



CITY DISTRICT GOVERNMENT KARACHI  
CITY NAZIM SECRETARIAT

No. Nazim/City/Secy / 7394/2005  
Dated, the 11<sup>th</sup> April, 2005

To,  
The Additional Chief Secretary (Dev),  
Planning and Development Deptt,  
Government of Sindh,  
KARACHI.

*Pl. m. p.*  
*AC (Env)*

**SUBJECT: DE-LINKING OF "ESTABLISHMENT OF FIVE GARBAGE TRANSFER STATIONS" AT KARACHI, WASTE TO ENERGY POWER PROJECT ON BOT BASIS.**

REF : Letter No. P&D/PO-Env/1-260 (EGTS)/04 dated 02-04-2005 from P&D Deptt, GOS.

1. In order to improve the system of garbage collection and transportation to disposal sites in the mega city Karachi, having a population of 15 million. The CDGK conceived / prepared a project titled "Establishment of Garbage Transfer Station" in Karachi.
2. The management of Municipal Solid Waste (MSW) in the metropolis has never been dealt on scientific in the past, with the result this vital sector of management of MSW is in total disarray and may be collapsed.
3. Under the Local Government Ordinance 2001, the responsibly of municipal garbage collection and transportation rest with the Union Councils and Towns. But in the peculiar situation of Karachi, the City, District Government has the stakes and responsibility for making a concerted / coordinated and well planned system for this important part of municipal administration in collaboration with 18 towns.
4. To achieve this goal, the CDGK after lengthy ground work, conceived the idea of establishment of five garbage transfer stations in the city. These Stations will serve as secondary collection centers for 8000 tons. of garbage being generated in the city on a daily basis. It is worth to mention that out of

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8000 tons CDGK / TMA and other civic bodies have the capacity of lifting only 50% of MSW. The rest of the garbage remains unattended and dumped at open grounds / spaces, roads open drains, sea etc, further deteriorating the whole system. To overcome this difficulty a Concept Clearance Proposal (CCP) of the scheme for Establishment of Garbage Transfer Stations was prepared at a cost of Rs. 1091.150 Millions. After getting through the P&D Department, Sindh, it was submitted to CDWP for final approval / sanction.

5. The scheme was considered in the meeting of CDWP held in Sept, 2004 at Islamabad and the following decision was made:-

"The Concept Clearance Committee accorded the concept clearance to the extent of the studies and need for Management of Solid Waste. NO equipment will be procured. Integrated Power Generation, based upon Solid Waste would be prepared on BOT basis which would include the transportation requirement".

6. While discussing the project in the meeting of the CDWP, the following observations were made as reflected in the minutes of the meeting:-

- (i) To a query from the Secretary Planning, he (representative of the sponsor agency i.e. CDGK) stated that the loan would be repaid by the City District Government Karachi directly. In fact no such commitment was made by CDGK representative. The project was conceived on the basis of grant from JICA, who is also willing to grant money for the project.
- (ii) The Chairman stressed upon exploring the possibility and implementing this project on BOT basis.
- (iii) In case private sector participation does not materialize the project should be implemented through the CDGK resources.
- (iv) Member Infrastructure remarked that the proposal was inclined towards purchase of vehicles / equipment only.

7. It appears from the discussion held in the meeting as recorded in the minutes and decisions taken, that there are certain misunderstandings about the project which are cleared as follows:-

- i The CDGK has already developed and initiated a project titled Waste to Energy on BOT basis. Out of 9 companies which pre-qualified for the project, three submitted bids, and are in the process of evaluation. The companies are not ready to provide required Bid Bonds which caused delay in the process. However, it is expected that a final decision will be made in a couple of months.
- ii The Establishment of a Power Plant fueled by MSW is a mega one and as per rough estimates a power plant having a capacity of 100 MW would cost around Dollar 100-150 Million (Pak Rupees 6-9 billions), which could consume around 2000 M.T of MSW. To consume all the MSW being generated in Karachi a plant with a size upto 500 MW is required which would cost 5 time more than a plant of 100 MW. The CDGK is neither in a position to incur such a heavy investment through its own resources or even through loans, nor it has the technical capabilities to establish and run such a huge project efficiently and return the huge amount of investment / loan made on it.
- iii. The two projects i.e. Establishment of Garbage Transfer Stations and Establishment of Power Plant based on MSW are separate to each other and should not be inter linked except the final consumption of MSW in the Power Plant. The idea behind Establishment of Garbage Transfer Stations is to improve the environment of the city by collection and transporting 100% MSW being generated in the city so as to provide healthier and cleaner environment to the citizens as well as to the investors and other visitors to this mega polis city of Pakistan For the transportation of MSW from different parts of the city, divided into 18 towns, spread over an area of 3366 Sq. KM, a large fleet of dumpers, loaders and refuse vans is essentially required. This part of the MSW management has been over looked in the past whereas it is a continuous process and the vehicles for this purpose should be pumped in-to-the system every year. The machinery for MSW collection was last purchased by or donated to the defunct KMC in the year 1993- 1994. Since then there is no addition in this fleet though over the years the generation of MSW has increased manifold and the fleet of vehicles has shrunk as many of the vehicles have gone out of service completing their life:

8. The transportation of 8000 tons of garbage daily directly to a distance of 30- 35 km (60-30 km up& down) through existing vehicles (less capacity) is neither possible nor economical. The two-stage transportation of garbage is recommended in Karachi. This system is being practiced in all the Mega cities of the developed countries and being followed by the developing countries. In two stage Transportation System, Garbage Transfer Station (GTS) are being installed at different locations of the city. The existing primary vehicles will transport the garbage from primary collection points to GTS. The GTS are 3-4 km from collection points. The weight and other related information are recorded at computerized Weigh Bridge in GTS. The recyclable items (if required) are collected. The remaining garbage is compacted to reduce the volume. The compacted garbage is transported through big volume containers having capacity of 35-56 m<sup>3</sup>. One secondary vehicle will transport the garbage equivalent to the load of 6-10 primary vehicles.

9. It's a world wide practice that power plants based on MSW are established with the prime objective to safely and scientifically dispose off the MSW, which is other wise dumped at some distant site and if not scientifically dispose off it poses a permanent threat to the general public. The power plants in China, USA and Japan, which consume MSW as partial fuel, get a permanent subsidy from the Local Municipal Authorities for burning / utilizing the MSW in the Plants ranging from 30 Dollars per tons in USA to 10 Dollars per ton in China.

10. The bids submitted by three Pre-qualified companies to the CDGK for establishment of a Power Plant fueled by MSW clearly put the condition that all MSW required for the plant shall be supplied to them at the door step of the plant without any cost. In addition they also asked for a tipping fee of 5 Pound Sterling per ton for disposing / burning the MSW.

11. All this clearly shows that MSW being generated in Karachi is not a precious commodity which can be sold to Power Plants rather it is the duty of the CDGK to dispose-off this MSW in a safe way and for this purpose the idea of Establishment of a Power Plant fueled by MSW was conceived and floated by CDGK. Moreover the MSW of Karachi has a value of 6000 Btu/lb which is much below the international standard of MSW which is around 10000 Btu/lb.

CBA 4 options

$$1 \text{ Cal/kg} \rightarrow 1.8 \text{ Btu per pound}$$

$$1 \text{ Btu/lb} \rightarrow 0.556 \text{ Cal/kg}$$

12. From the above explanations and details it is clear that.

- i) The scheme for establishment of garbage transfer stations cannot be linked in any way with Establishment of Power Plant except to the extent that the garbage so collected and transported to the landfill sites in absence of a Power Plant be utilized and burnt if such a power plant starts functioning in Karachi.
- ii). The scheme is not aimed for procuring vehicles / equipment only. It's a comprehensive scheme which involves civil works, improvement of infrastructure and procurement of required machinery which is not available with the CDGK at present and which is an integral part of the scheme.
- iii). The CDGK cannot establish the power plant fueled by MSW from its own resources or through loans as it involves huge capital cost.

13. In the light of above facts, it is requested that the decision made on the meeting of CDWP held on 30<sup>th</sup> Sept. 2004 linking the scheme of "Establishment of Garbage Transfer Stations" with the "Establishment of Power Plant fueled by MSW" may be reviewed and approval / sanction may be accorded for the scheme of "Establishment of Garbage Transfer Stations" as an independent and absolute project.

14. I hope that this request will be acceded to in the best public interest of the city of Karachi and Pakistan.

  
[NIAMATULAHKHAN]  
CITY NAZIM, KARACHI 12/4

**Copy for information to:-**

1. The ACS, Local Government & Spatial Development, Sindh.
2. Special Secretary (Tech), P&D Deptt. Government of Sindh
3. The District Coordination Officer, Karachi.
4. The Executive District Officer (W&S) CDGK
5. The Executive District Officer (E&IP) CDGK
6. District Officer (SWM) CDGK.