



**Workshop
on**



Solar Powered Pumping Systems Sustainable Solution for Community Based Drinking Water Supply & Lift Irrigation Systems

Date : 19th JANUARY, 2018

Time : 9:30 to 17:30 hrs

Venue : HOTEL SAYAJI

Bhopal, Madhya Pradesh, India

Focus

on

**Planning, Design, Smart Remote
Management & Monitoring, On-site Quality Control**

Organized By :

**Institute of Public Health Engineers, (Bhopal Chapter) - India
In Joint Venture with WatsanCAD Solution**

**Accredited Channel Partner of Ministry of New and Renewable Energy, Govt
(Training Management Consultant), Bhopal, Madhya Pradesh**

Sponsored By :

Grundfos Pumps India Pvt. Ltd.



INTRODUCTION

To provide every person with adequate safe water for drinking, cooking and other domestic basic needs on a sustainable basis. This basic requirement should meet minimum water quality standards and be readily and conveniently accessible at all times and in all situations i.e. in desired quantity of potable water at household level.

Power Supply in India is lagging in terms of desired services and penetration due to non-availability, shortage, frequent disruption of power supply, voltage fluctuations etc besides inaccessibility of the areas i.e. remotely located habitations emphasize the need for alternative solutions like non-conventional technologies.

Apart from this high electric bills dynamic in nature is a biggest challenge for sustainability of operation & maintenance of small water supply systems.

Based on the techno-economic feasibility and viability in consideration with life cycle cost, the most appropriate option can be harnessing of solar energy for use of various purposes.

Application of Solar Power for Water Pumping System (SWPS) in drinking water sector is also taking place, in uncoordinated and unplanned manner. The use of solar energy for water supply & lift irrigation systems is not a new concept, but only an appropriate design solutions can result in predictable system performance. The focus is required an appropriate planning, design in consideration with Life Cycle Cost Approach (LCCA) and online real time remote management and monitoring, on-site third party quality control / implementation of solar based pumping systems for drinking water supply is of utmost importance to cater the safe and potable water needs on sustainable basis with emphasis integrated WaSH. ***It is a national flagship priority programme.***

OBJECTIVE

The proposed workshop is intend to develop capacity of the institutions / organizations / individuals through knowledge sharing on the application of solar energy for pumping system appropriate for drinking water sector i.e. rural, small urban water supply & lift irrigation systems in India.

To ensure national goal for provisioning of safe and potable water in remotely located habitations and school & food security, with special focus of the workshop is to develop relevant technical skills and know how of the technology to meet the challenges in planning, design, monitoring, quality control, operation & maintenance for use of solar powered water pumping for drinking & lift irrigation systems.

WHO SHOULD PARTICIPATE IN THE WORKSHOP

Engineers / Managers from rural and urban water supply / Forest / Agriculture / WRD / MNRE, NGO, Consulting Engineers, state ministry personnels, academic institutions and other organization related to solar water pumping system. Special focus on provisioning of safe and potable drinking water using solar water pumping system.

RESOURCE PERSONS

Experts and Senior officials being a sector specialist from Ministry of Drinking Water and Sanitation, Ministry of New & Renewable Energy, water supply departments / NGO's / CGWB / Industry etc.

COURSE CONTENT

- Introduction to the National Drinking Water Policies - (NRDWP, AMRUT & MNRE)
- Issues / Challenges in the Small Drinking Water & Lift Irrigation systems.
- Application of Solar Energy in Drinking Water Sector & Lift Irrigation systems.
- Planning and Design guidelines for Solar Energy based dual water pumping system - GOI flagship programme.
- Service level benchmark indicator for planning & design of Solar Water Pumping System components w.r.t life span.
- Selection of appropriate Solar Water Pumping System as per requirement.
- Selection between off grid (stand alone) or on grid (grid-tied) pumping system.
- Selection between Net metering / Gross Metering.
- Presentation of case studies for rural water supply / urban water supply & lift irrigation systems based on solar water pumping system.
- Need of Real Time Remote Management, Monitoring & Control System as a tool in SDWPS for sustainable O&M - A case study.
- Onsite Quality control and validation of solar systems.
- Solar Powered Pumping System - a viable option PPP's in small / rural piped water supply schemes.

OUTCOME OF THE WORKSHOP

Participants after this workshop can

- Take-up baseline survey studies, collection of data for SDWPS
- Plan and design Solar Based Drinking Water Pumping Systems with site specific conditions & requirements as per technical guidelines.
- Ensure on-site quality control during installation

ABOUT THE ORGANIZERS

A. INSTITUTE OF PUBLIC HEALTH ENGINEERS (IPHE) - INDIA

Institution of Public Health Engineers (IPHE) India and its Bhopal Regional Centre (www.ipheindia.org) IPHE is a premier forum statutory registered body of public health and environmental engineers of the country formed in 1972. The institution undertakes a diversified spectrum of activities such as organizing seminars, symposia, workshops and training courses; undertaking research and development projects, consultancy services and publication of quarterly technical journals.

IPHE was involved in conducting the Workshop on Solar Powered Water Pumping Systems sponsored by The International Committee of the Red Cross, (ICRC) New Delhi dated 19-20th June 2014.

AND

B. WATSANCAD SOLUTION, BHOPAL-(TRAINING MANAGEMENT CONSULTANT)

WatsanCAD Solution premier consultancy organization for, planning and management in the WaSH, Integrated Water resource management, Green Energy Solutions sectors & trainings. **M/s WatsanCAD Solution is Empaneled as Channel partner for Grid Connected Rooftop and Small Solar Power Plants Programme of Ministry of New and Renewable Energy. WatsanCAD Solution is accredited by rating agency as 3D.** WatsanCAD Solution function in following key areas, being having specialization in

- Development of Feasibility & DPR's Report (WaSH, Watershed & Solar Powered Based Drinking Water Supply)
- Appraisal & Evaluation (Engineering Projects - WaSH / Solar Systems)
- Capacity Building Training's - WaSH, Drinking Water Security, Planning of Solar Drinking Water Pumping System
- Planning, Designing, Computer Aided Modeling of Water Supply, Sewerage & Solar Powered Water Supply Projects
- Preparation of Tender Specifications - WaSH and Solar Powered Water Supply Schemes
- Quality Control & Monitoring - WaSH and Solar Powered Water Supply Schemes
- MIS Development
- IWRM - RS / GIS
- WQM&S - RS / GIS
- Water Security & Sustainability

WatsanCAD Solution is registered organization with IPHE India.

IPHE & WatsanCAD Solution in joint venture has successfully conducted such type of training courses earlier (29th Sept 2014 to 01st Oct 2014, 5th Jan 2015 to 9th Jan 2015, 29th Sept 2015 to 01st Oct 2015, and 29th Sept 2016 to 01st Oct 2016) . Participation from Nepal & various states of the country.

PROGRAMME DATES AND VENUE

Date : 19th Jan 2018

Venue : Hotel Sayaji, Near Sair Sapata, Van Vihar Rd, Premtura, Bhopal,
Madhya Pradesh - 462002

Timing : 9:30 to 17:30

COURSE MANAGER

Harish Kumar

Executive Director (Technical)

WatsanCAD Solution, Bhopal

<http://www.watsancadsolution.in>

COURSE COORDINATOR

Deepak

Director, WatsanCAD Solution, Bhopal

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COURSE FEE

Course Registration fees for Delegates

SN	Category	Amount Per Participant
01	For Government Organization / Institutions	No amount shall be Charged
02	Industry / consulting firms participants sponsored	Rs. 15,000/- plus GST @18.00%*
03	For NGO's participants sponsored	Rs. 5,000/- plus GST @18%*
ANY CHANGES IN THE TAXES AT THE TIME OF WORKSHOP SHALL BE PAID ACCORDINGLY		

Note :

1. For Government organization/ institution sponsored participants expenses towards their travelling and lodging / boarding shall be borne by sponsoring institutions / organizations.
2. Registration course fee includes course material, course kit, Lunch, Tea / Coffee and snacks during the workshop.

SPONSORSHIP OPTIONS

1. **Platinum Sponsor** Rs.1,50,000/- Plus GST
2. **Gold Sponsor** Rs. 75,000/- Plus GST
3. **Silver Sponsor** Rs. 40,000/- Plus GST
4. **Product presentation with 20 mins slot** Rs. 20,000/- + Plus GST

TRAVELLING, TRANSPORTATION & ACCOMMODATION

All outside participants who wish to attend this workshop, are required to make their own arrangements for travelling, transportation, lodging / boarding etc.

REGISTRATION

Please download the application form from www.watsancadsolution.in/traings.htm and send the filled form on the e-mail address given : **trg.wcs@gmail.com**

Please send details by post to below mentioned address.

To, **WATSANCAD SOLUTION, 68, Amrapali Enclave Chunnabhatti, Kolar Road, Bhopal - 462016**

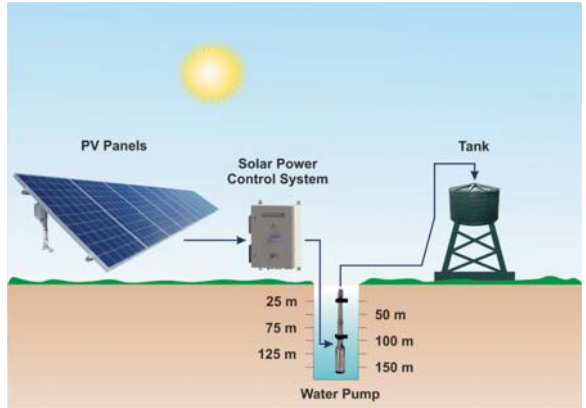
Note : On receipt of the nomination, acceptance will be notified by e-mail & mobile to the individual not later than 12th Jan 2018.

Participants from NGO's / Consulting firm are requested to send their course fee as mentioned in the bank account for which details are given as under.

Please find below Bank Account details are as follows :

Account Holder Name	WATSANCAD SOLUTION, BHOPAL
Account Type	Current
Bank Name	State Bank of India
Branch	Chunnabhatti, Bhopal
Account Number	51032940551
IFSC Code No	SBIN0031850
MICR No	462002106
Swift Code	SBININBB268
Goods & Service Tax @ 18.00% as applicable. Alternatively payment can be in the form of demand draft payable in favour of WATSANCAD SOLUTION, BHOPAL PAN Card No. AAGPH6340A; GST Registration No. 23AAGPH6340A2ZE	

Nomination deadline is 12th Jan 2018



Grid-Tie Solar Electric System

