# GOVERNMENT OF THE PUNJAB ENERGY DEPARTMENT



PC-II

For

# FEASIBILITY STUDY FOR SOLARIZATION OF COURTS AND DISTRICT SESSION COURTS OF PUNJAB

**GS No.3530** 

Cost PKR 10 Million
June 2022

# GOVERNMENT OF THE PUNJAB

# PLANNING COMMISSION PC-II FORM

1.	Name of the Project	Feasibility Study for Solarization of Courts and District Session Courts at Punjab
2.	Authority responsible for	
	i. Sponsoring	Energy Department, Government of the Punjab
	ii. Execution Agency	Punjab Energy Efficiency and Conservation Agency (PEECA)
2	General	Brief Background
3.	Description	Device is the most nearly provided of Delictor and in sometimes
		Punjab is the most populous province of Pakistan, and is experiencing
		rapid urbanization. Cities  Location Map-Energy Audit Punjab (178 MCs)  Division/District Map
		in Punjab alone are
		estimated to contribute
		around 35% to the
		national GDP. As cities
		grow, substantial
		investments in urban
		governance and service
		delivery are needed to
		encourage economic
		growth and sustainable
		development.
		The efficiency and
		sustainability of Punjab's
		courts and district session courts will be a stepping stone in achieving
		green and inclusive growth.
		Courts and District Session Courts of Punjab have high energy
		consumption. Expenditures on power of courts across Punjab have

increased manifold over time. The increasing cost of energy coupled has made service provision unsustainable. As a result, courts are running large deficits against their electricity bills, and are invariably reliant on bail outs by the provincial government for clearing accumulated arrears to continue operation of services. Similarly, rising costs of fuel for backup power generation has added to the difficulties. The inefficient energy consumption at the Courts and District Session Courts has led to energy wastage and increased electricity bills. These public institutes currently lack capacity and tools to undertake surveys on their own, and understand their energy needs through installation of solar PV system. Therefore, Courts and District Session Courts require critical technical assistance to develop and operationalize effective systems and procedures, and train staff on diagnostic tools.

#### II. Objectives of Feasibility

PEECA shall undertake survey and feasibility of Courts and District Session Courts and identify priority investments to make service delivery more efficient. The consultancy will support analytical and capacity building activities i.e. to undertake surveys of the buildings infrastructure and develop an Energy Management and Investment Plan identifying solarization needs for equipment / infrastructure. Surveys by an independent professional organization is required to provide the vital information based for overall energy conservation program covering essentially energy utilization analysis and evaluation of energy conservation measures. The major objectives are to:

- Assess present pattern of energy consumption (through electricity bills of previous 12 months)
- Relate energy inputs and production output
- Identify each building, its location and collect data.
- Highlight wastage in major areas
- Determine solarization capacity feasible buildings and open spaces.

- Determine whether rooftops can handle solar PV installation in case of roof mounted structure
- Investigation of existing electrical infrastructure including transformer capacity, cable, internal wiring, sanction load, electricity meter....etc. and recommendations of replacement/upgradation where necessary as per the solar capacity requirements and its cost.
- Exploring provision of net metering and its requirements for all sites.
- Implementation of measures of energy conservation and realization of savings.
- Estimation of solarization for each court.
- Recommend the buildings/courts to be feasible for solarization
- Economic, social, financial and environmental impact and analysis.
- Preparation of procurement documents division/city wise, including but not limited to preparation & finalization of bidding documents and technical specifications.
- Preparing pre-qualification , Request for Proposals ( RFP), contracts etc.;

The details of district and session courts in all nine divisions of Punjab is attached as **Annexure-01**.

#### 2. Core Team of the Consultant

The consultant will be bound to provide their detail methodology to carry out the detailed feasibility study. The detailed Terms of Reference (TORs) of Feasibility study for the Consultant is given in **Annexure-02**. The proposition in PC-II has been based upon their proposition of conducting feasibility study in all courts and district and session court buildings in line with scope of work/TORs of feasibility study. It has been proposed that a team leader will be stationed at Lahore.

Electrical engineer, civil engineers and diploma holder/technicians will carry out surveys and prepare initial analysis, and will send its

division wise data after initial analysis to consultant head office for preparation of feasibility study and survey reports. The Team Leader will be responsible to submit these reports to the client i.e. the Managing Director PEECA, Energy Department.

Team structure with allocation of courts is given below:-

**Table 1: Team Distribution in Divisions** 

S #	Personnel	Based in	No's of Professional
1	Team Leader	Head Office at Lahore	1
2	Electrical Engineer	At Divisional Level	3
3	Civil Engineer	At Divisional Level	3
4	Junior Technician (Civil / Electrical / Mechanical)	At Divisional Level	6

Qualification and minimum experience required for required professionals is given below:-

**Table 2: Personnel Detail with Qualification** 

<b>S</b> #	Personnel	No's	Qualification
1	Team Leader	1	M. Sc. in Electrical Engineering with minimum 12-years' Experience, foreign qualification and experience shall be preferred.
2	Electrical Engineer	03	B. Sc. in Electrical engineering with minimum 5-years similar kind of experience particularly feasibility study, maintenance of electrical installations and design of electrical projects
3	Civil Engineer 03		B. Sc. in Civil engineering with minimum 5-years' experience on similar projects particularly field based assignments
4	Technicians	06	Diploma in Civil / Electrical / Mechanical engineering with minimum 1-years' experience

on solar PV installation and
feasibility study assignments.

#### 3. <u>Professional Liability of the Consultant</u>

The consultant shall comply with the PPRA Rule-54 which states

- "(1) The consultant selected and awarded a contract shall be liable for consequence of errors or omissions on the part of the consultant.
- (2) The extent of liability of the consultant shall form part of the contract and such liability shall not be less than remunerations nor it shall be more than twice the remunerations.
- (3) The procuring agency may demand insurance on part of the consultant to cover the liability of the consultant and necessary costs shall be borne by the consultant.
- (4) The consultant shall be held liable for all losses or damages suffered by the procuring agency on account of any misconduct by the consultant in performing the consulting services."

#### 4. <u>Hiring Process</u>

The hiring shall be done through competitive bidding as per PPRA Rules.

#### 5. <u>Consultant Fee</u>

The Consultant fee will be based upon technical/financial proposal.

The payments to the consultant will be linked with output/deliverables.

All payments made to the Consultant shall be subject to prevalent applicable taxes.

#### 6. **Duration of the assignment**

- (i) Assignment is likely to be completed within Ten (10) months from date of contract agreement.
- (ii) The consultant shall furnish Completion Report within a fortnight after completion of assignment.

# 7. <u>Deliverables and timelines</u>

# The tentative deliverables and its payment plan

Table 3: Detail of Deliverables as per the TORs

S.N	Deliverables	Payment Percentage of Contract Amount
1	Inception report	5%
2	Report for Lahore High Court and its Benches.	5%
3	Report for each Division containing separate reports for each court and district and session courts per city of the same district.	8%
4	Report for each Division containing separate reports for each court and district and session courts per city of the same district.	8%
5	Report for each Division containing separate reports for each court and district and session courts per city of the same district.	8%
6	Report for each Division containing separate reports for each court and district and session courts per city of the same district.	8%
7	Report for each Division containing separate reports for each court and district and session courts per city of the same district.	8%
8	Report for each Division containing separate reports for each court and district and session courts per city of the same district.	8%
9	Report for each Division containing separate reports for each court and district and session courts per city of the same district.	8%
10	Report for each Division containing separate reports for each court and	8%

			1			1		
				ict and session courts per city of the edistrict.				
				ort for each Division containing	8%			
			-	rate reports for each court and	0,0			
		11	_	ict and session courts per city of the	:			
			same	e district.				
		12		Report including summary of	8%			
			_	rts and recommendations.	100/			
		13		nission of procurement documents, ifications.	10%			
		Feasi	Feasibility Study for solarization by an independent profes					
4.	Justification	organ	organization is required to provide the vital information base for					
		overa	overall energy conservation program covering essentially energy					
		utiliza	utilization analysis and evaluation of energy conservation measures. As					
		per th	per the estimated assessment, the annual energy consumption of high					
		court,	court, its benches, District and Sessions courts is 17 Million and annual					
		bill of	f PKR 6	542.5 Million. Letter from High cou	rt, Lahore, was sent	t to		
		all Di	strict &	Session Judges in Punjab in which	h it was informed t	hat		
		the H	on'ble	Authority has directed to work out t	he feasibility/estim	ate		
		of so	lar ene	rgy provision in the existing cour	ts complexes (Lett	ters		
		attach	ned as A	Annexure <b>03</b> ). As per the decision i	n the letter, data fro	om		
		distric	ct and s	ession courts were received which s	hall be shared with	the		
		consu	ıltant. Iı	n order to estimate the solar potentia	ıl, a feasibility study	y is		
		requii	red to m	nitigate the high energy consumption	n. The feasibility stu	ıdy		
		will b	e comp	pleted by 30th June, 2023.				
_	•	Capit	al cost	of Feasibility study is <b>PKR 10 Mill</b>	ion, the breakup of	•		
5.	Item wise year wise capital	which	n is give	en below;				
	cost estimate	Table	e 4: Co	st Break Down				
			S # Description Co					
		A Manpower cost (for 10 7,700,000 months)						
			В	Transportation and Logistics	1,000,000			
			С	Overheads (Utilities, Stationary, etc.) 1.5% of total cost	500,000			
		COST						

			D	Office Establishment support staff etc. @ 1		800,000				
				Grand Total		10,000,000				
			Detail of cost of project is given in Annexure-04 and Team							
			anogram ject Mai	n is given in <b>Annexu</b> <u>nager</u>	re- 05.					
	Management	Program Manager, PEECA, Energy Department will be the Project								
	structure and	Man	ager and	d will supervise the w	ork of the	feasibility study b	y the			
	manpower requirements	cons	sultants.	tivities of Consulta	ent to					
	including specialized	Man	aging D	irector, PEECA/Secret	ary, Energy	Department.				
	skills during execution and	Foca	al Perso	<u>n</u>						
	operational	Prog	gram Ma	anager, PEECA, Ener	gy Departi	ment will be the	focal			
6.	phase	pers	on to co	nduct progress.						
		Cor	e Consu	ltant Team						
		The	Consult	ant Team will constit	tute the sta	ff as already desc	ribed			
		abov	ve.							
		Con	<u>isultant</u>	Selection Committee						
		Con	ısultant	Selection Committee	shall be r	notified by the En	nergy			
			artment			•	23			
	Indicate when	The	cost esti	mates have been prepa	red origina	l in June 2022.				
	the cost estimates were									
7.	prepared and									
	basis of these estimates									
8.	Source of	The	provisio	on of the Project alrea	ady approv	ed under ADP Ge	neral			
	financing of the capital cost	Seria	al No. 3	530 The provision of	this projec	t in ADP is PKR	10.00			
	the capital cost	Mill	Million, in FY 2022-2023.							
		Tab	le 5: Ye	ar Wise Allocations						
				Years		2022-23				
		A	Allocatio	ons (PKR Million)		10				
9.	Implementation Schedule	The	impleme	entation schedule is giv	ven in <b>Ann</b>	exure-06.				

Expected
outcomes of the
survey and
feasibility
studies and
details of the
projects likely
to be submitted
after the
surveys

- The survey will help reduce burden on national grid by shifting to decentralized solar PV system.
- The Consultant firm will suggest the solarization and give information on the required generation capacity.
- Load bearing capacities of the public buildings will be determined. Identification of best suited rooftop space in case of roof mounted structure.
- Existing cable condition will be determine with recommendations for replacement where necessary.
- PC-I of the whole project will be framed based upon the detailed cost estimates mentioned in the Final Feasibility study Report.

## 11. CERTIFICATE

1.	and Dist	t <b>rict Session</b> (	Courts of	Punjab"	Feasibility Stud has been prepar or preparation o	ed on the	basis of in	structions
2.	Certified been	I that all the fi	nancial de have	tails of the been	e scheme i.e. the scrutinized	estimate and	s and quan found	tities have correct.
	Prepare	d By:		(Assistan	t Manager Prog	ram, PEI	ECA)	
	Checked	d by:		(Managir	ng Director, PEI	ECA)		
	Approv	ed By:						_

(Secretary Energy, Government of the Punjab)

# **Annexure-01**

# **High Court and its Benches**

S.No	City	Court Name
1	Lahore	High Court
2	Rawalpindi	High Court Bench
3	Multan	High Court Bench
4	Bahawalpur	High Court Bench

## **District and Session Courts**

S#	Division	S#	District	Address (City)
		1	Rawalpindi	Judicial Complex, District Courts, Rawalpindi
		2	Chakwal	District & Sessions Courts, Chakwal
1	Rawalpindi	3	Attock	Office of the District & Sessions Judge, Attock
		4	Jhelum	Office of the District & Sessions Judge Jhelum Civil Line Road Jhelum
		5	Bhakkar	Office of District & Sessions Judge, Bhakkar
2		6	Sargodha	Office of District & Session Judge, Sargodha
2	Sargodha	7	Khushab	District & Sessions Courts, Khushab
		8	Mianwali	District & Sessions Court Mianwali, Near Jahaz Chok, Talagang Road Mianwali
		9	Gujranwala	District & Sessions Courts, Gujranwala
		10	Gujrat	District & Sessions Courts, Gujrat
3	Gujranwala	11	Hafizabad	District & Sessions Courts, Hafizabad
	_	12	Mandi Bahauddin	District & Sessions Courts, Mandi Bahauddin
		13	Narowal	District & Sessions Courts, Narowal
		14	Sialkot	District & Sessions Courts, Sialkot
4	Lahore	15	Kasur	District & Sessions Courts, Kasur

		16	Lahore	District & Sessions Courts, Lahore
		17	Nanakana Sahib	District & Sessions Courts, Nankana
		18	Sheikhupura	Office of the District & Sessions Court, Sheikhupura
		19	Faisalabad	District & Sessions Courts, Faisalabad
5	Faisalabad	20	Chiniot	District & Sessions Courts, Chiniot
3	raisaiadad	21	Jhang	District & Sessions Courts, Jhang:
		22	T.T.Singh	Office of the District & Sessions Judge, Toba Tek Singh
		23	Sahiwal	District & Sessions Courts, Sahiwal
6	Sahiwal	24	Okara	Office of the District & Sessions Judge, Okara
		25	Pakpattan	District & Session Court Pakpattan
		26	Bahawalpur	Office of District & Sessions Judge, Bahawalpur
7	Bahawalpur	27	Bahawalngar	Office of the District & Sessions Judge Bahawalnagar
		28	R.Y.Khan	District & Sessions Courts, Rahim Yar Khan
		29	Multan	Office of District & Sessions Judge, Multan
		30	Khanewal	District & Sessions Courts, khanewal
8	Multan	31	Lodhran	Office of the District & Sessions Judge,New Judicial Complex, Chak No. 100/M, Lodhran
		32	Vehari	Office of the District & Sessions Judge, Vehari.
		33	D.G.Khan	Sessions Court Complex, Dera Ghazi Khan
	DC VI	34	Layyah	District & Sessions Courts, layyah
9	DG Khan	35	Muzaffarh	District & Sessions Courts, Muzaffargarh
		36	Rajanpur	District & Sessions Courts, rajanpur

<sup>\*</sup>All courts under the District and Session courts (family, civil courts..etc.), judicial complexes but not limited to, situated in different locations of the above mentioned cities shall be included in the study.

### **Terms of Reference (TORs) of Feasibility study Consultant:**

#### 1. <u>Duties & responsibilities</u>

The duties and responsibilities of Consultant shall include but not limited to the following:-

- PEECA expects the Consultant to include all the necessary matters of information the report it submits. Analyze and comment on patterns and trends in seasonal energy consumption
- Analyze and comment on patterns and trends in seasonal energy consumption.
- Analyze energy consumption and costs: Collect, organize, and analyze past energy bills.
- Review energy meters and list with reference to site energy end use. Review tariff structure and provide breakdown between peak and off peak. Identify appropriate opportunities in peak/load shifting.
- Compare energy performance: Determine the energy use and resources that can help compare them internally from one period to another, from one facility to a similar one, or from one system to another.
- Profile energy use patterns: Determine the time and relationships of energy use such as the electricity demand profile.
- Inventories energy use: Prepare a list of all energy-consuming loads/efficiencies in the audit area and measure their consumption and demand.
- Identify Energy Management Opportunities that include operational and technological measures to reduce energy usage.
- Measure the potential energy and cost savings, along with any other benefits.
- Surveys, measurements, photographs and other data collection methods shall be performed in a way that it minimizes disruption to the institution occupants.
- Determine solar potential of each building.
- GIS Imaging to have exhibit solar irradiance and proposed azimuthal angle.
- Conduct building survey and determine if the rooftop can withstand PV panels load for roof mounted structure.
- Recommend least costly and more efficient structure for installation of solar PV system on each court and district and session courts rooftops.

- Solar PV Potential, its expected capital investment and expected saving potential per annum of the institution is considered a vital part of the study. On the basis of this information, Solarization of rooftops of the listed courts will be done as an alternate source of energy source. On-Grid Solar PV Design using Helioscope, PVSyst or a similar software is to be used for detailed analysis including shading factor of the obstacles on rooftop. Since it is a clean energy source, the reduction in Green House Gases (GHG) shall also be a part of the survey report.
- Estimation of solarization for each court.
- Recommend the buildings/courts to be feasible for solarization.
- Economic, social, financial and environmental impact and analysis.
- Preparation of procurement documents division/city wise, including but not limited to preparation & finalization of bidding documents and technical specifications.
- Preparing pre-qualification, Request for Proposals (RFP), contracts etc.;

#### Methodology

- 1. The Consultancy Firm shall develop a detailed work program for carrying out the work immediately after mobilizing. It shall then prepare an inventory of relevant assets owned/operated by the courts, including buildings, streetlights, and gen-set details. In doing so, it can be guided by information already available within the courts but this information will need to be verified. The Consultants shall also collect relevant information on energy expenditure (bills etc.) for each asset for at least the last 12 months.
- 2. Collection of additional information on location (where applicable), performance, and energy consumption and expenditure incurred, as specified in the following sub-section of this TOR shall commence next. The outputs should be provided in a format with detailed information records for each asset, and an overall inventory and analytical report discussing key performance indicators.
- 3. The Consultants shall then identify energy saving opportunities, and provide saving potential (in electrical units and monetary terms) for each opportunity, estimated investment costs and returns on investments, engineering plans, and Bill of Quantities, as needed.
- 4. Recommended information fields for each category of assets. The consultants may suggest additional information fields, or revision of any data field suggested below, with the submission of the detailed work program.

#### Court Buildings

- a) Develop inventories of all building owned/operated by the courts, and record details given below, whichever may apply:
  - o Unique Identification number
  - o Ownership of the building (court-owned, any other)
  - o Operator of building (court, commercial tenants, etc.)
  - o Type of building (residence, office, commercial)
  - o Age of the building
  - o Condition of the building, Functional (satisfactory, unsatisfactory), Non-functional (repairable/non-repairable); Need for repairs, etc.
  - Total floor area
  - Total number of floors
  - Type and number of heating unit(s), Central heating; individual heating units stoves/gas heaters, electric heaters, etc.
  - Type and number of cooling unit(s), fans, desert/air coolers; air conditioning systems (centralized AC), air conditioning systems, split etc.
  - o Type and number of water heating units (including energy source).
  - Type and number of lighting unit(s), input with power rating, conventional light bulbs, tube lamp, energy saver bulbs, compact fluorescent lamps (CFLs), LED bulbs, etc.
  - o Energy consumption during previous year (segregated by function heating, cooling, water heating, lighting, etc.)
  - o Expenditure on energy over previous year.
  - o Existing cables condition.
- b) Based on energy consumption and associated costs to courts and district and session courts buildings, provide recommendations for:
  - o Installation of solar PV system, along with capacity requirement and financial and electricity savings.
  - o Building condition.
  - o Existing cable and other infrastructural related conditions.

# LAHORE HIGH COURT, LAHORE

No. 16767-Bldgs/B.A.VI

From

**The Registrar,** Lahore High Court,

Lahore.

To

All the District & Sessions Judges,

In the Punjab.

Dated Lahore, the 03 70 - - 2020

Subject:

INSTRUCTIONS REGARDING PROVISION OF SOLAR ENERGY

SYSTEM.

Dear Sir,

I am directed to refer to the subject cited above and to inform that the Hon'ble Authority has directed to work out the feasibility / estimate of solar energy provision in the existing courts complexes through the Executive Engineer concerned and the Energy Department, Government of Punjab, or Consultant.

2. I am, further, directed by the Hon'ble Authority to ask you that in future all new schemes would be prepared by including the provision of solar energy system, if feasible, duly recommended by the Energy Department or Consultant.

Yours faithfully,

Assistant Registrar (Buildings)

#### No. & Date Even.

A copy is forwarded to the:-

- i. Chief Engineer (Central Zone), Punjab Buildings Department, Lahore;
- ii. Chief Engineer (North Zone), Punjab Buildings Department, Lahore;

iii. Chief Engineer (South Zone), Punjab Buildings Department, Lahore.

They are requested to circulate the abovementioned instructions to all the Superintending Engineers as well as Executive Engineers working under their control for compliance.

ey? on

Assistant Registrar (P-

ned senior lovi l

District & Anssions Judge. Mutten.

17

#### **IMMEDIATE**





No.SO(Consv.)ED/1-8/2021

GOVERNMENT OF THE PUNJAB

ENERGY DEPARTMENT

8<sup>th</sup> Floor, EFU House, Jail Road, Lahore Phone No.99268010, 99268017 & 99268019 Fax No.35790721

Dated: 11th October, 2021

То

The Registrar, Lahore High Court,

Lahore.

SUBJECT:

FAST TRACK IMPLEMENTATION OF ANNUAL DEVELOPMENT PROGRAM (ADP) 2021-22- INSTRUCTIONS REGARDING PROVISION OF SOLAR ENERGY SYSTEM

I am directed to refer to the subject cited above and to apprize that in order to scrutinize the implementation status regarding the audit / survey of the offices / courts of District & Session Judges (D&SJs) all over the Punjab (36 districts) through Consultant who is to define scope of the work and its estimated cost, a meeting was convened under the chairpersonship of Additional Secretary (Development), Energy Department, in her office chamber on 06.10.2021, wherein from Lahore High Court, Deputy Registrar, Mr. Hammad Ahmad, attended the meeting. Minutes of the meeting are enclosed herewith.

- 2. As per the decisions of the meeting, it is requested
  - that a Focal Person from Lahore High Court, Lahore may be nominated for coordination with district level formations and
  - ii. to share the data regarding the number of sites / buildings in each district proposed for solarization alongwith their locations, electricity bills, transformer and generator details which shall be incorporated in the ToRs for inviting bids from the Consultants. NOC (No Objection Certificate) from the concerned Buildings Department regarding the roof stability of the buildings proposed solarization is also required.
- 3. I am further directed to request that nomination of Focal Person and provision of above data may very kindly be furnished to this department at an early date in order to execute the exercise of survey / audit of offices of D&SJs in befitting manner.

SECTION OFFICER (CONSV.)

C.C.

MANAGING DIRECTOR (PEEC)

Dairy No: 0019

A copy is forwarded for information / necessary action to :-

- 1. Mr. Adnan Mudassar, MD, PEECA, Energy Department.
- 2. Mr. Arif Mansoor Qaisrani, Chief Engineer (Power), Energy Department
- 3. Mr. Muhammad Yasin, Director Technical Power, Energy Department..
- 4. Mr. Hammad Ahmad, Deputy Registrar, Lahore High Court, Lahore.

5. Mr. Abdur Rahman, Project Manager, PEECA.

- 6. PS to Secretary Energy, Energy Department.
- 7. PA to Addl. Secretary (Dev), Energy Department.
- 8. PA to Deputy Secretary (Dev), Energy Department.

PROGRAM SECTION

AM (P)

Dairy No: /085

Date: 1/ -10 -201

18

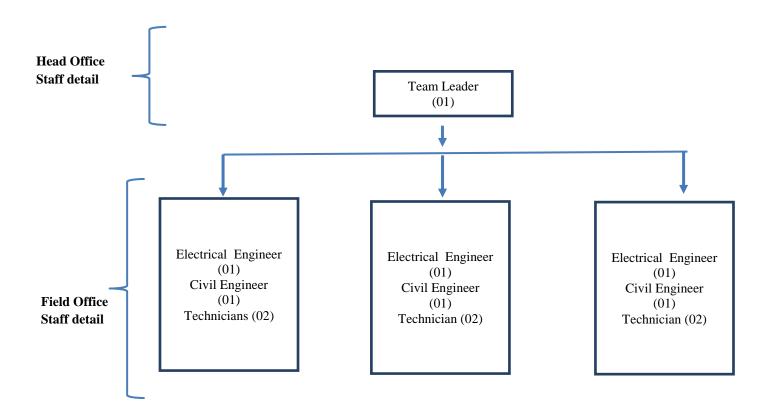
## **Annexure-04**

# Cost estimates for Feasibility Study for Solarization of Courts and District Session Courts at Punjab

# A Manpower cost

	Designation	No of slots	Man months each	Total man months	Cost per month	Total cost Rs.
1	Team Leader	1	10	10	110,000	1,100,000
2	Electrical Engineer	3	10	30	70,000	2,100,000
3	Civil Engineer	3	10	30	70,000	2,100,000
4	Technicians	6	10	60	40,000	2,400,000
					Total	7,700,000
В	Transportation & Logistics					1,000,000
					Total	8,700,000
С	Overheads (Utilities, Stationary, etc.)					500,000
D	Office Establishment & other support staff etc.					800,000
					Total	10,000,000

# TEAM ORGANOGRAM FOR FEASIBILITY STUDY FOR SOLARIZATION OF COURTS AND DISTRICT SESSION COURTS OF PUNJAB



#### **Supported By:**

- Logistics
- Utilities
- Computer Operator
- Stationary
- Internet Access
- Android Mobile Devices(To run Android Application)

# Annexure-06

	IMPLEMENTATION SCHEDULE														
S. No	Feasibility Study for Solarization of Courts and District Session Courts at Punjab														
	Activities	FY (2022-23)													
		June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	
1	PC-II Preparation														
2	PC-II Approval														
3	Pre-Qualification of Firms														
4	Preparation and Issuance of RFP														
5	Submission of Proposals by Consultants														
7	Evaluation of Proposals														
8	Award of Contract														
9	Implementation														