

GOVERNMENT OF THE PUNJAB
ENERGY DEPARTMENT



PC-I

For
Punjab Energy Efficiency and Conservation Programme 2015-18 (36 Months)
Cost PKR 1205.15 million
(Amended in the light of PDWP meeting dated 07-09-2015)



November, 2015

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ABBREVIATIONS

ADB	Asian Development Bank
ADP	Annual Development Programme
CCI	Council of Common Interests
CERAD	Centre for Energy Research & Development
CPI	Cleaner Production Institute
DC	Designated Consumer
DISCO	Power distribution companies
DSM	Demand Side Management
EA	Energy Audit
EC	Energy Conservation
ECF	Energy Conservation Fund
ECBC	Energy Conservation Building Code
EE	Energy Efficiency
EE&C	Energy Efficiency & Conservation
ENERCON	National Energy Efficiency and Conservation Authority
ESCO	Energy Service Company
ESPC	Energy Savings Performance Contract
FY	Fiscal Year
GDP	Gross Domestic Product
GOP	Government of Punjab
HR	Human Resource
ICT	Information & Communication Technology
IFC	International Finance Corporation
KPI	Key Performance Indicators
M&E	Monitoring & Evaluation
MEPS	Minimum Energy Performance Standards
MIS	Management Information System
MSME	Micro, Small and Medium Enterprises
MTCE	Million Ton Coal Equivalent
MTOE	Million Ton Oil Equivalent
MW	Mega Watt
NPO	National Productivity Organization
PC	Planning Commission
PEECA	Punjab energy Efficiency & conservation Agency
PEECP	Punjab Energy Efficiency & Conservation Programme
Rs.	Pakistan Rupee
PERA	Punjab Energy Regulatory Authority
PSDP	Public Sector Development Programme
R&D	Research & Development
S&L	Standard & Labelling
SEC	Specific Energy Consumption
SME	Small and Medium Enterprises
SMEDA	Small and Medium Enterprises Development Authority
TA	Technical Assistance
TOE	Tons of Oil Equivalent
TOR	Terms of Reference
VFD	Variable Frequency Drives
MTDF	Medium Term Development Framework

PC-I (Infrastructure Sector)

1. NAME OF THE PROJECT

Punjab Energy Efficiency and Conservation Programme 2015-18

2. LOCATION

Entire Punjab

3. AUTHORITIES RESPONSIBLE FOR:

3.1 Sponsoring:

Government of the Punjab through its Energy Department.

3.2 Execution:

Punjab Energy Efficiency and Conservation Agency (PEECA) – Regulatory Arm: For monitoring and implementation of policies & regulations, for running behavioral change & public awareness programs, for training of energy management professionals, and to carry out studies through consultants for initiatives in the sector and for maintenance of data base.

3.3 Operation & Maintenance

PEECA

3.4 Concerned Federal Ministry

Ministry of Water & Power, Government of Pakistan (ENERCON)

4. PLAN PROVISION

Table 1 A) Plan Provision

Total Block Provision	Amount already Committed	Amount proposed for this project	Balance available
Rs. 1210 million	Nil	Rs 1205.15 million	Rs. 4.85 million

Table 1 B) Provision in the Current Year PSDP/ADP

ADP	Scheme No	Name of Scheme	Amount (PKR in Million)
FY 2015-16	3039	Punjab Energy Efficiency & Conservation Programme	1210

5. PROJECT OBJECTIVES AND ITS RELATION WITH SECTOR OBJECTIVES

The objective of the PEEC Program is to bridge the demand and supply gap through a two-pronged approach of Demand and Supply Management using the concepts of efficiency and conservation, and to open new vistas for electrifying far-flung off-grid villages. The program envisions to decrease the gap in supply and demand.

To achieve the aforementioned goal, detailed policies and regulations will be implemented to create an environment which is conducive for transformation of our society from an energy wasting to an energy efficient and conserving one. Simultaneously, to divert the market towards energy efficient solutions and to mitigate the existing inefficiencies in the system, market would be triggered through various energy efficiency and conservation initiatives by the GoPb that would concurrently address the legal/policy/regulatory/financial/market issues to pave way for the private sector to mature and finally take the lead.

A table summarizing the proposed project's relation with the sectoral objectives is as under

Table 2: Relation of Program Objectives with Sector Objectives

Sector Objectives	Potential Projects under the Program
<ul style="list-style-type: none"> ❖ Build a power generation capacity that can meet Pakistan's energy needs in a sustainable manner.¹ ❖ Promote <i>efficient use</i> of energy, which will be critical in reducing the stress on expansion of energy supplies and on the environment. This will be complemented by energy conservation and demand management measures.² ❖ Make <i>buildings more energy efficient</i>, especially for reduction of air-conditioning loads in summer. Solar heating will be promoted for winter use. ❖ Create a culture of energy conservation and responsibility ❖ Ensure the generation of inexpensive and affordable electricity for domestic, commercial, and industrial use by using indigenous resources such as coal (Thar coal) and hydel. ❖ Minimize inefficiencies in the distribution system³ ❖ Develop minimum ESCOs selection criteria for implementation of this programme and also develop Energy 	<ul style="list-style-type: none"> ❖ Policy formulation & regulation ❖ Creating awareness and promotion to create a culture of energy conservation ❖ Training and development of engineers in the domain of energy conservation and efficiency ❖ Monitoring and evaluation of the Energy efficiency programme. ❖ To promote energy audit culture in the province. ❖ To promote <ul style="list-style-type: none"> ○ Installation of standalone solar solutions for un-electrified schools in off-grid rural areas to not increase line losses in the current system. ○ Provision of small solar home solutions to light up an LED, small fan, and a mobile charger to people living in off-grid villages ○ Construction of a model zero-energy/energy efficient building ○ Retrofitting public buildings for energy efficiency ○ Replacing lights and fans with energy efficient electrical equipment ○ Making provincial level policies in light of framework of federal policy

¹ National Power Policy, 2013, Government of Pakistan, Pg. 4

² Pakistan in the 21st Century - Vision 2030, Planning Commission, Government of Pakistan, August 2007, Pg. 90

³ National Power Policy, 2013, Government of Pakistan, Pg. 4

<p>Conservation fund for the financial support of ESCOs</p> <ul style="list-style-type: none"> ❖ Develop performance contracting mechanism between the ESCOs and industrial units for working of the ESCOs in different sectors ❖ Define clear major & minor players of the programme along with the different industrial sectors ❖ Develop sustainable production centers within different industrial associations ❖ Development of curriculum for energy managers in different industries for Energy Conservations and Energy efficient measures in industry 	<p>for energy efficiency and conservation objectives and enforcing them</p> <ul style="list-style-type: none"> ○ Setting up micro-grids for on-grid and off-grid rural electrification to de-load the grid and to minimize long distances transmission line losses.
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6. DESCRIPTION & JUSTIFICATION OF THE PROJECT

6.1 Description of the project

To realize the objective stated in Project Objectives section, GoPb proposes to establish an Agency called Punjab Energy Efficiency and Conservation Agency (PEECA) that will enforce the policies/standards on provincial level to meet the objectives that are in synchrony with the Federal EE&C Objectives. The Agency will also manage the behavioral change & public awareness programs to facilitate the achievement of its objectives, and will host training programs for the masses and private sector personnel to create a culture of energy conservation. The agency will also carry out the study to indicate the major areas for promotion of EE&C. The execution of the aforementioned objectives of the agency will pave way for the implementation of the energy conservation and efficiency projects that are to be taken up by private sector ESCOs.

The detailed Work Break Structure for the PEEC Programme can be found in **Annexure I**.

Following are the projects that will be taken up by the Agency:

6.1.1 Initiatives/Projects under the Domain of the Agency (details in Annexure II)

6.1.1.1 Regulatory Initiatives for promotion of Energy Efficiency and Conservation (EE&C) in the Punjab Province

- ❖ Classification of 'Designated Customers' and enforcing the EE&C policies
- ❖ 'Standard and Labelling' of energy consuming appliances (SLA)
- ❖ Formulation and enforcement of 'Energy Conservation Building Code'

6.1.1.2 Behavioral Change & Public Awareness Programs

6.1.1.3 Development of a cadre of trained Energy Management Professional through training programs in collaboration with local and international Universities/Companies as well as the training of the masses

6.1.1.4 Registration and the Regulation of ESCOs,

6.1.1.5 Promotion of adaptation of Renewable Energy Technologies

6.1.1.6 Triggering the net metering and wheeling of electricity from Renewable energy technologies.

6.1.2 Few of the initiatives/facilities are present in the sector that are done either at the Federal-level (ENERCON) or the city-level (Lahore Development Authority) or in private capacity. Public Private Partnership Agency, a provincial institution, provides their services in EE&C but at a very small scale. In general, no large-scale directed public initiative to promote EE&C activities exists on the provincial level.

Following are the policy initiatives/facilities provided by ENERCON (Federal institution) in the concerned sector:

- ❖ Formulation of Strategic Policy Directives of Government of Pakistan
- ❖ Passing of Pakistan Energy Efficiency and Conservation Bill, 2013 and transforming it into Energy Efficiency and Conservation Act, 2013 to implement effectively EE&C programs and to create an enabling environment for the public to follow.
- ❖ Energy auditing and surveying facility at Industrial, Commercial, Agricultural and Domestic level.

LDA (City Level Institution) has proposed the building codes for EE&C, which are awaiting approval.

PPP (Public Private Partnership Agency) has provided LED re-lamping facility and has to date done one small project in specific areas in the city of Lahore.

We, by no means claim that our search is exhaustive and that these are all the facilities that exist in the sector.

6.2 Justification of establishment of the Initiative/project

Firstly, in light of the previous discussion, it is clear that no organized large-scale provincial level institution exists for EE&C policy formation, monitoring as well as for the execution of EE&C projects that are in line with the Federal EE&C vision. Furthermore, this program has a holistic approach to mitigate the energy crises as it takes into account both Demand and Supply side management, which to our knowledge has not been taken before.

Following are the quantitative & qualitative benefits/justifications for the project:

- ❖ In line with the vision and goals of the Pakistan Federal Government EE&C Program
- ❖ Aimed mitigation of energy demand and supply gap to maximum.
- ❖ 25-30% saving per MW for each saved MW in comparison with the cost of addition of 1 MW in the system
- ❖ Access to electricity in all un-electrified primary schools and some remote villages
- ❖ Reduced line losses due to decentralized power production
- ❖ Reduced load shedding locally

- ❖ Efficient energy management of the existing produced electricity using modern techniques of load shifting
- ❖ Federal Govt. Bill on energy efficiency enforcement

6.3 Technical Parameters

6.4 Governance Issues

Following are the potential governance issues that the program may face during its implementation and operational phase.

- ❖ Strict and quantifiable energy efficient building codes exist for very large structures only i.e. consumers having an electricity consumption of more than 100kWh etc.
- ❖ Currently, building codes for small structures are not quantifiable in terms of minimum level of energy efficiency which means that there is no reference points for ensuring that the buildings meet the energy efficiency criteria

The strategies for the resolution of the abovementioned governance issues are proposed sequentially as under:

- ❖ Being proactive in the formulation of policies and regulations in Net-metering Rules draft and recommend necessary changes to cater for the requirements of projects under PEEC Program.
- ❖ Developing energy efficient building codes for small buildings in association with the relevant authorities.
- ❖ Assisting cities and town development authorities in making the building codes quantifiable and ensuring the enforcement of rules and regulations.
- ❖ Make necessary amendments in the legal and regulatory framework to cater for the functioning of independent micro-grids.
- ❖ Hiring foreign experts for the domains, the expertise of which are not available in Pakistan and associating company employees with them for knowledge transfer and local capacity building.

7. CAPITAL COST ESTIMATES

7.1 Date of estimation

June, 2015

7.2 Basis for Determining the Budget:

The cumulative budget required for the establishment of PEEC Agency and its programme for three years is summarized, year-wise, in the Table [3]:

7.3 Year wise Estimation of the Budget [Million PKR]

	Year 1	Year 2	Year 3	Total
Designated Consumers	37	11.5	11.5	60
Standard and Labeling	65	167.5	127.5	360
Energy Conservation Building Code	12	28.5	9.5	50
Media Campaign Print	63	49	39	151
Media Campaign Outdoor	40	40	40	120
Training and Workshops	21.1	21.3	21.6	64
Total	238.1	317.8	249.1	805
Contingency @ 3%	7.143	9.534	7.473	24.15
Grand Total	245.243	327.334	256.573	829.15
O & M Cost	118	133	125	376
Project Cost	363.243	460.334	381.573	1205.15

Table 3: Year-wise estimation of the Budget for PEEC Agency

8. ANNUAL OPERATION AND MAINTENANCE COST [MILLION PKR]

Table 4: Annual Operational Costs of the Program (all costs are in Million PKR)

	Year 1	Year 2	Year 3	Total
PEEC Agency	118	133	125	376

9. DEMAND AND SUPPLY ANALYSIS

9.1 Existing Capacity of Services

Currently, similar services are being provided by ENERCON, which is a National level authority. But to translate the ENERCON's ambitions, both in terms of implementation of efficiency and conservation projects, and for formulation and enforcement of policies/regulations on the provincial level, no substrate exists which can catalyze and trickle down the effect from Federal level to Provincial level. Punjab Energy Efficiency & Conservation Program aims to bridge this gap between Federal and Provincial level and to carry out both demand and supply side management in terms of execution of projects and formulation of policies in light of the Federal objectives.

9.2 Projected Demand for Ten Years

It is anticipated that the demand for electricity would increase to about 39,870MW by 2025.⁴

9.3 Capacity of the Projects being implemented in Public & Private Sector

Many projects are being taken up to supply energy to the National grid in both public and private sector and the supply side of energy is improving bit by bit. However, it is of utmost

⁴ State of the Industry Report, 2013

concern that no initiative has been taken at the provincial level to cater for the demand side management through application of efficiency and conservation. Almost all of the projects aim at increasing the supply to meet the demand. The best approach to cater for the increasing energy needs at the moment should be, as mentioned earlier, a two-pronged approach i.e. not only focusing on the supply side or the demand side management but rather on both.

9.4 Supply-Demand Gap

With every passing year, the supply-demand gap of energy is increasing. A quick snapshot of the foreseeable federal energy demand and supply up until 2025 is as follows:

The current installed capacity of power plants in Pakistan stands at 22,812MW⁵. The installed capacity of power plants is increasing at an average rate of 3.31% per year, while the demand at the moment is 24,936MW⁶ with an average rate of increase of 3.99% (fig. 1). At the current rate, the supply-demand gap of electricity can be forecasted as shown in figure [2].

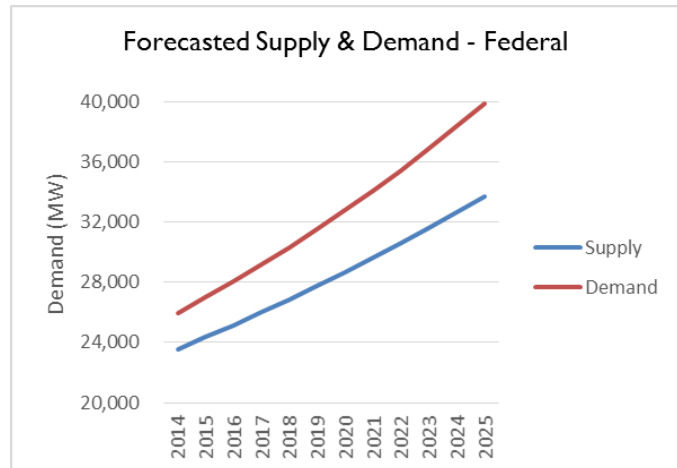


Figure 1: Projected federal demand and supply for next 10 years

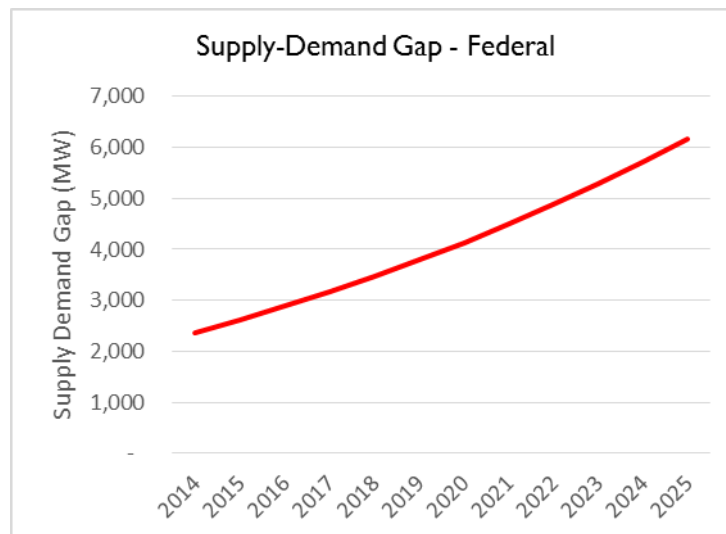


Figure 2: Federal project demand and supply gap for next 10 years

According to the website of Energy Department of Punjab, Punjab consumes 62-68% of the total electricity produced at the national level. Therefore, it is assumed that the demand-supply gap of Punjab varies in the same proportion with the national demand-supply gap as shown in fig. [3].

⁵ Energy Yearbook 2013, Ministry of Petroleum

⁶ State of the Industry Report, 2013

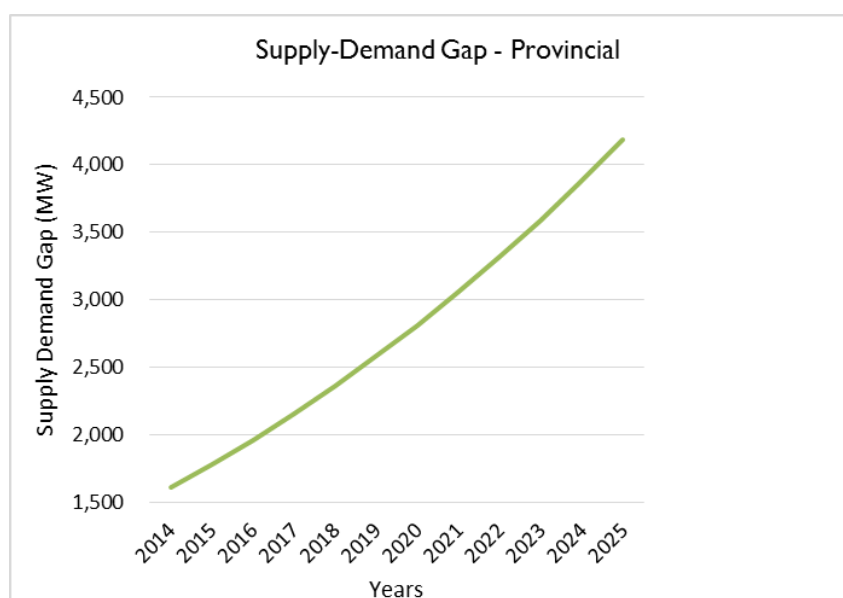


Figure 3: Projected provincial demand-supply for next 10 years with assumption that Punjab's shortfall is 68% of the national shortfall

10. FINANCIAL PLAN AND MODE OF FINANCING

Table 5:

Year	2015-2016	2016-2017	2017-2018	Total
Million PKR	363.243	460.334	381.573	1205.15

11. PROJECT BENEFITS AND ANALYSIS

11.1 Financial Benefits [Million PKR]

The benefits of the proposed initiative studies to be taken over by the PEEC Agency are not quantifiable in real sense at this stage due to non-availability of data. Consequently, their financial benefits cannot be accounted for. However the Agency will qualify its benefits during the execution of program.

11.2 Social Benefits

- ❖ The social benefits of the overall program include but are not limited to:
- ❖ 50% saving per MW for each saved MW in comparison with the cost of the installation of 1 MW, that is paid by the tax-payers' money
- ❖ Access to electricity in remote villages
- ❖ Electricity access to schools in rural areas, thus increasing the enrolment and the literacy rate in those areas

- ❖ Electricity access to off-grid villages for household usage, for pumping for irrigation, and for cold storage for milk etc.
- ❖ More availability of electricity and reduced load shedding
- ❖ Awareness about energy conservation potential through workshops and trainings
- ❖ Informed purchasing decision through standard and labelling
- ❖ Prevalence of energy conservation culture
- ❖ Industrial Growth
- ❖ Indigenous Bio-waste management through usage for power production in Bio-gas plants
- ❖ Improvement in the irrigation system of Pakistan through drip irrigation or sprinkling
- ❖ Availability of electricity for the operations of emergency equipment in Basic Health Units (BHUs) throughout day and night
- ❖ Reduction in the electricity bills of the consumers
- ❖ Generation of employment for the public

11.3 Environmental Benefits

The potential environmental benefits of the program are as follows:

- ❖ Reduction in the amount of carbon dioxide in the environment through both energy conservation and installation of clean energy projects
- ❖ Reduction in the overall entropy of the system by using LED lights, efficient pumps, and other machinery industrial, commercial, agricultural, domestic

11.4 Project Analysis

11.4.1 Quantifiable Output of the Project

As mentioned in table [5] in the demand and supply analysis above, the quantifiable output of the project is over 16MW which corresponds only to the projects that will be executed using the Government Seed-money. The cumulative target for the three years is 350 MW⁷, which will include projects done both through Seed-money and the company's matured revolving fund in due time.

11.4.2 Employment Generation

The program would generate direct employments through the creation of PEEC Agency, and indirect employment through hiring of daily wagedworkers, electricians, individual consultants, engineers for demand-side efficiency projects and hiring of complete staff in the case of supply side energy efficiency projects. Indirectly, the triggering of EE&C market would generate ample employment and business opportunities in the private market.

11.4.3 Impact of Delay on Project Cost and Viability

A delay in the project would not affect the cost for the most part or its viability, for energy conservation would always be a potential benefit and there would always be a need to conserve energy and use it effectively. However, the policies of the government may vary and the objectives of different governments may be different. Therefore, a delay might mean that the required policies/regulations are not formulated in the planned time which might cause some of the EE&C projects to go on the back-burner.

⁷ GIZ report-Development of EE standard & labeling program

12. IMPLEMENTATION OF THE PROJECT

12.1 Starting and Completion Date of Project

Starting Date: November, 2015

Completion Date: 30-June-2018 or up to expiry of 36 Months from the approval of the Project.

12.2 Item-wise / Year-wise Implementation Schedule in line chart correlated with the phasing of physical activities

Table 5: Year-wise Implementation Schedule

ACTIVITY	2015-16				2016-17				2017-18			
	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4
Approval of PEECP by Government of Punjab												
PEEC Agency												
Notification of PEECA Steering Committee												
Appointment of MD												
Appointment & training of Other Staff												
Media Campaign												
Collaboration with Federal Government												
Implementation of Policies, Designated Consumers etc												
Interventions for Improvements in Regulatory Framework												
Development of Curriculum for General Training												
Training of Stakeholders and Masses												
Monitoring & Evaluation												
Monitoring & Evaluation of Policy Implementations												
Registration And training of ESCOs												
Monitoring & Evaluation of Projects taken up by ESCOs												
Third Party Audits by International Organizations												
Promotion of RE Technologies												
Net Metering etc												

13.1 Administrative Arrangements for Implementation

13.1.1 Punjab Energy Efficiency & Conservation (PEEC) Agency

The PEECA would be the regulatory arm of the PEEC Programme. PEECA initially under the supervision of PSC will formulate legal & regulatory framework in two years, approve it from the concerned quarters and will convert into Punjab Energy Regulatory Authority (PERA). The PSC will then convert into PEEC Board.

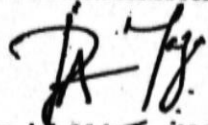
13.1.1.1 Functions of PEEC Agency:

- ❖ Policy & Regulations formulation and the enforcement of the regulations in the Punjab province for conservation of energy in the light of the ENERCON's Vision and policies
- ❖ Collaborate with the Federal Government to develop both regulatory and policy framework to enable conservation of precious energy by cutting down on line losses and other creative solutions. In addition to that, take necessary steps for the inclusion of net metering in the existing policy/legal framework regarding energy purchase and distribution.
- ❖ Develop and enforce creative metering solutions to conserve energy by mitigating theft, which is otherwise lost and takes its toll on national economy in the form of subsidy provided by the government.
- ❖ Specification and categorization of consumers in terms of their efficient use of energy
- ❖ Synchronize efforts with ENERCON to standardize and label the energy efficient electrical equipment being produced and imported in Punjab
- ❖ Impose regulations on the market to keep the inefficient electrical equipment off the market
- ❖ Inter-agency co-ordination for the effective formulation and implementation of the regulations to help conserve energy e.g. Energy Conservation Building Codes
- ❖ Build in-house capacity through training programs in regulations and policy development as well as in assessing the efficiency of the electrical equipment
- ❖ Running promotional campaigns to increase awareness about the potential of saving energy through energy conservation
- ❖ Institute provincial energy conservation/efficiency and management awards for various categories of energy consumers for the promotion and encouragement of energy conservation.
- ❖ Introducing and developing energy performance ratings considering the level of energy efficiency of buildings and projects, starting from one star for the least energy efficient building/project to five stars for buildings/projects that are self-sustainable and do not need electricity from the grid and conducting energy performance audits.

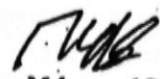
CERTIFICATE

Certified that the Project Proposal has been prepared on the basis of instructions provided by the Planning Commission for the preparation of PC-I for Infrastructure Sector Projects:


Prepared By:


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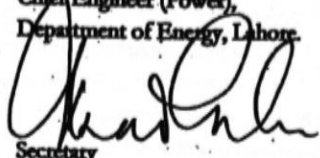
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Recommended By:


Mr. Ifkhar Ahmad Randhawa
Chief Engineer (Power)
Department of Energy, Lahore.

Approved By


Secretary
Energy Department Punjab

I. WORK BREAKDOWN STRUCTURE

Given the importance of EE&C for the economy of the Punjab, a sustaining organization is required to ensure that benefits are perpetuated beyond the life of the PEECP. At present EE&C functions are under the mandate of the Energy Department, Government of the Punjab. The PEECP envisages 3 key strategies viz. policy/regulation, financial and project implementation; requiring different types of organizational structures. Given the varied nature of activities to be undertaken for each strategy, it is proposed to create a Agency titled as Punjab Energy Efficiency and Conservation Agency to be governed by Program Steering Committee (PSC). This PSC under the chairpersonship of Additional Chief Secretary (Energy), Energy Department with due representation of all stakeholders both from public & private sectors would be constituted. This PSC would act as an Apex over-arching body, which would perform the functions detailed below:-

1. Policy formulation in the province for conservation of energy in the line with federal government;
2. Implementation of guidelines of Federal Government for conservation of energy;
3. Implementation of direction of Federal government for conservation of energy;
4. Planning, budgeting for various studies/consultancies as well as for sub-projects;
5. Clearance of the development projects / sub-projects for implementation and approval by the competent forum i.e. DDSC/PDWP. The PSC would ensure the preparation and implementation of the projects in strict conformity with the approval of DDSC/PDWP;
6. Progress review of various components of the program and provide the guidance for improving implementation;
7. Clearance of TORs and procurement contracts of various consultancies and studies by the PEEC Agency;
8. Inter-agency co-ordination
9. The PSC may, either itself or upon the request of any person or organization, direct PEEC Agency or any Provincial Agency or any Government body to prepare, submit, promote or implement projects for energy conservation in a specific sector of economy.
10. The PSC may establish any suitable structure or mechanism for enforcement of PEECP including energy efficiency standards, labeling, incentives, fines and other related requirements under this Program with effect from the date to be determined by the PSC.
11. The PSC may approve appropriate strengthening, restructuring, capacity building, terms and conditions of employees, and compensation or protection of service benefits for PEEC Agency and its employees, to effectively carry out the functions under the provisions of this Program.

2. COMPOSITION OF PROGRAMME STEERING COMMITTEE (PSC)

1	Additional Chief Secretary (Energy), Energy Department	Convener
2	Representative from P&D Department	Member
3	Secretary, Local Government & Community Development	Member
4	Secretary School Education	Member
5	Secretary, Agriculture	Member
6	Secretary Health Department	Member
7	Secretary Housing Department	Member
8	Secretary, Industries	Member
9	Director General, Lahore Development Authority	Member
10	Representative of Private Sector/ Chamber of Commerce & Industry	Member
11	Representative of Academia like UET	Member
12	Representative of Federal Government / ENERCON	Member
13	Any Coopt member	Member
14	MD PEECA, Energy Department	Member/ Secretary

Note 1: A Agency titled as Punjab Energy Efficiency and Conservation Agency will be developed in the Energy department headed by a Managing Director. Managing Director will be hired from market as per terms, qualification and experience being a professional engineer of known integrity. All the functions of this Agency will be subject to the approval of the Program Steering Committee (PSC). This Program Steering Committee (PSC) will be authorized to hire / appoint the officers, experts, advisors, consultants and members of staff of the Agency as it may consider necessary for the efficient performance of its functions on such terms and conditions as may be approved by it. The members, officers, advisors, consultants, employees and staff of the Agency , when acting or purporting to act under any of the provisions of the Act, rules or regulations, shall be deemed to be public servants within the meaning of section 21 of the Pakistan Penal Code 1860 (XLV of 1860).

Functions of the PEEC Agency

1. Be custodian of Punjab policy for energy conservation and ensure proper utilization, planning and management of energy in all sectors of national economy;
2. Coordinate, supervise and carry out enforcement of the provisions of this Program;
3. Create awareness and disseminate information related to efficient use of energy resources in the province;
4. Coordinate integration and inculcation of energy conservation concerns in accordance with the national development plans and policies;
5. Approve energy efficiency standards and ensure their enforcement and compliance;

6. Direct the PECC in the conduct of research and development, and preparation and execution of demonstration projects and national programs on energy conservation;
7. Recommend to the Federal Government the adoption of measures directly or indirectly conducive to energy conservation;
8. Promote investment by the public and private sectors in energy conservation through partnership or otherwise;
9. Encourage and facilitate import and local manufacturing Program for indigenous technologies for the promotion of energy conservation through all legal and policy support; and
10. Institute national energy conservation/efficiency and management awards for various categories of energy consumers for the promotion and encouragement of energy conservation.

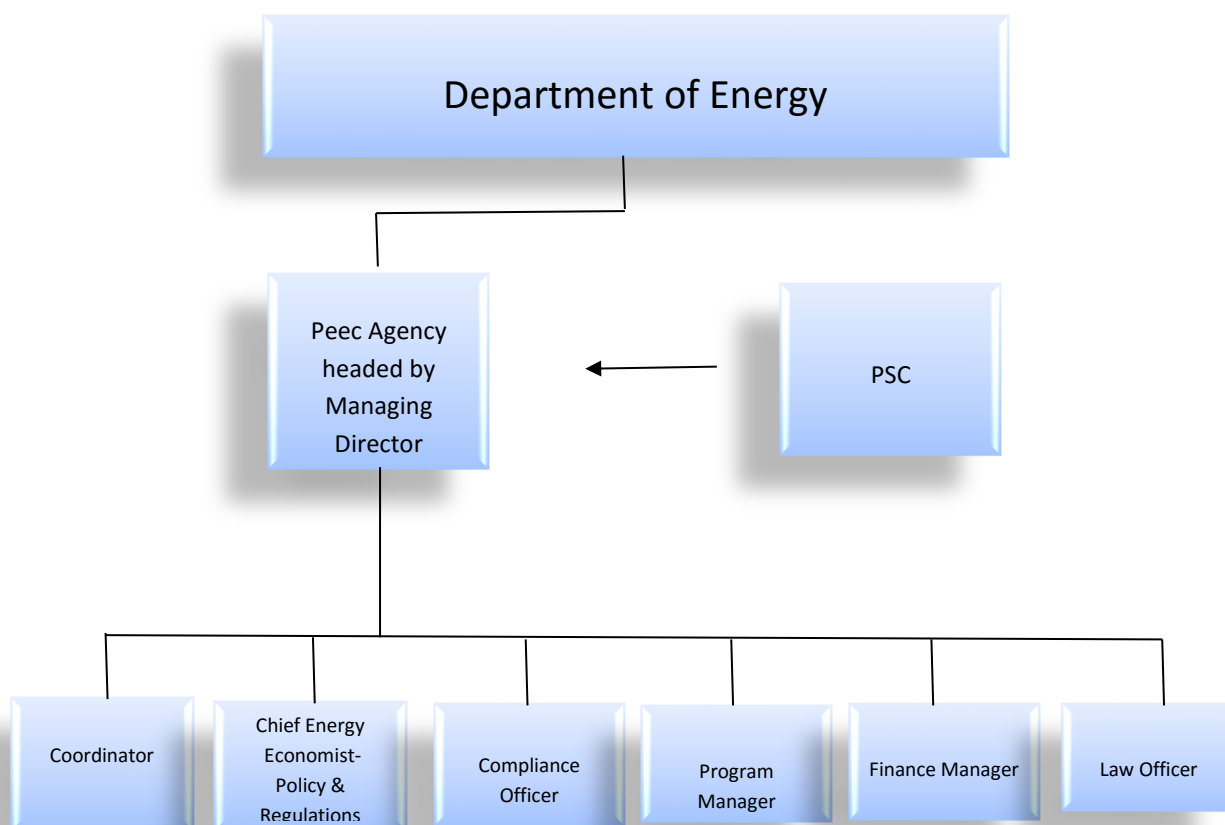
Note 2: A Technical Committee under Managing Director PEEC Agency would be created for analyzing, appraising the technical matters, projects, issues of the program prior to consideration by the PSC. Its composition would be decided in due course of time.

Note 3: Similarly, a 'Co-ordination Committee' would be instituted under Secretary Energy Department for co-ordination amongst federal government, provincial government, public sector and private sector at working level. Its composition would be decided in due course of time.

I.I Manpower Requirements

The regulatory function would be carried out by the PSC through PEEC Agency by recruiting high technical staff or through the consultants to be hired from open market.

ORGANOGRAM



I.2 ELIGIBILITY CRITERIA FOR HIRING OF STAFF OF PEEC AGENCY

SR No	Position	Number	Roles/Responsibility	Qualification & experience
1	Managing Director	One (1)	Overall responsibility	Graduate (Engineering/Science/Energy Economy/Public Administration) Higher qualification will be preferred. 25-30 years in Public Policy or Energy /Environmental Consulting preferable. Experience related to implementation of energy efficiency and conservation programs will be preferred

SR No	Position	Number	Roles/Responsibility	Qualification & experience
2	Coordinator	One (1)	Policy research, development & deployment Board liaison Government liaison Administration & HR Finance & accounts Legal & statutory Program evaluation	Post Graduate (Law/Humanities/Public policy/Engineering) 7-8 years in Public policy/Corporate Governance/Program administration with Multi/Bilateral agencies Experience related to implementation of energy sector programs will be preferred Experience of Power Sector in Pakistan.
3	Chief Energy Economist-Policy & Regulation	One (1)	Review of policies and policy directive from Federal and Provincial Government Preparation of notification documents for approval of the PROGRAM STEERING COMMITTEE (PSC) and issue of notification by Energy Department	Post graduates in Economics/Public policy 5-7 years' experience in the field of public policy/program management for Multilateral/Bilateral Agencies and regulations. Experience of power sector in Pakistan

SR No	Position	Number	Roles/Responsibility	Qualification & experience
4	Compliance officer	One(1)	Corporate governance function for Energy Conservation fund Policy compliance related activities	A Law Graduate and a Chartered Accountant with experience in Compliance function in Government departments
5	Program Managers	As per need	Development and specific programs Preparation of budget Management of approval process for project implementation Training Management information system respective areas	Graduate engineer or Science Graduate with post graduate qualification on energy/environment 5 years consulting/program management experience in the relevant areas.
6	Law officer	One (1)	Legal / Policy Formulations	Post graduate in law having at least 7 years' experience in power sector. Familiar with the power sector setup policies, rules and regulations.
7	Experts and Implementers	As per need	To be developed by the PROGRAM STEERING COMMITTEE (PSC)	To be developed by the PROGRAM STEERING COMMITTEE (PSC)
8	HR manager	One (1)	Entire HR management of the Agency	Master in HR management with 10 years relevant experience. Familiar with public sector laws, rules policies and regulations. Familiar with hiring of the staff.

SR No	Position	Number	Roles/Responsibility	Qualification & experience
9	Finance Manager	One (1)	Financial matters	MBA Finance/ICMA from recognized university. 10 years of experience of which at least 3 years in power sector on managerial position in the relevant field.
9	Support staff/trainees	As per need	Technical as well as office assistance	To be developed by the PEEC Agency

Cost of the Agency is envisaged (Detail as Annexed I-A,I-B & I-C) as under:

Items	Year 1	Year 2	Year 3	Total
PEEC Agency Cost	118	133	125	376

SCHEDULE OF NEW EXPENDITURE (SNE)
FOR CREATION OF PUNJAB ENERGY EFFICIENCY AND CONSERVATION AGENCY
IN ENERGY DEPARTMENT FOR THE
YEAR 2015-16 UNDER GRANT NO. PC-21008 (008) OTHER TAXES & DUTIES.

01--GENERAL PUBLIC SERVICE		011--EXECUTIVE & LEGISLATIVE, FINANCIAL.				
0112--FINANCIAL AND FISCAL AFFAIRS		5982011205--TAX MANAGEMENT				
LQ-5320 CHARGES UNDER ELECTRICITY ACT						
NAME OF POST	BS	NO. OF POSTS	Rate PM	NON RECURRING	RECURRING	TOTAL
1	3	2		4	5	6
A011-1-PAY OF OFFICERS						
Managing Director	LS	1	450000		5,400,000	5,400,000
Chief Energy Economist Policy & Regulations	LS	1	350000		4,200,000	4,200,000
Manager	LS	1	350000		4,200,000	4,200,000
Law Officer	LS	1	350000		4,200,000	4,200,000
Finance Manager	LS	1	350000		4,200,000	4,200,000
A011-1-TOTAL PAY OF OFFICERS		5	1850000		22,200,000	22,200,000
A01151- PAY OF OTHER STAFF						
Superintendent	LS	1	50000		600000	600,000
Stenographer	LS	5	50000		3000000	3,000,000
Computer Operators	LS	3	40000		1440000	1,440,000
Junior Clerk	LS	5	30000		1800000	1,800,000
Drivers	LS	5	25000		1500000	1,500,000
Dak Runner	LS	2	25000		600000	600,000
Naib Qasid	LS	7	20000		1680000	1680000
Chowkidar	LS	2	20000		480000	480000
Sweeper	LS	2	20000		480000	480000
A01151- TOTAL PAY OF OTHER STAFF					11,580,000	11,580,000
A01100-TOTAL PAY					33,780,000	33,780,000
00000-TOTAL ESTABLISHMENT CHARGES					33,780,000	33,780,000
A03-OPERATING EXPENSES.						
A032-COMMUNICATIONS						
A03201-Postage & Telegraph.					500,000	500,000
A03202-T telephone & Trunck Calls (International)					2,000,000	2,000,000
A032-TOTAL COMMUNICATIONS					2,500,000	2,500,000
A033-UTILITIES						
A03301-Gas Charges					50,000	50,000
A03303-Electricity Charges					250,000	250,000
A03304-Hot & Cold Weather Charges					25,000	25,000
A033-TOTAL UTILITIES					325,000	325,000
A034-OCCUPANCY COSTS.						
A03402-Rent of Office Building.					13,500,000	13,500,000

A03407-Rates and Taxes.			2,500,000	2,500,000
A034- TOTAL OCCUPANCY COSTS.			16,000,000	16,000,000
A038-TRAVEL & TRANSPORTATION.				
A03805-T.A to Govt. Servants.			15,000,000	15,000,000
A03807-P.O.L. Charges.			7,500,000	7,500,000
A038-TOTAL TRAVEL & TRANSPORTATION.			22,500,000	22,500,000
A039-GENERAL.				
A03901-Stationery.			5,000,000	5,000,000
A03902-Printing & Publications.			5,000,000	5,000,000
A03905-Newspapers & Periodical Books.			100,000	100,000
A03907-Publicity & Advertisment.			2,000,000	2,000,000
A03933-Services Charges			10,000,000	10,000,000
A03942-Cost of Other Stores.			2,000,000	2,000,000
A03970-Others.			2,000,000	2,000,000
A039- TOTAL GENERAL.			26,100,000	26,100,000
A03-TOTAL OPERATING EXPENSES.			67,425,000	67,425,000
A09-PURCHASE				
A09501-Purchase of Vehicles		9,140,000	-	9,140,000
A09601-Purchase of Machinery & Equipments		2,445,000	-	2,445,000
A09701-Purchase of Furniture & Fixture.		3,000,000	-	3,000,000
TOTAL OF PURCHASE		14,585,000	-	14,585,000
A013-REPAIR & MAINTENANCE OF D/GOODS				
A013001-Transportation.			500,000	500,000
A013101-Machinery & Equipment.			500,000	500,000
A013201-Furniture & Fixture			500,000	500,000
A013-TOTAL R & M OF D/GOODS		-	1,500,000	1,500,000
TOTAL CHARGES UNDER ELECTRICITY ACT		14,585,000	102,705,000	117,290,000
			Say Rs. 118.000 Million	

**SCHEDULE OF NEW EXPENDITURE (SNE)
FOR CONTINUATION OF PUNJAB ENERGY EFFICIENCY AND CONSERVATION
AGENCY IN ENERGY DEPARTMENT FOR THE
YEAR 2016-17 UNDER GRANT NO. PC-21008 (008) OTHER TAXES & DUTIES.**

01--GENERAL PUBLIC SERVICE		011--EXECUTIVE & LEGISLATIVE, FINANCIAL.				
0112--FINANCIAL AND FISCAL AFFAIRS		5982011205--TAX MANAGEMENT				
LQ-5320 CHARGES UNDER ELECTRICITY ACT						
NAME OF POST	BS	NO. OF POS TS	Rate PM	NON RECURRING	RECURRING	TOTAL
1	3	2		4	5	6
A011-1-PAY OF OFFICERS						
Managing Director	LS	1	450000		5,400,000	5,400,000
Chief Energy Economist Policy & Regulations	LS	1	350000		4,200,000	4,200,000
Coordinator	LS	1	350000		4,200,000	4,200,000
HR Manager	LS	1	350000		4,200,000	4,200,000
Compliance Officer	LS	1	350000		4,200,000	4,200,000
Program Manager	LS	1	350000		4,200,000	4,200,000
Law Officer	LS	1	350000		4,200,000	4,200,000
Finance Manager	LS	1	350000		4,200,000	4,200,000
A011-1-TOTAL PAY OF OFFICERS		8	2900000		34,800,000	34,800,000
A01151- PAY OF OTHER STAFF						
Superintendent	LS	1	50000		600000	600,000
Stenographer	LS	8	50000		4800000	4,800,000
Computer Operators	LS	8	40000		3840000	3,840,000
Junior Clerk	LS	5	30000		1800000	1,800,000
Drivers	LS	8	25000		2400000	2,400,000
Dak Runner	LS	5	25000		1500000	1,500,000
Naib Qasid	LS	10	20000		2400000	2400000
Chowkidar	LS	2	20000		480000	480000
Sweeper	LS	2	20000		480000	480000
A01151- TOTAL PAY OF OTHER STAFF					18,300,000	18,300,000
A01100-TOTAL PAY					53,100,000	53,100,000
00000-TOTAL ESTABLISHMENT CHARGES					53,100,000	53,100,000
A03-OPERATING EXPENSES.						
A032-COMMUNICATIONS						
A03201-Postage & Telegraph.					500,000	500,000
A03202-T elephone & T runck Calls (International)					2,000,000	2,000,000
A032-TOTAL COMMUNICATIONS					2,500,000	2,500,000

A033-UTILITIES				
A03301-Gas Charges			50,000	50,000
A03303-Electricity Charges			250,000	250,000
A03304-Hot & Cold Weather Charges			25,000	25,000
A033-TOTAL UTILITIES			325,000	325,000
A034-OCCUPANCY COSTS.				
A03402-Rent of Office Building.			13,500,000	13,500,000
A03407-Rates and Taxes.			2,500,000	2,500,000
A034- TOTAL OCCUPANCY COSTS.			16,000,000	16,000,000
A038-TRAVEL & TRANSPORTATION.				
A03805-T .A to Govt. Servants.			15,000,000	15,000,000
A03807-P.O.L. Charges.			7,500,000	7,500,000
A038-TOTAL TRAVEL & TRANSPORTATION.			22,500,000	22,500,000
A039-GENERAL.				
A03901-Stationery.			5,000,000	5,000,000
A03902-Printing & Publications.			5,000,000	5,000,000
A03905-Newspapers & Periodical Books.			100,000	100,000
A03907-Publicity & Advertismet.			2,000,000	2,000,000
A03933-Services Charges			10,000,000	10,000,000
A03942-Cost of Other Stores.			2,000,000	2,000,000
A03970-Others.			2,000,000	2,000,000
A039- TOTAL GENERAL.			26,100,000	26,100,000
A03-TOTAL OPERATING EXPENSES.			67,425,000	67,425,000
A09-PURCHASE				
A09501-Purchase of Vehicles		5,400,000	-	5,400,000
A09601-Purchase of Machinery & Equipments		1,557,000	-	1,557,000
A09701-Purchase of Furniture & Fixture.		1,000,000	-	1,000,000
TOTAL OF PURCHASE		7,957,000	-	7,957,000
A013-REPAIR & MAINTENANCE OF D/GOODS				
A013001-T ransportation.			2,500,000	2,500,000
A013101-Machinery & Equipment.			500,000	500,000
A013201-Furniture & Fixture			1,000,000	1,000,000
A013-TOTAL R & M OF D/GOODS		-	4,000,000	4,000,000
TOTAL CHARGES UNDER ELECTRICITY ACT		7,957,000	124,525,000	132,482,000
			Say Rs. 133.000 Million	

SCHEDULE OF NEW EXPENDITURE (SNE)
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AGENCY IN ENERGY DEPARTMENT FOR THE
YEAR 2017-18 UNDER GRANT NO. PC-21008 (008) OTHER TAXES & DUTIES.

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0112--FINANCIAL AND FISCAL AFFAIRS		5982011205--TAX MANAGEMENT				
LQ-5320 CHARGES UNDER ELECTRICITY ACT						
NAME OF POST	BS	NO. OF POSTS	Rate PM	NON RECURRING	RECURRING	TOTAL
1	3	2		4	5	6
A011-1-PAY OF OFFICERS						
Managing Director	LS	1	450000		5,400,000	5,400,000
Chief Energy Economist Policy & Regulations	LS	1	350000		4,200,000	4,200,000
Coordinator	LS	1	350000		4,200,000	4,200,000
HR Manager	LS	1	350000		4,200,000	4,200,000
Compliance Officer	LS	1	350000		4,200,000	4,200,000
Program Manager	LS	1	350000		4,200,000	4,200,000
Law Officer	LS	1	350000		4,200,000	4,200,000
Finance Manager	LS	1	350000		4,200,000	4,200,000
A011-1-TOTAL PAY OF OFFICERS		8	2900000		34,800,000	34,800,000
A01151- PAY OF OTHER STAFF						
Superintendent	LS	1	50000		600000	600,000
Stenographer	LS	8	50000		4800000	4,800,000
Computer Operators	LS	8	40000		3840000	3,840,000
Junior Clerk	LS	5	30000		1800000	1,800,000
Drivers	LS	8	25000		2400000	2,400,000
Dak Runner	LS	5	25000		1500000	1,500,000
Naib Qasid	LS	10	20000		2400000	2400000
Chowkidar	LS	2	20000		480000	480000
Sweeper	LS	2	20000		480000	480000
A01151- TOTAL PAY OF OTHER STAFF					18,300,000	18,300,000
A01100-TOTAL PAY					53,100,000	53,100,000
00000-TOTAL ESTABLISHMENT CHARGES					53,100,000	53,100,000
A03-OPERATING EXPENSES.						
A032-COMMUNICATIONS						
A03201-Postage & Telegraph.					500,000	500,000
A03202-Telephone & Trunck Calls (International)					2,000,000	2,000,000
A032-TOTAL COMMUNICATIONS					2,500,000	2,500,000
A033-UTILITIES						
A03301-Gas Charges					50,000	50,000
A03303-Electricity Charges					250,000	250,000
A03304-Hot & Cold Weather Charges					25,000	25,000

A033-TOTAL UTILITIES			325,000	325,000
A034-OCCUPANCY COSTS.				
A03402-Rent of Office Building.			13,500,000	13,500,000
A03407-Rates and Taxes.			2,500,000	2,500,000
A034- TOTAL OCCUPANCY COSTS.			16,000,000	16,000,000
A038-TRAVEL & TRANSPORTATION.				
A03805-T.A to Govt. Servants.			15,000,000	15,000,000
A03807-P.O.L. Charges.			7,500,000	7,500,000
A038-TOTAL TRAVEL & TRANSPORTATION.			22,500,000	22,500,000
A039-GENERAL.				
A03901-Stationery.			5,000,000	5,000,000
A03902-Printing & Publications.			5,000,000	5,000,000
A03905-Newspapers & Periodical Books.			100,000	100,000
A03907-Publicity & Advertisement.			2,000,000	2,000,000
A03933-Services Charges			10,000,000	10,000,000
A03942-Cost of Other Stores.			2,000,000	2,000,000
A03970-Others.			2,000,000	2,000,000
A039- TOTAL GENERAL.			26,100,000	26,100,000
A03-TOTAL OPERATING EXPENSES.			67,425,000	67,425,000
A09-PURCHASE				
A09501-Purchase of Vehicles			-	-
A09601-Purchase of Machinery & Equipments			-	-
A09701-Purchase of Furniture & Fixture.			-	-
TOTAL OF PURCHASE			-	-
A013-REPAIR & MAINTENANCE OF D/GOODS				
A013001-Transportation.			2,500,000	2,500,000
A013101-Machinery & Equipment.			500,000	500,000
A013201-Furniture & Fixture			1,000,000	1,000,000
A013-TOTAL R & M OF D/GOODS		-	4,000,000	4,000,000
TOTAL CHARGES UNDER ELECTRICITY ACT		-	124,525,000	124,525,000
			Say Rs. 125.000 Million	

Policy Initiatives for Promotion of EE&C in Punjab

I. A. Policy Initiatives for Promotion of EE&C in Punjab

Policy plays a very important role in deriving targeted economic and social benefits particularly in a non-performing market. It has been established how despite early initiatives, it has not been possible to develop a market for EE&C products and services in Pakistan. Global experience indicates that the policies need to be introduced in a gradual manner for moving the energy efficiency market obtaining wider consumer acceptance. 3 key areas (Designated Consumers, Appliance Standards and Energy Conservation Building Codes) have been identified for policy development under the PEECP; keeping in view both the anticipated roles for the provincial government for enactment of the provisions of the proposed Federal Act on Energy Conservation and the relevance to the project objective.

Project # A-I: Designated Consumers

Current Situation

The proposed federal Act envisages specifying any user or class of users of energy as a designated consumer having regards to the intensity or quantity of energy consumed and the capacity of the industry/commercial/ public facility to invest in energy efficiency/renewable energy technologies for reducing the energy intensity of its operations. An initial study has been done at the federal level for designating energy intensive industries and consumers. Punjab has a large number of energy intensive industries which can be targeted for mandating reduction in energy consumption by conforming to national and international energy consumption norms. There is no requirement at present for large consumers to report on the energy consumption.

Objective

To identify and notify designated consumers who would be mandated to perform EE&C related tasks as per policy

Key Components

- Identifying and preparing draft notification of designated consumers;
- Establishing & prescribing norms for specific energy consumption (SEC);
- Prepare a plan for SEC reduction by DCs;
- Providing support to DCs for formulating and implementing sectoral initiatives through stakeholder forums
- Empanelment of energy auditors / energy service providers for helping DCs comply with requirements of policy

Institutional Process for Roll Out

Components will be led by the PEECB's secretariat for preparing draft policy documents which for review and approval by the Energy Department.

Timeline and Budget

This is a 3 year activity, with an estimated budget of Rs60 million to cover services from consultants and Capacity building activities.

Table 6 Budget : A1-1 Designated Consumers (Rs. In Million)

Sl No	Item Head	2015-16	2016-17	2017-18	Total
1	Services	37.0	11.5	11.5	60

Monitoring and Evaluation

Monitoring would remain focussed on quality of program management manifested by timely achievement of various milestones to be frozen within a month of approval of the PEECP. In the longer term, evaluation would shift towards assessment of quantitative performance parameters (energy saved). The M&E protocol has to be provided as part of the policy document developed.

Project # A-2: Appliance Standards and Labelling

Current Situation

'Minimum Energy Performance (MEP)' standards for AC fans, CFL, Electronic ballasts, Magnetic ballasts, AC induction motors (0.5-7.5 HP) and window and split air-conditioners as well as procedures for grant and monitoring of labels have been developed. The requirement of manufacturers to comply with the MEPS is voluntary.

Objective

To identify and notify policy for incentivizing manufacturers to adopt MEPS for priority energy consuming equipments.

Key Components

- Situational analysis for prioritization of appliances to be covered
- Formulate an expert group of for preparing a road map for voluntary adoption of MEPS for the highest priority appliances (___ appliances)
- Develop system and processes for implementation of S&L programme

- Design and organize awareness programs and promotional events

Institutional Process for Roll Out

Components will be led by the PEECB's secretariat for preparing draft policy documents which for review and approval by the Energy Department.

Timeline and Budget

The budget for the activity is Rs360 million to cover services from consultants; capacity building and promotional activities. This is envisaged as a three year activity, which will be extended in a phased manner to cover priority appliances. The year-wise budget is as follows:

Table 7 Budget : A1-2 Appliance Standards and Labelling

(Rs. In Million)

Sl No	Item Head	2015-16	2016-17	2017-18	Total
1	Services	65.0	167.5	127.5	360.0

Monitoring and Evaluation

As in the case of DCs, for appliance standards also, the monitoring would focus on intermediate milestones until notification of policy including a detailed M&E plan. Subsequently; quantitative performance parameters such as increase in sales of appliances complying with notified MEPS will be monitored.

Project # A-3: Energy Conservation Building Codes

Current Situation

Building code for Pakistan has been promulgated vide SRO number 249 (I)/2013 in May 2013. ENERCON has also developed a design and practicing manual for implementation of ECBC. The provisions are applicable to buildings that have a total connected load of 100kW or contract demand of 125 kVA. Buildings with a conditioned area of at least 900 m² or unconditioned buildings with at least 1,200m² covered area have to follow the energy efficiency requirements. Initially, the provisions apply to new buildings/ expansions. ECBC would require some modification for adapting to the climatic conditions corresponding to Punjab province. The launch and implementation of ECBC requires huge amount of consultative efforts with architects, manufacturers of building products, mechanical and electrical system manufacturers and contractors and capacity building for the municipal engineers (or housing department?) in assessment and certification of building drawings.

Objective

To put in place policy for enabling compliance of energy conservation building codes for new constructions.

Key Components

- Review and modification of ECBC relevant for the Punjab province
- Development of Tools & systems for implementation of ECBC
- Capacity building of stake holders on compliance process and compliance verification

Institutional Process for Roll Out

Components will be led by the PPEECB's secretariat for modification of the ECBC to Provincial requirements and engage with the building approval authorities for compliance checking of ECBC.

Timeline and Budget

The budget for the activity is Rs50 million to cover services from consultants and capacity building. This is envisaged as a three year activity, with focus on code adaptation in the first 2 years and compliance tool development in the 2nd and 3rd year. The year wise budget is as follows:

Table 8 Budget : A1-3 ECBC (Rs. In Million)

Sl No	Item Head	2015-16	2016-17	2017-18	Total
1	Services	12.0	28.5	9.5	50.0

Monitoring and Evaluation

The monitoring would focus on achievement of timelines for completion of the key components as per a detailed plan.

Project # A-4: Media campaign

Print and Electronic Media . Detail as Annex-II-A

S No	Media	2015-2016	2016-2017	2017-18
1	Print Media Campaign	27,941,679	27,045,628	19,157,320
2	TV Commercial Campaign	32,092,484	19,357,371	18,338,562

3	Radio Campaign	3,001,560	2,401,248	1,100,572
	Total Amount in PKR	63,035,723	48,804,247	38,596,454
	Say in PKR Million	63	49	39

Outdoor campaign

Detail attached as Annex-II-B

S No	Media	2015-2016	2016-2017	2017-18
1	Print Media Campaign	40	40	40
	Total Amount in PKR Million	40	40	40

Project # A-5: Training and workshops.

Detail of trainings (Six per annum per subject)

PEEC Agency will impart training to public and private sector for awareness and policy guidelines and standards .

S#	Description	2014-15	2015-16	2016-17	Total
1	Workshops (100 person) Six per annum (boarding/ lodging, venue, TA, resource persons, (I million per Workshop)	12	12.2	12.5	36.7

2	Trainings Public Sector				
	Foreign 2-3 officers twice a annum	3.1	3.1	3.1	9.3
	Local officials (10 per annum)	1.0	1.0	1.0	3.0
3	Seminars @ 2 per annum with 2.5 per event	5	5	5	15
	Total (Rs. In Million)	21.1	21.3	21.6	64

Media Plan for Energy Department GOP (Campaign on Print, TV & Radio)						
Total Five Years Plan						
S No	Media	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
1	Print Media Campaign	27,941,679	27,045,628	19,157,320	16,903,517	13,522,814
2	TV Commercial Campaign	32,092,484	19,357,371	18,338,562	13,753,922	10,697,495
3	Radio Campaign	3,001,560	2,401,248	1,100,572	1,075,559	800,416
	Total Amonut	63,035,723	48,804,247	38,596,454	31,732,998	25,020,725

Print Media Plan																					
S No	Newspaper	Station	Space	Positions & Color	Cost one Ins	Total Cost	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Total Ins		
1	Jang	LHR/RWP/MUL	108	B/P, Color	176,790.60	3,005,440.20	2	2	2	1	1	1	1	2	2	1	1	1	17		
2	Nawa-i-Waqt	LHR/RWP/MUL	108	B/P, Color	178,831.80	3,040,140.60	2	2	2	1	1	1	1	2	2	1	1	1	17		
3	Express	LHR/RWP/FSD	108	B/P, Color	172,478.16	2,932,128.72	2	2	2	1	1	1	1	2	2	1	1	1	17		
4	Khabrain	LHR/MUL	108	B/P, Color	138,075.84	2,347,289.28	2	2	2	1	1	1	1	2	2	1	1	1	17		
5	Pakistan	LHR	108	B/P, Color	92,774.16	1,577,160.72	2	2	2	1	1	1	1	2	2	1	1	1	17		
6	Dunya	LHR/RWP/FSD	108	B/P, Color	148,414.68	2,523,049.56	2	2	2	1	1	1	1	2	2	1	1	1	17		
7	Nai Baat	LHR/RWP	108	B/P, Color	121,979.52	2,073,651.84	2	2	2	1	1	1	1	2	2	1	1	1	17		
8	City 42	Lahore	108	B/P, Color	97,556.40	1,658,458.80	2	2	2	1	1	1	1	2	2	1	1	1	17		
Total Amount						19,157,319.72	16	16	16	8	8	8	8	16	16	8	8	8	136		
Print Media Plan																					
S No	Newspaper	Station	Space	Positions & Color	Cost one Ins	Total Cost	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Total Ins		
1	Jang	LHR/RWP/MUL	108	B/P, Color	176,790.60	2,651,859.00	2	2	2	1	1	1	1	1	1	1	1	1	15		
2	Nawa-i-Waqt	LHR/RWP/MUL	108	B/P, Color	178,831.80	2,682,477.00	2	2	2	1	1	1	1	1	1	1	1	1	15		
3	Express	LHR/RWP/FSD	108	B/P, Color	172,478.16	2,587,172.40	2	2	2	1	1	1	1	1	1	1	1	1	15		
4	Khabrain	LHR/MUL	108	B/P, Color	138,075.84	2,071,137.60	2	2	2	1	1	1	1	1	1	1	1	1	15		
5	Pakistan	LHR	108	B/P, Color	92,774.16	1,391,612.40	2	2	2	1	1	1	1	1	1	1	1	1	15		
6	Dunya	LHR/RWP/FSD	108	B/P, Color	148,414.68	2,226,220.20	2	2	2	1	1	1	1	1	1	1	1	1	15		
7	Nai Baat	LHR/RWP	108	B/P, Color	121,979.52	1,829,692.80	2	2	2	1	1	1	1	1	1	1	1	1	15		
8	City 42	Lahore	108	B/P, Color	97,556.40	1,463,346.00	2	2	2	1	1	1	1	1	1	1	1	1	15		
Total Amount						16,903,517.40	16	16	16	8	8	8	8	8	8	8	8	8	120		
Print Media Plan																					
S No	Newspaper	Station	Space	Positions & Color	Cost one Ins	Total Cost	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Total Ins		
1	Jang	LHR/RWP/MUL	108	B/P, Color	176,790.60	2,121,487.20	1	1	1	1	1	1	1	1	1	1	1	1	12		
2	Nawa-i-Waqt	LHR/RWP/MUL	108	B/P, Color	178,831.80	2,145,981.60	1	1	1	1	1	1	1	1	1	1	1	1	12		
3	Express	LHR/RWP/FSD	108	B/P, Color	172,478.16	2,069,737.92	1	1	1	1	1	1	1	1	1	1	1	1	12		
4	Khabrain	LHR/MUL	108	B/P, Color	138,075.84	1,656,910.08	1	1	1	1	1	1	1	1	1	1	1	1	12		
5	Pakistan	LHR	108	B/P, Color	92,774.16	1,113,289.92	1	1	1	1	1	1	1	1	1	1	1	1	12		
6	Dunya	LHR/RWP/FSD	108	B/P, Color	148,414.68	1,780,976.16	1	1	1	1	1	1	1	1	1	1	1	1	12		
7	Nai Baat	LHR/RWP	108	B/P, Color	121,979.52	1,463,754.24	1	1	1	1	1	1	1	1	1	1	1	1	12		
8	City 42	Lahore	108	B/P, Color	97,556.40	1,170,676.80	1	1	1	1	1	1	1	1	1	1	1	1	12		
Total Amount						13,522,813.92	8	8	8	8	8	8	8	8	8	8	8	8	96		

Energy Department

Government of the Punjab

Electronic Media Plan - 30 sec									
S No	Channel	Air Time	Time	Duration	Cost Per Spot	Amount	Jul-15	Aug-15	Total Spot
1	Geo News	Prime Time	08pm to 10pm	30 Sec	91,000.00	5,733,000.00	8	5	63
2	Dunya News	Prime Time	08pm to 10pm	30 Sec	70,000.00	4,410,000.00	8	5	63
3	Express News	Prime Time	08pm to 10pm	30 Sec	70,000.00	4,410,000.00	8	5	63
4	PTV News	Prime Time	08pm to 10pm	30 Sec	28,654.50	1,805,233.50	8	5	63
5	ARY News	Prime Time	08pm to 10pm	30 Sec	70,000.00	4,410,000.00	8	5	63
6	Dawn News	Prime Time	08pm to 10pm	30 Sec	60,000.00	3,780,000.00	8	5	63
7	Aaj News	Prime Time	08pm to 10pm	30 Sec	41,250.00	2,598,750.00	8	5	63
8	Value	Prime Time	08pm to 10pm	30 Sec	12,500.00	787,500.00	8	5	63
9	News One	Prime Time	08pm to 10pm	30 Sec	45,000.00	2,835,000.00	8	5	63
10	City - 42	Prime Time	08pm to 10pm	30 Sec	21,000.00	1,323,000.00	8	5	63
TOTAL AMOUNT							80	50	630
32,092,484									
Electronic Media Plan - 30 sec									
S No	Channel	Air Time	Time	Duration	Cost Per Spot	Amount	Jul-16	Aug-16	Total Spot
1	Geo News	Prime Time	08pm to 10pm	30 Sec	91,000.00	3,458,000.00	5	3	38
2	Dunya News	Prime Time	08pm to 10pm	30 Sec	70,000.00	2,660,000.00	5	3	38
3	Express News	Prime Time	08pm to 10pm	30 Sec	70,000.00	2,660,000.00	5	3	38
4	PTV News	Prime Time	08pm to 10pm	30 Sec	28,654.50	1,088,871.00	5	3	38
5	ARY News	Prime Time	08pm to 10pm	30 Sec	70,000.00	2,660,000.00	5	3	38
6	Dawn News	Prime Time	08pm to 10pm	30 Sec	60,000.00	2,280,000.00	5	3	38
7	Aaj News	Prime Time	08pm to 10pm	30 Sec	41,250.00	1,567,500.00	5	3	38
8	Value	Prime Time	08pm to 10pm	30 Sec	12,500.00	475,000.00	5	3	38
9	News One	Prime Time	08pm to 10pm	30 Sec	45,000.00	1,710,000.00	5	3	38
10	City - 42	Prime Time	08pm to 10pm	30 Sec	21,000.00	798,000.00	5	3	38
TOTAL AMOUNT							50	30	380
19,357,371									

Electronic Media Plan - 30 sec																			
S No	Channel	Air Time	Time	Duration	Cost Per Spot	Amount													
1	Geo News	Prime Time	08pm to 10pm	30 Sec	91,000.00	3,276,000.00	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Total Spot
2	Dunya News	Prime Time	08pm to 10pm	30 Sec	70,000.00	2,520,000.00	4	4	4	3	3	3	2	2	2	3	3	3	36
3	Express News	Prime Time	08pm to 10pm	30 Sec	70,000.00	2,520,000.00	4	4	4	3	3	3	2	2	2	3	3	3	36
4	PTV News	Prime Time	08pm to 10pm	30 Sec	28,654.50	1,031,562.00	4	4	4	3	3	3	2	2	2	3	3	3	36
5	ARY News	Prime Time	08pm to 10pm	30 Sec	70,000.00	2,520,000.00	4	4	4	3	3	3	2	2	2	3	3	3	36
6	Dawn News	Prime Time	08pm to 10pm	30 Sec	60,000.00	2,160,000.00	4	4	4	3	3	3	2	2	2	3	3	3	36
7	Aaj News	Prime Time	08pm to 10pm	30 Sec	41,250.00	1,485,000.00	4	4	4	3	3	3	2	2	2	3	3	3	36
8	Value	Prime Time	08pm to 10pm	30 Sec	12,500.00	450,000.00	4	4	4	3	3	3	2	2	2	3	3	3	36
9	News One	Prime Time	08pm to 10pm	30 Sec	45,000.00	1,620,000.00	4	4	4	3	3	3	2	2	2	3	3	3	36
10	City - 42	Prime Time	08pm to 10pm	30 Sec	21,000.00	756,000.00	4	4	4	3	3	3	2	2	2	3	3	3	36
TOTAL AMOUNT							40	40	40	30	30	30	20	20	20	30	30	30	360

Electronic Media Plan - 30 sec																					
S No	Channel	Air Time	Time	Duration	Cost Per Spot	Amount	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Total Spot		
1	Geo News	Prime Time	08pm to 10pm	30 Sec	91,000.00	2,457,000.00	3	3	3	2	2	2	2	2	2	2	2	2	27		
2	Dunya News	Prime Time	08pm to 10pm	30 Sec	70,000.00	1,890,000.00	3	3	3	2	2	2	2	2	2	2	2	2	27		
3	Express News	Prime Time	08pm to 10pm	30 Sec	70,000.00	1,890,000.00	3	3	3	2	2	2	2	2	2	2	2	2	27		
4	PTV News	Prime Time	08pm to 10pm	30 Sec	28,654.50	773,671.50	3	3	3	2	2	2	2	2	2	2	2	2	27		
5	ARY News	Prime Time	08pm to 10pm	30 Sec	70,000.00	1,890,000.00	3	3	3	2	2	2	2	2	2	2	2	2	27		
6	Dawn News	Prime Time	08pm to 10pm	30 Sec	60,000.00	1,620,000.00	3	3	3	2	2	2	2	2	2	2	2	2	27		
7	Aaj News	Prime Time	08pm to 10pm	30 Sec	41,250.00	1,113,750.00	3	3	3	2	2	2	2	2	2	2	2	2	27		
8	Value	Prime Time	08pm to 10pm	30 Sec	12,500.00	337,500.00	3	3	3	2	2	2	2	2	2	2	2	2	27		
9	News One	Prime Time	08pm to 10pm	30 Sec	45,000.00	1,215,000.00	3	3	3	2	2	2	2	2	2	2	2	2	27		
10	City - 42	Prime Time	08pm to 10pm	30 Sec	21,000.00	567,000.00	3	3	3	2	2	2	2	2	2	2	2	2	27		
TOTAL AMOUNT							30	30	30	20	20	20	20	20	20	20	20	20	270		

Electronic Media Plan - 30 sec																				
S No	Channel	Air Time	Time	Duration	Cost Per Spot	Amount	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Total Spot	
1	Geo News	Prime Time	08pm to 10pm	30 Sec	91,000.00	1,911,000.00	2	2	2	2	1	1	1	2	2	2	2	2	21	
2	Dunya News	Prime Time	08pm to 10pm	30 Sec	70,000.00	1,470,000.00	2	2	2	2	1	1	1	2	2	2	2	2	21	
3	Express News	Prime Time	08pm to 10pm	30 Sec	70,000.00	1,470,000.00	2	2	2	2	1	1	1	2	2	2	2	2	21	
4	PTV News	Prime Time	08pm to 10pm	30 Sec	28,654.50	601,744.50	2	2	2	2	1	1	1	2	2	2	2	2	21	
5	ARY News	Prime Time	08pm to 10pm	30 Sec	70,000.00	1,470,000.00	2	2	2	2	1	1	1	2	2	2	2	2	21	
6	Dawn News	Prime Time	08pm to 10pm	30 Sec	60,000.00	1,260,000.00	2	2	2	2	1	1	1	2	2	2	2	2	21	
7	Aaj News	Prime Time	08pm to 10pm	30 Sec	41,250.00	866,250.00	2	2	2	2	1	1	1	2	2	2	2	2	21	
8	Value	Prime Time	08pm to 10pm	30 Sec	12,500.00	262,500.00	2	2	2	2	1	1	1	2	2	2	2	2	21	
9	News One	Prime Time	08pm to 10pm	30 Sec	45,000.00	945,000.00	2	2	2	2	1	1	1	2	2	2	2	2	21	
10	City - 42	Prime Time	08pm to 10pm	30 Sec	21,000.00	441,000.00	2	2	2	2	1	1	1	2	2	2	2	2	21	
TOTAL AMOUNT							10,697,495	20	20	20	20	10	10	10	20	20	20	20	210	

Radio Media Plan - 30 sec																			
S No	Media	Stations	Times	Duration	Cost Per Spot	Total Cost	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Total Spot
1	FM-89	LHR/FSD/ISB	Morning Drive Time Evening Drive Time	30 Sec	2,936.50 2,936.50	129,206.00 129,206.00	5	5	5	5	3	3	3	3	3	3	3	3	44
2	FM-100	LHR+ISB	Morning Drive Time Evening Drive Time	30 Sec	1,722.00 1,722.00	75,768.00 75,768.00	5	5	5	5	3	3	3	3	3	3	3	3	44
3	FM-103	LHR+FSD+MUL	Morning Drive Time Evening Drive Time	30 Sec	3,598.00 3,598.00	158,312.00 158,312.00	5	5	5	5	3	3	3	3	3	3	3	3	44
4	FM-94.6	LHR/ISB/FSD/MUL	Morning Drive Time Evening Drive Time	30 Sec	3,000.00 3,000.00	132,000.00 132,000.00	5	5	5	5	3	3	3	3	3	3	3	3	44
5	FM-101	LHR/FSD/SLK/MUL/ISB	Morning Drive Time Evening Drive Time	30 Sec	1,250.00 1,250.00	55,000.00 55,000.00	5	5	5	5	3	3	3	3	3	3	3	3	44
TOTAL AMOUNT							50	50	50	50	30	30	30	30	30	30	30	30	440
Radio Media Plan - 30 sec																			
S No	Media	Stations	Times	Duration	Cost Per Spot	Total Cost	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Total Spot
1	FM-89	LHR/FSD/ISB	Morning Drive Time Evening Drive Time	30 Sec	2,936.50 2,936.50	126,269.50 126,269.50	4	4	4	4	4	4	4	3	3	3	3	3	43
2	FM-100	LHR+ISB	Morning Drive Time Evening Drive Time	30 Sec	1,722.00 1,722.00	74,046.00 74,046.00	4	4	4	4	4	4	4	3	3	3	3	3	43
3	FM-103	LHR+FSD+MUL	Morning Drive Time Evening Drive Time	30 Sec	3,598.00 3,598.00	154,714.00 154,714.00	4	4	4	4	4	4	4	3	3	3	3	3	43
4	FM-94.6	LHR/ISB/FSD/MUL	Morning Drive Time Evening Drive Time	30 Sec	3,000.00 3,000.00	129,000.00 129,000.00	4	4	4	4	4	4	4	3	3	3	3	3	43
5	FM-101	LHR/FSD/SLK/MUL/ISB	Morning Drive Time Evening Drive Time	30 Sec	1,250.00 1,250.00	53,750.00 53,750.00	4	4	4	4	4	4	4	3	3	3	3	3	43
TOTAL AMOUNT							40	40	40	40	40	40	40	30	30	30	30	30	430

Radio Media Plan - 30 sec																			
S No	Media	Stations	Times	Duration	Cost Per Spot	Total Cost	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Total Spot
1	FM-89	LHR/FSD/SB	Morning Drive Time	30 Sec	2,936.50	93,968.00	3	3	3	3	2	2	2	2	2	3	3	3	32
			Evening Drive Time		2,936.50	93,968.00	3	3	3	3	2	2	2	2	2	3	3	3	32
2	FM-100	LHR+SB	Morning Drive Time	30 Sec	1,722.00	55,104.00	3	3	3	3	2	2	2	2	2	3	3	3	32
			Evening Drive Time		1,722.00	55,104.00	3	3	3	2	2	2	2	2	3	3	3	32	
3	FM-103	LHR+FSD+MUL	Morning Drive Time	30 Sec	3,598.00	115,136.00	3	3	3	3	2	2	2	2	2	3	3	3	32
			Evening Drive Time		3,598.00	115,136.00	3	3	3	2	2	2	2	2	3	3	3	32	
4	FM-94.6	LHR/SB/FSD/MUL	Morning Drive Time	30 Sec	3,000.00	96,000.00	3	3	3	3	2	2	2	2	2	3	3	3	32
			Evening Drive Time		3,000.00	96,000.00	3	3	3	2	2	2	2	2	3	3	3	32	
5	FM-101	LHR/FSD/SLK/MUL/SB	Morning Drive Time	30 Sec	1,250.00	40,000.00	3	3	3	3	2	2	2	2	2	3	3	3	32
			Evening Drive Time		1,250.00	40,000.00	3	3	3	2	2	2	2	2	3	3	3	32	
TOTAL AMOUNT							800,416	30	30	30	30	20	20	20	20	30	30	30	320

To,

Chief Engineer

Energy Department, Government of the Punjab

Lahore.

Proposal of Outdoor Branding in All over the Punjab for One Year

Sr #	Description	Rate/unit	Total District	Each District	Quantity	Total Amount
1	Flex Steamers (Size 6' x 3') Star Korean four color digital printing with wooden frame	Rs. 950/-	36	300	10800	Rs. 10,260,000
2	Flex Road Banners (Size 12' x 3') star Korean four color digital printing with wooden Sticks	Rs. 1250	36	250	9000	Rs. 11,250,000
4	Brochure 8 Pages (Size A4) 135gm art paper with front back four color printing	Rs. 16.50	36	1000	36000	Rs. 594,000
5	Flyer (Size A4) 135gm art paper with front back four color printing	Rs.5.50	36	1000	36000	Rs. 198,000
6	Events Awareness Session in all district <ul style="list-style-type: none">• Sound System• Venue Branding Chief Guest Refreshment					Rs. 15,698,000
7	Installation & Transportation Charges in all districts					Rs. 2,000,000
	Total Amount					Rs. 40,000,000

Inwards: Forty Millions Only.

Terms & Conditions:

- Purchase Order will be required to start the process.
- 50% advance payment will be required to start the project, all government taxes are excluded
- Above rates are valid for 30 days