CHAPTER 22

Upgradation of Street Lighting of Roads in Delhi

The project for modernisation of Delhi Street Lighting System was conceived by GNCTD in June 2006, with plans to implement it across Delhi within 2 years. Detailed lighting standards were prepared in November 2006 to be followed by all the departments concerned viz – PWD, NDMC, and MCD. The project was executed on around 800 km of Delhi roads at a tendered cost of Rs. 286 crore.

The lighting standards provided only the technical parameters of performance of lamps and luminaries[1]. PWD, while adopting the same specification stipulated the use of a mix of imported and indigenous luminaries for different categories of roads. The decision on use of imported luminaries was taken with the approval of the CM. Sample luminaries of some of the leading manufacturers were displayed before the CM in September 2007. Subsequently, as per the directions of the CM, luminaries consisting of both indigenous and imported makes were installed on a sample stretch, which was inspected by the CM in October 2007. Based on the inspection and approval of CM, PWD decided to use imported luminaries for certain roads. No technical note regarding reasons for use of imported luminaries along with cost benefit analysis was found on record. The decision taken by PWD regarding use of imported luminaries was also adopted by MCD and NDMC. The technical specifications did not distinguish at all between indigenous and imported luminaries. The imported luminaries were procured at a far higher cost that the indigenous luminaries, leading to avoidable extra expenditure of Rs. 31.07 crore across the three agencies.

The technical specifications for both imported and indigenous luminaries were identical. Department selected as approved, the models demonstrated by the bidders on the basis of inspection by CM. Record of any techno-economic evaluation of the options offered by the bidders in support of such selection was not documented. Consequently, models of various companies of vastly different repute and of different price range were selected at the same level. We found that the procurement price of imported luminaries, which varied from Rs.25,704 to Rs.32,000 per unit, was far higher than the fair price computed on the basis of actual invoice price.

The awarding of work in NDMC after calling of design based tenders resulted in an extra expenditure of Rs. 6.77 crore, as work was awarded to the bidder with higher unit rates for various items. NDMC also awarded additional work of 18.445 km to Philips, incorrectly terming it as deviations to the original contract, but this time without the constraint of efficient design. While the final measurements and payment on this account have not yet been finalised, we believe that this may lead to an additional loss of Rs. 6.13 crore.

[1] *Light fixture/ fitting*

In violation of the recommendations of the lighting standards, the tenders were restricted to manufacturers of luminaries of international repute, and higher financial eligibility was stipulated, thereby restricting the competition. The work was split into three parts in PWD, with requirement of not more than one work to one bidder, reducing the competition between the bidding firms. After once being declared disqualified, one of the firms, Spaceage was irregularly declared qualified on subsequent re-assessment following his appeal to the CM.

We found that MCD did not ensure conforming to the design specifications given in the lighting standards, leading to the use of larger number of poles and luminaries on certain roads and a consequent avoidable expenditure of Rs. 2.54 crore. We also suspect post tender alteration of bids in both Phase-I and Phase-II of tendering in MCD, which had resulted in enhancement of the quoted amount by Rs. 3.63 crore in Phase-I and by Rs. 3.34 crore in Phase-II.

22.1 Introduction

The project for "Modernisation of Delhi Street Lighting System" was conceived by GNCTD in June 2006 for completion within 2 years. Accordingly, standards for integrated street lighting project for Delhi were released in October 2006 by GNCTD and were subsequently revised in November 2006, after considering suggestions/ observations of vendors and implementing agencies. The standards were to be followed by all the agencies. The lighting standards were designed to meet the following objectives:

- To adopt the latest technology in street lighting based on international standards adapted to Delhi's conditions.
- Use of energy efficient electrical equipments.
- Use of automatic switching on and off and monitoring of street lights, thus saving energy consumption and enabling quick maintenance of equipments.
- Improving the urban landscape of Delhi
- Prepare for Commonwealth Games, 2010.

The standards specified the technical specifications like the type and wattage of lamps and luminaries, the height of electric poles, maximum spacing between the poles and desired illumination levels for various types of roads (Dual/single carriageway, service road, slip road etc.). The standards were brand neutral.

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The standard also gave guidance on the contractual obligations to be fulfilled by various agencies in implementing the lighting systems and maintenance of these systems.

The work was implemented by PWD, MCD and NDMC. The details of length of road and tendered cost for the works under the three agencies are tabulated below:

Table 22.1 – Summary of Street Lighting Works

(In Rs. Crore)

S.No.	Agency	Road Length (km)	Total Tendered Cost
1	PWD	444.39	154.95
2	MCD	258.56	96.53
3	NDMC	86	34.40

We acknowledge the improvement in illumination levels of Delhi roads, brought in by the implementation of a well prepared lighting standards document, which has contributed to an overall consistency in implementation and marked improvement in urban landscape and city infrastructure.

22.2 Use of imported luminaries

22.2.1 Decision on use of imported luminaries

The initial proposal for street lighting in PWD was sent for government approval in November 2006 but was not sanctioned on account of change in scope of work. A revised estimate involving use of indigenously manufactured luminaries was sent in May 2007 and was accorded approval in June 2007, but the approval was withdrawn.

Meanwhile, the CM desired (July 2007) that while PWD was implementing a comprehensive plan for street lighting, such lighting may be demonstrated on at least one or two roads in time for Diwali 2007. PWD invited spot quotations to install street lighting on a sample stretch of roads. The sequence of events is as detailed below:

Table 22.2 — Chronology of Events for Streetlighting on Sample Road

Period	Events
July 2007	■ Spot quotation from three firms using indigenous luminaries for a sample stretch of roads was invited.
August 2007	■ Second call for spot quotation was invited from the same three firms on the same conditions. The bidders now quoted for imported and indigenous luminaries. While Philips quoted only for indigenous luminaries, Trilux quoted for imported luminaries and Keselec-Schreder quoted for both indigenous and imported luminaries.
September 2007	■ Third call for spot quotation from three firms invited in two separate sections, one each for imported and indigenours luminaries. The work was however not executed. ■ Sample luminaries of some of the leading manufacturers were displayed before the CM in September 2007.
October 2007	■ Indigenous and imported luminaries installed on a sample stretch[2] were inspected by the CM, and also by the PWD minister.

[2] *Ring Road from ITO to Rajghat*

Based on the inspection and approval of CM, PWD decided to use imported luminaries on 'A' category roads, a mix of imported and indigenous luminaries on 'B' category roads, and only indigenous luminaries on 'C' category roads.

It may be noted that this 'A', 'B' and 'C' categorisation of roads was not specified in the lighting standard. Thereafter, PWD revised the preliminary estimate by incorporating use of imported along with indigenous luminaries

The decision of PWD on use of imported luminaries on 'A' category roads was also adopted by MCD and NDMC. NDMC specified all of its roads as 'A' category, and called tenders for imported luminaries only.

A total of Rs. 45.80 crore was spent on procurement of imported luminaries, with Rs. 28.95 crore by PWD, Rs. 6.51 crore by MCD and Rs. 10.34 crore by NDMC.

The imported luminaries were procured at a cost much higher than the cost at which indigenous luminaries were procured, **leading to avoidable extra expenditure of Rs. 31.07 crore across the three agencies** (PWD, NDMC, MCD) as tabulated below:

Table 22.3 – Avoidable Expenditure on Imported Luminaries

(In Rs. Crore)

Agency Name	Number of Imported Luminaries	Additional Expenditure Incurred*
PWD	10,631	19.81
MCD	2,337	4.50
NDMC	4,166	6.76
Total	**17,205**	**31.07**

* *Against average procurement cost of indigenous luminary (400 W and 250W) of Rs. 8600 in MCD*

Meaningless differentiation between indigenous and imported luminaries is starkly exemplified in the case of a luminary of Keselec-Schreder make (Ambar-3), procured by PWD as an indigenous luminary at Rs. 15,160 but by MCD as an imported luminary at over twice the cost at Rs.32,000.

Ambar-3, Imported (MCD), Price: Rs.32,000

Ambar-3, Indigenous (PWD), Price: 15,160

22.2.2 Manner of enrolment of imported luminaries

The technical specifications for both imported and indigenous luminaries were identical, and technical test reports of the imported and indigenous luminaries supplied by the various firms were equally compliant with specifications for luminaries given in the lighting standards.

PWD selected and enrolled as approved, the models demonstrated by the bidders, except SpaceAge who was declared qualified later, on the basis of inspection by the CM. We could not find any techno-economic evaluation of the options offered by the bidders in support of such selection. Consequently, models of various companies of vastly different repute and of different price ranges were selected at the same level.

In the case of selection of luminaries of GE (General Electric) and Al-Babtain brands offered by SpaceAge, no evidence of any on-site demonstration was found on record. Further, at the time of award of work to SpaceAge, the Works Advisory Board (September 2008) had desired that luminaries of GE make should be used by SpaceAge. PWD was unable to enforce the same, and could not prevent SpaceAge from installing luminaries of Al-Babtain make in place of GE.

In reply to our observations on use of imported luminaries leading to avoidable expenditure, PWD stated that these were specified for use on selected roads on account of the imported luminaries having the following advantages over the indigenous ones:

- 10 to 15 per cent more efficiency as measured by the higher light output ratio
- Better aesthetic appearance and finish
- Lower maintenance cost

We are of the view that the department's reasoning regarding superiority of imported luminaries on account of higher light output ratio is essentially an afterthought to justify their decision. If light output ratio was considered such a critical performance parameter, it should have been included in the lighting standard issued by GNCTD, and also specified by PWD as a requirement for imported luminaries, which was not done. Further, product brochures of none of the luminaries used in PWD (indigenous or imported) speak about the light output ratio, let alone state its value. Of the luminary test reports supplied by the department, we found that the light output ratio of imported luminaries varied from 78.4 to 88.9, while for indigenous luminaries, it varied from 75.3 to 89.5. This is at variance with the department's assertion the imported luminaries having efficiency greater than the indigenous luminaries by 10 to 15 per cent.

No documentary evidence has been provided regarding lower maintenance costs for imported luminaries. In any case, all luminaries are under a six year comprehensive maintenance contract, and none of the bidders were asked to quote separately for maintenance of indigenous and imported luminaries, as should have been the case if the maintenance costs were known to be substantially different.

22.3 High Cost of procurement of luminaries

We found that the procurement process did not ensure procurement at competitive rates, as explained below:

22.3.1 High cost procurement of imported luminaries

Audit scrutiny of the actual price of the imported luminaries that had been installed by the successful bidders, as ascertained from the invoices, revealed a wide gap between the imported price, and the price paid by the department for the fittings, as given in the table below:

Table 22.4 — Wide gap between import price and price actually paid for imported luminaries

(In Rs.)

Name of Executing Agency	Make & Brand	Cost including mark up (fair Price)	Contracted Procurement Price	Higher price paid per Luminary
PWD, Zone M1	Trilux: Lumega 900	26,222	28,242	2,020
PWD, Zone M2	Schreder: Maya-Maxi / Sapphire 3	16,325	26,371	10,046
PWD, Zone M3	Al-Babtain-smart /05	9,318	25,704	16,386
MCD	Schreder: Ambar 3	11,082	31,328*	20,246
MCD	Philips: Modena	22,660	26,421*	3,761
NDMC	Philips: Modena	22,386	24,819*	2,433

* *Weighted Average Cost of procurement*

The cost of procurement by all agencies was substantially higher than the fair price including mark up[3], being higher by 8 percent to 183 percent. The selection of imported luminary makes and fixing of their base price at high levels, particularly in case of SpaceAge and Keselec Schreder, was in violation of financial propriety. **A price premium was being paid simply on account of the luminaries being imported. Consequently, contractors managed to earn extra profit of Rs. 10.33 crore.**

[3] *Including cartage, SITC, cost of bulb, contractor profit of 10 per cent for PWD and 15 per cent for MCD and NDMC and cost of maintenance during the Defect Liability Period (DLP).*

22.3.2 High cost procurement of Indigenous luminaries in PWD

We noticed that both PWD and MCD had used a combination of indigenous and imported luminaries for their street lighting projects. The analysed rate for providing and fitting of indigenous luminary by PWD was Rs. 15,522 per unit (Philips Velocity 400W) based on a single quotation, whereas these (Model MC3 by Keselec-Schreder and Model Velocity by Philips) were supplied in MCD by two leading manufacturers at Rs. 9100 per unit.

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Thus, the execution of items of the same make at higher rate by PWD resulted in an extra expenditure of Rs. 5.59 crore.

22.4 Restrictive and anti-competitive conditions in tendering

22.4.1 Conditions in EOI

The lighting standards prescribed pre-qualification criteria for the prospective bidders. Both PWD and MCD prescribed more restrictive eligibility criteria for financial and technical capability, while NDMC used the list of vendors declared eligible by PWD.

- We found that PWD kept the required annual turnover at Rs. 40 crore in place of Rs. 20 crore indicated in the lighting standards, thereby restricting participation. The limit also exceeded 30 per cent of estimated cost criteria of CVC. MCD made the prequalification criteria for both the phases stricter by fixing the condition of average annual turnover at 30 percent of estimated cost during the last seven years instead of three years.

- The lighting standards stipulated that *“the main contractor shall procure items from respective manufacturers.”* However, both PWD and MCD in their EOI specifically stated that the bidder should be a manufacturer of luminaries of international repute. This severely restricted the competition, and gave disproportionate leverage to the luminary manufacturers in controlling the bidding process.

The parameter of being a luminary manufacturer of “international repute” did not specify how the clause would be assessed and was very selectively applied. While initially, Spaceage Switchgear India Ltd. was found as ineligible, and later found eligible during reassessment done when the firm represented to the CM, its compliance with requirement of being a manufacturer of luminaries of international repute was never assessed. The vendor installed luminaries from a Saudi Arabian firm, Al Babtain, with whom the vendor had no declared standing relationship, putting to question the eligibility of the vendor as a manufacturer of luminaries of international repute.

The restrictive clause was used to reject two firms, Street Scape, Australia and Utkal Galvanizers Ltd on the grounds that they did not have luminaries' manufacturers as lead partners.

PWD, in its reply, stated that the competent authority, Chief engineer, had taken the decision that luminary manufacturers should be made lead partner for execution of work for the following reasons:

- proper maintenance of the luminaries during the 6 year maintenance period.
- genuineness of the supplies
- their perception that only a few reputed luminary manufacturers are equipped for providing design work for illumination.

In our view, the benefits of increased competition could have been brought in by complying with the GNCTD prepared lighting standards requirement of the main contractor procuring the luminaries from the manufacturers. Such benefits would have been far in excess of the perceived benefits stated by PWD.

22.4.2 Division of work in PWD

The street lighting work in PWD was divided into three parts (August 2007) on the grounds of administrative convenience and early completion, but with the apparent intention of giving one work each to each of the three shortlisted (initially) firms. Further, NIT stipulated that only one work alone would be given to one contractor. This condition contributed to lesser competition among the pre-qualified vendors as only one among the four pre qualified bidders ran the risk of not winning any bid.

22.4.3 Irregularities in assessing qualification of a firm in PWD

SpaceAge Switch Gears Ltd. submitted (July 2007) EOI as a manufacturer of luminaries of international repute, and of poles in India. The bid by the firm was neither as a JV nor as a consortium, but was in the name of Spaceage Switch Gears Ltd.

The Board of assessors (BoA) disqualified (November 2007) the firm on the following grounds:

- Non supply of imported as well as indigenous fittings.
- Non clarification of works done by their foreign concern.
- The firm could not obtain the required qualifying marks of 75 out of 100, scoring only 48 marks out of 85.

On being disqualified by the BoA, the firm appealed (November 2007) to the CM for inclusion as a tenderer for the work. The vendor's plea to the CM was forwarded to the E-in-C. Subsequently, a re-assessment of the eligibility of the firm was done by the BoA, who, this time, found the firm to be qualified.

We found that the following aspects of the re-evaluation, leading to an increase in the score from 48 to 67 (out of 85), as unreasonable:

- The score for experience in similar class of work increased from 10 to 15 (out of 15), though the relevant work was done by another firm, related by having a common majority shareholder, but which was in fact, a separate legal entity, and not a part of the bidding entity as a JV or consortium member.
- The firm did not submit any new financial statements in support of the required average annual turnover, yet its score increased from 10 to 19 (out of 19).
- The firm did not submit any new documents relating to personnel, establishment, and plant and equipment, yet its score in this regard increased from 10 to 12.
- The score on presentation before the BoA was also increased from 13 to 16.

The financial bid of SpaceAge was the lowest for M3 zone but the Works Advisory Board (WAB) did not approve the award of work in March 2008 on the grounds that the firm had already been rejected by the BoA, and the reassessment and subsequent inclusion was improper[4].

[4] *Incidentally, two of the members forming the BoAs were also members of the WAB, but both the diametrically opposite decisions regarding the firm's eligibility had been taken unanimously.*

The firm approached (May 2008) the Hon'ble Delhi High Court which quashed the decision of WAB of rejection of tender (July 2008). Consequently, and in view of urgency of work, the Government decided (September 2008) to award the work to the firm.

The firm, SpaceAge, went on to supply low cost imported luminaries of Saudi make, costing Rs.5,040, and charging Rs.25,704 for the same and in the process earning super profits of Rs.2.68 crore.

22.5 Deficiencies in Tendering and award of work

All the agencies followed different approaches for calling of tenders. PWD called tenders based on percentage rate, MCD adopted item rate tender, while NDMC called for design based tenders.

22.5.1 Deficiency in tendering in PWD

22.5.1.1 Incorrect use of percentage rate tender by PWD

The estimates for the street lighting work prepared by PWD was based on market rate, but PWD resorted to percentage rate tendering instead of item rate, in contravention to the provisions of the CPWD manual.

The costs of the following items were over-estimated by PWD with direct implication on the final cost of procurement:

- **Imported luminaries:** The estimated rate for imported luminaries was kept at Rs. 27,000 per unit against the average cost[5] of imported luminaries actually used being Rs. 17,288, while the minimum cost was just Rs. 9,318.
- **Indigenous luminaries:** The estimated cost taken by the department for indigenous luminaries was Rs. 15,522, but the same fittings were supplied in MCD at rates of Rs. 8000 to Rs. 9200 per unit.
- **Pole (12 m):** The base rate of Rs. 26,750 taken for estimation of cost of 12 metre pole was inclusive of all charges for fabrication, supply and erection etc. but the same was again loaded, thereby inflating the cost of a pole to Rs. 31,502.

22.5.1.2 Selling of advertisement rights in PWD without competitive bidding process

PWD included the item of rebate in the tender on account of advertisement to be quoted by each bidder for a period of five years. However, this item was included in a separate section, Subhead-C of the tender, which was not to be considered for bid evaluation. Hence, the contractors were under no compulsion to give competitive rates.

As a result, the successful bidder of zone M2 did not quote at all for advertisement rights, while in M1 and M3, the rates quoted were Rs. 1250 and Rs. 300 per pole per month. The department had no option but to cajole the bidder in zone M2 to quote a price of Rs. 750 while the winning bidder of M3 increased his offered price to Rs. 750 per pole per month. Thus, the rates for advertisement rights were not determined competitively, but were given

[5] *Including cost of bulb, cartage, one year maintenance and contractor profit of ten percent.*

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away as a reward for winning the bid at any price that the winner deemed appropriate.

The selling of advertisement rights without competitive bidding is highly irregular and has potentially led to loss in revenue.

In the present scenario, wherein non competitive bidding prevented determination of true value for the advertisement rights and this component of the agreement is yet to be executed, the department should explore the option of explicitly scrapping this part of the agreement.

22.5.2 Deficiency in award of work in MCD

22.5.2.1 Avoidable expenditure of Rs. 2.54 crore due to non-compliance with design specifications

We found that the lighting standards were not complied with on many dual carriageway roads, where 10 metre poles had been used in place of the prescribed 12 metre poles.

This led to an estimated avoidable extra expenditure of approximately Rs. 2.54 crore due to use of larger number of poles and luminaries. It was also seen that in Phase-I of execution, the offered price of a 10 metre pole (Rs. 28974) was more than the price of a 12 metre pole (Rs. 28358) due to suspected post bid tampering. Installation of a 10 metre pole was more lucrative to the contractor than the 12 metre pole.

MCD, in reply to our observation, stated that the designing was done based on site conditions, and that approval of the competent authority, E-in-C, was taken for installing 10 m poles on 80 feet (24 m) wide road.

We are of the view that such approval, taken without a techno-commercial evaluation of the impact, and in violation of the already issued lighting standard was incorrect.

22.5.2.2 Extra cost of Rs.0. 48 crore due to specifying decorative luminaries using lamps of a particular brand in MCD

The lighting standards provided for use of 150 watt HPIT (Metal Halide) lamps for pedestrian crossing, slip roads and bus bays. However, MCD specified decorative luminaries using 140 watt lamp of a particular brand, Cosmopolis in the agreement. As per records, a total of 670 such Cosmopolis lamp fittings at a cost of Rs.15,000 per unit were used, whereas comparable 150 watt HPSV fittings were available at Rs. 7800. In these fittings, the HPSV lamps could have been replaced with 150 watt metal halide lamps for providing white colour light, as done by PWD. Thus, specifying decorative luminaries with Cosmopolis lamps in place of standard luminaries with metal halide lamps resulted in extra cost of Rs. 0.48 crore.

22.5.2.3 Suspected post-tender alteration in price bids in MCD

As per the CPWD manual, the officer opening the tenders should encircle all corrections, cuttings, conditions and over-writings, number them and attest them in red ink on each page of the price bid itself, indicating that the cuttings, over-writings and corrections were made before submitting the bid.

These conditions were violated in the tendering for both phases of the work in MCD. The winning bid of Sweka Powertech for Phase-I and Phase-II had large number of over writings/ corrections/ alterations. In neither of the bids did the contractor fill up the column for 'Amount' in the schedule of quantity, and the total for the bid was struck and recorded only in one case (Phase-II).

The matter is under investigation by CBI. Photocopies of the records were obtained from CBI for the purpose of audit.

A scrutiny of price bid of Sweka Power Tech Engineers Pvt. Ltd. (L-1) for Phase-I revealed many cuttings and over writings in the rates of items quoted in the schedule of quantities. The certificates recorded by the accountant either did not tally with the number of corrections made in the page or the certificates themselves had cuttings/ overwriting. In all the cases where such overwriting and corrections in rates were noticed, the final effect was to enhance the quoted price and not vice versa. The corrections in figures have been done in a manner as to minimize the physical alteration in the number by restricting the changes to a single digit, leading to an increase in the amount. Further, the corrections had not been assigned separate numbers as required.

Another correction noted was in the discount offered by the firm in the form of a note at the end of the quoted rates which read-“payment will be released within 10 days after submission of the RA bill, then we are ready to give discount of Nil per cent on the total amount”. In this case also, there was apparent tampering, by changing 1 per cent to Nil per cent by prefixing 'Ni' to 1 per cent.

The possibility of these alterations at post tender stage cannot be ruled out. The total result of enhancement of quoted amount by such alterations was Rs. 3.63 crore.

A similar pattern of alteration of bids was seen in Phase-II also in the case of bids of the same bidder, Sweka Power Tech Engineers Pvt. Ltd. Scrutiny of price bid of Sweka Power Tech Engineers Pvt. Ltd. (L-I) revealed that there were cuttings/over writings/corrections in the quoted rates of several items. The corrections made in the quoted rates against the above said items were not encircled individually.

It is suspected that the corrections in two items have been made after opening of tenders. The net effect of the suspected tampering was enhancement of tendered amount by Rs. 3.34 crore, while still keeping it below the next higher bidder (L-2) by Rs. 4.69 crore i.e. without changing the overall status of L-1 bidder.

The details of the alteration are shown in Annexe-22.1

22.5.3 Deficiency in tendering/award of work in NDMC

22.5.3.1 Calling of design based tender by NDMC and consequent loss

NDMC opted for a “design based approach”, wherein each bidder was asked to submit road wise design and compute the quantity for each item required to meet the target illumination level and to quote the rates for items required. The lighting standard did not provide for calling tenders on design basis.

We are of the view that design based tender does not ensure procurement of items at the lowest cost. “Design based tender” has also actually placed Philips at an advantageous position with respect to other bidders, as despite quoting higher (item wise) for each of the key items, Philips managed to be lowest(L-1) bidder due to proposing use of lower quantities of various items.

Philips was the lowest with tendered amount of Rs. 34.40 crore against Rs. 37.32 crore quoted by SpaceAge (second lowest).

The scrutiny of rates of 10 major items forming 88.44 per cent of gross tendered cost (of Philips) of Rs. 35.46 crore revealed that in none of these items was Philips the lowest bidder. The overall bid amount of Philips was lowest only due to their proposed design involving lower consumption of various items. For instance, the design proposed by Philips involved use of 3815 poles and 4166 luminaries against the estimated quantity of 6364 and 9329 respectively, while the quantities quoted by second lowest bidder were 6492 poles and 7126 luminaries.

Even the Technical Evaluation Committee (TEC) was unable to assess the different designs due to wide variation in number of poles and other infrastructure offered to be installed by the bidders. It finally recommended that the price bids may be opened after obtaining an undertaking from all the four bidding firms that they would not charge for any extra work/ infrastructure required to be provided in case the required levels of illumination as per NIT specification were not met with their design.

We observed that the second lowest bidder i.e. SpaceAge at the quoted quantity of Philips could have executed the work at Rs. 28.69 crore, which is less than the amount quoted by Philips by Rs. 6.77 crore.

In reply to our observation, NDMC stated that design based tenders rather than conventional mode were invited keeping in view the special needs of the NDMC area with its dense tree cover.

In our opinion, the “design” could have been either done in-house or could have been executed as a separate consultancy assignment, thereby providing a level playing field to obtain competitive rates for each item of work. This could have saved this huge premium of Rs. 6.77 crore, which was otherwise earned by Philips on the basis of their design.

22.5.3.2 Irregular award of work in NDMC under deviation clause leading to loss

Chairman, NDMC gave approval for additional work of 18.445 km for 14 roads and service/ slip roads which were not part of the original agreement. The works were awarded on the same rates as the existing contract for street lighting with Philips (awarded in August 2009) under the deviation clause stating that the increase in quantity was under the deviation limit of 25 percent. In this case, the additional work valuing Rs. 7.38 crore was for new roads not covered by the original agreement, and hence could not be construed as deviation in quantity alone. This was not even approved by the Council-the competent authority. NDMC intimated that the Council in its meeting held subsequently on 23rd February 2011, ratified the expenditure. We found that the agenda note put up for approval of the Council in this regard made no mention of the audit objection communicated to NDMC.

Loss to NDMC on account of award of additional work under deviation clause

- The existing agreement with Philips was design based, where the work was awarded on account of the bid being of lowest total cost, and not necessarily the lowest in unit cost of the items. Thus, award of additional work to Philips at its quoted (higher) item rates led to an additional loss of Rs. 1.45 crore, when compared with the rates of second lowest bidder.
- As per the tentative execution data provided by NDMC, the additional work on 14 roads led to an excess expenditure of Rs. 1.30 crore beyond what would have entailed if the roads had originally been included in the contract, and optimally designed. Against the pro-rata cost of Rs. 7.37 crore, Philips has submitted a bill of Rs. 11.05 crore[6].

The full execution/consideration of proposal of Philips as per the claim submitted would finally entail a total cost of Rs.12.06 crore for additional work, leading to an increase in the currently computed loss figure of Rs.1.30 crore to Rs. 4.68 crore, in addition to the loss of Rs. 1.45 crore incurred on account of higher rates of Philips during award of additional work. The total loss on account of award of work is, therefore, estimated at Rs. 6.13 crore.

NDMC, in its reply, stated that payment for additional work would be restricted on pro-rata basis or on the actual quantity executed, whichever was less.

6 *Bill for 2.5 KM of road length awarded in October 2010, with pro-rata cost estimate of 1 crore has not yet been submitted*

22.6 Delay in project initiation and completion

None of the agencies could complete the project within two years as planned.

22.6.1 Delays in PWD

PWD planned in June 2007 to complete the project by February 2009. The project was executed as 3 separate packages in three PWD zones, but the work was finally completed by September 2010 after a delay of about 19 months. There was delay at every stage, with delay in awarding of work itself of about 11 month. There were delays in execution too, as the work stipulated to be completed by January 2010 was also delayed by about eight months.

Further, PWD has not decided the penalty to be imposed on account of delay, as none of the three contractors had submitted their final bills (though they have been issued physical completion certificate in August/ September 2010).

22.6.2 Delays in MCD

The stipulated date of completion for phase-I was 9 July 2009. However, a certificate was issued (January 2011) indicating provisional completion on 2 August 2010. MCD neither sanctioned EOT, nor recovered liquidated damages of Rs. 3.45 crore for a delay of 55 weeks.

After lapse of the stipulated date of completion of 7 July 2010 for Phase II, the contract value was enhanced from Rs.60.74 crore to Rs.73.36 crore by awarding additional work on 24 July 2010 with stipulated date of completion extended to December 2010. The total work was subsequently restricted to Rs.61.99 crore for a total road length of 160.5 km on 05 August 2010, but the stipulated date of completion was not changed. Though the certificate for provisional completion of work was issued on 24 September 2010, no time extension was sanctioned.

We have computed the delay in completion by 50 days, with a corresponding LD of Rs.4.25 crore, which has not been levied by MCD.

22.6.3 Delays in NDMC

After approval of estimate (December 2007), NDMC delayed the tendering process. Tenders were invited in March 2009 after a delay of 14 months, and it took another five months to award the work. The contractor was given additional work for 18.45 km between December 2009 and October 2010, which would imply a proportionate increase in the time period up to November 2010. The execution of work was delayed by more than two months, and NDMC had neither issued completion certificate nor recorded the final measurement. Further, compensation for delay valuing Rs. 1.25 crore was also not levied.