INDORE INSTITUTE OF LAW

(Affiliated to DAVV & BCI)

---Rank 1st PRIVATE LAW COLLEGE IN M.P., C.J. & RAJASTHAN BY---
INDIA TODAY – OUT LOOK – THE WEEK – THE KNOWLEDGE REVIEW

Gendalal Bam Parisar, Opp. IIM Rau, Pithampur Road (M.P.), 453331
Email ID- indoreinstituteoflaw@gmail.com, Website: www.indoreinstituteoflaw.org
Phone no:- 9977091777, 9977019777

Annual QualityAssurance Report– 2022-23"

DVV

Criteria-7

Institutional Values and Best Practices

7.1 Institutional Values and Social Responsibilities
7.1.6Quality audits on environment and energy regularly undertaken by the Institution.

Submitted to

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Index

Director&Dean/Principal/HOD

7.1.6 QUALITY AUDITS ON ENVIRONMENT AND ENERGY REGULARLY UNDERTAKEN BY THE INSTITUTION

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Policy on Environment, Energy and Sustainable Development

INTRODUCTION

The Indore Institute of Law in its vision and mission of creating, "**Competent Human Legal Professional and Responsible Citizens"** in order to build well-rounded citizens lie at the heart of legal education. Holistic education in the 21st century is incomplete without imparting knowledge on living responsible lives. This sense of responsibility should extend to the larger world that we live in. Guided by this principle, the College seeks to inform students on the imperative of environment protection and also affords them an experience of studying in an institution that has adopted sustainable practices in its various functioning.

As the College is situated in the heart of **the city of Indore,** the staff and students are well-aware of both the various kinds of pollution and its attendant health hazards, and the immediacy and the seriousness of the problem of environmental pollution. For us at **Indore Institute of Law**, terms like environmental degradation, climate change, are not buzzwords but a part of our lived reality. Located near the industrial town of **Pithampur**, space constraints make it difficult for us to increase our green cover. But we have adopted measures, both small and large to nurture nature.

OBJECTIVE

The main objective of this policy is to raise environmental awareness among students and staff and promote sustainable practices in the institution.

The **GO GREEN CLUB OF IIL** shall be responsible for implementation and monitoring of the Green Campus Policy.

INITIATIVES

Policy on Environmental& Energy Usageof the College shall follow a three-pronged approach based on the principle of **sustainable development.**

1. Resource Maintenance

- Protect existing flora, especially old trees within the campus.
- Careful use of infrastructure by both students and staff to prevent unnecessary repairs and replacements.
- Make campus green and more vibrant through different biodiversity measures.
- Soil Fertility in college is increased through manure preparation through used garlands.
- Efficient use of water through Rain Water Harvesting.
- College shall take steps to conduct Green audit and Energy audit.
- Regular maintenance of water tanks, bore wells etc.
- Restricted entry of automobiles and promoting the use of public transport.
- **2. Resource Maximization**
- Debating Society, Theatre society, and all Department level societies shall organise programmes to spread awareness on environment protection.
- Proper disposal of waste to be carried out.
- Natural Sedimentation
- Landscaping of the college campus to increase green cover.
- College festivals shall have events like “Eco-innovation" and “Best out of Waste” to help popularise the need for environment protection
- Students and staff are encouraged to donate clothes, books, etc rather than throwing them in the trash, which eventually ends in the landfill.
- Best to waste management through solid, liquid and waste management.
- **3. Resource Wastage Minimization**
- Ban on use of single-use plastics.
- Private automobiles are not allowed which makes the campus green and clean.
- Tiles are properly laid down in the entire campus to absorb water slowly and with ease.
- Staff and students shall be mindful while using water and electricity
- Use of stairs rather than lifts whenever possible
- Staff and students shall switch off fans, bulbs, air-conditions etc. when leaving the room.
- Recycling of waste paper that is generated in the campus

- Regular collection of e-waste to be carried out in College.
- Regular maintenance of taps to water pipes to prevent waste
- Popularise use of menstrual cups among students and staff.
- The College shall ensure availability of potable water to prevent use bottled water.
- Ensure proper segregation of waste by providing different-coloured waste bins
- Attendance shall be taken online to prevent paper wastage
- Students to be encouraged to submit assignments online.

Energy Measures at IIL

- Solar Energy is tapped through installed solar plates in the college.
- Sensor Based Energy Conservation reduces energy wastages.
- Biogas Plant generate electricity other than removing wastages.
- LED saves energy to a great extent.
- Use of Bicycles is not only environmentally sustainable but also saves energy use.

Approved by
IQAC
Chairperson, IQAC
Indore Institute of Law

Mr. Akshay Kanti Bam
Chairman, Indore Institute of Law
Chairman
Indore Institute of Law
INDORE (M.P.)

GREENAUDITREPORT

IndoreInstituteof LAW

RauPithampurRoad,Opp.IIM,Indore (M.P.)

PREPAREDBY

EMPIRICALEXERGYPRIVATELIMITED

Flat No. 201, OM Apartment,214 Indrapuri Colony,Bhawarkuan,Indore–452 001(M.P.),India
0731-4948831,7869327256
Email ID:eempirical18@gmail.comwww.eeplgroups.com

(2021-22)

CONTENTS

ACKNOWLEDGEMENT

EmpiricalExergyPrivateLimited(EEPL),Indore(M.P)takesthisopportunitytoappreciate& thank the management of **Indore Institute of Law, Indore** for allowing ustoconduct agreen audit forthe institute.

We are indeed touched by the helpful attitude and co-operation of all faculties and technicalstaff,who renderedtheirvaluableassistanceand co-operation duringthecourseof study.

RajeshKumarSingadiya

(Director)

M.Tech (Energy Management), PhD (Research Scholar)Accredited Energy Auditor [AEA-0284]Certified Energy Auditor [CEA-7271](BEE,MinistryofPower, Govt. of India)
Empanelled Energy Auditor with MPUVN, Bhopal
M.P.Lead Auditor ISO50001:2011 [EnMS) from FICCI, DelhiCertifiedWaterAuditor (NPC, GovtofIndia)
ChartedEngineer[M-1699118],TheInstitutionofEngineers(India)
MemberofISHRAE[58150]

TheAuditTeam

Thestudyteamconstitutedofthefollowingseniortechnicalexecutivesfrom**EmpiricalExergyPrivateLimited,**

- **Mr.RajeshKumarSingadiya**[Director &AccreditedEnergyAuditorAEA-0284]
- **Mr.RakeshPathak**,[Director&ElectricalExpert]
- **Mr. Sachin Kumawat** [Sr. Project Engineer]**Mr. Charchit Pathak [**Asst.Project Engineer**]Mr.Aakash Kumawat**[SiteEngineer]
- **Mr.AjayNahra,**[Sr.Accountant&admin]

EXECUTIVESUMMARY

GreenInitiative Takenby Institute

CAMPAIGNOFPLANTATIONANDGREENCAMPUS:

- Institutehasaround**2922**treesoncampus.It'sagoodinitiativetakenbymanagementforagreencampus under thecampaign ofaplantation.**Itis APPRECIABLE.**

SOLARSYSTEM

- Institutemanagementhasinstalled58kWprooftopgridconnectedsolarsystemincampus. **Itis APPRECIABLE.**

BIOGASPLANT

- Management has purchased 2 cubic metr bio gas plant for treatment of organic wastegeneratedincampus. **It is APPRECIABLE.**

- **QRcodeonTrees**

Institute has installed QR code system on trresfor commo details on single page . **It isAPPRECIABLE.**

AUDITRECOMMENDATION:-

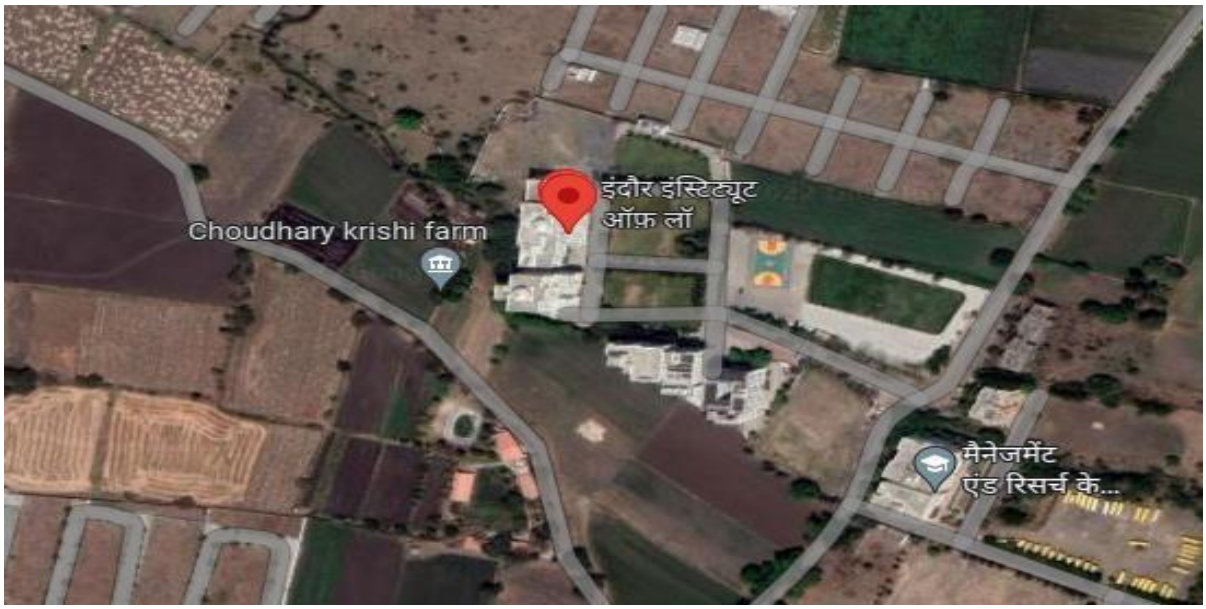
5Dust bin system:-

- Institutehasused03dustinsystemsforcollectalltypeofweasteincampus.Itisrecommendedto installed 05 nos dustbin system.

CHAPTER1
INTRODUCTION

1.1 Aboutinstitute

Indore Institute of Law (IIL) was founded with a vision to be one of India's most prominentLaw institutes and has established itself as one of the most recognized Law Institutes in India.IIL are committed to providing the best platform for global legal education to students andcourses are designed in order to give a complete exposure, both in domestic and internationallaw practices, students. At Indore Institute of Law, students have an option to choose from avariety of law courses, where they are offered complete law programmes along with practicaltrainingandresearch papers to get an all-roundunderstandingof



thelawindetail.

Figure1.1:-SatelliteImageofIIL,IndorefromGoogle map

ValueBased Education

"Educating the mind without educating the heart is no education at all!" At Indore Institute ofLaw,theobjectiveofdeliveringValueBasedEducationistoproduceresponsibleandcommitted citizens. This education acts as a multidimensional attribute to activate humanvaluesamongstudents.Ononehand,theyachieveexceptionalsuccessintheirlegalprofession and on the other; they become good human beings with a heart for society and thecountry. This is an institute which stands on the foundation of moral values, passion and arelentlesssearch for excellence.

Objective

At Indore Institute of Law, our objective is to form a community where people come togetherand respect the law and take an oath to use it in an honest way for the betterment of thesociety.

Mission

The world works with a right mix of Cultural and Spiritual Excellence and sometimes, youneed the help of law to maintain the right balance in the society. For a society to functionideally,youneedpeopletomaintainacertainlawandorderanddirectittowardsanaccomplishment it is trying to achieve. At Indore Institute of Law, we are nurturing youngminds with equality and right law education to ensure they promote it further to the society,when they take the law as their career path. The society is always looking forward to peoplewho are making a positive change with their morals and with a higher understanding of moralexcellence. This is where Indore Institute of Law steps in and offers a platform to the studentswheretheygetacompleteunderstandingoflaw,fosteringtheirmindsintherightdevelopment that is ultimately going to play a positive role in the betterment of the societyandthe nation, as whole.

1.2 GreenMonitoringCommittee

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Phone No: +91 9977091777, 9977019777 | Web.: www.indoreinstituteoflaw.org |E-mail: indoreinstituteoflaw@gmail.com

No. IIL/76/A/22 Date : 02 07 2022

Energy, Water, Green & Environment Audit Committee

Energy, Water, Green & Environment Audit Committee will consist of the following members.

S. No.	Name	Designation
1	Dr. Manpreet Kaur Rajpal	Dean and Director Academics
2	Mr. K.S. Vyas	Executive Director
3	Mr. Nitin Jasuja	Campus Incharge
4	Mr. Arun Naik	Admin Officer
5	Mr. Shekhar Patankar	Coordinator
6	Mr. Ashish Verma	Admin. Assistant
7	Mr. Anil Choudhary	Campus Supervisor
8	Mr. Yogendra Singh Thakur	Campus Supervisor

Time duration of this committee is 2 years, after which the committee will be reconstituted.

Executive Director
Indore Institute of Law

Executive Director (Admin)
Indore Institute of Law

ISO 9001:2008 Certified

Run By: Icon Education Society

City Office : 425-426, Orbit Mall, A.B. Road, Indore (M.P.)

Associate Institute :

INDORE NURSING COLLEGE
(Affiliated to DAVV and Indian Nursing Council, New Delhi)
www.indorenursingcollege.com

IdyllIC Institute of Management
(Affiliated to DAVV and approved by M.P. Higher Edu. & AICTE, New Delhi)
www.idyllicindore.com

1.3 AboutInstituteInfrastructure

Theinstituteisspreadover**1,81,673Sq.Ft** withplentyofopenspaceandsportsareainterspersed within academic buildings. The details of various department and building aregivenbelow:

Table1.1:-Nameofthe various Buildingin the institute

Sr.No.	Buildinding	BuildupArea(Sq.Ft.)
1	Block-A	65,725
2	Block-B	10,032
3	Block-C	28201
4	BoysHostal (Block- D)	32830
5	GirlsHostal (Block- E)	44885
	Total	1,81,673

1.4 AboutGreenAuditing

Eco campus is a concept implemented in many educational institutions, all over the world tomake them sustainable because of their mass resource utilization and waste discharge into theenvironment.

Green audit means to identify opportunities for sustainable development practices, enhanceenvironmental quality, improve health, hygiene, and safety, reduce liabilities achieve valuesofvirtue.Agreenauditalsoprovidesabasisforcalculatingtheeconomicbenefitsofresource conservation projects by establishing the current rates of resource use and theirassociatedcosts.

Green auditing of **"Indore Institute of Law"** enables assessment of the lifestyle, action, andits impact on the environment. This green audit was mainly focused on greening indicatorslike utilization of green energy (solar energy) and optimum use of secondary energy sources(petrol and diesel) in the Institute campus, vegetation, carbon footprint of the campus, etc.Green auditing aims to help the institution to apply sustainable development practices and tosetexamples beforethecommunityandyounglearners.

1.5 Objectivesof GreenAuditing

The general objective of a green audit is to prepare a baseline report on “Green campus” andalternativeenergysources(solarenergy),measurestomitigateresourcewastage,andimprovesustainablepractices.

Thespecificobjectivesare

- To inculcate values of sustainable development practices through a green auditmechanism.
- Providingadatabaseforcorrectiveactionsandplans.
- To identify the gap areas and suggest recommendations to improve the green campusstatusof theInstitute.

In the survey, the focus has been given to the assessment of the present status of plants andtreesontheinstitutecampusandeffortsmadebytheinstituteauthoritiesfornatureconservation. The campus is in the vicinity of approximately more than 2922 trees/medicinalherbs/ornamentalplants.Thedetail is given below:

Sr. NO	CommonName	BotanicalorfamilyName	Quantity
1	AshokaTree	SaracaAsoca	2
2	Basil(Tulsi)	Ocimumtenuiflorum	86
3	BismarkyaPalmTree	Bismarckianobilis	10
4	BottlePalmtree	HyophorbeLagenicaulis	51
5	CasuarinaTopiary	Casuarina	27
6	Champa	Magnolicachampca	69
7	Chandani	TabernaemontanaDivaricata	225
8	ChristmasTree	Araucariaheterophylla	13
9	Cycas Palm	Cycasrevolute	8
10	DatesTree	Arecapalms	12
11	Erika Palm(Elite Green)	Chrysalidocarpuslutescens	13
12	FarkeriyaGreen	FicusBenjamina	27
13	Ficus Panda	FicusBenjamina	121
14	FicusPandaBlack,(Benjamina)	FicusBenjamina	14
15	GoldenPandanus(GroundCover)	Pandanusbaptistii	490
16	GreenChili	Acer negundo	5
17	GuavaTree	PsidiumGuajava	2
18	Gulmohar Tree	Delonixregia	31
19	Hameliya	HameliacupreaGriseb.	3
20	Jetropa	Euphorbiaceae	700
21	KadamTree	Neolamarckiacadamba	27
22	Kejurinatree	Prosopiscineraria	7
23	Latania Palm	Latanialontaroides	4
24	LemonTree	Citruslimon	2
26	MangoPlant	Mangiferaindica	2
27	MoneyPlant	Epipremnumaureum	120
28	MorsaliTree	Acaciahybryda.	25
29	NeemTree	Azadirachtaindica	9
30	PalmTree	Archontophoenixalexandrae	104
31	PeltophorumTree	Peltophorumpterocarpum	1
32	Phoniex Palm	Phoenixcanariensis	14
33	RafisPalm	Rhapisexcels	47
34	Rasulia(Bel/ latkan)	Aeglemarmelos	133

35	RosePlants	Rosarubiginosa	416
36	SacredFigTree (Pipal)	Ficusreligiosa	2
37	Samal Tree	Bombax malabaricum	8
38	ShishamTree	Dalbergiasissoo	2
39	Silver OakTree	Grevillearobusta	2
40	SonapattiTree	Cassiaangustifolia	1
41	SpathodeaTree	Africantuliptree	66
42	Sugarcane	Saccharumofficinarum	17
43	SweetsopTree	Annonasquamosal	1
44	Vidya	NA	3
	Total		2922

2.2 GreenCampusPhotograph.

Institutehas**2922trees**onthecampus.Thisisagoodinitiativetakenbymanagementforagreencampus under the campaign of theplantation.**It is APPRECIABLE.**

CHAPTER-3RENEWABLEENERGYANDSUSTAINABLEDEVELOPMENT

3.1GridConnectedSolarPhotovoltaicSystem(58Kwp)

There is a 58 KWp solar photovoltaic rooftop grid-connected system on various building.

Thedateofproject installationis 04/01/2022.Systemdetails aregivenbelow:

Table:-2.6 solarplants detailed

Sr.No.	Description	TechnicalSpecification
A	Detailsof theSolarPVModule	
1	Capacityofmodule	500Wp
2	NoofModules	116No's
3	Total Capacity	58KWp
4	Latitude&Longitude	22.77125 N&75.90821E
B	InverterInformation	
2.1	Make	Growatt
2.2	Model	GROWATT8000TL3-S
2.3	SerialNo	EGK0BHM016
2.4	ACcapacityofInverter	60
2.5	Noofinverterinstalled	1
2.6	TotalAC Capacityof Inverter	60Kw

Photographsof SolarPlant:-

Figure2.6:-SolarPlant58KWpandInverterSystem

Observation:-

Institutehasinstalled58kWpsolarrooftopgridconnectedsystematvariousbuildings

.Therearestill goodpotential to increasedcapacityofthesolarsystem.

Chapter-04
CarbonFootprintAnalysis

4.1 Aboutcarbonfootprint.

Climate change is one of the biggest challenges faced by the world, nations, governments,institutions,businesses, and mankind today.

Carbon footprint is a measure of the impact your activities have on the amount of carbondioxide (CO_2) produced through the burning of fossil fuels and is expressed as a weight ofCO_2emissions produced in tonnes.

Wefocusonconsumptionineachofourfivemajorcategories:housing,travel,food,products, and services.In addition to these, we also estimate the share of national emissionsoverwhich wehavelittle control, governmentpurchases, andcapital investment.

For simplicity and clarity, all our calculations follow one basic method.We multiply a userinput by an emissions factor to calculate each footprint.All use inputs are per individual andinclude things like fuel use, distance, calorie consumption, and expenditure.Working outyourinputsisamatterofestimatingthemfromyourhome,travel,diet,andspendingbehaviour.

Although working out your inputs can take some investigation on your part the much morechallenging aspect of carbon calculations is estimating the appropriate emissions factor to usein your calculation.Where possible you want this emissions factor to account for as much oftherelevant life cycleaspossible.

Weallhaveacarbonfootprint…

4.2 MethodologyandScope

The carbon footprint gives a general overview of the Indore Institute of Law greenhouse gasemissions, converted into CO_2 -equivalents and it is based on reported data from internal andexternal systems. The purposes of the carbon indicators are to measure the carbon intensityper unit of product, in addition to showing environmental transparency towards externalstakeholders. The carbon footprint reporting approach undertaken in this study follows theguidelines and principles set out in the "Greenhouse Gas Protocol Corporate Accounting andReportingStandard"(hereafterreferredtoastheGHGProtocol)developedbytheGreenhouseGasProtocolInitiativeandinternationalstandardforthequantificationandreportingofgreenhousegasemissions-ISO14064.Thisisthemostwidelyusedandaccepted methodology for conducting corporate carbon footprints. The study has assessedcarbon emissions from the Indore Institute of Law Campus. This involves accounting for andreporting on, the GHG emissions from all those activities for which the company is directlyresponsible.Theitemsquantifiedinthisstudyareasclassifiedunder theISO14064standards: The report calculates the greenhouse gas emissions from Indore Institute of LawCampus. This includes electricity, as well as emissions associated with diesel consumption intheinstitutevehicle.Theemissionassociatedwithairtravel,wastegeneration,administration, and marketing-related activities has been excluded from the current study.Emissions from business activities are generally classified as scope 1, 2, or 3 areas classifiedundertheISO 14064 standards.

4.3 Carbonemissionfromelectricity

Direct emissions factors are widely published and show the number of emissions produced bypowerstations to producean averagekilowatt-hourwithin that grid region

Unlike other energy sources, the carbon intensity of electricity varies greatly depending onhow it is produced and transmitted.For mostofus, the electricity we use comes from thegrid and is produced from a wide variety of sources.Although working out the carbonintensityof this mixis difficult, most of the workis generallydonefor us.

Electricity used in the site is a significant contributor to GHGs emissions from the unit.Electricity used onsite is the most direct, and typically the most significant, a contributor to aunit's carbon footprint. Thus, using an average fuel mix for generating electricity, the carbondioxideintensityof electricityforthenationalgrid is assumed tobe 0.9613 KgCO2/Kwh

(Reference: Central Electricity Authority (CEA) Baseline Carbon Dioxide Emission databasehttp://cea.nic.in/reports/others/thermal/tpece/cdm_co2/database_11.zip).Electricityis purchasedfrom thegrid

Table:-4.1 ElectricityPurchasedfrom the gridand EmissionsfromtheelectricityImport

Sr.No	Year	Total unit ConsumptionbyAVVNL	Unit	Emission Factorkg CO^2e/kWh	Emissionton CO^2e/year
1	2017-18	291473	kWh	0.9613	280
2	2018-19	352571	kWh	0.9613	339
3	2019-20	282567	kWh	0.9613	272
4	2020-21	130611	kWh	0.9613	126
5	2021-22	270480	kWh	0.9613	260
	TotalCarbonemissionCO2e/year				1276.3

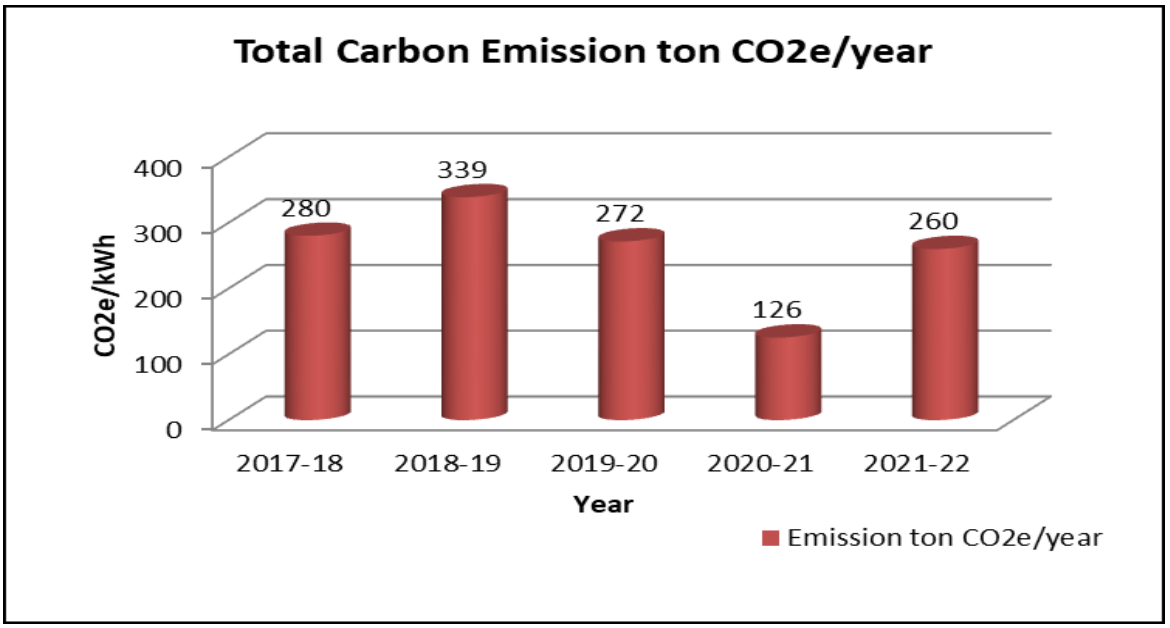


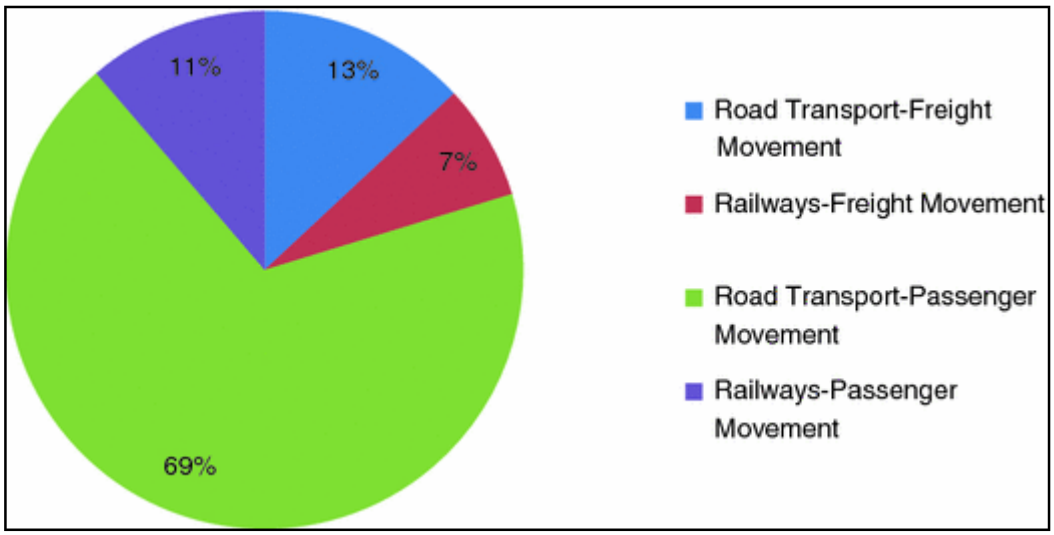
Figure4.1:-GraphicalPresentationofCO2emissionfromelectricityperyear

Observation:-

Total CO_2Emissionbyindirectlyfrom electricityis 260Ton CO2e/year in2021-22.

4.4 Carbonemissionfromvehicles.

In India, it is the third most CO_2 emitting sector, and within the transport sector, roadtransport contributed more than 90% of total CO_2 emissions (IEA, 2020; Ministry ofEnvironmentForestandClimateChange, 2018)



Transportation (29 percent of 2019 greenhouse gas emissions) – The transportation sectorgenerates the largest share of greenhouse gas emissions. Greenhouse gas emissions fromtransportation primarily come from burning fossil fuels for our cars, trucks, ships, trains, andplanes.

We have also considered the total GHGs emission done by transportation facilities availableon the campus like Cars, Buses, etc. We consider the different types of vehicles which areoperatedon petrol and diesel fuels

Theenergyteamhasanalysed the followingvehiclemovement forCampus.

CalculationofCarbonfootprint analysis: -

AsperdiscussionbytheconcerneddepartmentintheInstituteanddataprovidedbyManagement.

Thefollowingdetails aregiven inthetable: -

Sr.No	VehicleType	Fuel type	Distance Traveling per day (KM)	Average Mileage (Per Litter)	Total Distancetraveling per month(25 days)
1	InstituteBus-01	Diesel	65	15	1,625
2	InstituteBus-02	Diesel	65	15	1,625
3	InstituteBus-03	Diesel	60	15	1,500
Total Distancetravelingin amonth					**4750**

- CO_2Emissionsfromagallonofgasoline:8,887gramsCO_2/gallon
- CO_2 Emissionsfrom agallon ofdiesel:10,180 gramsCO_2/ gallon

(1USGallon=3.7854 litters)

- CO_2EmissionsfromaLittreof gasoline:2347.95 gramsCO_2/ Litter.
- CO_2Emissionsfroma Littreofdiesel:2689.56gramsCO_2/litter.

$$\text{TotalCO}_2\text{Emissions} = \frac{\text{CO}_2\text{Perlitter}}{\text{Average Mileage(Km/Litter)}} \times \text{Distance(in km)}$$

$$\text{TotalCO}_2\text{Emissions} = \frac{2689.59}{} \times 190 = 34068.14\text{gramor}34.08\text{Kg/day}$$

WhenVehicletravelingin 300DaysinYear=

190x300 =57000 Kg/yearor**57.00ton/year**

4.5 Carbonemission fromDGsets: -

Institute has 01 no DG sets installed on the campus for emergency power failure.Asperreference monthJuly-2022totaldiesel consumptioninDGsetis600 Litter.

Everylitterofdieselfuelcontains720gramsofpurecarbon.Inanaverageliquid hydrocarbon burning engine. It can be assumed that about 99 % of the fuel is Oxidized (It isassumed that somewhat less than 01 % will fail to fully oxidize and will be emitted as aparticulate ofunburned hydrocarbons instead of CO_2.

CalculationofTotal CO_2=

- CO_2Emissionsfroma Littreofdiesel:2689.56gramsCO_2/litter.
- Dieselconsumption Sep-2021toJuly-2022is=7200Litter
- 7200x2689=19360800gram. or19360KgCO_2 emissionyearor**19.36Ton/year**

4.6 BiomassCalculationand CO^2 Sequestration of theTrees:-

1.Estimationofabove-groundbiomass (AGB)

$$K= 34.4703 – 8.0671D + 0.6589D^2$$

Where=Kis above-ground biomass.
DisBreastheight diameterin(cm)

1 Estimationofbelowgroundbiomass(BGD)
BGB=AGBx0.15

2 TotalBiomass(TB)
TB=AGB+BGB

3 CalculationofcarbondioxideWeight sequesteredinthetreeinKg.
C =Wx0.50

4 Calculate the weight of CO_2 sequestered in the tree per year in Kg.CO_2=C x3.666

Where:-

AGB=above groundbiomass.

D = Diameter of tree breast height.BGB=Below GroundBiomass.

C =Carbon

TB=TotalBiomass.

4.6 Biomasscalculationof thetree

Sr.NO	CommonName	Average Diameter CM(25to 100)	AGB	BGB	Total	Carbon Storage	Amount ofCo2Sequestered	Quantity	TotalAmount ofCo2Sequestered	Co2Sequesteredamount Kg/year	Co2Sequestered amount Ton/year
1	AsokaTree	67	2541.6	381.2	2922.8	1461.4	5357.5	2	10715.0	146.1	0.15
2	Basil(Tulsi)	12	35.4	5.3	40.7	20.4	74.7	86	6422.4	87.6	0.09
3	BismarkyaPalmTree	56	1711.7	256.8	1968.5	984.3	3608.3	10	36082.8	492.1	0.49
4	BottlePalmtree	56	1711.7	256.8	1968.5	984.3	3608.3	51	184022.3	2509.9	2.51
5	CasuarinaTopiary	24	231.9	34.8	266.7	133.3	488.9	27	13199.0	180.0	0.18
6	Champa	19	126.3	18.9	145.2	72.6	266.2	69	18367.2	250.5	0.25
7	Chandani	13	44.3	6.6	51.0	25.5	93.5	225	21026.7	286.8	0.29
8	ChristmasTree	32	471.5	70.7	542.2	271.1	993.9	13	12921.2	176.2	0.18
9	CycasPalm	84	4147.2	622.1	4769.2	2384.6	8742.0	8	69936.1	953.8	0.95
10	DatesTree	19	126.3	18.9	145.2	72.6	266.2	12	3194.3	43.6	0.04
11	ErikaPalm(EliteGreen)	26	283.7	42.5	326.2	163.1	598.0	13	7773.4	106.0	0.11
12	FarkeriyaGreen	23	208.1	31.2	239.3	119.6	438.6	27	11842.1	161.5	0.16
13	FicusPanda	23	208.1	31.2	239.3	119.6	438.6	121	53070.0	723.8	0.72
14	FicusPandaBlack,(Benjamina)	22	185.6	27.8	213.4	106.7	391.2	14	5476.8	74.7	0.07
15	GoldenPandanus(GroundCover)	37	665.4	99.8	765.2	382.6	1402.6	490	687293.9	9373.9	9.37
16	GreenChili	56	1711.7	256.8	1968.5	984.3	3608.3	5	18041.4	246.1	0.25
17	GuavaTree	53	1513.9	227.1	1741.0	870.5	3191.3	2	6382.7	87.1	0.09
18	GulmoharTree	73	3063.4	459.5	3523.0	1761.5	6457.6	31	200184.7	2730.3	2.73
19	Hameliya	9	16.9	2.5	19.4	9.7	35.5	3	106.6	1.5	0.00
20	Jetropa	11	27.9	4.2	32.1	16.0	58.8	700	41138.6	561.1	0.56
21	KadamTree	71	2884.0	432.6	3316.7	1658.3	6079.4	27	164144.6	2238.7	2.24

22	Kejurinatree	57	1780.4	267.1	2047.5	1023.7	3753.0	7	26270.9	358.3	0.36
23	LataniaPalm	17	93.5	14.0	107.6	53.8	197.2	4	788.7	10.8	0.01
24	LemonTree	21	164.5	24.7	189.1	94.6	346.7	2	693.3	9.5	0.01
26	MangoPlant	17	93.5	14.0	107.6	53.8	197.2	2	394.3	5.4	0.01
27	MoneyPlant	16	79.2	11.9	91.1	45.5	166.9	120	20033.0	273.2	0.27
28	MorsaliTree	64	2299.0	344.8	2643.8	1321.9	4846.1	25	121152.1	1652.4	1.65
29	NeemTree	47	1155.0	173.3	1328.3	664.1	2434.7	9	21912.4	298.9	0.30
30	PalmTree	55	1644.5	246.7	1891.1	945.6	3466.4	104	360509.2	4916.9	4.92
31	PeltophorumTree	49	1269.2	190.4	1459.6	729.8	2675.5	1	2675.5	36.5	0.04
32	PhoniexPalm	88	4582.0	687.3	5269.3	2634.6	9658.6	14	135220.1	1844.2	1.84
33	RafisPalm	23	208.1	31.2	239.3	119.6	438.6	47	20614.0	281.2	0.28
34	Rasulia(Bel/latkan)	29	371.5	55.7	427.2	213.6	783.1	133	104147.7	1420.5	1.42
35	RosePlants	18	109.2	16.4	125.6	62.8	230.2	416	95782.5	1306.4	1.31
36	Sacred FigTree(Pipal)	38	708.3	106.2	814.5	407.2	1493.0	2	2985.9	40.7	0.04
37	SamalTree	44	993.9	149.1	1143.0	571.5	2095.0	8	16760.3	228.6	0.23
38	ShishamTree	24	231.9	34.8	266.7	133.3	488.9	2	977.7	13.3	0.01
39	Silver OakTree	38	708.3	106.2	814.5	407.2	1493.0	2	2985.9	40.7	0.04
40	SonapattiTree	23	208.1	31.2	239.3	119.6	438.6	1	438.6	6.0	0.01
41	SpathodeaTree	68	2625.1	393.8	3018.9	1509.5	5533.7	66	365222.9	4981.2	4.98
42	Sugarcane	43	942.9	141.4	1084.3	542.2	1987.5	17	33788.1	460.8	0.46
43	SweetsopTree	39	752.5	112.9	865.3	432.7	1586.2	1	1586.2	21.6	0.02
44	Vidya	10	21.7	3.3	24.9	12.5	45.7	3	137.2	1.9	0.00
	Total							**2922**	**2906417.98**	**39640.18**	**39.64**

Institutehas**2922trees**oncampus.Thisisagoodinitiativetakenbymanagementforagreencampusunderthecampaignoftheplantation.**It'sAPPRECIABLE.**

There aretotal CO_2sequestered of**39640 Kg /yearor39.64Tons /Year.**

CalculationofCO$_2$EmissionofIIL Institute:-

Auditteamhasconsideredelectricity,Institutetransport,DGsetsandTress,inCO2 Emission

TotalCarbonFootprintgeneratedBy the campus	=	Carbonfootprintbyelectricity + Carbonfootprintbyvehicle +

TotalCarbonFoot

Printby campus: 260 +57 +19.36 -39.64=296.72 tons/year

4.7 OtherEmissionsExcluded

This study did not evaluate the carbon sequestration potential of existing plantation activitiesand emissions from the staff commuting, food supply, official flights, paper products, watersupply, and waste disposal and recycling due to limited data availability. The current studyidentifies areas where data monitoring, recording, and archiving need to be developed forenlarging the scope of mapping of GHGs emissions in the future years. Accordingly, a set oftools and record-keeping procedures will be developed for improving the quality of datacollectionfor thenextyear's carbonfootprint studies.

CHAPTER- 5
WASTEMANAGEMENT

5.1 AboutWaste

Humanactivitiescreatewaste,anditisthewaythesewastesarehandled,stored,collectedanddisposed of,whichcanposeriskstotheenvironmentandtopublichealthwastemanagement is important for an eco-friendly campus. In institute different types of wastes aregenerated,its collection and management areverychallenging.

Solid waste can be divided into three categories: bio-degradable, non-biodegradable andhazardous waste. A bio-degradable waste includes food wastes, canteen waste, wastes fromtoilets etc. Non-biodegradable wastes include what is usually thrown away in homes andschools such as plastic, tins and glass bottles etc. Hazardous waste is waste that is likely to beathreat to health ortheenvironment like cleaningchemicals, acids and petrol.

Unscientific management of these wastes such as dumping in pits or burning them may causeharmfuldischargeofcontaminantsintosoilandwatersupplies,andproducegreenhousegases contributing to global climate change respectively. Special attention should be given tothe handling and management of hazardous waste generated in the institute . Bio-degradablewaste can be effectively utilized for energy generation purposes through anaerobic digestionor can be converted to fertilizer by composting technology. Non-biodegradable waste can beutilized through recycling and reuse. Thus the minimization of solid waste is essential to asustainableinstitute.Theauditordiagnosestheprevailingwastedisposalpoliciesandsuggeststhe best waytocombat the problems.

Table5.1Differenttypesofwaste generatedintheinstituteCampus.

Sr. No.	TypesofWaste	Particulars
1	Solidwastes	Damagedfurniture,paperwaste,paperplates, foodwastesetc.
2	Plasticwaste	Pen,Refill,Plastic waterbottles andotherplasticcontainers, wrappersetc.
3	E-Waste	Computers,electricalandelectronicparts etc.
4	Glasswaste	Broken glasswaresfrom thelabsetc.
5	Chemicalwastes	Laboratorywaste etc.
6	Bio-medicalWaste	SanitaryNapkin etc.

5.2 Wastecollectionpointsininstitutecampus

Auditteamalsovisitedvariousdepartments,canteen,hostelsandfindoutwastegenerationarea and wastecollectionpointsforfurtherimprovement.Details are giveninthetable.

Table:5.2Detailed ofwastecollection dustbinsystem

Sr.No	Block	Floor	Big	Small	Steel	Total
1	A	GroundFloor	1	15	0	16
2		FirstFloor	1	17	0	18
3		SecondFloor	1	0	0	1
4		ThirdFloor	1	0	0	1
5	B	GroundFloor	1	23	0	24
6		FirstFloor	1	18	0	19
7	C	GroundFloor	3	0	1	4
8		FirstFloor	2	5	2	9
9		SecondFloor	1	11	0	12
10		ThirdFloor	1	3	0	4
11		Fourth Floor	1	0	0	1
12		Fifth Floor	1	2	0	3
13	D	GroundFloor	1	13	0	14
14		FirstFloor	1	10	0	11
15		SecondFloor	1	8	0	9
16		ThirdFloor	1	6	1	8
17		Fourth Floor	1	4	1	6
18		Fifth Floor	1	6	1	8
19	E	GroundFloor	1	4	0	5
20		FirstFloor	1	2	0	3
21		SecondFloor	1	2	0	3
22		ThirdFloor	1	2	0	3
23		Fourth Floor	1	2	0	3
24		Fifth Floor	1	2	0	3
25		Campus	6	1	0	7
		TOTAL				195

5.3 Wastemanagementpracticesadoptedbytheinstitute.

Instituteisadopted**"Threedustbin"**wastecollectionsystemininstitutecampus.Allwasteiscollecte d Gram panchayat rangwasafrominstitute campus everyday.

Figure:-5.1Threedustbinin institute campus

Recommendation:

Itisrecommendedadopted5binwastecollectionsystemforcollectdifferenttypeofwastegeneratedininstitute premises.

Figure5.2:Recommended5DustBinwastecollectionSystem

5.4 E-Wastemanagement

Institute has MOU sign with Unique Eco Recycle 41, Sikh Mohalla Near Kothari MarketChouraha,Indore-4520007(M.P.)foralltypesofE-wastecollectionfortreatment.**ItsAppriciable .**

MOUofE-wastemanagement.

Certificate of Membership

Date : .25/.08/.2022...

This is to certify that M/s *Icon.Education.Society(Indore.Institute.of.Law.),Indore*

has completed formalities for taking membership of Unique Eco Recycle. We are pleased to acknowledge your Membership No. *.uer/E-waste/Ren/A-149/2022.....*

Now you are liable to give e-waste to our company as per schedule plan. Your membership comes in effect from *..25/08/2022.and.exipre.24/08/2025*

Membership is granted for disposed off e-waste in scientific and eco friendly manner.

UNIQUE ECO RECYCLE
save earth by recycling

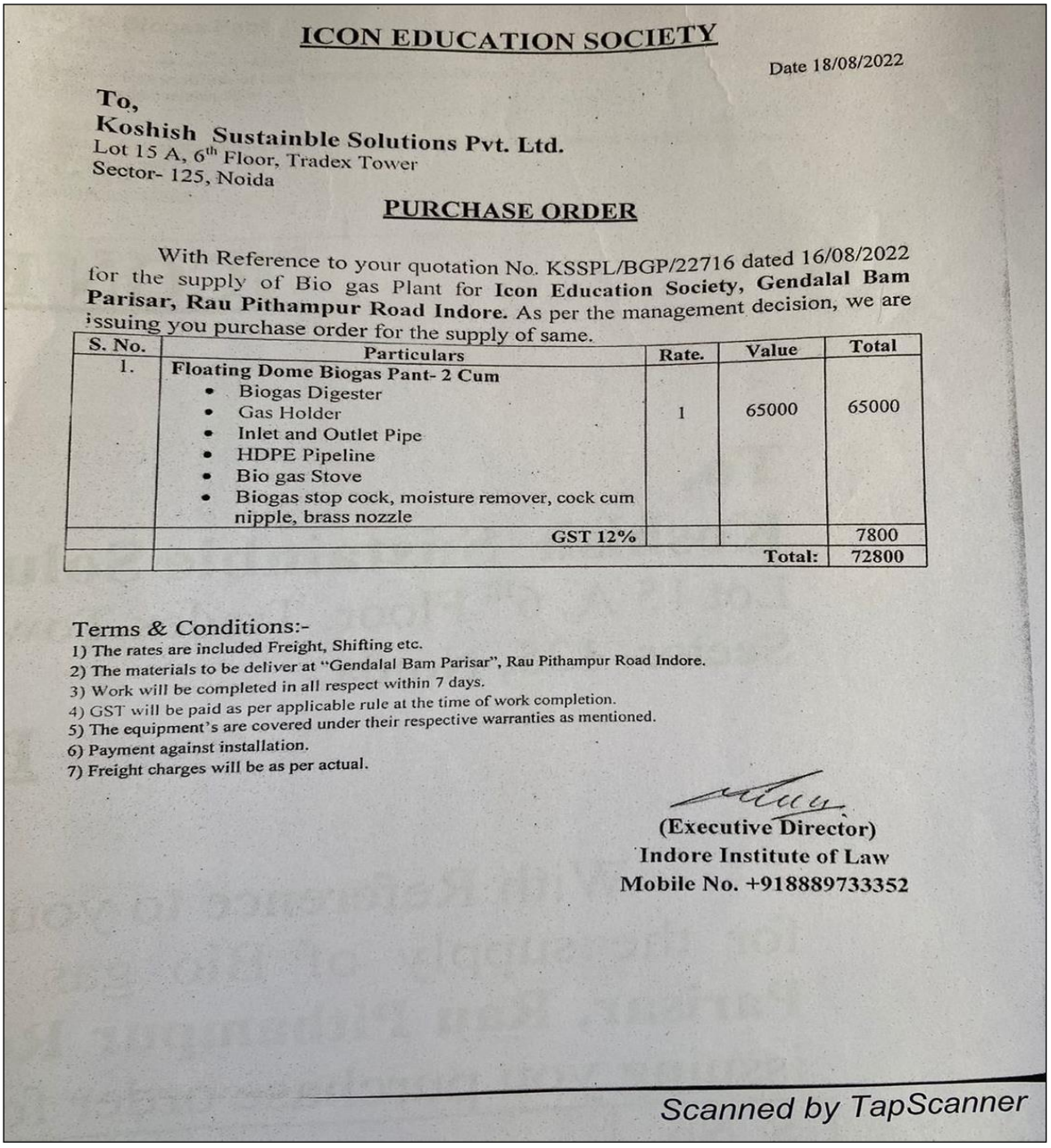
UNIQUE ECO RECYCLE INDORE

For UNIQUE ECO RECYCLE

Authorised Signatory

5.5:-BioGasPlant

Institute has given purches order for bio gas plant of Mr. Koshish Sustainble Solution Pvt.Ltdon Dated 16-08-2022.forall typeof organic wastein institute.**Its Appriciable .**



ICON EDUCATION SOCIETY

Date 18/08/2022

To,
Koshish Sustainble Solutions Pvt. Ltd.
Lot 15 A, 6th Floor, Tradex Tower
Sector- 125, Noida

PURCHASE ORDER

With Reference to your quotation No. KSSPL/BGP/22716 dated 16/08/2022 for the supply of Bio gas Plant for **Icon Education Society, Gendalal Bam Parisar, Rau Pithampur Road Indore.** As per the management decision, we are issuing you purchase order for the supply of same.

S. No.	Particulars	Rate.	Value	Total
1.	**Floating Dome Biogas Pant- 2 Cum** • Biogas Digester • Gas Holder • Inlet and Outlet Pipe • HDPE Pipeline • Bio gas Stove • Biogas stop cock, moisture remover, cock cum nipple, brass nozzle	1	65000	65000
	GST 12%			7800
			Total:	**72800**

Terms & Conditions:-
1) The rates are included Freight, Shifting etc.
2) The materials to be deliver at "Gendalal Bam Parisar", Rau Pithampur Road Indore.
3) Work will be completed in all respect within 7 days.
4) GST will be paid as per applicable rule at the time of work completion.
5) The equipment's are covered under their respective warranties as mentioned.
6) Payment against installation.
7) Freight charges will be as per actual.

(Executive Director)
Indore Institute of Law
Mobile No. +918889733352

Scanned by TapScanner

5.6 QRCode System:-

InstitutehasinstalledQRcodesystemontreesforplantdetailslikecommonname,Botanicalname , Famailyname, Flower ,FriuetEtc .**It is Appricable**

Figure :-QR codesystemonTrees

Annexure-01

GreenCampusPolicy

INDORE INSTITUTE OF LAW℠
(Affiliated to D.A.V.V. & Bar Council of India, New Delhi)

GREEN CAMPUS POLICY
AND
INITIATIVE

Continues :-

GREEN CAMPUS INITIATIVES INCLUDE

The institutional initiatives for greening the campus are as follows:

- Restricted entry of automobiles
- Ban on use of Plastic

RESPONSE:

Indore Institute of Law has always followed a green agenda and has shown remarkable awareness of maintaining an eco- friendly campus. On visiting the Campus, one can experience the appealing and well designed buildings, beautiful lawns, spacious sports ground and lush green environment favorable for the teaching learning process.

RESTRICTED ENTRY OF AUTOMOBILES

Indore Institute of Law operates a fleet of 3 buses covering each corner of Indore and its nearby areas to facilitate the students and staff. The institute encourages the staff and students to use the institute conveyance instead of their vehicles for safety, security, fuel conservation and to reduce environmental pollution.

The Institution buses are periodically checked for pollution by the authorized agency. Institute has a vehicle parking area available near main entrance of the campus for the guests, visitors, faculties, students and any other vehicles. The vehicles should possess pollution check stickers. Only bicycles are allowed inside the campus. Random checks are made to check the validation and periodicity of this certificate. For two wheelers or four wheelers, security measures are compulsory. Stakeholders are also encouraged to adopt carpooling to reduce the toxic emissions in the air.

Continues :-

USE OF BICYCLES

The students staying on the Institute campus are using bicycles to move within the campus as well as to travel the nearby areas outside the campus. Students and staff coming from nearby villages also prefer bicycles as a mode of transport for attending the Institution. It is environmentally friendly and helps to decrease pollution.

BAN ON USE OF PLASTIC

Indore Institute of law is making an untiring effort to "Reduce Plastic Pollution" by minimizing plastic footprints and by way of refuse, reduction, reuse, and recycling. Hence the subsequent initiatives are taken by all the stakeholders to spread awareness of environmental conversation:

1- To refuse and reduce plastic products in daily use and pledge to a plastic free environment within the campus.
2- Ban Single use plastic, water bottles, takeaway cups, lunch wrapped in disposable plastic, packaging, plastic bags, disposable food service cups, plates and containers fabricated from polystyrene foam, plastic, straws etc. within the campus premises and canteen.

3- Encourage the use of biodegradable and other kind of compostable utensils in situ of plastic and shall bring a fork, knife and spoon from home.
4- Encourage the use of durable, foldable and cheap reusable bags that may be carried around in a car, pocket or purse.
5- Discourage plastic bottles and instead use glass, steel or clay bottles in office.
6- Welcome innovative ideas to cut back plastic foot prints.
7- The staff and students are informed to use steel or copper water bottles rather than plastic bottles.

END OF THE REPORTTHANKS

7.1.6

CERTIFICATE OF GREEN AUDIT

Empirical Exergy Private Limited
Registered Office: 18-E, Sudama Nagar, Indore -452009
Office (Indore): Flat No. 201, Om Apartment, 214 Indrapuri, Indore (M.P.),
Contact: +91-731-4948831, Mobile: +91-78693-27256, 88713-68108
www.eeplgroups.com, email:-eempirical18@gmail.com
CIN No: U74999MP2018PTC045751

Ref No: EEPL/2022-23/C49 **Date: - 29-08-2022**

GREEN AUDIT CERTIFICATE

This is certified that Empirical Exergy Private Limited (EEPL) Indore M.P. has conducted green audit at Indore Institute of Law Rau-Pithampur Road, Indore (M.P.) for the Year 2021-22 and audit report has been submitted.

We avail this opportunity to express our deep and sincere gratitude to the management for their wholehearted support and co-operations during the green audit.

This certificate is being issued on the basis of the Green Audit conducted by EEPL.

For- **Empirical Exergy Private Limitd**

Rajesh Kumar Singadiya (Director)
M.Tech (Energy Management), PhD (Research Scholar)
Accredited Energy Auditor [AEA-0284]
(BEE, Ministry of Power, Govt. of India)
Empanelled Energy Auditor with MPUVN, Bhopal M.P.

7.1.6

ENERGY AUDIT

ENERGY AUDITREPORT

IndoreInstituteof LAW
Rau-PithampurRoad,Indore(M.P.)

PREPAREDBY

EMPIRICALEXERGYPRIVATELIMITED

Flat No. 201, OM Apartment, 214 Indrapuri
ColonyBhawarkuan,Indore–452001 (M.P.),India
0731-4948831,7869327256
Email
ID:eempirical18@gmail.comwww.
eeplgroups.com

(2021-22)

CONTENT

ACKNOWLEDGEMENT

EmpiricalExergyPrivateLimited(EEPL),Indore(M.P)takesthisopportunitytoappreciate & thank the management of**Indore Institute of Law, Indore** for allowingus toconduct the energyaudit.

We are indeed touched by the helpful attitude and co-operation of all faculties and technicalstaff,who renderedtheirvaluableassistanceand co-operationduringthe courseofstudy.

RajeshKumarSingadiya

(Director)

M.Tech (Energy Management), PhD (Research Scholar)Accredited Energy Auditor [AEA-0284]Certified Energy Auditor [CEA-7271](BEE,MinistryofPower, Govt. of India)
Empanelled Energy Auditor with MPUVN, Bhopal
M.P.Lead Auditor ISO50001:2011 [EnMS) from FICCI, DelhiCertifiedWaterAuditor (NPC, GovtofIndia)
ChartedEngineer[M-1699118],TheInstitutionofEngineers(India)

CertificateofAccreditation

ENERGY IS LIFE
BEE
CONSERVE IT

BUREAU OF ENERGY EFFICIENCY

Examination Registration No.: EA- 7271

Accreditation Registration No.: AEA-284

Certificate of Accreditation

This is to certify that Mr./Ms. Shri. Rajesh Kumar Singadiya having its trade/registered office at ..... has been given accreditation as accredited energy auditor. The certificate shall be effective from 9th day of May, 2018

The certificate is subject to the provisions of the Bureau of Energy Efficiency (Qualifications for Accredited Energy Auditors and Maintenance of their List) Regulations, 2010.

This certificate shall be valid until it is cancelled under regulation 9 of the Bureau of Energy Efficiency (Qualifications for Accredited Energy Auditors and Maintenance of their List) Regulations, 2010.

On cancellation, the certificate of accreditation shall be surrendered to the Bureau within fifteen days from the date of receipt of order of cancellation.

Your name has been entered at AEA No. 284 in the register of list of accredited energy auditors. Your name shall be liable to be struck out on the grounds specified in regulation 8 of the Bureau of Energy Efficiency (Qualifications for Accredited Energy Auditors and Maintenance of their List) Regulations, 2010.

Given under the seal of the Bureau of Energy Efficiency, Ministry of Power, this 5th day of October, 2018

Secretary,
Bureau of Energy Efficiency
New Delhi

TheAuditTeam

Auditteamconstitutedofthefollowingseniortechnicalexecutivesfrom**EmpiricalExergyPrivateLimited,**

- **Mr.RajeshKumarSingadiya**[Director&AccreditedEnergyAuditorAEA-0284]
- **Mr.RakeshPathak**,[Director&ElectricalExpert]
- **Dr.Suresh KumarSoni**[Certified EnergyAuditor&EnergyExpert]
- **Mrs.LaxmiRaikwarSingadiya**[ChemicalEngineer]
- **Mr.SachinKumawat**[Sr.ProjectEngineer]
- **Mr.CharchitPathak[**Asst.ProjectEngineer**]**
- **Mr.AakashKumawat**[JuniorEngineer]
- **Mr.AjayNahra,**[Sr.Accountant&admin]

EXECUTIVESUMMARY

The executive summary of the energy audit report furnished in this section briefly gives theidentified energy conservation measures and other recommendations during the project thatcan be implemented in a phased manner to conserve energy and increase productivity insidetheinstitute campus.

ENERGYMANAGEMENTINITIATIVETAKENBYINSTITUTE

SOLARSYSTEM

Institute management has installed 58kWp roof top grid connected solar system inthecampus.**ItsAppreciable.**

LIGHTINGSYSTEM

Institute has already replaced 657 nos. (36 Watt) tube lights with 193 nos. (15W LED) and464nos. (18WLED). **Its Appreciable.**

SOLARWATERHEATER

- Institutemanagementhasinstalled2nosSolarwaterheaterwith500Litreonhostlesbuildingsfor hot water requirement.**Its Appreciable.**

ENERGYAUDITRECOMMEDATION

LIGHTINGSYSTEM

- There are good potential for replacement of 367 no. of conventional T-8 (36Watt) tubelight by energy efficient T-5 (20Watt) LED lighting in institute, estimated energy savingpotentialis 20,552 kWh/Year.**DetailedCalculationinchapter-05**

CEILINGFANANDEXHAUSTFAN

- Replacement of “conventional ceiling fan (60 Watt)” by energy efficient star rated fan orBLDCbasedenergyefficientfan(28Watt)inclassrooms,laboratoriesandfacultiescabinhave great potentialfor energysaving.**DetailedCalculationinchapter-05**

ENERGYCONSERVATIONMEASURESFORELECTRICALSYSTEM

Case Study	Section	Identification	Observation	Recommendation	Annual energy saving (kWh)	Annual costsaving (Rs.)	Investment (Rs.)	Simplepayback Period
1	Lighting System	367No. FTL tubelight	Powerconsumption byFTL(36Watt)	Replaced by T-5(20Watt)LEDtube.	20,552	1,73,130/-	77,070/-	5 month
2	ImprovePowerfactor	AnnualAverage Power factor is0.959	There is Potential formore Power factorincentiveaspertariff	Improvethesystem Power factor up to0.996	-	86,305/-	-	-
3	CellingFan	447 No cellingfanworkingwith60 Watt	Power consumptionbyexistingcellingfan(60Watt)	Replacement by28W BLDC energyefficientceilingfan	28,608	2,40,994/-	8,44,830/-	4year

CHAPTER-1INTRODUCTION

1.1 Aboutinstitute

Indore Institute of Law (IIL) was founded with a vision to be one of India's most prominentLaw institutes and has established itself as one of the most recognized Law Institutes in India.IIL are committed to providing the best platform for global legal education to students andcourses are designed in order to give a complete exposure, both in domestic and internationallaw practices, students. At Indore Institute of Law, students have an option to choose from avariety of law courses, where they are offered complete law programmes along with practicaltrainingandresearch papers to get an all-roundunderstandingof thelawindetail.

Figure1.1:-SatelliteImageofIIL,IndorefromGoogle map

ValueBased Education

"Educating the mind without educating the heart is no education at all!" At Indore Institute ofLaw,theobjectiveofdeliveringValueBasedEducationistoproduceresponsibleandcommitted citizens. This education acts as a multidimensional attribute to activate humanvaluesamongstudents.Ononehand,theyachieveexceptionalsuccessintheirlegalprofession and on the other; they become good human beings with a heart for society and thecountry. This is an institute which stands on the foundation of moral values, passion and arelentlesssearch for excellence.

Objective

At Indore Institute of Law, our objective is to form a community where people come togetherand respect the law and take an oath to use it in an honest way for the betterment of thesociety.

Mission

The world works with a right mix of Cultural and Spiritual Excellence and sometimes, youneed the help of law to maintain the right balance in the society. For a society to functionideally,youneedpeopletomaintainacertainlawandorderanddirectittowardsanaccomplishment it is trying to achieve. At Indore Institute of Law, we are nurturing youngminds with equality and right law education to ensure they promote it further to the society,when they take the law as their career path. The society is always looking forward to peoplewho are making a positive change with their morals and with a higher understanding of moralexcellence. This is where Indore Institute of Law steps in and offers a platform to the studentswheretheygetacompleteunderstandingoflaw,fosteringtheirmindsintherightdevelopment that is ultimately going to play a positive role in the betterment of the societyandthe nation, as whole.

1.2 AboutInstituteInfrastructure:

Theinstituteisspreadover**1,81,673Sq.Ft.**withplenty ofopenspaceandsportsareainterspersed within academic buildings. The details of various department and building aregivenbelow:

Table1.1:-Nameofthe various Buildingin the institute

Sr.No.	Building	BuildupArea(Sq.Ft.)
1	Block-A	65,725
2	Block-B	10,032
3	Block-C	28,201
4	BoysHostal (Block- D)	32,830
5	GirlsHostal (Block- E)	44,885
	Total	1,81,673

1.3 AboutEnergy Audit

Energy audit helps to understand more about the ways energy is used in any institute and helpsin identifying areas where waste may occur and scope for improvement exists. The overallenergyefficiencyfromgenerationtothefinalconsumerbecomes50%.Henceoneunitsavedin theenduserisequivalenttotwounitsgeneratedinthepowerplant.

The energy audit is the most efficient way to identify the strength and weaknesses of energymanagement practices and to find a way to solve problems. The professional approach of

theenergyauditistoutilizingeconomic,financial,social,andnaturalresourcesresponsibly.Energyaud its"addsvalue"tomanagementcontrolandawayofevaluatingthesystem.

Empirical Exergy Private Limited (EEPL), Indore M.P. carried out the "Energy Audit" atthesitetofindgapsintheenergyconsumptionpatternfor**IndoreInstituteofLaw,Indore**

M.P.Atechnicalreportispreparedaspertheneedandtherequirementoftheproject.

1.4 Objectivesof EnergyAuditing

An energy audit provides a vital information base for an overall energy conservation programcoveringessentiallyenergyutilizationanalysisandevaluationofenergyconservationmeas ures.Itaims at:

- Identifyingthequalityandcost ofvariousenergyinputs.
- Assessingthepresentpatternofenergyconsumptionindifferentcostcentersofoperations.
- Relatingenergyinputsandproduction output.
- Identifyingpotentialareasof the thermalandelectricalenergyeconomy.
- Highlightingwastageinmajorareas.
- Fixingofenergy-saving potentialtargetsfor individualcostcenters.
- Implementationofmeasuresforenergyconservation&realizationofsavings.

1.5 GreenMonitoringCommittee

INDORE INSTITUTE OF LAW

(Affiliated to DAVV and Bar Council of India, New Delhi)

—RANK 1ST PRIVATE LAW COLLEGE IN M.P., C.G. & RAJASTHAN BY—
INDIA TODAY | OUTLOOK | THE WEEK | THE KNOWLEDGE REVIEW

Campus Add.: "Gendalal Bam Parisar" Opp.IIM Rau, Pithampur Road, Indore (M.P.) 453331
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No. IIL/76/A/22 Date : 02 07 2022

Energy, Water, Green & Environment Audit Committee

Energy, Water, Green & Environment Audit Committee will consist of the following members.

S. No.	Name	Designation
1	Dr. Manpreet Kaur Rajpal	Dean and Director Academics
2	Mr. K.S. Vyas	Executive Director
3	Mr. Nitin Jasuja	Campus Incharge
4	Mr. Arun Naik	Admin Officer
5	Mr. Shekhar Patankar	Coordinator
6	Mr. Ashish Verma	Admin. Assistant
7	Mr. Anil Choudhary	Campus Supervisor
8	Mr. Yogendra Singh Thakur	Campus Supervisor

Time duration of this committee is 2 years, after which the committee will be reconstituted.

Executive Director
Indore Institute of Law

Executive Director (Admin)
Indore Institute of Law

ISO 9001:2008 Certified

Run By: Icon Education Society

City Office : 425-426, Orbit Mall, A.B. Road, Indore (M.P.)

Associate Institute :

INDORE NURSING COLLEGE
(Affiliated to DAVV and Indian Nursing Council, New Delhi)
www.Indorenursingcollege.com

IdyllIC Institute of Management
(Affiliated to DAVV and approved by M.P. Higher Edu. & AICTE, New Delhi)
www.idyllicindore.com

1.6 Methodology

The methodology adopted for achieving the desired objectives viz.: Assessment of the currentoperationalstatus and energysavings includes thefollowing:

- Discussions with the concerned officials for identification of major areas of focus andotherrelated systems.
- Ateamofengineersvisitedthesiteandhaddiscussionswiththeconcernedofficials/supervisorstocollectdata/informationontheoperationsandloaddistribution within the plant and the same for the overall premises. The data wereanalyzedtoarriveatabaselineenergyconsumptionpattern.
- Measurementsand monitoring withthe help of appropriate instruments includingcontinuous and/or time-lapse recording, as appropriate and visual observations weremadeto identifytheenergyusagepatternand losses in thesystem.
- Trendanalysisofcostsandconsumptions.
- Capacityand efficiencytest of major utilityequipments, wherever applicable.
- Estimationofvariouslosses
- Computation and **in-depth analysis** of the collected data, including utilization ofcomputerizedanalysisandothertechniquesasappropriate,weredonetodrawinferencesandtoevolvesuitableenergyconservationplansforimprovements/reductionin specificenergyconsumption.

1.7 InstitutePresentEnergyScenario:

The annual energy consumption of **Indore Institute of Law** campus is about **2,74,201**unitsperiod from Jul - 2021 to Jun- 2022.Institute has a 58Wp solar photovoltaic rooftop grid-connectedsystem installed on 04/01/2022

Institute uses energy in the form of electricitypurchasedfromthegridanda58KWpsolargrid-connectedsystemfortheinstitutecampus.Thereissinglefeederforinstitute.

CHAPTER-2POWERSUPPLYSYSTEM

2.1 TransformerDetails.

The power supply for Indore Institute of Law(IIL) is from MPPKVVCL with the help of 11kV feeder. This is an education feeder under Tariff HV3.2A 11 KV Non-Industrial withcontract demand of 220 KVA. There is one step-down transformer having capacity of 315KVA.Thedetails aregiven in followingtable2.1

Table:2.1Technical detailsoftransformer.

Sr.No.	Items	TechnicalSpecification
1	Make	ElectofforntTranspowerPvt.Ltd.
2	Year	2018
3	Rating(kVA)	315
4	Voltage(HV/LV)	11000/433
5	CurrentRating(HV/LV)	16.5 / 420
6	Frequency(Hz)	50
7	Impedanceat75°C(%)	4.5 %
8	Vectorgroup	Dy-11
9	Typeofcooling	ONAN
10	TotalnoofTap	7
11	NoLoad Loss(Watt)	500
12	FullLoadLoss(Watt)	4185

Figure2.1:-315 kVATransformer

Table2.2:CalculatedTransformer loading(%) Basedon ElectricityBillsYear(2021-22)

Sr.No	Month&Year	Contract Demand(KVA)	Maximum Demand(KVA)	TR Loading(%)
1	Jul-21	120	112	35.56
2	Aug-21	120	57	18.10
3	Sep-21	120	75	23.81
4	Oct-21	120	124	39.37
5	Nov-21	120	75	23.81
6	Dec-21	120	73	23.17
7	Jan-22	120	66	20.95
8	Feb-22	120	60	19.05
9	Mar-22	120	72	22.86
10	Apr-22	120	170	53.97
11	May-22	120	171	54.29
12	Jun-22	220	167	53.02
13			**AverageTransformerloading %**	**32.88**
14			**MaximumLoading%**	**54.29**

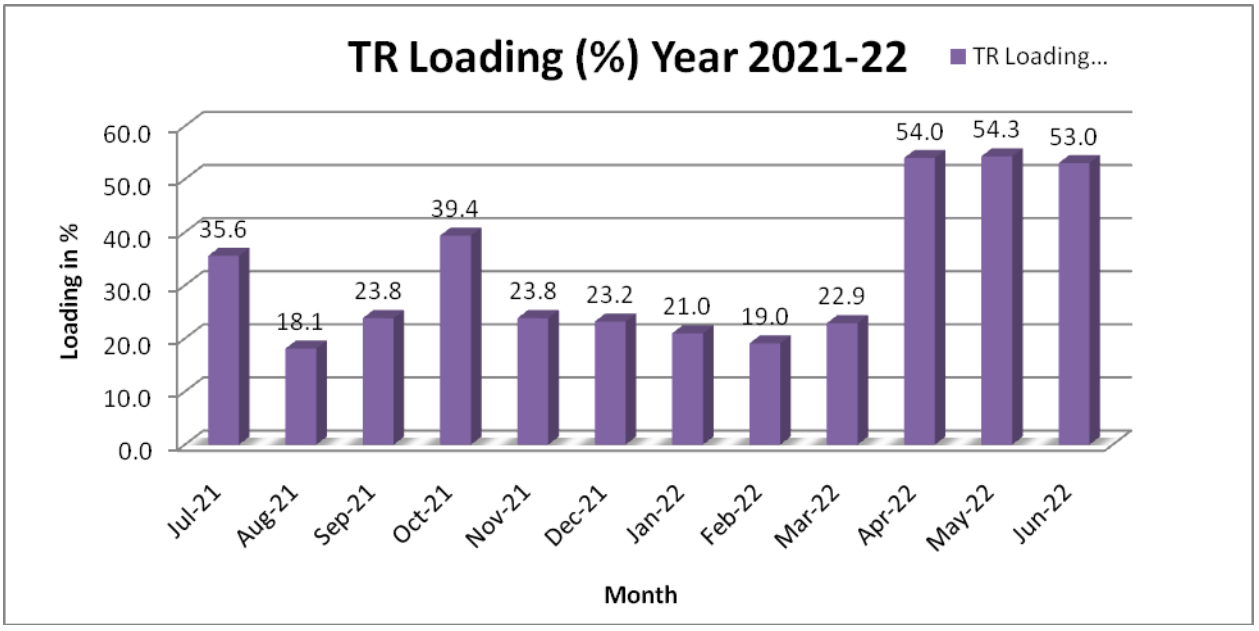


Figure2.2:-Graphical presentationof TRloadingpercentageYear 2021-22

Observation:-

The average loading of the transformer is 32.88 % and goes to maximum 54.3 % in themonthofMay2022. **ItisAcceptable.**

2.2 DGSet:-

There is one DG set on the institute campus. Details of the DG Set is given table.

2.4Table2.4 Technical specifications forDGset

Sr. No.	Parameter	TechnicalSpecification
1	Make	KALAGENSETPVT LTD
2	EngineSr.No	4H.7906/1821162
3	Capacity(KVA)	125
4	RatedVoltage(V)	415
5	Fullloadcurrent (A)	173.9
6	Frequency(Hz)	50
7	Powerfactor	0.8
8	Speed(RPM_	1500
9	Phase	3
10	SpecificFuelConsumption(g/kWh)	242

Figure2.3:-DGsetin power house

Observation&Suggestion:

- DGsetisused onlyincaseofgridpowerfailure.
- Thereisnosystem tomonitorfuel consumptionw.r.t.unitgeneration.

2.3 GridConnectedSolarPhotovoltaicSystem(58KWp)

There is a 58 KWp solar photovoltaic rooftop grid-connected system on various building.

Thedateofsolarinstallationis 04/01/2022.System detailsaregiven below:

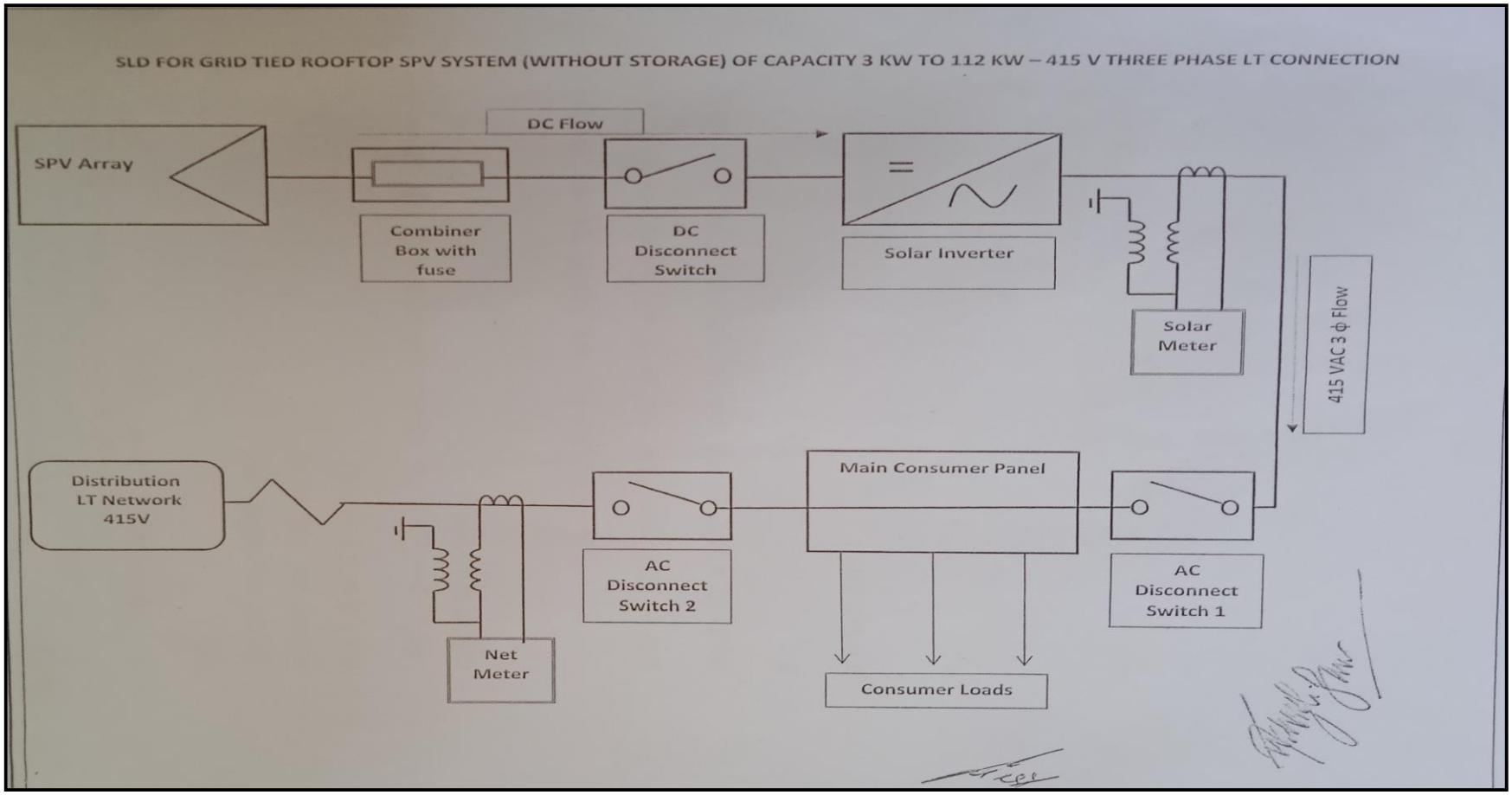
Table:-2.6 solarplants details

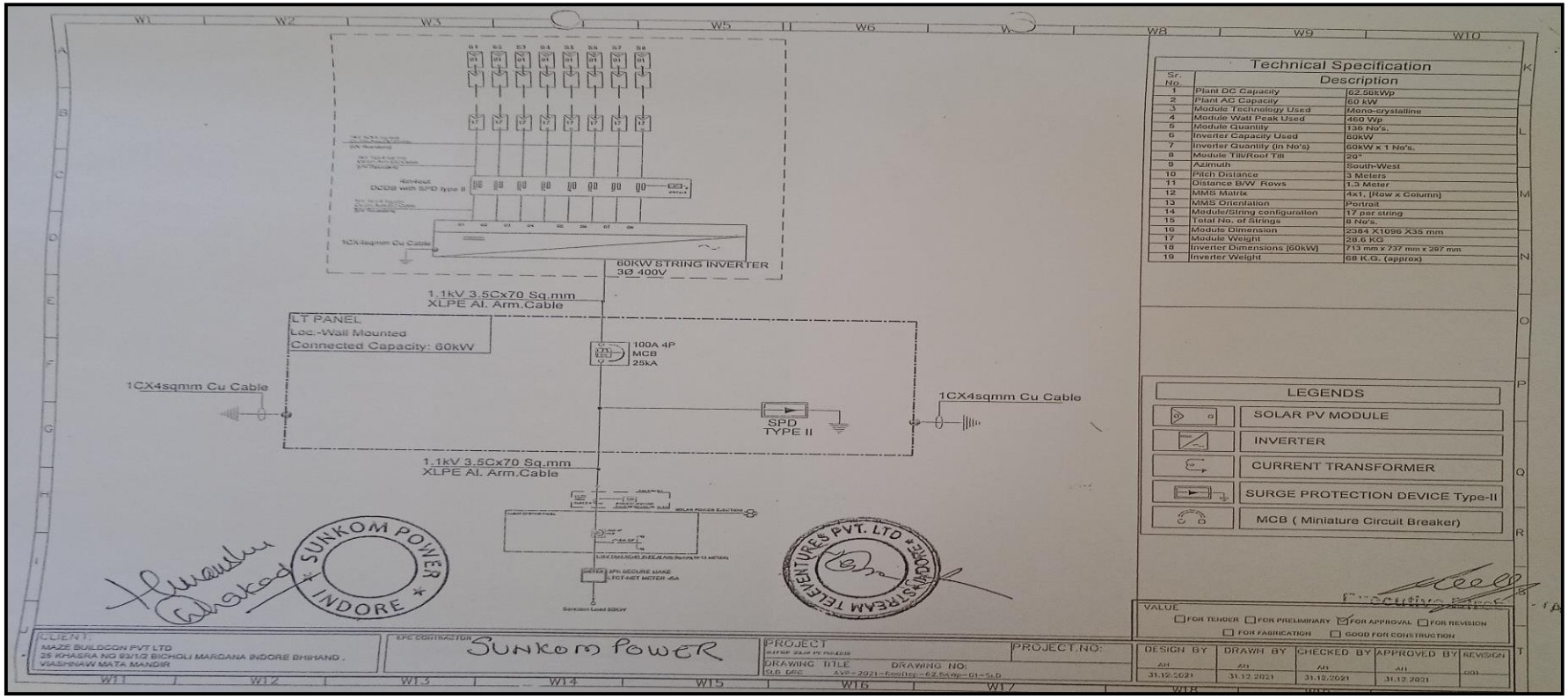
Sr.No.	Description	TechnicalSpecification
A	Detailsof theSolarPVModule	
1	Capacityofmodule	500Wp
2	No.ofModules	116Nos
3	Total Capacity	58KWp
4	Latitude&Longitude	22.77125 N&75.90821E
B	**InverterInformation**	
2.1	Make	Growatt
2.2	Model	GROWATT8000TL3-S
2.3	SerialNo	EGK0BHM016
2.4	ACcapacityofInverter	60
2.5	Noofinverterinstalled	1
2.6	TotalAC Capacityof Inverter	60Kw

Photographsof SolarPlant:-

Figure2.3:-SolarPlant58KWp andInverterSystem

SolarforGridTiedRooftopSPVSystem(58 KWp)





Observation:-

Solargrid connected system is installedonDated: -04-01-2022.Andstillthereisgood potentialto increasethe capacitysolarsystem.

CHAPTER-3ELECTRICITYBILLANALYSIS

3.1 ElectricityBill Analysis from2017to2022

Electricitybillsforthelast5yearswere analyzed.Detailedannualunitconsumption,isgivenin table3.1

Table3.1:-Electricitybill analysis last5 Year

Sr. No.	Year (JulytoJune)	Annual UnitConsumption
1	July2017toJune 2018	2,91,473
2	July2018toJune 2019	3,52,571
3	July2019toJune 2020	2,82,567
4	July2020toJune 2021	1,30,611
5	July2021toJune 2022	2,70,480

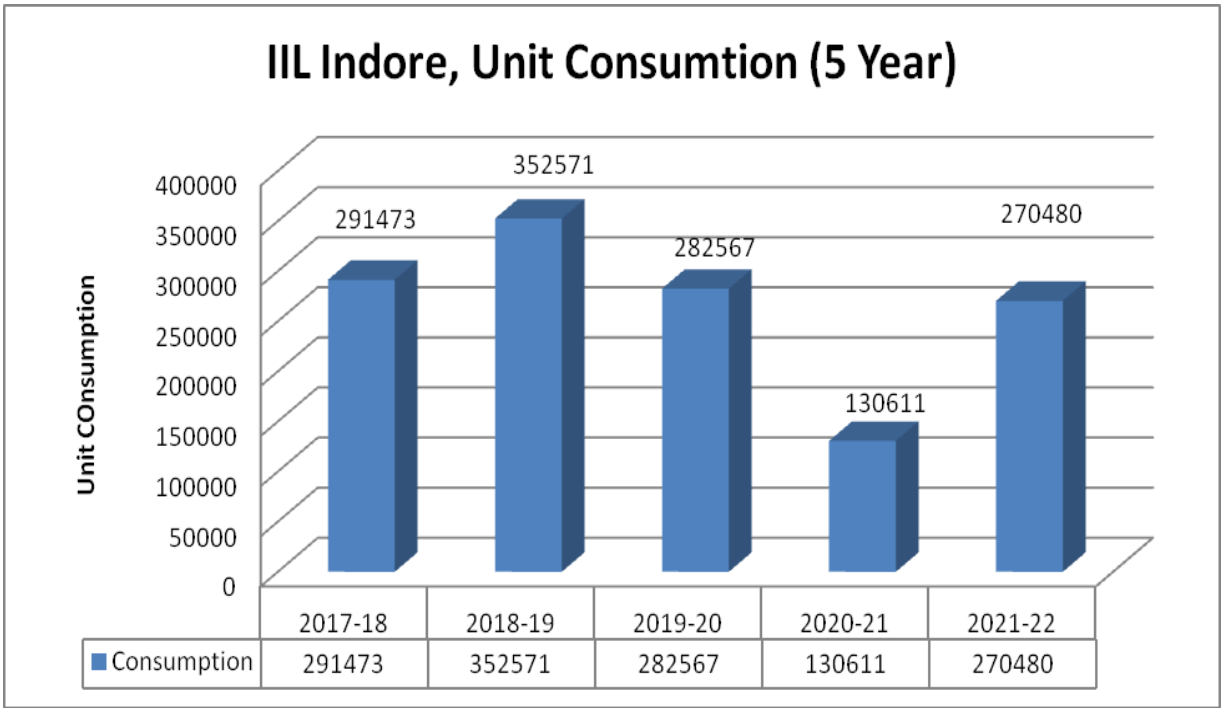


Figure3.1:-Graphical presentation ofenergyconsumption in last 5 Year

3.2 Monthlyelectricalenergyconsumption2021-22

The monthly electrical consumption for the institute is given in the table.Table3.2Energyconsumptionandbillingamount (the year 2021-22)

Sr. No	Month &Year	Total Unit Consumption(kWh /Month)	TotalAmount (Rs./Month)	PerUnit Charges(Rs./kWh)
1	Jul-21	15,788	1,60,670/-	10.18
2	Aug-21	10,160	1,16,721/-	11.49
3	Sep-21	14,931	1,53,578/-	10.29
4	Oct-21	20,169	1,98,905/-	9.86
5	Nov-21	16,986	1,66,529/-	9.80
6	Dec-21	21,044	1,98,575/-	9.44
7	Jan-22	17,397	1,70,820/-	9.82
8	Feb-22	17,609	1,71,620/-	9.75
9	Mar-22	16,941	1,68,767/-	9.96
10	Apr-22	37,071	3,38,896/-	9.14
11	May-22	43,235	3,98,800/-	9.22
12	Jun-22	42,870	3,96,686/-	9.25
	Total	**2,74,201**	**26,40,567/-**	**9.63**

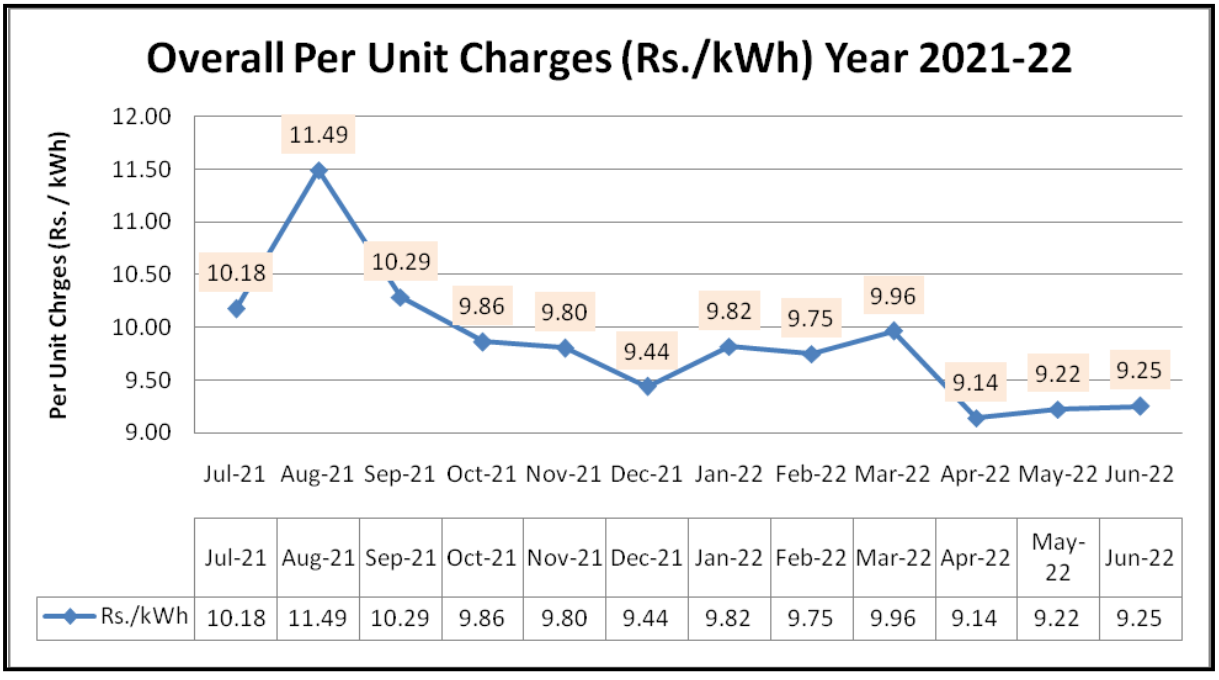


Figure3.2:-Graphicalpresentationofactualper-unitcharges fortheyear 2021-22

Observation:

Itwasfoundthattotalenergyconsumptioninthelast12monthswas**2,74,201**units.Theaverageannualunitch argeis Rs 9.63 /kWh.

3.3 Monthlydemandanalysis(2021-22)

The monthly demand consumption for the institute is given in the table.3.2Table3.3:-Monthlydemandanalysis (KVA)consumptionpatternyear2021-22

Sr.No.	Month &Year	Contract Demand(KVA)	Billing Demand(KVA)	Maximum Demand(KVA
1	Jul-21	120	112	112
2	Aug-21	120	108	57
3	Sep-21	120	108	75
4	Oct-21	120	124	124
5	Nov-21	120	108	75
6	Dec-21	120	108	73
7	Jan-22	120	108	66
8	Feb-22	120	108	60
9	Mar-22	120	108	72
10	Apr-22	120	170	170
11	May-22	120	171	171
12	Jun-22	220	198	167
	MaximumDemand			**171**
	AverageMaximumDemand			**104**

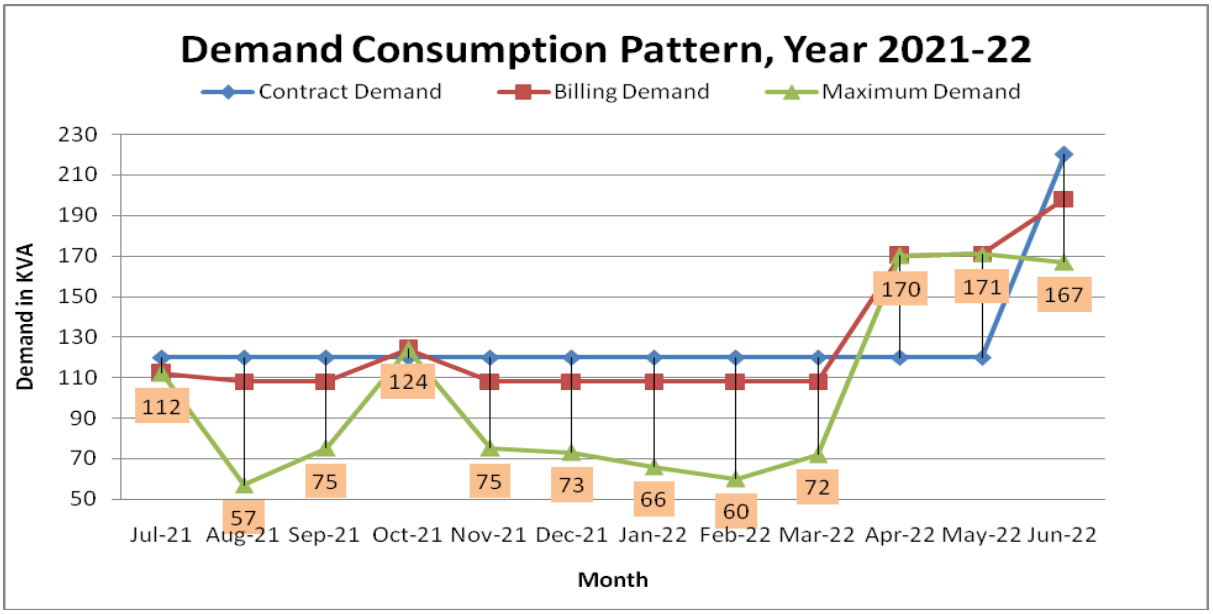


Figure3.3:-Graphicalpresentationofdemand consumptionintheinstituteyear2021-22

Observation: It is observed that the contract demand of the institute is increased from 120KVAto220KVAinmonthofJune2022.Thereisalargevariationinmaximumdemand.Itismaxi

mumof171 kVAintheMonth ofApril-2022.

3.4 MonthlyPowerfactoranalysis Year-2021-22

The monthly power factor for the institute is given in the following table.

3.3Table3.4:-Powerfactor of theinstituteyear2021-22

Sr.No.	Month &Year	MonthlyPowerFactor	PFIncentive (%)	P.F. Incentive (Rs.)
1	Jul-21	0.963	2	2,289/-
2	Aug-21	0.964	2	1,473/-
3	Sep-21	0.960	2	2,165/-
4	Oct-21	0.971	3	4,465/-
5	Nov-21	0.964	2	2,507/-
6	Dec-21	0.967	2	3,106/-
7	Jan-22	0.963	2	2,617/-
8	Feb-22	0.971	3	3,972/-
9	Mar-22	0.959	1	1,273/-
10	Apr-22	0.980	5	11,872/-
11	May-22	0.975	3	8,312/-
12	Jun-22	0.979	3	9,787/-
		Average=0.959		**Total = 53,838/-**

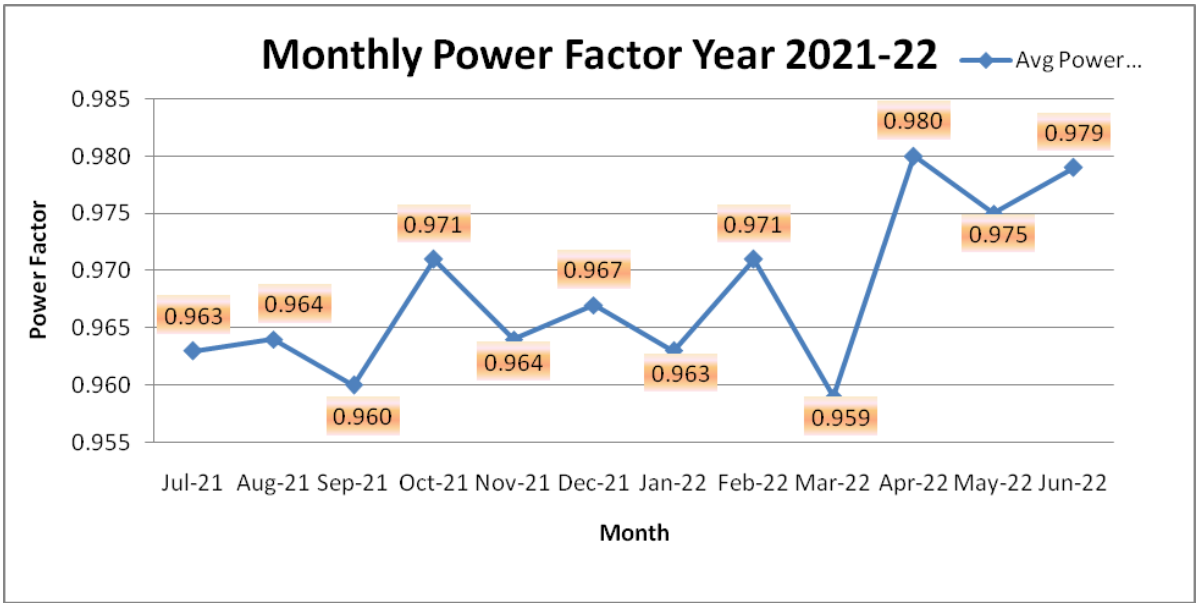


Figure3.4:-Graphicalpresentation ofaveragepowerfactoryear 2021-22

Observation:

Theaveragepowerfactorwas0.959withpowerfactorincentiveRs.53,838/-fortheyear2021-22.**It is recommended to maintain powerfactorunity.**

3.5 Monthly LoadFactoranalysisYear-2021-22

The monthly load factor for the institute is given in the following table.

3.3Table3.5:-LoadFactorofthe instituteyear 2021-22

Sr.No	Month&Year	Avg. Load Factor(%)
1	Jul-21	19
2	Aug-21	11
3	Sep-21	17
4	Oct-21	23
5	Nov-21	19
6	Dec-21	25
7	Jan-22	20
8	Feb-22	20
9	Mar-22	21
10	Apr-22	29
11	May-22	35
12	Jun-22	26
13	**MaximumLoadFactor**	**35**
14	**AverageLoad Factor**	**23.1**

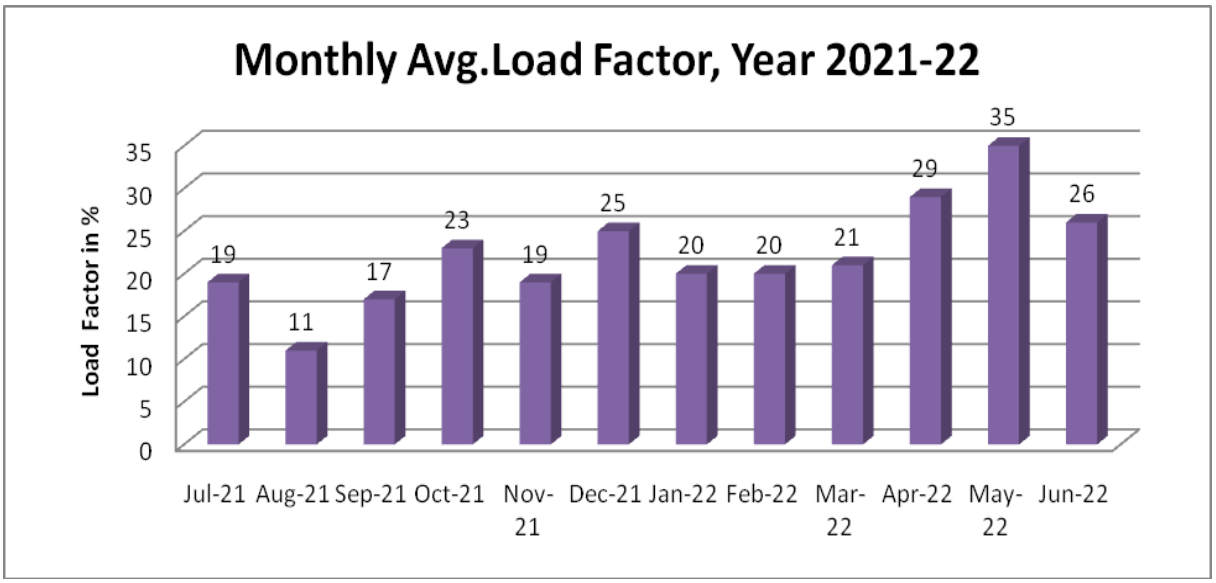


Figure3.5:-Monthlyload factor oftheinstitute Year 2021-22

Observation:

Theaverageload factorwas 23.1%fortheyear2021-22oftheinstitute.

3.6 ToDUnitsConsumptionanalysisYear-2021-22

The Time of Day units consumptions for the institute is given in the following table.

3.3Table3.5:-Tod Units ofthe instituteyear 2021-22

Sr.No	Month &Year	UnitConsumption(Peak)	UnitConsumption(OffPeak)	Unit Consumption (Normal)	Total UnitConsumption
1	Jul-21	1671	2529	11588	15788
2	Aug-21	1263	2030	6867	10160
3	Sep-21	1691	2460	10780	14931
4	Oct-21	2379	3693	14097	20169
5	Nov-21	2459	3572	10955	16986
6	Dec-21	3629	4410	13005	21044
7	Jan-22	2964	3837	10596	17397
8	Feb-22	2774	3764	11071	17609
9	Mar-22	2837	4539	9565	16941
10	Apr-22	4640	8949	23482	37071
11	May-22	6006	10689	26540	43235
12	Jun-22	5232	11834	25804	42870
	Total	37545	62306	174350	274201

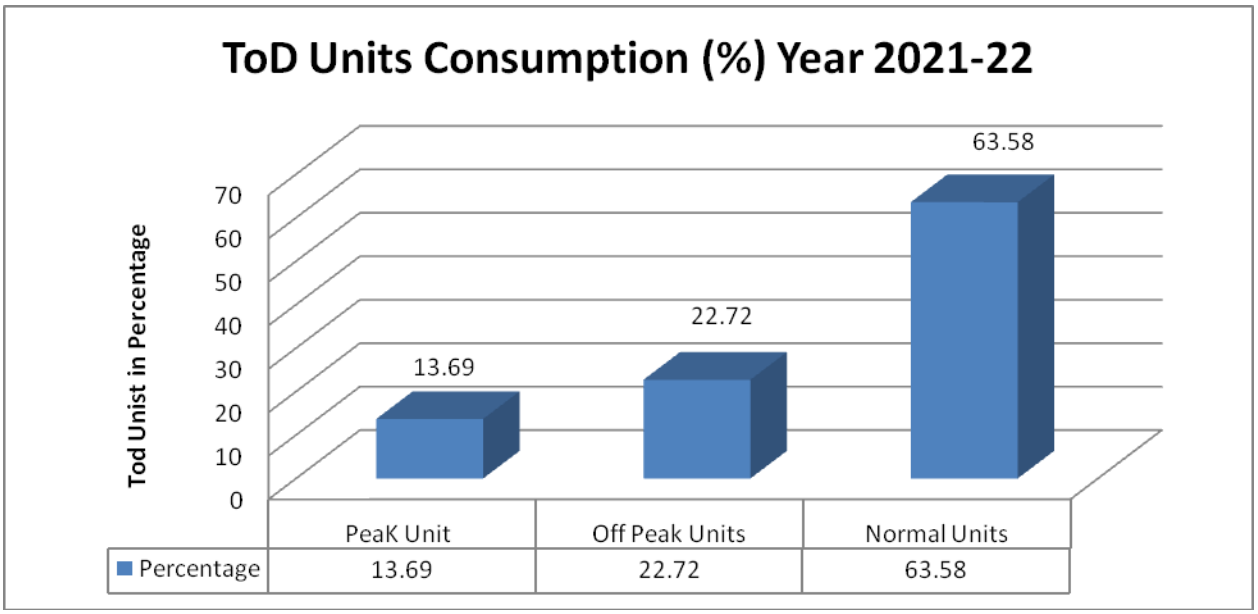


Figure3.6:-GraphicalpresentationofTodUnits ConsumptionanalysisYear2021-22

Observation:

Itwasobservedthat2,74,201unitsisconsumingat“NormalTime”with63.58%ofthetotalenergycon sumption oftheinstitute.

Chapter-4CONNECTEDLOAD

4.1 Connectedloaddetails

Sr.no	Floor	RoomNo.	PC	AC	Fan	Tubelight			Projector	Printer	Induction	Fridge	Washing machine	Geyser	RO
						36 W	LED 15W	LED 18W							
1	Ground Floor	HROFFICE	1	1	1	0	4	0	0	0	0	0	0	0	0
2		DIRECTOROFFICE	3	2	7	28	0	0	0	0	0	0	0	0	0
3		ADMIN OFFICE	6	4	5	0	22	0	0	2	1	0	0	0	0
4		ClassRoom1	1	3	4	0	0	8	1	0	0	0	0	0	0
5		ClassRoom2	1	3	4	0	0	8	1	0	0	0	0	0	0
6		WASHROOM -Ground	0	0	2	0	0	6	0	0	0	0	0	0	0
7		PORCH	0	0	8	13	6	2	0	0	0	0	0	0	0
8	FirstFloor	STAFF ROOM	5	4	8	26	0	0	0	0	1	0	0	0	0
9		CONFRENCE ROOM	0	1	1	0	6	0	0	0	0	0	0	0	0
10		SOCIETY ROOM	3	0	2	8	0	0	0	0	0	0	0	0	0
11		ClassRoom3	1	4	6	0	0	18	1	0	0	0	0	0	0
12		ClassRoom4	1	4	7	0	12	0	1	0	0	0	0	0	0
13		ClassRoom5	1	4	8	0	13	0	1	0	0	0	0	0	0
14		ClassRoom6	1	4	8	0	13	0	1	0	0	0	0	0	0

15		ClassRoom7	1	3	5	0	0	14	1	0	0	0	0	0	0
16		WASHROOM -First	0	0	0	0	6	2	0	0	0	0	0	0	0
17		PORCH	0	0	0	5	3	0	0	0	0	0	0	0	0
18	Second Floor	ClassRoom8	1	3	6	2	0	1	1	0	0	0	0	0	0
19		ClassRoom9	1	3	6	3	0	0	0	0	0	0	0	0	0
20		ClassRoom 10	1	0	4	4	0	0	1	0	0	0	0	0	0
21		ClassRoom 11	0	0	3	3	0	0	1	0	0	0	0	0	0
22		ClassRoom 12	1	3	6	3	0	0	1	0	0	0	0	0	0
23		ClassRoom 13	1	3	6	3	0	0	1	0	0	0	0	0	0
24		MootCourt	0	7	7	9	9	0	0	0	0	0	0	0	0
25		WASHROOM -Second	0	0	2	0	0	5	0	0	0	0	0	0	0
26		PORCH	0	0	0	11	8	5	0	0	0	0	0	0	0
27	Third Floor	ClassRoom 14	1	0	4	2	0	0	1	0	0	0	0	0	0
28		ClassRoom 15	1	0	4	2	0	0	1	0	0	0	0	0	0
29		ClassRoom 16	1	0	4	2	0	0	1	0	0	0	0	0	0
30		ClassRoom 17	1	0	4	2	0	0	1	0	0	0	0	0	0

31		ClassRoom 18	1	0	4	1	0	1	1	0	0	0	0	0	0
32		ClassRoom 19	1	0	7	4	0	0	1	0	0	0	0	0	0
33		ClassRoom 20	1	3	5	3	0	0	1	0	0	0	0	0	0
34		ClassRoom 21	1	3	6	3	0	0	1	0	0	0	0	0	0
35		WASHROOM -Second	0	0	1	0	0	4	0	0	0	0	0	0	0
36		PORCH	0	0	0	5	11	0	0	0	0	0	0	0	0
37	Four Floor	Libraryand ComputerClass	22	1	15	16	0	0	0	1	0	0	0	0	0
38	BlockB	Admission Cell		18	0	0	0	78	0	4	1	1	0	0	0
39		Canteen	0	4	0	0	0	68	0	0	0	3	0	0	1
40		Porch+ washroom	0	0	0	0	0	12	0	0	0	0	0	0	0
41		FirstFloor	4	4	5	0	5	3	0	2	1	0	0	0	0
42		SecondFloor	9	4	27	0	20	22	4	0	0	0	0	0	0
43		Third Floor	7	5	37	0	0	51	5	1	0	0	0	0	0
44		FourthFloor	4	0	36	0	0	28	5	0	0	0	0	0	0
45		Library andComputer Class	43	0	12	0	0	24	0	2	0	0	0	0	0
46	Hostels	Samruddhi BoysHostel	1	17	52	20	15	104	0	1	0	1	5	5	1
47		Samruddhi GirlsHostel	1	21	108	189	40	0	0	1	0	1	6	6	1
		Total	**129**	**136**	**447**	**367**	**193**	**464**	**34**	**14**	**4**	**6**	**11**	**11**	**3**

4.2 Loadsharingequipment

Table4.1:-Total connectedload share% onequipments

Sr. No.	Equipment's	Rated Power(Watt)	Quantity (Nos)	Total Power(Watt)	Load Share(%)
1	LEDTube light(18W)	18	367	6606	2.15
2	Tubelight(36W)	36	193	6948	2.26
3	LEDTube light(15W)	15	464	6960	2.27
4	CellingFan (60 W)	60	447	26820	8.73
5	RO	1500	5	7500	2.44
6	AC	1500	136	204000	66.41
7	PC	85	129	10965	3.57
8	Printer	250	14	3500	1.14
9	Geyser	2000	11	22000	7.16
10	Projector	350	34	11900	3.87
TotalConnectedload(Watt)				**307199**	**100.00**

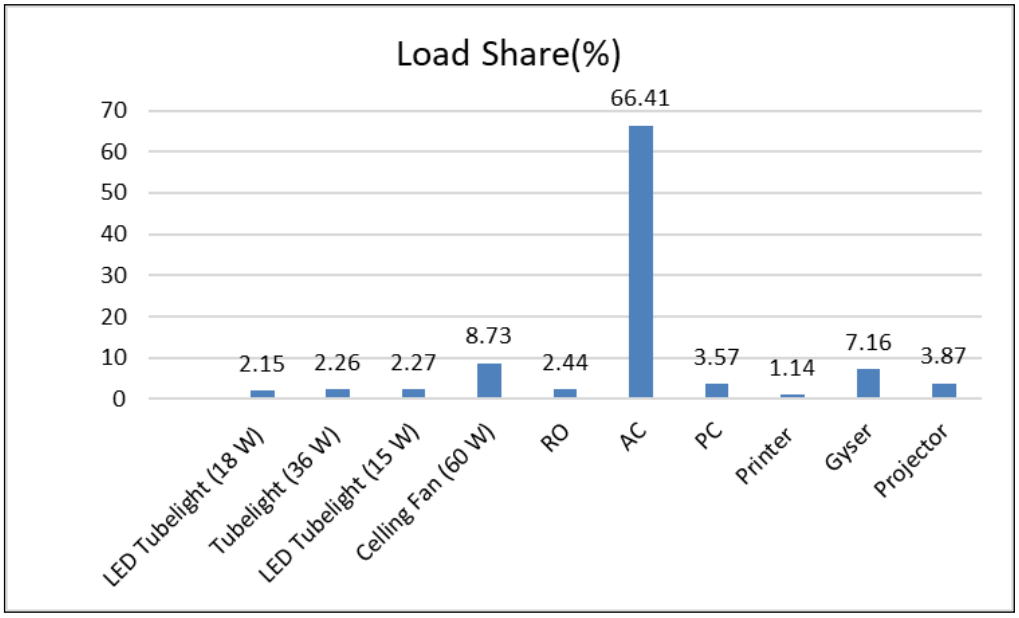


Figure 4.1:-Equipment loadingShare%year-2021-22

4.3 Somephotographsofelectricalequipment's

Figure4.2:-Electrical Equipmentininstitute

CHAPTER-5ENERGYCONSERVATIONMEASURES

CaseStudy No.-01

Replacementofconventional(36Watt)tubelighttoenergy-efficientLEDtubelight(20Watt)in phasemanner:-

Sr. No.	Items	Parameters	Units
1	TotalPower ConsumptionbyT-8conventionaltubelight (12WattBlastPower)	48	W
2	NoofT-8	367	Nos.
3	WorkingHrs/Day	8	Hrs/Day
4	WorkingDays/Year	250	Days/Year
5	EnergyEfficientT-5 (LED)	20	W
6	Expected EnergySaving	20,552	kWh/Year
7	Load Factor@90%Assume	0.9	
8	ExpectedAnnual EnergySaving	18,497	kWh/Year
9	OverallPerUnitCharges	9.36	Rs./kWh
10	ExpectedMoneySaving	1,73,130	Rs./Year
11	Costof T-5	200	Rs./Pices
12	InvestmentonNewLightPurchasing	73,400	Rs.
13	MaintenanceInvestment	3,670	Rs.
14	TotalInvestment	77,070	Rs
15	SimplePayBackPeriod	5	Month

TotalCalculatedMonetarySaving Potentialin lighting=Rs1, 73,130/-

Note: - Energy savings depend on the operation hour per day and the loadfactorof thesystems.

CaseStudy No.-02

Improve Power Factorfrom0.959to 0.999

Sr.No	Month &Year	AvgPower Factor	PF Incentive(%)	PFIncentiveLoss(%)	Incentive Loss(RS.)
1	Jul-21	0.963	2	5.00	5881
2	Aug-21	0.964	2	5.00	3785
3	Sep-21	0.960	2	5.00	5562
4	Oct-21	0.971	3	4.00	6010
5	Nov-21	0.964	2	5.00	6327
6	Dec-21	0.967	2	5.00	7839
7	Jan-22	0.963	2	5.00	6480
8	Feb-22	0.971	3	4.00	5247
9	Mar-22	0.959	1	6.00	7573
10	Apr-22	0.980	5	2.00	5598
11	May-22	0.975	3	4.00	13057
12	Jun-22	0.979	3	4.00	12947
		0.959			86,305

Observation–Average AnnualPowerfactorof last12 monthis0.959.

Recommendation – Improve the system power factor up to 0.999. As pertheapplicableterrifpowerfactor incentivecanbe gainRs.86,305/-

CaseStudy No.3

Replacement of 60W conventional ceiling fan by 28W BLDC Energy Efficient ceiling fan inPhasemanner

Sr.No.	Items	Parameters	Units
1	Power Consumptionby60W	60	W
2	No.ofFan	447	No's
3	WorkingHrs/Day	8	Hrs/Day
4	WorkingDays/Year	250	Days/Year
5	EnergyEfficient 28W	28	W
6	EnergySavingPotential	28,608	kWh/Year
7	LoadFactor	0.9	NA
8	ExpectedAnnual EnergySaving	25747.2	kWh/Year
9	PerUnitCharges	9.36	Rs./kWh
10	ExpectedMoneySaving	2,40,994	Rs./Year
11	CostofNewCellingFan	1800	Rs./Pices
12	InvestmentonNewFan Purchasing	8,04,600	Rs.
13	AnnualMaintenanceCost	40,230	Rs.
14	TotalInvestment	8,44,830	Rs.
15	SimplePayBackPeriod	4	Year

TotalCalculated Monetary SavingPotentialinCellingFan=Rs2,40,994/-

Note: - Energy savings dependson the operation hour per day and the loadfactorof thesystems.

Annexure-01

GreenCampusPolicy

INDORE INSTITUTE OF LAW℠

(Affiliated to D.A.V.V. & Bar Council of India, New Delhi)

GREEN CAMPUS POLICY AND INITIATIVE

Continues :-

GREEN CAMPUS INITIATIVES INCLUDE

The institutional initiatives for greening the campus are as follows:

- Restricted entry of automobiles
- Ban on use of Plastic

RESPONSE:

Indore Institute of Law has always followed a green agenda and has shown remarkable awareness of maintaining an eco- friendly campus. On visiting the Campus, one can experience the appealing and well designed buildings, beautiful lawns, spacious sports ground and lush green environment favorable for the teaching learning process.

RESTRICTED ENTRY OF AUTOMOBILES

Indore Institute of Law operates a fleet of 3 buses covering each corner of Indore and its nearby areas to facilitate the students and staff. The institute encourages the staff and students to use the institute conveyance instead of their vehicles for safety, security, fuel conservation and to reduce environmental pollution.

The Institution buses are periodically checked for pollution by the authorized agency. Institute has a vehicle parking area available near main entrance of the campus for the guests, visitors, faculties, students and any other vehicles. The vehicles should possess pollution check stickers. Only bicycles are allowed inside the campus. Random checks are made to check the validation and periodicity of this certificate. For two wheelers or four wheelers, security measures are compulsory. Stakeholders are also encouraged to adopt carpooling to reduce the toxic emissions in the air.

Continues :-

USE OF BICYCLES

The students staying on the Institute campus are using bicycles to move within the campus as well as to travel the nearby areas outside the campus. Students and staff coming from nearby villages also prefer bicycles as a mode of transport for attending the Institution. It is environmentally friendly and helps to decrease pollution.

BAN ON USE OF PLASTIC

Indore Institute of law is making an untiring effort to "Reduce Plastic Pollution" by minimizing plastic footprints and by way of refuse, reduction, reuse, and recycling. Hence the subsequent initiatives are taken by all the stakeholders to spread awareness of environmental conversation:

1- To refuse and reduce plastic products in daily use and pledge to a plastic free environment within the campus.
2- Ban Single use plastic, water bottles, takeaway cups, lunch wrapped in disposable plastic, packaging, plastic bags, disposable food service cups, plates and containers fabricated from polystyrene foam, plastic, straws etc. within the campus premises and canteen.

3- Encourage the use of biodegradable and other kind of compostable utensils in situ of plastic and shall bring a fork, knife and spoon from home.
4- Encourage the use of durable, foldable and cheap reusable bags that may be carried around in a car, pocket or purse.
5- Discourage plastic bottles and instead use glass, steel or clay bottles in office.
6- Welcome innovative ideas to cut back plastic foot prints.
7- The staff and students are informed to use steel or copper water bottles rather than plastic bottles.

END OF THE

REPORT THANKS

7.1.6

CERTIFICATE OF ENERGY AUDIT

Empirical Exergy Private Limited

Registered Office: 18-E, Sudama Nagar, Indore -452009
Office (Indore): Flat No. 201, Om Apartment, 214 Indrapuri, Indore (M.P.),
Contact: +91-731-4948831, Mobile: +91-78693-27256, 88713-68108
www.eeplgroups.com, email:-eempirical18@gmail.com
CIN No: U74999MP2018PTC045751

Ref No: EEPL/2022-23/C47 **Date: - 29-08-2022**

ENERGY AUDIT CERTIFICATE

This is certified that Empirical Exergy Private Limited (EEPL) Indore M.P. has conducted Energy audit at Indore Institute of Law Rau-Pithampur Road, Indore (M.P.) for the Year 2021-22 and audit report has been submitted.

We avail this opportunity to express our deep and sincere gratitude to the management for their whole hearted support and co-operations during the energy audit.

This certificate is being issued on the basis of the Energy Audit conducted by EEPL.

For- **Empirical Exergy Private Limited**

Rajesh Kumar Singadiya (Director)
M.Tech (Energy Management), PhD (Research Scholar)
Accredited Energy Auditor [AEA-0284]

7.1.6

ENVIRONMENT AUDIT

ENVIRONMENTAUDITREPORT

Indore Institute of LAWRau-PithampurRoad,Indore (M.P.)

PREPAREDBY

EMPIRICALEXERGYPRIVATELIMITED

Flat No. 201, OM Apartment,214Indrapuri Colony,Bhawarkuan,Indore– 452001 (M.P.),India
0731-4948831,7869327256
Email ID:eempirical18@gmail.comwww.eep lgroups.com

(2021-22)

CONTENT

ACKNOWLEDGEMENT

EmpiricalExergyPrivateLimited(EEPL),Indore(M.P)takesthisopportunitytoappreciate & thank the management of **Indore Institute of Law, Indore**for allowing ustoconduct an environmentaudit fortheinstitute.

We are indeed touched by the helpful attitude and co-operation of all faculties and technicalstaff,who renderedtheirvaluableassistanceand co-operationduringthe courseofstudy.

RajeshKumarSingadiya

(Director)

M.Tech (Energy Management), PhD (Research Scholar)Accredited Energy Auditor [AEA-0284]Certified Energy Auditor [CEA-7271](BEE,MinistryofPower, Govt. of India)
Empanelled Energy Auditor with MPUVN, Bhopal
M.P.Lead Auditor ISO50001:2011 [EnMS) from FICCI, DelhiCertifiedWaterAuditor (NPC, GovtofIndia)
ChartedEngineer[M-1699118],TheInstitutionofEngineers(India)
MemberofISHRAE[58150]

CertificateofAccreditation

ENERGY IS LIFE
BEE
CONSERVE IT

BUREAU OF ENERGY EFFICIENCY

Examination Registration No.: EA- 7271

Accreditation Registration No.: AEA-284

Certificate of Accreditation

This is to certify that Mr./Ms. Shri. Rajesh Kumar Singadiya having its trade/registered office at ..... has been given accreditation as accredited energy auditor. The certificate shall be effective from 9th day of May, 2018

The certificate is subject to the provisions of the Bureau of Energy Efficiency (Qualifications for Accredited Energy Auditors and Maintenance of their List) Regulations, 2010.

This certificate shall be valid until it is cancelled under regulation 9 of the Bureau of Energy Efficiency (Qualifications for Accredited Energy Auditors and Maintenance of their List) Regulations, 2010.

On cancellation, the certificate of accreditation shall be surrendered to the Bureau within fifteen days from the date of receipt of order of cancellation.

Your name has been entered at AEA No. 284 in the register of list of accredited energy auditors. Your name shall be liable to be struck out on the grounds specified in regulation 8 of the Bureau of Energy Efficiency (Qualifications for Accredited Energy Auditors and Maintenance of their List) Regulations, 2010.

Given under the seal of the Bureau of Energy Efficiency, Ministry of Power, this 5th day of October, 2018

Secretary,
Bureau of Energy Efficiency
New Delhi

TheAuditTeam

Thestudyteamconstitutedofthefollowingseniortechnicalexecutivesfrom**EmpiricalExergyPrivateLimited,**

- **Mr.RajeshKumarSingadiya**[Director&Accredited EnergyAuditorAEA-0284]
- **Mr.RakeshPathak**,[Director&ElectricalExpert]
- **Mr. SachinKumawat**[Sr. Project Engineer]**Mr.**
- **Charchit Pathak [**Asst.Project
- Engineer**]Mr.AakashKumawat**[SiteEngineer]
- **Mr.AjayNahra**[Sr.Accountant&admin]

EXECUTIVESUMMARY

The executive summary of the environmental audit report furnished in this section brieflygives the identified water conservation measures that can be implemented in a phased mannertoconservewaterand increasethe productivityoftheinstitute.

INCIATIVEFORENVIRONMENT BYINSTITUTE

WATERSPRINKLERSYSTEM:-

- Institutehasinstalledwatersprinklersystemforgardeninginlawanandgardenarea.Itis reducedwater consumption**Its Appriciable**.

ENVIRONMENTAUDIT RECOMMENDATION

FRESHWATERMONITORINGSYSTEM

- Installwaterflowmeters(MechanicalorElectronics)indistributionnetwork,likeinstitute building block, hostel building, for quantity per day water consumption in theinstitutecampus.

WASTEWATERTREATMENTPLANT.

- Waste water generated from various departments and hostel should be collect in separatewaste water collection tank. The sourece of waste water generated from hostels activitieslikewashroom, canteen,shower water (bath)andmess.
- It should be treated in STP plants after that treated water reuse in activity like gardening,toiletand wash room etc

CHAPTER-1INTRODUCTION

1.1 AboutInstitute

Indore Institute of Law (IIL) was founded with a vision to be one of India's most prominentLawinstitutes and has established itself as one of the most recognized Law Institutes in India.IIL are committed to providing the best platform for global legal education to students andcourses are designed in order to give a complete exposure, both in domestic and internationallaw practices, students. At Indore Institute of Law, students have an option to choose from avariety of law courses, where they are offered complete law programmes along with practicaltrainingandresearch papers to get an all-roundunderstandingof thelawindetail.

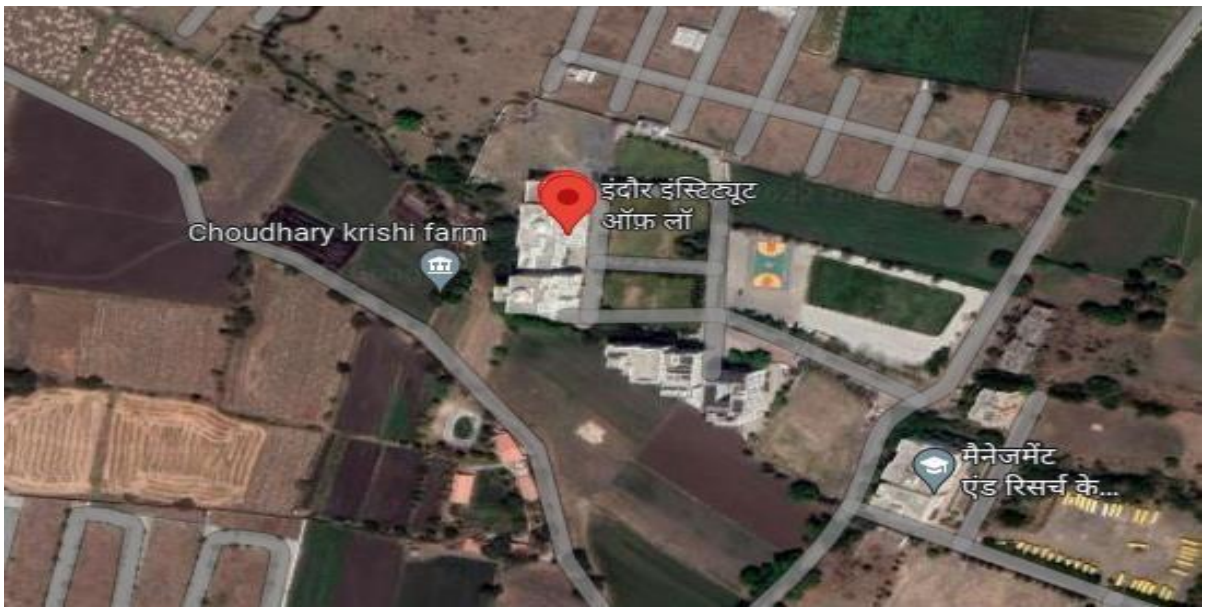


Figure1.1:-SatelliteImageofIIL,IndorefromGoogle map

ValueBased Education

"Educating the mind without educating the heart is no education at all!" At Indore Institute ofLaw,theobjectiveofdeliveringValueBasedEducationistoproduceresponsibleandcommitted citizens. This education acts as a multidimensional attribute to activate humanvaluesamongstudents.Ononehand,theyachieveexceptionalsuccessintheirlegalprofession and on the other, they become good human beings with a heart for society and thecountry. This is an institute which stands on the foundation of moral values, passion and

arelentlesssearch for excellence.

Objective

At Indore Institute of Law, our objective is to form a community where people come togetherand respect the law and take an oath to use it in an honest way for the betterment of thesociety.

Mission

The world works with a right mix of Cultural and Spiritual Excellence and sometimes, youneed the help of law to maintain the right balance in the society. For a society to functionideally,youneedpeopletomaintainacertainlawandorderanddirectittowardsanaccomplishment it is trying to achieve. At Indore Institute of Law, we are nurturing youngminds with equality and right law education to ensure they promote it further to the society,when they take the law as their career path. The society is always looking forward to peoplewho are making a positive change with their morals and with a higher understanding of moralexcellence. This is where Indore Institute of Law steps in and offers a platform to the studentswheretheygetacompleteunderstandingoflaw,fosteringtheirmindsintherightdevelopment that is ultimately going to play a positive role in the betterment of the societyandthe nation, as whole.

1.2 AboutInstituteInfrastructure:

The instituteisspreadover**1,81,673Sq.Ft.**withplenty ofopenspace andsportsareainterspersed within academic buildings. The details of various department and building aregivenbelow:

Table1.1:-Nameof thevarious Buildingin the institute

Sr.No.	Building	BuildupArea(Sq.Ft.)
1	Block-A	65,725
2	Block-B	10,032
3	Block-C	28,201
4	BoysHostal (Block- D)	32,830
5	GirlsHostal (Block- E)	44,885
	Total	1,81,673

1.3 GreenMonitoringCommittee.

INDORE INSTITUTE OF LAW

(Affiliated to DAVV and Bar Council of India, New Delhi)

—RANK 1" PRIVATE LAW COLLEGE IN M.P., C.G. & RAJASTHAN BY—
INDIA TODAY | OUTLOOK | THE WEEK | THE KNOWLEDGE REVIEW

Campus Add.: "Gendalal Bam Parisar" Opp.IIM Rau, Pithampur Road, Indore (M.P.) 453331
Phone No: +91 9977091777, 9977019777 | Web.: www.indoreinstituteoflaw.org | E-mail: indoreinstituteoflaw@gmail.com

No. IIL/76/A/22 Date : 02.07.2022

Energy, Water, Green & Environment Audit Committee

Energy, Water, Green & Environment Audit Committee will consist of the following members.

S. No.	Name	Designation
1	Dr. Manpreet Kaur Rajpal	Dean and Director Academics
2	Mr. K.S. Vyas	Executive Director
3	Mr. Nitin Jasuja	Campus Incharge
4	Mr. Arun Naik	Admin Officer
5	Mr. Shekhar Patankar	Coordinator
6	Mr. Ashish Verma	Admin. Assistant
7	Mr. Anil Choudhary	Campus Supervisor
8	Mr. Yogendra Singh Thakur	Campus Supervisor

Time duration of this committee is 2 years, after which the committee will be reconstituted.

Executive Director
Indore Institute of Law
Executive Director (Admin)
Indore Institute of Law

ISO 9001:2008 Certified

Run By: Icon Education Society

City Office : 425-426, Orbit Mall, A.B. Road, Indore (M.P.)

Associate Institute : INDORE NURSING COLLEGE (Affiliated to DAVV and Indian Nursing Council, New Delhi) www.indorenursingcollege.com

IdyllIC Institute of Management (Affiliated to DAVV and approved by M.P. Higher Edu. & AICTE, New Delhi) www.idyllicindore.com

1.4 EnvironmentAuditing

Environment audits can be a highly valuable tool for an institute in a wide range of ways toimprove their energy, environment, and economic performance. while reducing wastages andoperating costs. Environment audits provide a basis for calculating the economic benefits ofwater conservation projects by establishing the current rates of water use and their associatedcost.

1.5 Objectivesof Environmentaudit

Thegeneralobjectiveoftheenvironmentalauditistoconductaenvironmentauditandpreparation of baseline report on water conservation measures to mitigate consumption andimprovequalityand sustainablepractices.

Thespecificobjectivesare.

- To monitor freshwater consumption in the institute andwater conservation
- practices.To assess the quantity of water,usage, thequantity of wastewater generation, and theirreductionwithin the institute.

1.6 TargetAreasof Environmentaudit

Thisindicatoraddresseswatersources,waterconsumption,irrigation,stormwater,appliances,andfixturesaquiferdepletion,andwatercontaminationaretakingplaceatunprecedented rates. It is therefore essential that any environmentally responsible institutionshouldexamineits wateruse practices.

1.7 MethodologyfollowedforconductingEnvironmentaudit

Step1:Walkthroughsurvey

- Understanding of existing water sourcing, storage, and distribution
- facility.Assessingthe waterdemand and water consumption areas/processes.
- Preparationofdetailedwatercircuitdiagram.

Step2:SecondaryDataCollection

- Analyse historic water use and wastewater
- generationField measurements for estimating current
- water useMetered&unmetered supplies.
- Understanding of "base" flow and usage trends at the
- sitePast waterbills
- Wastewatertreatmentscheme&costsetc.

Step3:SiteEnvironmentAuditPlanning(based onon-siteoperationsandpractices)

- Preparation of water flow diagram to quantify water use at various
- locationsWastewaterflow measurement and samplingplan

Step4:ConductionofDetailedEnvironmentAudit&Measurements

- Conduction of field measurements to quantify water/wastewater
- streamsPowermeasurement of pumps/motors
- Preparation of water balance
- diagramEstablishingwaterconsumptionpatt ern
- Detection of potential leaks & water losses in the
- systemAssessmentofproductiveandunproductiveusageofwater
- Determinekeyopportunities forwater consumption reduction,reuse& recycle.

Step5:Preparation of EnvironmentAuditReport

- Documentation of collected &analysed water balancing and measurement
- detailsProjects and procedures to maximize water savings and minimize water
- losses.Opportunitiesforwaterconservationbasedonreducing/recycling/reuseandrecharg eoptions

CHAPTER-2WATERCONSUMPTIONANDWASTEWATERSOURCES

2.1 Detailsof sourceoffresh waterandusesareas.

The main source of freshwater is bore well for the institute. The freshwater is mainly used fordrinking, housekeeping,gardening, domestic activity, and new construction project. Detailsofthe pumpsare giveninthetable.

Table:2.1Detailsoffreshwatersources.

Sr. No.	LOCATION	POWER (H.P.)	TYPE	CONDITION	YEAR
1	GARDENINFORNT OFBLOCKBBUILDING(INTANK)	3	OPENWELL	WORKING	2013
2	CAMPUSWELL	5	OPENWELL	WORKING	2014
3	GARDENNO.4BOARING1	5	SUB-MERSIBLE	WORKING	2014
4	BLOCKBBOARING	5	OPENWELL	WORKING	2015
5	CAMPUSWELL	7.5	OPENWELL	WORKING	2017
6	GARDEN4BOARING 2	5	SUB-MERSIBLE	WORKING	2018

Figure2.1:-Freshwatersourceborewell

2.2 Waterflow measurementandpowermeasurement:-

Table2.2:-Flowandpowermeasurementofborewells.

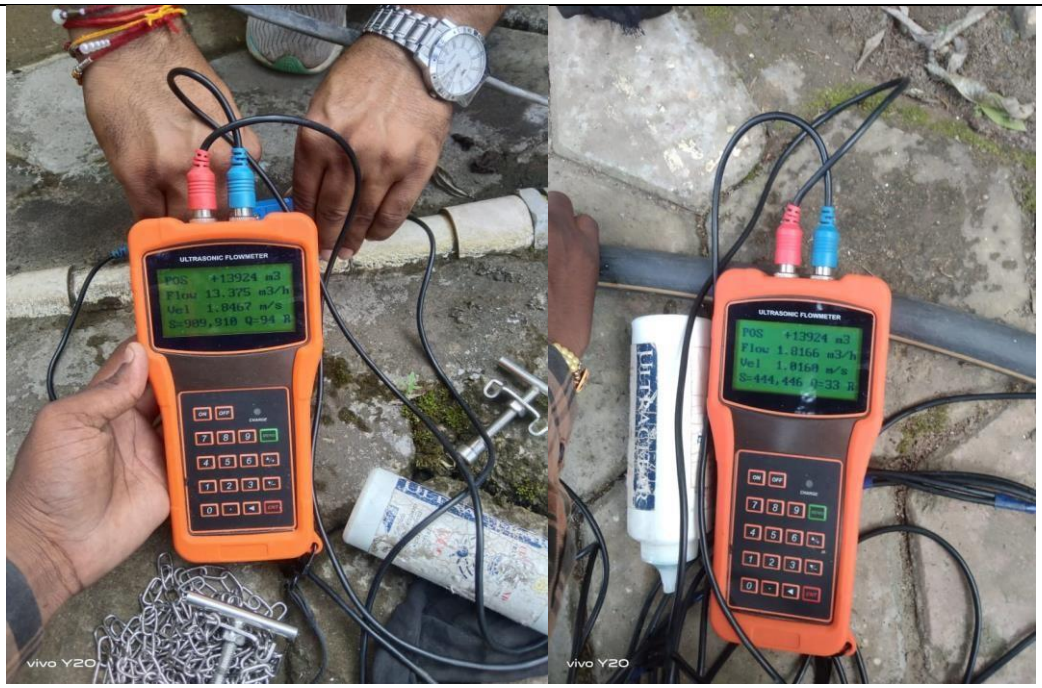
Sr.No.	Location	Motor Power (HP)	Voltage (V)	Current (A)	Power Factor	PowerConsumption(kW)	Measured Water Flow(m^3/hr)
1	GARDENINFORNT OFBLOCKBBUILDING(IN TANK)	3	412	5.4	0.893	3.44	5.8
2	CAMPUSOPENWELLPUMP-01	5	423	8.43	0.902	5.57	4.6
3	GARDENNO.4BOARING1	5	412	9.34	0.864	5.76	1.8
4	BLOCKBBOARING	5	402	8.91	0.921	5.71	2.1
5	CAMPUSOPENWELLPUMP-02	7.5	414	12.45	0.954	8.52	6.5
6	GARDEN4BOARING 2	5	415	9.43	0.912	6.18	1.8

Observation:-

It was measured that the average freshwater consumption of the institute from open well and bore wellis 22.6 M3/Hr. Total water extractiondependon borewelles and pump operatingtime.

2.3 WaterAccounting&Meteringsystem:

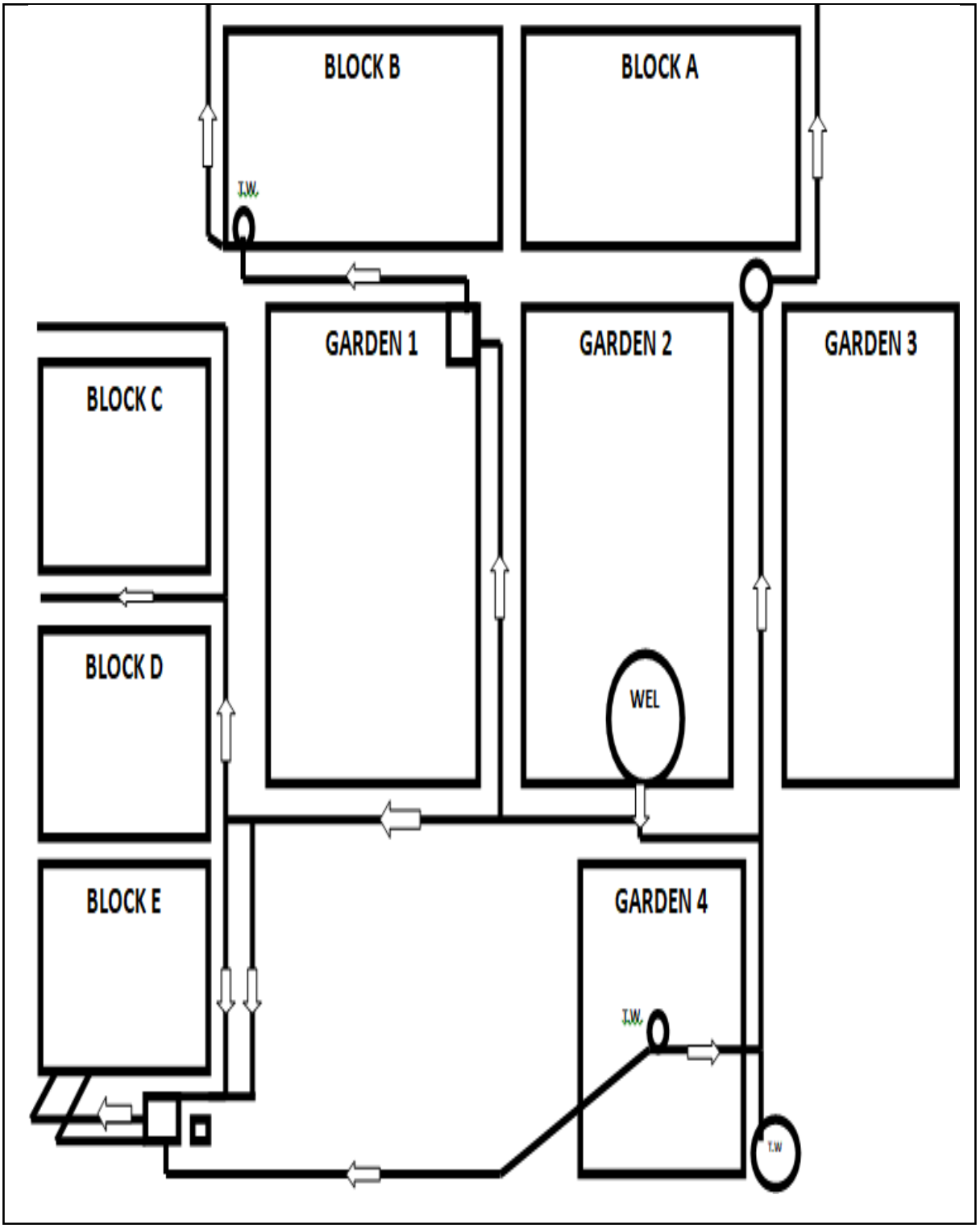
Itisobservedthatthereisarequirementforwaterflowmetersonborewellstoquantifyperdaygroundwater extraction from different sources.



Ultrasonicflowmeterinstallationat institutetank

Figure2.2:-Water flowmeasurementontheinstitutecampus.

2.4 WaterDistributionNetwork



2.5 Waterstorage capacityininstitutecampus:-

TherearedifferenttypesoftanksavailableintheinstituteforwaterstoragelikeundergroundRCCtanks, overhead RCC tanks, PVC tanks, etc.

Watertanksdetailswith capacity(InLittre)					
Sr.No.	**Block**	**TankDetails**	**Volume(InLittre)**	**Types ofTanks**	**Remarks**
1	A	No.1	42000	Overhead	Washroom,Toilets and otheractivity.
		No.2	1000	Overhead	For RO
2	B	No.1	50000	Overhead	Washroom,Toilets and otheractivity.
		No.2	17800	Underground	StorageTank
3	C	No.1	55200	Overhead	Washroom,Toilets and otheractivity.
		No.2	3800	Overhead	For RO
4	D	No.1	36300	Overhead	Washroom,Toilets and otheractivity.
		No.2	8500	Overhead	For RO
5	E	No.1	42000	Overhead	Washroom,Toilets and otheractivity.
		No.2	10500	Overhead	For RO
		No.3	72020	Underground	WaterStoragetank

BlockA	No.4	29700	Underground	For RO Waste and AC Waste water andrainwaterrechargingPit.
BlockE	No.4	32500	Underground	For RO Waste and AC Waste water andrainwaterrechargingPit.

2.6 Photographsofwaterstoragetanks:-

FreshWater Storagetank

OpenWell

Figure:-2.2 Waterstoragetank and capacityof institutecampus

2.7 Waterusereasin InstituteCampus:-

Water is preliminary used for drinking, domestic, gardening, andclinical activity. The auditteam visited various departments and buildings to determine appliances. The details of thewashroom,toilet, and tapsare givenon thetable

Table: 2.3Detailsofwashroomandusestapsin variousareas

Sr. No.	Block	Floor	Urinal	Wash Basin	Toilets	ROand Water Cooler	Total
1	A	GroundFloor	0	12	8	0	20
		FirstFloor	5	9	4	0	18
		SecondFloor	4	9	4	0	17
		ThirdFloor	4	8	4	1	17
2	B	GroundFloor	0	6	2	0	8
		FirstFloor	9	2	6	1	18
3	C	GroundFloor	0	20	12	1	33
		FirstFloor	4	2	1	1	8
		SecondFloor	5	2	1	1	9
		ThirdFloor	4	1	1	1	7
		FourthFloor	5	1	1	1	8
		FifthFloor	5	1	1	1	8
4	D	GroundFloor	0	4	2	2	8
		FirstFloor	1	4	12	1	18
		SecondFloor	2	4	12	1	19
		ThirdFloor	3	5	14	1	23
		FourthFloor	3	5	14	1	23
		FifthFloor	3	5	13	1	22
5	E	GroundFloor	0	10	18	1	29
		FirstFloor	0	10	17	1	28
		SecondFloor	0	10	17	1	28
		ThirdFloor	0	10	17	1	28
		FourthFloor	0	6	17	1	24
		FifthFloor	0	6	17	1	24
TOTAL							**445**

2.8 Detailsof ROininstitutecampus.

Table2.4:-DetailsofROon thecampus.

Sr.No.	Block	RO(InLPH)	Water Cooler(InLPH)
1	A	250	300
2	B	AuqaguradSmall	150
3	C	500	500
4	D	250	300
5	E	250	300

Figure:-2.3Water Taps

2.09Wastewatergenerationsources.

At present wastewater is generated from various departments, canteen, and mess, hostels likewashrooms, handwash and RO rejected water is drain out . It is recommended to the wastewater should be treated in STP plants. And after that the treated water should be reused ingardening.

Table:-2.5Wastewater generationareasin theinstitutecampus

Sr. No	Key WaterUsageSection	Type of water used(raw,treated,etc.)	WaterConsuming activities
1	AdminBlock	FreshWater	Drinkingand otheruses
2	Hostels	FreshWater	Drinking,Foodcooking, otherUses
3	InstitutionBuildings	FreshWater	Drinkingand otheruses
4	Canteens/Mess	FreshWater	Foodcooking,drinking

- Somephotographsofwastewatergenerationsourcesaregiven

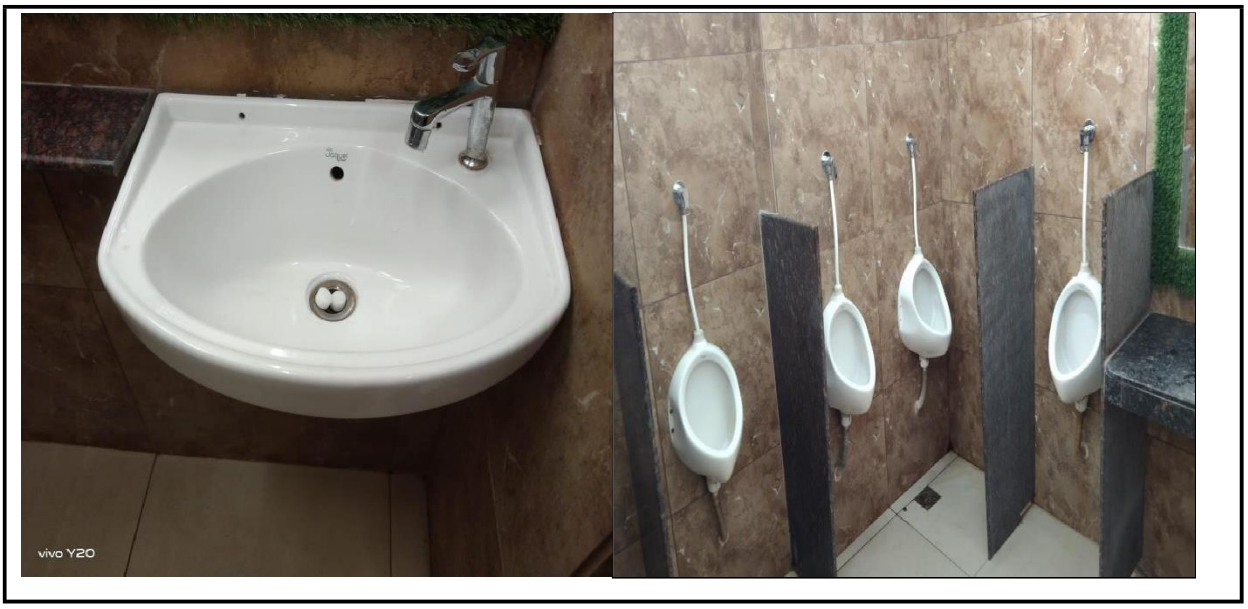


Figure:-2.6Wastewatergenerationsources

CHAPTER-3RAINWATERHARVESTINGSYSTEM

3.1.Rainwaterharvestingsystems

Rainwaterharvestingisatechniquetocapturetherainwaterwhenitprecipitates,storethatwaterfor direct use orchargethegroundwater anduse it later.

Therearetypicallyfourcomponentsinarainwaterharvestingsystem:

- Roof
- Catchment.Colle ction.
- Transport.
- Infiltrationorstoragetankanduse.

If rainwater is not harvested and channelized it runoffs quickly and flows out through storm-water drains. For storm-water management, the recharge pits, percolation pits, and poroustrenchesare constructed to allowstormwaterto infiltrate insidethesoil.

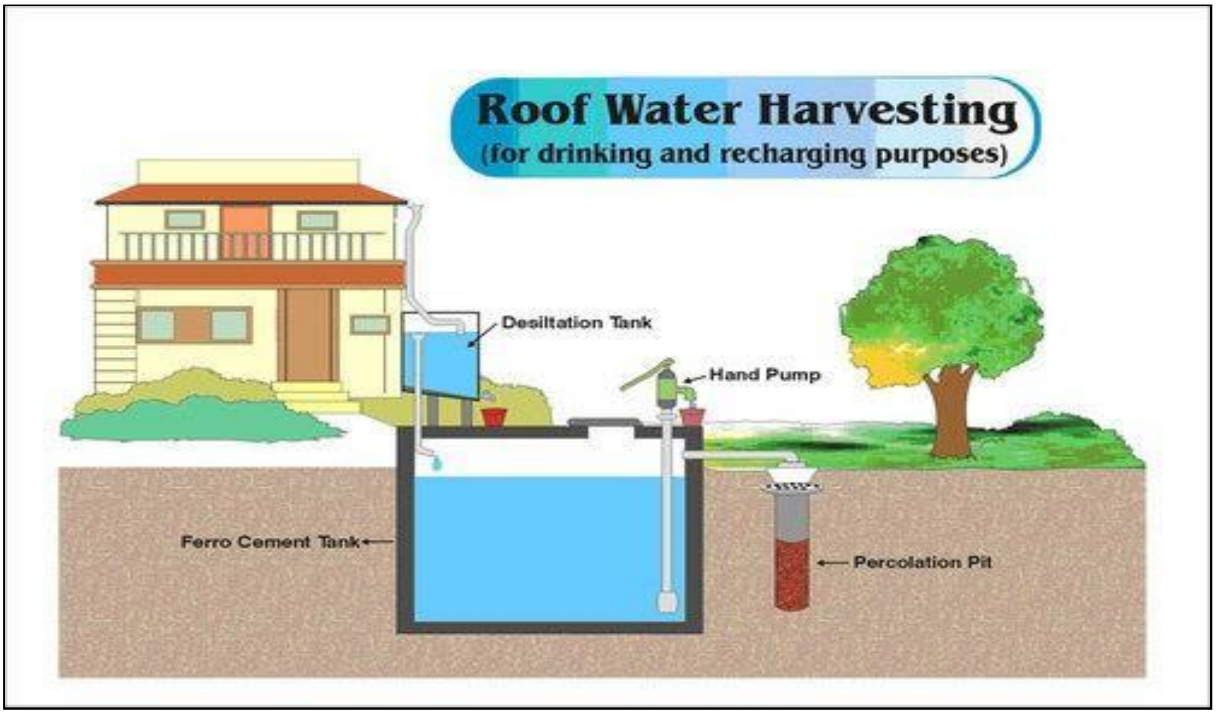


Figure:-3.1Components ofarooftop rainwaterharvestingsystem

3.2RainwaterHarvestingPotentialof the Institute(Pendingfrominstituteside)

The institute has a total built-up area is approx. 16,878 **m^2.** The average annual rainfall of0.952 m and runoff coefficient of 0.88 is considered for commercial building. According tothe above figuresand consideration,the estimated rainwater harvesting potentialfor theinstituteisabout14139**m^3/year**.ThefollowingMathematicalEquationisusedforthecalculation.

RWHPotential = Rainfall(m) xAreaof catchment (m^2)xRunoffcoefficient

RainWaterHarvestingPotentialCalculation					
Sr. No.	Nameoftheb uilding	RooftopArea (m^2)	Averager ainfall(m)	Runoffc oefficient	Rainwater Harvestingpote ntial(m^3/year)
1	Block-A	6106.05	0.952	0.88	5,115
2	Block-B	932	0.952	0.88	781
3	Block-C	2619.9	0.952	0.88	2,195
4	BoysHostal	3050	0.952	0.88	2,555
5	GirlsHostal	4169	0.952	0.88	3,493

Annexure-01

GreenCampusPolicy

INDORE INSTITUTE OF LAW (SM)

(Affiliated to D.A.V.V. & Bar Council of India, New Delhi)

GREEN CAMPUS POLICY

AND

INITIATIVE

Continues :-

GREEN CAMPUS INITIATIVES INCLUDE

The institutional initiatives for greening the campus are as follows:

- Restricted entry of automobiles
- Ban on use of Plastic

RESPONSE:

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RESTRICTED ENTRY OF AUTOMOBILES

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Continues :-

USE OF BICYCLES

The students staying on the Institute campus are using bicycles to move within the campus as well as to travel the nearby areas outside the campus. Students and staff coming from nearby villages also prefer bicycles as a mode of transport for attending the Institution. It is environmentally friendly and helps to decrease pollution.

BAN ON USE OF PLASTIC

Indore Institute of law is making an untiring effort to "Reduce Plastic Pollution" by minimizing plastic footprints and by way of refuse, reduction, reuse, and recycling. Hence the subsequent initiatives are taken by all the stakeholders to spread awareness of environmental conversation:

1- To refuse and reduce plastic products in daily use and pledge to a plastic free environment within the campus.
2- Ban Single use plastic, water bottles, takeaway cups, lunch wrapped in disposable plastic, packaging, plastic bags, disposable food service cups, plates and containers fabricated from polystyrene foam, plastic, straws etc. within the campus premises and canteen.

3- Encourage the use of biodegradable and other kind of compostable utensils in situ of plastic and shall bring a fork, knife and spoon from home.
4- Encourage the use of durable, foldable and cheap reusable bags that may be carried around in a car, pocket or purse.
5- Discourage plastic bottles and instead use glass, steel or clay bottles in office.
6- Welcome innovative ideas to cut back plastic foot prints.
7- The staff and students are informed to use steel or copper water bottles rather than plastic bottles.

END OF THE

REPORT THANKS

7.1.6

CERTIFICATE OF ENVIRONMENT AUDIT

Empirical Exergy Private Limited

Registered Office: 18-E, Sudama Nagar, Indore -452009
Office (Indore): Flat No. 201, Om Apartment, 214 Indrapuri, Indore (M.P.),
Contact: +91-731-4948831, Mobile: +91-78693-27256, 88713-68108
www.eeplgroups.com, email:-eempirical18@gmail.com
CIN No: U74999MP2018PTC045751

Ref No: EEPL/2022-23/C48 **Date: - 29-08-2022**

ENVIRONMENTAL AUDIT CERTIFICATE

This is certified that Empirical Exergy Private Limited (EEPL) Indore M.P. has conducted Environmental audit at, Indore Institute of Law Rau-Pithampur Road, Indore (M.P.) for the Year 2021-22 and audit report has been submitted.

We avail this opportunity to express our deep and sincere gratitude to the management for their wholehearted support and co-operations during the environment audit.

This certificate is being issued on the basis of the Environmental Audit conducted by EEPL.

For- **Empirical Exergy Private Limited**

Rajesh Kumar Singadiya (Director)

M.Tech (Energy Management), PhD (Research Scholar)
Accredited Energy Auditor [AEA-0284]
Certified Energy Auditor [CEA-7271]
(BEE, Ministry of Power, Govt. of India)
Empanelled Energy Auditor with MPUVN, Bhopal M.P.
Lead Auditor ISO50001:2011 [EnMS) from FICCI, Delhi
Certified Water Auditor (NPC, Govt of India)
Charted Engineer [M-1699118], The Institution of Engineers (India)
Member of ISHRAE [58150]

7.1.6

ISO CERTIFICATE

CERTIFICATE

This is to Certify that the Management System of

INDORE INSTITUTE OF LAW

"SHRI GENDALAL BAM PARISAR" OPP. IIM, RAU - PITHAMPUR ROAD,
INDORE, MADHYA PRADESH - 453331, INDIA.

has been audited and found to comply with the requirements of:

ISO 14001:2015
(Environmental Management System)

For the Scope of activities described below:

PROVIDING LEGAL EDUCATION COURSES

Certificate No.: IN97114B

Date of initial registration	*Date of this Certificate*	*Recertification Due*
30 August 2022	*30 August 2022*	*29 August 2025*

Validity of this certificate is subject to successful completion of surveillance audit on or before due date, in case surveillance audit not conducted this certificate shall be suspended/cancelled.

Director

For verification and updated information concerning the present certificate visit to www.lmscert.com

KAB-EC-63

LMS Certification Limited
Labrynth Business Centre, 43 Middle Hill Gate, Stockport,
Great Manchester, England-SK1 3DG
Phone :+44 208 935 5094
Company No.: 11029176
Visit :- www.lmscert.com
Email :- info@lmscert.com

LMS Certification Limited

7.1.6

CLEAN AND GREEN CAMPUS RECOGNITIONS/ AWARDS

CENTRE FOR ENVIRONMENT PROTECTION RESEARCH & DEVELOPMENT

INDORE, MADHYA PRADESH

GREEN CHAMPION AWARD

This is to certify that

INDORE INSTITUTE OF LAW

has been conferred with

GREEN CHAMPION AWARD 2022

The Institution has successfully adapted and implemented best practices in the area of Green Management, Water Management, Sustainable Development and Other Awareness campaign related to the Environment under their Go Green Club.

We wish all the very best to the Institute for the new initiatives in this segment.

AWARDED ON 05 JUNE 2022 WORLD ENVIRONMENT DAY

Dr. Ramesh Mangal
Secretary CEPRD

U/S 80-G OF THE INCOME ACT1961
TRUST REG. NO. 571/97 | FCRA NO. 063300093
www.cperd.org | 0731 - 2538908 | ceprd1996@gmail.com

दैनिक भास्कर

Letter of Appreciation

Date 02.10.2017

To,

Akshay Kanti Bam

Chairman

INDORE INSTITUTE OF LAW

The Swachh Bharat Abhiyan is the most significant cleanliness campaign by the Government of India, where Indore secured 1st rank in the country. To continue its legacy, Indore Institute of Law helped in Swachhta Abhiyan initiatives in Indore.

I would like to formally and sincerely express my gratitude for the amazing work you accomplished by taking over as the team lead for the Swachhta Abhiyan, Indore initiative.

This was a new level of responsibility and leadership for you, and you performed exceptionally well organizing the team, delegating tasks and overseeing the entire project to successful completion.

We hereby grant "Letter of Appreciation to 220 law students of Indore Institute of Law for helping fellow citizen in success of Swachhta Abhiyan, Indore.

Once again, thank you for working so diligently and helping to lead your team to success!

Looking forward for a fruitful association for more such CSR activities.

For D. B. Corp. Limited,

Authorised Signatory.

Sincerely,

Naresh Pratap Singh

Unit Head

Dainik Bhaskar , Indore

Regd. Office: DB Corp Ltd., Plot No. 280, Sarkhej- Gandhinagar Highway, Near YMCA Club, Makarba, Ahmedabad (Gujarat)
Business Office. 4/54, Press Complex, A.B. Road, Indore (M.P.) 452001 • Tel: 0731-3988884 • CIN Number: L22210GJ1995PLC047208
Website : www.bhaskarnet.com

देश में सर्वाधिक प्रसार का
कीर्तिमान बनाने वाला दिन का अखबार
E-mail : agniban@agniban.com, agniban@gmail.com

अग्निबाण

• इन्दौर • भोपाल • जबलपुर • उज्जैन • ग्वालियर • रतलाम से एक साथ प्रकाशित

Date:- 20 July, 2017

Letter of Appreciation

To,

The Chairman,

Indore Institute of law,

This is to appreciate that Indore Institute of Law in interest of safeguarding our environment has taken massive "Plantation Drive" on 20th July 2017 by planting and distributing Neem and other plants at various places in Indore in collaboration with **Agniban** evening newspaper. We are happy to share that Indore Institute of Law is taking part regularly in innovative programmes in interest of society and regularly promoting sensitisation among the students towards the environment.

We hereby grant a "letter of appreciation to 90 law students of Indore Institute of Law for their contribution in "Plantation Drive" .

We wish Indore Institute of Law to organize more such programmes and help us to take our society to great heights. With this we congratulate team of Indore Institute of Law and express our heartfelt gratitude for the successful plantation drive.

Thanks and Regards

सांध्य दैनिक अग्निबाण
इन्दौर

Signature & Seal

भोपाल – 11, प्रेस कॉम्प्लेक्स, एम. पी. नगर, झोन–1, भोपाल फोन : 0755–4252666, 4253666, 4254666
E-mail : bhopal@agniban.com, agnibanbpl@yahoo.co.in,

• जबलपुर – 18/1, नेपियर टाउन, रसल चौक, जबलपुर-482002 फोन :0761-4088808
• उज्जैन – 66, आर्य समाज रोड, उज्जैन फोन : 0734-2551736 फेक्स : 2557511
• ग्वालियर – सुन्दरम अपार्टमेन्ट, थाटीपुर चौराहा, ग्वालियर • रतलाम – 42, न्यू रोड, ब्राह्मण बोर्डिंग के सामने, रतलाम

कॉर्पोरेट ऑफिस इन्दौर – 121, देवी अहिल्या मार्ग, इन्दौर (म.प्र.) –4 फोन : 0731–4220027/28,फेक्स : 0731–4220026

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U85300MP2021NPL058111

BHARAT KI BETI FOUNDATION
(A Section 8 Company)

630, Sneh Nagar, Indore 452 001 (M.P.)
Mobile : 9329928590
Mail : bharatkibetifoundation@gmail.com
www.bharatkibetee.org

pos.5025540@indus

To,
Mr. Akshay Kanti Bam
The Chairman,
Indore Institute of Law

Sub: Letter of Appreciation

Dear Sir,
We highly appreciate the effort of the students of Indore Institute of Law who took the initiative of educating about menstrual hygiene as well as distributing biodegradable sanitary pads & Menstrual Cups to the girls and women of Ranwasa Village. Menstrual hygiene is an alarming health issue and a subject that still largely remains a taboo.. Therefore, it becomes vital to create awareness and provide products to menstruator.The efforts of the government and a few individuals alone will not suffice. It requires contribution in terms of individual social responsibility and contribution from the society. The contribution of 61 students of Indore Institute of Law was a remarkable. We are forever indebted and have heartfelt gratitude for these students. We would acknowledge their efforts with a letter of appreciation to each one of them who was a part of this worthy cause.

Warm Regards
For Bharat ki Beti Foundation

Director

16/August/2022

7.1.6

BEYOND THE CAMPUS ENVIRONMENTAL PROMOTION ACTIVITIES

INDORE INSTITUTE OF LAW
(Affiliated to DAVV & BCI)
---Rank 1st PRIVATE LAW COLLEGE IN M.P., C.J. & RAJASTHAN BY---
INDIA TODAY – OUT LOOK – THE WEEK – THE KNOWLEDGE REVIEW
Gendalal Bam Parisar, Opp. IIM Rau, Pithampur Road (M.P.), 453331
Email ID- indoreinstituteoflaw@gmail.com, Website: www.indoreinstituteoflaw.org
Phone no:- 9977091777, 9977019777

BEYOND THE CAMPUS ENVIRONMENTAL PROMOTION ACTIVITIES

IIL has a club dedicated for environmental promotion activities i.e. "**Go GreenClub**". The club organizes and participates in events like plantation drives, street plays, workshop to promote awareness about the degrading environment and factors affecting environment and measures to protect it. The club works for the **promotion and preservation of environment** and inculcating these values in our students keeping in mind our motto of creating **competent human legal professional and responsible citizen**.It works for both on and off campus environmental promotion activities.

Beyond the campus Activities undertaken by Go Green Club of IIL:

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DISTRIBUTION OF SANITARY PADS & MENSTRUAL CUPS

Date **:** ***15th August, 2022***

Venue **:** ***Ranwasa Village, Rau***

The students of Indore Institute of Law in collaboration with NGO Bharat kiBeti took part indrive for distributing the Sanitary Pads &Menstrual Cups to the girls and women of Ranwasavillage.

The menstrual hygiene is a huge problem in India. Unfortunately, menstruation is a subject thatstill largely remains a taboo. It is not a subject that is openly discussed. The scale of the problemand its devastating impacts are less known. The efforts of the government and a few individualsalone will not be suffice. It requires contribution by the whole civil society.

The 61 students of Indore Institute of Law contributed in drive and were appreciated by theauthority of NGO Bharat Ki Beti. All the students were given the certificate of appreciation.

Vocational training Programme

INDORE INSTITUTE OF LAW

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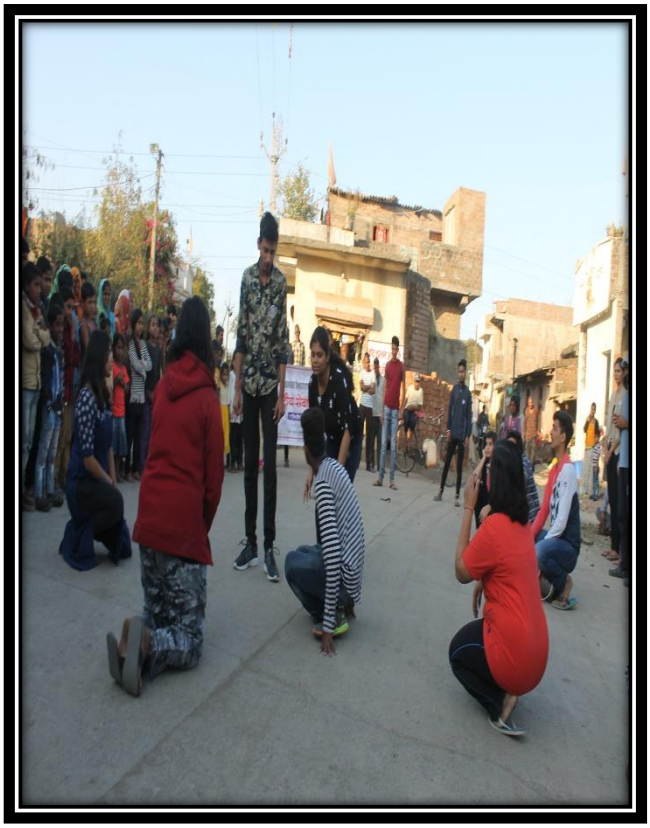
Phone no:- 9977091777, 9977019777

Street Play for Awareness Regarding Plastic Ban

Date : 02/07/22

Venue : Bhainslai village

Go Green club of IIL organised a street play on "**No to Plastic**" in nearby Bhainslai village on the eve of*International Plastic Bag Free Day*which is celebrated on 3rd of July every year.The play described the plastic side effects on ecology. In this, the use of plastic and its negative impacts were presented artistically by the students of IIL spreading the message of plastic ban for the public interest. Students and village took a Vow of not to use plastic and contribute in saving mother earth. Students also visited at shops situated in the area and requested shopkeepers not to use plastic along with disseminating information regarding **relevant legal provision** regarding plastic ban.



Street Play for creating Awareness Regarding Plastic Ban

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Phone no:- 9977091777, 9977019777

Workshop on promoting use of Solar Energy

Date : 03/03/23

Venue : Sonwai village

Go Green Club ofIILCluborganised a workshop on promotion of solar energy in agricultural activitiesin nearby **Sonwai** village. **Club** initiates the drive to create awareness regarding use of solar energy such as **Solar water Pumps for irrigation** and in other **farming related activities.**Farmers were informed about **PM-KUSUM Yojana** and **subsidies** given by the govt for promoting Solar Energy. Students and staff under co-ordinator ShekharPatankar interacted with farmers regarding legal hurdles in excess to subsidies for promoting green energy. Students distributed specially designed pamphlets containing information regarding government schemes and subsidies for solar water pumps.

Students Informing Farmers Regarding Use of Solar Ener

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Phone no:- 9977091777, 9977019777

Awareness and Cleaning Campaign 'Swachha Narmada'

Date : 12/08/2022

Venue : Kothawa Village (Khandwa, M.P.)

Go Green club of IIL organised Narmada river Cleanliness campaign 'Swachha Narmada'. River Narmada is the lifeline of Madhya Pradesh, it is also the largest river of MP. It has Immense Religious and cultural significance for the people of M.P. The **objective** of the campaign was **conservation of river and making it pollution free**. It was a public awareness campaign to educate the community about the importance of conservation by invoking the religious sentiments of the local populace. Students and staff of IIL also indulge in cleaning the areas near the river bank near**Kothawa Village** situated at the bank of Narmada.

Students Undertaking Cleaning Exercise at the bank of Narmada