

**Proposal for**  
**“Emissions**  
**Information & Communication System”**

*For monitoring authorities and for Industries*

**PROPRIETARY NOTICE**

***All pages of this document contain information proprietary to ESRF. This document shall not be duplicated, transmitted, used, or otherwise disclosed to anyone other than the organization or specific individuals to which this document is delivered. This restriction is applicable to all sheets of this document. ESRF reserves the right to have the recipient return all copies of this document at any time.***

***ESRF is willing to discuss any aspect of this document or other services that may be needed by a Facility. Any issues or queries arising should be addressed to: Mr. Rakesh Solanki,***

***By accepting to receive this document, customer confirms to abide by the above.***

ESRF : emission mgmt & comn,  
Document Version 1.0  
November 4, 2009  
Copyright © 2009  
**PROPRIETARY AND CONFIDENTIAL**

## 1 Introduction

The environment protection business is led by developed countries and we have great dependence by way of aid and technological support. However in this sector the developments are concurrent and recent phenomena. Especially in software development, we have great potential for not only developing the technology indigenously, but also market it worldwide.

A plan of action is urgent necessity, as they are bound to be developed further for sure, if we don't do it.

With this initiative in right perspective and commitment, we can guide the industry, and contribute significantly to the movement.

Being a technology and concept promoter, most of the time, we will enjoy doing this with an appropriate arrangement.

## 2 Scope of Work

### 2.1 Our Solution

To meet the objectives of having operating and monitoring parameters online, of an emission producing unit, we

propose to have comprehensive online portal, well integrated with the emission information management application suitable to customers, management, and the monitoring agencies.

The proposed solution will have two main components:

- Emissions information Management Application &
- Web Portal

### **2.1.1 Emissions Information Management Application**

This application will fetch data from the various systems, which have to operate under predetermined operating protocols. In a facility, they can be of five groups-

1. Incoming fuel record and logistics,
2. feeding systems and process,
3. Incineration systems , and wet scrubber
4. Effluent treatment plant
5. Various emission monitoring systems

Depending upon the system /applications/equipment used at the facility, this application will fetch information which in turn will go to the central server. Central server will act as

information silo of all the facilities, where this application is installed.

### 2.1.2 Information Management Portal

This portal will act as linkage between facility operators and various government agencies that are responsible for controlling the pollution.

- **Monitoring Module:** This module will be accessed by all regularity bodies such as MEOF, CPCB and PCB. This will be a completely secured module ,which will have role based login permission to end users. Depending upon the rights, different user will able to view permitted reports as per their role.
- **Database:** This will contain the all the input from facility operators. This module will act as bridge between portal and Emission management information system. In absence of any plc based input system, this module may accept the information manually from facility operator through admin module.
- **Admin Module for Facilitator:** Facility operator may or may not be having PIC based system to capture and record the data, which will be needed for regulatory

bodies. This module will help them in manually upload their information into the portal.

- **Admin Module for ESRF:** This module will help ESRF to define and configure various operational and monitoring parameter

## 2.2 Key Responsibilities

We will be responsible to setup, configure and customize the components described in the above section. The following describes the responsibilities in detail.

### 2.2.1 Central Repository Database Design

The central repository will be a true and single representation of data sourced from various sources. It will be designed in a manner so that additions of new data sources in future doesn't impact the present workings. The following conditions will be taken care of whilst designing:

- Size of the database, over a period of time
- Frequency and quantum of data addition
- Provision for database clustering
- Differentiation between Active and Passive data
- Classification of information that needs to be captured

It will require coordination with the ESRF team to ensure that all the aspects of business information are being properly captured.

### **2.2.2 Application Installation**

We will design the architecture of the system and provide the details of appropriate hardware requirement. Our team will be responsible for installation of all the required components of the suite, associated software and ensure that the components are able to run and communicate with each other efficiently.

### **2.2.3 Data Integration Customization**

After the designing of the central repository, DI tool will be customized to fetch data from desired ESRF database servers, transaction servers or any other data source, as notified by ESRF team. These data will be processed as per the transformation rules and stored in the central repository. The primary activities of customization will be:

- Identification of possible data sources along with ESRF team

- Ensuring connectivity with the data sources with proper drivers
- Defining Jobs - building and implementing the logic of fetching the data from each data source
- Configuring and setting up frequency of execution of each Job
- Defining Transformations in each job
- Configuring and setting of error reporting in case of deviation from normal activity, for each job

#### **2.2.4 Reporting Customization & Analysis Tool**

The customization will include designing and implementing correlations between various transaction data, wherein the correlations has to be given by the ESRF team.

### **2.3 Deliverables**

The entire scope of work will be executed in two phases.

#### **2.3.1 Phase – I – in house work assimilation and data compilation**

#### **2.3.2 Phase – I I – demonstration and reporting protocols**

### 3 Hardware and Software

The following table illustrates the hardware and software recommended for the various components of the system.

<u>System Component</u>	<u>OS / Software</u>	<u>Hardware Spec</u>
Central Data Repository	Linux / Mysql	Pentium dual core, 4GB RAM, 1TB DAS
	Linux / Java	Pentium dual core, 2GB RAM, 160 GB native storage
	Linux / Java	Pentium dual core, 2GB RAM, 160 GB native storage
	Linux / Java	Pentium dual core, 2GB RAM, 160 GB native storage



**4 Commercials terms=** Total project Cost Rs. 25 lacs

#### **4.1 Installation and Customization**

The following commercials terms are as per the scope of work defined in Section 2.

- Statutory charges-12 % Service Tax will be extra.

#### **4.2 Payment Terms**

Phase - I – 50% of the project cost as mobilization advance

Phase – II – 30 % on completion of the project, balance on handing over.

#### **4.3 Project Duration:**

It should take a minimum of six months for developing the project and synchronization if all the equipment is made available.

There after our annual maintenance charges and operating charges. if any and will be mutually decided.

We trust that this proposal will meet your approval and we will be given an opportunity to work with you.

Best regards  
team ESRF