Background

The Digital CASA – Kyrgyz Republic Project, within the context of the Digital Central Asia and South Asia (Digital CASA) Regional Program, has its key development objective to “increase access to more affordable internet, crowd-in private investment in the ICT sector, and improve the government’s capacity to deliver digital government services in the Kyrgyz Republic, by contributing to the development of a regionally integrated digital infrastructure and enabling environment.” The successful implementation of the project should be reflected in increased economic growth, improved employment opportunities, better service delivery by the Government and the private sector, and a more favorable investment climate, thus creating the foundations for the development of a digital economy in the Kyrgyz Republic and the region as a whole. The project will support the development of a reliable, cost-effective, high-bandwidth international and domestic broadband connectivity infrastructure and help develop shared digital government infrastructure and platforms, digital services, institutions, and skills.

The Digital CASA – Kyrgyz Republic Project will support four key components: (a) Regional Digital Connectivity Infrastructure, promoting more affordable, high-quality Internet access for citizens, businesses, and Government by incentivizing private sector network infrastructure development and service provision at the regional and national level; (b) Regional Datacenters, Digital Platforms and Smart Solutions, building cloud-based shared datacenter infrastructure and platforms for the Government and the private sector to securely deliver better services to citizens; (c) Enabling Environment for Digital Economy, strengthening and harmonizing the laws and regulations related to the digital economy across the region, including in the context of the EAEU, development of policies and strategies, digital leadership, digital economy skills, and strategic communications; and (d) Project Management, to support effective project activities and strong delivery of results.

Component 1: Regional Digital Connectivity Infrastructure

This component will support targeted public sector financing aimed at catalyzing private sector investments in the deployment of additional domestic and regional digital connectivity infrastructure and creating a more competitive environment in the sector, while also providing digital connectivity services for the Government’s own internal use. As a result, the Government will not own public networks, but will be a user of connectivity services that will be delivered to targeted institutions such as local municipalities, hospitals, schools, police stations, post offices, and Service Centers of the SRS. Connectivity services may be provided on an Indefeasible Right of Use (IRU) basis. The proposed domestic and cross-border network will serve three key overlapping purposes: (a) expand the Kyrgyz portion of a redundant and integrated Central/South Asian regional backbone; (b) serve the purposes of national backbone providing high quality connectivity services to all parts of the country; and (c) serve as the underlying infrastructure for provision of last mile connectivity services to public institutions throughout the country. The network will be created as a collection of networks owned by telecommunications market participants, where the Government will act as a bulk purchaser of connectivity services to encourage private sector investment in building and operating missing links or expanding the capacity of existing links where needed. The project will adopt a ‘cascade’ approach (Maximizing
Finance for Development) with the focus on attracting private sector investment through a variety of PPP arrangements and innovative financing mechanisms as outlined in the following sections. This component is structured along two main subcomponents: (a) Improving Regional Connectivity; and (b) Increasing the Capacity and Reach of the Government Network (G-Net).

Subcomponent 1.1: Improving Regional Connectivity

This subcomponent will improve regional digital connectivity by supporting, through a competitive bidding process, the establishment of a redundant and resilient regional backbone network, consisting of both existing and new networks, that provides multiple cross-border connectivity alternatives and reaches every region within the country. The Government will achieve this not by procuring directly the establishment of networks, but by acting as a long-term purchaser of connectivity services in the form of bundles of services, including IRUs, in target locations. The Government will achieve this not by procuring directly the establishment of networks, but by acting as a long-term purchaser of connectivity services in the form of bundles of services, including IRUs, in target locations. The project will therefore strive to attract private investment to encourage private sector operators and service providers to expand and share their existing regional and domestic fiber optic links, establish new cross-border fiber optic links to strengthen the connectivity with neighboring countries, and deploy of high-capacity, domestic fiber optic and wireless networks. The project will also support infrastructure sharing arrangements with other infrastructure sector providers, such as electricity transmission companies (for example, CASA-1000 and Kyrgyz Energy Holding) and railways. It is expected that the backbone will reach every district and most municipalities with the exact details to be provided through the feasibility study.

Subcomponent 1.2: Increasing the Security, Capacity and Reach of the Government Network (G-Net)

This subcomponent will build on the digital connectivity infrastructure established under subcomponent 1.1 to support increasing the security, capacity, and geographic reach of the Government’s internal digital network ‘G-Net’ used exclusively for the purposes of official Government and municipal communications. G-Net will be established as a hybrid physical/virtual network, as it will leverage the already existing physical network owned and operated in Bishkek by Transcom (a subsidiary SOE established under the SCITC which operates a small network comprised of approximately 60 km fiber optic lines in Bishkek connecting 34 central Government institutions around the city) and will expand it throughout the country on a virtual basis by purchasing capacity on the networks of commercial operators. In addition to these last mile connectivity services, which will be procured on a bundled basis for cost-saving and overall efficiency purposes with the creation of the backbone network (and are therefore included under subcomponent 1.1), G-Net will require the procurement of specialized networking and cybersecurity equipment, cabling, and IT infrastructure. This specialized hardware and software will be provided to the target institutions that will be connected to this network, including limited end-user computing equipment for selected target institutions, as needed. The list of public institutions and target municipalities under subcomponents 1.1 and 1.2 will be the same, and will include schools, post offices, police stations, local government offices, hospitals/clinics, as well as the service centers of the SRS, among others.

Objectives of the assignment

The Project Implementation Unit under the SCITC intends to hire a company to develop a feasibility study on the broadband backbone and service requirements for the expansion of the Kyrgyz portion of the regional backbone network for the Digital CASA Regional Program.

Under a parallel assignment, the PIU is selecting an individual consultant with international experience to assist in conducting a feasibility study for the expansion of the Kyrgyz portion of
the regional backbone network. The TOR of this parallel assignment is attached as an annex 1 to this TOR.

Specifically, the feasibility study will cover the following key tasks in defining the needs for improved delivery of fixed broadband services in the Kyrgyz Republic through fiber-optic networks: 1) assess supply (current and under construction), 2) assess future demand (5-10 years), 3) identify supply gaps, 4) conduct high-level design of new fiber optic backbone network links needed to address supply gaps, including new cross-border links, 5) identify the list of locations where Points of Presence should be established and the service requirements in each location to meet the future demand (including IRU approach for long-term purchase of connectivity services), 6) detailed network design with the implementation plan, 7) conduct a cost-benefit analysis of the proposed network and 8) recommendations on preparing of necessary documents to develop design of FOCL construction within the project.

Scope of work

The company should ensure the execution of the following tasks:

1. To assess supply (current and under construction) based on the analysis of existing FOCL (Fiber optic communication line) of all telecom operators of the Kyrgyz Republic (total length of FOCL for each operator in the context of cities and villages). The company will take into account all existing and proposed telecommunications infrastructure built, in construction or planned by telecommunications companies, railroads, power, gas and other utilities, if any.
2. To make annual forecasts of Internet end-user needs based on the assessment of future demand over the next 5-10 years. This will include:
   - an assessment of the geographical distribution of demand within the country;
   - a breakdown between sources of demand (i.e. other operators, ISPs, international transit traffic etc.).
3. Determination the areas where new FOCL construction is necessary, taking into account the justification based on population, distance from trunk optic lines, relief and other useful information for design and construction of FOCL;
4. To conduct high-level design of new fiber optic backbone network links needed to address supply gaps, including new cross-border links;
5. To identify the list of locations where Points of Presence should be established and the service requirements in each location to meet the future demand (including IRU approach for long-term purchase of connectivity services);
6. To develop a detailed network design including network topology and structure, choice of technology, capacity requirements, functionality, number of fiber pairs, and fiber termination facilities, as well survey for FOCL construction for selected areas. This task shall include:
   - an individual assessment of each route within the network, including distance, complexity, terrain etc.;
   - an assessment of the terminal equipment required for each fiber route, including housing requirements, need for any repeater equipment, and power requirements, including how these power requirements will be satisfied, e.g. solar power, existing district power supplies, need for rectifiers batteries etc.;
   - overview of network management system and center to operate and maintain the network, including Network management equipment and location.
7. To develop the phased construction plan;
8. Development of mechanisms for sharing infrastructure with other service providers - such as electricity transmission companies (CASA-1000 and National Energy Holding), railways and telecom operators (IRU based agreement);
9. Development of Cybersecurity features for planned FOCLs (hardware and software complex that meets international requirements);
10. To Conduct a cost-benefit analysis of the proposed network based on the detailed budget estimation of the capital expenditures (CAPEX) associated with the construction of the recommended network design and equipment specifications. These figures should take into account: equipment, survey, network design, transport and installation, network integration and commissioning, documentation and development of total cost of the FOCL construction including breakdown of costs for each phase of the developed construction plan;
11. To highlight possible commercial, legal, policy, and regulatory barriers for the FOCL construction implementation and solutions for them.
12. To prepare recommendations to detailed technical specifications, design of regulatory, licensing and contractual arrangements and bidding documents which will be necessary for bidding process.

All results of tasks should be presented for revising and approval by the SCITC and WB.

**Deliverables and Administrative Arrangements**

**Deliverable 1 – during 4 weeks after contract signing**

1. **Inception Report**
   - detailed assessment of existing and planned infrastructure;
   - detailed analysis of traffic demand for future 5-10 years.
   (Tasks 1,2)

**Deliverable 2 – during 8 weeks after contract signing**

2. **Draft feasibility study**
   - infrastructure gap analysis, cost-benefit analysis of proposed new infrastructure, funding arrangements and prioritization;
   - high level design;
   - list of identified locations Points of Presence where should be used IRU based agreement.
   (Tasks 3,4,5)

**Deliverable 3 – during 18 weeks after contract signing**

3. **Detailed network design including:**
   - the survey for construction of fiber optic lines for selected areas;
   - the individual assessment of each route within the network;
   - the assessment of the terminal equipment required for each fiber route;
   - the Cybersecurity issues for each route;
   - IRU based agreement (at least 2 versions);
   - cost-benefit analysis of the proposed network;
   - recommendations to all necessary documentations.
   (Tasks 6-12)
Deliverable 4 – during 22 weeks after contract signing

4. Final Report including approved feasibility study and network design.

Terms and disbursement schedule:

<table>
<thead>
<tr>
<th>Output</th>
<th>Indicative Timing</th>
<th>Payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deliverable 1</td>
<td>Contract Signature + 4 weeks</td>
<td>The first payment is 20% of the total value of the contract after submission and approval of the products planned under deliverable 1</td>
</tr>
<tr>
<td>Deliverable 2</td>
<td>Contract Signature + 8 weeks</td>
<td>The second payment is 30% of the total value of the contract after submission and approval of the products planned under deliverable 2</td>
</tr>
<tr>
<td>Deliverable 3</td>
<td>Contract Signature + 18 weeks</td>
<td>The third payment is 30% of the total value of the contract after submission and approval of the products planned under deliverable 3</td>
</tr>
<tr>
<td>Deliverable 4</td>
<td>Contract Signature + 22 weeks</td>
<td>The fourth payment is 20% of the total value of the contract after submission and approval of the products planned under deliverable 4</td>
</tr>
</tbody>
</table>

**Reporting and Approval Procedures:**

The company will report to the director of the PIU, the chairman and / or vice chairman of the SCITC, the project manager ECAPDEV and the technical coordinator of this component.

Contractual arrangements will be detailed in the formal contract against the indicated number of days for each output. Reports will be prepared and sent to the SCITC.

Final report should (hard copy and electronic copy) approved by the Head of the SCITC.
All outputs, reports, questionnaires and presentations shall be prepared in Russian and English languages.

**Resources:**

The SCITC will provide all required support related to provision of technical and other information for preparation of feasibility study, and shall not provide office space and equipment, and sites visits shall be arranged by the company. There is consulting supported by the World Bank experts.

**Qualification requirements for the company:**

**Shortlisting criteria:**

- The company should have at least 5-year experience in providing consulting services - 30 points
- The company should have experience in at least 2 feasibility studies during last 5 years - 40 points
- The company should have experience in projects funded by international organizations, such WB, ADB, etc. within last 5 years - 30 points

**Evaluation criteria:**

**Key personnel:**

The team should consist of at least the team leader, FOCL expert and specialist in economic part;

The Team of the company should have the listed skills and qualification to provide quality assurance of the activities and outputs of this assignment:

<table>
<thead>
<tr>
<th>#</th>
<th>Personnel</th>
<th>General qualification 30%</th>
<th>Experience 30%</th>
<th>Special experience 40%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Team leader</td>
<td>Bachelor degree in ICT/telecom or management;</td>
<td>Experience as a team leader at least 2 years; Experience in preparation of 2 feasibility studies in ICT area;</td>
<td>Experience in the sphere of telecommunication technologies on building FOCL networks is preferable.</td>
</tr>
<tr>
<td>2</td>
<td>Expert in FOCL</td>
<td>Bachelor degree in telecom/IT area;</td>
<td>Practical experience in designing fiber-optic lines, at least 5 years; Experience in designing all types of fiber-optic lines is preferable; Experience in developing regulatory and</td>
<td>Experience in conducting feasibility study in ICT sphere is preferable; Experience in activities related to technical solutions and design requirements for construction and operation of fiber-optic lines (proved by appropriate certificates).</td>
</tr>
<tr>
<td></td>
<td>Technical documentation in telecom field;</td>
<td>Specialist in economics</td>
<td>Bachelor degree in economics or related fields</td>
<td>Experience in activities related to feasibility study methodologies and estimates</td>
</tr>
<tr>
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</tr>
<tr>
<td>3</td>
<td></td>
<td>Specialist in economics</td>
<td>Bachelor degree in economics or related fields</td>
<td>Experience in activities related to feasibility study methodologies and estimates</td>
</tr>
</tbody>
</table>

The number of points awarded to each of the listed positions should be defined considering two sub-criteria and corresponding percentage weights:

- **Methodology and work plan** 20%
- **Experience and qualification of key personnel** 80%
ANNEX 1

DIGITAL CASA-KYRGYZ REPUBLIC PROJECT

TERMS OF REFERENCE
FOR AN INDIVIDUAL CONSULTANT WITH INTERNATIONAL EXPERIENCE
TO ASSIST IN CONDUCTING A FEASIBILITY STUDY FOR THE EXPANSION OF
THE KYRGYZ PORTION OF THE REGIONAL BACKBONE NETWORK

Background

The «Digital CASA-Kyrgyz Republic» within the context of the Digital CASA Regional Program, has as its key development objective to “increase access to more affordable internet, crowd-in private investment in the ICT sector, and improve the government’s capacity to deliver digital government services in the Kyrgyz Republic, by contributing to the development of a regionally integrated digital infrastructure and enabling environment.”. The successful implementation of the project should be reflected in increased economic growth, improved employment opportunities, better service delivery by the Government and the private sector, and a more favorable investment climate, thus creating the foundations for the development of a digital economy in the Kyrgyz Republic and the region as a whole. The project will support the development of a reliable, cost-effective, high-bandwidth international and domestic broadband connectivity infrastructure and help develop shared digital government infrastructure and platforms, digital services, institutions, and skills.

The «Digital CASA-Kyrgyz Republic» will support four key components: (a) Regional Digital Connectivity Infrastructure, promoting more affordable, high-quality Internet access for citizens, businesses, and Government by incentivizing private sector network infrastructure development and service provision at the regional and national level; (b) Regional Datacenters, Digital Platforms and Smart Solutions, building cloud-based shared datacenter infrastructure and platforms for the Government and the private sector to securely deliver better services to citizens; (c) Enabling Environment for Digital Economy, strengthening and harmonizing the laws and regulations related to the digital economy across the region, including in the context of the EAEU, development of policies and strategies, digital leadership, digital economy skills, and strategic communications; and (d) Project Management, to support effective project activities and strong delivery of results.

The State Committee of Information Technologies and Communications (SCITC) of the Kyrgyz Republic is the implementing agency for the proposed «Digital CASA-Kyrgyz Republic» project. The Project Implementation Unit (hereinafter PIU) was established under the SCITC, which is responsible for coordination and reporting on «Digital CASA-Kyrgyz Republic» project.

Component 1: Regional Digital Connectivity Infrastructure

This component will support targeted public sector financing aimed at catalyzing private sector investments in the deployment of additional domestic and regional digital connectivity infrastructure and creating a more competitive environment in the sector, while also providing digital connectivity services for the Government’s own internal use. As a result, the Government will not own public networks, but will be a user of connectivity services that will be delivered to targeted institutions such as local municipalities, hospitals, schools, police stations, post offices, and Service Centers of the SRS. Connectivity services may be provided on an Indefeasible Right of Use (IRU) basis. The proposed domestic and cross-border network will serve three key overlapping purposes: (a) expand the Kyrgyz portion of a redundant and integrated Central/South Asian regional backbone; (b) serve the purposes of national backbone providing high quality connectivity services to all parts of the country; and (c) serve as the underlying infrastructure for provision of last mile connectivity services to public institutions throughout the country. The
network will be created as a collection of networks owned by telecommunications market participants, where the Government will act as a bulk purchaser of connectivity services to encourage private sector investment in building and operating missing links or expanding the capacity of existing links where needed. The project will adopt a ‘cascade’ approach (Maximizing Finance for Development) with the focus on attracting private sector investment through a variety of PPP arrangements and innovative financing mechanisms as outlined in the following sections. This component is structured along two main subcomponents: (a) Improving Regional Connectivity; and (b) Increasing the Capacity and Reach of the Government Network (G-Net).

**Subcomponent 1.1: Improving Regional Connectivity**

This subcomponent will improve regional digital connectivity by supporting, through a competitive bidding process, the establishment of a redundant and resilient regional backbone network, consisting of both existing and new networks, that provides multiple cross-border connectivity alternatives and reaches every region within the country. The Government will achieve this not by procuring directly the establishment of networks, but by acting as a long-term purchaser of connectivity services in the form of bundles of services, including IRUs, in target locations. The project will therefore strive to attract private investment to encourage private sector operators and service providers to expand and share their existing regional and domestic fiber optic links, establish new cross-border fiber optic links to strengthen the connectivity with neighboring countries, and deploy of high-capacity, domestic fiber optic and wireless networks. The project will also support infrastructure sharing arrangements with other infrastructure sector providers, such as electricity transmission companies (for example, CASA-1000 and Kyrgyz Energy Holding) and railways. It is expected that the backbone will reach every district and most municipalities with the exact details to be provided through the feasibility study.

**Subcomponent 1.2: Increasing the Security, Capacity and Reach of the Government Network (G-Net)**

This subcomponent will build on the digital connectivity infrastructure established under subcomponent 1.1 to support increasing the security, capacity, and geographic reach of the Government’s internal digital network ‘G-Net’ used exclusively for the purposes of official Government and municipal communications. G-Net will be established as a hybrid physical/virtual network, as it will leverage the already existing physical network owned and operated in Bishkek by Transcom (a subsidiary SOE established under the SCITC which operates a small network comprised of approximately 60 km fiber optic lines in Bishkek connecting 34 central Government institutions around the city) and will expand it throughout the country on a virtual basis by purchasing capacity on the networks of commercial operators. In addition to these last mile connectivity services, which will be procured on a bundled basis for cost-saving and overall efficiency purposes with the creation of the backbone network (and are therefore included under subcomponent 1.1), G-Net will require the procurement of specialized networking and cybersecurity equipment, cabling, and IT infrastructure. This specialized hardware and software will be provided to the target institutions that will be connected to this network, including limited end-user computing equipment for selected target institutions, as needed. The list of public institutions and target municipalities under subcomponents 1.1 and 1.2 will be the same, and will include schools, post offices, police stations, local government offices, hospitals/clinics, as well as the service centers of the SRS, among others.

**Objectives of the assignment**

The PIU under the SCICT intends to hire an individual consultant to support the development of a feasibility study on the broadband backbone and service requirements for the expansion of the Kyrgyz portion of the regional backbone network for the Digital CASA Regional Program.
Under the current assignment, the PIU is seeking to hire a technical individual consultant with international experience to:
- complement, support and oversee the work of the firm that will conduct the feasibility study;
- develop feasibility criteria for a transboundary approach in improving the capacity of the regional level backbone networks.

**Scope of work**

The consultant should assist in conducting the backbone networks feasibility study in close coordination with the firm selected to conduct the feasibility study, with a special emphasis and consideration of successful international practice and its applicability to the specific case of the Kyrgyz Republic.

The consultant should perform the following tasks:

1. Collect all the necessary data to support the assessment of supply of broadband services and infrastructure within the Kyrgyz Republic and classification of service areas by level of accessibility of services:
   - assess the existing capacity of optical lines for each region, including cross-border, backbone and last mile;
   - assess availability of end-user broadband services in each area in accordance with a standard definition (e.g. 30Mbps access);
   - support the classification of areas into white (no service), grey (only one service provider), and black (more than one service provider).
2. Collect all the necessary data to support forecasting demand for broadband services:
   - estimate traffic growth in Kyrgyz Republic for the next 5-10 years;
   - estimate the geographic distribution of this future demand for services and by type of end user.
3. Provide a technical justification to support the high-level design of the backbone and last mile access networks for public institutions, in particular, identification and selection of sites for the construction of new FOCL backbone links, upgrades to existing FOCL backbone links, (including cross-border links), and access links for public institutions, which may be needed to address supply gaps and meet the identified demand, based on the following parameters, among others:
   - the population in the selected locations, urban-type settlements, villages, etc.
   - distance between settlements;
   - distance from existing main highways and other major infrastructure suitable for laying FOCL (e.g. power lines).
4. Define the general requirements for the planned FOCL for all defined areas:
   - the bandwidth requirements;
   - number of cores of optical fiber to meet the estimated future demand;
   - a method of laying FOCL (in the ground, along existing cable ducts, along supports, with a voltage of 100 kV and above, on overhead lines, etc.).
5. Provide recommendations on ensuring cybersecurity for the planned FOCL both at the national and regional levels (hardware and software that meets international requirements);
6. Support the detailed network design, including developing a common topology of the network of planned FOCL, including identifying existing infrastructure that can be rented from telecommunications operators and service providers where no new backbone needs to be built, including:
   - individual evaluation of each route within the network;
   - assessment of the terminal equipment necessary for each route;
   - an overview of the network management system and the center for network maintenance considering the location of network management.
7. Prepare recommendations on the requirements for the valuation of construction and services, considering the comparison with international indicators, including:
   - purchase of cable, laying services, terminal equipment, repeaters, etc.;
   - network design;
   - network integration and commissioning;
   - documentation, etc.
8. Analysis of cross-border fiber optic links and opportunities to expand the number of such links and their capacity, considering:
   - the throughput capacity of each cross-border fiber optic link;
   - the impact of building new cross-border links and expanding the capacity of existing links on Internet pricing in the country;
   - recommendations for the pre-purchase of capacity on international routes.
9. Develop mechanisms for sharing the infrastructure of telecom operators based on IRU (Indefeasible Right of Use) agreements;
10. Recommend the priority of construction stages to achieve effective results at the lowest cost.

**Deliverables and Administrative arrangements**

The consultant shall provide the following deliverables:

**Deliverable 1**
1. Preliminary report including:
   - analysis of existing and planned FOCL;
   - areas defined by the analysis for the construction of FOCL.
   (tasks 1,2)

**Deliverable 2**
2. High level design including:
   - the general topology of the network of planned FOCL;
   - recommendations on ensuring cybersecurity of planned FOCL;
   (tasks 3,4 and 5)

**Deliverable 3**
3. *Detailed network design including*:
   - individual evaluation of each route within the network;
   - the assessment of the terminal equipment required for each fiber route;
   - analysis of cross border fiber optic links;
   - network integration and commissioning.
   (tasks 6,7 and 8)

**Deliverable 4**
4. Final report including:
   - mechanisms for sharing infrastructure based on the IRU agreement;
   - recommendations for determining the priorities of the construction stages.
   (tasks 9 and 10)

The contract will be signed for a period of 22 weeks on the Lump Sum basis, during which the contract can be terminated.

The consultant shall perform all of the above tasks within 22 weeks from the date of signing the contract, with the payment schedule listed below:
Terms and disbursement schedule:

<table>
<thead>
<tr>
<th>Output</th>
<th>Deadline</th>
<th>Payment</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Contract Signature + 22 weeks</td>
<td>The fourth payment is 20% of the total value of the contract after submission and approval of the products planned under deliverable 4</td>
</tr>
</tbody>
</table>

All products should be confirmed by supporting documents after the approval of SCITC and coordination with the World Bank.

**Reporting and Approval Procedures**

The consultant will report to the Technical Coordinator of the Component, Project Manager, PIU Director, Chairman/Deputy Chairman of the SCITC and will provide:

a) Monthly progress report;
b) Final Report.

The final report (3 printed copies and 1 electronic copy) should be approved by the Head of the SCITC who is coordinating the PIU activities. Reports will be provided in English with translations into Russian.

**Resources**

The SCITC will provide all required support related to provision of technical and other information under this TOR. Workplace and computer equipment are not provided under the contract.

**Qualifications and Experience:**

The consultant must meet the following qualification, knowledge and skills requirements:

- Higher education in ICT or related fields - 10 points;
- Knowledge of the basic technologies and principles of building FOCL networks, confirmed by the corresponding certificates -10 points;
- International and / or regional experience in designing FOCL for at least 3 years - 20 points;
- Experience in conducting feasibility studies in the field of FOCL networks, at least 2 feasibility studies -20 points;
– Experience in developing specifications for FOCL networks, at least 3 projects - 10 points;
– Fluency in English - 10 points;
– Knowledge of Russian language is preferable - 10 points;
– Experience as a technical consultant on projects of international organizations (WB, ADB, EBRD, etc.) - 10 points.