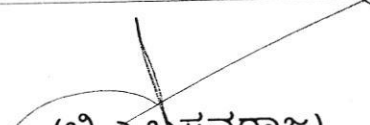


**ಕರ್ನಾಟಕ ವಿಧಾನ ಪರಿಷತ್ತು**

ಚುಕ್ಕೆ ಗುರುತಿಲ್ಲದ ಪ್ರಶ್ನೆ ಸಂಖ್ಯೆ : 113(100)  
 ಸದಸ್ಯರ ಹೆಸರು : ಶ್ರೀ ಕೆ.ಎ.ತಿಪ್ಪೇಸ್ವಾಮಿ (ನಾಮನಿರ್ದೇಶನ ಹೊಂದಿದವರು)  
 ಉತ್ತರಿಸಬೇಕಾದ ದಿನಾಂಕ : 12-09-2022  
 ಉತ್ತರಿಸುವ ಸಚಿವರು : ನಗರಾಭಿವೃದ್ಧಿ ಸಚಿವರು

ಕ್ರ. ಸಂ	ಪ್ರಶ್ನೆ	ಉತ್ತರ
ಅ)	ರಾಜ್ಯದಲ್ಲಿ ಕೇಂದ್ರ ಸರ್ಕಾರದ ರಾಷ್ಟ್ರೀಯ ಬೀದಿ ದೀಪ ಕಾರ್ಯಕ್ರಮವನ್ನು ಯಾವ ಯಾವ ನಗರ ಸ್ಥಳೀಯ ಸಂಸ್ಥೆಗಳಲ್ಲಿ ಮತ್ತು ಪಂಚಾಯತ್ ರಾಜ್ ಸಂಸ್ಥೆಗಳಲ್ಲಿ ಅನುಷ್ಠಾನಗೊಳಿಸಲಾಗುತ್ತಿದೆ ಮತ್ತು ಈ ಯೋಜನೆಯ ರೂಪು-ರೇಷೆಗಳು ಯಾವುವು;	<p>ಸರ್ಕಾರದ ಆದೇಶ ಸಂಖ್ಯೆ: ನಅಇ 550 ಪಿ.ಆರ್.ಜೆ 2017, ದಿನಾಂಕ:15.03.2018 ರನ್ವಯ ರಾಜ್ಯದ ಎಲ್ಲಾ ನಗರ ಸ್ಥಳೀಯ ಸಂಸ್ಥೆಗಳ ವ್ಯಾಪ್ತಿಯಲ್ಲಿ ಹಾಲಿ ಇರುವ ಸಾಂಪ್ರದಾಯಿಕ ಬೀದಿ ದೀಪಗಳನ್ನು ಬದಲಿಸಿ ಕೇಂದ್ರೀಕೃತ ಚಾಲನೆ ಮತ್ತು ನಿರ್ವಹಣೆಯುಳ್ಳ ಎಲ್.ಇ.ಡಿ. ಬೀದಿ ದೀಪಗಳನ್ನು ಪಿ.ಪಿ.ಪಿ. ಮಾದರಿಯಲ್ಲಿ ಅಳವಡಿಸುವ ಯೋಜನೆಯು ಪ್ರಗತಿಯಲ್ಲಿರುತ್ತದೆ. ಸದರಿ ಯೋಜನೆಯ ರೂಪು-ರೇಷೆಗಳನ್ನು <b>ಅನುಬಂಧ-1</b> ರಲ್ಲಿ ನೀಡಿದೆ.</p> <p>ರಾಷ್ಟ್ರೀಯ ಬೀದಿ ದೀಪ ಕಾರ್ಯಕ್ರಮವನ್ನು ಗ್ರಾಮೀಣಾಭಿವೃದ್ಧಿ ಮತ್ತು ಪಂಚಾಯತ್ ರಾಜ್ ಇಲಾಖೆಯಿಂದ ಪಂಚಾಯತ್ ರಾಜ್ ಸಂಸ್ಥೆಗಳಲ್ಲಿ ಅನುಷ್ಠಾನಗೊಳಿಸಿರುವುದಿಲ್ಲ.</p>
ಆ)	ರಾಜ್ಯದಲ್ಲಿ ಈ ಕಾರ್ಯಕ್ರಮವನ್ನು ಅನುಷ್ಠಾನಗೊಳಿಸಲು ಕೇಂದ್ರ ಮತ್ತು ರಾಜ್ಯ ಸರ್ಕಾರಗಳು ಗುರುತಿಸಿ, ನಿಯೋಜಿಸಿರುವ ಸಂಸ್ಥೆಗಳು ಯಾವುವು; ಈ ಸಂಸ್ಥೆಗಳು ಸಂಬಂಧಿಸಿದ ನಗರ ಸ್ಥಳೀಯ ಸಂಸ್ಥೆಗಳು ಮತ್ತು ಪಂಚಾಯತ್ ರಾಜ್ ಸಂಸ್ಥೆಗಳೊಂದಿಗೆ ಒಡಂಬಡಿಕೆ ಮಾಡಿಕೊಂಡಿವೆಯೇ; ಹಾಗಿದ್ದಲ್ಲಿ, ಪೂರ್ಣ ವಿವರ ನೀಡುವುದು;	<p>ಸದರಿ ಯೋಜನೆಯನ್ನು ಅನುಷ್ಠಾನಗೊಳಿಸಲು ಮಹಾನಗರಪಾಲಿಕೆಗಳಲ್ಲಿ ಆಯುಕ್ತರು ಹಾಗೂ ಜಿಲ್ಲೆಯ ಉಳಿದ ಎಲ್ಲಾ ನಗರ ಸ್ಥಳೀಯ ಸಂಸ್ಥೆಗಳನ್ನು ಒಳಗೊಂಡಂತೆ ಜಿಲ್ಲಾ ಮಟ್ಟದಲ್ಲಿ ಜಿಲ್ಲಾಧಿಕಾರಿಗಳನ್ನು ಟೆಂಡರ್ ಆಹ್ವಾನಿಸುವ ಪ್ರಾಧಿಕಾರವನ್ನಾಗಿ ನೇಮಿಸಲಾಗಿರುತ್ತದೆ. ರಾಜ್ಯದ ವಿವಿಧ ನಗರ ಸ್ಥಳೀಯ ಸಂಸ್ಥೆಗಳಲ್ಲಿ ಸದರಿ ಯೋಜನೆಯ ಪ್ರಗತಿಯ ವಿವರಗಳನ್ನು <b>ಅನುಬಂಧ-2</b> ರಲ್ಲಿ ನೀಡಿದೆ.</p> <p>ರಾಷ್ಟ್ರೀಯ ಬೀದಿ ದೀಪ ಕಾರ್ಯಕ್ರಮವನ್ನು ಗ್ರಾಮೀಣಾಭಿವೃದ್ಧಿ ಮತ್ತು ಪಂಚಾಯತ್ ರಾಜ್ ಇಲಾಖೆಯಿಂದ ಪಂಚಾಯತ್ ರಾಜ್ ಸಂಸ್ಥೆಗಳಲ್ಲಿ ಅನುಷ್ಠಾನಗೊಳಿಸಿರುವುದಿಲ್ಲ.</p>
ಇ)	ರಾಜ್ಯ ಸರ್ಕಾರಕ್ಕೆ ಈ ಯೋಜನೆ ಅಡಿಯಲ್ಲಿ ಇದುವರೆಗೂ ಕೇಂದ್ರ ಸರ್ಕಾರದಿಂದ ಸಂದಾಯವಾಗಿರುವ ಆರ್ಥಿಕ ಮತ್ತು ಇತರೆ ಸೌಲಭ್ಯಗಳು ಯಾವುವು? (ಪೂರ್ಣ ಮಾಹಿತಿ ನೀಡುವುದು)	<p>ಸದರಿ ಯೋಜನೆಯು ಸಾರ್ವಜನಿಕ-ಖಾಸಗಿ ಸಹಭಾಗಿತ್ವದಡಿಯಲ್ಲಿ ಅನುಷ್ಠಾನಗೊಳಿಸಲಾಗುವುದರಿಂದ ಟೆಂಡರ್ ಮೂಲಕ ಆಯ್ಕೆಯಾಗುವ ಪಿ.ಪಿ.ಪಿ. ರಿಯಾಯಿತಿಧಾರರಿಂದಲೇ ಬಂಡವಾಳ ಮತ್ತು ನಿರ್ವಹಣೆಯ ವೆಚ್ಚವನ್ನು ಭರಿಸುವುದರಿಂದ ಇಂಥನ ಉಳಿತಾಯದಿಂದಲೇ ಸಮಾನ ಮಾಸಿಕ ಕಂತಿನ ಮೂಲಕ ಇಎಂಐ ಪಾವತಿಯಾಗುವುದರಿಂದ ನಗರ ಸ್ಥಳೀಯ ಸಂಸ್ಥೆಗಳಿಗೆ ಯಾವುದೇ ಆರ್ಥಿಕ ಹೊರೆಯಾಗುವುದಿಲ್ಲ.</p> <p>ಈ ಯೋಜನೆಗೆ ಕೇಂದ್ರ ಸರ್ಕಾರದಿಂದ ಯಾವುದೇ ಆರ್ಥಿಕ ನೆರವು ಇರುವುದಿಲ್ಲ.</p>

ಸಂಖ್ಯೆ:ನಅಇ 136 ಸಿಎಸ್‌ಎಸ್ 2022

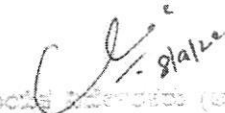
  
**(ಬಿ.ವಿ.ಬಸವರಾಜ)**  
 ನಗರಾಭಿವೃದ್ಧಿ ಸಚಿವರು  
 (ಬಿ.ವಿ.ಬಸವರಾಜ)  
 ನಗರಾಭಿವೃದ್ಧಿ ಸಚಿವರು

ಅನುಬಂಧ-1

ರಾಜ್ಯದ ಎಲ್ಲಾ ನಗರ ಸ್ಥಳೀಯ ಸಂಸ್ಥೆಗಳಲ್ಲಿ ಇಂಧನ ಕ್ಷಮತೆಯ ಎಲ್.ಇ.ಡಿ. ದೀಪಗಳನ್ನು ಪಿ.ಪಿ.ಪಿ ಮಾದರಿಯಲ್ಲಿ ಅಳವಡಿಸುವ ಯೋಜನೆಯ ರೂಪು-ರೇಷೆಗಳು

Ref: GO: UDD 550 PRJ 2017 Bengaluru, Dated 15-03-2018


- ಹಾಲಿ ಇರುವ ಸಾಂಪ್ರದಾಯಿಕ ವಿದ್ಯುತ್ ಬೀದಿ ದೀಪಗಳನ್ನು ಬದಲಿಸಿ Centralised Control and Monitoring System (CCMS) ನಿರ್ವಹಿತ ಉತ್ತಮ ಇಂಧನ ಕ್ಷಮತೆಯ ಎಲ್.ಇ.ಡಿ. ದೀಪಗಳನ್ನು ಪಿ.ಪಿ.ಪಿ ಮಾದರಿಯಲ್ಲಿ ಅಳವಡಿಸುವುದು.
- ಯೋಜನಾ ಅವಧಿ: ಅನುಷ್ಠಾನ-8 ತಿಂಗಳು; ಚಾಲನೆ ಮತ್ತು ನಿರ್ವಹಣೆ-7 ವರ್ಷಗಳು
- ವಿದ್ಯುತ್ ಬಳಕೆಯಲ್ಲಿ ಅಂದಾಜು ಉಳಿತಾಯ: 45% - 55%.
- ಹಾಲಿ ಇರುವ ಬೀದಿ ದೀಪಗಳ Baseline Survey ಯನ್ನು ಮಾಡಲು ಎಲ್ಲಾ ಮಹಾನಗರ ಪಾಲಿಕೆ ಹಾಗೂ ನಗರಾಭಿವೃದ್ಧಿಕೋಶಗಳಲ್ಲಿ Transaction Adviser ಅನ್ನು ನೇಮಕ ಮಾಡುವುದು.
- ಟೆಂಡರ್ ಪ್ರಕ್ರಿಯೆಯಲ್ಲಿ ಬದಲಾಯಿಸಿದ ಹಳೆಯ ಬೀದಿ ದೀಪಗಳನ್ನು ಕೊಳ್ಳಲು Buy-Back ವ್ಯವಸ್ಥೆ.
- ಈ ಯೋಜನೆಯನ್ನು ಎರಡು ಹಂತಗಳಲ್ಲಿ ಮಾಡಲಾಗುವುದು:-
  - ಅ) Cluster 1: 6 ಸ್ಮಾರ್ಟ್ ಸಿಟಿಗಳು (KUIDFC)
  - ಆ) Cluster 2: 4 ಮಹಾನಗರಪಾಲಿಕೆಗಳು ಮತ್ತು 31 ನಗರಾಭಿವೃದ್ಧಿಕೋಶಗಳು (BBMP ಹೊರತುಪಡಿಸಿ)
- Independent Chartered Engineer ಮೇಲ್ವಿಚಾರಣೆಯಲ್ಲಿ ಮುಂದಿನ 7 ವರ್ಷಗಳ ಕಾಲ ಚಾಲನೆ ಮತ್ತು ನಿರ್ವಹಣೆ.
- ಯೋಜನೆಯ ಸಂಪೂರ್ಣ ವೆಚ್ಚವನ್ನು ಪಿ.ಪಿ.ಪಿ ರಿಯಾಯಿತಿದಾರರಿಂದ ಭರಿಸಲಾಗುವುದರಿಂದ ಸರ್ಕಾರದ ಬೊಕ್ಕಸಕ್ಕೆ ಯಾವುದೇ ಆರ್ಥಿಕ ಹೊರೆ ಇರುವುದಿಲ್ಲ.
- ಪಿ.ಪಿ.ಪಿ ರಿಯಾಯಿತಿದಾರರಿಗೆ ಯೋಜನೆಯ ಅನುಷ್ಠಾನದಿಂದ ಸಾಧಿಸಿದ ಇಂಧನ ಉಳಿತಾಯದಿಂದಲೇ EMI ವಿಧಾನದಲ್ಲಿ ಪಾವತಿಸಲಾಗುವುದು.

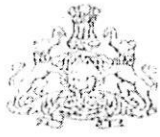
  
 ಸಹಾಯಕ ನಿರ್ದೇಶಕರು (ಅನುಬಂಧ) /  
 ಪರಿಶೀಲನಾ ನಿರ್ದೇಶಕರು /  
 ಬೆಂಗಳೂರು

**Annexure - 2****Status of LED CCMS Project (Other than Smart Cities)**

SI No	District / Corporation	% Savings	Status
<b>City Corporation</b>			
1	Mysuru	58.77	Concession agreement signed on 31.08.2021. Project under progress
2	Ballari	51.44	Technical Bid Approved. Financial bid to be opened.
3	Kalaburgi	64.92	Financial Bid Approved. Agreement to be signed.
4	Vijayapura	62.5	Technical Bids are under evaluation at corporation level
<b>Districts</b>			
1	Tumkur	61.46	Financial Bid Approved. Agreement to be signed.
2	Kolar	66.05	Financial Bid to be approved after negotiation
3	Vijayapura	55.96	To be Retendered
4	Chitradurga	69.29	
5	Haveri	56.68	
6	Bagalkote	58.80	
7	Mysuru	58.15	
8	Yadgiri	59.46	
9	Chikkamagaluru	63.05	Technical Bids Approved. Financial bid to be opened.
10	Kalaburgi	60.20	
11	Uttara Kannada	59.56	
12	Ramanagara	57.67	
13	Raichur	63.74	
14	Mandya	70.69	
15	Ballari	47.95	
16	Koppal	49.23	To be sent back to Koppal DUDC for reviewing technical bid evaluation
17	Chikkaballapura	63.75	Technical Bids submitted to DMA for approval
18	Hassan	63.11	

19	Gadag	60.12	Technical Bids are under evaluation at district level
20	Dharwad	56.07	
21	Chamarajanagar	58.54	
22	Vijayanagara (Ballari Package 2)	58.40	
23	Belagavi (1)	61.84	
24	Belagavi (2)	64.27	
25	Davangere	60.73	
26	Bengaluru Rural	67.42	
27	Bengaluru Urban	62.96	
28	Bidar	60.08	DTS approved by DMA for 4th Call
29	Udupi	48.98	
30	Dakshina Kannada	51.09	
31	Kodagu	60.07	
32	Shivamogga	58.88	

  
 ಸಹಾಯಕ ನಿರ್ದೇಶಕ (ಆಯ್ಕೆ)  
 ಕರ್ನಾಟಕ ನಿರೀಕ್ಷಾಧಿಕಾರಿ  
 ಬೆಂಗಳೂರು



**PROCEEDINGS OF THE GOVERNMENT OF KARNATAKA**

**Sub:** Implementation of Energy Efficiency Project for streetlights by replacement of existing conventional lamps with LED lamps along with Centralized Control Monitoring System (CCMS) in all Smart Cities/ Urban Local Bodies of Karnataka- reg.

Directorate of Municipal Assets  
Completion  
20 AUG 2018  
MOA/AD. PREAMBLE:  
DMA

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With the expansion of urban areas, the Municipalities are spending large amount of their revenue on energy for providing services such as streetlights, water supply, etc. Presently the streetlights in the urban areas have a mix of mercury Vapor lamps, metal halide lamps, sodium Vapor lamps, incandescent lamps, CFLs etc., and involve significant power charges payable to ESCOMS out of ULB resources.

Light Emitting Diode (LED) lamps are proving to be more energy efficient and hence the latest trend is to move towards installation of LED street lamps in the urban areas. Many cities in India like Vishakapatnam in Andhra Pradesh, Jhalawar in Rajasthan, South Delhi Municipal Corporation, Alappuzha in Kerala, Agartala in Tripura, Aligarh in Uttar Pradesh and some other cities have already moved forward on this initiative.

The Hon'ble Chief Minister in his Budget Speech for the year 2015-16 had proposed for replacement of existing conventional lamps such as MV/ SV lamps/ tubelights/ metal halide etc., to LED lamps in all City Corporations with the combined effort of ULBs and ESCOM so that the ULBs can realize tremendous benefits by way of energy savings.

With the objective of providing sustainable and energy efficient smart street lighting in urban areas, it is proposed to implement Energy efficiency project on PP model in street lighting by replacement of conventional lamps such as Mercury Vapor/Sodium Vapor lights/ Tube lights/ Metal halide lights etc. with Light emitting diode (LED) street lights in all City Corporations(excluding BBMP) as well as in all other ULBs.

The LED street lighting project shall be taken up by Smart Cities SPVs in case of cities covered under smart city project and for other City Corporations by itself. In case of other ULBs, district-wise packages will be made by clubbing of ULBs and project will be taken up by the concerned Deputy Commissioners (hereinafter referred to as "AUTHORITY").

Initially "Authority" shall conduct the baseline study for arriving at the presumptive energy consumption based on the number of existing street lights (non-LED & LED) and its rated wattage with below assumptions:

Street light burning hours: 10 Hours per day during summer months (Jan to June) and 11 hours during monsoon/winter months (July-Dec).

- a) At least 99 % of LED lamps are burning (99% uptime)
- b) All energy meters in the project area are in working condition and readings recorded.

(18)

An analysis of actual ESCOM energy bills for at least previous 1 year to ascertain the "fixed charges" based on sanctioned load and "energy charges" based on energy units consumed shall be made to co-relate to the presumptive energy consumption arrived based on rated wattage of lamps. The difference, if any, shall be properly analyzed for (a) non-functional energy meters, (b) non-functional lights & (c) for any other technical reasons, and suitably documented/accounted in the baseline study report.

Presumptive Consumption arrived after base-line survey shall be approved by a committee chaired by Director, DMA with following members:

1. Joint Managing Director, KUIDFC, Bengaluru.
2. Joint Director (Development), DMA, Bengaluru.
3. General Manager (Technical), KRIDL, Bengaluru.
4. Executive Engineer, PWD Electrical Division, Bengaluru.
5. Executive Engineer, BESCOM, Bengaluru.

The Committee may co-opt additional members/subject experts as and when required.

After approval of presumptive consumption, RFP should be prepared and got cleared by the same committee. —

- 1) Post implementation of LED, the sanctioned load is also expected to reduce to an extent of 45-55%. Hence, the baseline study will include documenting actual load conditions at each metering point and suitably factored while arriving at the accrued savings.
- 2) After due analysis and documentation of presumptive consumption and ESCOM energy charges, the project structuring shall be based on presumptive consumption basis for procurement purpose and payments to PPP Concessionaire will be on EMI/Annuity basis, out of the accrued SFC savings due to reduction in energy charges payable to ESCOM.
- 3) Time frame for completion of baseline study shall be about 2 months.

The potential energy savings may vary from city to city based on the existing mix / type of conventional lighting fixtures and partial implementation of LED fixtures. Hence, the normative savings could be in the range of 45-55 %, with retrofitted LED lights and central control and monitoring system (CCMS).

However, if partial implementation of LED has already happened in the city, the proposed operator is expected to integrate the same with CCMS and maintain such lights also during the project period.

Centralized Control and Monitoring System (CCMS) - Real time control and monitoring system for smart street lighting including remote switch-off, dimming, smart metering and surge protection and theft detection mechanism shall be installed in all the ULBs.

The project shall be proposed under PPP model with Implementation and Operation & Maintenance (O&M) by the selected Concessionaire. The scope of the Concessionaire would be retrofitment of non-LED lights with LED lamps; establishment of CCMS, O&M of retrofitted LED lights and existing LED lights for 10 years and capacity addition as per approved by DMA from time & capacity building to ULB Engineers. The operator shall ensure minimum 99% uptime of LED lamps, maintain requisite lux levels for different type of roads and guaranteed savings.

In smart cities, the Centralized Control & Monitoring System (CCMS) is proposed to be integrated to Central Command and Control Center (CCCC) as envisaged under smart cities mission. However, in case of ULBs other than smart cities, CCMS shall be established in the office premise of ULB. Sensor based dimming provision may also be considered as per the need and financial requirements on a case to case basis.

The project period shall include initial implementation phase of 6-8 months followed by O&M period of 10 years for the retrofitted LED lights and the existing LED lights.

The PPP Concessionaire shall be selected based on the Lowest Annuity /EMI quote received in the PPP tender for retrofitment with LED lamps and O&M for the project period (covering retrofitted LED lights, existing LED lights and CCMS).

Buy back of existing non-LED luminaries: The bidder annuity/EMI quote shall reflect the price offered for buy back of existing non-LED luminaries. The repayment towards capex & opex to the operator shall be distributed over the project period on an annuity/ EMI basis.

The implementing agency /PPP partner will recover his capital cost for LED retrofitment and O&M cost for street light management in 10 Years on EMI/Annuity basis, out of the accrued SFC savings due to reduction in energy charges payable to ESCOM, savings in O&M cost and tariff incentives by ESCOM for LED Implementation (Rs 1 per unit).

For future expansion of LED lighting by the same PPP partner/ Concessionaire, it is proposed to limit it to a maximum of 25 % capacity addition under the contract, subject to a maximum of 5 % per annum.

The basis for pricing for capacity addition shall be as per rates fixed by Directorate of Municipal Administration (DMA) after following due process, based on the prevailing market rates for different LED luminaries/ fixtures & accessories from time to time.

Payments to PPP Concessionaire will be on EMI/Annuity basis. Payment mechanism shall be through an Escrow account between the operator and the Authority. The payment shall be on monthly basis.

For proper assessment and validation of the energy savings, the "authority" shall ensure third party performance monitoring and energy audit, through Independent Chartered Engineer/ Transaction Advisor, for certifying the monthly payment of EMI/annuity.

City Corporation/ ULBs (Authority), shall engage a Transaction Advisor (TA)/ consultant for the task of preparation of RFP and after establishing baseline data of energy consumption, selection of Concessionaire for LED lighting project and its O&M, certification of bills and all project co-ordination activities

16

Independent Chartered Engineer/ Transaction advisor shall be appointed before selection of Concessionaire or simultaneously along with the selection of Concessionaire so that the entire inventory and true up of the EMI shall be carried out in the presence of independent Chartered Engineer. Payment for Independent Chartered Engineer/ Transaction advisor shall be made by the "Authority". The Transaction Adviser can be appointed by the implementing agency after following the due procedure under KPPP or M/s EESL may be appointed as Transaction Adviser/ Concessionaire as the case may be, after obtaining the due approvals from the Government.

ULB shall address the jurisdictional ESCOM AEE to designate a nodal officer not below the rank of Assistant Engineer (Electrical) to hand hold the ULB during baseline study, post LED load determination and system stabilization/ rectification issues during the project period.

Authority shall ensure that the data analytics of the smart street lighting system through CCMS shall be utilized for informed decision making for future interventions. The data may be utilized by ULBs/Nodal agencies/decision makers in understanding the overall cost, consumption, efficiency of operations, improvement in livability index, cost benefit through savings, reduction in manual operations and as a supporting tool to validate the payment of Annuity/ EMI, etc. Some of the key parameters can be monitored on daily basis for effective and informed decision making.

SFC global protection for energy charges shall be used only for payment of EMI/Annuity. Any capacity addition during the project period will be through additional allocation by the ULBs out of its own financial resources (SFC untied grants/ Municipal funds / Nagarothana/ etc..).

Key Performance Indicators would be as follows:

- 1) Uptime of minimum 99% of all LED lamps in the project area.
- 2) Achieving guaranteed savings agreed under the contract, else stiff penalty in tune with fall in savings.
- 3) Penalty for not achieving Key performance indicators (KPIs) - The modality of periodic monitoring and reporting of power consumption shall be through CCMS and Third-Party Monitoring Mechanism through Independent Chartered Engineer/Transaction advisor.
  - For every 1% drop in guaranteed savings, penalty shall be levied at the rate of 2 times the prevailing energy charges payable to ESCOM, to the extent of energy savings reduced.
  - If the savings falls below 40 %, then the EMI for that month will be forfeited and the "authority" shall decide on continuation of contract.
  - Failure to maintain uptime of minimum 99% of all LED lamps in the project area will attract a fine of 0.1 % of EMI payable for the month, for each such day/days, witnessed/ documented in CCMS.
  - Incentive: If the Concessionaire achieves more than the guaranteed savings, then the additional energy savings will be equally shared between the "Authority and the Concessionaire". The "Authority" shall implement the project under PPP framework, wherein the entire investment would be brought in by the private sector.



- 4) The project implementation period shall be a maximum 6-8 months followed by 10 years of operations and maintenance by the operator. The Authority shall pay the PPP Concessionaire the lowest EMI/Annuity approved through tender. Further Smart LED project shall be taken up only after the financial analysis justifies the investment, based on actual energy savings accrued viz-a-viz investment on LED conversion.

The current proposal will help the City Corporation/Smart Cities SPV/ULBs to shift over to a sustainable Energy Management through energy efficient smart street lighting system, which results in optimizing energy use, improved delivery of services, reducing greenhouse gas emissions and more importantly savings in energy cost payable to ESCOMs. The resultant energy cost savings positively contributes to improved municipal finances with efficient and enhanced delivery of services. Also, it reduces the overall unit cost of energy to the state, and thus provides savings to the exchequer.

As Smart City SPV/City Corporation/ ULB will implement the project on PPP model wherein the entire investment would be brought in by the private sector, there is no financial Implication to implement the project, as the payment of Annuity /EMI will be out of accrued savings in energy charges.

Hence the following order:

**Government Order No: UDD 550 PRJ 2017,**

**Bengaluru, Dated:15-03-2018**

Under the circumstances explained in the preamble, the Government of Karnataka is pleased to accord its approval for Implementation of Energy Efficiency Project for streetlights by replacement of existing conventional lamps with LED lamps along with Centralized Control & Monitoring System (CCMS) in all Smart Cities/ Urban Local Bodies of Karnataka.

The important parameters to be adopted for the implementation of this programme is as follows.

- 1) Smart City SPVs /City Corporation/ULBs shall implement Smart LED Lighting project and its O&M for 10 years period, under PPP model through a Concessionaire selected through tenders following KPPP rules.
- 2) Payments to PPP Concessionaire will be through accrued savings out of actual energy saved by the ULB.
- 3) For future expansion of LED lighting by the same PPP partner /Concessionaire, The additional capacity shall be limited to a maximum of 25 % capacity envisaged under the contract, subject to a maximum of 5 % per annum.
- 4) The basis for pricing for capacity addition shall be as per rates fixed by Directorate of Municipal Administration (DMA) after following due process, based on the prevailing market rates for different LED luminaries/ fixtures & accessories from time to time.

- (14)
- 5) The Committee headed by DMA, will be constituted to approve the presumptive consumption based on base line survey/draft RFP/Bid document and Concession/Contract Agreement with /without suitable amendments based on the individual city / town's requirements.
  - 6) The Authority shall pay the PPP Concessionaire the accepted EMI/Annuity from accrued savings out of actual energy saved by the ULB, savings in O&M cost and tariff incentives by ESCOM from time to time.
  - 7) ULBs are to be permitted to credit the SFC savings, on account of reduction in energy consumption, into an Escrow account to service the EMI/ annuity, out of the SFC grants released for ESCOM energy charges.
  - 8) The accrued savings due to LED implementation shall be ploughed back to ULB for servicing of EMI/ annuity. In this regard the base year SFC fund allocation along with incremental tariff escalation towards ESCOM charges shall be ensured to ULB during the project period by the Finance and Urban development Departments.

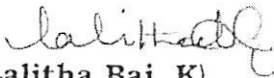
The the following committee is formed exclusively to approve the presumptive consumption arrived after base-line study and to clear the RFP.

1.	Director, Directorate of Municipal Administration	Chairman
2.	Joint Managing Director, KUIDFC, Bengaluru	Member
3.	General Manager (Technical) KRIDL, Bengaluru	Member
4.	Exe-Engineer PWD (Elec) Division, Bengaluru	Member
5.	Executive Engineer, BESCO, Bengaluru	Member
6.	Joint Director(Devt) DMA, Bengaluru	Member Secretary

The Director, Directorate of Municipal Administration shall initiate necessary action for conducting baseline study, approval for presumptive consumption and to issue detailed guidelines for the implementation of scheme to the Urban Local Bodies

This order is issued with the approval of the Cabinet on Subject No:C-287/ 2018, dated:07-03-2018.

By order and in the name of the  
Governor of Karnataka

  
(Lalitha Bai. K)

Under Secretary to Government,  
Urban Development Department.

To:

1. The Accountant General, Karnataka, Bengaluru.
2. The Chief Secretary, Government of Karnataka, Bengaluru.
3. The Additional Chief Secretary to Government, Urban Development Department, Vikasa Soudha, Bengaluru.

4. The Additional Chief Secretary to Government, Energy Department, Vikasa Soudha, Bengaluru.
5. The Secretary, Ministry of Urban Devt. Nirman Bhawan, New Delhi.
6. The Principal Secretary, Finance Department, Bengaluru.
7. The Principal Secretary, Planning Department, Bengaluru.
8. The Principal Secretary, Energy Department, Bengaluru.
9. The Principal Secretary, Infrastructure Development Dept. Bengaluru.
10. The Commissioner, DULT, Bengaluru.
11. The Secretary, M&UDA, Urban Development Department, Bengaluru.
12. The Secretary, Transport Department, Bengaluru.
13. The Secretary, Public Works Department, Bengaluru.
14. The Commissioner, BBMP, Bengaluru.
15. The Managing Director, KUWS&DB, Bengaluru.
16. The Chairman, BWSSB, Bengaluru.
17. The Commissioner, BDA, Bengaluru.
18. The Commissioner, BMRDA, Bengaluru.
19. The Managing Director, BMRCL, Bengaluru.
20. The Managing Director, KUIDFC-SLNA SCM, Bengaluru.
21. The Director, Directorate of Municipal Administration, Bengaluru.
22. The Deputy Secretary, Cabinet, Vidhana Soudha, Bengaluru.
23. P.S to Hon'ble Chief Minister, GoK, Vidhana Soudha, Bengaluru.
24. , Urban Development & Municipal Administration.
25. All Advisors of Smart City Advisory forum through KUIDFC.
26. All Deputy Commissioners -through DMA.
27. All Managing Directors of concerned Smart Cities-through KUIDFC.
28. Director (PPP Cell), Infrastructure Development Dept. Bengaluru.
29. All Project Directors of DUDCs-Through DMA.
30. All Commissioners/Municipal Commissioners/Chief Officers/ Corporations/City Municipal Councils/Town Municipal Council/ Town Panchayats- through DMA.
31. P.S to Chief Secretary to Government. (Cabinet), (Case. No: C-287/2018, Dated:07-03-2018), Vidhana Soudha, Bengaluru
32. P.S to Hon'ble Minister for Urban Development and Haj, Vikasa Soudha, Bengaluru.
33. P.S to Hon' Ministers for Bengaluru Development, Bengaluru
34. P.S to Hon'ble Minister for Municipal Administration, Bengaluru.
35. Joint Director (P), Urban Development Department, Bengaluru.
36. SGF / Spare Copies