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**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL, NEW DELHI
PRINCIPAL BENCH, NEW DELHI
ORIGINAL APPLICATION NO.199 OF 2014**

IN THE MATTER OF:

ALMITRA H. PATEL & QRS.

APPLICANTS

VERSUS

UNION OF INDIA & QRS.

RESPONDENTS

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**[ALMITRA H. PATEL]
APPLICANT**

**Date: 07.09.2016
New Delhi**

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**CHART ON BEHALF OF THE APPLICANT COMPARING THE
VARIOUS WASTE PROCESSING OPTIONS PURSUANT TO THE
ORDER DATED 01.08.2016 PASSED BY THIS HON'BLE TRIBUNAL**

1. That a Writ Petition being Almitra H. Patel & Anr vs. Union of India & Others i.e. Writ Petition (Civil) No.888 of 1996 was filed by the Applicant in Public Interest before the Hon'ble Supreme Court seeking amongst other appropriate directions to Municipal Corporation /Municipality to identify acquire waste processing sites for use as waste yards in respect of management and handling of Municipal Solid Waste and discontinue dumping of untreated Municipal Solid Waste other than designated sites. The Applicant also prayed for appropriate directions to the Authorities to take appropriate steps and measures for the collection, storage, transportation, hygienic disposal, treatment and recycling of MSW including proper transportation to the designated sites and well-managed placement there for conversion into re-usable/ re-cyclable by-products such as compost, bio-gas, fuel pellets, etc.

The Hon'ble Supreme Court vide its Order dated 02.09.2014 was of the opinion that the said matter ought to be heard by a Forum equipped with necessary expertise to examine and deal with the environment related issues and hence transferred the said matter to this Hon'ble Tribunal. The said matter has been re-numbered as Original Application No. 199 of 2014, the captioned matter.

2. That this Hon'ble Tribunal therefore while hearing the captioned matter on the last date of hearing, i.e. 01.08.2016 orally directed the Applicant to submit a chart comparing the various Waste Processing Options. Accordingly, the Applicant has prepared the chart which is annexed hereto and marked as **ANNEXURE-A** for the consideration of this Hon'ble Tribunal.

**[ALMITRA H. PATEL]
APPLICANT**

**Date: 07.09.2016
New Delhi**

COMPARISON TABLE OF WASTE PROCESSING OPTIONS, 2016

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	Bio-stabilising	Composting	Biomethanation	Waste To Energy
Time for startup	Immediate	9 months	6 months	2- 4 years
Min. waste tpd reqd	Any quantity	1- 500 tpd	0.1 – 300 tpd	400 tpd
Type of waste input	Any	Any	Raw wet waste + non-veg waste	RDF. No raw wet waste + No recyclables
Area reqd	Like open dump	1.5 ha/100tpd	0.6 ha/100 tpd	5 ha/400 tpd
Capital Cost	0.5 crores/100 tpd	10 crores/100 tpd	Zero for BOO	1000-2000 crores
Operating Cost Per ton intake	Same or less than open dumping	Rs 160/t waste	Zero – Rs 100/t	Rs1000 + /t
Energy reqmt	Very low	Low	Almost Nil	Very High
Payback time	1 month	5 yrs	6 yrs for BOO	10 yrs+
Products produced	Stabilised org + RDF if screened	Compost + Coarse organics + RDF	Piped gas or bottled gas+ liquid fertilizer	Costly electricity
Product use	Compost +RDF if screened	Agricultural/horticulture/forestry + erosion control	Heating, using 100% energy	Power, using 25% energy
Rejects qty	60% of intake	20-45% of intake	Nil, or RDF if mixed waste	Hazardous ash
Rejects use	Agricultural/horticulture/	RDF / fuel	RDF for fuel	None
Pollution load	Nil, or Leachate if mismanaged	Odour + leachate if mismanaged	Low odour from intake	Dioxins, hazardous ash, soot, particulates
Operating problems	Very low	Low. Seasonal sale, late paymt	Moderate, need monitoring	Very high, energy intensive
Constraints	Do anywhere	Keep far from habitation	Keep near gas consumer	Keep far from residential, needs hazardous waste landfill nearby,
Advantages	V low-tech	Low tech	Decentralised saves transport	Uses RDF for non-recyclables
Success rate	V high, v easy	50+ plants	Recent success Emerging technology	Mostly failures, Mostly scams