REQUEST FOR EXPRESSIONS OF INTEREST (REoI) (CONSULTING SERVICES – QCBS) TÜRKİYE

Name of the Project: EU Instrument for Pre-Accession (IPA) 2018 Energy Sector Program Phase III Project

Grant No.: TF0C3092

Assignment Title:

"Consultancy Services of Capacity Building for Sustainable Public Procurement, Awareness Raising and Increasing Energy Efficiency in Households & Buildings"

Reference No: CS-02

1. SCOPE:

The Ministry of Energy and Natural Resources (MENR) has received a grant from the European Union toward the cost of the EU Instrument for Pre-Accession (IPA) 2018 Energy Sector Program Phase III Project which will be jointly implemented with the World Bank, and intends to apply part of the proceeds for Consulting Services.

The Consulting Services ("the Services") include:

- the production of any design and content required within the scope of the increasing energy efficiency (EE) through improvement in household behavior.
- the analysis, recommendations, audits and capacity building activities with the aim of improving EE in the household appliances, buildings and encouraging energy efficient public procurement.

The studies are designed under four main components:

i. Component 1: Household EE Campaign
ii. Component 2: Residential Building EE Measures
iii. Component 3: Ecodesign, Energy Labelling, and Green Public Procurement
iv. Component 4: Capacity Building and Cross-Cutting Activities

The tasks include:

1. <u>Design of The Campaign:</u>
   - identifying practical applications to increase EE in household behavior
   - determining in detail the steps, tools and resources of the campaign that will enable the transfer of practices
   - designing competitions to be held in schools/digital channels for campaign purposes.

2. Use of Visual Media & Materials:
   - preparing videos to explain the EE potential, good practice examples and different dimensions of EE for different target audiences
   - updating and actively using social media accounts to increase the number of people and views reached
   - preparing visuals to be distributed to the participants in specific events during/after the project
   - preparing 'a computer-mobile device game' and 'a card game' which inform the players regarding EE applications.

3. Re-Measuring the EE Consciousness Index:
   - updating the existing questionnaire forms *(for the public and legal entities)* for the survey which will be conducted at the beginning and end of the project to measure the level of public awareness.

4. Legislative Gap and Market Analyses:
   - preparation of policy and legislative gap analyses
   - market analysis for household appliances
   - development of implementation guidelines and calculation tools.

5. Determination of Demand Side Potential:
   - conducting energy audits to identify demand side potential
   - determination of demand side management potential of buildings.

6. Development of Sustainable EE Financing Mechanisms for the Replacement of Inefficient Household Appliances in Building Sector
   - assessment of financing needs, current situation and incentive schemes in Türkiye
   - review of international best practices, market-based instruments, public-private partnerships
   - identification of barriers & recommendations for suitable financing mechanisms

7. Institutional Capacity Building:
   - training needs analysis
   - delivery of trainings
   - dissemination workshops
   - conducting study tours

Additionally, the contract aims to prepare the following studies as outputs:

- Inception Report.
- Quarterly Interim Progress Reports.
- Preparation of Awareness Implementation Plan and M&E Plan
- Reporting for website activities once in four months
- Reporting for social media accounts once in four months
- Awareness index questions, survey and updated awareness report
- Preparation of visual materials/media, videos, a mobile game and a card game
- Two Face-to-face survey of 3000 people for the public
- Online survey for Industry, Service, Transport, Agricultural Enterprises

- Updated awareness index reports
- Report on assessment of the market readiness
- Roadmap for the harmonization of the eco-design and labelling regulations.
- Calculation tool and report on model cases for energy savings potential of replacement of inefficient household appliances
- Gap Analysis Report on public procurement legislation and EU green procurement
- Roadmap, purchasing guide and calculation tool for public procurement of energy efficient products
- Report on the auditing and monitoring of the buildings
- Report on demand side management opportunities and behavioral change needs
- Report on best practices in demand side management and its applicability in Türkiye's residential sector
- Report on the demand side management potential on the national level
- Report on sustainable EE financing mechanism for replacement of inefficient household appliances
- Draft final report
- Final report

2. The detailed Terms of Reference for the assignment is provided in the Annex of this document.

3. The MENR now invites eligible consulting firms ("Consultants") to indicate their interest in providing the Services. Interested Consultants should provide information demonstrating that they have the required qualifications and relevant experience to perform the Services.

4. A consulting firm is allowed to submit the expression of interest alone if it considers itself to be fully qualified on its own for the assignment, as it is not mandatory for consultants to associate with any other firm(s), whether foreign or local. Alternatively, if consultants themselves choose to associate to enhance their qualifications and capability for the assignment, then such associations may either be as a Joint Venture (i.e. all members of the joint venture shall be jointly and severally responsible) and/or Sub-consultants (i.e. the Consultant will be responsible, including for the services of the sub-consultant). In case of an association, the Consultants must explain in the EOI submission (a) the rationale for forming the association and (b) the anticipated role and relevant qualifications of each member of the Joint Venture and/or of each sub-consultant for carrying out the assignment, to justify the proposed inclusion of the JV members and/or sub-consultants in the association. Failure to provide the above explanation in the Expression of Interest may risk the association not being shortlisted for the assignment. Please note that in the evaluation of EOIs of associations for shortlisting purposes, only the qualifications of the JV members will be taken into account whereas the qualifications of proposed sub-consultants will not be considered.

5. The shortlisting criteria are as follows, in which specific experience of the Consultant relevant to the assignment will be considered of paramount importance:

i. General Experience of the Consultant (as a firm) in providing consultant services should not be less than the last 5 years prior to deadline for submission of interests;

ii. Specific Experience of the Consultant (as a firm) relevant to the assignment in providing similar services within the last 3 years prior to deadline for submission of interest under contracts of comparable size of:

- ✓ Experience in awareness raising projects in energy sector such as media campaigns (EE experience is preferable)
- ✓ Experience in design/production of printed materials (booklets, brochures), visuals (including videos and/or spot films) content creation and design
- ✓ Experience in social media campaigns
- ✓ Experience in conducting surveys
- ✓ Experience in EE in the buildings sector.
- ✓ Experience in realizing trainings in the EE sector.
- ✓ Experience in preparing of market analysis for household appliances.
- ✓ Experience in preparing guidelines and calculation tools for EE measurements.
- ✓ Staff capacity in the above-mentioned areas
- ✓ Experience in demand side participation and load shifting by consumers will be an asset.
- ✓ Experience in designing of financial schemes will be an asset.

iii. The Consultants should demonstrate availability of and/or access to the key experts for the performance of the services described in the TOR (e.g., by providing a list of key-experts they are working with). The Consultants should demonstrate sound administrative and financial capacity. Key Experts will not be evaluated at the shortlisting stage.

6. To demonstrate their qualifications and experience in meeting the above shortlisting/selection criteria, Consultants are requested to submit, at a minimum, the supporting documentation listed below. A consultant firm can only use its own qualifications and experience and not of its parent, sister or subsidiary companies or its employees.

(i) The firm's incorporation/trade/registration documents issued by the concerned government authority of the country of the firm.
(ii) The firm's company brochures including the core areas of business; and
(iii) Completed Form-1 (attached to this Request for Expression of Interest) to provide information of similar contracts. This should include the name and reference number of the contract, brief description of the scope of work, contract amount, period of the contract, name of the client and country of assignment, and role of the Consultant in the contract. Copies of completion certificates/references of Clients of completed contracts are not required to be submitted with the EoI. In the subsequent stage at the time of submission of proposals, the Client may request the shortlisted consultants to submit such supporting completion certificates.

7. The attention of interested Consultants is drawn to Section III, paragraphs, 3.14, 3.15, 3.16, and 3.17 of the World Bank's "*Procurement Regulations for IPF Borrowers"* November 2020 ("*Procurement Regulations*"), setting forth the World Bank's policy on conflict of interest.

https://pubdocs.worldbank.org/en/178331533065871195/Procurement-Regulations.pdf

8. A Consultant will be selected in accordance with the Quality and Cost Based Selection (QCBS) method set out in the Procurement Regulations.

9. Further information can be obtained at the address below during office hours from 10:00 a.m. to 4:00 p.m. Türkiye time.

10. Expressions of interest must be delivered in a written form to the address below in person, or by mail, or by e-mail **until 27th of the January 2025 at 2:00 p.m.** by Türkiye time. Applications submitted after the deadlines specified will not be evaluated.

11. The method (in person or by mail) by which expressions of interest will be delivered depends on the applicant's preference. **The applicant will be responsible for the complete delivery of the submitted document contents (including documents sent via e-mail through any share link).**

Address:

Ministry of Energy and Natural Resources
General Directorate of Foreign Relations
Foreign Investment Coordination Department (Project Implementation Unit)
Attn: Engin Bostancı
Nasuh Akar M. Türkocağı C. No:2 A Blok Kat:4 no:62
Tel: +90 312 546 56 65
E-mail: dia2@enerji.gov.tr Website: www.enerji.gov.tr

Attachment: Form-1 (Similar Contracts)

Name of Consultant firm:_____ (attach separate form for each firm in case of JV)

Sr. No.	Contract name & Reference No. of contract	Brief Description of scope of work and main deliverables/outputs	Contract value (in US$ equivalent)/ Amount paid to your firm	Contract Period (start date and completion date)	Name of Client & Country of Assignment	Role in the Assignment
	{e.g., "Improvement quality of.....": designed		{e.g., US$1 mill/US$0.5 mill}	{e.g., Jan.2009–Apr.2010 }	{e.g., Ministry of ....., country}	{e.g., Lead partner in a JV A&B&C}

Sr. No.	Contract name & Reference No. of contract	Brief Description of scope of work and main deliverables/outputs	Contract value (in US$ equivalent)/ Amount paid to your firm	Contract Period (start date and completion date)	Name of Client & Country of Assignment	Role in the Assignment
	master plan for rationalization of .....; }					
	{e.g., "Support to sub-national government....." : drafted secondary level regulations on.....}		{e.g., US$0.2 mil/US$0.2 mil}	{e.g., Jan-May 2008}	{e.g., municipality of....., country}	{e.g., sole Consultant }

ANNEX: Terms of Reference

TERMS OF REFERENCE

EUROPEAN UNION INSTRUMENT FOR PRE-ACCESSION ASSISTANCE (IPA) ENERGY SECTOR PROGRAM PHASE III PROJECT FOR TÜRKİYE

"CAPACITY BUILDING FOR SUSTAINABLE PUBLIC PROCUREMENT, AWARENESS RAISING AND INCREASING ENERGY EFFICIENCY IN HOUSEHOLDS & BUILDINGS" (CS-02)

1. INTRODUCTION

1.1. Country and Sector Context

Türkiye's energy sector is in a transition to ensure self-reliance, robustness, diversification, supply security, competitiveness and low-carbon energy in compliance with its national circumstances. So far, the sector has been driven by two major characteristics: growing energy demand and import dependency, both of which are impacted by steady economic development with average 5% annual growth coupled with sectoral leaps in energy. Türkiye has been experiencing rapid demand growth in all segments of energy sector over the last decades. In the last decade, both primary and final energy consumption rose up by approximately 35%. Furthermore, Türkiye is heavily dependent on energy imports which cause an additional burden on its foreign trade balance. All this reflects that addressing energy efficiency measures is not an option, but a must for Türkiye.

Türkiye's total final energy consumption in 2022 reached 120.4 MTOE. The buildings and services sector had the highest share in total final energy consumption with 32.6%. In the 2000-2022 period, the final energy consumption of buildings and services sector increased by 3.2%, above industry (2.3%) but below transport (4.4%). In 2022, 87% of Türkiye's building stock is residential, comprising approximately 9.6 million buildings for an estimated 26.9 million households. The increase in building demand due to increasing population and decreasing average number of households has resulted in the construction of an average of 106,000 new buildings annually, according to building use permit statistics. There is a significant potential in the rapidly growing and transforming building stock for the efficient use of energy and the expansion of on-site production. In order to achieve energy transition in buildings and services sectors, it is important to develop energy efficiency-oriented policies and implement measures in all processes from the preparation of settlement plans to the design of buildings, selection and use of heating, cooling and air conditioning systems.

Türkiye has long emphasized energy efficiency, in all processes from energy generation to end-use consumption, as a pillar of Türkiye's energy policy. Numerous economy-wide and sector-specific strategies, action plans, and regulations, have achieved significant progress to date, including in context of climate action. See **Annex 1** for background on recent Türkiye energy policy developments and key statistics focused on energy efficiency. Türkiye nevertheless still has a significant potential in the field of energy efficiency to reach the averages of developed countries.

Key current energy efficiency efforts, led by Türkiye's Ministry of Energy and Natural Resources (MENR)[1] and other agencies, including the following.

Türkiye's 12th National Development Plan (2024-2028) identifies several objectives and targets on energy efficiency, including development of measures regarding reduction of carbon emissions by increasing energy efficiency, continuing practices to make public buildings more efficient, diffusion of energy efficient buildings and dissemination of alternative methods such as energy performance contracts, energy service companies' model

[1] https://enerji.gov.tr/enerji-verimliligi

and credit guarantee fund. In the 12th Development Plan, the main measures for or related to energy efficiency in buildings are expressed as follows: Continuing the practices to make public buildings more efficient, disseminating energy efficient buildings supported by renewable energy in order to accelerate the energy conversion of buildings, Energy Performance Contracts (EPC) in buildings, dissemination of alternative methods such as the energy service companies (ESCO) model and the use of the Credit Guarantee Fund (KGF), minimizing the possible negative effects of tourism activities on the environment by taking energy efficiency into account, enabling building owners to monitor building performance including energy efficiency, dissemination of smart building designs, dissemination of high energy efficient buildings, improvement and development of Nearly Zero Energy Buildings (nZEB) criteria, raising social awareness about nZEB applications, dissemination of the National Green Certificate System for certification of green buildings and green settlements, making National Green Building Certification System (YeS-TR) suitable for international use, supporting investments that will encourage green transition and increase energy efficiency while increasing the resilience of infrastructures in earthquake zones against disasters.

The Climate Change Mitigation Strategy and Action Plan 2024-2030 also include energy efficiency targets in multiple sectors. The MENR Strategic Plan for 2024-2028, to be published in the fourth quarter of 2024, is expected to similarly prioritize the boosting of energy efficiency.

The latest, most concrete, measure of setting EE targets is the Energy Efficiency 2030 Strategy and Second NEEAP 2024-2030 (2nd NEEAP)[2]. Within the scope of the 2nd NEEAP, a total of 12.8 MTEP of energy is expected to be saved in the building sector from 2024 to 2030. The 2nd NEEAP will guide all energy efficiency related actions in the coming years and sets concrete targets including:

- Reducing the primary energy consumption of Türkiye by 16% by 2030 through 61 actions defined in 7 categories namely buildings and services, energy, transport, industry and technology, agriculture, cross-cutting (horizontal) areas and start-up and digitalization
- Achieving savings of 37.1 mtoe cumulatively by 2030, for which 20.2 billion USD of investment will be made according to 2023 prices.

Türkiye's 2nd NEEAP is in line with the EU Directive on energy efficiency with several articles directly relevant to ToR tasks (see **Annex 2**). Other relevant EU programs include green public procurement (with respect to energy efficiency) and ecodesign and energy labelling.

Ministry of Environment, Urbanization and Climate Change (MoEUCC) is one of the responsible institution for many NEEAP actions in the area of buildings, including, among others: (i) Rehabilitation of Existing Buildings and Improving Energy Efficiency (NEEAP Action B5), (ii) Increasing Minimum Energy Performance Criteria in New Buildings (B8), (iii) Establishing Financial Incentives for the Renovation of Existing Buildings (B10), (iv) Increasing the Implementation Capacity of Energy Efficient Materials and Technologies Used in the Construction Sector (B1).

MoEUCC General Directorate for Construction Affairs[3] is currently implementing several World Bank-financed projects to improve energy efficiency and distributed renewable energy in public buildings. MoEUCC General Directorate of Vocational Services (GDVS) is responsible

[2] https://enerji.gov.tr/bilgi-merkezi-enerji-verimliligi-ulusal-enerji-verimliligi-eylem-plani
[3] https://yapiisleri.csb.gov.tr

for drafting regulations on energy efficiency in buildings, therefore holding significant influence over energy-related policies in the public, commercial, and residential building sector.

In line with the abovementioned policies and targets, the Activities under this ToR target capacity building for increasing energy efficiency of appliances and equipment in households & buildings, identifying demand side potential, ensuring sustainable public procurement and, energy efficiency awareness-raising and measurement of behavioral change.

1.2. Recent Activities on Public Awareness and Household Energy Efficiency

In order to monitor the development of energy culture and efficiency awareness of the public, MENR developed an energy efficiency awareness index for households. The research conducted for this purpose in 2019 was repeated in 2021. For this purpose, face-to-face (questionnaire) interviews were conducted with 3,000 people over the age of 16 residing in 26 provincial city centers. According to this research; The Energy Efficiency Awareness Index has been calculated as 163.8 (middle-upper). Accordingly, the energy efficiency awareness index increased by 6.1 points. The figure indicated that the public is at middle-upper level of consciousness.

At the same time, an energy efficiency awareness index has been developed in industry, service, transportation and agricultural enterprises in order to plan and carry out education and awareness activities. For this purpose, the second stage of the research which was conducted in 2020 was repeated in 2021, evaluations of 1309 enterprises, 1037 in industry sector, 173 in service sector, 80 in agriculture sector, and 19 in transportation sector, have been compiled by online survey method. According to the research done; The Energy Efficiency Awareness Index has been calculated as 166.3 (middle-upper). Accordingly, the Energy Efficiency Awareness Index increased by 7.8 points in industrial, service, transportation, and agricultural businesses.

In addition to the above, several steps have been taken to align with EU labelling rules. The Framework Energy Labelling Directive of 2017/1369/EU is harmonized as Energy Labelling Framework Regulation published in the Official Gazette of March 2, 2021 (number 31411). With these amendments, the new energy labelling system returned to a simpler A-G scale in Türkiye on March 1, 2021. (Until the end of February 2021, numerous products were labelled either A+, A++ or A+++ in line with the eco-design requirements and the new simple A-G scale is designed so that very few products are initially able to achieve the “A” rating, leaving space for more efficient products to be included in the future.)

Besides, to increase public awareness on energy efficiency, which is one of the determined targets; awareness and awareness-raising activities will be carried out within the framework of the Energy Efficiency Strategy Communication Plan[4] prepared by the MENR Department of Energy Efficiency and Environment (DEEE). In this context, activities such as measuring the level of awareness with public awareness surveys, public service announcements, seminars, on-site applications, forum and fairs, organizing energy efficiency competitions in primary,

[4] https://enerji.gov.tr//Media/Dizin/EVCED/tr/EnerjiVerimlili%C4%9Fi/Bilin%C3%A7lendirme/Tan%C4%B1t%C4%B1mBilin%C3%A7lendirme/Belgeler/ENERJI%CC%87-VERI%CC%87MLI%CC%87LI%CC%87G%CC%86I%CC%87-STRATEJI%CC%87K-I%CC%87LETI%CC%87S%CC%A7I%CC%87M-PLANI.pdf

secondary and high schools and industrial enterprises are carried out and planned to continue.

In order to provide information to end users about technological developments and successful practices related to energy efficiency, a web page (https://aklinlaverimliyasa.com) was created within the scope of the Consultancy Services for Increasing Visibility of IPA 2013 Projects and Public Awareness in the Fields of Renewable Energy and Energy Efficiency. It is aimed to further develop this platform by including different training and awareness-raising materials such as learning materials, tools, guides, and training videos.

The website and social media (Facebook, Twitter, Youtube and Instagram) accounts have been created within the scope of the mentioned Project and sharing continues in these accounts in certain periods. In addition, two public advertisements (https://enerji.gov.tr/video-liste?Etiket=6) were prepared to reach households and a 50-minute program called "Enerji Verimliliği Kuşağı" was broadcasted on NTV within the framework of 2021 Energy Efficiency Week activities. Various activities were organized in the Efficiency Week with the support of the stakeholders in Energy Efficiency Strategic Communication Plan. The visuals created within the scope of the project were included in the web pages and social media accounts of the metropolitan municipalities, governorships and other stakeholders. At the same time, the visuals were displayed on billboards, overpasses and racquets free of charge, etc.

Within the scope of the IPA 2018 Energy Sector Program Phase III Project, it is planned to organize a campaign to increase the awareness of households in the field of energy efficiency. Various educational and awareness-raising activities will be carried out to increase the awareness of households on building insulation, lighting, transportation, use of energy-efficient electrical appliances, and efficient use of energy in heating and cooling. The campaign should be handled with a holistic approach and should be in line with the above-mentioned strategies, objectives and the EU policies.

2. OVERVIEW OF ASSIGNMENT ACTIVITIES

2.1. Project Framework and Objectives

This Terms of Reference (ToR) covers a set of activities related to Energy Efficiency (EE) (the 'Activities') under the European Union (EU)-Türkiye Energy Sector Support Program (the 'Program'). MENR's Directorate General for Foreign Relations (DGFR), on behalf of the Republic of Turkiye, implements the Program with grant financing under the EU-Instrument for Pre-Accession (IPA) Trust Fund (TF).[5] The World Bank administers the grant on behalf of the EU[6], through the EU/IPA Energy Sector Program Phase III Project (the 'Project') [7] and an associated Grant Agreement.[8]

The Activities are to be delivered through an implementation period of 20 months, from the date of contract signing to final deliverable. (See Section 7 for deliverables and timing).

[5] EU/IPA Financing Agreement 2018 between the European Commission (EC) and Türkiye recorded in Presidential Decision No. 1955 of Türkiye's Official Gazette dated December 31, 2019 (Number 30995).
[6] Adminstration Agreement of EC and World Bank for TF073902 (IPA/2022/434-033), effective Dec 2022.
[7] https://projects.worldbank.org/en/projects-operations/project-detail/P173247.
[8] Grant Agreement of WB and MENR for EU/IPA Energy Sector Program Phase III Project, effective May 2024.

The TF objective is to "assist the Republic of Türkiye to scale up innovative renewable energy and integrate climate considerations into its energy sector". The Project Development Objectives include to "increase MENR's capacity to promote awareness of households on energy efficiency benefits". **Importantly, the term 'awareness raising' herein refers to evidence-based interventions that are designed to change behaviors to improve energy efficiency**. Relevant behaviors include purchases (investments) and use of building insulation, heating, cooling and ventilation (HVAC) systems, lighting, electrical appliances, and transportation. The IPA 3 Project Paper[9] provides a basic 'Theory of Change' for the Activities, shown in Figure 1. Ultimately, energy efficiency outcomes support energy affordability, enhance energy security, and avoid emissions of greenhouse gases and other pollutants from energy production.

Figure 1: Theory of Change for Activities to increase MENR's capacity to promote awareness of households on energy efficiency benefits

ACTIVITIES	OUTPUTS	OUTCOMES	IMPACT	ASSUMPTIONS
EE Awareness in Households	Roadmaps, calculation tools, purchasing guides, communication plan, brochures, public service advertisement videos, consciousness index, energy efficiency financing mechanism for EE measures in households	MENR's capacity in implementing and measuring the impact of energy efficiency awareness raising activities and strategies towards households is enhanced	Awareness of households on energy efficiency is increased	The targeted number of households are reached

Program documents provide a Results Framework for Activities, which include a target to reduce average unit consumption of key home appliances sold in Türkiye by around 2 percent per year.[10] Intermediate result indicator targets include: (i) 10 guidelines and calculation tools prepared for green public procurement[11]; (ii) 10 types of household appliances that can have energy production compared with a calculator tool; and (iii) completion of awareness campaign for households. Campaign implementation can be expected to increase energy efficiency awareness and behavior change, as measured by the value of the awareness index (Task 1.4). The ToR include further work to monitor and evaluate outcomes of the Activities (Task 3.4).

2.2. Structure of Activities

The EE Activities comprise two parts that the TF Administration Agreement and Project Grant Agreement outline as follows, with an overarching emphasis on capacity building to this end.

[9] World Bank EU/IPA Energy Sector Program Phase III Project Paper (Report No: PP00186), October 2023.
[10] The Project Paper set absolute targets to reduce the average energy intensity for an estimated typical year of use of newly sold 'cold' white goods (refridgerators and freezers) and 'wet' white goods (dishwashers, washing machines, tumble driers). The White Goods Manufacturers' Association of Türkiye (TURKBESD) provides baseline values of this metric in 2023 for cold and wet appliances respectively as 304 and 211 kilowatt-hours (kWh) per year per unit. Among these appliances, refrigerators had the most sales (2.2 million units) and highest energy intensity (307 kWh/ year per unit).
[11] Throughout this ToR, reference to 'green' public procurement refers specifically to energy efficiency.

1. **Increasing Energy Efficiency in Households and Buildings and Sustainable Public Procurement.** Provision of support to: (a) identify gaps between the EU's eco-design and energy labelling regulations and Türkiye's legislative framework, and prepare a roadmap for harmonization; (b) design a monitoring and calculation tool to audit the efficiency potential of household appliances; (c) develop sustainable energy efficiency financing mechanism to replace inefficient equipment; and (d) develop a purchasing guide and calculation tool to help public markets and administrations to procure energy-efficient products in the public sector.
2. **Promoting energy efficiency and awareness raising in households.** Promotion of energy efficiency awareness raising activities, including: (a) carrying out of surveys for targeted households to assess their level of energy efficiency awareness and the key drivers of their consumption habits; (b) preparation of a communication plan; (c) design and implementation of a public awareness campaign; (d) preparation of materials, such as brochures for energy-efficient household appliances; (e) preparation and broadcast of public service advertisement videos; and (f) carrying out of additional surveys to measure the level of household awareness and to develop an awareness (consciousness) index.

Table 1 shows the structure of Activities in this ToR (Section 4 below) mapped to the above legal descriptions., and contribute to all parts.

Table 1: Activities components and tasks mapped to legal document descriptions

Activities components and tasks	Relation to legal description
Component 1. Household Energy Efficiency Campaign	
Task 1.1 Problem definition and diagnosis	Part 2(a)
Task 1.2 Intervention design and testing	Part 2(b)-(c)
Task 1.3 Campaign Implementation and Scale-Up	Part 2(b)-(e)
Task 1.4 Re-Measuring the Energy Efficiency Awareness Index	Part 2(f)
Component 2. Residential Building Energy Efficiency Measures	
Task 2.1 Monitoring and calculation tool to audit efficiency potential of household appliances	Part 1(b)
Task 2.2 Energy audits for residential demand-side management	Part 2(a)
Task 2.3 Sustainable financing mechanism for household energy efficiency	Part 1(c)
Component 3. Ecodesign, Energy Labelling, and Green Public Procurement	
Task 3.1 Legislative gap and market analysis	Part 1(a), 1(d)
Task 3.2 Energy Efficient Product Purchasing Guide and Calculator Tools	Part 1(d)
Component 4. Capacity building and cross-cutting activities	
Task 4.1 Inception and visibility events	Contribute to all parts
Task 4.2 Institutional capacity building	Contribute to all parts
Task 4.3 Monitoring, evaluation, learning and dissemination	Contribute to all parts

Intermediate objectives set to be achieved by this contract are as below:

- To shift public staff behavior, especially those preparing technical and administrative specifications and conducting tenders for energy-using equipment, services, and construction works, to include EE criteria.
- To increase capacity of public institutions on sustainable public procurement and to include sustainability criteria in tender documents and applications and to prepare distributable documents and e-learning documents about evaluating the most suitable cost including factors out of cost and life cycle costs in tenders, calculating all the costs likely to be in the future.
- To develop common methodologies in calculating life cycle cost directed to certain equipment or service categories and life cycle cost approach defined by purpose and targets according to the valid policy and conditions in related sectors such as transport, construction, energy, official equipment, and information technologies.
- To assess EE potential and financing schemes for the building sector, including residential, commercial and service buildings.
- To diagnose households' behavioral-related barriers to, and propose, implement, and evaluate solutions that promote, the use of energy efficient home- and building insulation, lighting, transportation, electrical appliances, heating and cooling, business and school life, digitalization and modernization.

In carrying out the Activities, the consultant is expected to draw on latest Türkiye, EU and global knowledge on end-use energy efficiency program design and implementation, with reference to the key sources as listed in **Annex 3**.

2.3. Expected Outputs

The activities to be carried out are intended to achieve the following key outputs.

- Diagnosis of challenges faced by households and citizens, including structural (e.g., lack of infrastructure or financing) and behavioral (e.g., misconceptions, cognitive biases, social norms) challenges.
- Design, Implementation, and Measurement of an awareness raising campaign including interventions to promote relevant behavior change
- Updating the energy efficiency awareness index survey questions and re-measurement of the awareness index
- Conducting sectoral energy audits to measure energy efficiency and decarbonization potential
- Development of guidelines on energy-efficient public procurement for making equipment choice more efficient through best evaluation techniques
- Analysis and assessment of the demand side potential of the Turkish building sector
- Preparation of the legislative drafts on non-harmonized eco-design and labelling communiques
- Development of guidelines on energy efficient public procurement
- Capacity building activities (site visits to EU best practices, regional workshops and trainings)

3. SCOPE OF WORK

3.1. General Implementation Principles

The activities shall be focused on achieving project impact and sustainability, and strengthening the capacity of the target groups by active involvement of stakeholders throughout implementation. Care shall be taken to maintain continuity and active participation of the stakeholders during periods of technical assistance.

The Consultant shall fulfill the requirements indicated below during the project;

- Working closely with the MENR, the Consultant will design and implement an evidence-based awareness raising program following a Define, Diagnose, Design, Implement and Evaluate process.
- Before implementation of each activity, close communication will be conducted between the Consultant and the MENR; short briefing will also be presented by the Consultant in advance of each activity to ensure efficient implementation of the activities.
- Events will be organized with sufficient lead time to allow MENR to inform other relevant institutions and thereby they can contribute to the process. The exact date of the events will be identified during the implementation phase of the project with the agreement of MENR.
- Locations for events, might be changed subject to agreement with MENR and the Consultant.
- Event venues (unless otherwise specified in the activity; e.g., min. 4-star hotel or equivalent) will fulfil the meeting requirements with appropriate equipment (i.e., projector, seats, screens, etc.). If needed, the Consultant will hire the necessary equipment. In this regard, the Consultant will present the event venues and their specifications to MENR at least 2 weeks before the event.
- All documents and materials (i.e. agenda, presentations, training materials, summary documents, visibility materials, list of experts who will participate in each event etc.) will be delivered to MENR at least 2 weeks before each event. The content of the materials will be agreed upon in consultation with MENR, and the activity will proceed upon MENR's approval. Announcements and invitation letters will be drafted by the Consultant and will be subject to MENR’s approval for all events.
- Agenda, presentations and other documents, and visibility materials (posters, brochures, leaflets, notebooks, pens, roll-up banners, bag, flash disc, symbolic informative materials and meeting packages, etc.) shall be prepared in English and Turkish with the agreement of MENR and used for each event. The items will be chosen if possible, from recycled materials, and designs will be agreed with MENR and will be distributed to all participants. Unused materials will be delivered to MENR at the end the project.
- The Consultant shall agree with MENR on content, paper size, quality, colour, format, etc. of all printed materials.

- Translation and distribution of the related printed documents will be provided by the Consultant.
- The presentations will be prepared in Turkish and English in all events and will be shared with the participants.
- Consecutive (or simultaneous, where appropriate) interpretation will be provided for field studies, focus group meetings and face to face meetings as requested by MENR.
- For all events, registration and information desks with registration staff will be provided at both the entrance of the event venues (i.e. hotels) and in front of the meeting rooms to guide the participants by the Consultant.
- List of participants will be provided by MENR and the Consultant will make all necessary arrangements (i.e., confirmation phone calls, travel details, etc.) for the participants for the events. The participation status of the events will be checked by the Consultant and delivered to MENR one week before the events.
- The Consultant will prepare the minutes after each event and attendance form including name, surname, and institution and position of the participants and deliver to MENR no later than 3 working days after the end of each activity.
- All procedures and methodologies will be discussed thoroughly and agreed with MENR prior to the execution of all activities. Consultant shall follow latest (up to date) developments such as: regulations, new decisions, revisions, guidelines, reports of technical groups, task groups and other documents related to EU energy and climate acquis and take these developments into account during the implementation period of the project.
- Unless otherwise specified in the activities; field studies, face to face and focus group meetings that will be conducted by the Consultant shall be accompanied by up to 10 representatives of MENR for each workshop and meeting.
- The consultant will take into consideration all current documents (e.g. policy documents, strategies, actions plans or legislation) related to the EU Directive on EE and the Framework Energy Labelling Directing of 2017/1369/EU, as relevant to the scope of the activities, as may be amended during the project period or before the project begins.
- Impacts of events that will be organized for raising awareness and training of the MENR and stakeholder staff will be analysed through pre and post event evaluations.

General management principles to be followed concerning the organization of training activities can be summed up as follows:

- Needs and expectations of the participants will be closely tracked by the Consultant. Trainers will be well informed in advance about the project, objectives and scope of the training.
- Trainings will be evaluated by a post-training evaluation at the end of the sessions. After the trainings, the Consultant will also provide MENR copies of all forms filled by the trainees. By the end of each training module, training assessment reports which will include an assessment of the quality of the trainings will be submitted in English. The reports will also contain recommendations for future training activities and suggestions for improvements to ensure sustainability.
- A “Certificate of Participation” will be given to each attendant by the Consultant at the end of each training. The certificates will be prepared by the Consultant with the agreement of MENR.

- During the trainings, all written materials shall be provided to the participants free of charge. The Consultant shall also provide all materials and the audios and visuals (including photographs) of training modules as annexes to training assessment report.
- The training programmes will be delivered in Turkish (when the audience is Turkish) or in both Turkish and English with interpretation for events with international participants.

3.2. Stakeholder Relations and Approval

For the awareness raising activities in particular, the Ministry and relevant institutions will share data, information, project output, etc. that can be used by the Consultant. In any case, the Consultant is expected to carry out a proper stakeholder mapping, which should be informed by early exploration sessions with the MENR and other relevant institutions /units of the Ministry, especially the DEEE and the Office of Press and Public Relations. In determining and designing all outputs and messages within the scope of the project, it is necessary to comply with the energy efficiency policies of MENR and to take into account as much as posssble the EU energy efficiency policies. In addition, in determining the contents of the activities, the Consultant should be in coordination with relevant NGOs, mainly the Energy Efficiency Association (ENVERDER), and the private sector representatives.

The Consultant is responsible for the production of any design and content required within the scope of the project and must be able to perform these works without the contribution and assistance of MENR.

MENR DGFR (following DEEE clearance as the beneficiary) is the final approval authority for all kinds of campaign content and messages issues, especially with relation to the issues described in 3.3 below.

3.3. Use of Design and Outputs

MENR has the right to use any visual design and message and informative content prepared by the Consultant within the scope of the project during and after the project. The consultant will need to ask for MENR's approval to use the content prepared for the project for any activity outside of the project scope. In addition, the editable (soft) versions of all kinds of deliverables (drafts, final designs and software etc.) should be submitted to MENR.

Language: For awareness raising communication materials will be prepared in Turkish, while the key outputs specified in this document will be prepared in both English and Turkish languages.

Environmentally Conscious Designs & EU Visibility Rules: The Consultant is expected to comply with the EU visibility rules in the design of all kinds of activities, actions and all kinds of outputs and promotional materials to be prepared within the scope of the project. Furthermore, it should be ensured that all kinds of printed materials and promotional products are environmentally friendly / recyclable / recycled and that waste sorting boxes are available in the events.

4. DETAILED DESCRIPTION OF COMPONENTS AND TASKS

The following is a detailed description of the component and tasks, comprising 3 main components and Component 4 of cross-cutting activities. Consultant should consider the

interrelation of components and tasks and logical sequencing to maximize learning during implementation.

Component 1. Household Energy Efficiency Campaign

The household energy efficiency campaign, described below, should take into account to the extent possible the findings of Component 2 on residential building energy efficiency measures and Component 3 activities on energy labelling.

Task 1.1 Problem Definition and Diagnosis

1.1.1 Problem definition

Exploratory Sessions; Problem statement; Outcome of interest. Further to the inception phase (see Task 4.1), hold further exploratory sessions if needed. Include any assumptions as to why desired behaviors are not already happening. Examples of questions to discuss:

- Are EE products available?
- Do households have access to trustworthy information about EE products and are able to identify them?
- Do they value and trust the energy cost savings that these products can generate?
- Do households see people around them using EE products?
- Are households interested in using EE products?
- Do households have access to reputable EE-product suppliers?
- Do households have the time and energy needed to research EE product options?
- Can households afford to purchase EE products?
- Are the costs of EE products significantly higher (more than 10%) than conventional products?
- If costs are prohibitive, do households have access to credit or other means of saving?
- What are the current household energy consumption patterns?
- What role do electricity retailers, distribution companies, and the market regulator have in promoting energy efficiency, including through awareness raising, financial schemes, and electricity pricing options?

Desk review and Stakeholder map: Include a desk review to help refine understanding of the behavior, reveal any lessons from other local relevant behavior change programs, as well as identify and map the main stakeholders with potential direct or indirect influence over whether the behavior happens. Note, this may or may not differ from the overall Stakeholder relations section above.

Questions to guide the review could include:

- Which behaviors were targeted in similar projects?
- What were the causes of those behaviors (e.g., habits or cultural norms)?
- Common descriptions of behavior (e.g., how people normally purchase products)?

- Literature on initiatives that change behaviors (e.g., providing simplified information, use of trusted community members as messengers).
- What are the relevant policies?
- Who are influential stakeholders?

Outputs:

1. Synthesis report
    a. Summary of findings from exploratory sessions.
    b. Synthesis of relevant policies and literature, including
        i. An in-depth desk review of evaluated EE communication campaigns over the last 5-10 years, including what worked well and what did not.
        ii. Direct feedback from key partners, organizations, and managers of major EE programs.
        iii. Survey data covering consumer (and/or other target group(s)) behaviors and preferences.
    c. Problem definition(s) and assumptions.
    d. Stakeholder map

1.1.2 Diagnosis

Understand decision-making process and potential barriers: Using a framework based on evidence from behavioral science literature, such as the COM-B model[12], EAST[13], or MINDSPACE[14], identify the decision-making process and steps, i.e., the "behavioral journey" the target group must take in order to engage in the behavior, as well as the barriers that impede (and factors that promote, in the case of, e.g., attractive product features), the behavior at each step.

Revisit the literature review while considering, for example, what is known (or assumed) about how people learn about EE products, how people purchase them, what they have to do to maintain them, etc. Then, create a "journey map" by using the information to think through the consumer's journey. Starting from when individuals first learn about the product, map out all decisions, actions, requirements, and interactions the consumer must make to reach the desired behavior. (See example in World Bank (2024) Behavior Change for Low-Carbon Energy Access Technologies - Toolkit p.38 and Annex 1 for a sample template). Include assumptions (To be fine-tuned in a later step).

Validation: Review existing data on prevailing norms and attitudes regarding energy use. Use the stakeholder map from previous task to identify whom to engage with while remembering to consider the various lenses mentioned above.

Choose the relevant types of field validation tasks needed, e.g., focus groups and/or semi-structured interviews. Create and review questions to ask for each type of field work (open-

[12] Michie, S., Van Stralen, M. M., & West, R. (2011). The behaviour change wheel: A new method for characterising and designing behaviour change interventions. *Implementation Science*, *6*(1). **https://doi.org/10.1186/1748-5908-6-42**
[13] The Behavioural Insights Team. *EAST: Four Simple Ways to Apply Behavioural Insights*; Behavioural Insights Team: London, UK, 2014.
[14] Dolan, P., Hallsworth, M., Halpern, D., King, D., Metcalfe, R., & Vlaev, I. (2012). Influencing behaviour: The mindspace way. *Journal of economic psychology*, *33*(1), 264-277.

ended vs. more structured).[15] Consider discussing questions and/or frequently mentioned barriers that arose during the literature review, as well as of specific aspects of users' engagement with EE technologies, e.g., whether they use certain technologies out of habit or because of their observations of others.
Create consent form to obtain permission from interviewees prior to interviewing them.
Conduct the validation task. Enumerate how many people mention specific barriers or perceptions around EE products. For instance, are people aware of their benefits? Are they interested in EE products but have difficulty saving money? Do they lack access to quality information?

Map out the behaviors and barriers using a framework based on evidence from behavioral science literature, such as those mentioned above. (See also the "behavioral journey map" steps and template on page 39 of Toolkit). Include discussion of structural and behavioral barriers. Look for relationships between barriers or groups of people. Extract key insights, e.g., are the barriers mainly oriented around capabilities, opportunity, or motivation?

Consultant should have sufficient expertise in quantitative and qualitative data collection to determine appropriate number and composition of focus groups, interviewees, survey respondents, etc. OR sufficient expertise to supervise a data collection firm or anthropologist in collecting this data.

Process data and analyze results: Review and collate the data collected to understand behavioral barriers and psychological biases while trying to group information based on themes, such as issues people had related to knowledge of and interest in a product, the purchase of a product, and sustained use. Do the barriers align with what was found in the literature review? In interviews with experts?

Based on analysis, prioritize which barriers to target.[16, 17] For example:

- *increase consumer interest in and knowledge of energy-efficient products?*
- *boost energy efficiency technology purchases?*

Outputs:

1. Journey map for each behavior identified, updated based on validation.
2. Updated stakeholder map, including each stakeholder's potential influence over each behavior identified.
3. List of barriers in order of recommended priority.

Task 1.2 Intervention design and testing

1.2.1 Design options

Select potential solutions: Conduct a literature review of previous evidence-based interventions addressing similar barriers as well as any other relevant solutions undertaken

[15] For sample survey questions, see pp. 47-48 of this practitioner's guide (ESMAP, 2020).
[16] See Toolkit p.52 for a tool to help with prioritization, including specific steps.
[17] See example of a behavioral diagnostic on clean cooking in Uganda: Energy Sector Management Assistance Program. 2019. Uganda Clean Cooking Behavioral Diagnostic. ESMAP Paper. World Bank, Washington, DC. © World Bank. License: CC BY 3.0 IGO. https://openknowledge.worldbank.org/handle/10986/31283

in the same country/region.[18] Hold brainstorm session(s) with EE expert and other team members as appropriate to adapt similar solutions from other countries/sectors or generate any new solutions not found in the literature.

Develop shortlist of solutions, outline assumptions, prioritize.
Narrow down which solutions to prioritize based on feasibility of implementation and potential impact and sustainability. These may include for example a behaviorally informed information campaign aimed at, among others, enhancing female heads' of household motivation to switch to an energy efficient product by shifting perception that switching is "too much of a hassle," to "easier than expected."

Develop a theory of change using the barriers identified, proposed solutions, and expected outcome, including the assumptions that would need to be true to realize the expected outcome.

Build out the solution: This aspect of the task includes crafting the content around the solutions selected, including how they will be rolled out and to whom. Relevant stakeholders should be included in and have ownership in this process. Ensure solutions are behaviorally informed, such as by using one of the behaviors change frameworks mentioned above. See pp. 9-19 of this practitioner's guide (ESMAP, 2020) and/ or pp. 67-70 of Toolkit for examples.

Develop implementation and evaluation plans: Develop an implementation plan that includes a list of activities, a timeline, and an evaluation plan that details how measurement of the solution will take place. **Experimental methods, such as randomized controlled trials (RCTs), are preferred**. This should also include a **pilot test**. Obtain appropriate ethics review before implementation.

Working with the task team, decide whether randomized controlled experiment is feasible. If it is decided that an RCT is not feasible, provide justification and select alternative method. At a minimum, a process evaluation should be undertaken.[19]

Develop an evaluation plan that specifies the chosen method of evaluation, the units of measurement, and method of data collection. It should also specify how the results of the evaluation will feed back into the solutions generation/implementation process, and include discussion of potential ethics and evaluation effects, bias-related pitfalls, and how these will be addressed.

Outputs:

1. Final solution design
2. Final evaluation plan
    a. RCT(s) or other evaluation method, with associated activities including but not limited to:

[18] Consider including the sources listed in the "Other resources and information" section below.
[19] Sample guidance on process evaluation: https://www.3ieimpact.org/blogs/how-design-and-use-process-evaluation

i. Survey (or other instrument) questions developed
ii. Outcome and control variables (including demographic variables) identified
iii. Time period of data collection specified
iv. Results framework identified.
v. Plans for "re-design" upon receipt of results analysis specified.

1.2.2 Intervention testing and analysis

Identify research institution or other partner as needed to monitor progress and mitigate issues as implementation rolls out. Elements to consider during implementation include defining field protocols, designing surveys or other data collection instruments, reaching out to local partners and influential figures, designing and quality control guidelines; and training field staff and hiring companies to monitor implementation, data collection, and analysis.

Pilot: Run pilot test(s) (and pre-pilot test(s) as needed) to assess the viability of the selected solution(s), test assumptions, and gain feedback on survey questions, intervention materials, and others.

Provide evaluation report that includes analysis of the results from the implementation of the solution.

Outputs:

1. Survey(s) (or other data collection instrument)
2. Materials designed, produced, and updated as needed (e.g., brochures, fliers, digital or print advertisements, social media posts, website and other digital assets, and others)
3. Program implementation
    a. RCT(s) or other evaluation method, with associated activities including but not limited to fieldwork coordination, logistics, and monitoring of solution implementation and data collection, cleaning, and analysis.
4. Evaluation report
    a. Analysis of results
    b. Recommended adjustments and opportunities to scale up

Task 1.3: Campaign Implementation and Scale-Up

Assuming the identified solution is to shift households' factual beliefs about and attitudes towards energy efficiency, the campaign should be behaviorally informed, detailing the tasks listed below. The consultant should learn from awareness-raising campaigns in other countries, applying lessons that can be applied in Turkey accordingly. The Campaign will build on above evaluation of MENR's past EE campaign design and results and identification of practical applications that will make it possible to increase energy efficiency through improvement in household behavior. The campaign design process will determine in detail the steps, tools and resources that will implement mechanisms (e.g. information, education and incentives) to positively influence household practices, including to define different sub-campaigns for the needs and expectations of general and narrowed target groups (to key household decision makers or influencers). In design and implementation, the campaing with quantify the energy efficiency gains provided by these applications in the light of scientific

methods and set and measure performance indicators for the activities to be carried out within the campaign. The plan should also include measures for how the awareness campaign would be monitored and assessed along with indicators and targets to assess progress and effectiveness. Should interim targets show insufficient impacts, some adjustments may be needed.

Output: Household Energy Efficiency Campaign Plan. The Consultant will prepare a detailed campaign plan that will include the detailed workflow and the works explained below. The plan should include the approach to awareness raising taking into account behavior change strategies, types of messages and media channels, target groups, etc. along with indicative targets for various measures (e.g., number of households reached, # of clicks, etc.). The Plan will be prepared both in Turkish and English language.

Campaign benchmark elements and evaluation criteria

Household energy efficiency campaigns can involve various different elements to reach different audience segments via various channels. Small changes in details of campaign element design and implementation can result in significantly different impacts, and the impact can also vary significantly based on context.

The Consultant shall propose basic parameters of a campaign design based on anticipated findings of Tasks Tasks 1.1 to 1.4 above, as well as the anticipated findings of Component 2 preliminary and/or final outputs subject to implementation timelines. Default campaign element details include: messaging and visual branding; printed materials; digitial media; videos and broadcast media; games; and competitions to be held in schools) as specified in **Box 1** below. These are provided as a benchmark to cost a campaign. Consultants should conceive a campaign plan that has an overall expected cost to match the elements detaield below. However, within that expected campaign cost, consultants should anticipate the need to vary the choice and details of each element (and possible elements not listed) based on the findings of diagnostics.

In all cases (including implementation of default elements per Box 1), the consultants shall explain how the proposal aligns with the following evaluation criteria:

(i) Quality of proposed approach to use emperical evidence across tasks as the basis for campaign design;

(ii) Quality of approach to achieve maximum impact in terms of energy efficiency outcomes, including expected depth and breadth of campaign visibility and reach to target audiences;

(iii) Quality of proposed system for iterative monitoring, evaluation and learning during implementation and at completion.

Box 1: Benchmark Campaign Elements

A: Messages and Visual Branding

Catchphrases are expceted to be used in written and visual publications, internet and social media, and in events with the participation of national media, building off the experiences with past energy efficiency campaigns. Messages that will be highlighted during the campaign period will focus on different motives that will mobilize different target groups[20]. The catchphrases must be suitable for use in Turkish and a design may be requested for some of them in English.

It is expected to provide information about the financial, environmental and social benefits of energy efficiency by placing messages on increasing energy efficiency at homes in TV series, which are considered appropriate by MENR or recommended by MENR, among television programs that are widely watched by housewives. A message or image about energy efficiency for households, to be approved by the MENR should be included in at least five different TV series or programs with high ratings during the project implementation period. The messages should be tested to assess their ability to resonate with and influence the purchasing behaviors and preferences of the target auidence.

It is expected that priority will be given to the cartoon character named "Akıllım", which was designed within the scope of Consultancy Services for Increasing the Visibility of IPA 2013 all rights of which belong to MENR.

Output: Sharing messages and images in TV series.

B: Digital and Social Media

i. Internet Usage

The website created within the scope of the Consultancy Services for Increasing the Visibility of IPA 2013 Projects and Public Awareness in the Fields of Renewable Energy and Energy Efficiency which targets households and social media (Facebook, Twitter, Youtube, Instagram, or any other locally relevant platform) accounts are expected to be updated, to make new posts, and to increase the number of people and views reached.

It may also be necessary to create a LinkedIn account suitable for the social media accounts taken within the scope of the project. Such account would be transferred to MENR with all its rights at the end of the work.

ii. Web Site

The website section, which will be updated and managed by the Consultant will be used to announce the activities within the scope of this Project and all kinds of activities to be carried out within the scope of the awareness campaign. In addition, it is expected that different training and awareness materials such as learning materials, tools, guidelines, training videos available to end users will be prepared and included in order to provide information about technological developments and successful applications. The scope and content of the changes to be made on the website will be

[20] Research has shown that understanding what motivates people and influences their behavior is central to successful policymaking. Government officials and policymakers have recognized that “nudges”—such as informational triggers, reminders, and social comparisons, among others—can affect behavior without legislation or changing prices or restricting choice sets. Such elements should be considered in the development of the awareness implementation plan.

proposed by the Consultant to the approval of MENR and it will include informative texts, announcements, visuals, videos etc. about energy efficiency.

The website address that will be used for the campaign as follows: http://aklinlaverimliyasa.com/

The Consultant is responsible for updating, designing software, creating and uploading all kinds of content to be uploaded, and keeping the contents up-to-date on the website linked above.

The website must have the following features:

- It will be published in Turkish and English.
- There should be Facebook, Twitter, Youtube, LinkedIn and Instagram buttons to publish news and other announcements on social media.

After project implementation, the Consultant will transfer the website and domain right with all relevant information such as control panel user names and passwords for MENR to be able to make changes and keep the website up and running.

Output: Impact Analysis Report: It should include data such as the number of views of the website, the number of shared content, the number of comments and the rate of reaching to target etc.

iii. Social Media

The consultant is to actively use social media tools throughout the project. In this context, the consultant will make regular posts in Turkish language from Facebook, Twitter, Instagram and Youtube accounts opened within the scope of "Consultancy Services for Increasing the Visibility of IPA 2013 Projects and Public Awareness in the Fields of Renewable Energy and Energy Efficiency", as well as the newly created LinkedIn account. Before any sharing, the approval of MENR must be obtained. At the end of the project, the Consultant will transfer all social media accounts with their password and usage rights to MENR. Social media accounts created within the scope of the previous project are as follows:

- Instagram: https://www.instagram.com/aklinlaverimliyasa/
- Facebook: https://www.facebook.com/aklinlaverimliyasa/
- X: https://x.com/verimliyasa
- Youtube: https://www.youtube.com/AklinlaVerimliYasa

It is expected that the the posts will include both the content produced and the activities carried out within the scope of the awareness campaign, and the developments in the field of energy efficiency (legislation, targets, sectoral developments, etc.) from our country and the world.
Awareness-raising content on energy efficiency will be shared from social media accounts five days a week throught the project. The consultant will report the impact analysis (likes, retweet, viewing, etc.) of the posts to MENR every four months in the impact analysis reports throughout the project period.
It is also the responsibility of the Consultant to offer to MENR and if approved by MENR implement some activities to increase the number of followers of the social media accounts such as organizing short-term contests in return for small gifts for housewives or young people.
Output: Impact Analysis Report: It should include data such as the number of views of the social media, the number of shared content, the number of comments and the rate of reaching to target etc.

C: Videos and broadcast media

The consultant is responsible for:

- Creating videos explaining the energy efficiency potential, exemplary behaviors, good practice examples and economic, environmental and social dimensions of efficiency for different target audiences (households, employees in public buildings, students, white collar, etc.). Especially videos on household appliances, heating / cooling systems, lighting, insulation, transportation, energy efficiency in business life, digitalization and modernization in energy efficiency, energy efficiency in schools, etc. are expected to be developed.
- Preparing the scenarios of the videos, design, shooting or broadcast. The consultant is responsible for obtaining the copyrights of all visual content used in the videos. Due attention must be paid not to experience any copyright problems. The scenario / story of the videos, dialogues and all other texts will be prepared by the Consultant and submitted for the approval of MENR. The shooting will begin after MENR approves the scenario of the video. After the shooting of the videos, the approval of MENR will be obtained before broadcasting.
- All kinds of usage rights regarding the published videos will be owned by MENR and the Consultant will deliver the videos in digital environment in the format requested by MENR. Although the videos to be broadcasted are without subtitles, the videos to be provided to MENR will be both without subtitles and with English subtitles. The consultant is responsible for covering all expenses related to subtitle translation etc. In this context;
    - The consultant will design, prepare and broadcast two (2) TVC commercials / public spots with a duration of 20-45 seconds.
    - The Consultant will conduct two live broadcasts, (each with at least three guests and over two separate periods) in programs deemed appropriate by MENR during Energy Efficiency Week.
    - The consultant is responsible for preparing 215 stable posts, 145 short videos and animation works. At least 2 fixed posts, 1 short video and animations will be shared per week and they will be posted simultaneously on all social media accounts of MENR.
    - The training video and booklet prepared by MENR for teachers within the scope of the "Consultancy Services for Increasing the Visibility of IPA 2013 Projects and Public Awareness in the Fields of Renewable Energy and Energy Efficiency" will be updated.

TVC commercial / public spot broadcasting is under the responsibility of MENR and the consultant will not pay for the broadcast of the TVC film.

Output: Informative and Awareness Videos

D: Promotional Objects

The consultant is responsible for:

- Designing an "energy detective card and badge" for the purpose of increasing energy efficiency awareness and responsibility for children and printing 1000 copies of each to be distributed to children during trainings. In addition, the design and production of 2000 pieces "energy detective vest" with the same logo designed for cards and badges.
- Fabric bags (20 thousand pieces and made of polyester), which can be folded into a folding wallet, with the visual and non-removable print of the character of "Akıllım" will be designed and produced. They will be distributed by the consultant in different fields (school, marketplace, fair etc.) together with supporting materials (presentation, brochure, etc.)
- Purchasing 2.000 smart sockets and wattmeter (which plug into the electrical outlet and allow controlling any device plugged into the outlet with the help of a remote application or virtual support) in order to distribute them

E: Printed Materials & Games

The consultant will prepare visuals to be distributed to participants at different events/seminars that will be determined by MENR to be organized by the consultant. Remaining printed materials will be returned to DEEE for dissemination after project implementation.

The consultant is responsible for the development of visuals on the following subjects: household appliances, labeling system, heating / cooling systems, lighting, insulation, transportation, energy efficiency in business life, digitalization and modernization in energy efficiency, energy efficiency in schools, etc.

i. Visual Materials:

In this context, the Consultant is responsible for the following tasks:

- Social media images may be prepared for use and subsequent printing. A total of 10 images (10,000 copies) will be printed.
- Sharing energy efficiency visuals in a total of 400 billboards and 80 overpasses within the boundaries of 4 Metropolitan Municipalities for 7 days (within the scope of energy efficiency week activities during the project period) will be prepared.
- The infographic of the outputs of DEEE activities will be prepared and 5.000 copies will be printed.
- A storybook consisting of approximately 10 pages in 3 different series with the character "Akıllım" will be designed in order to be distributed to the students by the consultant during school visits (and also to be sent to schools free of charge if requested). Totally 10,000 storybooks which will include drawings and narratives with 3D anime characters that will raise awareness on the above-mentioned issues will be printed.

ii. Games:

Considering the effectiveness of learning through games, two different games will be designed with the theme of raising energy efficiency awareness. A card game to be prepared by DEEE on energy efficiency measures may be modified in a manner that it involves the issue of energy efficiency at work, home, school and in social events. The boxes of the game would be produced in cooperation with MENR and the Ministry of National Education. 2000 cards games could be produced and sent to schools of primary education. The students who are to play the game could be asked to complete a mini-survey of at least 5 questions prior to the game. After a certain amount of time passes upon playing the game, they will be asked to answer the mini-survey questions again. The results will be used by the Consultant to measure whether their awareness and level of knowledge on energy efficiency has increased.

***

Task 1.4: Re-Measuring the Energy Efficiency Awareness Index

In parallel with the content and design of the campaign, as a continuation of the Energy Efficiency Awareness Index studies conducted by DEEE, the Consultant is expected to update the existing questionnaire forms (for the public and legal entities) within 3 months following the signing of the contract to measure the level of public awareness.

The survey will be updated in a way that takes into account socio-economic and geographical factors and will measure the awareness of consumers on the determinants of energy efficiency and energy consumption. A face-to-face survey will be conducted with approximately 3,000 members of the public, and an online survey will be conducted with approximately 1000 (+,/-10%) participants from industry, service, transportation, and agricultural enterprises. In order to measure the impact of the campaign, face-to-face and online surveys will be conducted twice: once 2 months after the questionnaire forms are updated and again 3 months before the end of the campaign.

At the end of the campaign process; the awareness index will be updated according to these results, and efficiency & awareness will be measured by Consultant.

In a survey directed to the public, the questions used previously by DEEE will be revised and questions such as those formulated below will also be included in the survey:

- Which of the following appliances consume the most electricity in an average Turkish household, based on your knowledge and experience?
- Which of the following household measures do you think could save the most energy and money?
- Are there any activities, public spots or slogans you remember from campaigns about energy efficiency? If yes, could you name them?
- Could you tell us whether or not you have heard of the campaigns/slogans that I will mention about energy efficiency?
- Are the messages given in energy efficiency campaigns clear?
- Have the messages given in energy efficiency campaigns influenced your buying habits or any other behaviors?

The consultant will prepare the updated awareness index report. The report will include updated index, the survey findings, key trends and recommendations to enhance future EE awareness raising activities.

Outputs:

1. Revision of questionnaire forms for public, private sector and legal persons.
2. Two face-to-face surveys of 3000 people for the public (once 2 months after the questionnaire forms are updated and again 3 months before the end of the campaign)
3. Two online surveys with 1000 (+, - 10%) companies from industry, service, transportation, agriculture sectors (once 2 months after the questionnaire forms are updated and again 3 months before the end of the campaign)
4. Updated awareness index reports (one for public and another for the entreprises).

Component 2: Residential Building Energy Efficiency Measures

Task 2.1: Monitoring and Calculation Tool to Audit Efficiency Potential of Household Appliances

The Consultant will assess initially the available data in the market. This initial study will answer the following questions; availability of the data, if it can be used (where to collect data), how to collect market data of household appliances, handling of collected data and stock estimation, calculation of stock energy consumption and saved energy due to market transformation of efficient appliances.

The Consultant will review existing data and then develop a methodology for data collection and analysis to develop a market assessment for the top 10-20 household appliances. Once the methodology is approved, the Consultant will prepare the survey instruments, sampling method, produce data collection forms, implement the market research, clean and analyze the data and prepare a Market Analysis Report, which should include among other things market volume of appliances and shares by model, the stock in-use, energy consumption of the stock and estimated savings over the past 15 years, and potential for additional energy savings if the most efficient models are further promoted. The Consultant will also develop a Calculation Tool which will be able to analyze energy savings potential and required investment of replacement of inefficient household appliances, so the MENR will be able to calculate impacts of designing a market transformation program. The Consultant should also make additional recommendations, based on EU and global experience, on options to promote efficient appliances in the Turkish household market.

Outputs:
1-Market Analysis
2-Calculation Tool

Task 2.2: Energy Audits for Residential Demand Side Management Potential

2.2.1 Energy Audits

The Consultant will first prepare a strategy to conduct energy audits on a sample of 30 residential buildings, considering different climate zones and building typologies, with a view to determining potential demand-side energy management resources. The selection should include both single family dwellings and multifamily dwellings roughly proportional to their relevance nationally in terms of energy consumption and efficiency opportunities. The audits will follow the following steps as a minimum and should align with EU Directive on EE Annex VI 'Minimum criteria for energy audits'. Audits could cover energy efficiency as well as distributed generation potential (solar hot water heating and/or distributed PV on-site, and/or community solar schemes that allow residents with no on-site generation to subscribe to an offsite system that partly offsets their grid electricity bill).

1. **Select sites and audit scope.** Before starting the audits, the approval of the MENR will be required especially regarding the format of the Audit Reports and site/facility

selection. MENR will assist the Consultant in choosing the buildings and making agreements with the building owners and residents.

2. **Conduct preliminary reviews,** perform an initial energy use evaluation by reviewing all available building information (such as building materials, design, insulation, HVAC systems, location-specific factors that affect energy use).
3. **Review** at least two years of energy data and discuss year-to-year variations and seasonal variations in energy use patterns, calculate the baseline consumption. The baseline consumption shall be normalized as defined in ISO 50006 and later be revised using data from site assessments.
4. **Site assessments:** The Consultant will install metering devices capable of measuring major electric appliances (cold and wet white goods) separately on a real-time basis for a period of at least 12 months for each building. Design, supply, installation, operation and maintenance of the necessary metering equipment and all other expenses for the real-time monitoring will be covered by the Consultant, with the installation, operation and maintenance to be done in cooperation with consumers/building owners for their participation in the program. At the end of the period of monitoring by the consultant, the consultant will uninstall all metering equipment and provide the equipment to MENR for MENR's disposal or use, unless agreed otherwise between MENR, the consultant and the consumers or building owners. Heat demand (both DHW and space heating) may be metered directly via metering devices or can be found via billing data or via surveys. Assess the sites to further investigate major energy-consuming processes in the buildings. Analyse peak load; types of end-use consumers, energy sources and uses; demand side management and storage potential; and energy efficiency potential. The audit could be supplemented broader electricity supply and demand data for the buildings and their distribution feeders (including distributed energy production where relevant), as needed, with MENR's assistance to avail such data.

5. **Identify energy efficiency measures**: Energy efficiency measures to be analyzed shall include: (i) building envelope measures (envelope insulation, renewal of windows and doors), (ii) heating, cooling, ventilation and water heating system (boiler upgrade, replacement of fossil-fuel boilers by electric heat pumps, upgrade of cooling systems), (iii) lighting upgrade (LEDs), (iv) on-site renewable energy (e.g., rooftop PV systems), (v) upgrade of household appliances and equipment.

6. **Data analysis:** Revise the baseline energy consumption using data collected in previous tasks. Identify investment costs, energy savings, and cost benefit.
7. **Prepare audit reports.** The Consultant is expected to submit an Energy Efficiency Audit Report for each building (in total 30 reports). The reports should follow the audit report template (the template will be agreed with MENR in advance). All relevant findings related to the visual inspections, field measurements, and interviews must be included in the energy audit report. The audit reports should be concise and clearly written; document all methodology, supporting calculations, analyses and assumptions; and discuss difficulties encountered in data collection and field work. A copy of the audit report with one-pager summary of recommendations for lowering energy bills will also be sent to consumers to encourage participation.

8. **Prepare an audit summary report.** The report will summarize the findings across all 30 buildings including to identify patterns of challenges and opportunities.

Outputs:
1- 30 audit reports
2- Audits summary Report

2.2.2 Determination of Demand Side Management Potential of Residential Buildings

The Consultant will investigate the selected buildings' demand side management potential and analyse their possible effects on the national electricity load curve as an aspect of energy efficiency by creating scenarios where a number of households/buildings can partner together to offer a package of load reduction options to support any future utility demand side management/demand response program. These load reductions should include both envelope measures (to reduce heating/cooling demand) and appliance replacements (to reduce capacities, improve efficiencies).

The Consultant will also investigate the needs of behavioural changes, analyse the monetary savings potential that can be attained by consumers through load shifting and develop a long list of potential demand side management (DSM) programs by considering best business model practices. The Consultant will then develop a shortlist of programs and conduct detailed cost-benefit analyses (from customer, utility and society perspectives) to confirm their viability and, then develop 3 detailed DSM program plans which will include but not limited to market and load data, load reduction and shifting potential, costs and impacts, program approaches including incentives and pricing, budget, monitoring and evaluation plans. The Consultant will prepare the DSM Potential and Behavioural Change Needs Report[21] and the Best Practices in DSM and their applicability in Türkiye's Building Sector Report.

Outputs:

1- DSM Potential and Behavioural Change Needs Report
2- Best Practices in DSM and Their Applicability to Türkiye's Building Sector Report

Task 2.3: Sustainable Financing Mechanisms for Household Energy Efficiency

The Consultant will prepare the Sustainable Energy Efficiency Financing Mechanism Report for household energy efficiency with a focus on the most impactful identified measures such as replacement of inefficient household appliances, equipment, and building renovation measures (e.g., building envelope; heating, cooling, ventilation and water heating; lighting), by reviewing the current situation in Türkiye and best practices.

[21] This step can follow the Diagnostics activities from Component 1, e.g., Behaviour Journey Map to identify existing behaviors and barriers to the desired behavior.

The Report shall propose sustainable financing mechanisms specific to Türkiye and contain an assessment of financing needs, review of current situation and incentive schemes in Türkiye; review of international best practices including grants and rebates, subsidies, fiscal measures, loans, utility on-bill financing (or 'pay-as-you-save'), market-based instruments, public-private partnerships; identification of barriers and recommendations for suitable financing mechanisms, including the necessary legislative and financial reforms to realize them.

Output: Report on Sustainable Financing Mechanism for Household Energy Efficiency

Component 3: Ecodesign, Energy Labelling, and Green Public Procurement

Task 3.1: Legislative Gap and Market Analyses

Türkiye seeks to strengthen the voluntary participation of public authorities to purchase energy efficient and environmentally friendly goods, services and works in line with the EU policies and programs on green public procurement policies and Ecodesign and Energy Labelling. Previously, a Policy and Legislative Gap Analysis Report[22] was produced under the Türkiye Energy Efficiency in Public Buildings Project (administered by the World Bank and managed by MENR).[23] In light of the above, the consultant will revise and update this, elaborating on gaps between the existing Turkish policies and legislation (including a review of public procurement legislation and guidelines, existing standards and labeling schemes, value for money requirements and tools) and that of the EU member states. This gap analysis should consider, among other things, selection of equipment to include under green procurement frameworks, setting of guidelines or standards, certification, cost considerations, tools needed to facilitate implementation, and institutional set-ups to develop, update and monitor green procurement initiatives. The Consultant should offer examples measures taken by EU countries and elsewhere as appropriate to address each of the gaps. This would include tools such as product labeling and certification (so procurement documents can just require certain labels), catalogues with green technical specifications (to be used directly in tender documents), life-cycle costing calculators (to assess upfront costs and potential operating and maintenance cost savings), product preferences (e.g., higher points for products meeting certain levels) or a list of eligible products (including brand names and model numbers). The focus should be on energy efficiency aspects. The Consultant should discuss and agree with MENR before finalizing the roadmap that will include proposed actions to fill each of the identified gaps. The Consultant is also expected to develop implementation plans and necessary tools to implement the roadmap. For this task, reference should be made to EU Directive on EE Annex III 'Energy Efficiency Requirements For Purchasing Products, Services and Buildings by Central Government'.

Output: Policy and Legislative Gap Analysis and Roadmap for harmonization

Task 3.2 Energy Efficient Product Purchasing Guide and Calculator Tools

The Consultant will identify focus areas and key energy-using equipment to develop guidelines and calculation tools for energy efficient products by considering life-cycle costing. This should

[22] Official use only (not public).
[23] https://projects.worldbank.org/en/projects-operations/project-detail/P162762

be targeted to households and useful for green public procurement with consideration of 'circular procurement' (any purchase necessary for a company to operate that is made in a manner supporting the transition to the circular economy).

Technical specifications and calculation tools for a minimum of 10 product types will be prepared in Turkish mainly and will be translated to English after approval by the MENR. These technical specifications and tools consist of as minimum:

- Computers and monitors (e.g., standby power options, power save mode, sustainable production)
- Imaging and printing products
- Transport (electric vehicles)
- Combined heat and power
- Solar PV and thermal panels and auxiliary equipment
- Air conditioners/chillers
- Heat pumps
- Refrigerators and freezers
- Wet appliances (dishwashers, washing machines, tumble driers, etc.)
- Building components (insulation, windows, etc.)

Outputs:

1- Technical Specifications
2- Calculation Tools (note targets of guidelines and calculation tools prepared for green public procurement covering at least 10 product types; and 10 types of household appliances that can have energy production compared with a calculator tool)

Component 4: Capacity Building and Cross-Cutting Activities

Task 4.1 Inception and visibility event

4.1.1 Inception

Following the contracting, during the first four weeks – Inception Phase, the Consultant will set-up and mobilise the expert team and the project backstopping team and complete all logistics arrangements of the project office.

During the Inception Period, the Consultant will be expected to review the ToR and the Organisation and Methodology (technical proposal) submitted within the offer and confirm and if necessary propose on work plan, timing, activities, outputs due to changes in circumstances since the issuing the original ToR. The Consultant shall implement the following preparatory activities within this period:

- Mobilise the required experts for technical assistance team and the project backstopping team in order to provide a smooth start of the project.

- Complete all logistics arrangements of the project office.
- Prepare the project kick-off meeting with the participation of all concerned parties such as MENR Directorate General of Foreign Relations (DGFR), MENR Department of Energy Efficiency and Environment (DEEE), MENR Directorate for EU Affairs (DEUA), WB, and Delegation of the European Union to Türkiye (EUD). The kick-off meeting will host around 10 – 15 participants at MENR's premises and aim at getting know each other and overview of the contract and responsibilities of the parties as well as management structure and operational issues. The Consultant will be also responsible for providing simultaneous interpretation (Turkish/English) service. The responsibility for the organization of the kick-off meeting including preparation and finalization of the minutes lies with the Consultant.
- This initial meeting can include a first exploratory session to discuss and identify target behaviours and target group(s) or subgroup(s) expected to engage in the behaviour, e.g., household members reduce individual electricity consumption ("curtailment"); household decision-maker purchases/ installs EE products ("more efficient purchasing"), EE product manufacturer uses visible EE labels ("more efficient purchasing"); household members regularly service EE product ("maintenance"), and explore the physical, political, social, and/or other dimensions influencing the behavior within the target group(s). Examples of guiding questions for these sessions include:
    - What do typical energy equipment purchases comprise?
    - How do individuals currently make purchasing decisions?
    - What types of information influence their decisions, e.g., price, brand, family/friends/neighbors' preferences?
    - Are there government programs, or efforts by NGOs or other actors to promote energy efficiency products?
    - What are the current type of consumers based on their consumption patterns and products?

The Inception Report (IR) shall consist of (as minimum requirements): project synopsis, situation analysis, project planning for the entire duration of the contract, updated logical framework, updated detailed resource planning (HR and incidentals) according to activities planned, implementation environment and arrangements, deviations from the ToR (if necessary), risks and assumptions and detailed description of the activities planned for the next reporting period. The expected output of the inception phase is the inception report.

4.1.2 Event Organisation

Visibility Event: An event will be held under this contract to increase the visibility of all contracts to be implemented within the scope of the IPA 2018 Phase 3 Program. The one-day event will be held at a 4-star hotel in Ankara with the participation of approximately 100 people. The Consultant of this contract shall arrange and cover the cost of venue, food and beverages to be served during lunch and coffee breaks as well as interpretation services (accommodation and transportation are not foreseen for this event). The Consultant of this contract shall act in cooperation with the other consultants recruited within the Project for this event. The Consultant will also cover cost of visibility materials, including printing, duplication and dissemination, only

related to this contract for this event (The visibility materials related to other contracts will be submitted by the respective consultants).

The visibility materials will be in line with requirements of the EU visibility rules. (Further information can be found in Section 9 Publicity and Visibility.) The Consultant shall ask for a 'No Objection' from MENR for each and every stage of the implementation of the project; including the venue selections for trainings/meetings and list of participants.

Task 4.2 Institutional Capacity Building

4.2.1 Training Needs Analyses

A Training Needs Analysis (TNA) study will be a comprehensive study to determine the training requirements of staff of the MENR and the key stakeholders form public sector, private sector and NGOs. The analysis will be based on the current and future needs of the MENR and the stakeholders with thematic diversity but also the technical baseline.

The TNA will assess the personal achievements and organizational knowledge, skills, and abilities, to identify any gaps or areas of need. It will provide identification of existing knowledge and skills of the MENR and potential stakeholders, analysis of gaps in knowledge and skills, conclusions on key needs in relation to the thematic areas in order to provide a basis for designing training programme. The TNA will also apply the findings to inform details of the proposed study tours under Task 3.2. Due to the cross-cutting nature of the activities (preparation and implementation), the TNA should be extended to all related staff of different institutions which will be responsible in implementing efficient equipment in building sector.

The TNA will result in the design of a comprehensive staff training programme covering the entire target group of the operation, i.e., potentially including households and public procurement officers.

The TNA will be repeated on the 11th month of the project, after completing all delivery of trainings. This renewed TNA study will consider all the comments and lessons learned after all trainings. This renewed TNA will guide MENR for the future training activities after the project activities completed and will help the knowledge dissemination to all stakeholders' staff.

The two conducted TNAs will be used as a guide to regularly update the staff training programme after the completion of the project.

Output:
2 TNA Reports

4.2.2 Delivery of Trainings:

In order to develop the institutional and technical capacity, the Consultant will plan a comprehensive training programme. This activity will target to meet training needs of the MENR and stakeholder staff in their capacity building efforts. The main guidance document will be the Training Needs Assessment Report. This should include target audiences, number and format of

trainings, proposed training materials, evaluation of trainings, etc. Training materials should be continually revised based on feedback from earlier training deliveries.

The Consultant will thus be expected to design and deliver a set of training modules to selected staff of the MENR and the key stakeholders in 6 training programs as minimum. The Consultant will liaise with MENR to finalise and detail the updated needs and requirements at the time of implementation.

Depending on the existing administrative and institutional capacity needs of the relevant institutions identified in the first Training Needs Assessment report, the Consultant will prepare a training plan including the possible training modules and possible participants and timing.

The Consultant will deliver indicatively 6 training programs with number of 20 participants for each, mainly for the MENR and representatives of the sectors and institutions for the implementation. It is expected that (it is the trainings will be held where the majority of the participants reside expected that in total at most 10 participants will come from outside the event location for each program).

Each training program will have duration of 2-days (indicatively).

In any case, as a minimum, the training programs will focus on below main topics:

- General topics regarding energy efficiency and demand side management.
- Technical documentation-Guidelines prepared under this contract.

All the necessary training materials for all participants (presentations, flash memory, white board, board pens, pencils, notebooks, etc.) will be provided by the Consultant. All the documentation regarding trainings will be given in flash memories.

Some specifics of the training programs will be as follows:

- Three (3) of the training programs will be held in Ankara MENR premises. The remaining training programs will be held in 3 cities in 3 geographical areas (Istanbul, Samsun and Gaziantep) of Türkiye.
- The Consultant must provide both hard and soft copies of procedures and training material to enable the MENR to reproduce materials for conducting its own trainings in the future.
- The training documents will be submitted to the MENR 15 days before the training programs. All training material must be in Turkish and English.
- Interpretation costs will be paid by the Consultant.
- Cost of the trainings including venue cost (if not be done at the MENR premises), lunch and beverages of the participants and the cost of travel and accommodation (in at least 4-star hotel or equivalent) including meals and beverages of the participants attending from out of the hosting city will be covered by the Consultant.
- The exact venue of the training programs will be submitted to MENR for approval at least 15 days before the events to have the maximum participation from the target institutions.

All training programs will be completed by post-training evaluation questionnaires. These questionnaires will be evaluated by the Consultant and by the end of each training program, training assessment reports will be submitted in Turkish and English.

Outputs:

1- At least 6 training programs
2- Training assessment reports for each training program

4.2.3. Study tours

The consultant shall organize a minimum of two (2) and maximum of four (4) international study tours, planned in a logical and efficient way, based on specifications and criteria as described below.

- The study tours will, collectively, cover the full set topics of tasks under Components 1, Component 2, and Task 3.1 namely: household energy efficiency awareness raising and behavior change; household EE measures including efficient appliance programs, demand-side management, and financing mechanisms; eco-design, energy labelling and calculator tools for green public procurement. Any given study tour may focus on one or more of these topics; and each of the above topics must be covered by at least one study tour.
- The country or countries and institutions where the study tours will be organized will be researched and proposed by the Consultant and approved by MENR. The study tours may be carried in one or more EU member states as a default preference, such as the Netherlands, Germany, Denmark or Poland as countries have implemented best practice awareness raising and behavioral change activities on energy efficiency, and those with good practices in DSM such as Austria, Finland, Ireland, and the Netherlands. The consultants may, however, consider opportunities in countries other than EU member states, subject to evaluation against the criteria below.
- Activities in the selected country or countries are to comprise meetings with and/or visits to relevant entities such as government authorities (local and central), research institutes or universities, energy service companies and utilities, and field sites such as efficient buildings, residential consumers or manufacturers whose experience can provide insights into success factors for energy efficiency outcomes. At least one study tour should be proposed to time to coincide with an international conference on a relevant energy efficiency topic (e.g. EEDAL) subject to scheduling and MENR's approval.
- An indicative eight (8) individuals will participate in each tour representing MENR and other agencies that MENR nominates, all based in Ankara. The specific individuals that will participate in each study tour will be decided by MENR during project implementation taking into account the final number and scope of each study tour and findings of the TNA (Task 3.2.1) At least one key or non-key expert (NKE) will lead each study tour and facilitate the transfer of knowledge gained in this study tour effectively.
- The duration of each study tour will be a minimum of 2 days and maximum of 4 days excluding travel days, with the combined total number of study-tour days between 7 and 12.

Study tour proposals will be evaluated based on the following criteria:

(i) Relevance of energy efficiency programs and experiences in the destination country / institution to addressing barriers for energy efficiency scale-up in Türkiye on the topics identified in this ToR (including in context of Türkiye's 2nd NEEAP and to encourage alignment with relevant EU policies);

(ii) Planning of proposed tour plans for coverage of topics, logistic efficiency, and appropriate timing within the project implementation period to inform MENR's role other ToR tasks;

(iii) Demonstrated availability and willingness of the destination country institutions and its relevant personnel to provide all the appropriate information and support necessary for the study tours to be carried out.

For all study tours, the detailed agenda will be proposed by the Consultant and determined according to the current demands of the MENR.

The Consultant will be responsible for planning of the study tour programmes, organization of the study tours (connection with companies, institutions, agencies etc., accommodation and travel arrangements and inform participants) and conduction of the study tour properly. Consultant will deal with the organizational, logistical and administrative issues and will be responsible for arrangement of permissions (if necessary), security forms and fees of participants for the places to visit, and interpreting between Turkish and the relevant language.

MENR will provide assistance to the Consultant when deemed necessary. Some specifics of the study tours will be as follows:

- The locations of the study tours will be determined by the MENR and the Consultant together.
- The exact date/venue/agenda of the study tours will be decided between the MENR and the Consultant at least 30 days before the study tour.
- The accommodation will be at a minimum 4-star hotel or equivalent.
- Presentations (if any) and related documentation will be transmitted by the Consultant and agreed with the MENR at least 10 days before the event.

After two weeks of the finalization of each study tour, the Consultant will prepare a Study Tour Report including activities, outcomes, meeting notes, photographs, and benefits from the visit. These reports will be used for informing the MENR staff who did not attend the study tours. Outcomes and best practices from study tour will be disseminated to the other central units of the Ministry via a presentation (i.e. MS Word and PDF). The documents related to the Study Tour will be used as a training material and archived by the MENR.

The study tours are expected to add value by increasing the knowledge and understanding of participants on the specific technical topics through: best practice techniques, and technologies observing energy efficiency applications (seminars, competitions, application centres or energy museums, etc.); observing administrative structure of different relevant country contexts for energy efficiency; analysing the impacts of relevant implementations on the progress in their energy efficiency policies; applying learnings to the development and implementation of energy efficiency programs in Türkiye.

Outputs:

1. Study Tour plan (for all study tours)
2. Study Tours Reports (one for each study tour)

Task 4.3 Monitoring, Evaluation, Learning and Dissemination

The consultant will prepare a report covering monitoring and evaluation of all activities, key findings, and recommendations for next steps.

After completing a draft report, the consultant will organize three 1-day workshops with a number of indicatively 50 participants each to share the outcomes of all Activities with sector stakeholders. Workshops will be conducted for information exchange and dissemination and visibility purposes among each sector and related stakeholders. The workshops will be held in different cities of Türkiye at a 4-star hotel (e.g. Istanbul, Ankara, and one other city). The Consultant shall consider that in addition to sector participants, 10 representatives of MENR, mainly from DEEE will participate.

All dissemination workshops will be completed by evaluation questionnaires. These questionnaires will be evaluated by the Consultant.

Following the completion of the workshops, the Consultant will prepare a Final Report comprising all minutes, information and feedback collected and administrative information including attendance lists. Based on the feedback, the Consultant will revise the materials before submitting to MENR for further replication.

Outputs:

1- 3 workshops
2- Final Report

5. PROJECT MANAGEMENT, COORDINATION & LOGISTICS

5.1. Responsibilities of the Parties

MENR DGFR (PIU) is the Contracting Authority of the Project. The Contracting Authority will be responsible for tendering, contracting, contract administration, overall project supervision, financial management including payments of project activities. After necessary clearances are received, the PIU gives the final approval of all delivrables and notifies the Consultant.

The **End Beneficiary** of the project is **MENR DEEE**. The End Beneficiary is responsible for technical review and clearance of reports and outputs.

The Consultant is responsible for conducting the exchange, coordination and approval processes described in Section 4 of this Terms of Reference under the Relationship with Stakeholders and Approval. In this context, the Consultant is required to appoint a Team Leader who will be in direct contact with MENR, for coordination and output submission and approval processes. It is important that the Team Leader is experienced in project management and public relations in the energy efficiency sector. MENR DGFR will designate one of the PIU staff as Project Manager and MENR DEEE will designate one of its staff members as Technical Implementation Manager

on behalf of MENR.
MENR DEEE may request a meeting with the Consultant to go over the draft outputs or talk about the event programs within the scope of the project. The Consultant should ensure that relevant experts attend these meetings.

Management structure: For the purposes of this contract, a Steering Committee will be established to discuss the progress of the project, verify the achievement of the outputs and expected results and decide on actions to be undertaken for the successful implementation of the project. Steering Committee will be co-chaired by the representatives of DGFR and the DEEE. Committee members will consist of representatives from MENR (DEEE and DGFR), WB, and EUD. Representatives of DEUA and MoEUCC will also be invited to the Steering Committee meetings as observers. MENR may invite MoEUCC to review and provide comments on selected reports and outputs related to Component 2 as appropriate. MENR may invite other relevant participants to the Steering Committee meetings. The meetings will be convened on a quarterly basis and also on ad hoc basis when deemed necessary by its members. The Consultant is obliged to have the relevant experts attend and provide information about the project in the meetings. The responsibility for the organization of the Steering Committee meetings including preparation of minutes lies with the Consultant.

The Steering Committee meetings shall be organized in Ankara at the premises of DEEE.

5.2. Logistics

Location. The operational base for the project is Ankara, Türkiye. Some of the activities such as trainings and site visits, as indicated in this Terms of Reference require travels within Türkiye and to the EU Member States.

Facilities to be provided by DEEE. To fully implement the above general assignment, DEEE will provide the Consultant with appropriate support. This includes notably:

- Co-operation with the Consultant during the execution of the assignment in tasks relating to data and document collection, facilitation of the contacts and logistics that might be deemed necessary for the performance of specific tasks.
- Provision of the set of documents required for implementation of the assignment or, whenever such documents are held by another authority, to assist the Consultant in retrieving these documents.
- Assistance to the Consultant in accessing the relevant national legislation or other national regulations that form the basis for the work.
- The office accommodation including office furniture provided to the experts. All logistical support including access to utilities (electricity, heating, cooling, etc.) will be provided for the Consultant's experts by DEEE.

DEEE will provide venue for the kick-off meeting and the Steering Committee meetings of the project. For theoretical trainings and the additional trainings proposed by the Consultant (if any), training venue will be provided by the Consultant.

Facilities to be provided by DEEE and the Consultant. To fully implement the assignment, the DEEE will provide the Consultant with appropriate support. DEEE will assist the Consultant in

accessing to the information about its previous studies, reports and analyses on energy efficiency. The Consultant shall be responsible for all administrative costs of employing the relevant experts, such as relocation and repatriation expenses (incl. flights to and from Türkiye upon mobilization and demobilization), accommodation, expatriation allowances, leave, medical insurance and other employment benefits accorded to the experts by the Consultant.

As well as the services detailed under Section 3 and 4, the Consultant will be also responsible for provision of the services for the following:

1) Event related communication (international phone calls), interpretation during the conduct of the expert's assignment and local transportation within the city,
2) Office equipment such as computer, printer, photocopying machine, projector, camera, voice recorder, communication equipment (telephone, fax, modem) as well as office running costs such as international calls, secretarial services, supplies and consumables, spares and repairs, copying and printing,
3) All required patented/licensed software,
4) At least one coffee break with refreshments for each organization held in a hotel (trainings, etc.),
5) All organizational expenses; full-board accommodation of participants from outside the event location, costs of meal and beverages and costs of travel of the participants (including inter and intra-city travels),
6) Costs of the venues for the visibility event.
7) Cost of practical trainings including travel (national and international including inter and intra city travels), accommodation (in at least 4-star hotel or equivalent) and meals and beverages of the participants as well as fees of the institution to be visited, visa costs,
8) Other expenditures such as, preparation of visibility materials, translation, interpretation, presentation facilities, preparation and printing of training materials and other materials including reports produced in both English and Turkish languages.

It is the Consultant's responsibility to ensure proper communication (English/Turkish) with interlocutors and language barriers should be addressed by the Consultant during implementation. The event costs for consultant team and participants should be included within the financial proposal of the consultant.

No pocket money shall be paid to civil servants under any circumstance.

6. REQUIREMENTS

6.1. Key Experts

Key Experts have a crucial role in implementing the contract. The responsibilities and qualifications of the key experts to be assigned by the Consultant during the implementation process are as follows. Apart from the 5 key experts below, the Consultant should ensure that non-key experts required for the timely execution of the project activities also contribute to the project.

Key Expert 1: Team Leader

Job Description

The Team Leader (TL) will be responsible for the coordination and management of the technical assistance and inputs provided by the Technical Assistance Team (TAT) (including the non key experts). In addition, the TL will be responsible from the capacity building and the trainings and preparations. In their capacity as the leader of the key and non-key experts, they will;

- Maintain full-time presence in Türkiye, at the duty station, during the lifespan of the project.
- Produce the technical parts of the contractual reports, such as the inception report, progress reports, and final report, by obtaining inputs from key and non-key experts.
- Produce, in cooperation with the other member of the technical assistance team, the work plans and resource schedules, and identify the profiles of the non-key experts to be mobilised by the Consultant.
- Review the technical reports and proposals to be produced by the key and non-key experts and assure quality and coherence of reports.
- Represent the project at key project-relevant events and meetings.
- Monitor on a daily basis the progress of the project against the pre-determined and agreed upon time plans, and report possible deviations from the pre-determined and agreed upon time plans and resource schedules to MENR.
- Report to MENR whenever needed.

Qualifications and skills

- At least bachelors' degree in engineering or economics or any other disciplines relevant for the scope of the services.
- A post-graduate degree (MSc or MBA or PhD degree) will be an asset.

General professional experience

- At least 8 years of general professional experience following the attainment of a Bachelor's degree.
- Advanced knowledge of English language.
- Knowledge of Turkish will be an asset.

Specific professional experience

- At least of 3 years of professional experience in the field of energy efficiency.
- At least 3 year of experience as a team leader/project coordinator under projects/programmes for institutions/organisations.
- At least 2 years of experience with household appliance technologies or green public procurement.
- Experience in determining communication and marketing strategies and in such issues as surveys, campaigns and behavioural economics.
- Experience in Türkiye will be an asset.

Key Expert-2: Energy Efficiency Expert:

Qualifications and skills

- At least bachelors' degree in engineering or any other disciplines relevant for the scope of the services.
- A post-graduate degree (MSc or PhD degree) will be an asset.

General professional experience

- At least 8 years of general professional experience following the attainment of a Bachelor's degree.

Specific professional experience

- At least 5 years of experience in the field of energy efficiency, including in household energy efficiency.
- Experience in demand-side management will be an asset.
- Experience in market assessment and calculation tools will be an asset.
- Advanced knowledge of English.

Key Expert 3: Behavioral Science and Communications Expert

Qualifications and skills

- At least a post-graduate degree (MA, MSc, or PhD) in behavioral sciences, economics, psychology, sociology, social sciences, public administration or management, communication, public relations or any other disciplines relevant for the scope of the services.

General professional experience

- At least 8 years of general professional experience following the attainment of a Bachelor's degree.

Specific professional experience

- At least 5 years of experience in designing and conducting behavioral change applied research, including experience in designing at least 5 communication plans or awareness campaigns.
- Experience working with public entities, in communications, and in energy efficiency activities is an asset.
- Knowledge of mixed research methods, including qualitative methodologies, quantitative survey data collection and analysis, and experimental methods (e.g., Randomized Control Trials) will be an asset.
- Advanced knowledge of English language.
- Knowledge of Turkish language and experience in Türkiye will be asset.

Key Expert 4: Visual Designer:

- At least bachelor degree in fine arts, graphic design, communication or any other disciplines relevant for the scope of the services.
- At least 5 years of experience in graphic design, with preparing an exemplary cartoon.
- Experienced in the design of both visual (digital banner, billboard, etc.), digital (website) and printed products.
- Ability to use InDesign, Photoshop and Illustrator programs.

Key Expert 5: Capacity Building Expert:

- At least bachelors' degree in engineering, economics or any other disciplines relevant for the scope of the services.
- A post-graduate degree (MA, MSc or PhD degree) will be an asset.

General professional experience

- At least 8 years of general professional experience following the attainment of a Bachelor's degree.

Specific professional experience

- At least 5 years of experience in designing and conducting energy efficiency capacity building events.
- Experience working with public entities will be an asset.

6.2. Non-key experts

CVs for non-key experts should not be submitted in the tender, but the tenderer will have to demonstrate in their offer that they have access to experts with the required profiles.

The Consultant must select and hire other experts as required according to the profiles identified in the organisation & methodology and these terms of reference. It must clearly indicate the experts' profile so that the applicable daily fee rate in the budget breakdown is clear. All experts must be independent and free from conflicts of interest in the responsibilities they take on.

The selection procedures used by the Consultant to select these other experts must be transparent, and must be based on pre-defined criteria, including professional qualifications, absence of conflict of interests, language skills and work experience.
The non-key experts shall be subject to approval by the contracting authority before the start of their implementation of tasks.

Minimum Qualifications, Skills and Experience for Non-Key Experts:

1. Bachelor's or higher degree relevant to the assignment,
2. Minimum 8 years of general professional experience for senior NKE,
3. Minimum 3 years of general professional experience for junior NKE,
4. Minimum 3 years of specific professional experience (for senior NKE) or 1 years of specific professional experience (for junior NKE) relevant to the assignment to be proposed,
5. Good command of English (speaking, reading and writing),
6. Full computer literacy.

Consultants shall present their non-key mobilisation plans for the implementation of the Project including but not limited to the following details indicatively at their technical proposal:

- Specialization areas (i.e. EE, IT, consultancy, training, organizations etc.) of the NKEs together with expertise indicators.

- Indicative staff-days distribution among NKE specialization areas and expertise (junior/senior).
- Indicative NKE staff-days distribution among proposed activities.
- Time planning (Gantt chart) for the NKE mobilization (days and specialization).

6.3. Office accommodation

The Consultant will organize a project office close to MENR's office address in Ankara for all KEs, NKEs and backstopping staff to work as needed. However, MENR will also provide a project coordination office within its premises for daily work of relevant experts needed to work with the MENR staff. The project coordination office at MENR premises will be supported by a fulltime project assistant by the Consultant and the experts whenever needed can also work from project coordination office within the MENR Premises.

Support staff & backstopping: The Consultant will provide support facilities to their team (back-stopping) during the implementation of the contract.

The Consultant shall assure sufficient support staff/backstopping support in the course of the whole project duration such as project director, assistant director, project secretary and assistants to experts, translators/interpreters (for the internal interpretation between the Consultant and the project team of the beneficiary continuously), and financial administrative assistant to ensure that the project is implemented smoothly and that any problems are rapidly resolved.

The project assistant(s) (with good command of written and spoken English, familiar with EU terminology and experience on contracts management) is expected to provide assistance for a wide array of tasks under the supervision of TL. The Consultant will provide a full-time project assistant in the beneficiary premises. The project assistant and the translator/interpreter will be present in every occasion that TAT and beneficiary come together including Project Steering Committee and Management Meetings. Besides, adequate number of support staff should be present throughout all events under the contract.

Backstopping and support staff costs must be included in the fee rates.

7. DELIVERABLES & TIMING

The Consultant will submit the following reports in both Turkish and English languages, soft copies of the reports will be submitted in editable and ready to publish version (i.e. MS Word) and finalized reports will be published two hard copies in both Turkish and English. The Turkish version of the reports should be prepared after the approval of English version. The consultant shall provide two hard copies of final outputs in each of English and Turkish languages.

Inception Report to be produced no later than one month from the start of implementation. In the report the Consultant shall describe e.g. initial findings, progress in collecting data, any

difficulties encountered or expected in addition to the work programme and staff travel. (Further information on the Inception Report can be found on 3.4 Inception Phase) The Consultant should proceed with their work unless the Contracting Authority sends comments on the inception report within 10 business days or informs the Consultant, within 10 business days, of a later date by which comments will be received.

Interim Progress Reports to be delivered quarterly describing progress of the work, difficulties encountered, observed factors influencing the assumptions, and documentation that specific results and objectives have been reached.

Draft final report including the problems encountered and achievements including suggestions shall be submitted no later than one month before the end of the period of implementation of tasks.

Final report with the same specifications as the draft final report, incorporating any comments received from the parties on the draft report. The deadline for sending the final report is 10 days after receipt of comments on the draft final report. The report shall contain a sufficiently detailed description of the different options to support an informed decision on EE policies, implementation and monitoring. The detailed analyses underpinning the recommendations will be presented in annexes to the main report.

Table 7.1 and 7.2 below provide details of reports and deliverables.

Table 7.1 Submission and Approval of Reports

#	Component	Name of report	Content	Time of submission
1	1-2-3-4	Inception report	**Inception Report** to be produced after one month from the start of implementation. In the report the Consultant shall describe e.g. initial findings, progress in collecting data, any difficulties encountered or expected in addition to the work programme and staff travel. (Further information on the Inception Report can be found on 3.4 Inception Phase)	No later than 1 month after the start of implementation.
2	1	Household Energy Efficiency Campaign Plan	Preparation of the approach for the awareness raising (including behavior change strategies, types of messages and media channels, target groups, etc.) along with indicative impacts of various measures.	2nd month.
3	1	Impact Analysis Report	It should include data such as the number of views of the social media and web site, the number of shared content, the number of comments and the rate of reaching to target etc.	No later than 1 month after the end of each 3-month implementation period.
4	1-2-3-4	Interim Progress Report	Interim Progress Reports to be delivered quarterly describing progress of the work, difficulties encountered, observed factors influencing the assumptions, and documentation that specific results and objectives have been reached.	No later than 1 month after the end of each 3-month implementation period.
5	2	Market assessment for residential appliances report	Analysis of existing situation of market readiness.	No later than 4 months after the start of implementation.

#	Component	Name of report	Content	Time of submission
6	3	Roadmap for the harmonization of the eco-design and labelling regulations	Regulations that have not yet been harmonized will be identified and a roadmap will be developed.	No later than 5 months after the start of implementation.
7	2	Calculation tool and implementation guidelines	Savings potential will be calculated through developed tool which will consider existing appliance stock.	No later than 7 months after the start of implementation.
8	3	Gap Analysis Report	Policy and Legislative Gap Analysis Report will be prepared by outlining the gaps between the existing Turkish policies and legislation and that of the EU member states	No later than 8 months after the start of implementation.
9	3	A guide and calculation tool for public procurement of energy efficient products	Preparing technical and administrative specifications and public procurements for energy using equipment and services.	No later than 11 months after the start of implementation.
10	2	Report on the auditing and monitoring of the buildings	Audits and monitoring results will be reported. Analysis of existing situation of buildings and description of achievements will be explained.	No later than 14 months after the start of implementation.
11	2	Report on demand side management opportunities and behavioral change needs, including international experiences and three program plans	The report will summarise demand side management potential of selected buildings and analyse their possible effects on the national electricity load curve in as aspect of energy efficiency by creating scenarios where a number of households/buildings can add up to a proper player in demand side management.	No later than 16 months after the start of implementation.

#	Component	Name of report	Content	Time of submission
12	2	Report on the demand side management potential on the national level and Report on best practices in demand side management and its applicability in Türkiye's residential sector	Short description of demand side management potential on the national level.	No later than 18 months after the start of implementation.
13	2	Report on sustainable energy efficiency financing mechanism	Report for the replacement of inefficient household appliances, office equipment, lighting, consumers electronics by reviewing the current situation in Türkiye and best practices.	No later than 20 months after the start of implementation.
14	1	Awareness index questions, survey and updated awareness index report	Conducting a face-to-face survey which will be applied to approximately 3000 people and preparing the report including updated index, the survey findings, key trends and recommendations to enhance future activities. Approximately 1000 (+, - 10%) online surveys will be conducted for the sectors of Industry, Service, Transportation, Agricultural Enterprises.	The first one: No later than 5 months after the contract is signed. The second one: 17th month.

#	Component	Name of report	Content	Time of submission
15	4	Study Tour Dissemination Report	Dissemination Report including activities, outcomes, meeting notes, photographs, and benefits from the visit. These reports will be used for informing the MENR staff who did not attend the study tours. Outcomes and best practices from study tour will be disseminated to the other central units of the Ministry via a presentation (i.e. MS Word and PDF). The documents related to the Study Tour will be used as a training material and archived by the MENR.	After two weeks of the finalization of each study tour.
16	4	Draft final report	Short description of achievements including problems encountered and recommendations.	No later than 1 month before the end of the implementation period.
17	4	Final report	Short description of achievements including problems encountered and recommendations; a final invoice and the financial report accompanied by the expenditure verification report.	Within 10 days of receiving comments on the draft final report from the project manager identified in the contract.

Table 7.2 Submission of Deliverables

#	Component	Deliverables	Content	Time of submission
1	4	Development and delivery of training programs, revised training materials, study tour	A training need analysis, 6 training assessment reports, Study tour reports	No later than 10 months after the start of implementation.

2	4	Study Tour	Study tour on EE awareness measures can be organized to research institutes, universities or ministries in EU countries that have implemented best practice awareness raising and behavioral change activities on energy efficiency.	No later than 10 months after the start of implementation.
3	1	Use of visual media	It is to provide information about the financial, environmental and societal benefits of energy efficiency by placing messages on increasing energy efficiency at homes in visual media.	During 20 months (at least five different TV series or programs).
4	1	Website (including once in four months impact reporting)	Website to be updated and managed by the consultant.	During 20 months.
5	1	Social media accounts (including once in four months impact reporting)	Conducting the social media accounts (Facebook, Twitter, Youtube, Linkedin and Instagram).	During 20 months.
6	1	Videos	Informative and Awareness Videos.	During 20 months
7	1	Visual materials	Visuals on household appliances, labeling system, heating/cooling systems, lighting, insulation, transportation, energy efficiency in business, digitalization and modernization in energy efficiency, energy efficiency in schools, etc.	During 20 months.

The reports referred to above must be submitted to the Project Manager identified in the contract. All versions of all materials produced within the scope of all activities listed above and detailed in Section 4 must be delivered in the format requested by MENR. All other designs, texts and draft versions of the outputs will be submitted to the approval of MENR. All reports mentioned in section 8 above will be approved by MENR. The Project Manager is responsible for notification of report approvals.

Reports shall be submitted to the DEEE, DGFR PIU, WB and the EUD via an e-mail first at the end of each reporting period specified above. The comments and/or revision requests on the reports

will be submitted to the Consultant via e-mail within 15 calendar days after the receipt of them. The Consultant shall revise the report based on the comments and re-submit it within 10 calendar days via e-mail. If no comments are sent within 10 calendar days by the MENR, WB and EUD, the final version can be processed as hard copy. In case of further comments and/or revision requests, the same cycle as outlined above will be done; however, for the purpose of timely finalization of the report, the parties may agree on different time limits.

Once the final version is agreed by all parties, DEEE gives the final approval and notifies the consultant. The Consultant will prepare and submit the hard copy of the reports/documents as the final version within 10 calendar days for approval.

The translations will be proofread by a native speaker to both languages before submitting.

8. PUBLICITY & VISIBILITY

The Consultant shall take all necessary measures to publicize the fact that the European Union has financed the Program. In addition, the Consultant shall take the necessary measures to ensure the visibility of the European Union financing. These measures must comply with the rules laid down and published by the Commission on the visibility of external operations:

https://ec.europa.eu/international-partnerships/comm-visibility-requirements_en

All projects/contracts implemented under this programme shall comply with the Visibility Guidelines for European Commission Projects in Türkiye published by EUD to Türkiye, at:

https://www.eeas.europa.eu/delegations/t%C3%BCrkiye/visibility-guidelines-clarification-2022-guidelines-communicating-and-raising-eu-visibility_en

The EU-Türkiye cooperation logo should be accompanied by the following text: “This project is funded by the European Union.”

Whether used in the form of the EU-Türkiye cooperation logo for information materials or separately at events, the EU and Turkish flag have to enjoy at least double prominence each, both in terms of size and placement in relation to other displayed logos and should appear on all materials and at all events as per the Communication and Visibility Manual for European Union External Actions. At visibility events, the Turkish and the EU flag have to be displayed prominently and separately from any logos.

Logos of the MENR institution and the WB should be clearly separated from the EU-Türkiye partnership logo and be maximum half the size of each flag. The logos will not be accompanied by any text. The WB and MENR logo will be on the lower left-hand corner and lower right-hand corner respectively. The Consultant logo with the same size will be in the middle of the WB and MENR logo. If the Consultant is a consortium, only the logo of the consortium leader will be displayed.

Any publication by the Consultant, in print or electronic format should also contain the following disclaimer: " 'This publication was produced with the financial support of the European Union.

Its contents are the sole responsibility of <name of the author/partner> and do not necessarily reflect the views of the European Union, World Bank Group, or the Government of Türkiye'.

Annex 1: Background of recent Türkiye energy efficiency developments

To tackle related challenges, Türkiye has had its own circumstantial energy transition phases, the first of which lasted a decade over the period of 2001-2016. During this first stage, Türkiye introduced radical reforms and restructuring in the energy sector including independent regulation of the sector by the Energy Market Regulatory Authority (EMRA), enabling a level playing field for new market entrants, liberalization in power generation, distribution and trade as well as gas distribution and retail, and stepping up efforts to support the growth of renewable energy sources like solar and wind. Ensuring non-discriminatory access energy markets mobilized sizeable private sector investments and involvement in energy activities. Since then the installed capacity in energy generation, for instance, has almost tripled and the energy landscape in Türkiye's consumption and power generation patterns have altered.

Having reached a certain maturity threshold with the introduction of the Energy Exchange Istanbul (EPIAS) for electricity and natural gas transactions, Türkiye has stepped into the second phase of the energy transition which is mainly inspired by the National Energy and Mining Policy Strategy announced in 2017. This second stage emphasized three main pillars of the Strategy, which are (i) reinforcement of security of supply, (ii) localization through renewable and domestic sources and (iii) enhancement of predictability in the market. Cross-cutting these pillars; market reforms, utilization of renewable resources, improvement of energy efficiency, deployment of new technologies and new infrastructure investments were the main objectives of Türkiye's policy.

Final energy consumption in buildings and services sector, which has been developing rapidly in recent years in our country, increased by 30.0% between 2012 and 2022 (which is the Energy Efficiency Strategy Document implementation period), from 30.3 MTOE to 39.2 MTOE. This area, where the average annual increase in energy demand was recorded as 2.6%, had a share of 32.6% in final energy consumption in 2022.

- The Regulation on Energy Performance in Buildings (in force since Official Gazette No. 27075, December 5, 2008). The Regulation addresses topics from architectural design to thermal insulation applications, from efficiency measures for mechanical systems to air conditioning activities, and regulates the procedures and principles regarding the effective and efficient use of energy and energy resources in buildings, prevention of energy waste and protection of the environment.
- The Regulation on Energy Efficiency Audit (Official Gazette No. 30470, July 6, 2018), aims to prevent waste by using energy effectively, to alleviate the burden of energy costs on the economy, and to audit the obligations of real and/or legal entities within the scope of increasing the efficiency in the consumption of energy resources and energy to ensure environmental sustainability.
- Past energy efficiency targets and action plans include MENR's Energy Efficiency Strategy Document (2012-2023), the first National Energy Efficiency Action Plan (1st NEEAP) 2017-2023, and MENR Strategic Plan (2019-2023). Actions under the 1st NEEAP achieved energy savings during the period 2017-2023 continued in following years to total cumulative 24.6 MTOE of which 7.5 MTOE is from buildings.

- In 2019, a mandatory regulation to conserve energy in public buildings was introduced, requiring a 15% reduction in energy use from 2020 to 2023 and requiring a 30% reduction in energy use from 2024-2030. Analyses show that 60 ktep savings have been achieved in the public buildings by the end of 2022.

In recent top policy documents, especially the 11th Development Plan covering the period 2019-2023, efficient use of energy, alleviating the burden of energy costs on the economy and protecting the environment have been prioritized policy areas, and goals have been identified in relation to many other policy documents and regulations transition in buildings and services sectors. The following developments came to the fore:

- The definition of nZEB was added to the legislation and it became mandatory for new buildings to be designed as nZEB.
- The goal of 15% savings was set for 2,400 public buildings and campuses, which are obliged to appoint energy managers and whose total energy consumption is 1 MTOE.
- Central energy management units have been established within governorships in order to carry out energy efficiency-related activities more effectively in public institutions and organizations.
- Awareness-raising training courses were organized for personnel in all Ministries.
- EPC has been defined to repay energy efficiency investments in public buildings from savings.
- The Energy Efficiency Project in Public Buildings (www.kabev.org), supported by the World Bank and with a budget of 200 million dollars, has been initiated and the implementation phase has begun.
- There has been an increase in the amount of loans to be granted for buildings with Class A and B EIC.
- In order to promote energy efficiency in existing buildings, amendments have been made to the Income Tax Law, Stamp Duty Law and Fees Law.
- Thermal Insulation Campaign in Residences was announced and insulation loans with a maturity of 60 months and an interest rate of 0.99 were started to be provided by Ziraat Bank, Vakıfbank, Halkbank and Ziraat Katılım Bank.
- Green Building Certification Scheme (*Yeşil Bina Sertifikasyon Sistemi*) 'YeS-TR' was established (https://yestr.org), and MoEUCC appointed as the evaluation agency.
- Within the scope of international collaborations, the Technology Atlas containing sector and material information about buildings was published, the heating and cooling demand map was prepared and the district heating potential was designated, and training, survey, feasibility and equipment purchase support was provided to support the energy efficiency and renewable energy investments of municipalities and universities.

In 2021, Turkish Parliament ratified the Paris Climate Agreement and announced a goal to reach net zero emissions by 2053, submitting its first Nationally Determined Contribution (NDC) the same year, subsequently updated in 2023. Türkiye has pledged to reduce GHG emissions by 41%

by 2030 compared to the business as usual scenario. The updated first NDC is based on plans and programs in many areas including EE in energy, industry, transport, buildings and agriculture sectors. The buildings sector is one priority area for achieving long-term climate targets.

In December 2022, Türkiye announced the National Energy Plan (NEP) which guides the energy sector by 2035. It forecast that annual average electricity consumption is expected to increase by 3.7% in the industry sector, 2.3% in the residential sector and 2.2% in the service sector in coming years.

Annex 2: EU Directive on Energy Efficiency and relevance of TOR activities

The EU Directive on Energy Efficiency (2012/27/EU as amended)[24] establishes a common framework of measures to promote energy efficiency to ensure that headline targets on energy efficiency are met, and paves the way for further energy efficiency improvements. The Directive lays down rules designed to remove barriers in the energy market and overcome market failures that impede efficiency in the supply and use of energy, and provides for the establishment of indicative national energy efficiency targets and contributions.

Key provisions of the EU Directive on EE relevant to this ToR include:

- Article 12 'Consumer information and empowering programme' provides that EU member states shall take appropriate measures to promote and facilitate an efficient use of energy by small energy customers, including domestic customers. Article 12 refers to (a) a range of instruments and policies to promote behavioural change which may include: (i) fiscal incentives; (ii) access to finance, grants or subsidies; (iii) information provision; (iv) exemplary projects; (v) workplace activities; and (b) ways and means to engage consumers and consumer organisations during the possible roll-out of smart meters through communication of: (i) cost-effective and easy-to-achieve changes in energy use; and (ii) information on energy efficiency measures. These provide a key framework for considering consumer-oriented interventions across tasks.
- Article 25 provides for an online platform for knowledge exchange. This is relevant as a knowledge source for all tasks. See https://e3p.jrc.ec.europa.eu/
- Annex III provides 'Energy Efficiency Requirements for Purchasing Products, Services and Building by Central Government'. This is relevant for Task 3.1
- Annex VI provides 'Minimum criteria for energy audits including those carried out as part of energy management systems'. This is relevant for Task 2.2.

[24] See: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02012L0027-20230504#M3-2 and check for latest consolidated text as the directive is subject to various amendments.

Annex 3: Reference list of key knowledge sources

- The European Energy Efficiency Platform (E3P) https://e3p.jrc.ec.europa.eu/ serves as the EC's online platform as described in the Energy Efficiency Directive Article 25. The E3P among other tasks facilitates the practical implementation of the Energy Efficiency Directive at national, regional and local levels, with data collection and analysis. The E3P also supports the exchange of experiences on practices, benchmarking, networking activities, as well as innovative practices. It includes resources on a 'Cross-Thematic Area' 'Behaviors and Social' such as proceedings of the International Conference on Energy Efficiency Domestic Appliances and Lighting (EEDAL).
- EU Green Public Procurement https://green-business.ec.europa.eu/green-public-procurement_en
- Ecodesign and Energy Labelling Directive 2009/125/EC and Regulation (EU) 2017/1369 https://energy-efficient-products.ec.europa.eu/ecodesign-and-energy-label_en
- World Bank publications:
    - World Bank (2024) Behavior Change for Low Carbon Energy Access Technologies – A Tooklit ('the Toolkit').
    - ESMAP (2020) A Practitioner's Guide to Integrating Behavior Change in Energy Efficiency Projects in Developing Countries
    - World Bank (2024) Scaling-Up Energy Efficiency in Europe and Central Asia (E3) Multiphase Programmatic Approach (MPA) with Phase 1 loans to Türkiye and Moldova: Project Appraisal Document (P500777).
    - ESMAP (2013) Gender and Energy Online Toolkit for Practitioners
- Yılmaz, Uğur Cem (2024) Low-Carbon Strategies for Residential Buildings in Türkiye: Master Thesis for Middle East Technical University.
- Other resources and information sources of general relevance include:
    - Multidisciplinary digital libraries, academic databases, and search engines: Google Scholar, JSTOR, SSRN, EBSCO, DOAJ, OAIster, and Sustainable Development Goals Online.
    - Specialized repositories and search engines for behavioral science literature: PubPsych, PubMed, RePEc, B-HUB, BIT, OPSI, Behavior Institute, IPA, and J-PAL.
    - SE4All campaigns: https://www.seforall.org/news-and-events/campaigns
    - Green nudges: https://www.green-nudges.com/