



ATS



ASH

A Liability

Hazard

Opportunity

## 01 Ash Disposal

- Challenges
- Possible road blocks

## 02 Regulations

- Regulations from MoEFCC
- Regulations from CPCB & SPCB

## 03 Solution

- AshTrack
- True up

## 04 Block chain Assurance

- Technology
- Benefits

The Coal Fired Power plant which is the primary source of large scale ash has got 2 Types of ash

1. Fly ash which is generally produced & Shipped out the same day and has lots of applications.
2. Bottom Ash – It is either the historic production or the ash from the washout and has little utility other than landfills.

The Fly ash is an input ( raw material) to multiple industries but there is a major gap in communication between the stake holders .

The production of Fly ash is also variable as it is dependent on Coal availability and many a times the power plant itself is hand to mount for the coal supplies . This leads to a Chaotic situation for consumers who are not assured about the quantity they will get .



# Regulations



The Ministry of Environment, Forest and Climate Change (MoEFCC) has very seriously taken up the matter of ash Disposal and has issued directives advises and have even issued Gazette there by creating a change in law .

The central Pollution control Board CPCB & State Pollution control Board's SPCB as per the their region have come up with there regulation and interpretations .

To continue to operate the Power plants needs to meet the guidelines and “ the Condition to operate” as derived from the 3 bodies.



# Solution



ATS ( Aniruddha Telemetry systems Pvt Ltd has come up with a IOT based and software backed solution which can help you in

1. Proper communication within organization about the availability of Ash
2. Dash boards which helps all stake holders internal and external about ash availability.
3. Provision to make offer to the Power plant to Pick the ash by all ash Consumers
  1. who are willing to pay and pick the ash
  2. willing to pick the ash at their transport cost.
  3. Who are willing to receive the ash at plants cost.
4. Automate the infrastructure by making man less weight bridges and Auto gate passes which can improve the power plant ash throughput and reduce manpower requirement.
5. Update the ash teams about the latest ash Regulation
6. Create the documentations which can be used by the power plant to negotiate with the relevant buyers for taking the cost of ash Disposal as cost and recover the same .

# How it works

The Compute solution has 3 components

1. Infrastructure at Power plant
2. IOT enabled Trucks and Dumpers
3. A Software solution to tie them together

The Power plant has to install a set of hardware and software for

1. Automation of entry and exit gates using boom barriers and RFID
2. Automation of weight Bridge
3. Software for ash Production declaration and understanding the real ground situation .
4. Creation of digital evidences , delivery challan or invoice as required for accounts True Up



## IOT enabled trucks and Dumpers

1. IOT enabled trucks and dumpers to know the exact location where the vehicle was really unloaded and accordingly create the transportation bills automatically .
2. Confirm back based on Delivery challan that the delivery was done at the right location .







# Available Solution Providers



ATS Solution is available through

1. Ashtech
2. Avanta

Ashtech has set up a dedicated command and control to ensure that your interest are well served.





# Block Chain Assurance



## What is Block chain

Blockchain is **a system of recording information in a way that makes it difficult or impossible to change, hack, or cheat the system**. A blockchain is essentially a digital ledger of transactions that is duplicated and distributed across the entire network of computer systems on the blockchain.

## Why

It is the ultimate ledger which anyone can have and it is acceptable globally by all .

## How it helps

We can store all the activities completed using block chain and the same can be shown to any auditor who wants to review the Ash data.



# Question



# Thanks

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