

**SUPPLY, INSTALLATION, OPERATION AND
MAINTENANCE AGREEMENT**

30 JULY 2016

BETWEEN

BERHAMPUR MUNICIPAL CORPORATION

THE CONSORTIUM OF HESALIGHT A/S AND NEEV ENERGY LLP

AND

ENERGY EFFICIENCY SERVICES LIMITED

TABLE OF CONTENTS

1	Definitions and Interpretation	2
2.	Conditions Precedent	14
3.	Pre-Implementation Period	18
4.	Scope of Project, Grant of Exclusive Right and Term.....	20
5.	Implementation Period.....	24
6.	O&M Activities	27
7.	Independent Engineer	28
8.	Representatives of the Parties	29
9.	Reporting	29
10.	General Rights, Duties and Obligations.....	30
11.	Employees and Training	34
12.	Performance Bank Guarantee and Project Development Fee	35
13.	Payment and Invoicing	37
14.	Liquidated Damages	40
15.	EESL's Guarantee Obligations.....	42
16.	Change in Ownership.....	43
17.	Change in Law	44
18.	Indemnity and Insurance.....	47
19.	Force Majeure	48
20.	Events of Default	51
21.	Termination.....	53
22.	Compensation on Termination.....	56
23.	Dispute Resolution.....	57
24.	Representations and Warranties.....	58
25.	Transfer.....	61
26.	Miscellaneous Provisions.....	63
	Signature Page	69
	Schedule 1 – Number of Street Lighting Points under Project City	70
	Schedule 2 – Scope of Services	73
	Schedule 3 – Technical Specifications.....	77
	Schedule 4 - Independent Engineer Indicative Terms of Reference.....	88
	Schedule 5 - Joint Survey Guidelines	91
	Schedule 6 - Key Performance Indicators and Reporting Formats.....	95
	Schedule 7 - Liquidated Damages	97
	Schedule 8- New Light Payment Price Schedule.....	99
	Schedule 9- Post Project COD Lux Level & Illumination Ratio Monitoring Schedule	100
	Annex 1 - Format of the Amendment Agreement	103

Annex 2 - Format of the Escrow Agreement	105
Annex 3 - Format of the Performance Bank Guarantee.....	111
Annex 4 - Format of the Vesting Certificate.....	116
Annex 5 - Format of the Payment Statement.....	117

SUPPLY, INSTALLATION, OPERATION AND MAINTENANCE AGREEMENT

This SUPPLY, INSTALLATION, OPERATION AND MAINTENANCE AGREEMENT (**Agreement**) is entered into on this 30 July 2016.

BETWEEN:

- (1) **Berhampur Municipal Corporation**, with its principal office at Berhampur- 760001, Odisha (hereinafter referred to as the **Authority**, which expression shall unless repugnant to the context or meaning thereof include its successors and permitted assigns);
- (2) The consortium of **Hesalight A/S**, and **Neev Energy LLP**, with Hesalight A/S acting as the lead member of the consortium and with the registered office of Hesalight A/S at Lykkegaardsvej 9, 4000 Roskilde, Denmark and the registered office of Neev Energy LLP at D-115, Okhla Industrial Area, Delhi, India (hereinafter referred to as the **Selected Bidder**, which expression shall unless repugnant to the context or meaning thereof include the consortium's successors and permitted assigns);

AND

- (3) **Energy Efficiency Services Limited**, with its registered office at 4th Floor, Sewa Bhawan, R. K. Puram, New Delhi, Delhi-110066, (hereinafter referred to as the **EESL**, which expression shall unless repugnant to the context or meaning thereof include its successors and permitted assigns).

The Authority, the Selected Bidder and EESL shall collectively be referred to as the **Parties** and individually as a **Party**.

WHEREAS:

- A. The Authority has administrative control of and responsibility for the Public Street Lighting System (*as defined below*) of the Project City (*as defined below*).
- B. The Government of Odisha (**GoO**) and the Authority wish to develop an energy efficient public lighting system in the Project City on a public private partnership basis. It is envisaged that the Project will be implemented in collaboration with EESL. EESL, through its letter dated 2 March 2016 (as provided as a part of the RFP), has undertaken to participate in the Project in accordance with the terms of this Agreement and the SHA (*as defined below*). The GoO and the Authority have pre-approved EESL's participation in the Project SPV (*as defined below*) as an equity shareholder.
- C. On 6 October 2015, the Authority, along with Cuttack Municipal Corporation, Bhubaneswar Municipal Corporation, Rourkela Municipal Corporation and Sambalpur Municipal Corporation commenced a competitive bidding process by issuing the Request for Qualification and subsequently, on 18 November 2015, issuing a revised Request for Qualification (the **RFQ**), inviting interested parties to submit their qualification proposals to the Authorities. After receiving the qualification proposals, the Authorities issued the Request for Proposal (the **RFP**) to the qualified bidders, including the Selected Bidder on 14 March 2016, inviting the qualified bidders to submit their technical and financial proposals.

- D. Pursuant to the terms of the RFP, the Selected Bidder submitted its technical and financial proposals to implement the Project on 9 May 2016 (the **Bid**).
- E. Following a process of evaluation of technical and financial proposals submitted by the bidders (including the Selected Bidder), the Authorities accepted the Bid on 9 May 2016. Director, Municipal Administration, Directorate of Municipal Administration, Housing and Urban Development Department, Government of Odisha (**DMA**) issued the letter of award on 2 July 2016 to the Selected Bidder (the **LOA**).
- F. The Selected Bidder accepted the LOA and has agreed to implement, operate and maintain the Project during the Term (*as defined below*).
- G. The Selected Bidder has fulfilled the conditions precedent to the execution of this Agreement as required pursuant to the LOA (unless waived by the Authority).
- H. The Selected Bidder has since informed the Authority by its letter of 15 July 2016 that it undertakes to incorporate the Project SPV, within 30 Days from the date of executing this Agreement and once incorporated, the Project SPV is the entity which shall undertake and perform the obligations of the Selected Bidder.
- I. The Parties now wish to enter into this Agreement to implement the Project, subject to and on the terms and conditions set out in this Agreement.

IT IS AGREED as follows:

1 DEFINITIONS AND INTERPRETATION

1.1 Definitions

In this Agreement, unless the context requires otherwise, capitalised terms shall have the meaning given to them in the table below. Capitalised terms not defined below shall have the meaning given to them in the SHA.

Abandonment	means the total cessation of any of the obligations of the Project SPV under this Agreement for a continuous period of 3 Days, other than as a result of a Force Majeure Event or a Qualifying Change in Law.
Affected Party	has the meaning ascribed to it in Clause 19.1(a)(i).
Agreement	means this supply, installation, operation and maintenance agreement, along with its Schedules, Annexes and any amendments that may be made to it from time to time.
Amendment Agreement	has the meaning ascribed to it in Clause 3.3.
Annuity Fee	means Rs. 282,000 per month.

Applicable Laws	means all laws in force and effect as on the Execution Date and which may be promulgated or brought in force and effect in India, including Odisha, after the Execution Date, including statutes, rules, regulations, directions, bye-laws, notifications, ordinances and judgements with the force of law, any final interpretation by a court with jurisdiction over the matter in question.
Applicable Permits	means any permissions, clearances, concessions, authorisations, consents, licenses, permits, rulings, exemptions, no-objections, resolutions, filings, orders, notarisations, lodgements or registrations or approvals of whatsoever nature that are required to be obtained by the Project SPV from time to time in connection with the Project and to undertake, perform or discharge its obligations contemplated by this Agreement in accordance with Applicable Laws.
Arbitration Act	means the Arbitration and Conciliation Act, 1996.
Associate	means in respect of any Person, any other Person that Controls, is Controlled by or is under common Control with the first mentioned Person.
Authority Event(s) of Default	means any or all the events listed in Clause 20.1(b).
Authority Related Parties	means any of the following: <ul style="list-style-type: none"> (a) an officer, servant, employee or agent of the Authority acting in that capacity; (b) any contractor including any third party appointed by the Authority pursuant to Clause 4.1(b) or sub-contractor of the Authority of any tier and their directors, officers, servants, employees or agents acting in that capacity; or (c) any Person acting on behalf of the Authority.
Authority Representatives	means the Person appointed by the Authority to represent it and to carry out any of its functions and exercise powers under this Agreement.
Authority's Step-In Right	has the meaning ascribed to it in Clause 21.9.
Bid	has the meaning ascribed to it in Recital D.
Bidder	means an interested Person or Consortium, which submitted its bid to the Authorities in accordance with the provisions of the

	RFP.
Business Day	means a Day on which the GoO and the Authority is open for business in the Project City and Bhubaneswar.
Capital Subsidy	means the subsidy of Rs. 49,721,000 that the Authority shall pay to the Project SPV in accordance with Clause 13.1(a) to implement the Project.
Change in Law	<p>means the occurrence of any of the following events subsequent to the Execution Date:</p> <ul style="list-style-type: none"> (a) the modification, amendment, variation, alteration or repeal of any existing Applicable Law; (b) the enactment of any new Applicable Law or the imposition, adoption or issuance of any new Applicable Law by any Government Authority; (c) changes in the interpretation, application or enforcement of any Applicable Law or judgement by any Government Authority; (d) the introduction of a requirement for the Project SPV to obtain any new Applicable Permit; or (e) the introduction of any new Tax or a change in the rate of an existing Tax. <p>It is clarified that for the purposes of Change in Law, Taxes shall not include taxes on corporate income or income tax.</p>
Companies Act	means the Companies Act, 1956 as amended, modified or re-enacted by the Companies Act, 2013 and any other enactments from time to time including any rules or regulations framed under it.
Conditions Precedent	means, collectively, the obligations of the Parties as set out in Clauses 2.2, fulfilment of which shall be necessary for the effectiveness of this Agreement and Condition Precedent means any one of them.
Confidential Information	means any part of this Agreement or any information contained in this Agreement or any material provided to any of the Parties pursuant to this Agreement, all of which information shall be deemed to be confidential, except to the extent that this Agreement otherwise requires or the Parties agree otherwise in writing.
Control	means (a) the power to direct the management, operations and/or policies of any Person through contract or otherwise,

	(b) the beneficial ownership, directly or indirectly of more than 50% of voting securities of any Person, or (c) the right to appoint or elect majority of the board of directors of any Person The term Controlled shall be construed accordingly.
CP Waiver Notice	has the meaning ascribed to it in Clause 2.3(c).
Day	means a 24 hour period beginning at 0:00 hours IST and ending at 11:59 hours IST.
Delay Liquidated Damages	has the meaning ascribed to it in Clause 14.1.
Discom	means Southern Electricity Supply Company of Orissa Limited.
Dispute	has the meaning ascribed to it in Clause 23.1.
Dispute Meeting	has the meaning ascribed to it in Clause 23.1.
Dispute Notice	has the meaning ascribed to it in Clause 23.1.
Effective Date	means the date on which the last of the Conditions Precedent is satisfied or waived by a Party for whose benefit such Condition Precedent had been included under Clause 2.
Emergency	means an event causing, or in the reasonable opinion of the Authority and the Project SPV, threatening to cause death or serious injury to any individual, or serious disruption to the lives of a number of people or extensive damage to property or is against national interest.
Encumbrances	means mortgage, charge, pledge, lien (statutory or otherwise), assignment, assignment by way of security, hypothecation, trust, preference, priority, designation as loss payee under insurance contracts or other security interest securing any obligation of any Person or any other agreement or arrangement having a similar effect.
Equipment	means any equipment, including Luminaire, transformers, feeder panels, communication, control, protection, automation, cables/wires, brackets and associated equipment including equipment in the centralized control & monitoring centre such as computers, telecommunication systems etc. installed by the Project SPV to implement the Project.
Equipment Commissioning Certificate	has the meaning ascribed to in Clause 5.5(b).

Equipment Installation Plan	means a plan for the installation of Equipment to be submitted by the Project SPV to the Authority and the Independent Engineer for approval by the Independent Engineer after completion of the Joint Survey.
Equipment Rate	means the price per unit of the Equipment quoted by the Selected Bidder in its Financial Proposal and as set out in the New Light Payment Price Schedule.
Escrow Account	means the bank account opened with the Escrow Agent.
Escrow Agent	has the meaning ascribed to in Clause 2.2(b)(i).
Escrow Agreement	means the agreement to be executed amongst the Escrow Agent, the Authority and the Project SPV pursuant to Clause 2.2(b)(ii) and substantially in the format attached at Annex 2, setting out the terms and conditions to open and operate the Escrow Account for the purposes of payment of the Annuity Fee, New Light Payment and the Capital Subsidy to the Project SPV, in accordance with the terms of this Agreement.
Event of Default	has the meaning ascribed to it in Clause 20.1.
Execution Date	means the date of execution of this Agreement.
Expiry Date	means the date which is the 7 th anniversary of the Project COD, unless extended in accordance with the terms of this Agreement.
Financial Proposal	means the financial proposal submitted by the Selected Bidder as a part of its Bid.
Financial Year	means a year commencing on 1 April of any calendar year and ending on 31 March of the following calendar year.
FM Notice	has the meaning ascribed to it in Clause 19.2.
Force Majeure Event	has the meaning ascribed to it in Clause 19.1(a).
Fundamental Change in Law	means any Change in Law that: <ul style="list-style-type: none"> (a) renders unenforceable, illegal, invalid or void any material right or material obligation of the Project SPV under this Agreement; or (b) results in the Project SPV being deprived of the whole or a substantial part of the benefit of this Agreement.
Good Industry Practice	means the exercise of that degree of skill, diligence and prudence and those practices, methods, specifications and standards of equipment, safety and performance, as may

	change from time to time and which are reasonably and ordinarily expected to be used by a skilled and experienced contractor or operator engaged in installation, management, operation and maintenance of facilities, equipment or systems of the type and size similar to the Project.
Government Authority(ies)	means one or more of the Government of India, the GoO, any local government or any other ministry, governmental department, commission, board, body, bureau, agency, authority, instrumentality, inspectorate, statutory corporation or body corporate over which the Government of India or the GoO exercises control, court or other judicial or administrative body or official or Person, having jurisdiction over the Project SPV, the Project or any portion thereof and the performance of obligations and exercise of rights of the Parties in accordance with the terms of this Agreement.
Greenfield Street Light Points	means such points on roads/stretches in the Project City, as may be identified by the Authority, for which completely new infrastructure including transformers, feeder panels, protection and control devices, communication and automation systems, cables, wires, poles, brackets, Luminaires etc. need to be installed by the Project SPV.
IFC Performance Standards	means the 2012 IFC performance standards or applicable environmental and social standards and guidelines to which the Equator Principles refer and in particular: PS 1 assessment and management of environmental and social risks and impacts; PS 2 labour and working conditions; PS 3 resource efficiency and pollution prevention; and PS 4 community health safety and security as may be in force and effect during the subsistence of this Agreement.
Independent Engineer	means the Person jointly appointed by the Authority and the Project SPV to act as the independent engineer for the Project in accordance with Clause 7 and Schedule 2.
Joint Survey	has the meaning ascribed to it in Clause 3.2(b).
Joint Survey Team	has the meaning ascribed to it in Clause 3.2(a)(i).
Joint Survey Report	has the meaning ascribed to it in Clause 3.2(b).
Lead Member	means the consortium member nominated by a consortium to be its lead member with the rights and obligations as set out in the RFP and the RFQ.
LoA	has the meaning ascribed to it in Recital E.
Loss	means all damages, losses, liabilities, costs, expenses, including legal and other professional charges and expenses

	and charges arising under statute, contract or otherwise in connection with judgements, proceedings, claims, internal costs or demands.
Luminaire	means a complete lighting unit comprising of one or more lamps, together with its housing and appurtenances and parts designed to distribute the light, to position and protect the lamps and to connect the lamps to power supply.
Material Adverse Effect	means the effect of any act or event which materially and adversely affects the ability of any of the Parties to exercise its material rights or perform any of its material obligations under and in accordance with the provisions of this Agreement.
Month	means a calendar month as per the Gregorian calendar.
New Lights	means additional Street Light Points, including Greenfield Street Light Points and any other work in relation to the Public Street Lighting System, included in the Project Public Street Lighting System, in accordance with Clause 4.1(b).
New Light Capital Cost Payment	has the meaning ascribed to it in Clause 13.1(c)(i).
New Light O&M Payment	has the meaning ascribed to it in Clause 13.1(c)(ii).
New Light Payment	has the meaning ascribed to it in Clause 13.1(c).
New Light Payment Price Schedule	means a schedule setting out the Equipment Rate and the O&M Fee, as quoted by the Selected Bidder in its Financial Proposal and set out at Schedule 8.
Non-Political Force Majeure Event	means the events set out in Clause 19.1(b)(i).
Notice of Arbitration	has the meaning ascribed to it in Clause 23.2.
O&M Fee	means the per Project Street Light Point/Project Single Drop Point O&M charges quoted by the Selected Bidder in its Financial Proposal and as set out in the New Light Payment Price Schedule.
O&M Services	means the services set out at Schedule 2, to be provided by the Project SPV during the Term.
Payment Statement	has the meaning ascribed to it in Clause 13.2(a).
Performance Bank Guarantee	has the meaning ascribed to it Clause 12.1(a).

Performance Liquidated Damages	has the meaning ascribed to it in Clause 14.2.
Person	means any individual, company, corporation, partnership, joint venture, trust, unincorporated organisation or any other legal entity.
Phase	means a phase comprising of 25% of the Project Street Light Points.
Phase COD	has the meaning ascribed to in Clause 5.5(d).
Political Force Majeure Event	means the events set out in Clause 19.1(b)(ii).
Preliminary Notice	means the notice of intended termination of this Agreement by the Party entitled to terminate this Agreement to the other Party setting out, <i>inter alia</i> , the underlying Event of Default.
Project	means developing an energy efficient public lighting system in the Project City in relation to the Project Public Street Lighting Points, on a public private partnership basis.
Project City	means the municipal area of the city of Berhampur, currently comprising of 40 wards.
Project COD	means the Phase COD of the last Phase of the Project.
Project Development Fee	has the meaning ascribed to it in Clause 12.2.
Project Public Street Lighting System	<p>means: (i) Project Street Light Points and Project Single Drop Points as set out in Schedule 1; (ii) the number of Project Street Light Points and Project Single Drop Points identified as a part of the Joint Survey and mentioned in the Amendment Agreement; (iii) and the New Lights.</p> <p>For the purposes of the payment of the Annuity Fee, the Project Public Street Lighting System shall exclude: (i) the number of Project Street Light Points and Project Single Drop Points identified as a part of the Joint Survey and mentioned in the Amendment Agreement; (iii) and the New Lights.</p>
Project SPV	means the SPV to be incorporated by the Selected Bidder for implementing the Project.
Project SPV Representative	means the Person appointed by the Project SPV to represent it and to carry out any of its functions and powers under this Agreement.
Project SCOD	has the meaning ascribed to in Clause 3.1.

Project Single Drop Points	means a Single Drop Point which the Authority and the Project SPV have either agreed or may agree, pursuant to a Joint Survey or otherwise in accordance with the terms of this Agreement, to constitute a part of the scope of the Project.
Project SPV Event of Default	means any or all the events listed in Clause 20.1(a).
Project SPV Related Parties	means Project SPV's agents and contractors and its or their sub-contractors of any tier and its or their directors, officers, employees and workmen in relation to the Project.
Project Street Light Points	means a Street Light Point which the Authority and the Project SPV have either agreed or may agree, pursuant to a Joint Survey or otherwise in accordance with the terms of this Agreement, to constitute a part of the scope of the Project.
Public Place	means a space in the Project City, which is not a private property and is open for use or enjoyment by the public.
Public Street Lighting System	means entire street lighting infrastructure including Luminaires, outreach arms, poles, feeder panels, switchgear, control and protection devices taken together, which is owned and/or operated by the Authority in the Project City.
Qualifying Change in Law	means any Change in Law: <ul style="list-style-type: none"> (a) which applies to: <ul style="list-style-type: none"> (i) the Project and not to other similar projects within Odisha; (ii) the Project SPV, but not to other Persons; or (iii) energy service companies providing energy efficiency services, but not to other Persons; and (b) which was not reasonably foreseeable by the Project SPV as on the Execution Date.
RFP	has the meaning ascribed to it in Recital C.
Rupees or Rs.	means Indian Rupees, the lawful currency of India.
Scheduled Bank	means a bank as defined under section 2(e) of the Reserve Bank of India Act, 1934.
Security	includes any mortgage, pledge, lien, Encumbrance, security interest, right of set-off, hypothecation, assignment by way of security, retention of title or ownership or any other charge or

	Encumbrance and any other agreement or arrangement having substantially the same economic effect.
SHA	has the meaning ascribed to it in Clause 2.2(d)(ii).
Shareholder	means any one or more, as the context may require, Persons holding any shares in the share capital of the Project SPV.
Single Drop Point(s)	means either one or multiple Luminaire(s) installed in series in an ad hoc manner and connected to electricity distribution licensee's LT mains meant for power supply to residential/commercial establishments and are normally operated (switched on/off) through loose wire jointing arrangements or an any alternate switching arrangement by locals/residents.
Street Light Point	means a unit comprising of one Luminaire including the outreach arm/bracket and pole on which it is mounted along with the cable/wire connecting it to electricity mains and associated dedicated protection, control and switching devices.
Taxes	means any Indian taxes including levies, imposts, cesses, duties and other forms of taxation, including income tax, sales tax, value added tax, octroi, entry tax, corporation profits tax, advance corporation tax, capital gains tax, residential and property tax, customs and other import and export duties, excise duties, stamp duty or capital duty (whether central, state or local) on the goods, materials, equipment and services incorporated in and forming part of the Project charged, levied or imposed by any Government Authority, but excludes any interest, penalties and other sums in relation thereto imposed on any account whatsoever.
Term	has the meaning ascribed to it in Clause 4.6(a).
Termination Compensation	means any compensation payable to the Project SPV in accordance with Clause 22.
Termination Date	means the date on which this Agreement is terminated by a Party pursuant to serving a Termination Notice in accordance with its terms.
Termination Notice	means a notice issued by a Party to the other terminating this Agreement in accordance with its terms.
Threshold Limit	has the meaning ascribed to in Clause 17.1(c).
Total Capital Expenditure	means Rs. 55,245,000.
Transfer	means to transfer, sell, assign, pledge, hypothecate, create Security in or other Encumbrance on, place in trust, voting or

	otherwise, transfer by operation of law or in any other way dispose of, whether or not voluntarily, the legal or beneficial interest in the Equity shares of the Project SPV.
Transfer Date	means the Expiry Date or the Termination Date, whichever is earlier.
Vesting Certificate	has the meaning ascribed to it in Clause 25.4.
Wilful Default	means a deliberate or conscious breach of this Agreement by any of the Parties which has a Material Adverse Effect on the other Party.

1.2 Interpretation

In this Agreement, except where the context otherwise requires:

- (a) the masculine includes the feminine and vice-versa;
- (b) the singular includes the plural and vice-versa;
- (c) any reference to a statute or statutory provision shall include such statute or provision as is from time to time modified or re-enacted or consolidated so far as such modification or re-enactment or consolidation applies or is capable of applying to any transactions entered into hereunder;
- (d) a reference to any clause, annex, schedule or recital shall refer, except where expressly stated to the contrary, to Clause, Annex, Schedule or Recital of this Agreement;
- (e) save where stated to the contrary, any reference to this Agreement or to any other document shall include any permitted variation, amendment or supplement to this Agreement and/or such document;
- (f) references to any documents being 'in the agreed form' means such documents have been initialled by or on behalf of each of the Parties for the purposes of identification;
- (g) headings are for convenience of reference only;
- (h) unless otherwise stated, any reference to any period commencing "from" a specific day or date and "till" or "until" a specific day or date shall include both such Days or dates;
- (i) unless otherwise specified, any interest to be calculated and payable under this Agreement shall accrue on a monthly basis and from the respective due dates as provided for in this Agreement;

- (j) any word or expression used in this Agreement, unless defined or construed in this Agreement, shall bear the ordinary English meaning;
- (k) the words "include" and "including" are to be construed without limitation;
- (l) the Annexes and Schedules to this Agreement shall form an integral part of this Agreement and shall be in full force and effect as though they were expressly set out in the body of this Agreement;
- (m) reference to "Parties" in this Agreement shall include the Authority, the Project SPV and EESL, unless otherwise stated or the context otherwise requires; and
- (n) until the completion of the Condition Precedents set out at Clause 2.2(d)(i), all references to the Project SPV shall mean reference to the Selected Bidder.

1.3 Measurements and Arithmetic Conventions

All measurements and calculations shall be in the metric system and calculations done to 2 decimal places, with the third digit of 5 or above being rounded up and below being rounded down.

1.4 Payment in Rupees

All payments under this Agreement shall be made in Rupees.

1.5 Responsibility for Related Parties

Subject to the provisions of this Agreement, the Project SPV shall be responsible to the Authority for the acts and omissions of the Project SPV Related Parties as if they were the acts and omissions of the Project SPV and the Authority shall be responsible to the Project SPV for the acts and omissions of the Authority Related Parties as if they were the acts and omissions of the Authority. The Project SPV shall, as between itself and the Authority, be responsible for the selection of and pricing by all the Project SPV Related Parties.

1.6 Approval

Neither giving of any approval, consent, examination, acknowledgement, knowledge of the terms of any agreement or document nor the review of any document or course of action by or on behalf of the Authority, nor the failure of the same, shall unless expressly stated in this Agreement, relieve the Project SPV of any of its obligations under it or of any duty which it may have under this Agreement to ensure the correctness, accuracy or suitability of the matter or thing which is the subject of the approval, consent, examination, acknowledgement or knowledge.

1.7 Succession

References to a public authority, other than the Authority, shall be deemed to include a reference to any successor to such public authority or any organisation or entity which has taken over either or both the functions and responsibilities of such public authority.

1.8 **Precedence of Documentation**

In the event of any ambiguities or discrepancies within this Agreement, the following shall apply:

- (a) between two Clauses of this Agreement, the provisions of the specific Clause relevant to the issue under consideration shall prevail over those in other Clauses;
- (b) between the provisions of this Agreement and the Annexes, the former shall prevail;
- (c) between the Agreement and the RFP, the former shall prevail; and
- (d) between the RFP and the RFQ, the former shall prevail.

2. **CONDITIONS PRECEDENT**

2.1 **Effectiveness**

Clauses 1, 2, 4.3(f), 7, 12, 16, 17, 18, 19, 23, 24 and 26 and any related Annexes and/or Schedules shall come into force and effect on the Execution Date and other Clauses and any related Annexes shall come into force and effect on the Effective Date.

2.2 **Conditions Precedent**

(a) ***Time period for satisfaction of Conditions Precedent***

Unless a specific time period is provided for the satisfaction of a particular condition precedent, each Party shall satisfy or procure the satisfaction of the Conditions Precedent for which it is responsible within 90 Days of the Execution Date.

The Parties shall notify each other, together with supporting documentation, where relevant, of the satisfaction of those Conditions Precedent for which they are responsible, promptly and, in any event, no later than 5 Days after the date of satisfaction of each such Condition Precedent.

(b) ***Project SPV and Authority's Conditions Precedent***

The Project SPV and the Authority shall satisfy the following Conditions Precedent, if not already satisfied on or before the Execution Date:

- (i) appoint a Scheduled Bank as the escrow agent for the Project (**Escrow Agent**);
- (ii) execute the Escrow Agreement with the Escrow Agent, *inter-alia*, on the terms and conditions set out in the form of the Escrow Agreement at Annex 2; and
- (iii) jointly appoint an appropriately qualified Person as the Independent Engineer. The indicative terms of reference for appointment of the Independent Engineer are set out in Schedule 4. These terms of reference

may be modified by the Authority and the Project SPV, through mutual consultation, any time after the Execution Date.

(c) ***Authority's Conditions Precedent***

The Authority shall satisfy the following Conditions Precedent, if not already satisfied on or before the Execution Date:

- (i) free of cost and for the Term, provide enclosed space measuring at least 1.5 square meters for the Project SPV to set up its call centre and control room and shall execute all necessary documents to make such space available;
- (ii) deposit in the Escrow Account 25% of the Capital Subsidy payable to the Project SPV;
- (iii) deposit in the Escrow Account the Annuity Fee for 6 Months of operation of the Project;
- (iv) appoint and notify the other Parties of the name of the Authority Representative; and
- (v) obtain all necessary permits and consents, from the relevant Government Authorities as required to conduct the Joint Survey in accordance with Clause 3 and to grant exclusive rights to the Project SPV in accordance with Clause 4.2.

(d) ***Selected Bidder's Conditions Precedent***

The Selected Bidder shall satisfy the following Conditions Precedent, if not already satisfied on or before the Execution Date:

- (i) within 30 Days from the Execution Date, incorporate the Project SPV and undertake all activities and steps, including executing any agreement for novation, required to ensure that the Project SPV assumes all rights, obligations and liabilities of the Selected Bidder in the Agreement, in a manner as if the Agreement was signed by the Project SPV at the first instance;
- (ii) within 60 Days from the Execution Date, procure subscription by EESL of EESL Subscription Shares and execute a shareholders' agreement with the Selected Bidder and EESL (**SHA**), substantially in the format provided as a part of the Bid Documents.
- (iii) provide a certified true copy of its constituent documents;
- (iv) provide a certified true copy of a board resolution authorising the execution of this Agreement by the Selected Bidder;
- (v) provide certificates from its authorised signatory with details of its shareholding pattern;

- (vi) procure and provide confirmations from the Selected Bidder that:
 - (A) it shall at all times comply with the provisions of Clause 16 in respect of their shareholding in the Project SPV; and
 - (B) it is duly organised and validly existing under the laws of the jurisdiction of its incorporation and has requested the Authority to enter into this Agreement with the Project SPV in accordance with the terms set out herein;
- (vii) obtain and provide the Authority with copies of all relevant Applicable Permits required to implement the Project, other than the permits to be obtained by the Authority under Clause 2.2(c)(v). If such Applicable Permits are subject to conditions, then all such conditions shall have been satisfied in full, unless such conditions are required to be fulfilled by the Authority under Clauses 2.2(b) and 2.2(c); and
- (viii) appoint and notify the other Parties of the name of the Project SPV Representative.

If the Selected Bidder chooses to incorporate the Project SPV after signing the Agreement, then the Project SPV shall also be required to submit documents mentioned in Clauses 2.2(d)(iii) to Clauses 2.2(d)(vi).

2.3 **Consequences of failure to satisfy Conditions Precedent**

- (a) If the Project SPV or the Selected Bidder, as the case may be, fails to satisfy any of the Conditions Precedent that it is responsible for under Clause 2.2(d) and fails to take necessary actions to fulfil the Conditions Precedent under Clause 2.2(b) within the prescribed time period, unless waived in accordance with Clause 2.3(c), the Authority shall be entitled to terminate this Agreement by issuing 30 Days' notice to the Project SPV or the Selected Bidder, as the case may be, and forfeit the Performance Bank Guarantee.
- (b) If the Authority fails to satisfy any of the Conditions Precedent that it is responsible for under Clause 2.2(c) and fails to take necessary actions to fulfil the Conditions Precedent under Clause 2.2(b) within the prescribed time period, unless waived by the Project SPV in accordance with Clause 2.3(c), the Project SPV shall be entitled to terminate this Agreement by issuing 30 Days' notice to the Authority. If the Agreement is terminated in accordance with this Clause then the Authority shall return the Performance Bank Guarantee to the Project SPV within 7 Days following the end of such 30 Day period.
- (c) A Party may, in its discretion and subject to Applicable Laws, either waive or extend the time period for the fulfilment of any or all of the Conditions Precedent to be fulfilled by another Party by issuing a notice to the other Parties prior to expiry of the prescribed time period for fulfilment of Conditions Precedent by such other Parties (**CP Waiver Notice**), stating that:

- (i) the Condition Precedent is being waived; or
- (ii) the number of Days by which the time period for fulfilment of the Condition Precedent in question is being extended,

as the case may be.

- (d) If a Party fails to perform a Condition Precedent within the extended period stated in a CP Waiver Notice, the other Parties shall be entitled to terminate this Agreement forthwith by issuing a notice to such Party.
- (e) Upon termination of this Agreement pursuant to Clause 2.3(b), the Project SPV shall not be entitled to receive any payment or compensation from the Authority under this Agreement or otherwise.

3. PRE-IMPLEMENTATION PERIOD

3.1 Project SCOD

Other than in the event of a Qualifying Change in Law, a Fundamental Change in Law, a Force Majeure Event or an Emergency, which might have the effect of termination or extension, the Project SPV shall achieve the Project COD for the Project, in accordance with Clause 5.5, within 12 Months of the Effective Date (**Project SCOD**).

3.2 Joint Survey

(a) Joint Survey Team

- (i) A joint survey team shall be constituted within 15 Days of the Effective Date. The joint survey team shall have 3 members, one each nominated by the Authority, the Project SPV and the Independent Engineer (**Joint Survey Team**). The Joint Survey Team shall agree on the schedule for the Joint Survey.
- (ii) In the event that the Joint Survey is to be conducted in accordance with Clause 3.2(b) and:
 - (A) the member of the Joint Survey Team nominated by the Project SPV fails to be present to conduct such Joint Survey for 3 consecutive dates, as set out in the Joint Survey schedule, agreed in accordance with Clause 3.2(a)(i), the Authority shall have the right to terminate this Agreement by issuing 30 Days' notice to the Project SPV and forfeit the Performance Bank Guarantee;
 - (B) the member of the Joint Survey Team nominated by the Authority fails to be present to conduct such Joint Survey for 3 consecutive dates, as set out in the Joint Survey schedule, agreed in accordance with Clause 3.2(a)(i), the Project SPV shall have the right to terminate this Agreement by issuing 30 Days' notice to the Authority. If the Agreement is terminated in accordance with this Clause, then

the Authority shall return the Performance Bank Guarantee to the Project SPV within 7 Days following the end of such 30 Day period. Upon termination of this Agreement pursuant to this Clause, the Project SPV shall not be entitled to receive any payment or compensation from the Authority under this Agreement or otherwise; or

(C) the Independent Engineer fails to be present to conduct such Joint Survey in accordance with the Joint Survey schedule, agreed in accordance with Clause 3.2(a)(i), the Authority and the Project SPV shall have the right to replace the Independent Engineer in accordance with Clause 7.1(c).

(iii) If any Dispute arises in relation to any findings or activities during the Joint Survey, the decision of the Independent Engineer shall be final and binding on the Authority and the Project SPV.

(b) ***Conducting Joint Survey***

The Joint Survey Team shall, within 2 Days of its constitution, initiate the Joint Survey of the Project City in accordance with the guidelines set out at Schedule 5. The Joint Survey shall include identifying and recording the number of Project Street Light Points, and any other relevant Street Light Point assets associated with the Project Street Light Points, and undertaking all other activities set out in Schedule 5 (**Joint Survey**). The Authority and the Project SPV shall jointly prepare a report setting out the details of the Joint Survey, in accordance with Schedule 5 (**Joint Survey Report**) and shall submit the Joint Survey Report to the Independent Engineer, within 15 Days of completion of the Joint Survey.

The Independent Engineer shall, within 15 Days of receipt of the Joint Survey Report, approve the findings set out therein, including the recommendation, if any, to remove or add certain Project Street Light Points from the scope of the Project. In the event that the Independent Engineer fails to approve the findings in the Joint Survey Report within the prescribed time period, such findings shall be deemed to have been approved and shall be binding on the Parties. In the event that there is a Dispute on the findings in the Joint Survey Report, the Independent Engineer's decision shall be final and binding on the Authority and the Project SPV.

Within 10 Days of approval or deemed approval by the Independent Engineer of the findings set out in the Joint Survey Report, the Project SPV shall submit an Equipment Installation Plan to the Authority and the Independent Engineer. The Equipment Installation Plan shall be based on the findings of the Joint Survey and shall also set out a schedule and territorial bifurcation for the Phase-wise implementation of the Project. Within 5 Days of the submission of the Equipment Installation Plan by the Project SPV, the Independent Engineer shall verify and approve the Equipment Installation Plan. The Independent Engineer shall not unreasonably withhold or delay approving the Equipment Installation Plan.

3.3 **Amendment Agreement**

Within 5 Days of approval of the Equipment Installation Plan by the Independent Engineer in accordance with Clause 3.2(b), the Parties shall execute an amendment agreement to this Agreement, which shall be substantially in the format set out at Annex 1 (**Amendment Agreement**), making the following Annexes a part of this Agreement:

- (a) Joint Survey Report; and
- (b) Equipment Installation Plan.

The Parties shall execute the Amendment Agreement within 5 Days of the approval of the Equipment Installation Plan by the Independent Engineer.

3.4 **Applicable Permits**

The Project SPV shall obtain, keep in force and comply with the requirements of all Applicable Permits relevant to the pre-implementation period, as set out in Clause 3.

The Authority shall make best endeavours to assist the Project SPV in obtaining any Applicable Permit from the relevant Government Authority.

4. **SCOPE OF PROJECT, GRANT OF EXCLUSIVE RIGHT AND TERM**

4.1 **Scope of Project**

- (a) The Project shall include designing, implementing, commissioning, operating and maintaining the Project in accordance with the terms of this Agreement. The Project SPV shall install the Equipment for the Project Public Street Lighting System in accordance with the Equipment Installation Plan.

- (b) **Additional Project Scope**

- (i) ***New Lights – Pre-Project CoD***

- The Authority, in its absolute discretion, at any stage up to the Project COD, may by notice, containing all relevant information including location and quantity for the Equipment to be installed, require the Project SPV to include New Lights in the Project Public Street Lighting System.

- (ii) ***New Lights – Post-Project CoD***

- (A) The Authority, in its absolute discretion, at any stage commencing from the Project COD up to the fifth anniversary of the Project COD, may by notice, containing all relevant information including location and quantity for the Equipment to be installed, offer the Project SPV to include New Lights in the Project Public Street Lighting System.

- (B) Within 10 Days of receiving the Authority's offer under Clause 4.1(b)(ii)(A), the Project SPV shall submit: (a) a technical proposal

setting out the technical specifications which the Project SPV intends to employ for the New Lights offered to it in accordance with Clause 4.1(b)(ii)(A) above.

- (C) If the Project SPV's technical proposal, submitted in accordance with Clause 4.1(b)(ii)(B), is acceptable to the Authority, then it shall, based on the technical specification submitted by the Project SPV, invite price proposals from third party entities.
- (D) The Project SPV shall then have a right of first refusal with respect to the inclusion of such New Lights in the Project Public Street Lighting System, at the lowest price offered by a third party. The Project SPV shall be required to exercise its right of first refusal in relation to the New Lights within 5 Days from the date of receipt of the Authority's offer by submitting its written acceptance to the Authority, failing which the Authority shall be free to deal with such New Lights in the manner it deems fit, including engaging the third party offering the lowest price proposal, sought by the Authority in accordance with Clause 4.1(b)(ii)(C) or any other third party for their installation, operation and/or maintenance.
- (E) In the event that the Project SPV accepts the Authority's offer to include New Lights in the Project Public Street Lighting System, it shall:
 - (1) install the Equipment in accordance with Clauses 5.3, 5.4 and 5.5 within 60 Days of receipt of offer from the Authority under Clause 4.1(b)(ii)(A) or any other time period that the Parties may mutually agree in writing. The Project SPV shall be entitled to receive the New Light Capital Cost Payment, within 10 Days of issue of Equipment Commissioning Certificate and the Project SPV issuing the Payment Statement to the Authority, whichever is later; and
 - (2) provide the O&M Services, as set out in Schedule 2, with respect to the New Lights from the date of issuance of Equipment Commissioning Certificate in respect of such New Lights in accordance with Clause 6. The Project SPV shall be entitled receive the New Light O&M Payment, in accordance with Clause 13.1(c) and Clause 13.2.
- (F) It is clarified that in the event that the Authority does not accept the technical proposal submitted by the Project SPV, in accordance with Clause 4.1(b)(ii)(B) above, then the Project SPV shall have no responsibility or liability with respect to such New Lights.
- (G) The Authority and the Project SPV may include any additional New Lights, procured independently by the Authority, to the Project Public Street Lighting System for which the Project SPV shall provide only O&M Services. For such New Lights, the Project SPV

shall only be entitled to New Light O&M Payment and shall not be liable for meeting replacement obligations, warranties, set out at Schedule 2 or performance standards set out at Schedule 6.

- (c) The Parties agree that once operational, the New Lights, included in the Project scope in accordance with Clause 4.1(b)(i) and Clause 4.1(b)(ii), shall be deemed to be Project Street Light Points and shall form part of the Project Public Street Lighting System. The Project SPV's obligations under this Agreement in relation to such New Lights shall commence from the date on which the Project SPV accepts the Authority's offer to include New Lights in the Project Public Street Lighting System.
- (d) Co-ordination with a third party for New Lights

In the event that the Project SPV rejects the Authority's offer to include New Lights in the Project Public Street Lighting System, in accordance with Clause 4.1(b)(ii), and if the Authority engages a third party for their installation, operation and maintenance, then the Project SPV shall co-operate with the Authority and the third party to ensure appropriate co-ordination and proper interface between the New Lights under the third party's project scope and the Project Public Street Lighting System.

4.2 **Grant of Exclusive Right**

- (a) On and from the date of execution of the Amendment Agreement and subject to the right of the Authority to terminate this Agreement under Clause 21.8, the Authority grants the Project SPV the exclusive right to:
 - (i) design, implement and commission the Project;
 - (ii) access all the Project Street Light Points, Project Single Drop Points and all the related infrastructure relating to the Project Street Light Points and the Project Single Drop Points forming part of the Project Public Street Lighting System;
 - (iii) use a Public Place measuring a maximum of 1.5 square meters and adjacent to switching points forming part of the Project Public Street Lighting System to install a panel as part of the Equipment;
 - (iv) operate and maintain the Project Public Street Lighting System;
 - (v) access and dismantle and remove all existing equipment relating to the Project Public Street Lighting System and thereafter, install the Equipment and operate, maintain and manage the Equipment;
 - (vi) appoint contractors, sub-contractors, agents, advisors and consultants to carry out its obligations under this Agreement in accordance with its terms; and
 - (vii) exercise such other rights as the Authority may determine as being necessary for the purposes incidental and necessary to implement, manage, operate and maintain the Project.

- (b) If New Lights are added to the Project Public Street Lighting System, the Project SPV shall have the exclusive right over such lights from the date:
 - (i) in case of New Lights added in accordance with Clause 4.1(b)(i), from the date of receipt of notice issued by the Authority in accordance with Clause 4.1(b)(i); and
 - (ii) in case of New Lights added in accordance with Clause 4.1(b)(ii), from the date on which the Project SPV accepts the Authority's offer to include New Lights in the Project Public Street Lighting System in accordance with Clause 4.1(b)(ii)(D).
- (c) In the event that the Authority fails to fulfil any of its obligations under Clauses 4.2(a) and 4.2(b), the Project SCOD shall be extended for a period of time equal to the period of time taken by the Authority in fulfilling all its obligations under Clauses 4.2(a) and 4.2(b).

4.3 **Rights, Title and Interest to Project Public Street Lighting System**

- (a) The Project SPV shall, at its own cost and expense, make such improvements to the Project Public Street Lighting System as may be necessary or appropriate to implement the Project in accordance with this Agreement.
- (b) The Project SPV shall not, without the prior written consent of the Authority, use the Project Public Street Lighting System for any purpose other than the purposes of the Project and purposes incidental thereto as permitted under this Agreement or as may be otherwise approved by the Authority.
- (c) The Project SPV shall accept its rights and obligations in relation to the Project Public Street Lighting System on an 'as is where is' basis and confirm having:
 - (i) inspected the Project Public Street Lighting System, all fixtures thereon and their surroundings;
 - (ii) satisfied itself of the condition of the Project Public Street Lighting System and the nature of the design, work and material necessary for the performance of its obligations under this Agreement; and
 - (iii) obtained for itself all necessary information as to the risks, contingencies and all other circumstances which may influence or affect the Project SPV and its rights and obligations under or pursuant to this Agreement.
- (d) If this Agreement is terminated for any reason prior to the Expiry Date, the exclusive rights and any other rights granted to the Project SPV under this Agreement shall automatically cease with effect from the Termination Date.
- (e) The Project SPV shall make good any damage caused by it or the Project SPV Related Parties to any roads, footpaths, conduits, landscaping and other works on any property adjoining the Project Public Street Lighting System.

Upon occurrence of any loss or damage caused to the Project Street Light Points and/or any fixtures related to them, the Project SPV shall reinstate the Project Street Light Points and/or any fixtures related to them at its own cost. In the event that such loss or damage is caused due to acts or omissions not directly attributable to the Project SPV or the Project SPV Related Parties, the Project SPV shall recover the cost incurred in reinstating such Project Street Light Points and/or any fixtures related to them from the proceeds of the insurances obtained by it in accordance with Clause 18.2. In relation to damages caused by acts of theft and vandalism, should the insurance premium payable by the Project SPV pursuant to Clause 18.2 substantially increase due to a large number of such acts, the Authority shall bear the costs of such increase in insurance premium by refunding such amounts to the Project SPV.

The Project SPV shall not be liable for any liability in relation to the Project Street Light Points and any fixtures related to them existing or arising from any event or circumstances occurred prior to the date on which the exclusive right is granted or deemed to be granted to the Project SPV in accordance with Clause 4.2.

- (f) The Authority shall be responsible for operation and maintenance of all Project Street Light Points and any fixtures related to them until the exclusive right in relation to such Project Street Light Points is granted or deemed to be granted to the Project SPV in accordance with Clause 4.2.

4.4 **Removal of Project Street Light Points by Authority**

If the Authority removes any Project Street Light Point after the Execution Date, then the Project SPV shall be entitled to the Annuity Fee and the New Light Payment, as the case may be, in accordance with Clause 13.1(b) and Clause 13.1(c), respectively.

4.5 **Rights, Title and Interest to Equipment**

- (a) The ownership, rights and title to the Equipment, including any leased equipment, installed, located, created, provided or procured by the Project SPV pursuant to this Agreement shall vest with the Project SPV during the entire Term. The Project SPV shall have the right to dispose of any Equipment installed by it for the purposes of normal replacement of such Equipment. The Authority shall have no right or claim on any proceeds received from the Project SPV from such disposal.
- (b) The ownership, rights and title to any part of the Project Public Street Lighting System, other than the Equipment, shall remain with the Authority.

4.6 **Term**

- (a) Subject to early termination of this Agreement in accordance with its terms, the initial term of this Agreement is 7 years from the Project COD (**Term**), unless extended in accordance with Clause 4.6(b) below.
- (b) No later than 1 year prior to the Transfer Date, the Parties shall meet to determine whether the Term shall be extended and the terms and conditions on which the

Agreement shall be extended. Any extension of the Term shall be confirmed in writing.

5. IMPLEMENTATION PERIOD

5.1 Commencement and Duration

The implementation period for the Project shall commence from the date of execution of the Amendment Agreement and shall continue until the Project COD is achieved.

5.2 Applicable Permits

- (a) The Project SPV shall be responsible for obtaining all Applicable Permits for the Project SPV and Project SPV Related Parties to perform their obligations under this Agreement.
- (b) The Authority shall make best endeavours to assist the Project SPV in obtaining any Applicable Permit from the relevant Government Authority.
- (c) The Project SPV shall comply at all times with the requirements of the Agreement, all Applicable Permits, Applicable Laws and the IFC Performance Standards in the performance of its obligations under this Agreement and shall ensure, where required, compliance by the Project SPV Related Parties.

5.3 Implementation of Equipment

- (a) The Project SPV shall be responsible to install the Equipment for the Project Public Street Lighting System in accordance with the provisions of the Agreement, Equipment Installation Plan, Applicable Permits, Applicable Laws, the IFC Performance Standards and Good Industry Practice.
- (b) The Project SPV shall have the right to implement the Project in 4 Phases, in accordance with the Equipment Installation Plan submitted by it under Clause 3.2(b).

5.4 Disposal of Removed Fixtures

In the course of installing the Equipment all fixtures removed by the Project SPV, including any damaged fixtures, shall be handed over, at no cost, to the Authority for safe disposal.

5.5 Commissioning

- (a) Once the Equipment for a Phase is installed, the Project SPV shall submit a notice to the Independent Engineer, with a copy to the Authority, notifying the installation of the Equipment. The Independent Engineer and the Authority shall have the right to inspect the installed Equipment to ensure that the Equipment has been installed in accordance with the Equipment Installation Plan.
- (b) The Independent Engineer, when satisfied, after undertaking verifications in accordance with Schedule 4, that the Equipment has been installed in accordance with

the Equipment Installation Plan, shall, within 3 Days, issue a certificate to the Project SPV, with a copy to the Authority, certifying that all Equipment for that Phase has been successfully installed (**Equipment Commissioning Certificate**). Issuance of the Equipment Commissioning Certificate shall not be unreasonably withheld or delayed. In the event that the Independent Engineer, upon being satisfied that the Equipment has been installed in accordance with the Equipment Installation Plan, fails to issue the Equipment Commissioning Certificate within the time period prescribed above, such Equipment Commissioning Certificate shall be deemed to have been granted. Any Dispute in relation to issuance of the Equipment Commissioning Certificate shall be resolved in accordance with Clause 23.

(c) ***Greenfield Street Light Points***

- (i) With respect to Greenfield Street Light Points, if on or before the date on which the Project SPV submits the notice in accordance with Clause 5.5(a) the Greenfield Street Light Points do not receive electricity supply, the Independent Engineer shall have the right to inspect the installed Equipment to ensure that the Equipment has been installed in accordance with the Equipment Installation Plan in the manner set out at Schedule 4.
- (ii) The Independent Engineer when satisfied, after undertaking verifications in accordance with Schedule 4, that the Equipment has been installed in accordance with the Equipment Installation Plan, shall, within 3 Days, issue the Equipment Commissioning Certificate to the Project SPV, with a copy to the Authority, certifying that all the Equipment for that Phase have been successfully installed. Issuance of the Equipment Commissioning Certificate shall not be unreasonably withheld or delayed. In the event that the Independent Engineer, upon being satisfied that the Equipment have been installed in accordance with the Equipment Installation Plan, fails to issue the Equipment Commissioning Certificate within the time period prescribed above, such Equipment Commissioning Certificate shall be deemed to have been granted. Any Dispute in relation to issuance of the Equipment Commissioning Certificate shall be resolved in accordance with Clause 23.

It is clarified that with respect to any Greenfield Street Light Points with no electricity supply, the Project SPV shall not be:

- (A) responsible for providing O&M Services;
- (B) responsible for meeting the key performance indicators, as set out in Schedule 6; or
- (C) liable to pay Performance Liquidated Damages,

until such time that the Greenfield Street Light Points receive regular electricity supply from the Discom. However, the Authority shall be liable to make the Annuity Fee or the New Light Payments, as the case may be, to the Project SPV in respect of such Greenfield Street Light Points.

- (d) The date on which the Equipment Commissioning Certificate is issued shall be deemed to be the commercial operations date for that Phase (**Phase COD**).

- (e) The Annuity Fee for a Phase shall be payable to the Project SPV, in accordance with Clause 13.1(b), upon occurrence of the Phase COD for that Phase.

5.6 **Control Room**

In addition to installing the Equipment, the Project SPV shall set up a control room to monitor and operate the Project Public Street Lighting System in the space provided by the Authority pursuant to Clause 2.2(c)(i). The Project SPV shall set up the control room within 60 Days of execution of the Amendment Agreement. The control room shall be used solely for the purposes of monitoring and operating the Project Public Street Lighting System. The Project SPV shall, at its own cost, be responsible for upkeep and maintenance of the control room during the Term.

6. **O&M ACTIVITIES**

6.1 **Commencement and Duration**

The Project SPV shall commence the O&M Services in respect of the Project Public Street Lighting System (or a part of it, in the event that the Project SPV chooses to execute the Project in Phases) from the date of issuance or deemed issuance of the Equipment Commissioning Certificate for the relevant Phase. The Project SPV shall continue to provide the O&M Services for the Project until the earlier of the Expiry Date or the Termination Date.

6.2 **O&M Services**

The Project SPV shall provide O&M Services in relation to the Project Public Street Lighting System in accordance with the standards set out at Schedule 6, the provisions of the Agreement, the Applicable Laws, the Applicable Permits, the IFC Performance Standards and Good Industry Practice.

The Project SPV shall not be liable for its failure to provide O&M Services in relation to the Project Public Street Lighting System in accordance with the standards set out at Schedule 6, during any period for which electricity is not supplied to the Project Street Light Points.

6.3 **Complaint Book**

The Project SPV shall operate and maintain a website and a toll free number to receive consumer complaints. In addition, a complaint box shall be provided at the Authority's office. The Project SPV shall establish a procedure to deal with complaints promptly and effectively, and the Independent Engineer shall review such procedure prior to the Effective Date or following its appointment. The Project SPV shall accept any reasonable suggestion of the Independent Engineer and amend the complaint procedure accordingly.

6.4 **Complaint Redressal**

- (a) The Project SPV shall take all necessary action to address the concerns of the complainant as follows:
 - (i) any complaint relating to Project Street Light Point shall be redressed within

48 hours from the time of receipt of the complaint, as evidenced by the records maintained by the Project SPV;

- (ii) any complaint relating to a Project Single Drop Point shall be redressed within 72 hours from the time of receipt of the complaint, as evidenced by the records maintained by the Project SPV; and
- (iii) Any other complaint relating to the Project Public Street Lighting System shall be redressed by the Project SPV as soon as practically possible.

If a complainant is not satisfied with the action taken by the Project SPV, it may make a representation to the Authority. The Authority may upon receiving any such representation, at its sole discretion, direct the Project SPV to take such further reasonable action as may be appropriate for a fair and just redressal of such complaint.

6.5 Lux Level, Illumination Ratio and Power Factor Measurements

The Authority may conduct, lux level, illumination ratio and power factor measurements on the Project Street Lighting Points randomly selected by the Authority in its discretion. The Project SPV shall have the right to participate in the lux level, illumination ratio and/or power factor measurements, along with the Authority. The lux level and illumination ratio measurements shall be undertaken in accordance with the procedure outlined in Schedule 9.

If the power factor is determined to be below 0.9 or the measured lux levels or illumination ratio are found to be below the applicable standards specified at Schedule 6, the Project SPV shall be required to replace such Project Street Lighting Points within 48 hours of the Authority notifying to the Project SPV the non-compliance with the applicable standards.

7. INDEPENDENT ENGINEER

7.1 Independent Engineer

- (a) As a Condition Precedent under Clause 2.2(b), within 90 Days of the Execution Date, the Authority and the Project SPV shall jointly appoint an appropriately qualified Person as the Independent Engineer. The term of appointment of the Independent Engineer shall, unless mutually agreed by the Authority and the Project SPV, be until the Transfer Date.

The procedure for appointment, replacement and the scope of work of the Independent Engineer are set out at Schedule 4.

- (b) All fees, costs, charges and expenses payable to the Independent Engineer shall be agreed in advance of its appointment and shall be equally shared by the Authority and the Project SPV. The Authority shall pay such amounts to the Independent Engineer. The Project SPV shall reimburse the Authority for its part of the payment made to the Independent Engineer within 10 Business Days of such payment. In the event that the Project SPV, within 10 Business Days of the payment made to the Independent Engineer, fails to reimburse the Authority for such payments then the Authority shall have the right to set off such payments under Clause 13.4.

- (c) The Authority and the Project SPV may mutually decide to replace the Independent Engineer in any of the following circumstances:
 - (i) if either of them have a reason to believe that the Independent Engineer has not discharged its duties in accordance with the terms of this Agreement;
 - (ii) if they decide not to renew the appointment of the Independent Engineer; or
 - (iii) if the Independent Engineer tenders its resignation in accordance with the terms of its appointment letter.
- (d) The Authority shall ensure that the Independent Engineer is provided with all the information required or sought by the Independent Engineer, in order for the Independent Engineer to perform its functions, duties and obligations in relation to this Agreement, along with relevant extracts of this Agreement annexed to the appointment letter of the Independent Engineer highlighting all the rights and obligations of the Independent Engineer. The appointment letter signed and returned by the Independent Engineer shall acknowledge acceptance of its rights and obligations set out in this Agreement.

The Independent Engineer shall also have the right to seek additional information from the Authority and the Project SPV in order to fulfil its obligations under this Agreement and the Independent Engineer's appointment letter.

- (e) Except as specifically provided in this Agreement, the Independent Engineer shall have no authority, whether express or implied, to amend, vary or curtail any of the rights or obligations of the Parties.

8. REPRESENTATIVES OF THE PARTIES

8.1 Authority Representative

- (a) The Authority Representative shall have the full authority to act on behalf of the Authority for all matters relating to this Agreement.
- (b) The Authority shall have the right to remove the Authority Representative and appoint another Person in its place by giving 10 Days' notice in writing to the other Parties.

8.2 Project SPV Representative

- (a) The Project SPV Representative shall have the full authority to act on behalf of the Project SPV for all matters relating to this Agreement.
- (b) The Project SPV shall have the right to remove the Project SPV Representative and appoint another Person in its place by giving 10 Days' notice in writing to the Authority.

9. REPORTING

- 9.1 During the Term, the Project SPV shall provide monthly reports to the Authority about the following matters:
- (a) Lamp failure report; and
 - (b) Monitoring and verification report.
- 9.2 If the Project SPV does not issue monthly reports within 3 Days of the end of the relevant Month for any 3 consecutive Months or there is a material information falsely provided in more than 3 reports during the Term, this event shall constitute a Project SPV Event of Default.
- 9.3 In addition to the reports mentioned in Clause 9.1, the Project SPV shall provide daily reports during the Term. If the Project SPV does not issue daily reports for 5 consecutive Business Days or for more than 10 Days in a Financial Year, this event shall constitute a Project SPV Event of Default.
- 9.4 The reports to be provided in this Clause 9 shall be substantially in the format set out at Schedule 6.

10. GENERAL RIGHTS, DUTIES AND OBLIGATIONS

In addition to the other obligations of the Parties set out in detail elsewhere in the Agreement, this Clause 10 sets out the key obligations of the Parties.

10.1 General Rights, Duties and Obligations of the Project SPV

- (a) The Project SPV shall during the Term:
 - (i) install the Equipment over the Project Public Street Lighting System; and
 - (ii) provide the O&M Services for the Project Public Street Lighting System.
- (b) Except as otherwise provided in this Agreement, the Project SPV shall not assign its rights, title or interest in this Agreement in favour of any Person without the prior written consent of the Authority.
- (c) The Project SPV may engage any Person who possesses the requisite skill, expertise and capability to provide the O&M Services, provided that:
 - (i) the Project SPV shall at all times be solely responsible to perform all its obligations under this Agreement and it shall at all times be solely responsible for non-performance or for any defect, deficiency or delay in providing the O&M Services; and
 - (ii) any contract that it enters with an Associate in respect of the Project shall be on an arm's length basis.

- (d) Environmental and Social Requirements:
- (i) The Project SPV shall carry out all its obligations under this Agreement in accordance with the provisions of the Agreement, Applicable Laws, Applicable Permits, IFC Performance Standards and Good Industry Practice;
 - (ii) The Project SPV shall operate and maintain the Project in accordance with local regulations, IFC Performance Standards (PS1 to PS4) and the World Bank Group General EHS guidelines (<http://www.ifc.org/wps/wcm/connect/554e8d80488658e4b76af76a6515bb18/Final%2B%2BGeneral%2BEHS%2BGuidelines.pdf?MOD=AJPERES>);
 - (iii) The Project SPV shall comply with LED bulb standards and manufacturing guidelines published by the Bureau of Energy Efficiency, Government of India or equivalent global standards and guidelines in designing and implementing the Project to address community health and environmental pollution concerns.
 - (iv) The Project SPV shall formulate and implement a system to manage the environmental, health and safety aspects of the Project in a systematic way such as formulating an Environmental and Social Management Systems (ESMS) in accordance with IFC Performance Standard 1 requirements. The ESMS shall:
 - be commensurate with the level of environmental, health and safety risks and impacts associated with the street lighting operations;
 - include a process to identify risks and impacts through the life cycle of the Project;
 - include Standard Operating Procedures (SOP) to cover: occupational health and safety measures to protect workers while installing the lights and during maintenance activities; traffic diversion and management during installation and maintenance activities; hazardous and nonhazardous waste management and disposal; emergency response in case of situations that pose health and safety risks for the community and natural calamities, such as cyclone resulting in heavy rainfall, high wind speed during monsoon season; communication with external stakeholders to inform and engage, as needed, on changes and/or significant maintenance work on the street lighting operations; and grievance mechanism addressing community health and safety concerns;
 - include clearly assigned roles and responsibilities including training of all concerned; and
 - include a system for monitoring and reporting throughout the life cycle of the Project to allow for identification of corrective actions and improvement measures to be implemented.
 - (v) The Project SPV shall:
 - obtain all required environmental, health and safety regulatory clearances to implement the Project;

- manage and dispose hazardous and non-hazardous waste material as per Government of India regulations and World Bank Group General environment, health and social (EHS) Guidelines;
 - select and install the Equipment and infrastructure following the good international industry practice taking into account natural hazards such as cyclone and heavy rainfall, as the state is prone to natural disasters;
 - develop/maintain written human resources (HR) policies and procedures in accordance with laws of India and IFC Performance Standard 2 requirements and ensure the relevant policies are available to all employees. The HR policy/procedure shall clearly describe working conditions, terms of employments, management of worker relationship, and roles and responsibilities. Retrenchment if any shall also comply with IFC Performance Standard 2 (consultation, alternative analysis, retrenchment plan).
- (vi) If the Project SPV uses contractors or subcontractors for any of its activities pertaining to the construction or operation/maintenance of the Project, it shall ensure that:
- relevant SOP requirements are included in contracts/subcontracts (in particular Occupational health and safety (OHS) requirements shall be adopted by all contractors/subcontractors as applicable);
 - responsibilities over environmental, health and safety related tasks are clearly defined in the contracts/subcontracts;
 - the contracts/subcontracts specify what type of data/information need to be reported to the Project SPV for reporting purposes and to allow evaluation of need for corrective actions; and
 - the contractors/ subcontractors have the proper experience/credential to undertake EHS tasks included in the contracts/subcontracts.
- (viii) The Project SPV agrees to operate the Project with a documented environmental and social management system. The IFC Performance Standards can be accessed on the external webpage:
- http://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/ifc+sustainability/our+approach/risk+management/performance+standards/environmental+and+social+performance+standards+and+guidance+notes#2012;
- (ix) The Project SPV shall ensure that the practices employed to replace, collect and transport lamps are in accordance with the provisions of the Agreement, Applicable Laws, Applicable Permits and Good Industry Practice.

10.2 General Rights, Duties and Obligations of the Authority

- (a) The Authority shall:
- (i) disburse the Capital Subsidy in accordance with Clause 13.1(a);

- (ii) during the Term, at all times fund the Escrow Account with an amount equivalent to Annuity Fee for 6 Months in relation to the Project Street Light Points;
 - (iii) pay the Annuity Fee and New Light Payments to the Project SPV; and
 - (iv) make best endeavours to assist the Project SPV in obtaining any Applicable Permit from the relevant Government Authority.
- (b) Notwithstanding anything to the contrary contained in this Agreement, the Authority may, after giving 60 Day notice to the Project SPV, assign any of its rights and benefits and/or obligations under this Agreement to an assignee who is a Government Authority.
 - (c) Subject to Clause 4.1(b), the Authority shall not, during the Term, permit any third party to install Equipment or provide O&M Services in relation to the Project Public Street Lighting System.
 - (d) The Authority agrees and acknowledges that it shall, as soon as practicable and at its sole cost and expense, rectify or provide for all faults, inadequacies or shortcomings in the infrastructure relating to Project Street Light Points (except the Equipment installed by the Project SPV) that are identified and reported by the Project SPV to the Authority from time to time during the Term.
 - (e) The Authority agrees to dispose fused or non-operational bulbs that contain mercury as per Government of India regulations, World Bank Group General EHS Guidelines and the "Report of the Task Force on Environmentally Sound Management of Mercury in Fluorescent Lamps"(Ref:<http://envfor.nic.in/mef/Task%20Force%20report1.pdf>).
 - (f) The Authority agrees to formulate a recycling and reuse strategy for bulbs in operational/working condition from the existing street lighting infrastructure.
 - (g) The Authority agrees to monitor the Project performance, including environment, health and social aspects, during the operation and maintenance phase of the Project.

10.3 General Rights, Duties and Obligations of EESL

- (a) EESL shall, during the Term, guarantee Authority's payment obligations in accordance with Clause 15.
- (b) In the event that the Authority fails to perform its payment obligations towards payment of the Annuity Fee and the New Light Payment, in accordance with Clause 13, and as a consequence of which EESL is required to pay to the Project SPV the unpaid Annuity Fee and the New Light Payment, then, in accordance with Clause 15, EESL shall have the right to recover such amounts paid by it in accordance with Clause 15, within 90 Days of EESL making the payments to the Project SPV.

10.4 **Common Obligations of the Parties**

- (a) The Parties shall perform their respective obligations under this Agreement in accordance with the terms of this Agreement, Applicable Laws and Applicable Permits, Good Industry Practice and to the extent applicable, IFC Performance Standards.
- (b) Any document, including maps, drawings, past electricity bills etc., provided by the Authority to the Project SPV shall always remain the property of the Authority and shall not be used by the Project SPV for any purposes other than for the Project. The documents shall, unless otherwise agreed upon by the Authority, be returned by the Project SPV to the Authority on the Transfer Date.

Any document relating to the Project, whether prepared by the Project SPV or a third party, shall be handed over by the Project SPV to the Authority free of cost on the Transfer Date.

- (c) The Parties shall mutually cooperate with each other in order to achieve the objectives of this Agreement.

10.5 **Emergencies**

- (a) If an Emergency arises during the Term, the Authority may instruct the Project SPV that such measures are undertaken by the Project SPV as necessary and practicable to ensure that the Emergency is dealt with and normal operation of the relevant Project Public Street Lighting System resumes as soon as is reasonably practicable, provided that the Project SPV shall not be obliged to provide any service which it is neither qualified nor competent to provide.
- (b) Any additional costs incurred by the Project SPV, in dealing with an Emergency shall be borne by the Authority upon the Project SPV raising the Payments Statement in accordance with Clause 13.2 which shall include a separate line item headed "Emergency Costs". The invoice shall provide supporting documentary evidence for the cost incurred by the Project SPV. The Project SPV shall not be paid any such cost if the Emergency had been caused due to its own act or omission.
- (c) In the event that the Project SPV undertakes to provide additional or alternative services in case of an Emergency, the Project SPV shall make best efforts to meet the standards set out at Schedule 6 or any other standards pre-agreed with the Authority before providing such services.
- (d) Notwithstanding anything contained in this Agreement, if an Emergency arises during the validity of the Agreement, the Authority shall have the right to enter the Project SPV's control room and call centre and take over operation of the Project Public Street Lighting System until such time the Emergency subsists.

11. **EMPLOYEES AND TRAINING**

- 11.1 The Authority shall remain the principal employer of the municipal employees working for the Authority's lighting department. Such employees may or may not, at the Project SPV's

sole discretion, be seconded to the Project SPV for a specific duration and under terms and conditions to be agreed upon between the Authority and the Project SPV. The Project SPV has no obligation under this Agreement to employ directly or indirectly any of the Authority's employees.

- 11.2 Notwithstanding anything contained in Clause 11.1, the Project SPV shall train the employees of the Authority's lighting department to operate, maintain and repair the Equipment and systems installed by the Project SPV. Training shall include both classroom and practical instruction. Course materials shall include the Project SPV's supplied operation and maintenance plans and manufacture manuals. This training shall be provided only once during the entire Term and shall be conducted within the first year of the Project COD. In the event that New Lights are included to the Project Public Street Lighting System and/or new technology is deployed by the Project SPV, then the Authority shall have the right to require the Project SPV to conduct training for its employees, at no additional cost to the Authority. The Authority shall exercise this right in a reasonable manner.
- 11.3 The Project SPV Related Parties shall be under the complete control of the Project SPV and shall not be deemed to be employees of the Authority.

12. PERFORMANCE BANK GUARANTEE AND PROJECT DEVELOPMENT FEE

12.1 Performance Bank Guarantee

- (a) The Project SPV shall submit to the Authority a bank guarantee from a Scheduled Bank with a branch in Bhubaneswar, in the form set out at Annex 3, payable at Bhubaneswar, to secure the due performance of the Project SPV's obligations under this Agreement during the Term (**Performance Bank Guarantee**). The charges for providing the Performance Bank Guarantee shall be borne by the Project SPV.

The Performance Bank Guarantee shall be for a sum equal to Rs. 95,00,000 (Rupees ninety five lakhs).

- (b) The Project SPV shall maintain the Performance Bank Guarantee in full force and effect till the Transfer Date.

If the Performance Bank Guarantee is scheduled to expire prior to the Transfer Date, then at least 30 Days prior to the scheduled expiry of the Performance Bank Guarantee, the Project SPV shall arrange for an extension or replacement of the Performance Bank Guarantee. If the Project SPV fails to extend or replace the Performance Bank Guarantee, the Authority shall be entitled to receive the un-drawn amount under the Performance Bank Guarantee. The amount so received shall be treated as a cash-retention and to the extent that there are no outstanding claims thereto, shall be released, without any interest on such amount, upon submission of a new Performance Bank Guarantee acceptable to the Authority or upon the scheduled date of expiration of the Performance Bank Guarantee.

- (c) The Authority shall have the right to draw on the Performance Bank Guarantee and claim the amount guaranteed on demand upon the Project SPV's failure to honour any of its obligations, responsibilities or commitments during the Term in respect of any amount due from the Project SPV to the Authority, including any Delay Liquidated

Damages or Performance Liquidated Damages that the Project SPV is liable to pay under this Agreement.

- (d) If the Authority draws on the Performance Bank Guarantee, in part or in full, the Project SPV shall immediately, within 7 Days of such withdrawal, restore the value of the Performance Bank Guarantee to the amount stated in Clause 12.1(a).
- (e) If this Agreement is terminated for any reason other than the occurrence of a Project SPV Event of Default, the Performance Bank Guarantee shall be duly discharged and released to the Project SPV, subject to the Authority's right to receive any accrued amounts from the Project SPV before such termination.

12.2 Project Development Fee

- (a) If the project development fee of USD 86,795 (US eighty six thousand seven hundred and ninety five), as set out in the LOA (the **Project Development Fee**) has not been paid by the Project SPV or the Selected Bidder on or before the date of this Agreement, then the Project SPV shall or shall cause the Selected Bidder to pay IFC the Project Development Fee within 7 Days of the date of this Agreement.
- (b) The Project Development Fee shall be paid by the Project SPV or the Selected Bidder to IFC in US Dollars, in immediately available funds, without any deductions whatsoever for Taxes, charges or other withholdings (all of which shall be borne by the Project SPV), into the bank account having the following details

Wells Fargo Bank, N.A.
375 Park Avenue
NEW YORK, NY 10152, USA
ABA: 026005092
SWIFT CODE: PNBPU33NNYC
For Credit: International Finance Corporation
Account No: 2000192003476,

or into such other bank account as IFC may designate.

It is clarified that the payment of the Project Development Fee will be exempt from any Taxes, duties, charges or other withholdings under the International Finance Corporation (Status, Immunities and Privileges) Act, 1958.

- (c) If the Project SPV fails to pay the Project Development Fee to the IFC in accordance with this Clause 12.2, the Authority shall be entitled to:
 - (i) draw upon the Performance Bank Guarantee; and/or
 - (ii) deduct the amount payable to IFC from any amounts that become due and payable by the Authority to the Project SPV,

and pay the Project Development Fee to IFC out of such proceeds.

- (d) If any amount paid by the Authority to IFC on behalf of the Project SPV is

insufficient to pay the entire Project Development Fee, then the unpaid portion of the Project Development Fee shall constitute a debt due from the Project SPV to IFC that shall be payable on demand.

13. PAYMENT AND INVOICING

13.1 Sums to which the Project SPV shall be entitled

(a) *Capital Subsidy*

- (i) The Authority agrees to provide the Project SPV with a Capital Subsidy equal to Rs. 49,721,000 in accordance with the provisions of this Clause 13.1 (a).
- (ii) The Authority shall deposit in the Escrow Account 25% of the Capital Subsidy, as a Condition Precedent under Clause 2.2(c)(ii). The remaining 75% of the Capital Subsidy shall be deposited in the Escrow Account by the Authority in three equal instalments, within 30 Business Days from the date of issuance of the Equipment Commissioning Certificate for a Phase.
- (ii) The Authority shall disburse the Capital Subsidy to the Project SPV in four equal instalments. Each instalment of the Capital Subsidy shall be disbursed within 60 Days from the Phase COD for each Phase.
- (iii) A failure by the Authority to release the Capital Subsidy in accordance with the provisions of this Clause 13.1 shall constitute an Authority Event of Default.

(b) *Annuity Fee*

- (i) The Annuity Fee of Rs. 282,000 shall be payable, on a monthly basis, to the Project SPV in relation to the Project Public Street Lighting System.
- (ii) In the event that the Equipment Commissioning Certificate is not issued by the Independent Engineer on the last Day of a Month, then the Project SPV shall be entitled to pro-rata Annuity Fee for the Month in which the Equipment Commissioning Certificate is issued.

(c) **New Light Payment**

- (i) In relation to the Equipment installed by the Project SPV for the New Lights, the Project SPV shall be entitled to payments (**New Light Capital Cost Payment**), which shall be calculated as follows:

$$[\text{Equipment Rate}] \times [\text{NL}]$$

NL = Number of New Lights for which Equipment have been installed

- (ii) In relation to the O&M Services provided by the Project SPV for the New Lights, the Project SPV shall be entitled to payments (**New Light O&M Payment**), which shall be calculated as follows:

$[O\&M \text{ Fee}/12] \times [NL]$

NL = Number of New Lights for which O&M Services have been provided in a Month

The New Light O&M Payment shall be payable by the Authority on a monthly basis. The O&M Fee shall be subject to a yearly escalation of 10%, applicable from the first anniversary of the Project COD.

The New Light Capital Cost Payment and the New Light O&M Payment are collectively referred to as the New Light Payment.

13.2 Invoicing for Annuity Fee and New Light Payment

(a) Within 3 Business Days of commencement of each Month, the Project SPV shall submit to the Authority a statement substantially in the format set out at Annex 5 setting out the details of the Annuity Fee and New Light Payments for the preceding Month, calculated in accordance with Clause 13.1(b) and Clause 13.1(c), respectively, as evidenced by a consolidated report evidencing adherence by the Project SPV of the performance standards set out at Schedule 6. (**Payment Statement**).

(b) Within 3 Business Days of receipt of the Payment Statement, the Authority shall verify it for any apparent error such as mathematical miscalculations. In the event that the Authority notifies any apparent error in writing to the Project SPV within the time specified in this Clause 13.2(b), the Project SPV shall immediately rectify such error and re-issue the Payment Statement by no later than 2 Business Days of receipt of notification of such error from the Authority. The process set out in Clause 13.2(c) shall then apply to any re-issued Payment Statement.

In the event that Authority does not notify any error within 3 Business Days of receiving the Payment Statement, such Payment Statement shall be deemed to have been accepted by the Authority.

(c) In the event that the Authority does not discover any error in relation to the Payment Statement, then the Authority shall, within 3 Business Days of receipt of such Payment Statement, issue instructions to the Escrow Agent along with all relevant documents to release 75% of the Annuity Fee and New Light O&M Payment to the Project SPV.

(d) Subject to Clause 13.2(e), Authority shall, within 10 Business Days of the date of acceptance of the Payment Statement and upon verifying adherence of the Project SPV to performance standards set out at Schedule 6, issue instructions to the Escrow Agent along with all relevant documents to release the remaining 25% of the Annuity Fee and New Light O&M Payment to the Project SPV.

(e) In the event that the Authority wishes to exercise its right to set-off any amounts in accordance with Clause 13.4, it shall instruct the Escrow Agent accordingly. The Authority shall communicate exercise of its set-off rights to the Project SPV in

writing, giving reasons and relevant details concerning the exercise of such right.

- (f) Except as expressly provided otherwise in this Agreement, the Project SPV shall not levy, collect or recover from Authority any charge or fee or claim any costs, expenses or any other reimbursement, other than the Annuity Fee and the New Light Payment.

13.3 **Default Interest Rate**

Upon a failure of a Party to make a payment due and payable by it on the due date for such payment, the defaulting Party, as the case may be, shall be liable to pay default interest on all such outstanding amounts at 18% per annum or part thereof. This is without prejudice to any Party's right to terminate this Agreement in accordance with Clause 21 or any other right or remedy available to it under this Agreement or Applicable Laws.

It is clarified that the provisions of this Clause 13.3 shall be applicable to EESL's guarantee obligation under Clause 15 and the Authority's obligation to repay EESL all the amounts paid by EESL to the Project SPV in accordance with Clause 15.

13.4 **Rights of Set-off**

- (a) The Project SPV shall not be entitled to retain or set-off any amount due to the Authority, but the Authority may retain or set-off 25% of the Annuity Fee and the New Light O&M Payments against any amounts due and payable from the Project SPV to the Authority, including Delay Liquidated Damages and Performance Liquidated Damages.
- (b) If the payment or deduction of any amount pursuant to Clause 13.4(a) is disputed, then any undisputed element of that amount shall be paid and the disputed element shall be dealt with in accordance with Clause 23.

13.5 **Taxes**

- (a) All payments payable by the Authority to the Project SPV under this Agreement, including, the Annuity Fee and the New Light Payment are inclusive of all Taxes, if applicable. Any Change in Law on account of the introduction of new Taxes or change in the rates of existing Taxes shall be to the account of and payable by the Authority, as the case may be.
- (b) The Authority shall be entitled to make any deductions at source in accordance with Applicable Laws.
- (c) The Project SPV shall be responsible for all compliance related to the payment of any Taxes payable by it under this Agreement and shall solely be responsible for any proceedings initiated by the relevant Government Authorities, in respect of the non-payment, short-payment, non-compliance, penalty, interest or other such issue, and for all liabilities and expenses related to such proceedings.
- (d) If any proceedings are initiated against the Authority or EESL by any relevant Government Authority for failure of the Project SPV to comply with Clause 13.5(c), the Project SPV shall fully indemnify and compensate the Authority or EESL, as the

case may be, in accordance with Clause 18.

- (e) If any proceedings are initiated against the Project SPV by any relevant Government Authority for failure of the Authority to comply with Clause 13.5(a), the Authority shall fully indemnify and compensate the Project SPV in accordance with Clause 18.

13.6 **Clean Development Mechanism**

The Project SPV shall be entitled to claim clean development mechanism benefits or other forms of similar benefits arising out of the Project. The Authority shall provide all reasonable assistance to the Project SPV in registering the Project as a clean development mechanism activity. 50% of any clean development mechanism benefits arising out of the Project shall be in favour of the Project SPV while 50% shall be received by the Authority.

- 13.7 All notices, statements and documents, including copies of any bills, required to be provided by a Party pursuant to this Clause 13 shall be provided by it to both of the other Parties.

13.8 **Escrow Arrangement**

The Escrow Agreement shall *inter-alia* provide for:

- (a) the appointment of the Escrow Agent for the Term;
- (b) the terms and conditions of the appointment of the Escrow Agent, including the fees to be charged by the Escrow Agent, which shall be borne by the Project SPV;
- (c) the obligation of the Authority to deposit amounts in accordance with Clause 10.2(a)(i), Clause 10.2(a)(ii) and Clause 10.2(a)(iii), respectively, with the Escrow Agent simultaneously with the execution of the Escrow Agreement and otherwise in accordance with the terms of this Agreement;
- (d) the release of amounts deposited by the Authority to the Project SPV in accordance with the procedure set out in Clause 13.2; and
- (e) other specific rights and obligations of the parties to the Escrow Agreement, including a mechanism for provision of documents and issuance and receipt of instructions for release of payments.

14. **LIQUIDATED DAMAGES**

14.1 **Delay Liquidated Damages**

If the Project SPV fails to achieve the Project COD by the Project SCOD for reasons other than those set out in Clauses 10.5, 17 and 19, it shall pay liquidated damages to the Authority at the rate provided in Schedule 7 (**Delay Liquidated Damages**). If the Project SPV fails to achieve the Project COD within 120 Days of the Project SCOD, the Authority shall have the right to terminate this Agreement under Clause 21.1 and encash the Performance Bank Guarantee.

14.2 **Liability for shortfall in O&M Services**

Subject to the provisions of this Clause 14.2, in the event that the O&M Services do not meet the standards set out in Schedule 6, then the Project SPV shall pay liquidated damages at the rates provided in Schedule 7 (**Performance Liquidated Damages**). In respect to each Phase, the Performance Liquidated Damages shall be payable from the date of Phase COD of the respective Phase.

In the event that the O&M Services fail to comply with the standards set out in Schedule 6 due to inadequacies or shortcoming on the Authority's part to maintain, repair or replace, as the case may be, the infrastructure relating to the Project Public Street Lighting System (except for the Equipment installed by the Project SPV) or during the period of no supply of electricity to the Project Street Light Points, the Project SPV shall not be liable to pay any Performance Liquidated Damages till such time such infrastructure is restored in good working condition by the Authority or the supply of electricity to the Project Street Light Points is resumed, as the case may be. In addition, until the Authority restores such infrastructure to good working condition or supply of electricity to the Project Street Light Points is resumed, the Authority shall continue to make the Annuity Fee and the New Light O&M Payments for the relevant part of the Project Public Street Lighting System.

Upon becoming aware of any inadequacy or shortcoming in the infrastructure relating to a Project Street Light Point or Project Single Drop Point; or absence of electricity supply, the Project SPV shall promptly report them to the Authority. Any Dispute that may arise between the Authority and the Project SPV in relation to the existence of any inadequacy or shortcoming in the infrastructure relating to a Project Street Light Points or rectification of such inadequacy or shortcoming or availability of electricity supply shall be referred to and decided by the Independent Engineer.

14.3 **Payment of Liquidated Damages**

Any Delay Liquidated Damages or Performance Liquidated Damages, as the case may be, shall be payable by the Project SPV within 15 Business Days of receipt of a demand notice from the Authority. In the event that the Project SPV fails to pay such damages within the specified period, the Authority shall have the right to recover the amount of such damages either by exercising its right to set-off under Clause 13.4 or by encashing the Performance Bank Guarantee.

This provision shall not prejudice the right of the Authority to terminate this Agreement in accordance with Clause 21.1 or any other right that the Authority may have under the Agreement or Applicable Laws.

14.4 **Limitation of Liability**

- (a) The aggregate liability of the Project SPV to the Authority under this Agreement in any Financial Year shall not exceed 50% of the sum of the Annuity Fee and New Light Payments for such Financial Year. The limitation of liability shall not apply to nor be reduced by:
 - (i) payments made by the Project SPV pursuant to its insurance policies;

- (ii) the Project SPV's liability in case of fraud, fraudulent misrepresentation, wilful misconduct or Wilful Default, gross negligence or corrupt practices; or
 - (iii) the Project SPV's liability in respect of any failure to pay any Project SPV Related Parties.
- (b) Neither the Project SPV nor the Authority shall be liable to each other under this Agreement for any loss of profit, loss of revenue or any other indirect or consequential damages that may be suffered by the other Party.
- (c) Unless this Agreement provides otherwise, no approval, expression of satisfaction, comment, review, payment or certificate whatsoever made or given (or any failure to make or give the same) by the Authority, its representatives or employees under this Agreement, shall relieve the Project SPV of any of its obligations, risks or liabilities under this Agreement.

15. EESL's GUARANTEE OBLIGATIONS

15.1 EESL guarantees the due and punctual payment of any undisputed amount directly payable by the Authority and due to the Project SPV under this Agreement, including the Annuity Fee and New Light Payment but excluding the Capital Subsidy. EESL's guarantee obligation under this Clause 15.1 shall not exceed the amount equivalent to 50% of the aggregate annual Annuity Fee for that Financial Year.

15.2 In that event the Authority fails to pay any amount mentioned in Clause 15.1 above within the time period specified in this Agreement, EESL shall immediately on demand make such payment as if it were the principal obligor in respect of the amount.

In relation to the Annuity Fee, EESL's guarantee obligation shall commence only after: (a) the Project SPV has recovered the unpaid Annuity Fee from the Escrow Account; and (b) the Escrow Account has depleted to an amount equivalent to 1 Month's Annuity Fee, and

In any Financial Year, EESL's guarantee obligations under this Clause 15 shall not exceed the amount equivalent to 50% of the aggregate annual Annuity Fee for that Financial Year.

15.3 In the event that any amount due and payable by the Authority under this Agreement, excluding the Capital Subsidy, is not paid within the period provided in the Agreement and upon occurrence of events set out at Clause 15.2(a) and Clause 15.2(b), the Project SPV shall issue a notice to EESL, with a copy to the Authority. The notice shall contain details of the Clauses under which payment is due along with the calculations for such payment and, if the amount has been determined by a court order or arbitration, the copy of the award or court order. EESL shall pay such amount within 30 Business Days of receipt of the notice from the Project SPV.

The Authority shall be liable to repay EESL the amounts paid by it under this Clause 15.3, within 90 Days of EESL making such payments.

If at any time during the Term, 100% of aggregate annual Annuity Fee payable by the Authority to the Project SPV remains unpaid from the Authority to EESL, then such an event shall constitute an Authority Event of Default.

- 15.4 EESL waives any right it may have of first requiring the Project SPV to proceed against or enforce any other right or claim from the Authority provided that the Authority has failed to make payment(s) mentioned in Clause 15.1 above, within the time period provided in this Agreement. Notwithstanding anything to the contrary and in guaranteeing the Authority's payment obligation, EESL shall not, under this Agreement have any greater obligations or liability than the Authority but excluding Capital Subsidy.
- 15.5 The obligations of EESL under this Clause shall continue to be in full force until all of the Authority's obligations and liabilities excluding Capital Subsidy under this Agreement have been fully discharged or EESL ceases to hold shares in the Project SPV.
- 15.6 Notwithstanding anything contained in this Agreement, the Project SPV shall not be entitled to terminate this Agreement due to any non-payment of any amount due under this Agreement, unless 30 Business Days as referred in Clause 15.3 have expired. This Clause 15.6 shall not apply to the Project SPV's claim for the Termination Compensation.

16. CHANGE IN OWNERSHIP

16.1 Ownership Structure

The Selected Bidder and EESL have caused the Project SPV to be incorporated as a special purpose company to implement, operate and maintain the Project in accordance with this Agreement. The shareholding pattern of the Project SPV is as follows:

S. No.	Name of the shareholder	Number of Shares held ¹	Nature of the Shares [Equity/Preference] ²	Value of the Shares held [in Rs.] ³	Shareholding [in %]
1.	Hesalight				70.3%
2.	Neev Energy LLP				3.7%
3.	EESL				26%

The Project SPV represents and warrants to the Authority that as on the Execution Date, the legal and beneficial ownership of the Project SPV is as represented above and that no arrangements are in place that have or may have or result in any sale, transfer or disposal of any legal, beneficial, equitable or other interest in any or all of the shares of the Project SPV.

¹ To be inserted on incorporation of the Project SPV.

² To be inserted on incorporation of the Project SPV.

³ To be inserted on incorporation of the Project SPV.

16.2 Shareholding

The Project SPV shall ensure that:

- (a) Until the Project COD, the Lead Member owns, directly or indirectly, more than 51% of the Share Capital of the Project SPV.
- (b) Until the Expiry Date, EESL shall continue to hold the EESL Subscription Shares and shall not directly or indirectly Transfer any of the EESL Subscription Shares held by it or any right, title or interest in them without the prior written consent of the Lead Member.

16.3 Constituent Documents

- (a) The Project SPV shall ensure that its articles of association adequately reflect the provisions of Clause 16.2 and the relevant commitments, obligations and responsibilities of the Selected Bidder.
- (b) In particular, the memorandum and the articles of association of the Project SPV shall, if required, be amended within 3 Months from the Effective Date to reflect the shareholding pattern, provisions relating to the restrictions on change in the shareholding pattern as set out in this Agreement.
- (c) Until the Project COD, any subsequent change in the memorandum or the articles of association which aim to amend the provisions mentioned in Clause 17.3(b) shall require prior written approval of the Authority and the memorandum and the articles of association of the Project SPV shall include a specific provision to this effect.

17. CHANGE IN LAW

17.1 Consequences of Qualifying Change in Law

- (a) If a Qualifying Change in Law occurs or is shortly to occur, then a Party may notify the other Parties expressing its opinion on the likely effects of the Qualifying Change in Law, giving details of its opinion on whether:
 - (i) any change is required to the scope of work to be performed by the Project SPV;
 - (ii) any change is required to the terms of this Agreement to deal with such Qualifying Change in Law;
 - (iii) relief from compliance with any obligations is required, including the obligation of the Project SPV to achieve the Project SCOD, as the case may be, or to comply with the standards set out at Schedule 6 during the implementation of any relevant Qualifying Change in Law;
 - (iv) any increase in costs (other than incurring additional capital expenditure), or any loss of operating cash flow or delay is likely to result from the Qualifying Change in Law; and

- (v) any capital expenditure is required or no longer required as a result of a Qualifying Change in Law.
- (b) As soon as practicable but no later than 15 Days after receipt of any notice from a Party under Clause 17.1(a) above, the Parties shall discuss and agree the issues referred to therein and any ways in which the Project SPV can mitigate the effect of the Qualifying Change in Law, including:
 - (i) providing evidence that the Project SPV has made best endeavours (including, where practicable, the use of competitive quotes) to oblige the Project SPV Related Parties to minimise any increase in costs and maximise any reduction in costs;
 - (ii) demonstrating how any capital expenditure to be incurred or avoided is being measured in a cost effective manner, including showing that when such expenditure is incurred or would have been incurred, foreseeable Changes in Law at that time have been taken into account by the Project SPV;
 - (iii) giving evidence as to how the Qualifying Change in Law has affected prices charged by similar businesses to the Project, including similar businesses in which the Shareholders or their Associates carry on business;
 - (iv) demonstrating to the Authority that the Qualifying Change in Law is the direct cause of the increase in costs and/or loss of revenue or delay and the estimated increase in costs or loss in operating cash flows could not reasonably be expected to be mitigated or recovered by the Project SPV acting in accordance with Good Industry Practice; and
 - (v) demonstrating that any expenditure, which was anticipated to be incurred to replace or maintain assets that have been affected by the Qualifying Change in Law, has been taken into account in the amount stated in its notice presented under Clause 17.1(a).
- (c) If the Parties have complied with Clause 17.1(b) and the Parties agree or it is determined in accordance with Clause 23 that the Project SPV is required to incur additional capital expenditure due to a Qualifying Change in Law that is in excess of Rs. 5,525,000 (**Threshold Limit**), then the Project SPV shall make best endeavours to obtain funding for such capital expenditure on terms reasonably satisfactory to it. The Authority shall bear interest and associated costs incurred above the Threshold Limit to obtain such funding. The Project SPV shall bear all additional capital expenditure and/or interest and additional costs incurred to obtain any funding to the extent of the Threshold Limit.
- (d) If the Project SPV has made best endeavours to obtain funding for additional capital expenditure, but has been unable to do so within 60 Days of the date on which the agreement or determination occurred, then the Authority shall pay to the Project SPV an amount equal to the capital expenditure on or before the date falling 30 Days after the capital expenditure has been incurred.

- (e) If the Parties have complied with Clause 17.1(b) and the Project SPV suffers any increase in costs (other than an increase in capital expenditure) or loss in operating cash flows or delay as a result of the occurrence of the Qualifying Change in Law, then in the case of increased cost being incurred or reduction in operating cash flows, the Authority shall compensate the Project SPV for such increased cost or reduced operating cash flows, either by way of a lump-sum payment or by enhancement of the Annuity Fee and the New Light Payment, if applicable, or by any other means that the Parties mutually agree.
- (f) The quantum of relief (whether extension of time or compensation) that the Project SPV shall be entitled to under Clause 17.1(e) shall be as agreed by the Parties or as determined in accordance with Clause 23, provided always that:
 - (i) the Project SPV shall bear any increased cost or loss of operating cash flow to the extent of the Threshold Limit; and
 - (ii) the Project SPV shall only be entitled to relief that is reasonable for such Qualifying Change in Law.

17.2 Consequences of Fundamental Change in Law

- (a) If a Fundamental Change in Law occurs or is shortly to occur, then any of the Parties may notify the others expressing its opinion on:
 - (i) the likely effects of such Fundamental Change in Law on the validity and enforceability of this Agreement or on the rights and benefits accruing to the Project SPV; and
 - (ii) the ability of the Parties to re-negotiate the terms of this Agreement to mitigate the effects of such Fundamental Change in Law, while adhering to the original commercial and financial positions of the Parties.
- (b) As soon as practicable after receipt of any notice from a Party under Clause 17.2(a) above, the Parties shall meet as often as it may be necessary to re-negotiate and agree on the amendments (including, where necessary severing the invalid or unenforceable terms) of this Agreement.
- (c) If the Parties are unable to agree on necessary amendments to the terms of this Agreement to give effect to the original commercial and financial positions of the Parties within a period of 90 Days of the date on which a notice is issued under Clause 17.2(a), then any Party shall be entitled to terminate this Agreement by giving 30 Days' notice.
- (d) Upon termination of this Agreement pursuant to Clause 17.2(c) above, the Authority shall pay the Termination Compensation to the Project SPV in accordance with Clause 22.2. All other consequences of termination as set out in Clause 21.6 shall apply.

18. INDEMNITY AND INSURANCE

18.1 Indemnity

- (a) Subject to Clause 18.1(b) below, the Project SPV shall be responsible for, and release and indemnify the Authority and the Authority Related Parties on demand from and against, all liability for:
- (i) death or personal injury;
 - (ii) loss of or damage to property;
 - (iii) breach of statutory duty; and
 - (iv) actions, claims, demands, costs, charges and expenses (including legal expenses),

which may arise out of, or in consequence of, the implementation of this Project and any other performance or non-performance by the Project SPV or any Project SPV Related Party of its obligations under this Agreement.

- (b) The Project SPV shall not be responsible or be obliged to indemnify the Authority for:
- (i) any of the matters referred to in paragraphs (iii) or (iv) of Clause 18.1(a) above which arises as a direct result of a Person acting on the instructions of the Authority or the Independent Engineer; or
 - (ii) any injury, loss, damage, cost and expense caused by the negligence or Wilful Default of the Authority, the Independent Engineer, the Authority Related Parties or by the breach by any of them of their obligations under this Agreement.
- (c) The Authority, as the case may be, shall indemnify, defend and hold harmless the Project SPV against any and all proceedings, actions, third party claim for loss, damage and expense of whatever kind and nature arising out of any act or omission caused by the negligence or Wilful Default of it and the Authority Related Parties.
- (d) The Authority shall have the right, but not the obligation, to contest, defend and litigate any claim, action, suit or proceeding by any third party alleged or asserted against it in respect of, resulting from, related to or arising out of any matter for which it is entitled to be indemnified under this Agreement and the reasonable costs and expenses thereof shall be subject to the indemnification obligation of the Project SPV.

If, however, the Project SPV acknowledges in writing its obligations to indemnify the Authority and EESL in respect of any Loss to the full extent as provided by this Agreement, the Project SPV shall be entitled, at its option, to assume and control the defence of such claim, action, suit or proceeding at its expense and through a counsel of its choice if it gives prompt notice of its intention to do so to the Authority and

EESL, and reimburses the Authority or EESL, as the case may be, for any reasonable costs and expenses incurred by the Authority or EESL prior to the assumption by the Project SPV of such defence. No Party shall settle or compromise any such claim, action, suit or proceeding without the prior written consent of the other Party, which consent shall not be unreasonably withheld or delayed. Notwithstanding the foregoing, the Authority and EESL shall have the right to employ their own counsel and such counsel may participate in such action, but the fees and expenses of such counsel shall be at the expense of the Project SPV, as and when incurred.

- (e) Any indemnity of a Party under any other provisions of this Agreement shall be without limitation to any other indemnity by that Party under any other provision of this Agreement.

18.2 Insurance

The Project SPV shall at all times, as may be applicable, obtain, maintain and renew those insurance covers required in relation to people, Equipment, systems and third party damages in accordance with Applicable Laws, Applicable Permits, IFC Performance Standards and Good Industry Practice. In particular, the Project SPV shall maintain an insurance coverage against the risk of damage by fire, theft or otherwise (including vandalism) of Equipment until the title to the Equipment passes on to the Authority on the Transfer Date. In relation to damages caused by acts of theft and vandalism, should the premium payable by the Project SPV pursuant to this Clause 18.2 increase due to a large number of such acts, Authority shall bear the costs of such increase in insurance premium by refunding such amounts to the Project SPV.

19. FORCE MAJEURE

19.1 Force Majeure Event

- (a) A **Force Majeure Event** means any act, event or circumstance or a combination of acts, events or circumstances or the consequence(s) thereof, which:
 - (i) is/are beyond the reasonable control of any Party (the **Affected Party**);
 - (ii) is/are such that the Affected Party has been unable to overcome or prevent despite exercise of due care and diligence;
 - (iii) directly cause the Affected Party to be unable to comply with all or a material part of its obligations under this Agreement; and
 - (iv) is/are not the direct result of a breach by the Affected Party of its obligations under this Agreement.
- (b) A Force Majeure Event means the following events and circumstances to the extent that they satisfy the conditions set out in Clause 19.1(a):
 - (i) ***Non-Political Force Majeure Events***
 - (A) Acts of God including storm, tempest, cyclone, hurricane, tsunami,

flood, whirlwind, lightning, earthquake, washout, landslide, soil erosion, volcanic eruption, or extreme adverse weather or environmental conditions or actions of the elements;

- (B) fire or explosion caused by reasons not attributable to the Project SPV or any of the employees or agents of Project SPV;
- (C) chemical or radioactive contamination or ionising radiation;
- (D) loss of or serious accidental damage to the Project, not arising from the Wilful Default of Project SPV or the Project SPV Related Parties; or
- (E) epidemic or plague.

(ii) ***Political Force Majeure Events***

- (A) hostilities (whether declared as war or not), riot, civil disturbance, revolution, rebellion, insurrection, act of terrorism;
- (B) invasion, armed conflict, *coup d'état*, act of foreign enemy, blockade, embargo, revolution, insurgency, nuclear blast/explosion, politically motivated sabotage, religious strife or civil commotion;
- (C) strikes, lockout, boycotts or other industrial disputes which are not directly attributable to the actions of the Affected Party, but does not include strike or labour unrest that affects the procurement of any Equipment, necessary for the Project SPV to perform any obligation within the time period specified in the Agreement; or
- (D) except to the extent that they constitute remedies or sanctions lawfully exercised by the Authority as a result of any breach of any Applicable Laws or the Applicable Permits by the Project SPV, the Project SPV Related Parties or in the case of a national emergency, any action of the Authority whether by positive act, omission or otherwise or other exercise of a sovereign or executive prerogative by the Authority or any Government Authority that results in expropriation, creeping expropriation, nationalisation or compulsory acquisition of any property, revenues, assets or rights (present or future, actual or contingent) of the Project SPV or of the equity share capital held by the shareholders of the Project SPV, and acts claimed to be justified by executive necessity, pursuant to which or as a result of which the Project SPV or its Shareholders are deprived (wholly or in part) of their direct or indirect rights or entitlements under this Agreement.

- (c) Without prejudice to the provisions of Clauses 19.1(a) or 19.1(b) above, any act, event or circumstance primarily affecting any of the Project SPV Related Parties which prevents, impedes or delays the Project SPV in the performance of its obligations, shall constitute a Force Majeure Event hereunder as to the Project SPV as

appropriate if and to the extent that it is of a kind or character that, if it had directly affected the Project SPV, would have come within the definition of Force Majeure Event, set out in Clause 19.1(a).

- (d) If the Parties are unable to agree in good faith on the occurrence or existence of a Force Majeure Event, such Dispute shall be finally settled in accordance with the Dispute resolution procedure set forth in Clause 23, provided however that the burden of proof as to the occurrence or existence of such Force Majeure Event shall be upon the Party claiming relief and/or excuse on account of such Force Majeure Event.

19.2 **Notice of Force Majeure Event**

The Affected Party shall give notice to the other Parties in writing of the occurrence of any of the Force Majeure Events (the **FM Notice**), as soon as it arises or as soon as reasonably practicable and in any event within 10 Days after the Affected Party knew of its occurrence, and of the adverse effect it has or is likely to have on the performance of its obligations under this Agreement, the actions being taken in accordance with Clause 19.5 and an estimate of the period of time required to overcome the Force Majeure Event and/or its nature and effects (if it is possible to estimate the same).

If, following the issue of the FM Notice, the Affected Party receives or becomes aware of any further information relating to the Force Majeure Event, it shall submit such further information to the other Party as soon as reasonably practicable.

Any Party claiming to have been affected by a Force Majeure Event shall not be entitled to any relief unless it has complied with all the provisions of this Clause 19.2.

19.3 **Performance Excused**

The Affected Party, to the extent rendered unable to perform its obligations or part of the obligation thereof under this Agreement as a consequence of the Force Majeure Event, shall be excused from performance of the obligations provided that the period shall not exceed 120 Days for a Non-Political Force Majeure Event and 90 Days for a Political Force Majeure Event from the date of issuance of the FM Notice. For a Non-Political Force Majeure Event, the performance will be excused on a day-to-day basis, unless otherwise agreed between the Parties. .

It is provided however that a Party shall be excused from performance only to the extent reasonably warranted by the Force Majeure Event.

It is further provided that, nothing shall absolve the Affected Party from any payment obligation accrued prior to the occurrence of the underlying Force Majeure Event.

19.4 **No Liability for Other Losses**

- (a) Save and except as expressly provided in this Clause 19, no Party shall be liable in any manner whatsoever to the other Parties in respect of any Loss relating to or arising out of the occurrence or existence of any Force Majeure Event or the exercise by it of any right pursuant to this Clause 19.

- (b) If a Political Force Majeure Event occurs prior to the Project COD, the Authority shall compensate the Project SPV for any costs directly incurred as a result of such Political Force Majeure Event, after deducting the proceeds of the insurance received.

This obligation to compensate shall continue only for the period that the Political Force Majeure Event subsists, provided that this obligation shall not exceed 90 Days from the date of issuance of the FM Notice.

19.5 Resumption of Performance

During the period that a Force Majeure Event is subsisting, the Affected Party shall in consultation with the other Parties, make all best efforts to limit or mitigate the effects of such Force Majeure Event on the performance of its obligations under this Agreement. The Affected Party shall also make efforts to resume performance of its obligations under this Agreement as soon as possible and upon resumption, shall notify the other Parties of the same in writing. The other Parties shall afford all reasonable assistance to the Affected Party in this regard.

19.6 Termination Due to Force Majeure Event

- (a) If, prior to the completion of the 120 Day period (or any extended period) commencing from the date of issuance of the FM Notice, the Parties are of the reasonable view that:
 - (i) a Non-Political Force Majeure Event is likely to continue beyond such 120 Days period or any extended period agreed in pursuance of Clause 19.3; or
 - (ii) that it is uneconomical or impractical to restore the affected Project,

then the Parties may mutually decide to terminate this Agreement, which termination shall take effect from the date on which such decision is taken.

Provided that if it is feasible and practical to restore the Project, the Parties shall equally bear the requisite restoration cost, after applying the insurance proceeds towards restoration.

- (b) Without prejudice to the provisions of Clause 19.6(a) above, the Affected Party shall, after the expiry of the period of 120 Days or any other mutually extended period, be entitled to forthwith terminate this Agreement in its sole discretion by issuing a notice to that effect.

Upon termination of this Agreement pursuant to this Clause 19.6(b), the consequences of termination as are set out in Clause 21.6 shall apply.

20. EVENTS OF DEFAULT

- 20.1 **Event of Default** means a Project SPV Event of Default or an Authority Event of Default or both, as the case may be.

(a) ***Project SPV Event of Default***

Project SPV Event of Default means any of the following events arising out of any acts or omissions of the Project SPV and which have not occurred as a consequence of any Authority Event of Default, a Qualifying Change in Law, a Fundamental Change in Law, a Force Majeure Event or an Emergency and where the Project SPV has failed to remedy the defects specified in the Preliminary Notice issued in accordance with Clause 21.1(b):

- (i) any Abandonment by the Project SPV;
- (ii) any breach by the Project SPV of its obligations under this Agreement which has a Material Adverse Effect on the ability of the Project SPV to install the Equipment or perform the O&M Services;
- (iii) any representation made or warranty given by the Project SPV under this Agreement being false or misleading;
- (iv) failure of the Project SPV to achieve Project COD within 120 Days of the Project SCOD;
- (v) failure of the Project SPV to issue and maintain a valid Performance Bank Guarantee under Clause 12;
- (vi) failure of the Project SPV to comply with the O&M standards set out in Schedule 6 for a continuous period of 30 Days;
- (vii) a resolution for voluntary winding up passed by the Shareholders;
- (viii) the Project SPV entering into liquidation or similar state or if any order is made for the compulsory winding up or dissolution of the Project SPV or the appointment of a receiver or administrator in respect of the Project SPV, its business and assets or any re-structuring, re-organisation, amalgamation, arrangement or compromise affecting the Project SPV's ability to fulfil its obligations under this Agreement or that otherwise has or may have a Material Adverse Effect; or
- (ix) the Project SPV 's failure to issue monthly reports in accordance with Clause 9.

(b) ***Authority Events of Default***

Authority Event of Default means any of the following events, unless such event has occurred as a consequence of the Project SPV Event of Default, a Qualifying Change in Law, a Fundamental Change in Law, a Non-Political Force Majeure Event or an Emergency and where Authority or EESL has failed to remedy the defects specified in the Preliminary Notice issued in accordance with Clause 21.2(b):

- (i) failure of the Authority to pay the Annuity Fee and New Light Payment and more than 180 Days have elapsed since such payments became due;

- (ii) failure of the Authority to fund the Escrow Account in accordance with Clause 10.2 (a)(ii);
- (ii) failure to fulfil the obligations set out under Clause 15.1 and Clause 15.2;
- (iii) a failure by the Authority to disburse the Capital Subsidy in accordance with the provisions of Clause 13.1(a);
- (iv) any breach by the Authority of its obligations under this Agreement which has a Material Adverse Effect on the performance of the Project SPV's obligations under this Agreement; or
- (v) any representation made or warranty given by the Authority or EESL under this Agreement which is found to be false or misleading.

21. TERMINATION

21.1 Termination for Project SPV Event of Default

- (a) Without prejudice to any other right or remedy which Authority may have in respect thereof under this Agreement, upon the occurrence of a Project SPV Event of Default, the Authority shall be entitled to terminate this Agreement in the manner provided in Clause 21.1(b).
- (b) The Authority shall issue a Preliminary Notice to the Project SPV providing 45 Days to cure the underlying Project SPV Event of Default. If the Project SPV fails to cure the underlying Project SPV Event of Default within such period allowed, the Authority shall be entitled to terminate this Agreement by issuing a Termination Notice to the Project SPV, with a copy to EESL, and to invoke the Performance Bank Guarantee, if subsisting.

21.2 Termination for Authority Event of Default

- (a) Without prejudice to any other right or remedy which the Project SPV may have in respect thereof under this Agreement, upon occurrence of an Authority Event of Default, the Project SPV shall be entitled to terminate this Agreement by issuing a Termination Notice to the Authority, with a copy to EESL.
- (b) The Project SPV shall issue a Preliminary Notice to the Authority, with a copy to EESL, providing 45 Days to remedy/cure the underlying Authority Event of Default. If, however Authority fails to cure the underlying Authority Event of Default within such period allowed, the Project SPV shall be entitled to terminate this Agreement by issuing a Termination Notice to the Authority, with a copy to EESL.

The Preliminary Notice shall be issued under this Agreement only for the Events of Default for which a cure period has been prescribed in the Agreement.

21.3 **Termination Notice**

The Termination Notice shall set out the following:

- (a) the underlying Event of Default, in sufficient detail;
- (b) the Termination Date;
- (c) the Termination Compensation as calculated in accordance with Clause 22; and
- (d) any other relevant information.

21.4 **Obligation of the Parties**

Following issue of the Termination Notice by the Authority or the Project SPV, the Authority or the Project SPV, as the case may be, shall promptly take all such steps as may be necessary or required to ensure that:

- (a) until termination, the Parties shall, to the fullest extent possible, discharge their respective obligations so as to maintain the continued performance of O&M Services, if commenced;
- (b) the Project Public Street Lighting System, along with the Equipment is handed back to the Authority on the Termination Date in accordance with Clause 21.6; and
- (c) any Termination Compensation is paid to the Project SPV in accordance with Clause 22.

21.5 **Withdrawal of Termination Notice**

Notwithstanding anything contained in this Agreement, if the Party who has been served with a Termination Notice cures the underlying Event of Default to the satisfaction of the other Party at any time before termination occurs, the Termination Notice shall be withdrawn by the Party which had issued it, provided however that the Party in breach shall compensate the other Party for any direct costs caused by the Event of Default.

21.6 **Consequences of Termination**

Upon termination of this Agreement, the Authority shall:

- (a) take possession and control of the Project Public Street Lighting System;
- (b) take possession and control of all the Equipment;
- (c) take possession and control of the Project SPV's control room and call centre;
- (d) restrain the Project SPV and any Person claiming through or under the Project SPV from entering the Project SPV's control room and call centre;
- (e) in the event of an Project SPV Event of Default, forfeit the Performance Bank

Guarantee; and

- (f) in the event of an Authority Event of Default, return the Performance Bank Guarantee, and pay the Termination Payment compensation .

21.7 **Accrued Rights and Liabilities**

Notwithstanding anything to the contrary contained in this Agreement, any termination of this Agreement pursuant to its terms shall be without prejudice to accrued rights of any Party, including its right to claim and recover damages and other rights and remedies which it may have in law or contract. All accrued rights and obligations of any of the Parties under this Agreement, including, all rights and obligations with respect to Termination Compensation, shall survive the termination of this Agreement to the extent such survival is necessary for giving effect to such rights and obligations.

21.8 **Voluntary Termination**

The Authority shall, in addition to any of its other rights to terminate this Agreement, have the right to terminate this Agreement at any time by giving a 60 Day notice to the Project SPV. In such event the Project SPV shall be entitled to the Termination Compensation in accordance with Clause 22.1.

21.9 **Authority's Step-In Rights**

For the purposes of providing the O&M Services during the cure period applicable to any Project SPV Event of Default, the Authority shall have the right to enter the Project SPV's control room and call centre and take over the of the Project Public Street Lighting System upon giving not less than 12 hours advance notice to the Project SPV (**Authority's Step-In Right**). The Authority may continue to exercise the Authority's Step-In Right until the Project SPV has remedied the Project SPV Event of Default and demonstrated to the reasonable satisfaction of Authority its readiness and ability to resume the provision of the O&M Services in accordance with the terms and conditions of the Agreement.

In exercising the Authority's Step-In Right, the Authority shall: (a) cause the O&M Services to be provided by an adequate number of sufficiently qualified personnel; (b) use commercially reasonable efforts to continue to perform all of the Project SPV's obligations under this Agreement; and (c) have no obligation to pay the Project SPV the Annuity Fee or the New Light Payments during the period such Authority's Step-In Right is being exercised.

During the exercise of the Authority's Step-In Right, the Project SPV shall: (a) cooperate in all respects with the Authority; and (b) to the extent requested by the Authority, assign its rights capable of being assigned under all Applicable Permits, this Agreement and any other contracts and relevant documents to the Authority during the period that the Authority is exercising the Authority's Step-In Right.

The exercise by the Authority of the Authority's Step-In Right shall not affect any other right or remedy the Authority may have, nor shall the existence of the Authority's Step-In Right or its exercise thereof relieve the Project SPV of any duty, obligation or liability under the Agreement or any other contract.

22. COMPENSATION ON TERMINATION

22.1 For Authority Event of Default or Political Force Majeure Event

In the event that the Termination Compensation is payable by the Authority to the Project SPV upon termination of this Agreement due to an Authority Event of Default or a Political Force Majeure Event, then the Termination Compensation shall be:

- (a) 120% of the Equipment Rate of the Equipment installed up to the Termination Date,
LESS,
- (b) the amount of Capital Subsidy disbursed (if any);
- (c) the amounts, if any, due to the Authority from the Project SPV under the provisions of this Agreement;
- (d) Total Capital Expenditure recovered, as a part of the Annuity Fee paid by the Authority to the Project SPV, if any; and
- (e) the amount realised, if any, from the insurance proceeds, unless utilised for restoration of the installed Equipment.

22.2 For Non- Political Force Majeure Event or Fundamental Change in Law

The Termination Compensation payable by the Authority to the Project SPV upon termination of this Agreement due to a Non-Political Force Majeure Event or Fundamental Change in Law shall be:

- (a) 100% of the Equipment Rate of the Equipment installed up to the Termination Date,
LESS,
- (b) the amount of Capital Subsidy disbursed (if any);
- (c) the amounts, if any, due to the Authority from the Project SPV under the provisions of this Agreement;
- (d) Total Capital Expenditure recovered, as a part of the Annuity Fee paid by the Authority to the Project SPV, if any; and
- (e) the amount realised, if any, from the insurance proceeds, unless utilised for restoration of the installed Equipment.

22.3 For Project SPV Event of Default

Upon termination of this Agreement due to a Project SPV Event of Default anytime during the period between execution of the Amendment Agreement and the Termination Date, the Authority shall:

- (a) have the right to draw upon the entire amount of the Performance Bank Guarantee submitted by the Project SPV; and
- (b) pay the Termination Compensation for an amount equivalent to be:
 - (i) 80% of the Equipment Rate of the Equipment installed up to the Termination Date;

LESS,

 - (ii) the amount of Capital Subsidy disbursed (if any);
 - (iii) the amounts, if any, due to the Authority from the Project SPV under the provisions of this Agreement;
 - (iv) Total Capital Expenditure recovered, as a part of the Annuity Fee paid by the Authority to the Project SPV, if any;
 - (v) the amount realised, if any, from the insurance proceeds, unless utilised for restoration of the installed Equipment.

22.4 **Payment of Termination Compensation**

- (a) The Termination Compensation pursuant to this Agreement shall become due and payable to the Project SPV by the Authority within 30 Days of a demand being made by the Project SPV with the necessary particulars duly certified by an independent auditor. The Termination Compensation shall be paid by the Authority only upon transfer of the Project in accordance with Clause 25.
- (b) If, for any reasons other than those attributable to the Project SPV, the Authority fails to pay the Termination Compensation on the date due, the Authority shall be liable to pay default interest on the Termination Compensation in accordance with Clause 13.3, payable annually from such due date until the payment thereof.

22.5 **Full and Final Settlement**

Any Termination Compensation determined pursuant to this Clause 22 shall, once paid, be in full and final settlement of any claim, demand and/or proceedings of the Project SPV against the Authority, in relation to any termination of this Agreement and the Project SPV shall not have any other rights and remedies in respect of such termination.

23. **DISPUTE RESOLUTION**

23.1 **Conciliation**

In the event of any dispute, controversy or difference between the Authority and the Project SPV arising out of or relating to this Agreement (including a dispute relating to the validity or existence of this Agreement and any non-contractual obligations arising out of or in connection with this Agreement) (a **Dispute**), the representatives of the Parties shall, within 10 Business Days of service of a written notice from either Party to the other Parties

(including EESL) (the **Dispute Notice**) hold a meeting (the **Dispute Meeting**) in an effort to resolve the Dispute in good faith. In the absence of agreement to the contrary, the Dispute Meeting shall be held at the principal office of the Authority.

23.2 **Arbitration Procedure**

If a Dispute is not resolved within 20 (twenty) Business Days after the service of a Dispute Notice, whether or not a Dispute Meeting has been held, any party to the Dispute shall be entitled to refer the Dispute to arbitration (**Notice of Arbitration**) to be finally resolved in the manner set out in this Clause 23. This Agreement and the rights and obligations of the Parties shall remain in full force and effect pending the award in such arbitration proceeding.

23.3 **Appointment of Arbitrators**

If a Dispute is referred to arbitration by any Party such Dispute shall be resolved by a sole arbitrator to be appointed by mutual agreement of the Parties. If the Parties fail to appoint an arbitrator within 30 (thirty) Business Days after service of the Notice of Arbitration, such arbitrator shall be appointed in accordance with provisions of the Arbitration Act.

23.4 **Venue, Language and Rules of Arbitration**

The venue of the arbitration shall be Bhubaneswar and the language of the arbitration shall be English. The arbitration shall be conducted in accordance with the Arbitration Act.

23.5 **Award and Apportionment of Costs**

The arbitration award of the arbitrator(s) shall be final and binding on the Parties and shall be enforceable in accordance with its terms. The arbitrator(s) shall state reasons for its/their findings in writing. The costs of arbitration and the manner of bearing such costs shall be determined by the arbitrator(s).

23.6 **Law Governing the Arbitration**

The arbitration shall be governed by the laws of India.

23.7 **Survival**

The provisions contained in this Clause 23 shall survive the termination of this Agreement.

24. **REPRESENTATIONS AND WARRANTIES**

24.1 The Project SPV represents and warrants to the Authority and EESL that:

- (a) it is duly organised, validly existing and in good standing under the laws of India and hereby expressly and irrevocably waives any immunity in any jurisdiction in respect of this Agreement or matters arising thereunder including any obligation, liability or responsibility hereunder;
- (b) it has full power and authority to execute, deliver and perform its obligations under this Agreement;

- (c) it has taken all necessary actions to authorise the execution, delivery and performance of this Agreement;
- (d) this Agreement constitutes the legal, valid and binding obligation of the Project SPV, enforceable against it in accordance with the terms hereof;
- (e) there are no actions, suits or proceedings pending or to its best knowledge, threatened against or affecting it before any court, administrative body or arbitral tribunal which might materially and adversely affect its ability to meet or perform any of its obligations under this Agreement;
- (f) it has the financial standing and capacity to undertake the Project in accordance with the terms of this Agreement;
- (g) the execution, delivery and performance of this Agreement does not conflict with, result in the breach of, constitute a default under, or accelerate performance required by any of the terms of its memorandum and the articles of association, charter documents/bye-laws, or any Applicable Laws or any covenant, contract, agreement, arrangement, understanding, decree or order to which it is a party or by which it or any of its properties or assets is bound or affected;
- (h) it has no knowledge of any violation or default with respect to any order, writ, injunction or decree of any court or any legally binding order of any Government Authority which may result in any Material Adverse Effect on its ability to perform its obligations under this Agreement and no fact or circumstance exists which may give rise to such proceedings that would adversely affect the performance of its obligations under this Agreement;
- (i) it has complied with Applicable Laws in all respects and has not been subject to any fines, penalties, injunctive relief or any other civil or criminal liabilities which in the aggregate have or may have a Material Adverse Effect on its ability to perform its obligations under this Agreement;
- (j) all its rights and interests in the Project shall pass to and vest in the Authority on the Transfer Date, free and clear of all Encumbrances, without any further act or deed on its part or that of Authority, subject to any agreement under which any Encumbrance is retained by any Person, save and except as expressly provided in this Agreement;
- (k) no representation or warranty made by it contained herein or in any other document furnished by it to the Authority including the Bid or to any Government Authority in relation to Applicable Permits contains or shall contain any untrue or misleading statement of material fact or omits or shall omit to state a material fact necessary to make such representation or warranty not misleading;
- (l) no sums, in cash or kind, have been paid or shall be paid, by it or on its behalf, to any Person by way of fees, commission or otherwise for securing the award of this Project or entering into this Agreement or for influencing or attempting to influence any officer or employee of Authority or the Authority Related Parties in connection therewith;

- (m) agrees that the execution, delivery and performance by it of this Agreement and all other agreements, contracts, documents and writings relating to this Agreement constitute private and commercial acts and not public or government acts; and
- (n) consents generally in respect of the enforcement of any judgement against it in any proceedings in any jurisdiction to the giving of any relief or the issue of any process in connection with such proceedings.

The Project SPV agrees and acknowledges that the representations and warranties set out in this Clause 24.1 shall be repeated and deemed to be made on the date of execution of each Amendment Agreement by the Parties for a Phase.

24.2 The Authority represents and warrants to the Project SPV and EESL that:

- (a) it is duly organised, validly existing and in good standing under the laws of India;
- (b) it has full power and authority to execute, deliver and perform its obligations under this Agreement;
- (c) it has taken all necessary action to authorise the execution, delivery and performance of this Agreement;
- (d) this Agreement constitutes the legal, valid and binding obligation of the Authority, enforceable against it in accordance with the terms hereof; and
- (e) there are no actions, suits or proceedings pending or to its best knowledge, threatened against or affecting it before any court, administrative body or arbitral tribunal which might materially and adversely affect its ability to meet or perform any of its obligations under this Agreement.

The Authority agrees and acknowledges that the representations and warranties set out in this Clause 24.2 shall be repeated and deemed to be made on the date of execution of each Amendment Agreement by the Parties for a Phase.

24.3 EESL represents and warrants to the Project SPV and the Authority that:

- (a) it is duly organised, validly existing and in good standing under the laws of India;
- (b) it has full power and authority to execute, deliver and perform its obligations under this Agreement;
- (c) it has taken all necessary action to authorise the execution, delivery and performance of this Agreement; and
- (d) this Agreement constitutes the legal, valid and binding obligation of EESL, enforceable against it in accordance with the terms hereof; and
- (e) there are no actions, suits or proceedings pending or to its best knowledge, threatened against or affecting it before any court, administrative body or arbitral tribunal which

might materially and adversely affect its ability to meet or perform any of its obligations under this Agreement.

EESL agrees and acknowledges that the representations and warranties set out in this Clause 24.3 shall be repeated and deemed to be made on the date of execution of each Amendment Agreement by the Parties for a Phase.

- 24.4 In the event that any occurrence or circumstance comes to the attention of a Party that renders any of its aforesaid representations or warranties untrue or incorrect, such Party shall immediately notify the other Parties of the same. Such notification shall not have the effect of remedying any breach of the representation or warranty that has been found to be untrue or incorrect nor shall it adversely affect or waive any obligation of a Party under this Agreement.
- 24.5 Neither the Authority nor any of its agents or employees shall be liable to the Project SPV in contract, tort, including negligence or breach of statutory duty, statute or otherwise as a result of:
- (a) any inaccuracy, omission, unfitness for any purpose or inadequacy of any kind whatsoever in the information relating to the Project disclosed by the Authority to the Project SPV and/or the Selected Bidder; or
 - (b) any failure to make available to the Project SPV any materials, documents, plans or other information relating to the Project.

25. TRANSFER

25.1 General Scope of Transfer/Payment

The transactions to be consummated and the formalities to be completed by the Authority and the Project SPV on the Transfer Date are set out in Clauses 25.2 and 25.3.

25.2 Project SPV's Obligations

The Project SPV, at no cost to the Authority, shall:

- (a) hand over peaceful possession of the Project Public Street Lighting System and the Equipment, along with the control room and the call centre, free of Encumbrances and in a condition which is fit for the purpose;
- (b) transfer all its rights, titles and interests in the assets comprised in the Project and the O&M Services which are required to be transferred to the Authority in accordance with this Agreement and execute such deeds and documents as may be necessary for the purpose and complete all legal or other formalities required in this regard;
- (c) hand over to the Authority all documents including manuals and records relating to the O&M Services;
- (d) transfer technology and up-to-date know-how relating to the O&M Services;

- (e) transfer or cause to be transferred to the Authority any agreements relating to the Project which are (i) valid and subsisting; and (ii) capable of being transferred to the Authority; and (iii) those agreements that Authority has chosen to take over, and cancel or cause to be cancelled such agreements relating to the Project not transferred to the Authority. For this purpose, the Project SPV shall ensure that all agreements relating to the Project are assignable in favour of the Authority without any further action on part of the respective counterparties. The Project SPV shall entirely at its cost, terminate all such agreements relating to the Project which are not transferred/assigned and/or are not required to be transferred/assigned to the Authority;
- (f) transfer to the Authority all such Applicable Permits which the Authority may require and which can be legally transferred;
- (g) remove within 90 Days from expiry of the Term or upon termination of this Agreement, from the Project Public Street Lighting System, any moveable assets that are not taken over by or not to be transferred to the Authority in terms of the provisions of this Agreement;
- (h) ensure that the Project continues to meet the standards set out at Schedule 6 on the Transfer Date; and
- (i) comply with all other requirements as may be prescribed under Applicable Laws to complete the divestment and assignment of all its rights, title and interest in the Project free from all Encumbrance and Taxes payable on or before the Transfer Date.

25.3 Authority's Obligations

Except in the event of expiry of the Project by efflux of time, the Authority shall pay compensation payable to the Project SPV in accordance with Clause 22 to the Project SPV. The Project SPV confirms that upon such payment being made, the Authority shall stand duly discharged of its obligations regarding payment of compensation under this Agreement.

The Project SPV further confirms that payment of compensation by the Authority in accordance with Clause 22 shall be a valid discharge of the Authority's obligation to compensate the Project SPV under this Agreement.

25.4 Vesting Certificate

Upon the Authority and the Project SPV fulfilling their obligations, as set out in Clause 25.2 and Clause 25.3, respectively, the Authority shall issue a certificate in the form set out at Annex 4 (**Vesting Certificate**) which shall have the effect of constituting evidence of divestment of all rights and title of the Project SPV in the Project and their vesting in the Authority. The divestment of all rights and title in the Project shall be deemed to be complete on the date of issue of the Vesting Certificate.

25.5 Divestment Cost

The Project SPV shall bear and pay all costs incidental to divestment of all the rights, title and interest of the Project SPV in the Project in favour of the Authority on the Transfer Date.

25.6 Risk

Until transfer in accordance with this Clause 25, the Project shall remain at the sole risk of the Project SPV except for any loss or damage caused to or suffered by the Project SPV due to any act or omission or negligence on the part of the Authority under this Agreement.

26. MISCELLANEOUS PROVISIONS

26.1 Survival of Obligations

Any cause or action which may have occurred in favour of a Party or any right which is vested in a Party under any of the provisions of this Agreement during the period between the Execution Date and the Transfer Date as a result of any act, omission, deed, matter or thing done or omitted to be done by a Party before the expiry of the Term by efflux of time or otherwise in accordance with the provisions of this Agreement, shall survive the expiry of this Agreement.

26.2 Entire Agreement

The Parties hereto acknowledge, confirm and undertake that this Agreement constitutes the entire understanding between the Parties regarding the Project and supersedes all previous written or oral representations and/or arrangements regarding the Project.

26.3 Clauses to Survive Termination

The provisions of this Agreement, including Clause 21, Clause 22, Clause 23, Clause 24 and Clause 25, to the fullest extent necessary to give effect thereto, survive the Term of this Agreement/the termination of this Agreement and the obligations of Parties to be performed/discharged following the termination of this Agreement, shall accordingly be performed/discharged by the Parties.

26.4 Non-exhaustive Remedies

- (a) Save and except as provided in this Agreement, the remedies available to the Parties under this Agreement are not exhaustive and Parties shall be entitled to all other rights and remedies and to take all actions in law and in equity in addition to the remedies provided for herein.
- (b) Save and except as provided in this Agreement, the exercise of any rights by a Party under this Agreement, shall not preclude such Party from availing any other rights or remedies that may be available to it under this Agreement or under any other agreement executed in relation to the Project. All remedies available to the Parties shall be cumulative and the exercise or failure thereof of one or more remedies by any Party shall not limit or preclude the exercise of or constitute a waiver of any other remedies by such Party.

26.5 Notices

- (a) Any notice or request in reference to this Agreement shall be written in English language and shall be sent by registered airmail or facsimile and shall be directed to the other Party at the address mentioned below:

Authority: Attention: Municipal Commissioner
 Address: Berhampur- 760001, Odisha
 Tel: 0680-2250290; and 0680-2204347
 Fax: 0680-2250480
 Email: odrbemc@gmail.com

EESL: Attention: Mr. Saurabh Kumar, Managing Director
 Address: 4th Floor, IWAI Building, A-13, Sector-I, Noida
 201301, Uttar Pradesh
 Tel: 0120-4908000
 Fax: 0120 - 4908099
 Email: skumar@eesl.co.in

Project SPV: Attention: Mr. Jitendra Guha
 Address: Neev Energy, D-115, Okhla Industrial Area, Phase-
 1, New Delhi-110020
 Tel: 07836849721
 Fax: 011-40604831
 Email: odishapp@neevenergy.in

- (b) Any notice or demand served by registered airmail shall be deemed to be duly served 48 hours after posting and a notice or demand sent by facsimile shall be deemed to have been served at the time of its transmission and in proving service of the same it shall be sufficient to prove, in the case of a letter, that such letter was sent by registered airmail, addressed and placed in the post and in the case of a facsimile transmission, that such facsimile was duly transmitted to a current facsimile number of the addressee at the address referred above.
- (c) Each Party may change the above address by prior written notice to the other Parties.

26.6 Governing Law and Jurisdiction

This Agreement shall be governed by the laws of India and subject to the exclusive jurisdiction of the courts at Bhubaneswar.

26.7 Counterparts

This Agreement shall be executed in 3 counterparts, each of which, when executed and delivered, shall be an original, and all three counterparts together shall constitute one and the same instrument.

26.8 Language

- (a) The formal text of this Agreement and any other agreement executed in relation to the Project shall be in the English language.
- (b) All notices and communications between the Authority, the Project SPV and EESL, required under this Agreement shall be in English.

26.9 Confidentiality

- (a) No receiving Party shall, without the prior written consent of the disclosing Party, at any time divulge or disclose or suffer or permit its representatives to divulge or disclose to any Person or use for any purpose unconnected with the Project any Confidential Information during the Project Period and for a period of 5 years after the Expiry Date or the Termination Date, as the case may be, except to its representatives officers, directors, advisors, employers, agents, contractors and Associates who have a legitimate need to know the Confidential Information in order to perform their duties relating to this Agreement.
- (b) This Clause 26.9 shall not apply to Confidential Information which:
 - (i) at the time of disclosure or thereafter has become part of public knowledge or literature without a breach of this Agreement;
 - (ii) is already in the possession of the Party receiving such Confidential Information before it was received from any other party and which was not obtained under any obligation of confidentiality from the Party which disclosed such information;
 - (iii) was obtained from a third party, other than one disclosing it on behalf of a Party who was free to divulge the same and who was not under any obligation of confidentiality in relation to such Confidential Information to Party, which disclosed the information;
 - (iv) is required to be disclosed pursuant to any legal and mandatory requirement of any court, legislative or administrative body or any Government Authority, or the rules of any applicable stock exchange;
 - (v) is disclosed by the Project SPV to its Associates or the permitted assignees and transferees of the same;
 - (vi) is disclosed by the Project SPV to a Project SPV Related Party;
 - (vii) is disclosed to actual prospective insurers, re-insurers and insurance brokers;
 - (viii) is disclosed to any professional advisors or contractors or consultants of any Persons to whom a Party is entitled to disclose Confidential Information under this Clause 26.9;
 - (ix) is disclosed to any Person in connection with Clause 26.9;

- (x) is independently developed by the receiving Party without reliance on the Confidential Information disclosed by the disclosing Party; or
- (xi) is disclosed to any Government Authority or any other body in any relevant jurisdiction in connection with the obtaining of renewal of any approval, licence, permit or consent required hereunder or for the Project.

It is clarified that the Party making a disclosure of Confidential Information pursuant to (v) and (viii) (inclusive) above shall ensure that any Person to whom it makes such disclosure undertakes to hold such Confidential Information subject to obligations of confidence equivalent to those set out in this Clause 26.9.

- (c) A Party making a disclosure of Confidential Information pursuant to Clause 26.9(a) shall:
 - (i) at the time of making such disclosure inform its representatives and Associates of their obligation of confidentiality pursuant to this Agreement and ensure their compliance; and
 - (ii) be liable for any breach of such obligations by such representatives and Associates.
- (d) In the event that a Party is required or requested to make a disclosure of Confidential Information referred to in Clause 26.9(b)(v), such Party shall prior to such disclosure to the extent permissible by Applicable Laws use its best efforts to promptly notify the disclosing Party or its Associate so that appropriate protection order and/or other action can be taken if possible. In the absence of such a protection order restricting disclosure, the Party required to make such disclosure may disclose only that portion of the Confidential Information which it is legally required to disclose and shall use best efforts to obtain assurances that confidential treatment shall be accorded to the Confidential Information.
- (e) The receiving Party agrees that it, its Associates and representatives shall, upon request by the disclosing Party promptly:
 - (i) return, and use all best endeavours to ensure that any third party to whom the recipient Party has disclosed the Confidential Information pursuant to this Agreement shall return, all the Confidential Information that is in tangible form, including, without limitation, Confidential Information contained on computer disks or other electronic storage media or devices, furnished, together with any copies or extracts thereof; and
 - (ii) destroy, and use all best endeavours to ensure that any third party to whom the receiving Party has disclosed the Confidential Information pursuant to this Agreement shall destroy, all analyses, compilations, studies or other documents which have been prepared and which reflect or refer to any Confidential Information,

provided that the receiving Party shall be entitled to retain such Confidential

Information which forms part of the permanent records of the receiving Party or its Associates and which was prepared for the purposes of the review or decision-making process of the receiving Party or such Associates and/or which the recipient party or its Associates is required to retain by law or the rules of any Government Authority if it continues to keep such Confidential Information confidential in accordance with this Agreement.

26.10 Amendments

- (a) Any provision of this Agreement may be amended, supplemented or modified only by an agreement in writing signed by the Parties.
- (b) A Party may at any time request the other to enter into discussions to review the operation of any part of this Agreement and, but without commitment by a Party, to determine whether it should be amended by mutual agreement provided that, unless there is such mutual agreement, the provisions of this Agreement, as then most recently, if at all, amended, shall continue to apply whatever the outcome of any such discussions or review and whether or not any such discussions or review take place.

26.11 Waivers and Consents

- (a) Any provision or breach of any provision of this Agreement may be waived before or after it occurs only if evidenced by an agreement in writing signed by the Parties.
- (b) Any consent under or pursuant to any provision of this Agreement must also be in writing and given prior to the event, action or omission for which it is sought.
- (c) Any such waiver or consent may be given subject to any conditions thought fit by the Person giving it and shall be effective only in the instance and for the purpose for which it is given.

26.12 Severability

- (a) If at any time any provision of this Agreement is or becomes illegal, invalid or unenforceable in any respect under any law of any jurisdiction, neither the legality, validity or enforceability of the remaining provisions nor the legality, validity or enforceability of such provision under the law of any other jurisdiction shall, in any way, be affected or impaired and the legality, validity and enforceability of the remainder of this Agreement shall not be affected.
- (b) The Parties shall negotiate in good faith with a view to agree on one or more provisions which may be substituted for any such invalid, illegal or unenforceable provision and which are satisfactory to them and produce as nearly as is practicable in all the circumstances the appropriate balance of the commercial interests of the parties.

26.13 Costs and Expenses

Each Party shall be responsible for paying its own costs and expenses incurred in connection with the preparation and execution of this Agreement.

SIGNATURE PAGE

IN WITNESS WHEREOF, THE PARTIES HERETO HAVE SET THEIR HANDS AND SEAL TO THESE PRESENTS ON THE DAY, MONTH & YEAR FIRST ABOVE WRITTEN IN PRESENCE OF THE FOLLOWING WITNESSES:

SIGNED, SEALED & DELIVERED

FOR AND ON BEHALF OF the Authority

(Authorised Signatory)

Name:

Designation:

FOR AND ON BEHALF OF the Selected Bidder

(Authorised Signatory)

Name:

Designation:

FOR AND ON BEHALF OF the EESL

(Authorised Signatory)

Name:

Designation:

Witnesses:

1.

2.

SCHEDULE 1

NUMBER OF STREET LIGHTING POINTS UNDER PROJECT CITY (ONLY DATA W.R.T. RESPECTIVE CITY TO BE RETAINED FOR SIGNING)

Rating & Type of Existing Luminaires Population Proposed for Retrofitting

The type and rating wise break-up of the total estimated population of Public Street Lighting Points proposed to be covered under the Scope of Services of the Project SPV in the Project City is provided in the table below.

Luminaire Type	Cuttack	Berhampur	Rourkela	Sambalpur	Total	Remarks
CFL : 65W	1,284				1,284	Compact Fluorescent Lamps ~ 15%
CFL : 2*36W			3,782		3,782	
CFL : 3*36W	638				638	
T12/ T8 : 40W	1,428	4,521		2,428	8,377	Tube Lights ~ 28%
T5 : 2*24W			67		67	
T5 : 4*24W	900		514	1,011	2,425	
SV : 70W	4,167		391		4,558	Sodium Vapor Lamps ~ 51%
SV : 150W	6,518		537	1,079	8,134	
SV : 250W	1,767	3,896	1,044	583	7,290	
SV :400W / MV	25		3		28	
MH : 150w				97	97	Metal Halide Lamps ~ 3%
MH : 250W	230		806	72	1,108	
MH :400W	13			40	53	
MV :125W				69	69	
SHMT(CFL) : (3*36)*4W	148				148	Semi-High Masts & High Masts with various fittings ~ 2%
SHMT(T5) : (4*24)*4W	639				639	
SHMT(T5) : (4*24)*6W			51		51	
SHMT(SV) : 3*400W / MH\$	58		8	28	94	
HMT(MH) : 6*(2*400)W			9	1	10	
HMT(MH) : 10*(2*400)W		3	7		10	
HMT(SV-T) : 9*(2*400)W		3	6	10	19	
Total	17,852	8,423	7,237	5,418	38,930	

The Project covers 5,000 Single (or multiple) Drop points in the city of Bhubaneswar, which are proposed to be covered under the Scope of Services to be provided by the Project SPV.

Proposed Greenfield Street Lighting Systems

The estimated Luminaire quantities in the stretches proposed for Greenfield infrastructure currently proposed under the scope of the Project SPV are as provided below:

Luminaire Ratings	Units	Bhubaneswar	Sambalpur	Total
120 W	No's	1,024		1,024
90 W	No's	643		643
60 W	No's	125		125
45 W	No's	23	100	123
25 W	No's	-	500	500
Total	No's	1,815	600	2,415

Minimum Committed Quantities

The Authority commits to the minimum quantity of works/ supplies to be carried out by the Project SPV before/ by the Project COD as indicated in the table below.

Particulars		Bhubaneswar	Berhampur	Cuttack	Rourkela	Sambalpur	Total
Lamps							
LED120	Numbers	621	484	1,284	734	70	3,193
LED90	Numbers	881	774	1,233	1,090	1,391	5,369
LED60	Numbers	1,463	1,660	3,152	1,360	1,462	9,097
LED45	Numbers	3,171	2,330	5,200	1,655	973	13,329
LED25	Numbers	-	2,330	5,200	1,655	973	10,158
Outreach arm	Numbers	945	581	1,284	1,872	1,463	6,145
Timer with MCB (for Single Drop Points)	Numbers	2,500	100	202	300	200	3,302
Misc- Base							
Pole Painting	Numbers	5,445	7,576	16,067	6,492	4,867	40,447
Hydraulic Lift	Numbers	1	1	1	1	1	5
Call Centre (Computer & Web Server)	Lump Sum	1	1	1	1	1	5
Misc- Automation							
Data Centre (Computer & Web Server)	Lump Sum	1	1	1	1	1	5
Software-Asset Management + Predictive Maintenance	Lump Sum	1	1	1	1	1	5
Reconductoring	km	-	22	48	17	14	101
Transformer	kVA	231	-	-	-	-	231
Earthing							
Electrodes	Numbers	189	1,393	3,060	1,052	856	6,550
String wire	Numbers	945	6,959	15,293	5,258	4,276	32,731
GI Strip Length	meter	24,345	246,644	472,896	165,656	130,231	1,039,772
Poles							
P1-26 meter Pole Span	Numbers	812	-	-	-	-	812
P2 -24 meter Pole Span	Numbers	108	-	-	-	-	108
P-SPL-26 meter Pole Span with median pole one Luminaire at 6 m & Other Luminaire at 11 meter height	Numbers	27	-	-	-	-	27
Feeder Panels	Numbers	28	285	444	159	97	1,013
Cables for Greenfield installation (BBSR)							
C1 - 16 Sq mm Cable	meter	7,740	-	-	-	-	7,740
C2 - 10 Sq mm Cable	meter	9,909	-	-	-	-	9,909
C3 - 6 Sq mm cable	meter	6,696	-	-	-	-	6,696

SCHEDULE 2

SCOPE OF SERVICES

As from the Execution Date and throughout the Term, the Project SPV shall carry out the following key activities

- A. Detailed Asset Survey : Detailed asset survey, switching point/ feeder panel wise marking of assets and creation and maintenance of asset database during the Term of the Project;

Project SPV jointly with the Authority, shall carry out the Asset Survey in a phased manner dove-tailing with installation sequence/timelines of the street lighting systems to ascertain the following:

- i. Undertaking surveys and creation of detailed asset register providing switching point wise details of energy billing meter or connection number, feeder panel, switching, protection, communication and control equipment, Road Type, pole number, capturing GPS coordinates of poles, pole spacing/ span, pole type, pole height, conductor/ cable ratings, earthing systems, fixture height, Bracket/Arm/Clamps, existing fixture type, rating & numbers for particular pole etc. This shall also include field surveys in respect of Single Drop Points and Greenfield stretches proposed under the Project.
- ii. Undertaking asset marking/ pole painting exercise; and
- iii. Creation of Equipment replacement and installation plan including proposals for feeder panels, conductor/ cable, poles, proposed LED Fixture configurations with complete detailing upto switching point and individual pole number level.

The Asset Survey report and the Equipment Installation Plan jointly prepared by the Project SPV and the Authority shall be duly certified/ approved by the Independent Engineer.

- B. Equipment Installation

- i. As per Equipment Installation Plan approved by Independent Engineer, Project SPV has to supply, install and commission the LED Luminaires, feeder panels and other accessories and infrastructure like earthing electrodes, earthing strips, outreach arms (where ever required) etc. as part of retrofitting at existing locations, after removal of conventional Street Lights, and/ or new installations on greenfield stretches, as appropriate.
- ii. **Insurance:** The goods supplied Project SPV shall be fully insured in Indian Rupees against loss or damage incidental to manufacture or acquisition, transportation, storage, delivery, completion of installation and commissioning as brought out in Equipment Installation Plan. For delivery of goods at site, the insurance shall be obtained by the Project SPV, for an amount not less than the price of the goods from “warehouse to warehouse” (final destinations) on “All Risks” basis including War risks and strikes.
- iii. **Transportation, storage, Demurrage/Wharfage, Etc.:** Project SPV is required to transport the goods to respective Project City and storage of the material till the same are installed at various locations.
- iv. Project SPV has to return the conventional Luminaire and other Equipment removed/ uninstalled from the existing street lighting systems to the Authority during execution of

the Project. The Authority shall establish a process for receipt and certification of such material received from the Project SPV.

- v. **The specifications of the LED luminaires have been provided under Schedule 3 of this Agreement.**

C. Conditions applicable for Serial number A&B above

- i. All the Tools and Plants, including testing and measuring instruments required for the implementation of the Project is to be arranged by the Project SPV.
- ii. Storage for supplies and dismantled Luminaires till such time they are consumed on site and/ or returned to the Authority, as appropriate, is in the scope of Project SPV.
- iii. Project SPV shall carry out marking of poles (pole numbering), in line with the recommended nomenclature by Authority.
- iv. Project SPV shall ensure proper record of the LED Luminaires installed and conventional fixtures dismantled, duly certified by Authority Representatives on DAILY BASIS. This shall include the Pole identification along with Luminaire serial number for each of the poles and details of associated Switching Point / feeder panel. This shall include the details of dismantled conventional fixtures returned to Authority, acknowledged by Authority Representatives.
- v. Project SPV shall carry out minor rectification works wherever necessary for proper and reliable operation of the LED Luminaire.

D. The Project SPV shall provide to the Authority copies of warranty for Luminaires and feeder panels including components therein, to be installed in the Project. Such warranty shall necessarily ensure the following:

- a. Warranty shall be applicable for at least seven (7) years from the date of Project COD
- b. The Project SPV shall replace the aforementioned components, in the event of their failure/non-performance, within forty eight (48) hours
- c. Such replacement in (a) above shall be done at the sole cost of the Project SPV and shall not have any right to claim for reimbursement from the Authority.

E. Operation & Maintenance of Project Public Street Lighting System installed over the Project Term

- i. Establishment of a centralized control & monitoring centre (CCMC) for remote operation and monitoring of the entire population of handed over street lighting points; such CCMC shall also host a call centre facility for logging and tracking resolution of citizen complaints regarding street lighting;
 - a. A Complaint Management System (web based tool) shall be utilized for complaint management (registration, inspection, planning, resolution and monitoring of complaints. Project SPV shall provide login access to the Authority for review of the complaint handling process.
 - b. The Project SPV shall be required to make the call centre numbers publicly available and may display the same at location of high masts or other switching points.

- c. Identification of faulty/non glowing fixtures through analysis of remote data from feeder panels and/or from complaints lodged by citizens, Authority personnel etc.
- ii. Undertake operations (including daily switching on and switching off), monitoring, predictive and planned maintenance activities for the Public Street Lighting System.
- iii. Undertake dimming of Luminaires, in respect of A2 and B1 roads, through appropriate remotely operated/ automated systems in accordance with off-peak hours that may be specified by the Authority from time to time, as applicable.
- iv. Ensuring that the Public Street Lighting System is operated and maintained with adequate control systems and associated IT infrastructure.
- v. Undertaking repair and maintenance activities on the street lighting systems falling within the scope of the Project:
 - a. Repair/ rectification/ replacement of defective components of Luminaires or entire Luminaire to restore LED Luminaire to glowing condition, in accordance with the technical parameters specified in this Agreement, including supply of all materials required for the same. This shall include all activities involved for the restoration including associated wiring connections upto supply tap-off.
 - b. Project SPV to ensure that all non-glowing LED Luminaires are brought to glowing condition within a period as specified in this Agreement.
 - c. In case of non-availability of incoming power supply, the same should be intimated in writing to the authorized representative of the Authority within 48 hours of registration of complaint.
- vi. Replacement of Luminaires/ components in case of theft.

The Project SPV shall ensure the security of its Luminaires and components and in the event of any theft of the Luminaires or the components, the Project SPV shall be responsible for arranging a replacement at its own cost and without any reimbursement from the Authority within minimum possible duration.
- vii. Periodic cleaning of Luminaire Cover/ glass etc. to minimize reduction in illumination on the account of fouling of cover glass.
- viii. Deployment of qualified/ trained personnel for manning of CCMC and undertaking various other monitoring, inspection, maintenance, repair, replacement, citizen complaints handling related activities to achieve minimum uptime as specified in this Agreement for street lighting systems covered in the Project, excluding the period of non-availability of power supply.
- ix. Daily, weekly and monthly reporting on citizen complaints, operating status, replacement/ repair activities, energy consumption etc. of the Public Street Lighting System.
- x. Deployment of hydraulic crane/s and other tools and equipment. Project SPV to ensure that no work is held up due to non-availability of crane/s, ladder/s, otherwise the Project SPV will be held responsible for such delays.
- xi. Insurance, during the Project Term against any damage or malfunctioning of LED Luminaires along with accessories on account of lightning strike, explosions, aircraft damage, riot, strike and malicious damage, storm, cyclone, typhoon, tempest, hurricane,

tornado, flood and inundation, impact damages, subsidence and landslide including rock slide, bursting and / or overflowing of water tanks, apparatus and pipes, earth quakes, theft or any other causes beyond the control of Authority.

- F. To ensure compliance with all safety standards and fulfil all the statutory obligations in respect of the deputed staff at its own cost during the Term of the Project;
 - a. During the period of installation and the Term of this Agreement, the Project SPV shall ensure implementation of measures to ensure safety of working personnel, as per all applicable laws in general and with specific focus on working at heights and working on/ in the vicinity of power supply lines.
 - b. Suitable work instructions/ procedures shall be prepared for each type of work location (height of type of pole/ supply network configuration) and the working personnel shall be trained at regular intervals by certified trainers on safety issues.
 - c. All working personnel shall be provided with appropriate and adequate personal protection and safety equipment such as safety harness for working at heights, safety helmets, earthing rods etc.
 - d. Project SPV shall arrange to carryout safety audit at regular intervals by a competent entity possessing valid certificate on safety issues and recommended remedial measures shall be adopted/ implemented in an expeditious manner.
 - e. The Project SPV shall ensure safety of general citizens/ public in all installations and works carried out by it under the installation and the O&M phase of the Project.
- G. Maintain updated asset register with complete details of all replacements/ changes/ modifications in the fixtures, infrastructure and other associated equipment/ ancillaries.
- H. Installation of Equipment pertaining to New Lights and new works, if applicable, as per the terms and conditions of the Agreement.
- I. Ensuring knowledge transfer and training of Authority staff for operation and maintenance of new energy efficiency technologies installed and submit the copies of warranties to Authority before the end of Term of the SIOM Agreement.
- J. Hand over peaceful possession of the Project Street Light Points and the Equipment, along with the control room and the call center, free of Encumbrances and in a condition which is fit for the purpose.

SCHEDULE 3

TECHNICAL SPECIFICATIONS

1. Technical Specifications for LED Luminaires

a. Requirement

Parameter	Requirement																		
System wattage (LED + driver)	<p>The System wattages for the proposed LED Luminaire to be supplied under the Project shall be as specified below:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="background-color: #00AEEF; color: white;">Road Type</th> <th style="background-color: #00AEEF; color: white;">Lower Limit of LED Rating (Watt)</th> <th style="background-color: #00AEEF; color: white;">Upper Limit of LED Rating (Watt)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">A2</td> <td style="text-align: center;">90</td> <td style="text-align: center;">120</td> </tr> <tr> <td style="text-align: center;">B1</td> <td style="text-align: center;">70</td> <td style="text-align: center;">90</td> </tr> <tr> <td style="text-align: center;">B2</td> <td style="text-align: center;">50</td> <td style="text-align: center;">60</td> </tr> <tr> <td style="text-align: center;">C</td> <td style="text-align: center;">40</td> <td style="text-align: center;">45</td> </tr> <tr> <td style="text-align: center;">C</td> <td style="text-align: center;">20</td> <td style="text-align: center;">25</td> </tr> </tbody> </table> <p>The above limits are in reference to those specified in the LM79 certification for the fixtures proposed to be supplied under the Project.</p>	Road Type	Lower Limit of LED Rating (Watt)	Upper Limit of LED Rating (Watt)	A2	90	120	B1	70	90	B2	50	60	C	40	45	C	20	25
Road Type	Lower Limit of LED Rating (Watt)	Upper Limit of LED Rating (Watt)																	
A2	90	120																	
B1	70	90																	
B2	50	60																	
C	40	45																	
C	20	25																	
Distribution of Luminaire Illumination	90 W to 120 W Cut –off Luminaire, 70-90 W Cut-Off Luminaire/Semi Cut-off Luminaire, 50-60 W Semi cut off Luminaire, 40-45 W Semi Cut-Off Luminaire, 20-25 W Semi Cut-off Luminaire																		
System warranty	Comprehensive on-site warranty of 7 years from the date of supply/ installation and commissioning of LED streetlight fixtures and associated system.																		
Dimming	120W & 90W LEDs should be dimmable (Dimming of LED Fixture should not be by Cut-off of select LED arrays within the Fixture) thereby resulting in reduced energy consumption/ savings (during the prescribed off peak hours). All other LEDs of lower wattage should be non-Dimmable Peak and Off peak Hours Specific to each switching Point/ feeder Panel would be defined by Authority during the Joint Survey.																		

b. Detailed Minimum Technical Specifications for LED Luminaires

Parameter	Specification/ Type of Test	Test Methods/ Standards
LED Packages		
LED Sourcing	Identical LED Packages, quoted below, are to be used in all luminaires of any given wattage rating (Make, Order Code/Part Number, Operating current and LUMINOUS EFFICACY at OPERATING CURRENT). Any changes in parameters of LED Packages, w.r.t the details given by the bidder in the technical bids, will be treated as changes in design and such changes are allowed only with prior written concurrence of Authority.	
Operating Current of LED (Design)	<ul style="list-style-type: none"> • <70% of rated maximum forward current, in the range of 350 to 1000 mA. (having LM80 approval on this current rating) • Bidder to mention the details of Make and Order Code/Part Number of LEDs along with design operating current. 	Bidders should submit LM 80, TM 21 data at that current
Individual LED Wattage	<ul style="list-style-type: none"> • Maximum wattage of individual LEDs should be 1W to 5W • Wattage of individual LEDs at operating current (Design) should be ≥ 1 W & ≤ 3 W. 	LM-80/IS16105 test report including technical data sheet of LED Chip from ILAC/ MRA/ KOLAS/ NVLAP/ EPA International Certifying Agencies
Luminous Efficacy	<ul style="list-style-type: none"> • ≥ 135 Lumens/watt (at Tj 85⁰ C & at Operating current (Design)) • Bidder to specify number of LED Packages which will be provided in each Luminaire (to be mentioned for each Luminaire rating) along with the wattage and luminous efficacy of LED at operating current. 	
Color Rendering Index (CRI)	>70	
Lifespan of LEDs & Lumen depreciation	>50,000 Hours (at operating current (design) & lumen depreciation less than 30% over the lifespan of 50,000 hours; (Submit L70 & TM 21 Test Report)	
Luminaire		
Wattage Rating	Bidder to mention the design wattage of Luminaires offered	LM 79/IS 16106-2012 from NABL certified TPL
System Efficacy (Lumen/ watt)	> 100 Lumens /W	
CRI of Luminaires	>70	
Co-related Color Temperature of the Luminaire	Between 5000 ⁰ K to 5700 ⁰ K (ANSI)	
Frequency	50 Hz +/- 3%	
Power Factor	>0.95	
Light Uniformity Ratio (E_{min}/E_{avg}),	As per BIS 1944 for given road type Based on IES File generated by IES: LM 79/ IS 16106 Testing	
Operating Voltage Range	140 V to 270V	Test report from TPL NABL Accredited Lab

Luminaire Light Output	<ul style="list-style-type: none"> For Dimmable LED Fixture- During the prescribed off peak hours, the luminaire lumen output and consequently lux levels on the road can reduce up to 20 % of the peak load lux levels. Full Lumen output should be available at Standard Voltage of 230 V, Single ϕ For Non-Dimmable LED Fixture- Luminaire lumen output should be constant with Maximum +/- 2% variation is allowed throughout for input operating voltage range 	
Surge Protection	<ul style="list-style-type: none"> Driver internal surge protection of 4 KV (Applicability IS 15885, Driver Safety 16104-1/2) ; IEC61000-4-5 External SPD for each fixture to be > minimum up to 20 KV/ 10 KA (As per ANSI C 136.2-2014), to be separately installed with each fixture 	
Driver efficiency	>85 %	
Luminaire body temperature rise	<ul style="list-style-type: none"> $\leq 30^{\circ}\text{C}$ from ambient (45°C) with tolerance of 100C after 24 hours of operation (NABL report to be submitted). Solder point temperature, after 24 hours of continuous operation shall remain stable and within junction temperature. Thermal Test Reporting as per ANSI/UL 1598-2012 third edition to be provided before start of supplies. 	
Heat Sink temperature rise above ambient	<ul style="list-style-type: none"> Maximum Temperature point on LED Array shall not exceed Junction Temperature (specified in LM 80 report at which life > 50,000 hours) Submit design/ drawing indicating maximum temperature point of LED array. 	
Operating Temperature	<ul style="list-style-type: none"> 0°C to $+ 55^{\circ}\text{C}$ 	
Humidity	<ul style="list-style-type: none"> 10 % to 90 % RH 	
Luminaire Body	<ul style="list-style-type: none"> Single housing construction side entry type made of corrosion free extruded Aluminium/High Pressure Aluminium die cast conforming to IP 66, grey color corrosion resistant polyester powder coating with separate optical and control gear compartments, fixing arrangement and maintenance friendly for all luminaires. Should be easily replaceable at field conditions. Protection safety as per IEC 60598/ IS 10322. 	TPL NABL Accredited Lab Test Report as per IS:10322 part 5 Sec-3 /IEC:60598-2-3
Lens/Lens module for LEDs	<ul style="list-style-type: none"> LED Lights shall be provided with Lenses/Lens modules. Lens should be of material resistant to degradation during service, due to atmospheric components, to avoid adverse impact on light output. 	
Cover Glass / Lens Cover	<ul style="list-style-type: none"> Cover Glass - Distortion free, clear, heat resistant, toughened, UV stabilized glass; Lens Cover - Lens should be of material resistant to degradation during service, due to atmospheric components, to avoid adverse impact on light output. 	
Cover Frame	<ul style="list-style-type: none"> Aluminium Pressure Die Cast/Polycarbonate cover fixed to the housing by means of stainless steel screws. 	
Outreach Arm Compatibility for Installation	Outreach Arm with Diameter of Range 45 mm to 80 mm – Compatible with LED Fixtures proposed	

Earthing of Luminaires	The provisions of IS-3043, may be referred to in general and to Clause no. 21.3, 21.4 and 32.5 of the said IS Specifications in particular. Successful bidder may carry out, at his own cost, earth resistance measurement of neutral conductor of supply network during the initial commissioning phase and subsequently on yearly basis or as may be felt necessary for reliable operation of the Light Fixtures by taking up appropriate measures.	
Impact resistance	Luminaire shall be built in such a way that it can withstand wind speeds up to 150 Kmph	NABL lab report for impact resistance > or = IK07

2. Technical Specifications for Feeder Panels

Parameter	Specifications / Details
Broad Operational Features	Feeder panels should have GPRS/GSM based remote streetlight monitoring system with capacity for self-protection from short-circuit, over voltage and anti-theft alert.
	Street light controller installed in feeder panel should be provided with special emergency on/off facility with wireless control and to generate SMS alerts.
	Street light controller should be able to communicate with Central Control and Monitoring Centre (CCMC) in case of power failure and provided with battery backup for minimum 4 hours.
	Principle equipment should be designed on the basis of 'Lossless Series Reactance with Secondary Compensation' technology ensuring efficiency of such principle equipment should not be less than 99.4% between 50% - 110% of loading.
	Other than basic switching components, no other moving parts are allowed to be installed in the feeder panel.
	Provisions to be made to protect the technologies and all components of feeder panels even if quality of power supply at the feeder level is not as per standard of performance and supply code regulations of utility.
	All the principle equipment's along with input output switchgears, metering, switches (by-pass and tap changers), contactors, fuses, auto transformer coils etc. should be of reputed manufacturers like Siemens/ABB/Schneider/GE/TAS etc. and should meet best engineering practices and norms as applicable in IS 8623 for LV switchgear and control assemblies, IEC: 60947-1&4 / IS:13947-1&4, IS 8828: 1996 / IEC 60898-2002, IEC 60947-3 standards and other relevant standards.
	Each Feeder Panel is equipped with automatic street light controller compatible with GPRS / GSM or suitable protocol at individual panel level. Controller would perform meter reading, switching, data logging, communication and control as per remote instructions from Central Control and Monitoring Centre.
Rating & Switching Components	Qualified Bidder/ Project SPV may optimize the number of feeder panels by clubbing more than one (1) switching points on a single Feeder Panel. However such optimization should not result in any Feeder Panel supplying to more than 150 Luminaires.
	The rating of the feeder Panel switchgear should be at least 1.3 times the lighting load as estimated for new LED Fixtures during the initial studies prior to replacement.
	Electrical Contactor used in feeder panel should be compliant to IEC: 60947-1&4 / IS:13947-1&4, Miniature Circuit Breaker (MCB) Specification should be compliant to IS 8828: 1996 / IEC 60898-2002 & specifications for 3 position Load Break Switch (Rotary type) to be used in On-Off-Bypass mode should be compliant to IEC 60947-3 standards.
	Feeder panels should be provided with appropriate rating of Harmonic filters to keep the % I_{THD} at levels below as specified by Utility. Switched fuse units should be of 32 Amp continuous AC current capacities. Fuses used should be of 20 Amp. Rating of high rupturing capacity (S/c current at least 50 kA)
	240 V AC 50 Hz Single Phase Two Wire / 415 VAC 50 Hz Three Phase Four Wire Input.
	Fixed capacitor with appropriate capacity shall be introduced in each feeder panel to maintain the power factor more than 0.9
	The panels should be equipped with a microprocessor based Dual Channel Almanac Timer controller (Astronomical timer based controller) which should be user programmable to enable setting of ON/OFF times and also switching over to savings mode/bypass mode when required.

	In case of Single-phase controller units, one (1) contactor for switching on/off and in case of Three-phase controller units, one (1) contactor for each phase is to be provided. The number of contactors used should be suitable for ON/OFF and for changeover between full voltage to various voltage taps and interchanging between taps in line with specifications of voltage controller.
Metering	Energy Meters to be installed in separately sealable and operable (capable to be opened independently) compartment within the Feeder Panels as per the following specifications: As per Regulation 56(2) of Conditions of Supply Code, 2004 issued by OERC (Orissa Electricity Regulatory Commission), consumer may procure the Meter either from the Vendors certified by the Discoms conforming to Discom's Technical Specifications. The calibration and sealing of the Meter shall be as per the applicable Supply Code and regulations.
	<ul style="list-style-type: none"> Energy Meters should have Accuracy class of Class 1 or better;
	<ul style="list-style-type: none"> Meters could be either three phase whole current or CT operated for LT as may be required based on the load connected to the feeder panel. The space to be created in the feeder panel for housing the meters should consider the same.
	<ul style="list-style-type: none"> Energy Meters should be capable of logging parameters for each 15 minute time block with stamping of date and time. Such data logs should be retained in the energy meters for a period of 60 Days or more. These data logs can also be communicated to CCMC through street light controller installed in feeder panel.
	<ul style="list-style-type: none"> Metering System should be able to capture minimum following parameters <ul style="list-style-type: none"> a) Phase Wise Voltages (Phase to Neutral) b) Phase Wise Currents c) Phase Wise Power Factor & Frequency d) Total Active Power (kW) e) Total Apparent Power (kVA) f) Metering kWh Cumulative g) Metering kVAh cumulative
	<ul style="list-style-type: none"> Meters should have requisite port (Serial port communication – RS232 or RS485) for enabling remote reading and for connection of Modem for the same;
	<ul style="list-style-type: none"> The following additional requirements to be applicable for switching points where the meters installed in the Feeder Panels shall act as the Energy Billing Meters for Utility: <ul style="list-style-type: none"> o Energy Meter specifications should meet the specifications specified by Utility and a sign-off on the same shall be obtained from Utility prior to finalizing the specifications;
	<ul style="list-style-type: none"> o A signoff from Utility on the design and specifications of the compartment in the Feeder Panel where the meters are to be housed is also recommended;
Data Logging & Alerts Other than Metering System	Other than the parameters that are captured and logged by metering system, bidders should also ensure that the street light controller system is capable of capture & reporting of following additional parameters for each 15 minute time block with stamping of date and time. <ul style="list-style-type: none"> a) Number of hours the lamps were glowing b) Phase Wise V THD c) Phase Wise I THD
	System should generate alert messages in the form of SMS to select contact numbers (minimum 5) in case of following events <ul style="list-style-type: none"> a) Phase-wise currents on crossing threshold values b) Phase-wise voltages on crossing threshold values c) MCB trips d) Theft alerts e) Group failure of lights f) Contactor failure g) No output supply h) Leakage to ground i) Manual switch activated
Communication Provisions	GPRS/GSM modem for communication should be a Dual-band modem with power consumption less than 3 watts & modem should be programmed to be in Sleep-mode whenever communication is not done.
	If GPRS is used for communication, then in case when GPRS fails, GSM (SMS) should be selected for communication.
Enclosure & Fabrication	Enclosure Box of feeder panels shall be IP-55 compliant and should be fabricated out of MS sheet SWG 16 / 14 duly powder coated for corrosion resistance and long life. Panels should be provide with Hooter for door open.
	<ul style="list-style-type: none"> It should have Single Phase power socket for connecting utility tools like drill machine etc. (capacity 1phase 240Vac / 5Amp socket)

	<ul style="list-style-type: none"> • Utility Service Lamp inside Panel for use during maintenance work • Gland Plates for Cable Entry at Incomer and Outgoing
	Feeder Panels with Voltage dimming provisions should also accommodate the dimming switchgears/equipment's inside the enclosure.
	The bidder shall have to get the control panels fabricated from the vendor having type test certificate from CPRI for 31 MVA short-circuit rating up to 400 amp for cubical panels. The copy of the type test certificate shall also have to be produced failing which feeder pillar shall not be accepted
	Design life of the control panel should be mentioned in form of MTBF (mean time between failures) and it should be minimum 10 years.

3. Technical Specifications for Voltage Controller

Parameter	Specifications / Details
Broad Features	Objective of voltage controller is to optimize the energy consumption of street lights by voltage control during off-peak hours
	Dimming level and dimming times (Off-peak hours) should be remotely settable. Dimming may be carried out either through voltage control or any other suitable mechanism subject to adherence to minimum lux levels and other requirements as specified in the SIOM Agreement. Irrespective of the mechanism, the dimming would need to be in steps (up to 10%, 20% & 30%). Bidders may however note that a mechanism resulting in non-glowing/switching off of LEDs / an array of LEDs in a fixture is not permitted for dimming purpose.
	Should be compatible with Harmonic filters installed in feeder panels. And should take in to account Conditions of Supply Code, 2004 issued by OERC.
	Other than basic switching components, no other moving parts should be there.
Rating and Certifications	The rating of Voltage controller should be at least 1.3 times the lighting load as estimated for new LED Fixtures during the initial studies prior to replacement.
	Voltage Rating: 150V to 260V. Set output voltage should be within +/- 5V during dimming.
	240 V AC 50 Hz Single Phase Two Wire Or 415 V AC 50 Hz Three Phase Four Wire Input Supply with 3 Taps to Control output voltage.
	Intelligent dimming should be there; during off-peak hours. If input voltage itself is below 30% of rated voltage, further voltage reduction should not happen.
	Standard Output Voltage Taps In each Phase at 150/180/210 V AC @ 240 V AC to ensure maximum energy saving during off-peak hours
	During voltage tap changing, lights should not be momentarily disconnected which will lead to re-ignition of lights. It is mandatory for supplier to make gapless changeover arrangement when changing from by-pass mode to & from lower voltage energy saving mode and interchanging between the taps. This should be achieved by supplier by any specialized arrangements. The user is expected to produce the Performance assessment certificate for minimum continuous 100 such changeover operations without any lamps going off in any of the three phases at minimum and Maximum supply voltage conditions. This certificate should be received from reputed Laboratory organizations like CPRI, ETDC, ERTL, IDEMI, SAMEER etc.
	Voltage controller to be compatible with a microprocessor based Dual Channel Almanac Timer controller in feeder panel to facilitate used defined program for dimming voltage setting for peak and Off-peak hours and also switching over to savings mode/bypass mode when required.
	System losses for entire operating range should be less than 3% so as to achieve high efficiency.
Communication Provisions	User settable selection between GSM / GPRS operation and manual local operation. Control of operation times settings from the central PC (in case of GSM)
	Specific data request whenever user desires from control PC
	Fault reporting to central PC and user definable Cell Phone number
	Over-ride for local operation time settings from the central PC on every individual device for user definable time frame with a specific display on the particular device where such override is implemented
Enclosure & Fabrication	Voltage controller to be housed in the same cabinet/enclosure of Feeder panel.
	Design life should be 15 years or more

Streetlight Controller & Voltage Controller

All switching points should be equipped with feeder panels with individual streetlight controller as per the technical specification described in this document. For those streetlights on A2 & B1 road types that are dimmable by voltage reduction, Voltage controllers shall also be installed in the feeder panel along with the streetlight controllers. The streetlights on B2 & C type roads (60W, 45W & 25W) could be of the non-dimmable type, and the respective feeder panels to be accordingly designed. The dimming time and the dimming level shall be controllable from Central Control & Monitoring Centre (CCMC) through individual streetlight controller at feeder panel. In cases where the switching points cater to mixed road types (say A2 with B2 type, A2 with B2 and C type etc) for the same switching point, dimming facility to be appropriately designed to necessarily cater to A2 & B1 road types.

4. Technical Specifications for Poles & Cables

a. Street Light Pole (MS) Specifications

Parameter	Specification /Details
Road Classification	AS per IS 1944
Mounting Height of Luminaires for Given Road type	As per BIS, 1981
Distance between Adjacent poles (Pole Span)	Between 24 meter to 30 meters to be decided by Joint Survey Team on case to Case Basis
Pole Height above GL	Min 9.2 meter
Clearance room road edge	0.6 m
Bracket/ Outreach Arm length excluding length of fitting for Green filed projects	Min 1.5 Meter (As per design)
Bracket / Outreach Arm Diameter	45 mm to 80 mm Pipe (for Fixture Mounting As per Design)
Tilt angle	As per design - Considering LED specifications
Overhang	As per design - Considering LED specifications
Earthing	As per IS : 3043 - Code of practice for earthing.
Looping /Terminal Box	Each pole shall have a weather proof looping/terminal box clamped at 550mm above ground level along with a suitable earth terminal. The looping box shall be provided with a suitable busbar arrangement to loop 2 to 3 cables of size 16sq.mm and MCB/5A fuse cutout.
Supply Provisions to Fixtures	1100V grade FR PVC insulated multi-stranded bright annealed copper conductor Wires Supplying fixtures will Run inside the pole & bracket from Junction box till fixture to be supplied.

Pole Specifications as Per NIS 1981	Overall length 9.5 m + 25 mm (base plate)		
	Outside Dia (mm)	Thickness (mm)	Length (mm)
Bottom section	165.1	4.85	5000
Middle section	139.7	4.5	2250
Top section	114.3	3.65	2250
Planting depth	1800 mm		
Nominal weight of the pole	147 kg		
Hot Dip Galvanized MS Poles to be Supplied together with looping/terminal Box. A base plate 300 x300x25 mm shall be welded to the bottom of the pole.			
Tolerance on mean weight for bulk supply is 7.5 %			
Tolerance for single pole weight is 10%			
Wind speed resistance - The Poles shall be designed and installed so as to withstand the maximum wind speed of 150 km / hr			

All applicable I.S Standards, I.E Codes, Regulations shall govern the design, manufacturing, installation, testing, installation and commissioning of this work. There shall be no circumferential weld joint in Poles. The grade of steel used shall be S-355 as per BSEN-10025 or equivalent Indian Standards .The poles shall be single dip, hot galvanized as per IS: 2629/IS 2633/IS 4759 standards with minimum coating thickness of 70 microns. The pole manufacturing unit shall have in-house pole testing facility for validation of structural design data. The pole testing facility shall conform to BS EN 40-3-2-2000 part 3-2.

A data sheet containing the following is to be submitted

Pole shaft – Name of the manufacturer, Applicable standard, Material and Grade, Height, Pole section, Top dimension (mm), Bottom dimension (mm), Pole shaft thickness (mm), Base plate size and thickness (mm), Pitch circle diameter (mm), Average galvanisation thickness (micron), hot dip galvanising (single / double dip) , Type of paint and utility window dimensions. Bracket Arm – material and grade, Span of arm (mm), diameter and thickness (mm), Height of bracket Spigot, Diameter and thickness of Spigot, Design drawing, average galvanisation thickness, type of paint and its DFT. Foundation bolt (if applicable) – no of bolts per pole, bolt diameter (mm), bolt diameter(mm), threaded length and grouting length, Number of nuts and washers

b. Electrical Specifications for Cables & Earthing

Parameter	Specification /Details
Under Ground Cable Size & Type	Providing and Laying of 4 Core Aluminium XLPE Armored Cable of Appropriate Size As per Design/ Supply Provisions
Make	Universal cables (UNISTAR), Havells India Ltd. (HAVELLS) Tropodur, Finolex, Asian, Gloster, Incab, Universal, Polycab etc
Supply Source Point	Supply point will be located centrally across the road Stretch. Electric power supply at 415 volt, three phase, four wire, 50 Hz. to be Provided by Authority
Overall Derating Factor	Overall Derating factor due to Cable Laying/ Grouping / Temperature/ Other factors should not be less than 0.75 (As per IEC 60364-5-52)
Maximum Allowed Voltage Drop for Cable	Not more than 5% at the End (at fixture / junction box) at Full load Condition @ Nominal Single Phase Voltage of 230 V
Cable Voltage Rating and Insulation	Electric cable required for the street lighting installation shall be 1100 volt grade, XLPE insulated and sheathed, armored cable having Aluminum conductor of stipulated rating.
Power Distribution on Cable	The electric power shall be distributed to the street lighting poles through electric cables and shall be distributed equally on three phase of Cable and the electric power supply system.
Cable Laying	Electric cable for the street lighting installation shall follow specification under the heading “MEDIUM VOLTAGE ALUMINUM XLPE CABLES”.
	A loop of 1.5 mtr. of cable shall be provided near each street light pole for all incoming and outgoing cable.
	Cable shall be terminated to the attached junction box on each Pole. Approved make of cable sockets shall be provided.
	Cable route shall be as per direction of Engineer-in-charge or the contractor shall mark the route and lay the cables only after approved by Engineer-in-charge.
	The depth of cable-laying in normal case shall be 90cms from ground level. For laying of cables under asphalt road / cross road, 50mm dia. Double Walled Corrugated (DWC) pipe of Polyethylene (conforming to IS-14930 II) shall be used.
	Cable laying shall be done with excavation, backfilling of trench with same excavated morum and back filling material without sharp edged stone or bricks shall be used.
Earthing	All street light fixtures and poles shall be earthed. The street light poles shall be earthed after five poles only with CI plate 450 × 450 × 10 mm.
	Earth electrode shall be of 450mm×450mm×10mm thick. Termination CI plate & G.I. strips is of 25 x 6 mm

5. Specifications for Central Control and Monitoring Centre (CCMC) & Automation System

Objective of centralized street light automation solution is to provide centralized control & monitoring of street lights from a single control center and is capable of controlling, monitoring and analyzing the details at streetlight feeder Panel level (switching point level). This will facilitate optimizing the energy costs by timely switching on/off of lamps & implementing voltage regulation/ dimming of lamps during off-peak hours as well as savings in present street light maintenance cost by setting new standards in managing Street Lights with minimal expenditure.

Central Control and Monitoring Centre (CCMC) & Automation System is comprised of wireless Central automation controller, server cluster, control center, enterprise middleware system, enterprise Management Information System and call center. The broad specifications for various components of CCMC and Automation system are as below.

Parameter		Specifications / Details
Broad Operational Features		CCMC shall have a web-server to receive all data from the streetlight controllers installed in feeder panels and voltage controllers.
		GIS Mapping should be done covering all switching points and the details of each switch point shall be viewable in the web application software through a Google-map interface or web based digital map.
		Bulk messaging facility to be given so that any common changes to be effected into the individual street light controller equipment's.
		CCMC should have real time control and should register all fault conditions through the instantaneous alert messages sent by the street light controller equipment's.
		Inbuilt scalability to support large lighting network. Up to 250 no's of Remote Terminal Units (RTUs) should be possible to be controlled from one Central Control Unit.
		Different user authorization levels should be settable and the central server should be capable of handling high traffic. The concerned personnel at the Municipality should have access to the data (viewing rights) on a real time basis as well as the reports.
		User settable Individual feeder panel ID & Password protected access to control functions
	Key Components & Functions	Wireless Central Automation Controller
Reports various parameters to server clusters. These are parameters that are captured by metering system and streetlight controller at individual feeder panels.		
Report faults at individual feeder panels such as fuse failure, power failure, MCB trips, Over load, contractor fault , activation of manual switch, ground fault, control cabinet door open, indication for street light failures, feeder panel door open etc.		
Server Cluster		This is group of high end server system which allows unlimited redundant data storage using Oracle/MySql / any Other database systems
		The data collection server should work on open protocol having mechanism for assured delivery of data sent by hardware device
		Data Backup: The System should have automated back-up facility to have regular back up of the data to ensure availability of the data and information. This should be achieved through mirror imaging of two HDDs. The backup system should facilitate any data regarding performance of the system in the last 12 months in 1 working Day and any data regarding performance of the system during any period of the concession within 5 working Days.
		The Central Server should be adequately back up by 2hrs UPS system for operational reliability.
Control Centre		Control Center to provide a snapshot of lighting status for a zone, entire city
		Complete monitoring on image of the entire geographic area at the screen and with projector attachment – on back wall, where the operators monitor the streetlight and dispatch maintenance teams. Any alarms and their exact location should be shown

Parameter		Specifications / Details
		on the map for easy and fast overview.
	Enterprise Middleware System	The application software should be based on Service Oriented Architecture and platform independent.
	Enterprise Management Information System	Complete end to end enterprise software system to facilitate control, monitor and analysis Minimum Key modules of management information system should be maintenance planning, inventory management, contractor/maintenance, staff performance monitoring, reporting and access Control.
	Call Centre	For Public to report grievances/complaints, bidder shall maintain a TOLL FREE number. Track the complaints made by the public and to update the status of their complaints
Communication Provisions & Features		Communication Speed between Central automation controller (Master) and Remote unit (Street Light Controller) should be such that maximum time required for acquiring the data should not be more than 30 minutes for 250 no's RTUs.
		CCMC should be able to communicate with any street light controller individually or collectively to control and monitor.
		CCMC should support to export reports on website to other application formats like MS Excel, MS Access, DB, SQL, Oracle etc.
		Printout facility available on web pages
Report Generation		Reports such as Energy Saving report, Feeder Panel Failure report, % uptime, etc. should be generated on a daily basis from the readings received from the individual street light controller equipment.
		Asset Management Software showing defective units, if any and other user-defined reports should also be available in the CCMC.

6. Site Specific Specifications & Guidelines

Standards applicable to Street lighting system

National Lighting Codes by Bureau of Indian Standards (BIS) - SP 72 and other International Standards like IEC should be referred for design and development of street lighting calculations, selection of lighting fixtures, lighting technologies, pole structure and erection, cable selection and sizing, insulation requirements, conductor specifications etc. The details of most of the standards that are applicable in the context of street lighting project are provided in Table 1.

Table 1 : Standards applicable to Street Lighting system

Sl.	Standard	Description of Standard	Applicable to / Comment
1	IS 1944: 1970	Code of practice for lighting of public thoroughfares	Classification of road; Standard for Road Lighting
2	CIE – 140 - 2000	CIE: (International Commission on illumination) report	Road Lighting Calculations
3	CIE 115	CIE: (International Commission on illumination) report	Road Lighting Calculations
4	IS 10322	IS specification for Luminaires	Light Fixtures
5	IS 875	IS for Wind Loads on Buildings and structures	Pole and Fixture against wind
6	IS 5	IS for Colors for ready mix paints and enamels	Color Coating and Shade and pole and fixture
7	IEC 60598	International Standards for Luminaires for road and street lighting	Road and Street Lighting
8	IEC 60529	International Standard for Ingress	Fixture

Sl.	Standard	Description of Standard	Applicable to / Comment
		Protection	
9	BSEN 40-1:1992	Lighting Columns: Definitions and terms	Pole structure and construction
10	BSEN 10025	Steel Standard	Pole structure and construction
11	IS 1367	IS for Threaded Steel Fasteners	Foundation accessories
12	IS 2629 / IS2633 /IS 4759	IS for Hot-dip Galvanizing for Iron and Steel	Galvanizing process of pole
13	IS 7098 (part 1)	IS for PVC Sheathed cables	Cables and insulation
14	IS 8130-1984	Specifications for Conductors for insulated cables	Aluminium conductors
15	IS 5831	Specifications for PVC insulation and sheath of electric cables	Inner Sheath of cables
16	IS 3975	Specification for Galvanized Steel	Armouring of galvanized steel wires
17	IS 5831	IS for Mild Steel Wires , formed wires and tapes for armouring of cables	PVC compound for outer sheath material of cables
18	IS 8623	IS for L.V Switchgear and Control Assemblies	Enclosure for feeder pillar
19	IS 14930	IS for Conduit systems for electrical installations	HDPE high density polyethylene pipe
20	IEC 60947	IEC for Low voltage switchgear and control gear	Circuit Breakers and contactors
21	IEC 6100-3-2	Limits for harmonics current emission – THD<=10%	

The IS 1944 (Parts I and II) provides code of practice for lighting of public streets and specifies the street categorization criteria as detailed in Table 2.

Table 2: Road Classes as per IS 1944

Main Roads subdivided into two categories	
Class A	
Class A1	Important routes with rapid and dense traffic where safety, traffic speed, and driving comfort are the main considerations
Class A2	Main Roads with considerable volume of mixed traffic, such as main city streets, arterial roads and thoroughfares.
Class B	
Class B1	Secondary roads with considerable traffic such as main local traffic routes, shopping streets
Class B2	Secondary roads, with light traffic
Class C	Lighting for residential and unclassified roads not included in previous groups
Class D	Lighting for bridges and flyovers
Class E	Lighting for town and city centres
Class F	Lighting for roads with special requirement such as roads near air fields, railways and docks

SCHE DULE 4

INDEPENDENT ENGINEER INDICATIVE TERMS OF REFERENCE

1. Indicative Terms of Reference for Independent Engineer:

The scope of work of the Independent Engineer is outlined below with specific details in the subsequent sections:

- a) Overseeing the Asset Identification and marking;
- b) Validation and Certification of Joint Survey Report and Approval of Equipment Installation Plan; and
- c) Issuance of Equipment Commissioning Certificate;

1.1 Overseeing Asset Identification And Marking

The Independent Engineer, as a part of Joint Survey team will participate in conducting the joint survey for asset identification. The survey shall capture details for each and every street light point along with particulars of ward number, street name, road type as per IS 1944 in consultation with authority, switching point, energy billing meter or connection number, feeder panel, switching, protection, communication and control equipment, pole number, pole spacing/ span, fixture height, existing fixture type; rating & numbers for particular pole etc.

- a) Independent Engineer shall certify the asset register created jointly by the Authority and Project SPV that shall define physical boundary of the project in accordance with the guidelines set out at Schedule 3.
- b) Independent Engineer shall also validate the pole number painted by the Project SPV on each Street lighting pole.

1.2 Validation and Certification of Joint Survey Report & Equipment Installation Plan

Independent Engineer shall validate and certify the ward wise Joint Survey Reports submitted by the Authority and Project SPV as well as Equipment Installation Plan prepared by the Authority and the Project SPV, within 15 Days of receipt of the same. This shall include the following:

- a) Verification and certification of the Joint Survey Report on existing street lighting inventory and project scope:
 - i. Categorization of Road Type(s) for each Street Lighting Point.
 - ii. Details of switching points/ feeder panels, energy billing meter (including connection number), switching, protection, communication and control equipment etc.
 - iii. Details of infrastructure including pole type, pole ownership, pole span/ spacing, pole height, fixture installation height, cable/ conductor type and its length, outreach arm/ bracket type and its length etc. for each switching point. This should also include physical condition assessment of the assets and recommendations regarding replacement/ upgradation requirements.
 - iv. Number, type, rating, working condition etc. of existing fixtures on each pole;
 - v. Details on Single Drop Points in Project City and possibilities for regularizing of Single Drop Points through cable looping for multiple single drop points with Timer & MCB or through feeder panel, as appropriate.

- vi. Details of proposed stretches for Greenfield Street Lighting Systems installation by the Project SPV;
 - vii. Validation of Single Line Diagrams (SLDs), indicative maps and any other details captured during Joint Survey;
 - viii. Approval or rejection of the findings set out therein, including the recommendation, if any, to remove or add certain Project Street Light Points from the scope of the Project.
- b) Validation and Approval of Equipment Installation Plan
- i. Switching Point wise Feeder Panel installation plan, including adequacy of proposed KVA rating of proposed feeder panel, recommendations regarding clubbing/ optimization of switching points etc.,
 - ii. Infrastructure improvement proposals including conductor/ cable replacements, bracket/ outreach arm replacements, pole replacements etc., if any, in accordance with the scope defined in the SIOM Agreement.
 - iii. Pole wise proposed LED Luminaire configuration (numbers, ratings etc.), including its validation on Road Type basis.
 - iv. Installation plan for Greenfield stretches- this involves installation plan for complete Project Public Street Lighting System on new stretches identified by Authority. Independent Engineer would validate stretch wise complete PSL infrastructure and Luminaire plan with listing of Bill of Quantities including pole types, pole span, pole arrangement, brackets, outreach arms, cabling, transformer, switching systems, protection systems, feeder panel etc.

1.3 Issuance of Equipment Commissioning Certificate

Post equipment installation by the Project SPV, the Independent Engineer shall be required to issue Equipment Commissioning Certificate for each Phase to the Project SPV as per the provisions of Article 5 of this Agreement and in accordance with the scope outlined below:

- a) Verify the quantities of equipment/ material installed by the Project SPV;
- b) Verify adherence to the Technical Specifications, quality of installations and workmanship;
- c) Verify kW loading at respective switching point/ feeder panel level:
 - i. kW measurements for select switching points / feeder panel level shall be validated against the estimated kW load on the switching point considering the different ratings and numbers of LED Luminaires. For kW estimation at the Feeder Panel level, the wattages of LED Luminaires as confirmed in Sphere Spectroradiometry Test Data in LM 79 report and submitted as in Schedule D forming the selection criteria for the project during the Bid Process would be considered by Independent Engineer.
 - ii. Switching Point wise actual kW, estimated kW and % variation in actual kW w.r.t estimated kW. Feeder Panels with % variation of more than +10% would be brought to the notice of Authority.
 - iii. Sample measurements regarding voltage drops in cables used

2. Appointment & Replacement of An Independent Engineer:

The Authority and the Project SPV shall jointly appoint appropriately qualified Person as the Independent Engineer.

Authority shall invite tenders in line with the indicative scope of work above. Authority & Project SPV shall jointly select Independent Engineer from the bids received based on the technical and financial criteria that may be specified in such tender documents.

The Authority and the Project SPV may mutually decide to replace the Independent Engineer(s) in any of the following circumstances:

- if either of them have a reason to believe that the Independent Engineer has not discharged its duties in accordance with the terms of SIOM Agreement;
- if they decide not to renew the appointment of the incumbent Independent Engineer; or
- if the Independent Engineer desires to discontinue its services in accordance with the terms of its engagement.
- The Authority may decide to appoint one or multiple Person(s) for undertaking scope of work of the Independent Engineer for different Phases of the Project as outlined in this Schedule.

SCHEDULE 5

JOINT SURVEY GUIDELINES

The Joint Survey Team shall comprise of authorized personnel from the Authority, Project SPV and the Independent Engineer. The Authority and the Project SPV shall ensure overall responsibility for undertaking the Joint Survey while the Independent Engineer's role would be to cross check and validate the asset register and other findings/ details such as classification of different roads into Road Types as per IS1944, clubbing/ positioning of switching points/ feeder panels etc.

The focus of the Field Survey shall be on preparing a detailed asset register and undertaking the asset marking/ pole painting exercise for ease of physical identification during installation and O&M phase of the Project.

It is suggested that the Field Survey exercise may be initiated and conducted on a ward wise basis in order to facilitate commencement of installation works and commissioning of the project on a ward wise basis with the objective of accomplishing the various mandated timelines for various activities.

The various facets of the Field Survey exercise are detailed below.

1. Asset Marking/ Pole Painting

The Joint Survey Team shall conduct a detailed asset survey and complete pole marking using nomenclature approved by Authority. Objective of asset marking is to identify the specific pole on particular switching point throughout the Project Term, in view of this such nomenclature shall capture minimum details such as the switching point, ward number, street name & pole number.

The coding/ nomenclature for numbering shall clearly indicate the following:

- ward number where particular switching point is located;
- serial number for Switching Point Surveyed, to be provided by Joint Survey Team;
- street name;
- pole number on the particular switching point;

The following recommended nomenclature (“W-”NN/ “SP-” NNN / AA/ NNN) shall be adopted for the purpose of asset/ pole marking, with due approvals from Authority if any changes are made:

Parameter	Ward Number	Serial No for Switching Point to be Surveyed as allocated by Joint Survey Team	Street Name	Pole Number on the switching point
Nomenclature	“W-” NN (Numeric Code Comprising two digits)	“SP-”NNN	AA (Alphabetical code comprising two characters)	NNN (Numeric Code Comprising two digits)

For easy identification of Single Drop points, the field SP shall remain 000 for all assets/ poles associated with such points. For illustration, all Single Drop Points would have the nomenclature W-NN/ SP - 000/AA/NNN.

Such pole number should be painted or put at a legible point on each street lighting pole at a height of five (5) foot from the ground level with a minimum font size of three inches (3”). The following



illustrates the recommended coloring scheme and layout of the pole painting exercise to be carried out.



In case of Green Filed Stretches i.e new stretches identified by Authority, Joint Survey Team would adopt similar coding/ nomenclature. However the marking would be done on the Road side along with preparation of a indicative maps to capture other details such as source of power supply, road/ river crossings if any, strategic location for feeder panel. This would be in addition to the details that would be captured in asset register format provided in this schedule.

2. Preparation of Asset Register

The Project SPV shall prepare the asset register specific to Project City with detailed street light inventory based on the detailed Joint Survey exercise to be conducted after initiation of the Project.

Based on the Joint Survey, Project SPV will capture details for each and every street light points along with above nomenclature and particulars of ward number, street/locality name, road width and type as per IS 1944, off peak hours with time duration, switching point, energy billing meter or connection number if any, existing switching, protection, communication and control equipment's if any, pole ownership, GPS co-ordinates of pole, pole height, pole span, existing fixture status; type; rating & numbers installed on particular pole etc. In addition to this asset register would also capture the proposed LED Luminaire rating; make; serial number; date of Installation for particular pole, requirement for installation of outreach arm, earthing electrode installation (at appropriate interval) etc.

Based on details captured in the asset register for a particular switching point, the revised cumulative kW load would be estimated on the basis of proposed LED luminaire rating. Thus the Joint Survey Team would arrive at the kVA rating of prospective Feeder panel. Joint Survey Team should exercise an option to optimize the number of feeder panels by clubbing two to three adjacent switching points on one Feeder Panels. However, a single Feeder Panel should not supply more than 150 Luminaires from each feeder panel.

Indicative format for Asset Register is provided below, this shall be finalized by the Project SPV with Authority prior to the commencement of the Joint Survey.

A	B	C	D	E	F	G				H	I	J			K	L	M	N
Sr No	Nomenclature specific to each pole marking	Ward Number	Serial No for Switching Point to be Surveyed as allocated by Joint Survey Team *	Existing Utility electricity billing meter/ connection Number if any;	Pole Number on the switching point	Road Details				Street Light Pole Details on Given Road								
						Street Name	Road Class (A2,B1, B2 & C) as per IS 1944	Road Width	Off Peak Hours (Duration & From: ... To...)	GPS Co-ordinates of the Pole	Pole Height (meter)	Pole Span (meter)	Pole Arrangements (Opposite Arrangement / Median/ Single Side/ Zig-Zag)	Ownership of pole (Utility / MC)				
1	("W-"NN/ "SP-" NNN / AA/ NNN)																	

O					P							Q	R	S	T			U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	
Existing Fixture Details					Infrastructure Assessment & Improvement Proposal							Retrofitting by Proposed LED Luminaire				Proposed Feeder panel														
Status (working / Not working)	Height (meter)	Type	Rating (w)	Numbers Installed on Particular Pole	Outreach Arm		conductor/ cable		Earthing	Pole Requirement		Make	Model Number	Rating (w)	Date of Retrofit	Rating (kVA)	Clubbing of Switching Points													
					Replacement of Outreach Arm is recommended (Y/N)	Details on Size & Length of Outreach Arm	conductor/ cable replacements recommended (Y/N)	Cable size / Length required	Installation of Earthing Electrode is Proposed (Y/N)	Pole Replacement /Placement of Additional Pole Recommended (Y/N)	Pole Height & Configuration																			
																														"SP-" NN1 & "SP-" NN2 etc

3. Joint Survey Report Preparation

Post Asset Identification and Markings by the Joint Survey Team, the Authority and the Project SPV shall jointly prepare a report setting out the details of the Joint Survey (Joint Survey Report) for further validation & certification by the Independent Engineer.

The Joint Survey Report should be submitted specific to each ward forming a physical boundary and comprised of asset details in the above formats along with ward wise summary including the following:

- Categorization of Road Type for each Street Lighting Point.
- Details of switching points, energy billing meter (including connection number), feeder panel, switching, protection, communication and control equipment etc.
- Details of infrastructure including pole type, pole ownership, pole span/ spacing, pole height, fixture installation height, cable/ conductor type and its length, outreach arm/ bracket type and its length etc. for each switching point. This should also include physical condition assessment of the assets and recommendations regarding replacement/ upgradation requirements.
- Number, type, rating, working condition etc. of existing fixtures on each pole;
- Details on Single Drop Points in Project City and possibilities for regularizing of Single Drop Points through cable looping for multiple single drop points with Timer & MCB or through feeder panel, as appropriate.
- Details of proposed stretches for Greenfield Street Lighting Systems installation by the Project SPV;
- Preparation/Validation/ Updation of Single Line Diagrams (SLDs) , indicative maps and any other details captured during Joint Survey mainly in context of greenfield stretches;
- Indicative locations where proposed call centre details can be displayed for the public to register complaints

SCHEDULE 6

KEY PERFORMANCE INDICATORS & REPORTING FORMATS

1. Key Performance Indicators

The Project SPV shall be responsible for meeting the following Key Performance Indicators (KPI) during the Term of the Project.

KPI	Minimum Prescribed Levels	Measurement/ Reporting Schedule	Responsibility for Measurement/ Reporting
Non-working Lamp-hours	< 2%	Daily & Monthly	Project SPV (CCMC)
Rectification of defective/ non-glowing lamps	< 48 hours (Supplied through feeder panels) < 72 hours (Single Drop Points)	Daily & Monthly	Project SPV (CCMC)

The measurement procedure for the above is described below.

2. Detailed Methodology & Formats

- a) The Project SPV shall be responsible for maintaining the LED Luminaires under the Project in good working condition and shall ensure the following during the Term of the Project:
 - i. Non-working lamp hours at the Project level shall be maintained within a limits of 2% (i.e. 98% availability);
 - ii. Repair, replace and cure all faults to ensure all reported and/ or identified defective and/ or non-glowing lamps are brought back to acceptable working conditions, meeting the criteria specified in the Technical Specifications. This shall be accomplished within a period of forty-eight (48) hours in case of Luminaires connected on switching points installed with feeder panels and seventy-two (72) hours in case of Single Drop Points from the time of identification or reporting of failure/ defect.
- b) The Project SPV shall, at its own cost & expense, put in place adequate measurement, communication and software systems for being able to appropriately record and generate reports from the CCMC on its performance on the above KPIs on a daily, weekly, monthly and annual basis.
- c) Additionally, the Project SPV shall, record and maintain the energy consumption, power outage, dimming hours, hour wise number of estimated functional luminaires, % uptime etc. based on the reports generated from the CCMC on a daily basis from the readings received from the individual street light controller equipment installed at each feeder panel.
- d) For calculation of non-working lamp hours, the hours/ duration of power outage from the source end of the responsible power distribution licensee shall be duly adjusted from the total number of applicable lamp-hours for any given Day, week, Month and year. Such power outages as recorded in the metering equipment installed at the feeder panel level only shall be considered for the purpose of calculation of non-working lamp hours due to power outage.

- e) For the purpose of measurement of performance on the KPI for rectification of defective/ non-glowing lamps, the Project SPV shall put in place adequate systems and processes for recording complaints and identification of non-glowing lamps including the following sources:
- i. Predictive identification of defective/ non-glowing lamps based on loading analysis at feeder panel level through software systems installed at CCMC;
 - ii. Complaints on non-glowing/ defective lamps as lodged by citizens/ general public;
 - iii. Any non-glowing/ defective lamp identified and reported by any official of the Authority;
 - iv. Defective/ non-glowing lamps as reported by Authority based on Lux Level and Illumination Ratio measurements, in accordance with terms of the SCHEDULE 9: POST PROJECT COD LUX LEVEL & ILLUMINATION RATIO MONITORING SCHEDULE ; and
 - v. Any other source that reports/ records existence of such non-glowing/ defective lamps to the Project SPV/ CCMC/ Call Center.

3. Reporting formats (minimum requirement)

Daily Non-Functional Points Report						
Report Date:						
Feeder Panel No./Name	Total Number of Luminaires as on Date (EOD)	Total Number of Non-Functional Luminaires as on previous Day (EOD)	Total Number of Non-Functional Luminaires as on date (EOD)	Number of Non-Functional Luminaires for the Day	Action Taken	Remarks

On the basis of above, the Project SPV shall submit Monthly Compliance to the Authority in the following formats along with the invoice to be submitted,

Feeder Panel No./Name	% non-functional lamp hours for a Feeder Panel	Remark

$$\% \text{ non – functional lamp hours for a Feeder Panle} = \frac{\text{Non Functional Lamp Hours}}{\text{Total No of Hours X No of Fixtures}}$$

SCHEDULE 7

LIQUIDATED DAMAGES

1) Delay Liquidated Damages

Subject to Article 14.1, in the event the Project SPV fails to achieve the Project COD by the Project SCOD for reasons other than those set out in Article 14.1, it shall pay liquidated damages (**Delay Liquidated Damages**) to the Authority as per the following. The payment of Delay Liquidated Damages shall be as per the provisions of Article 14.3 of this Agreement.

- a) For each week of delay beyond Project SCOD and up to a maximum of four (4) weeks, the Project SPV shall be liable to pay Authority, Delay Liquidated Damages of an amount equal to One Lakh Indian Rupees (INR. 1 lakh) for each week of delay.
- b) For every week further to delay as specified in a) above and up to a maximum of one hundred and twenty (120) Days beyond Project SCOD, the Project SPV shall be liable to pay Authority, Delay Liquidated Damages of an amount equal to Five (5) Lakh Indian Rupees (INR. 5 lakh) for each week.
- c) Any delay beyond one hundred and twenty (120) Days beyond Project SCOD, it shall be treated as Project SPV EOD and the Authority shall have the right to terminate this Agreement under Clause 22.1 and encash the Performance Security.

2) Performance Liquidated Damages

2.1 Liquidated Damages for Non- compliance with the standards set out in Schedule 6

- In the event that the O&M Services do not meet the standards set out in Schedule 6, then the Project SPV shall pay to the Authority liquidated damages in the following manner:

2.2 For Non-Compliance to Non-working Lamp Hours

In the event the Project SPV, in any given month, fails to achieve the minimum prescribed level of performance against the KPI on Non-working Lamp Hours, as specified in Schedule 6, it shall be liable to pay to the Authority an amount as determined through the following formula:

For every slippage of one per cent (1%) in non-functional lamp hours beyond the acceptable limit of two percent (2%), the Project SPV shall pay Authority an amount equivalent to three (3) percent of the value of monthly O&M Fees, in accordance with the following:

Penalty for non-compliance to Non - working lamp hours= 3 X % Slippage X Monthly O&M Fee Amount

In case the Project SPV fails to rectify the reported/ recorded faulty Luminaires and/ or other equipment supplied, installed and maintained by the Project SPV within seven (7) Days of the stipulated timeframe, Authority may proceed with such rectification and deduct the cost of such works from the payments due to the Project SPV.

The above considers 5 times penalty, on the Annual O&M Payment payable to the Project SPV by the Authority, for every percentage (%) slippage or part thereof in the Non-working Lamp Hours beyond the minimum specified level in any given month.

Such amount as calculated as per above shall be deducted by the Authority from the payments due to the Project SPV in the month following the month during which such non-compliance has occurred.

2.3 For Non-Compliance to KPI on Rectification of defective/ non-glowing lamps

In the event the Project SPV, in any given month, fails to achieve the minimum prescribed level of performance against the KPI on Rectification of each defective/ non-glowing lamp, as specified in Schedule 6, it shall be liable to pay to the Authority an amount as determined in accordance with the following:

- a) Rs. 500 for every Day of delay, for the first five (5) Days beyond the prescribed limit;
- b) Rs. 2,000 for every Day of delay, for all Days beyond that;

The Authority shall have the right to treat any delay in rectification of defective non-glowing lamps beyond 15 Days as an event of default.

Such amount as calculated as per above shall be deducted by the Authority from the payments due to the Project SPV in the month following the month during which such non-compliance has occurred.

SCHEDULE 8

NEW LIGHT PAYMENT PRICE SCHEDULE

Input

Equipment Rate		
Particulars	Description	Rate
Lamps		
LED120	INR per unit	10,491
LED90	INR per unit	8,097
LED60	INR per unit	4,174
LED45	INR per unit	3,712
LED25	INR per unit	2,542
Outreach arm	INR per unit	737
Timer	INR per unit	2,933
Misc- Base		
Pole Painting	INR per pole	90
Hydraulic Lift	INR per lift	810,000
Call Centre (Computer & Web Server)	INR	58,800
Misc- Automation		
Data Centre (Computer & Web Server)	INR	9,600
Software-Asset Management+Predictive	INR	192,000
Reconductoring	INR/km	39,600
Transformer	INR/KVA	10,800
Earthing		
Electrodes	INR per unit	1,020
String wire	INR/ string wire	378
GI Strip Length	INR/meter	13
Poles		
P1	INR/pole	18,600
P2	INR/pole	18,600
P-SPL	INR/pole	19,800
Feeder Panels	INR/panel	17,405
Cables for Greenfield installation (BBSR)		
C1	INR/meter	142
C2	INR/meter	113
C3	INR/meter	113

O&M Fee		
Particulars	Unit	Rate
O&M Fee per fixture per annum	INR/fixture	190

SCHEDULE 9

POST PROJECT COD LUX LEVEL & ILLUMINATION RATIO MONITORING SCHEDULE

The Authority shall have the right to undertake Lux Level and Illumination Ratio measurements at any time from post Project COD till the end of Term of this Agreement. The Project SPV shall be required to meet the minimum prescribed levels of Lux Level and Illumination Ratio specific to wattage of LED Luminaires with Road Type wise are as provided in Table 1 below, throughout the term of the Project:

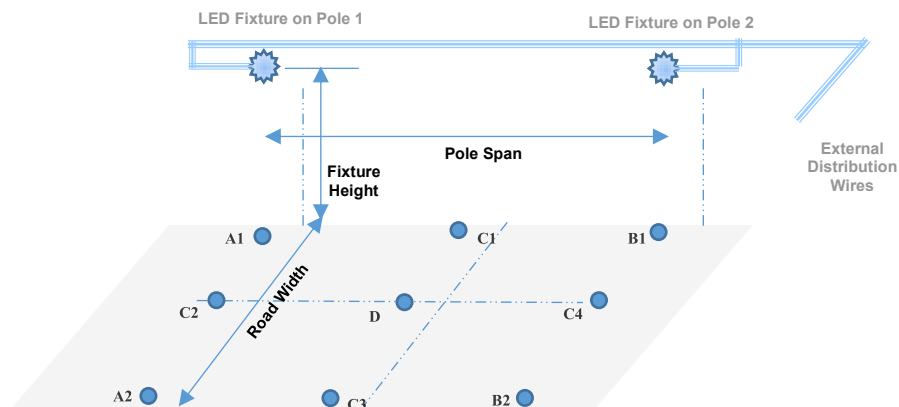
Table 1: Minimum Prescribed Lux Level & Illumination Ratio to be maintained throughout the Project Term

Road Type	Upper Limit of LED Rating (Watt)	Lux KPI (to be met by Project SPV Through Project Term)	Illumination Ratio (U_0) as KPI (to be met by Project SPV Through Project Term)
A2	120	23	0.4
B1	90	19	0.3
B2	60	10	0.3
C	45	9	0.3
C	25	6	0.3

Post Project COD, verification of Lux Level and Illumination Ratio of identified Street Lighting Points shall be undertaken as per the following:

- a) The Authority either by itself or through an independent agency shall be responsible for arranging requisite measuring equipment duly calibrated and certified from a recognized laboratory.
- b) Lux Level measurements shall be undertaken in accordance with the standard 9 point method. The method requires to choose a set of nine measurement points between two Street Lighting Points situated on the same side of the road and considering 3 number of measurement points in the longitudinal direction. Additional two measurement points are to be marked under each of the two Street Lighting Points while two similar measurement points are to be marked at the opposite side of the road as indicated in Figure 1 below.

Figure 1: Lux level measurement with Standard 9 Point method



As depicted above, the section of road between the Street Lighting Points is divided into four quadrants of equal size. The lux levels at four corners (9 measurement points) of each quadrant shall be measured. The lux value of each measurement point is evaluated to get the final value of average lux level based on following formula:

$$\text{Average Lux } (E_0) = \frac{A_1 + A_2 + B_1 + B_2}{16} + \frac{C_1 + C_2 + C_3 + C_4}{8} + \frac{D}{4}$$

In addition to average lux levels based on standard 9 point method, “uniformity values” shall also be evaluated to check whether it is within the minimum specified limits, based on following formula:

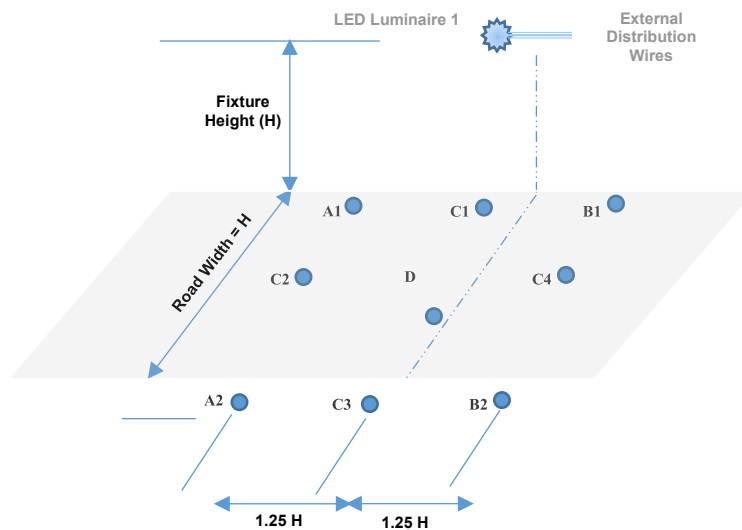
$$\text{Illumination Ratio } (U_0) = \frac{E_{min}}{E_{Avg}} = \frac{\min(A_1, A_2, B_1, B_2, C_1, C_2, C_3, C_4, D)}{\text{Average}(A_1, A_2, B_1, B_2, C_1, C_2, C_3, C_4, D)}$$

- c) In case of Single Drop Points as well as for stretches with non-uniform pole span and /or fixture height deviating from the standard parameters specified in Table 2 below, Lux Level measurements shall be undertaken in accordance with the modified 9 point method to choose a set of nine measurement points as illustrated in Figure 2 below.

Table 2: Standard Test Condition Parameters Specific to LED Luminaires

Road Type	Upper Limit of LED Rating (Watt)	Standard Parameters		
		Road Width (m)	Standard Fixture Height (m)	Standard Pole Span (m)
A2	120	9.5	9 to 10	30
B1	90	8.25	7.5 to 9	27
B2	60	8.25	7.5 to 9	24
C	45	7.5	<7.5	24
C	25	6	6	24

Figure 2: Lux level measurement with Modified 9 Point method



The average Lux Level (E_0) and Illumination ratio (U_0) is calculated as per formulae defined in clause d above.

It is clarified that as far as possible those stretches where standard 9 point methodology can be deployed shall be chosen for sample points lux level and illumination ratio KPIs. It is also clarified that the Project SPV shall be required to meet the same Lux Levels and Illumination Ratio targets, as specified in Table 1, irrespective of the methodology applied for Lux level measurement.

- d) The measurements shall be conducted after sunset. The lamps must be switched on at least thirty (30) minutes prior to the measurements to allow for the lamps to get warmed up;
- e) Stray light from the surrounding areas should be minimized at the time of measurements & the measurement height should be one (1) meter above the road surface;

The Project SPV shall ensure replacement of non-glowing and defective lamps including LED Luminaires giving lux level outputs & Illumination ratio below prescribed levels as indicated in Table 1 above within the timelines specified in Schedule 6 of this Agreement.

ANNEX 1

FORMAT OF THE AMENDMENT AGREEMENT

This AMENDMENT AGREEMENT is entered into on this _____ 2016.

AMONGST:

- (1) **Berhampur Municipal Corporation**, with its principal office at Berhampur- 760001, Odisha (hereinafter referred to as the **Authority**, which expression shall unless repugnant to the context or meaning thereof include its successors and permitted assigns);
- (2) [*Name of the Project SPV*], with its registered office at [●] (hereinafter referred to as the **Project SPV**, which expression shall unless repugnant to the context or meaning thereof include its successors and permitted assigns).

AND

- (3) **Energy Efficiency Services Limited**, with its registered office at 4th Floor, Sewa Bhawan, R. K. Puram, New Delhi, Delhi-110066, (hereinafter referred to as the **EESL**, which expression shall unless repugnant to the context or meaning thereof include its successors and permitted assigns).

The Authority, the Project SPV and EESL shall collectively be referred to as the **Parties** and individually as a **Party**.

WHEREAS:

- A. The Parties executed the Supply, Installation, Operation and Maintenance Agreement on [●] 2016 (**Agreement**) for developing an energy efficient public street lighting system in [*Insert name of the Project City*] on a public private partnership basis.
- B. The Joint Survey Team has conducted the Joint Survey in accordance with the guidelines set out at Schedule 5 of the Agreement. The Authority and the Project SPV have jointly prepared the Joint Survey Report, which has been approved by the Independent Engineer.
- C. In accordance with the Agreement, the Project SPV has submitted the Equipment Installation Plan which has been approved by the Independent Engineer.
- D. In terms of Clause 3.3 of the Agreement, Parties have now agreed to execute an amendment agreement to the Agreement to make the Joint Survey Report, and the Equipment Installation Plan part of the Agreement.

IT IS AGREED as follows:

1. **Amendments**

The following annexes attached to this Amendment Agreement shall be part of the Agreement:

- (a) Annex A (Joint Survey Report); and
- (b) Annex B (Equipment Installation Plan).

2. Miscellaneous

- (a) All capitalised terms used in this Amendment Agreement and not defined herein shall have the meanings ascribed to them in the Agreement.
- (b) This Amendment Agreement shall be deemed to be an "Amendment Agreement" as envisaged under Clause 3.3 of the Agreement.
- (c) All provisions of the Agreement are hereby incorporated in this Amendment Agreement by reference, *mutatis mutandis*, as though set out in full herein.
- (d) Pursuant to Clause 3.3 of the Agreement, this Amendment Agreement, once executed, shall be binding on the Parties with immediate effect.

IN WITNESS WHEREOF, THE PARTIES HERETO HAVE SET THEIR HANDS AND SEAL TO THESE PRESENTS ON THE DAY, MONTH & YEAR FIRST ABOVE WRITTEN IN PRESENCE OF THE FOLLOWING WITNESSES:

SIGNED, SEALED & DELIVERED

FOR AND ON BEHALF OF THE AUTHORITY

(Authorised Signatory)

FOR AND ON BEHALF OF THE PROJECT SPV

(Authorised Signatory)

FOR AND ON BEHALF OF EESL

(Authorised Signatory)

Witnesses:

- 1.
- 2.

ANNEX 2

FORMAT OF THE ESCROW AGREEMENT

(To be executed on appropriate stamp paper of appropriate value)

THIS ESCROW AGREEMENT (this **Escrow Agreement**) is entered into on [●] [2016] by and among:

1. **Berhampur Municipal Corporation**, with its principal office at Berhampur- 760001, Odisha (hereinafter referred to as the **Authority**, which expression shall unless repugnant to the context or meaning thereof include its successors and permitted assigns);
2. [*Name of the Project SPV*], with its registered office at [●] (hereinafter referred to as the **Project SPV**, which expression shall unless repugnant to the context or meaning thereof include its successors and permitted assigns); and
3. [●], a bank duly constituted in accordance with the laws of India and carrying on the business of banking in India as a scheduled commercial bank, with its registered office at [●] and acting for the purposes of this Escrow Agreement through its branch office at [●] (hereinafter referred to as **Escrow Agent**, which expression shall unless repugnant to the context or meaning thereof includes its successors and permitted assigns).

The Authority, the Project SPV and the Escrow Agent are referred to herein collectively as **Parties** and individually as **Party**.

WHEREAS:

- A. The Authority, the Project SPV and Energy Efficiency Services Limited executed the Supply, Installation, Operation and Maintenance Agreement on [●] (**SIOM Agreement**) for developing an energy efficient public street lighting system in the Project City on a public private partnership basis.
- B. As per the provisions of the SIOM Agreement, the Authority and the Project SPV are required to appoint an escrow agent and open an escrow account with such agent for making periodical payments to the Project SPV for implementing the Project.
- C. The escrow account shall be funded by the Authority in accordance with the terms of this Escrow Agreement and such account shall serve to secure the Authority's payment obligations towards the Project SPV under the SIOM Agreement.
- D. The Escrow Agent is willing to serve as an escrow agent in accordance with the terms and conditions of this Escrow Agreement.

NOW, THEREFORE, the Parties hereto agree as follows:

1. ESCROW ACCOUNT

1.1 Appointment

The Authority and the Project SPV hereby appoint the Escrow Agent to serve as the escrow agent for the purposes of this Escrow Agreement and the Escrow Agent hereby accepts this appointment.

1.2 Escrow Account

Within 5 Business Days of the date hereof, the Authority and the Escrow Agent shall establish an escrow bank account denominated in Indian Rupees for the benefit of the Project SPV (the **Escrow Account**).

1.3 Deposit and Payment

1.3.1 The Authority shall transfer the Capital Subsidy in the Escrow Account in accordance with the provisions of the SIOM Agreement.

1.3.2 The Authority shall at all times during the Term, fund the Escrow Account with an amount equivalent to Annuity Fee for 6 Months in relation to the Project Street Light Points.

(collectively referred to as **Escrow Amount**).

1.3.3 Within 10 Days of issue of Equipment Commissioning Certificate and the Project SPV issuing the Payment Statement to the Authority, whichever is later, in respect of installation of Equipment for the New Lights, the Authority shall issue written instructions to the Escrow Agent to release New Lights Capital Cost Payment to the Project SPV for the Equipment installed. Within 1 Business Day of receipt of such written instructions, the Escrow Agent shall release the amount mentioned therein to the Project SPV.

1.3.4. Within 3 Business Days from the receipt of a monthly Payment Statement, the Authority shall issue written instructions to the Escrow Agent to release 75% of the Annuity Fee and New Lights O&M Payment to the Project SPV for the relevant month. Within 1 Business Day of receipt of such written instructions, the Escrow Agent shall release the amount mentioned therein to the Project SPV.

1.3.5 Subject to Clause 1.3.6 below, the Authority shall, within 10 days from the acceptance of a monthly Payment Statement, issue written instructions to the Escrow Agent to release the balance 25% of the Annuity Fee and New Lights O&M Payment to the Project SPV for the relevant month. Within 1 Business Day of receipt of such written instructions, the Escrow Agent shall release the amount mentioned therein to the Project SPV.

1.3.6 If the Authority wishes to exercise its right to set-off any amount due to the Project SPV against any amounts due and payable from the Project SPV to the Authority from the remaining 25%, it shall issue written instructions accordingly to the Escrow Agent.

1.4 **Identification and Separation**

The Escrow Agent shall clearly identify in its records the Escrow Account as an escrow account and shall keep the funds standing to the credit of the Escrow Account separated and segregated from the Escrow Agent's own funds or funds of any of its other customers or third parties.

1.5 **Fees**

1.5.1 The Project SPV shall pay [Rs. [●] per annum] as fees to the Escrow Agent for the establishment and management of the Escrow Account. The Project SPV shall pay such fees to the Escrow Agent within 10 Business Days of receipt of an invoice from the Escrow Agent.

1.5.2 Any payment made by the Authority under this Escrow Agreement shall be made from the following account or from such other account which the Authority may designate from time to time:

Bank:

Account number:

BIC (SWIFT):

Address of Bank:

1.6 **Escrow Account Statements**

The Escrow Agent shall provide monthly statements regarding the Escrow Account to the Authority and the Project SPV.

2. **ESCROW AMOUNT**

2.1 Promptly upon the Escrow Amount being transferred to the Escrow Account, the Escrow Agent shall send to the Authority and the Project SPV a notice informing them of the transfer.

2.2 The Escrow Agent shall hold the Escrow Amount in escrow for the sole benefit of the Project SPV. The Escrow Agent shall not release any of the Escrow Amount to any person other than the Project SPV. In particular, the Escrow Agent shall not accept any requests for withdrawals or transfers of the Escrow Amount from the Authority for the benefit of the Authority or any third party, unless it is made in accordance with this Escrow Agreement.

2.3 The Escrow Agent shall not apply any right of set-off against the Escrow Amount, grant any lien over the Escrow Amount, or apply any fee or deduction in relation to the Escrow Amount.

3. **Expiry**

Upon the Transfer Date, the Authority shall send instructions to the Escrow Agent requesting it to release and transfer any due and payable amounts to the Project SPV and any remaining amounts to be transferred to the Authority.

4. OBLIGATIONS OF THE ESCROW AGENT

4.1 The obligations of the Escrow Agent under this Escrow Agreement are subject to the following terms:

- (a) the duties of the Escrow Agent are only as herein specifically provided, and are purely administrative in nature. Unless expressly provided in the Escrow Agreement, the Escrow Agent shall neither be liable for, nor chargeable with knowledge of, the terms and conditions of any other agreement, instrument or document in connection herewith, including, without limitation, the SIOM Agreement, and shall be required to act in respect of the Escrow Amount only as provided in this Escrow Agreement. This Escrow Agreement sets forth all the obligations of the Escrow Agent with respect to any and all matters pertinent to the Escrow Account contemplated hereunder and no additional obligations of the Escrow Agent shall be implied from the terms of any other agreement. The Escrow Agent shall incur no liability in connection with the discharge of its obligations under this Escrow Agreement or in connection therewith, except such liability as may arise from the Escrow Agent's negligence, wilful misconduct or otherwise from any breach of this Escrow Agreement. Such liability, however, shall not exceed the amount of the Escrow Amount outstanding at the date of the said breach by the Escrow Agent;
- (b) the Escrow Agent shall not be required to perform any acts which will violate any Applicable Laws; and
- (c) in the event of any bankruptcy proceedings or enforcement proceedings against any of the Parties pursuant to applicable laws or regulations, the Escrow Agent shall, notwithstanding the provisions of this Escrow Agreement, act and perform in accordance with Applicable Laws.

5. REPRESENTATIONS AND WARRANTIES

Each Party represents and warrants that, as of the date hereof and in the foreseeable future,:

- (a) it has the authority to enter into this Escrow Agreement;
- (b) this Escrow Agreement constitutes a legally valid and binding obligation, enforceable against it in accordance with its terms;
- (c) its entry into and/or performance under this Escrow Agreement will not be in breach of any express or implied terms of any contract with or other obligation to any third party; and
- (d) it is solvent and able to perform all of its obligations under this Escrow Agreement.

6. MISCELLANEOUS

6.1 Definitions

Unless otherwise defined herein, all capitalised terms shall have the meaning ascribed to them in the Agreement.

6.2 Notices

Any notice or other communication to be given or made under this Escrow Agreement to the Parties shall be in writing. Except as otherwise provided in this Escrow Agreement, such notice, request or other communication shall be delivered by registered mail or facsimile to the Party(ies) at the following addresses:

Authority: [●]

Project SPV: [●]

Escrow Agent: [●]

6.3 Entire Agreement

This Escrow Agreement constitutes the entire agreement and understanding between the Parties with respect to its subject matter (i.e. escrow arrangement) and replaces and supersedes all prior agreements, arrangements, undertakings or statements regarding such subject matter.

6.4 Amendments

No variation of or amendment to this Escrow Agreement shall be effective unless made in writing and executed by all the Parties hereto.

6.5 Assignment

Neither this Escrow Agreement nor any of the rights or obligations hereunder may be assigned by a Party without the prior written consent of the other Parties.

6.6 Severability

Whenever possible, each provision of this Escrow Agreement shall be interpreted in such a way as to be effective and valid under law, but if any provision of this Escrow Agreement is unenforceable or invalid under law, such provision shall be ineffective only to the extent of such unenforceability or invalidity, and the remaining provisions of this Escrow Agreement shall continue to be binding and in full force and effect.

6.7 Confidentiality

Unless otherwise determined by a competent jurisdiction, the Parties, their employees, representatives and agents shall keep the provisions of this Escrow Agreement strictly confidential and, except as may be required by Applicable Laws, shall make no disclosure thereof to any person, except the Parties' respective legal counsel and professional advisers, without the prior written consent of the other Parties.

6.8 Termination

This Escrow Agreement shall be automatically terminated upon the expiry of the Term of the Agreement. It may also be terminated earlier if the Authority, Project SPV and EESL agree to terminate the Escrow Agreement and send a termination notice to the Escrow Agent.

6.9 Dispute Resolution Mechanism

6.9.1 This Escrow Agreement shall be governed by and construed in accordance with the laws of India.

6.9.2 If any dispute arises out of or in connection with this Escrow Agreement, this dispute shall not affect the Parties' duty to continue the performance of all of their non-disputed obligations.

6.9.3 If any dispute arises, either Party shall give notice to the other Parties of the same, whereupon the Parties shall meet promptly and in a good faith to attempt to reach an amicable settlement.

6.9.4 All disputes not settled amicably pursuant to Clause 6.9.3 above shall be heard by the High Courts of Bhubaneswar.

IN WITNESS WHEREOF, THE PARTIES HERETO HAVE SET THEIR HANDS AND SEAL TO THESE PRESENTS ON THE DAY, MONTH & YEAR FIRST ABOVE WRITTEN IN PRESENCE OF THE FOLLOWING WITNESSES:

SIGNED, SEALED & DELIVERED

FOR AND ON BEHALF OF THE AUTHORITY

(Authorised Signatory)

FOR AND ON BEHALF OF THE PROJECT SPV

(Authorised Signatory)

Witnesses:

1.

2.

ANNEX 3

FORMAT OF THE PERFORMANCE BANK GUARANTEE (To be executed on appropriate stamp paper of appropriate value)

Bank Guarantee No. [●]

THIS DEED OF GUARANTEE is executed on this [*insert date*] day of [*insert month and year*] at [*insert place*] by [*insert name of bank*] having its head/registered office at [*insert address*], (hereinafter referred to as the "**Guarantor**", which expression shall unless repugnant to the subject or context thereof include its successors, assigns and permitted substitutes);

IN FAVOUR OF:

Berhampur Municipal Corporation, with its principal office at Berhampur- 760001, Odisha (hereinafter referred to as the **Authority**, which expression shall unless repugnant to the context or meaning thereof include its successors and permitted assigns).

WHEREAS

- A. The Authority has entered into a Supply, Installation, Operation and Maintenance Agreement dated [*insert date*] (the "**Agreement**") with [*Name of the Project SPV*], with its registered office at [*Registered office address*] (hereinafter referred to as the **Project SPV**, which expression shall unless repugnant to the context or meaning thereof includes its successors and permitted assigns).
- B. In terms of Clause 12 of the Agreement, the Project SPV is required to furnish to the Authority, an unconditional, irrevocable, on demand bank guarantee for an amount of Rs. 95,00,000 (Rupees ninety five lakhs) as security for due performance of its obligations under the Agreement during the commencing from the date of this guarantee until the Transfer Date (**Guarantee Term**), including any amounts due and payable by it to Delay Liquidated Damages or Performance Liquidated Damages that it is liable to pay under the Agreement.
- C. At the request of the Project SPV and for sufficient consideration, the Guarantor has agreed to provide an unconditional, irrevocable and on-demand bank guarantee for the due and punctual performance/discharge by the Project SPV of its obligations under the Agreement during the Term, including any Delay Liquidated Damages or Performance Liquidated Damages that the Project SPV is liable to pay under the Agreement.

NOW THEREFORE THIS DEED WITNESSETH AS FOLLOWS:

1. Capitalised terms used herein but not defined shall have the meaning ascribed to them in the Agreement.
2. The Guarantor hereby irrevocably and unconditionally guarantees and secures, as primary obligor and not merely as guarantor, to the Authority, the payment in full of all amounts at any time that may be due, owing or payable to the Authority from the Project SPV for the failure of the Project SPV to duly and punctually perform all of its obligations under the Agreement during the Guarantee Term ("**Guarantee**"), without any demur, reservation,

protest or recourse, immediately on receipt of a demand from the Authority.

The Guarantee is given on consideration received from the Project SPV (the receipt and sufficiency of which is hereby acknowledged).

The Guarantor agrees that the value of the Guarantee shall at all times be maintained at the amount of Rs. 95,00,000 (Rupees ninety five lakhs) ("**Guaranteed Amount**").

The Guarantor further agrees that this Guarantee does not limit the number of claims that may be made by the Authority against the Guarantor. Upon a payment being made under this Guarantee, the amount of the Guarantee shall automatically be replenished to the full Guaranteed Amount.

Any payment made hereunder shall be made free and clear of and without deduction for, or on account of, any present or future Taxes, deductions or withholdings of any nature whatsoever and by whomsoever imposed, and where any withholding on a payment is required by any Applicable Law, the Guarantor shall comply with such withholding obligations and shall pay such additional amount in respect of such payment such that the Authority receives the full amount due hereunder as if no such withholding had occurred.

3. The Guarantor shall not go into the veracity of any breach or failure on the part of the Project SPV or validity of demand so made by the Authority and shall pay the amount specified in the demand notwithstanding any direction to the contrary given or any dispute whatsoever raised by the Project SPV or any other Person. The Guarantor's obligations hereunder shall subsist until all such demands are duly met and discharged in accordance with the provision hereof.
4. The obligations of the Guarantor herein are absolute and unconditional, irrespective of the value, genuineness, validity, regularity or enforceability of the Agreement or the insolvency, bankruptcy, re-organisation, dissolution or liquidation of the Project SPV or any change in ownership of the Project SPV or any purported assignment by the Project SPV or any other circumstance whatsoever which might otherwise constitute a discharge or defence of a guarantor or a surety.

Further, this Guarantee is in no way conditional upon any requirement that the Authority shall first attempt to procure the Guaranteed Amount from the Project SPV or any other Person, or resort to any other means of obtaining payment of the Guaranteed Amount.

5. In order to give effect to this Guarantee, the Authority shall be entitled to treat the Guarantor as the principal debtor. The obligations of the Guarantor under this Guarantee shall not be affected by any act, omission, matter or thing which, but for this provision, would reduce, release or prejudice the Guarantor from any of the Guaranteed Amount or prejudice or diminish the Guaranteed Amount in whole or in part, including, whether or not known to it, or to the Authority:
 - (a) any time or waiver granted to, or composition with, the Project SPV or any other Person;
 - (b) any incapacity or lack of powers, authority or legal personality of or dissolutions or change in the status of the Project SPV or any other Person;

- (c) any variation of the Agreement so that references to the Agreement in this Guarantee shall include each variation;
 - (d) any unenforceability, illegality or invalidity of any obligation of any Person under the Agreement or any unenforceability, illegality or invalidity of the obligations of the Guarantor under this Guarantee or the unenforceability, illegality or invalidity of the obligations of any Person under any other document or Guarantee, to the extent that each obligation under this Guarantee shall remain in full force as a separate, continuing and primary obligation, and its obligations be construed accordingly, as if there were no unenforceability, illegality or invalidity;
 - (e) the partial or entire release of any Guarantor or other Person primarily or secondarily liable or responsible for the performance, payment or observance of any of the Project SPV's obligations during the Term; or by any extension, waiver, or amendment whatsoever which may release a guarantor or Guarantor, other than performance or indefeasible payment of a Guaranteed Amount; or
 - (f) any part performance of the Agreement by the Project SPV or by any failure by the Authority to timely pay or perform any of its obligations under the Agreement.
6. If, and to the extent that for any reason the Project SPV enters or threatens to enter into any proceedings in bankruptcy or re-organisation or otherwise, or if, for any other reason whatsoever, the performance or payment by the Project SPV of the Guaranteed Amount becomes or may reasonably be expected to become impossible, then the Guaranteed Amount shall be promptly paid by the Guarantor to the Authority on demand.
7. So long as any amount is due from the Project SPV to the Authority, the Guarantor shall not exercise any right of subrogation or any other rights of a guarantor or enforce any guarantee or other right or claim against the Project SPV, whether in respect of its liability under this Guarantee or otherwise, or claim in the insolvency or liquidation of the Project SPV or any such other Person in competition with the Authority. If the Guarantor receives any payment or benefit in breach of this Clause 7, it shall hold the same upon trust for the Authority.
8. This Guarantee shall remain in full force and effect from the date hereof until the Transfer Date.

Notwithstanding the foregoing, this Guarantee shall continue in effect until the sums payable under this Guarantee have been indefeasibly paid in full and the Guarantor receives written notice thereof from the Authority, such notice to be issued promptly upon such occurrence.

9. The Guarantor represents and warrants to the Authority that:
- (a) it has the power to execute, deliver and perform the terms and provisions of this Guarantee and has taken all necessary action to authorise the execution, delivery and performance by it of this Guarantee;
 - (b) the Guarantor has duly executed and delivered this Guarantee, and this Guarantee constitutes its legal, valid and binding obligation enforceable in accordance with its terms except as the enforceability thereof may be limited by applicable bankruptcy, insolvency, moratorium or other similar laws affecting the enforcement of creditors'

rights generally and by general equitable principles;

- (c) neither the execution, delivery or performance by the Guarantor of this Guarantee, nor compliance by it with the terms and provisions hereof will: (i) contravene any material provision of any Applicable Law; (ii) conflict or be inconsistent with or result in any breach of any of the material terms, covenants, conditions or provisions of, or constitute a default under any agreement, contract or instrument to which the Guarantor is a party of by which it or any of its property or assets is bound; or (iii) violate any provision of the Guarantor's constituent documents;
- (d) no order, consent, approval, license, authorisation or validation of, or filing, recording or registration with, except as have been obtained or made prior to the date hereof, or exemption by, any governmental or public body or authority, or any subdivision thereof, is required to authorise, or is required in connection with: (i) the execution, delivery and performance of this Guarantee; or (ii) the legality, validity, binding effect or enforceability of this Guarantee; and
- (e) this Guarantee will be enforceable when presented for payment to the Guarantor's branch in Bhubaneswar , the details of which are given below:

Bank Name: IDBI Bank

Branch Name: Central clearing unit, Bhubaneswar

IFSC Code / MICR Code / Branch Code: IBKL0000952 / 751259001 / 000952

Address: CCU- IDBI House, 2nd floor, Janpath Unit IX, Bhubaneswar, PIN – 751022
(District: Khurda)

Contact: 07873078108, 09776281849.

- 10. This Guarantee is a continuing one and all liabilities to which it applies or may apply under the terms hereof shall be conclusively presumed to have been created in reliance hereon. No failure or delay on the part of the Authority in exercising any right, power or privilege hereunder and no course of dealing between the Authority and the Guarantor, or the Project SPV, shall operate as a waiver thereof, nor shall any single or partial exercise of any right, power or privilege hereunder preclude any other or further exercise thereof or the exercise of any other right, power or privilege.
- 11. The rights, powers and remedies expressly provided in this Guarantee are cumulative and not exclusive of any rights, powers or remedies which the Authority would otherwise have. No notice to or demand on the Guarantor in any case shall entitle the Guarantor to any other further notice or demand in similar or other circumstances or constitute a waiver of the rights of the Authority to any other or further action in any circumstances without notice or demand.
- 12. If any one or more of the provisions contained in this Guarantee are or become invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby, and the Guarantor shall enter into good faith negotiations with the Authority to replace the invalid, illegal or unenforceable provision.
- 13. The Guarantor hereby agrees to execute and deliver all such instruments and take all such actions as may be necessary to make effective fully the purposes of this Guarantee.

14. This Guarantee may be executed in one or more duplicate counterparts, and when executed and delivered by the Guarantor and the Authority shall constitute a single binding agreement.
15. The Authority may assign or transfer all or any part of its interest herein to any other person with prior written notice to the Guarantor. The Guarantor shall not assign or transfer any of its rights or obligations under this Guarantee.
16. All documents arising out of or in connection with this Guarantee shall be served:
 - (a) upon the Authority, at [*insert address*]; and
 - (b) upon the Guarantor, at [*insert address*].
17. Any demand, notice or communication would have been deemed to have been duly served:
 - (a) if delivered by hand, when left at the proper address of services; and
 - (b) if given or made by pre-paid registered post or facsimile, when received.
18. Either party may change the above address by prior written notice to the other party.
19. This Guarantee shall be governed by, and construed in accordance with, the laws of India. The Guarantor irrevocably agrees that any dispute arising out of or relating to this Guarantee will be adjudicated in accordance with the provision of the Arbitration and Conciliation Act, 1996.

IN WITNESS WHEREOF the Guarantor has set its hands hereunto on the Day, Month and year first hereinabove written.

Signed and delivered by [*insert name of Bank*] Bank by hand

Of Mr. [*insert name of signatory*]
its [*insert designation*] and duly authorised representative
authorised by [Power of Attorney dated [*insert date*]] OR [Board resolution dated [*insert date*]].

ANNEX 4

FORMAT OF THE VESTING CERTIFICATE

With respect to the Supply, Installation, Operation and Maintenance Agreement dated [●] executed between [*Insert designation of the official signing the SIOM Agreement*], Berhampur Municipal Corporation (**Authority**), Energy Efficiency Services Limited (**EESL**) and [*Insert name of the Project SPV*] (the **Project SPV**) for the implementation of energy efficient public lighting system in [*Insert name of the Project City*] hereby acknowledges:

- (a) compliance and fulfilment by the Project SPV of its obligations set out in Clause 26.2;
- (b) receipt of actual possession of the Project from the Project SPV; and
- (c) receipt from the Project SPV of a certificate confirming that there are no liens or encumbrances whatsoever on the Project,

on the basis that upon the issue of this Vesting Certificate, the Authority shall be deemed to have acquired, and all title and interest of the Project SPV in or about the Project shall be deemed to have vested, unto the Authority free from all Encumbrances.

Notwithstanding anything to the contrary contained hereinabove it shall be a condition of this Vesting Certificate that in the event of any defect or efficiency in any of the transfer requirements set forth in Clause 25.2 of the Agreement being found or discovered at any time hereafter, nothing contained in this Vesting Certificate shall be construed or interpreted as waiving the obligation of the Project SPV to rectify and remedy the same and/or relieving the Project SPV in any manner of the same.

Agreed and accepted

For the Project SPV

For Authority

By:.....
Name:
Title:
Dated:

By:.....
Name:
Title:
Dated:

For EESL

By:.....
Name:
Title:
Dated:

ANNEX 5

FORMAT OF THE PAYMENT STATEMENT

(To be issued by the Project SPV on its letterhead)

From

Date: [insert date]

[Name of the Authorized Signatory]

[insert designation]

[Name of Project SPV]

[Address of Project SPV]

To

The Commissioner

[Name of Municipal Corporation]

[Address of Municipal Corporation]

Sr. No.	Payment Particular	Milestone & Evidence#	Amount (INR)
1.	Capital Subsidy* (Equipment Commissioning certificate for Phase COD to be attached)		
2.	Annuity Fee**		
3.	New Lights Payment		
	New Light Capital Cost Payment		
	New Light O&M Payment		
	Total		

Note:

***Capital Subsidy** is payable on completion of each Phase (i.e. 25% of Project Street Light Points)
#Project SPV to insert the respective milestone & evidence, as applicable

Yours faithfully,

(Signature, name and designation of the Authorised Signatory)

Dated this [insert date] day of [insert month] 2016

Seal of the Project SPV

Place: