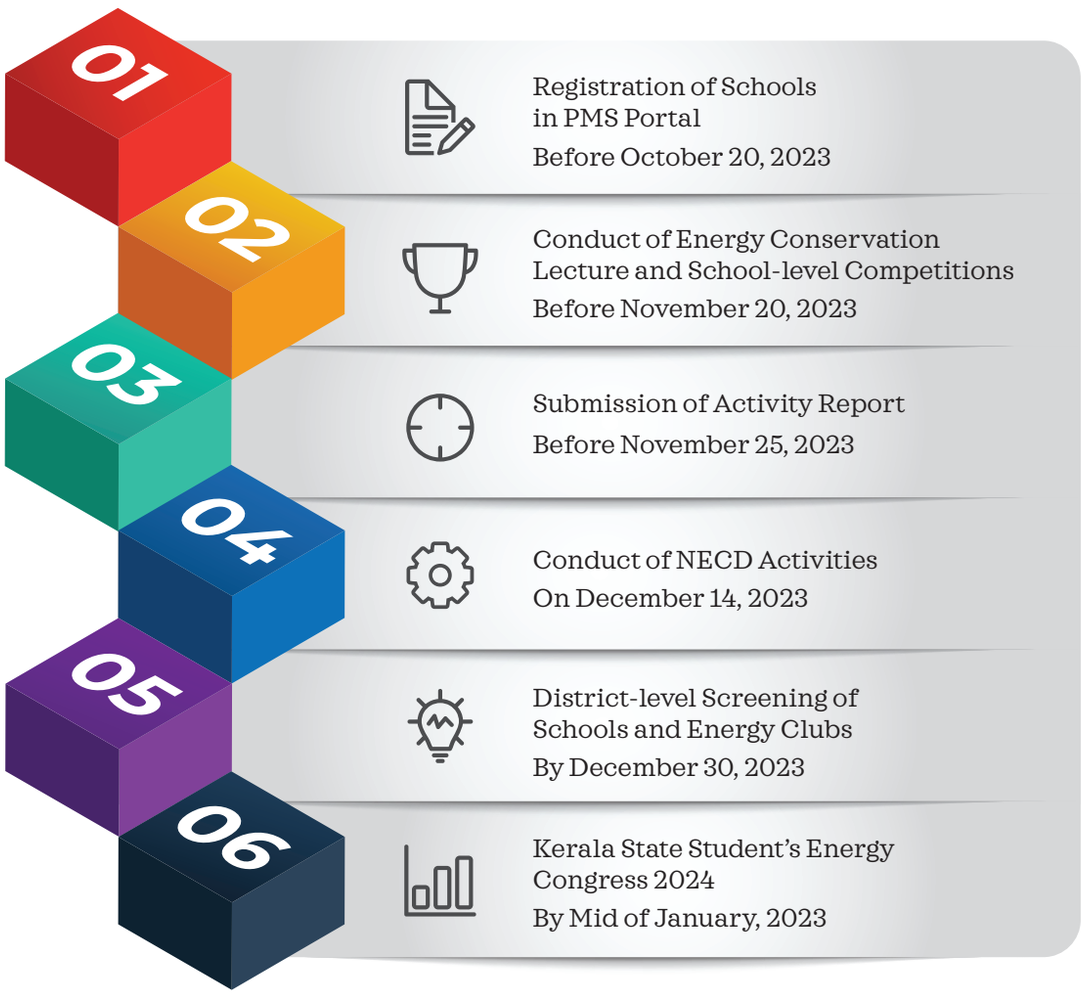
- The existing District Co-ordinators of the Sasthrarangam Programme shall co-ordinate the activities of Energy Clubs in the respective districts.
- The drawings/posters/essays of the school level 1st and 2nd prize winners will be re-evaluated and district level 1st, 2nd and 3rd prize winners in each competition will be announced. The prize winners will be separately announced for State Syllabus and CBSE/ ICSE Syllabus categories.
- District-level 1st, 2nd and 3rd prize winners in each competition (in both State Syllabus and CBSE/ICSE categories) shall participate in the Kerala State Students' Energy Congress - 2024.

State Level – Kerala State Students' Energy Congress (KSSEC) – 2024

- In order to evaluate the State level activities of Energy Clubs, a state level monitoring committee will be formed which will consist of a nominee from DPI, two nominees from EMC, and a nominee from CMD. A member from EMC will be the Convener of the committee.
- In the month of January 2024, EMC will conduct the state level competition titled "Kerala State Students' Energy Congress (KSSEC) - 2024". Here, the District-level 1st, 2nd and 3rd prize winners of each competition (in both State Syllabus and CBSE/ICSE Syllabus categories) will participate to decide the State-level winners.

- In addition, exhibitions by leading industry players/research institutions will also be arranged
- The State-level 1st, 2nd and 3rd prize winners will be provided free pass for an exclusive study tour package in the month of April 2024, covering leading research organizations and centres of scientific importance.
- KSSEC – 2024 will also feature a Working Model/Concept Presentation competition among the School Energy Clubs. Participating Energy Clubs shall send application along with a detailed report on the model/concept to be presented, on or before December 10, 2023. Shortlisted Energy Clubs (one from each district) will compete in KSSEC – 2024 and the State level winner will receive a cash award of Rs. 50,000/- (Rupees Fifty Thousand only), memento and certificate. All district level winners will receive Rs. 10,000/- (Rupees Ten Thousand only) as cash reward and a certificate.
- Schools will also be evaluated based on the energy savings by the students in each Energy Club, and the best performing School will be awarded energy efficient equipment worth Rs. 50,000/- (In case two schools are found to be the best performing, then both schools will be awarded equipment worth Rs. 25,000/-).

SCHEDULE OF ACTIVITIES



DETAILS OF COMPETITIONS

The criteria for conducting each competition are as given below.

1. Essay Writing Competition

Level: High School & Higher Secondary School (to be conducted separately)

Topic: "Beat Plastic Pollution"

Eligibility Criteria

Participant must be:

- A student from HS/HSS section of a school enrolled in the PMS portal.
- A student can register only in one competition (i.e., either English or Malayalam Essay Writing).

Essay Writing Competition Guidelines

- Subject of the Essay should be shared to participants prior to the event.
- Length of Essay: 800 words (excluding bibliography and citations)
- 1.5 hours (90 minutes) for essay writing.
- A4 size paper be used.
- Energy Clubs shall provide the answer sheets to participating students.
- The Assignment must be in Malayalam for Malayalam Essay Writing Competition and in English for English Essay Writing Competition.
- Participant should mention their Name, Class and School name in the front sheet.

2. Poster Competition

Level: Upper Primary School

Topic: "Beat Plastic Pollution"

Eligibility Criteria

Participant must be:

- A student from UP section of a school enrolled.

Poster Competition Guidelines

- The poster must be made on the A3 size sheet (29.7 x 42 cm). Participant should write their Name, Class and School name during the competition in the bottom right corner of the poster.
- 1.5 hrs (90 minutes) for Poster competition.
- Students should bring their own materials for drawing.

3. Pencil Drawing Competition

Level: Lower Primary School

Topic: "Beat Plastic Pollution"

Eligibility Criteria

Participant must be:

- A student from UP section of a school enrolled.

Pencil Drawing Competition Guidelines

- The poster must be made on the A3 size sheet (29.7 x 42 cm). Participant should write their Name, Class and School name during the competition in the bottom right corner of the poster.
- 1.5 hrs (90 minutes) for Poster competition.
- Students should bring their own materials for drawing.

4. Working Model/Concept Presentation Competition

Topic: "Beat Plastic Pollution"

Eligibility Criteria

Participant must be:

- A school registered in the PMS portal of EMC.

Presentation Guidelines

- The school energy club must send a detailed report on the working model or concept to be presented, on or before December 10, 2023.
- Energy Clubs should clearly mention the amount of floor space required to set up their working model or to present the concept.
- The reports will be evaluated for further shortlisting, based on the following parameters:
    - Relevance of the project
    - Usage of environment friendly components
    - Adherence to the topic
    - Quality of presentation
- A maximum of 04 (four) students and an accompanying teacher from a qualifying school will be able to participate in the competition.

5. Save Energy Campaign Competition

Eligibility Criteria

- Only one student from a house will be able to participate in the competition.
- The participant must be a student from the HS/HSS section of the school enrolled.

Guidelines

- The School EC Co-ordinator shall educate the students about the need for conserving energy and the measures for the same.
- The School EC Co-ordinator shall collect the initial electricity bill as well as bills of two upcoming billing cycles from the participating students.
- The School EC Co-ordinator shall enter the details of the participating students through Google Form
- (Google Form Link: https://forms.gle/XGfJ2gSQhpSR9U8K6)
- The School EC Co-ordinator shall also upload a covering letter from the school mentioning the students participating in the campaign

SUBMISSION OF REPORTS TO CMD

The Energy Clubs shall send all the aforementioned reports to the Centre for Management Development (CMD) for further processing and such correspondences shall be made to the following email address: energyclub.techteam@gmail.com.

Annexure I

DPI Circular

വി.ആർ. 1102774/2023/ഡി.ജി.ഇ.

പൊതുവിദ്യാഭ്യാസ ഡയറക്ടറുടെ കാര്യാലയം
തിരുവനന്തപുരം
13-09-2023

സർക്കുലർ

വിഷയം : ശാസ്ത്രരംഗം-സ്കൂളുകളിൽ ഊർജ്ജസംരക്ഷണ അവബോധത്തിനായി പ്രവർത്തനങ്ങൾ നടപ്പിലാക്കുന്നത്-സംബന്ധിച്ച്

സൂചന : ഇ.എം.സി./137/2023-ETB-5 തീയതി 07-08-2023

കേരളസർക്കാരിന്റെയും കേന്ദ്ര ഊർജ്ജമന്ത്രാലയത്തിന്റെയും സഹകരണത്തോടെ എനർജി മാനേജ്മെന്റ് സെന്റർ (ഇ.എം.സി.) എൽ.പി. മുതൽ ഹയർ സെക്കന്ററി വരെയുള്ള സ്കൂളുകളിൽ ഊർജ്ജസംരക്ഷണ അവബോധ പ്രവർത്തനങ്ങൾ നടത്തിവരുന്നു. പ്രസ്തുത പ്രവർത്തനങ്ങൾ സ്കൂളുകളിൽ രൂപവത്കരിച്ചിട്ടുള്ള എനർജി ക്ലബ്ബുമായി സംയോജിപ്പിച്ചുകൊണ്ട് നടപ്പിലാക്കേണ്ടതാണ്. കുട്ടികളിൽ ഊർജ്ജസംരക്ഷണം ദിനചര്യയുടെ ഭാഗമാക്കുക എന്ന ലക്ഷ്യത്തോടെയാണ് പ്രവർത്തനങ്ങൾ സംഘടിപ്പിക്കുന്നത്. ഈ പദ്ധതിയുടെ ഭാഗമായി ഉപന്യാസരചന, പോസ്റ്റർ രചന, പെൻസിൽ ചിത്രരചന എന്നീ മത്സരങ്ങളും ബോധവത്കരണ ക്ലാസുകളും പ്രദർശനങ്ങളും സംഘടിപ്പിക്കുന്നതാണ്. പ്രവർത്തനങ്ങൾക്കാവശ്യമായ നിർദ്ദേശങ്ങൾ ശാസ്ത്രരംഗം കോ-ഓർഡിനേറ്റർമാർ മുഖാന്തരം നൽകുന്നതാണ്. എല്ലാ സ്കൂളുകളും https://emcpms.kerala.gov.in/ എന്ന വെബ്പോർട്ടൽ മുഖാന്തരം പ്രസ്തുത പരിപാടി രജിസ്റ്റർ ചെയ്യേണ്ടതാണ്. ഇ.എം.സി. നവകേരളം പദ്ധതിയോടൊപ്പം നടത്തുന്ന 'സേവ് എനർജി കാമ്പയിനി'ലും എല്ലാ സ്കൂളുകളും ഭാഗമാകേണ്ടതാണ്. ഇ.എം.സി. പരിപാടിയുടെ പ്രോസ്പെക്ടസ് ശാസ്ത്രരംഗം കോ-ഓർഡിനേറ്റർമാർ മുഖാന്തരവും വെബ്സൈറ്റിലൂടെയും നൽകുന്നതാണ്.

പ്രസ്തുത പരിപാടി കേരളസർക്കാരിന്റെ പ്രഖ്യാപിത പരിപാടികളിൽ ഒന്നാണ്. ആയതിനാൽ സംസ്ഥാനത്തെ എല്ലാ സ്കൂളുകളിലും അധ്യയനത്തിനു തടസ്സം വരാത്ത രീതിയിൽ ഈ പദ്ധതി നടപ്പിലാക്കേണ്ടതാണ്. ആയതിന്റെ പ്രവർത്തനങ്ങൾ ക്രോഡീകരിക്കാൻ സ്കൂളുകളിൽ ഒരു ടീച്ചറുടെ സേവനം ഉറപ്പാക്കുകയും സ്കൂളുകൾ ഇതുമായി ബന്ധപ്പെട്ട പ്രവർത്തനങ്ങളിൽ സജീവമായി പങ്കെടുക്കേണ്ടതുമാണ്.

ഷൈൻമോൻ എം.കെ.
പൊതുവിദ്യാഭ്യാസ അഡീ. ഡയറക്ടർ (അക്കാദമിക്)

സ്വീകർത്താവ്

എല്ലാ വിദ്യാഭ്യാസ ഉപഡയറക്ടർമാർ
എല്ലാ ജില്ലാ വിദ്യാഭ്യാസ ഓഫീസർമാർ
എല്ലാ ഉപജില്ലാ വിദ്യാഭ്യാസ ഓഫീസർമാർ
എല്ലാ പ്രധാനാധ്യാപകർക്കും (ബന്ധപ്പെട്ട വിദ്യാഭ്യാസ ഓഫീസർ മുഖേന)

Annexure II

Template of First Activity Report to be Sent by Energy Clubs

1.	Name of School	:	
2	Name and Contact Details of School Energy Club Co-ordinator (Designated Teacher)	:	
3	Syllabus	:	State Syllabus/CBSE Syllabus/ICSE Syllabus
4	Category of Students in the School Pleasep mark applicable division(s)	:	Lower Primary Upper Primary High School Higher Secondary
5	Details of Energy Club Committee	:	Members: 1. 2. 3. Convenor:
6	Name, Class and Division of Energy Club Members	:	(e.g.: 1. XXXXXX, Class IX-A)
7	Details of Lecture Conducted in the Energy Club (Photos of the lecture to be enclosed with this report)	:	Date: Conducted by:
8	Details of Competitions Conducted (Photos of the Competitions and the Submissions of 1st and 2nd prize winners of each competition to be enclosed with this report)	:	(e.g.: **1. Poster competition** Date: XX-XX-XXXX No. of students participated: XX 1st Prize Winner: XXXXX, Class VII-A 2nd Prize Winner: XXXXX, Class VI-B **2. Essay Writing (English) competition** Date: XX-XX-XXXX No. of students participated: XX 1st Prize Winner: XXXXX, Class IX-A 2nd Prize Winner: XXXXX, Class X-B)
9	Details of Students Participating in Save Energy Campaign	:	(e.g.: 1. XXXXXX, Class IX-A, KSEB Consumer no.)

Date: Office Seal Signature of School EC Co-ordinator

Name of Principal/Headmaster/Headmistress: Signature:

Annexure III

Template of Second Activity Report to be Sent by Energy Clubs

1.	Name of School	:	
2	Name and Contact Details of School Energy Club Co-ordinator (Designated Teacher)	:	
3	National Energy Conservation Day activities conducted on	:	
4	Venue of the activities	:	
4	A brief description of the activities conducted (Photos of the activities to be enclosed with this report)	:	

Date: Office Seal Signature of School EC Co-ordinator

Name of Principal/Headmaster/Headmistress: Signature:

Annexure IV

Working Model/Concept Presentation Report Template

1.	Name of School	:	
2	Name and Contact Details of School Energy Club Co-ordinator (Designated Teacher)	:	
3	Title of the Project	:	
4	Category	:	Working Model Concept Presentation
5	Details of Participating Students (Maximum 04 students are allowed)	:	1. (e.g.: XXXXX, Class X-A) 2. 3. 4.
6	Name and Contact Details of Accompanying Teacher	:	Name: Mobile:
7	Amount of floor space required (in sq.ft.)	:	
8	Other arrangements to be made at the venue, if any (Subject to availability and approval from EMC)	:	
9	Time required for Setting up Model/ Making presentation (in minutes)	:	
10	A brief description of the Working Model/Concept to be presented (Not exceeding 500 words)	:	

Date: Office Seal Signature of School EC Co-ordinator

Name of Principal/Headmaster/Headmistress: Signature:

Annexure V

List of Coordinators

ക്രമ നം.	ജില്ല	പേരും വിലാസവും	ഫോൺ നമ്പർ	ഒപ്പ്
1	തിരുവനന്തപുരം	വിനയൻ ഗവ. മോഡൽ ഗേൾസ് എച്ച്.എസ്. പട്ടം, തിരുവനന്തപുരം	94962 50011	
2	കൊല്ലം	ജിജു മാത്യു യു.പി.ജി. സ്കൂൾ പുനുക്കൊന്നൂർ, ആലുംമൂട്	70126 72887	
3	ആലപ്പുഴ	രശ്മി എസ് കെ.കെ.പി.എം.എച്ച്.എസ്. പൊത്തപ്പള്ളി, ആലപ്പുഴ	94959 65094	
4	പത്തനംതിട്ട	ബിജു ജി നായർ എസ്.എൻ.ഡി.പി. എച്ച്.എസ്. ഇടപ്പരിയാരം, പത്തനംതിട്ട	94475 61710	
5	കോട്ടയം	രമേശ് സി എസ് സി.എസ്. യു.പി.എസ്. മാടപ്പള്ളി, കോട്ടയം	99471 67594	
6	ഇടുക്കി	ദിപു പ്രഭാകരൻ പി.യു.പി.എസ്. നെടുംകണ്ടം, ഇടുക്കി	99619 33472	
7	എറണാകുളം	അനിൽകുമാർ എം എ ജി.യു.പി.എസ്. വെളിയനാട്, എറണാകുളം	97474 33036	
8	തൃശ്ശൂർ	പ്രിജു വി എ.ഐ.എച്ച്.എസ്.എസ്. പാടൂർ, തൃശ്ശൂർ	94475 69262	
9	പാലക്കാട്	രഞ്ജിത് ഇ കെ.വി.ആർ. ഹൈസ്കൂൾ ഷൊർണൂർ, പാലക്കാട്	94464 84222	

List of Coordinators

ക്രമ നം.	ജില്ല	പേരും വിലാസവും	ഫോൺ നമ്പർ	ഒപ്പ്
10	മലപ്പുറം	അരുൺ എം എൻ ആർ.എം.എച്ച്.എസ്.എസ്. മേലാറ്റൂർ, മലപ്പുറം	94973 44970	
11	കോഴിക്കോട്	ജയരാമൻ പി കെ മേമുണ്ട എച്ച്.എസ്.എസ്. കോഴിക്കോട്	96057 43379	
12	വയനാട്	അനിൽ കുമാർ കെ ബി ജി.വി.എച്ച്.എസ്.എസ്. മാനന്തവാടി	94473 49102	
13	കണ്ണൂർ	വിനോദ് കുമാർ കെ പി സി.എച്ച്.എം.എച്ച്.എസ്.എസ്. എളയാവൂർ, കണ്ണൂർ	94472 76067	
14	കാസർകോട്	മധുസൂദനൻ എ എച്ച്.എച്ച്.എസ്.ഐ.ബി. സ്വാമിജീസ് എച്ച്.എസ്.എസ്. എട്നീർ, കാസർകോട്	94478 56121	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