

Amendment #3

to Request for Proposal RFP/BLR/Green Cities/384/2018 for the implementation of works and supply of the equipment for the street lighting modernization in Novogrudok

Request for Proposal RFP/BLR/Green Cities/384/2018 is hereby amended as follows:

1. The list of annexes to the Terms of Reference of Section 5A: Terms of Reference is supplemented with paragraph 6 "Annex 6 - Source documents for performance of the works".
2. Section 5A: Annex 6 to the Terms of Reference (attached) is added to Request for Proposal RFP/BLR/Green Cities/384/2018.

08 August 2018

Source documents for performance of the works

1. Design assignment issued by Novogradok RUE "Housing & Utilities"

(Translation of the document, which is attached below)

The Design assignment counts as
an Architectural and planning assignment
Department of Architecture and Construction
Novogradok District Executive Committee
Head of Department
/signature/ K. A. Kolosovskaya
" " 2018
/seal/

APPROVED:
Novogradok RUE "Housing &
Utilities"
Chief Engineer
/signature/ V.A.Kozlov

" " 2018
/seal/

DESIGN ASSIGNMENT

Modernization of the street lighting system in the municipality of Novogradok

List of basic data and requirements	Content of basic data and requirements
1 Basis for Design	Decision of Novogradok District Executive Committee No.537
2. Type of construction	Modernization
3 Stages of design	One-stage
4 Separation of queues, launch complexes, stages in construction	Not required
5 Permit documentation for design and construction, transferred to the project organization-executor for the development of design documentation	
5.1 Decision on permission to carry out design and survey work and construction of the facility	
5.2 Architectural and planning assignment	
5.3 Conclusions of the approving authorities	
5.4 Technical Specifications for engineering and technical support of the construction site	Technical Specifications for power supply No10 dated 01.08.2018
6 Basic technical and economic indicators of the facility, including residential or public buildings, their purpose (number of floors, number of sections and apartments, capacity or throughput)	
7 Purpose and types of built-in premises	
8 Basic requirements for internal redevelopment	
9 Information on overhaul and (or) modernization of the facility	Not required
10 The list of works and services commissioned by the customer to the design organization-executor (the subject of the contractor agreement for the performance of design and survey work)	According to Annex No.1
11 Sources of construction financing	

12 Expected start and end dates	Start: September 2018 The deadline for completion of construction is specified by the design section of the project "Organization of construction" upon agreement with the customer, taking into account the scheduled date
13 Construction mode	
14 Customer name	United Nations Development Programme
15 The name of the design organization executing the design and survey works	
16 Requirements for architectural and planning solutions	
17 Requirements for the interior design project	
18 Requirements for measures to provide barrier-free habitat for physically weakened persons (including disabled people) of various categories	
19 Requirements for structural solutions of buildings and structures, structural units, materials and products	Maximize the use of modern materials and equipment certified in Belarus
20 Requirements for engineering systems of buildings and structures	
21 Requirements for providing living conditions for low-mobile categories of the population	No requirements
22 Requirements for the improvement of the territory and small architectural forms	
23 Requirements for the development of engineering and technical measures of civil defense and emergency prevention measures	
24 Additional customer requirements	No requirements
25 Complexity class of the facility	K-
26 Limit value of construction	

For and on behalf of the customer:
Head of Production Engineering Department

For and on behalf
of the contractor:

/signature/ T.E.Letsko


“ “

2018

“ “


2018

Задание на проектирование имеет силу АПЗ
 Отдел архитектуры и строительства
 Новогрудского РИК
 Начальник отдела

«» К.А. Колосовская
 2018г.

УТВЕРЖДЕНО:

Новогрудское РУП ЖКХ
 Главный инженер

«» В.А. Козлов
 2018г.

ЗАДАНИЕ НА ПРОЕКТИРОВАНИЕ

Модернизация уличного освещения в г.Новогрудке

Перечень основных данных и требований	Содержание основных данных и требований
1 Основание для проектирования	Решение Новогрудского районного исполнительного комитета № 537
2. Вид строительства	Модернизация
3 Стадийность	Одностадийное
4 Выделение очередей, пусковых комплексов, этапов в строительстве	Не требуется
5 Разрешительная документация на проектирование и строительство, передаваемая проектной организации-исполнителю для разработки проектной документации	
5.1 Решение о разрешении проведения проектно-изыскательских работ и строительства объекта	
5.2 Архитектурно-планировочное задание	
5.3 Заключения согласующих организаций	
5.4 Технические условия на инженерно-техническое обеспечение объекта строительства	ТУ на электроснабжение № 10 от 01.08.2018г.
6 Основные технико-экономические показатели объекта, в том числе жилых или общественных зданий, их назначение (этажность, число секций и квартир, вместимость или пропускная способность)	
7 Назначение и типы встроенных помещений	
8 Основные требования к внутренней перепланировке	
9 Информация о капитальном ремонте и (или) модернизации объекта	Не требуется
10 Перечень работ и услуг, поручаемых заказчиком проектной организации-исполнителю (предмет договора подряда на выполнение проектных и изыскательских работ)	Согласно приложению №1
11 Источники финансирования строительства	
12 Предполагаемые сроки начала и окончания работ	Начало: сентябрь 2018г. Срок окончания строительства уточняется разделом проекта «Организация строительства» по согласованию с заказчиком с учетом директивного срока
13 Способ строительства	

14 Наименование заказчика	Программа развития Организации объединенных наций.
15 Наименование проектной организации-исполнителя проектно-изыскательских работ	
16 Требования к архитектурно-планировочным решениям	
17 Требования к дизайн-проекту интерьера	
18 Требования к мероприятиям по обеспечению безбарьерной среды обитания физически ослабленных лиц (в том числе инвалидов) различной категории	
19 Требования к конструктивным решениям зданий и сооружений, строительным конструкциям, материалам и изделиям	Максимально использовать современные материалы и оборудование, сертифицированные в РФ
20 Требования к инженерным системам зданий и сооружений	
21 Требования по обеспечению условий жизнедеятельности маломобильных категорий населения	Нет требований
22 Требования к благоустройству территории и малым архитектурным формам	
23 Требования по разработке инженерно-технических мероприятий гражданской обороны и мероприятий по предупреждению чрезвычайных ситуаций	
24 Дополнительные требования заказчика	Нет требований
25 Класс сложности объекта	К-
26 Предельная стоимость строительства	

От заказчика:

Начальник ЦТО

Т.Е.Лепо

2018г.

От проектной

организации-исполнителя:

« » 2018г.

Scope of works	1. Development of design specifications and estimates, DSE clearance and approval by relevant authorities. Obtaining a positive opinion of the Gosstroyexpertiza on the DSE. Design supervision.	
	General requirements:	<p>1. The DSE shall be developed in compliance with the technical regulations of the Republic of Belarus, international and national design guidelines.</p> <p>2. All source data and other necessary documents shall be collected by and at the expense of the Contractor.</p> <p>3. As part of the DSE, the Contractor shall develop a Specification of products and materials permitted for use in the Republic of Belarus, according to the technical solution offered by the Contractor in the the tender proposal.</p> <p>4. The Contractor shall provide one complete copy of the DSE to UNDP for review (in hardcopy and in electronic format) prior to the review by the Gosstroyexpertiza.</p> <p>The Contractor shall incorporate possible comments made by UNDP and coordinate the final version of the DSE with UNDP and all the concerned agencies in accordance with the regulatory documents (Novogrudok RUE "Housing & Utilities", the State Motor Vehicle Inspectorate, power supplier, rayon power networks, etc.)</p> <p>5. After receiving a positive opinion of the Gosstroyexpertiza, the Contractor shall provide the final version of the DSE, adjusted in accordance with the Gosstroyexpertiza's comments, to UNDP for approval,</p> <p>The Contractor shall provide to UNDP the DSE, grouped by books, on paper in 6 copies, as well as in electronic form:</p> <ul style="list-style-type: none"> - each section of the DSE should be presented in the form of a separate *.pdf file (Adobe Acrobat); - the graphical part of the design (drawings, plans, detailed drawings, etc. — in *.pdf (Adobe Acrobat) and *.dwg (Autocad) format; - the cost estimates - in *.docx (MS Word) format, as well as in the format suitable for processing with costing software; - the textual part of the design – in MS Word format. <p>6. UNDP shall provide to the Contractor three copies of the DSE with the caption "For performance of the works."</p> <p>7. The Contractor shall provide to UNDP a registered declaration of conformity for the design documents.</p> <p>8. The Contractor shall carry out design supervision to ensure compliance with the requirements of the DSE, the construction management plan and the method statement, as well as quality control of the completed works.</p>
	Time period for development and approval of the DSE and obtaining a positive opinion of Gosstroyexpertiza:	<p>In accordance with the weekly work schedule as per contract.</p> <p>Tentatively: within 120 days after signing the contract</p>
	Time period for design supervision:	<p>In accordance with the weekly work schedule as per contract.</p> <p>The period from the beginning of equipment & materials deliveries and the performance of construction and installation works until the end of the facility commissioning process.</p>

	Endorsement of DSE:	The developed DSE shall be duly endorsed by all interested organizations, including UNDP, Novogrudok RUE "Housing & Utilities", the State Motor Vehicle Inspectorate, the power supplier, rayon power networks operator, etc., as necessary.
	2. Supply of equipment, materials and software for street lighting control	
	General requirements:	<p>In accordance with the Technical Specification (Annex 1), the nomenclature and quantities approved in the DSE.</p> <p>All the necessary equipment, materials and software shall be delivered by the Contractor.</p> <p>The supplied equipment must include all necessary parts and accessories to ensure its installation, commissioning, and operation throughout the warranty period so that the equipment can function in accordance with the declared technical and manufacturer's specifications.</p> <p>All electrical equipment must comply with the current standards and the requirements for electrical installations effective in the Republic of Belarus.</p> <p>See the requirements for the documentation to be provided for equipment and materials in the Technical Specifications (Annex 1).</p> <p>Year of production of equipment and materials - 2018 or later.</p> <p>The UNDP shall inspect equipment on receipt at destination.</p> <p>In case the goods fully comply with the contract specifications the UNDP shall issue the Installation Permit (s).</p>
	Time period for delivery of equipment and materials:	<p>In accordance with the weekly work schedule as per contract.</p> <p>Tentatively: within 180 days after signing the contract</p>
	3. Performance of construction and installation works	
	General requirements:	<p>The works shall be carried out in accordance with the developed and agreed DSE, as well as in compliance with the construction norms and rules of the Republic of Belarus. The construction and installation works shall be performed in compliance with the legislative requirements of the Republic of Belarus in the field of environmental protection, fire safety, occupational safety and health, sanitary rules and hygienic standards, as well as other technical requirements and standards in the field of construction.</p> <p>All materials used in the performance of construction works and subject to confirmation of compliance with the technical regulations of the Customs Union, must have conformity certificates of the Customs Union. The construction works should be organized in such a way to ensure implementation of all possible environmental conservation measures. Upon completion of works, the work area shall be cleaned up. Construction debris shall be taken out and stored in a specially designated location. Construction waste shall be disposed of as required by the current legislation of the Republic of Belarus.</p> <p>The contractor receives permission to carry out construction and installation works at the State Construction Supervision Inspectorate (if necessary).</p> <p>Upon completion of the construction and installation works and before the beginning of pre-commissioning works, the Contractor, in the presence of representatives of UNDP and Novogrudok RUE "Housing & Utilities", shall test the installed equipment for readiness for pre-commissioning works.</p>

		The Contractor shall make all the necessary electrophysical measurements and tests of grounding devices and provide relevant test and measurement protocols to UNDP.
	Due date	In accordance with the weekly work schedule as per contract. Tentatively: within 180 days after signing the contract.
4. Pre-commissioning of equipment		
	General requirements:	<p>The Contractor shall perform the pre-commissioning of equipment in accordance with the current legislation of the Republic of Belarus. Pre-commissioning of equipment shall be carried out in accordance with the Pre-commissioning Program prepared by the Contractor and agreed by UNDP.</p> <p>Installation and pre-commissioning of the street lighting control cabinet, in the case of installation and pre-commissioning of individual sections of the control system, should be carried out with the uninterrupted operation of the control system sections that have been pre-commissioned.</p> <p>Testing all the functions of the street lighting control cabinets specified in the Technical Specifications for equipment and designed for the existing street lighting inventory (772 LED-luminaires, 653 sodium discharge luminaires of DNaT type, 354 mercury discharge luminaires of DRL type), during the pre-commissioning of equipment shall be carried out selectively with the help of a part of the supplied LED-luminaires.</p> <p>Upon completion of the pre-commissioning work, the Contractor, in the presence of representatives of UNDP and Novogrudok RUE "Housing & Utilities", shall conduct comprehensive tests and trials of operation of the installed equipment.</p> <p>Prior to the commencement of the tests, the Contractor shall provide the test program to UNDP for review and approval.</p>
	Due date	In accordance with the weekly work schedule as per contract. Tentatively: within 10 days after supply of equipment and materials
5. End-user training		
	General requirements:	<p>The contractor is obliged to conduct training for representatives of the Novogrudok RUE "Housing & Utilities".</p> <p>The Contractor shall deliver theoretical and practical training to the personnel of Novogrudok RUE "Housing & Utilities" on the operation and process safety issues with respect to the use and maintenance of all the equipment supplied.</p> <p>Training shall be conducted in accordance with the schedule agreed by the parties.</p> <p>Prior to the start of the training, the Contractor shall provide to the UNDP the Training Program and handouts (visual information for training purposes) in printed and electronic forms in sufficient quantity to conduct the training.</p>
	Due date	In accordance with the weekly work schedule as per contract. Tentatively: within 10 days after supply of equipment and materials
6. Commissioning of the facility and its transfer to UNDP		
	General requirements:	Upon completion of the works, the Contractor must present the completed works for acceptance, confirming their quality with a set of as-built submissions, including acceptance certificates for covered-

		<p>up works and documents confirming the quality of all the materials used.</p> <p>The Contractor shall obtain opinions of state bodies (their subdivisions) issued within their competence in accordance with the legislation, references and other documents required for commissioning the facility.</p> <p>The Contractor shall organize and coordinate the work of the commissioning team established by the Novogrudok RUE "Housing & Utilities", and provide necessary documents to the commissioning team. The Contractor is responsible for submitting the Commissioning Certificate and its signing by all members of the commissioning team. The Contractor shall obtain an approval on the facility commissioning from the State Construction Supervision Inspectorate (if necessary). The Contractor shall provide to UNDP a registered declaration of conformity for the facility to be commissioned.</p>
	Due date	<p>In accordance with the weekly work schedule as per contract.</p> <p>Tentatively: within 20 days after pre-commissioning of equipment</p>
	7. Transfer of the facility in cooperation with UNDP to the Novogrudok RUE "Housing & Utilities"	
	General requirements:	<p>Preparing all technical, design, as-built and operational documents for the facility, including those necessary for the subsequent operation of the facility and its reflection in business accounts and handing them over to the Novogrudok RUE "Housing & Utilities" in cooperation with UNDP.</p>
	Due date	<p>In accordance with the weekly work schedule as per contract.</p> <p>Tentatively: within 10 days after commissioning of the facility and its transfer to UNDP</p>
	8. Warranty service and planned servicing	
	General requirements:	<ol style="list-style-type: none"> 1. The quality of the equipment must comply with the manufacturer's standards. The Contractor shall guarantees the quality of the equipment as a whole, including parts and components. 2. During the warranty period, the warranty maintenance of the equipment shall be performed by the Contractor/Contractor's authorized representative (preferably in the territory of the Republic of Belarus) at the expense of the Contractor and should include labour inputs, materials and parts/units. 3. During the warranty period, the Contractor shall provide repair of the equipment within 30 (thirty) calendar days from the date of receipt of a defect/malfunction notification. <p>The Contractor shall bears all the costs related to dismantling, transportation, and disposal of faulty equipment and delivery of replacement equipment.</p> <ol style="list-style-type: none"> 4. In case of elimination of the identified flaws, defects, deficiencies, or equipment malfunctions, the warranty period shall be extended for the time during which the equipment was not used due to the elimination of the discovered flaws, defects, deficiencies, or equipment malfunctions. 5. The Contractor shall provide technical support services for equipment and software, which include provision of responses to all the questions from the installation site, recommendations for action at the installation site, classification of problems and provision of recommendations via phone or other communication channels. 6. The Contractor shall ensure the completeness of the functioning of the street lighting control system in accordance with the requirements of the Terms of Reference, which will be identified at the stage of pre-commissioning and commissioning of equipment (Paragraphs 4 and 6

		of the Terms of Reference above). If, at the time of pre-commissioning and commissioning of the control system using GSM-channels for data transmission, all the functions of the street lighting control system specified in the Terms of Reference are not provided, the Contractor shall at its own expense make a replacement of design specifications and estimates, deliver, perform pre-commissioning and commissioning of the control system that provides data control and transfer via PLC channels to the time agreed with UNDP
	Planned servicing	1. The Contractor shall provide the equipment servicing in accordance with the maintenance program (the relevant costs for the equipment planned servicing should be included into the Financial proposal) – at least 5 years according to the declared warranty term.
	Assignment of rights	1. After signing the Certificate of Final Completion, the right to use the Contractor's warranty obligations, technical support obligations and right to use the Contractor's servicing according to the declared maintenance programme is transferred from UNDP to the Novogrudok RUE "Housing & Utilities" with signing a separate agreement between the Contractor and the Novogrudok RUE "Housing & Utilities".
	Time limits	1. Warranty for construction works – at least 5 years from the commissioning date. 2. Warranty for equipment – at least 5 years from the commissioning date. 3. Timeframe for the elimination of defects during the warranty period shall be no more than 30 calendar days from the date of receipt of a defect/malfunction notification. 4. Duration of technical support for equipment and software – at least 5 years from the commissioning date. 5. Equipment planned servicing - at least 5 years from the commissioning date in accordance with the declared warranty term.
	After Warranty Support	The Contractor shall provide warranty services and technical support for equipment and software, including remote support, for at least 5 years from the date of completion of above-mentioned warranty and technical support obligations under a separate agreement to be concluded between the Contractor and the Novogrudok RUE "Housing & Utilities" (if needed by the Novogrudok RUE "Housing & Utilities").

2. Technical Specifications issues by Novogrudok RUE “Housing & Utilities”

(Translation of the document, which is attached below)

TS sent to:

1. Customer

United Nations Development Programme in the Republic of Belarus.

TECHNICAL SPECIFICATIONS

No. 10 of 01.08.2018

for connecting consumer electrical installations to the grid
(for legal entities and individual entrepreneurs)

1. **For the facility “Modernization of street lighting in Navogrudok”.**
2. Estimated completion for construction or reconstruction of the power supply facility is **2019.**
3. The authorized electric power capacity is to be determined by the design, including breakdown by power supply reliability category – to be determined by the design.

Power supply reliability category	Total	Existing	Additional (designed)
1			
Including the special group			
II			
III			

4. Connection points in the grid or power supply source (substation, power plant, switchgear, switchgear sections, cells), voltage for designing and constructing air or underground cable power lines, supplying electrical installations for the facility, expected level of current in emergency mode at the connection points.

Presently working external lighting cabinets.

5. Power supply method (amount and cross section for air or underground cable power lines). **Presently working underground power cable. Cable amount, grade and cross section is to be determined by the design.**

6. Requirements to strengthening the existing grid due to the new consumer, need to increase the authorized capacity, changing power supply reliability category, changing the connection points (design and construction of new electricity transmission lines, substations, increase in cross section of wires or cables, replacement or increasing capacity of power transformers, construction of additional cells in switchgears, installation of necessary relay protection devices for automation and teleautomatics, expansion of the switchgears’ building part). In some cases, the need to develop an option for constructing a block station or options for external power supply scheme is indicated. The justification (calculation) of the requirement to strengthen the existing grid, the need to develop an option for constructing a block station or options for external power supply is subject to registration by an energy supply organization (owner of the electric grid) in the form of an annex to the technical specifications for connecting listing references to regulatory legal acts, including technical normative legal acts confirming the specified requirements or need - _____

7. The requirements regarding installation of switching equipment and the type of cells of supply connections in switchgears at the source and facility of energy supply **shall be determined by the design.**

8. The estimated values of short-circuit currents, requirements to relay protection, automation, lightning protection, operating power, teleautomatics, connection, insulation and overvoltage protection **shall be determined by the design.**

9. The options for reactive power compensation **shall be determined by the design.**
10. The special requirements to installation of filter compensating, balancing and stabilizing devices for the consumers, generating harmonics in the grid, introducing asymmetry or creating voltage fluctuations, as well as devices for monitoring the quality of electrical energy from its receivers in accordance with technical regulatory legal acts **shall be determined by the design.**
11. The requirements to implementation of the electricity supply scheme or the need to undertake other measures for the consumers whose electrical installations are sensitive to short-term voltage failures and breakdown of the technological process during short-time power interruptions and voltage reduction caused by emergency modes, operation of relay protection devices and automation of the power system and consumers, as well as allocation of critical electrical receivers, emergency reservation of power supply for separate redundant power supply lines in order to preserve power supply for such electrical receivers in the event of power shortage in the power system **shall be determined by the design.**
12. Electrothermal equipment capacity (electrotechnology, electric heating, hot water supply) shall be determined by the design.
13. Technical activities ensuring the power supply reliability category declared by a legal entity or an individual entrepreneur (power supply reliability category is determined in accordance with the requirements of technical regulatory legal acts) **shall be determined by the design.**
14. The activities ensuring the required quality of electrical energy **shall be determined by the design.**
15. TS shall be valid for 2 years.
16. Record-keeping arrangements - existing.
17. The technical specifications shall be valid for 2 years.

Chief Engineer
Authorized official

/signature/
(signature)

V.A. Kozlov
(name, last name)

/seal/

V.P. Talish 0296125502

ТУ направлены:

1.Заказчику

Программа развития Организации Объединенных Наций в Республике Беларусь.

ТЕХНИЧЕСКИЕ УСЛОВИЯ№ 10 от 01.08.2018г

на присоединение электроустановок потребителя к электрической сети
(для юридических лиц и индивидуальных предпринимателей)

1. объекта: «Модернизация уличного освещения в г. Новогрудке».

2. Прогнозируемый срок завершения строительства или реконструкции объекта электроснабжения **2019**год.

3. Разрешенная к использованию мощность _ определить проектом, в том числе с разбивкой по категориям по надежности электроснабжения - определить проектом

Категория надежности электроснабжения	Всего	Существующая	Дополнительная (проектируемая)
I			
в том числе особая группа			
II			
III			

4. Точки присоединения к электрическим сетям или источник электроснабжения (подстанция, электростанция, распределительное устройство, секции распределительного устройства, ячейки), напряжение, на котором должны быть спроектированы и построены воздушные или кабельные линии электропередачи, питающие электроустановки объекта, ожидаемый уровень тока в аварийном режиме в точках присоединения

Существующие ШНО.

5. Способ электроснабжения (количество и сечение воздушных или кабельных линий электропередачи)

н/в кабельные линии. Количество, марку и сечение определить проектом.

6. Требования по усилению существующих электрических сетей в связи с появлением нового потребителя, необходимостью увеличения разрешенной к использованию мощности, изменением категории по надежности электроснабжения, изменением точек присоединения (проектирование и строительство новых линий электропередачи, подстанций, увеличение сечений проводов или кабелей, замена или увеличение мощности силовых трансформаторов, сооружение дополнительных ячеек в распределительных устройствах, установка необходимых устройств релейной защиты автоматики и телемеханики, расширение строительной части распределительных устройств). В отдельных случаях указывается необходимость разработки варианта сооружения блок-станции или вариантов схемы внешнего электроснабжения. Обоснование (расчет) требования по усилению существующих электрических сетей, необходимости разработки варианта сооружения блок-станции или вариантов схемы внешнего электроснабжения подлежит оформлению энергоснабжающей организацией (владельцем электрической сети) в виде приложения к техническим условиям на присоединение со ссылками на нормативные правовые акты, в том числе технические нормативные правовые акты, подтверждающие указанные требования или необходимость - _____

7. Требования в части установки коммутационной аппаратуры и типа ячеек питающих присоединений в распределительных устройствах на источнике и объекте энергоснабжения **определить проектом**

8. Расчетные значения токов короткого замыкания, требования к релейной защите, автоматике, прозозащите, оперативному току, телемеханике, связи,

изоляции и защите от перенапряжения **предельно**
проектом.

9. Варианты компенсации реактивной мощности **определять проектом.**

10. Специальные требования к установке фильтрокомпенсирующих, симметрирующих и стабилизирующих устройств для потребителей, генерирующих гармоники в электрическую сеть, вносящих несимметрию или создающих колебания напряжения, а также приборов контроля качества электрической энергии у ее приемников в соответствии с техническими нормативными правовыми актами **определять проектом.**

11. Требования по выполнению схемы электроснабжения или необходимость принятия других мер для потребителей, электроустановки которых чувствительны к кратковременным провалам напряжения, исключающих расстройство технологического процесса при кратковременных перерывах электроснабжения и снижении напряжения, обусловленных аварийными режимами, действием устройств релейной защиты и автоматики энергосистемы и потребителей, а также выделение ответственных электроприемников, аварийной брони электроснабжения на отдельные резервируемые питающие линии в целях сохранения электроснабжения таких электроприемников при возникновении дефицита мощности в энергосистеме **определять проектом.**

12. Мощность электротермического оборудования (электротехнология, электроотопление, горячее водоснабжение) **определять проектом.**

13. Технические мероприятия, обеспечивающие заявленную юридическим лицом или индивидуальным предпринимателем категорию по надежности электроснабжения (категория по надежности электроснабжения определяется в соответствии с требованиями технических нормативных правовых актов) **определять проектом.**

14. Мероприятия по обеспечению требуемого качества электрической Энергии **определять проектом.**

15. Срок действия ТУ - 2 года.

16. Организация учета - учет существующий.

17. Срок действия технических условий - 2 года.

Главный инженер
(уполномоченное должностное лицо)



(подпись)

В.А. Козлов

(инициалы, фамилия)

М.П.

Талиш В.П. 8 0296125302

3. Technical Specifications issues by the State Motor Vehicle Inspectorate Department of the Novogrudok Regional Department of Internal Affairs

(Translation of the document, which is attached below)

7/5290 07.08.18

To the Head of Production
Engineering Department
Acting Deputy Director for
construction of Novogrudok
RUE "Housing & Utilities"
Letsko T.E.

Novogrudok, Kotovsky str., 30.

TECHNICAL SPECIFICATIONS No. 16

For designing the facility: "Modernization of street lighting in Navogrudok".

When designing the facility: "Modernization of street lighting in Navogrudok", it is necessary to PROVIDE FOR:

- 1) Arrangement of the stationary outdoor lighting at intersections, pedestrian crossings; the placement of the luminaire poles shall be linked to the placement of traffic signs and traffic lights;
- 2) Additional lighting of pedestrian crossings and approaches to them, taking into account note 5 to table 13 of TKP 45-2.04-153-2009.

Deputy Head of the State Motor
Vehicle Inspectorate Department
Novogrudok Regional Department
of Internal Affairs
Major of militia

/signature/

Vasilevsky V.V.

07.08.2018

prepared by Karatai A.K. tel. 4-40-83

Original of the Technical Specifications

г/5290 07.08.18

Начальнику ПТО
и.о. заместителя директора по
строительству Новогрудского
РУП ЖКХ
Лецко Т.Е.

г. Новогрудок, ул. Котовского, 30.

ТЕХНИЧЕСКИЕ УСЛОВИЯ № 16

На проектирование по объекту: «Модернизация уличного освещения в г. Новогрудке».


При проектировании по объекту: «Модернизация уличного освещения в г. Новогрудке», необходимо ПРЕДУСМОТРЕТЬ:

- 1) Обустроить стационарное наружное освещение на перекрёстках, пешеходных переходах, размещение опоры светильников увязать с размещением дорожных знаков и светофоров;
- 2) Предусмотреть дополнительное освещение пешеходных переходов и подходов к ним с учётом примечания 5 к таблице 13 ТКП 45-2.04-153-2009.

Заместитель начальника отдела ГАИ
Новогрудского РОВД
майор милиции

07.08.2018

Исп. Каратай А.К. тел. 4-40-83



В.В. Василевский