

PREQUALIFICATION DOCUMENT

FOR

SERVICE PROVIDERS TO

WASTES TREATMENT;

- MUNICIPAL SOLID WASTE TO ENERGY.
- MECHANICAL BIOLOGICAL TREATMENT.
- SANITARY LANDFILL BIOGAS.
- SLUDGE OF WASTE WATER TREATMENT PLANTS.

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## 1. INTRODUCTION

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This prequalification document explains and details the requirements from the service providers intended to submit for Expression of Interest (EoI). The call for the expression of interest is announced by the Waste Management Regulatory Agency (WMRA) of the Ministry of Environment of Egypt.

All service providers intending to submit their expression of interest have to prepare their documents in accordance to this prequalification process with its associated forms and requirements to enable WMRA to assess, evaluate, and decide for the qualified service providers to conduct their activities at high performance efficiency and sustainable mode in the field of:

- Waste to Energy treatment process utilizing the appropriate, efficient technology, and proven one in this field of treatment. This field of treatment considers;
  - Municipal Solid Waste to Energy.
  - Sludge treatment to Energy.
  - Sanitary Landfill Extracted Biogas to Energy.
- Mechanical Biological Treatment Process having the most efficient technology with the highest recovery factor in treatment.

Both Treatment Processes are an investment opportunity in Egypt in accordance to the Wastes Management Strategic plan targeting reduction in final disposed off solids to the Sanitary Landfilling. The technologies are planned to be assigned to Public Private Partnership (PPP) having the concept of Win-Win relationship to enable the sustainability and efficient performance.

The applicants (Service Providers) shall submit their EoI in accordance to:

- The explanations stated in the Executive Guidelines of Feed in Tariff (FiT) – Decree #41/2019.
- The particular and General Terms of this prequalification document.

Upon the applicant submission of his expression of interest associated with the documents of prequalification to WMRA/Ministry of Environment, the

check for the prequalification document will start immediately to enable the clarifications, if any, to the applicant.

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## 2. INSTRUCTIONS TO APPLICANTS

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- The applicants shall be committed to submit the Expression of Interest regarding any treatment process for solid wastes to energy, i.e. Municipal Solids, Sludge of Waste Water treatment facilities, or Biogases extracted from Sanitary Landfills.
- The specific treatment service shall consider a predetermined size within the range of installed electrical power as per the Decree #41 - 2019.
- The service provider can also submit for the treatment for the Municipal Solid Wastes by Mechanical Biological Treatment (MBT).
- The applicant is committed to send his clarifications, if any, within maximum of two weeks from the date for the Call of Expression of Interest (Eol).
- The applicants shall consider the full compliance to regulations, laws, and decrees applied in Egypt.
- The applicant shall demonstrate comprehensively the followings:
  - The Company setup, i.e. subsidiary of Corporation/Holding, Joint Venture, Consortium, or any associated group.
  - The Company Financial Tools/mechanisms to conduct and perform the assumed service.
  - The company organization structure.
- The applicant shall decide clearly the assumed technology to the service assumed in this document.
- The applicant shall submit the prequalification documents in the same order stated in this document with the forms stated herein after.
- The Prequalification forms should be stamped and signed by a legally authorized representative of the applicant Firm attached with Authorization letter by the applicant firm.
- The applicant shall submit the Eol attached with the prequalification document in Original File attached with CD of Scanned Original File.
- Attachments and details related to the forms of this document could be added in Annexes.

### 3. PREQUALIFICATION FORMS

#### 3.1. GENERAL REQUIREMENTS

##### 3.1.1. COMPANY INFORMATION

Please fill in the following Table:

#	Item	
1	Company Name:	
2	Company Category:	<input type="checkbox"/> Egyptian <input type="checkbox"/> Foreign
3	Chairman/CEO:	
4	Company Address:	
5	Telephone:	
6	Email:	
7	Contact Person:  Telephone:  Email:	
8	Commercial Registry #:	
9	Tax Card #: <sup>1</sup>	
10	Company Field of Activity:	<input type="checkbox"/> Engineering  <input type="checkbox"/> Contracting  <input type="checkbox"/> Trading  <input type="checkbox"/> Services  <input type="checkbox"/> Utilities  <input type="checkbox"/> Industrial  <input type="checkbox"/> Others

<sup>1</sup> Copy of Commercial Registry and Tax Card shall be attached in Annex 1.

In case the applicant has consortium form, each firm of the consortium shall be detailed as above.

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### **3.1.2. COMPANY ORGANIZATION STRUCTURE**

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Please provide the detailed organization Structure in Annex 2. The details shall consider the followings;

1. Top and intermediate management personnel by name, specialty, contacts, and CVs.
2. Human Resources availability and number for permanent and temporary/casual.

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### **3.1.3. COMPANY PROFILE**

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Please provide the company profile in Annex 3. The details shall consider all activities of the company.

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### **3.1.4. FINANCIAL CAPABILITIES**

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Please fill in the following table:

Year	Volume of Investment (US\$)	Volume of Total Revenues (US\$)
2019		
2018		
2017		
2016		
2015		

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## **3.2. TECHNICAL REQUIREMENTS**

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This part of the document is concerned with the technical details that should be built very specific to the proper size of treatment process and not generic one. The technical forms of this document shall be filled clearly with details.

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### **3.2.1. APPLICANT OFFERED SERVICE**

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Applicant Service to be provided:

- Waste to Energy through direct use of MSW to generate Electrical Energy.
- Waste to Energy through direct use of Sanitary Landfill Biogas to generate Electrical Energy.
- Waste to Energy through direct use of Waste Water Treatment Sludge to generate Electrical Energy.
- Mechanical Biological Treatment for MSW.

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### **3.2.2. APPLICANT COMMITMENT TO TECHNICAL AND REGULATORY FRAMEWORK OF DECREE #41 – 2019**

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The applicant shall formulate compliance statement considering the following terms:

- The maximum allowed capacity for installed power plant to Waste to Energy not exceeding 20 MW and not less than 500 kW.
- The acceptance for the FiT stated in the decree #41 as maximum available value for invoicing related to each Waste to Energy Technologies.
- The readiness of the applicant to offer FiT lower than of the stated one in Decree #41.
- The payment to the applicant shall be paid in Egyptian Pounds not any other currency.

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### **3.2.3. APPLICANT COMMITMENT TO POLLUTION LIMITS**

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The applicant shall formulate compliance statement considering the following terms:

- All pollution limits shall be in full compliance with the Egyptian Laws and regulations, the International codes and standards which comes more aggressive to follow.



- The commitment to the latest art of technologies in treating the pollutants as an outcome of the service provider treatment process.
- The compliance towards the preparation for the Environmental and Social Impact Assessment to the process offered by the applicant.
- The compliance to get the approval of EEAA for the Environmental and Social Impact Assessment.

**3.2.4. WASTE TO ENERGY TECHNICAL TERMS**

The applicant shall submit the following specific data related to the assumed technology of waste to energy treatment process.

Waste to Energy (W2E) Treatment Category:	<input type="checkbox"/> Municipal Solid Waste <input type="checkbox"/> Biogas of Sanitary Landfill <input type="checkbox"/> Sludge Treatment
W2E Technology of MSW Treatment:	<input type="checkbox"/> Incineration <input type="checkbox"/> Pyrolysis <input type="checkbox"/> Gasification <input type="checkbox"/> Others
W2E Technology of Sanitary Landfill Biogas:	<input type="checkbox"/> Gas Extraction, Separation, and Power Plant <input type="checkbox"/> Others
W2E Technology of Sludge Treatment:	<input type="checkbox"/> Digesters, Gas Processing, Power Generation <input type="checkbox"/> Others
Installed Power Capacity (MW):	
Total Generated Electrical Energy (Gross)	_____ kWh/year

<p>Net Generated Electrical Energy to Utility Grid</p>	<p>_____ kWh/year</p>
<p>Power Generation Technology:</p>	<p><input type="checkbox"/> Steam Power Plant  <input type="checkbox"/> Gas Turbine Power Plant  <input type="checkbox"/> Gas Engine Generator Set  <input type="checkbox"/> Organic Rankine Cycle</p>
<p>Input Energy to Treatment Process equivalent to Installed Power:</p>	<p><input type="checkbox"/> MSW Rate (Ton per Day) _____  <input type="checkbox"/> Biogas of Sanitary Landfill (m3/hr) _____  <input type="checkbox"/> Biogas of Sludge Treatment (m3/hr) _____  <input type="checkbox"/> Sludge Rate (m3/hr) _____</p>
<p>Land Area for Treatment Facility:</p>	<p>_____ m2</p>
<p>Utilities Requirements for Treatment Facility:</p>	<p>Water: _____ m3/hr  Electricity: _____ kWh/day  Fuel: _____ Type and Rate</p>
<p>Pollutants and Emissions:</p>	<p>Concentrations/Rate</p>
<p>CO  CO<sub>2</sub>  SO<sub>x</sub>  NO<sub>x</sub>  Hydrogen Chloride  Hydrogen Fluoride  Heavy Metals  Toxic Emissions</p>	<p>_____  _____  _____  _____  _____  _____  _____</p>

Particulates	_____
Others	_____
Rejected Solids Rate	_____
Rejected Fluids Rate	_____
Other Products rather than Electrical Energy – Rate/quantities	_____ _____

The applicant shall submit the details of the technology mass balance, the process flow diagram, and the master layout for the assumed treatment facility in Annex 4.

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**3.2.5. MECHANICAL BIOLOGICAL TECHNICAL TERMS**

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The applicant shall submit the following specific data related to the assumed treatment process of Mechanical Biological treatment for MSW.

MSW Rate for MBT Facility:	_____ ton/Day
Land Area for Treatment Facility:	_____ m2
Recycling Factor:	<input type="checkbox"/> 60% <input type="checkbox"/> 70% <input type="checkbox"/> 80% <input type="checkbox"/> Other
Rate of RDF Production to total MSW	_____ %
Rate of Compost Production to total MSW	_____ %

Rate of Recyclables to total MSW	_____ %
Rate of final disposed off rejects	_____ %

The applicant shall submit the details of the technology mass balance, the process flow diagram, and the master layout for the assumed treatment facility in Annex 5.

**3.3. APPLICANT EXPERIENCE**

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The applicant shall submit his experience relevant to the treatment process. The following table shall be filled in for at least the last 10 years.

#	Project Name	Location	Investment Volume	Financial Resources	Year of Start up

#### 4. APPLICANT FUNDING SOURCES TO TREATMENT FACILITY

The applicant for the interested MSW treatment process shall submit the following financial resources and terms:

<b>Financial Mechanism:</b>	<input type="checkbox"/> Total Equity <input type="checkbox"/> Equity/Debt <input type="checkbox"/> Equity/Leasing <input type="checkbox"/> Others
<b>Loan Setup:</b>	<input type="checkbox"/> Soft Loan <input type="checkbox"/> Commercial Loan <input type="checkbox"/> Other
<b>Financing Support:</b>	<input type="checkbox"/> Development Agencies <input type="checkbox"/> Green Funds <input type="checkbox"/> Others
<b>Banks/Financial Institutions</b>	<b>Please name such institutions</b>

## 5. PREQUALIFICATION DOCUMENT EVALUATION

The applicant prequalification document shall be evaluated based on scoring system as per the following table and definitions to assess the proper score.

#	Item	Maximum Score	Minimum to Achieve
1	Company Information	20	70%
2	Company Organization Structure	40	80%
3	Company Profile	40	70%
4	Company Financial Capability	60	70%
5	Company Commitment to Regulations and Laws	100	80%
6	Technology Adaptation and Maturity	150	80%
7	Pollutants and Emissions Control Level and Compliance	150	90%
8	Technology Performance Efficiency in Treatment Process	100	80%
9	Company Experience	80	70%
10	Company Funding sources to Investment in Treatment Technologies	200	80%

**ANNEX 1: COPY OF COMMERCIAL REGISTRY AND TAX CARD**



## ANNEX 2: COMPANY ORGANIZATION STRUCTURE

## ANNEX 3: COMPANY PROFILE

**ANNEX 4: TECHNOLOGY MASS BALANCE, THE PROCESS FLOW DIAGRAM, AND  
THE MASTER LAYOUT FOR WASTE TO ENERGY TREATMENT PROCESS**

**ANNEX 5: TECHNOLOGY MASS BALANCE, THE PROCESS FLOW DIAGRAM, AND  
THE MASTER LAYOUT FOR MECHANICAL BIOLOGICAL TREATMENT PROCESS**