



steamhouse®

Community Boiler & Combined Heat And Power Solutions



Understanding Community Boiler



- **PRESENTLY MOST OF INDUSTRIES** (Textiles, Paper Mills, Rice Mills, Palm Oil Processing, Chemicals, Pharmaceuticals, Pesticides etc.) that need steam for their production generate steam by individual small boilers from sizes ranging from 100 kgs/hour to 30 TPH
- Alternatively single **COMMON BOILERS** in Industrial areas/clusters, which are **ENERGY EFFICIENT**, with good **APCM** will provide steam with better environmental compliance and at economical rate. A robust **STEAM DISTRIBUTION NETWORK** will be required to feed steam to the member industry.



Environmental Benefits of the Project



- The SPM level of the area will be reduced, present permissions are for 150 SPM average and We have a permission of 100 SPM, where as our personal target is <30 SPM
- Reduced Pollution as The projects' main focus is to Protect Environment and there fore use Best/Reliable Available Technology ie ESP with extra fields
- The projects can Reduce Pollution by Reducing Pollution at Source ie. Procuring the Right fuel with complete fuel testing facility and bulk procurement₃



Continued...



- The Project include Co-Generation in subsequent phases and there by reduce overall Carbon Foot print
- Reduction in fugitive emission due to proper storage, and in house weighing etc. facilities, presently 1000s of coal trucks move in the estate twice just because small industries don't have in-house weighing facility
- In-house manufacturing of Compressed bricks from fly ash in subsequent phases to avoid transportation of Fly ash and reduce fugitive emission



Benefits of the Project – TO THE INDUSTRY



- Steam Pressure – Min 11 Kg/Cm² for a minimum of 95% of the year
- Steam Temperature – Dry or Slightly super heated steam will be available for a minimum of 95% of the year
- Steam Availability – Minimum 95% time of the year



Benefits – TO THE INDUSTRIAL ESTATE



- The Estates will be VALUE ADDED and moving towards COP21
- More number of small and medium scale industries will be attracted to estates with such a facility
- Improvement in Index of Ease of doing business
- Estates will have a better look and can be called SMART ESTATE, and since this is a private company maintenance of the pipeline and pillars would be good
- There are lot of Non IBR – illegal boilers running in estates due to variable constraints of small industry owners, they can get rid of such boilers making overall safer estate

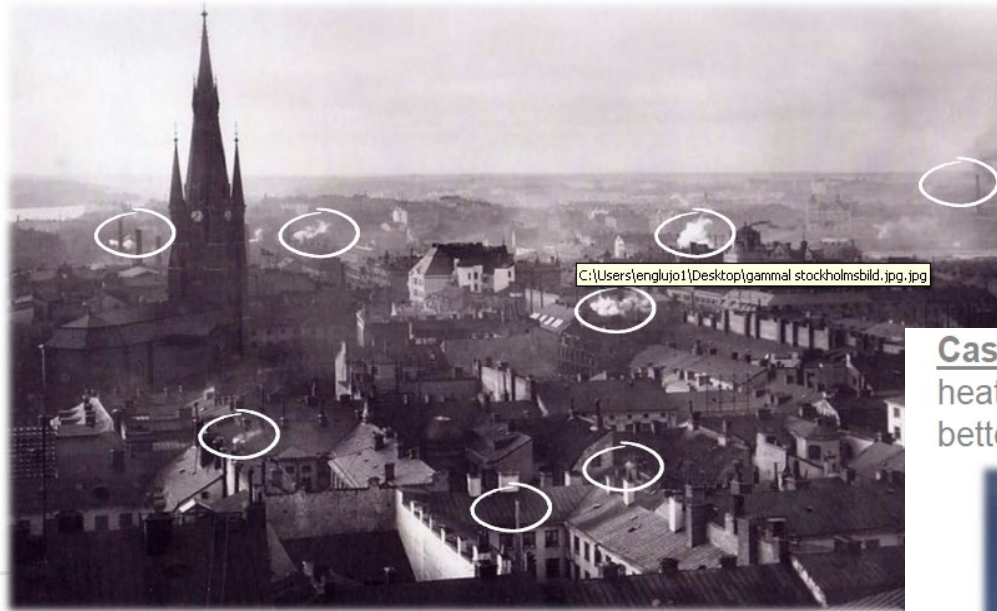
Steam & other utility scenario in Developed Countries



Stockholm – Case study



Case study: In 1950's Stockholm had multiple independent chimneys emitting smoke affecting the air quality



Stockholm winter in 1950

Case study: In recent times, Fortum's state of the art power & heat plant has efficiently consolidated the emissions leading to better air quality



Stockholm winter in 2010



Currenta - Chempark – Levercusteren - Germany





**Matching the
footsteps of
developed
countries :
First venture of
Steam House
At GIDC Sachin
Surat
Since 2015**





Success Story since 2015 – Surat - Gujarat India



1. Starting from 1 Customer to 50+ industries connected today
2. Steam grid of 8 Kms in Sachin GIDC
3. Industries have almost doubled there production and many who didn't have steam usage have added steam based products to their product line





Success Story : 5 years of operation



- Sachin Comissioned 2015
- Vapi Comissioned 2017
- Ankleshwar 2018
- Sarigam 2020
- Ankleshwar Phase 2 & 3 – 2020
- Nandesari – 2020
- Panoli – 2021



**24 X 7 – Online monitoring Centre for Operations
And Emergency management**



Customer Obligations



- **1. IBR Pressure Reduction Station (PRS)** – From 17.5 Kg to ‘Your Pressure requirement’
Alternatively Can install Induction Steam Turbine for 10 Kg to 3.5 Kg and can generate Electricity at your end
- 2. Steam Metering Station** – Standard Equipment's and Meter– at Customers’ Cost.
- 3. MGO 60%** - The Buyer shall purchase STEAM every month to a minimum of 60% of the contracted quantity.

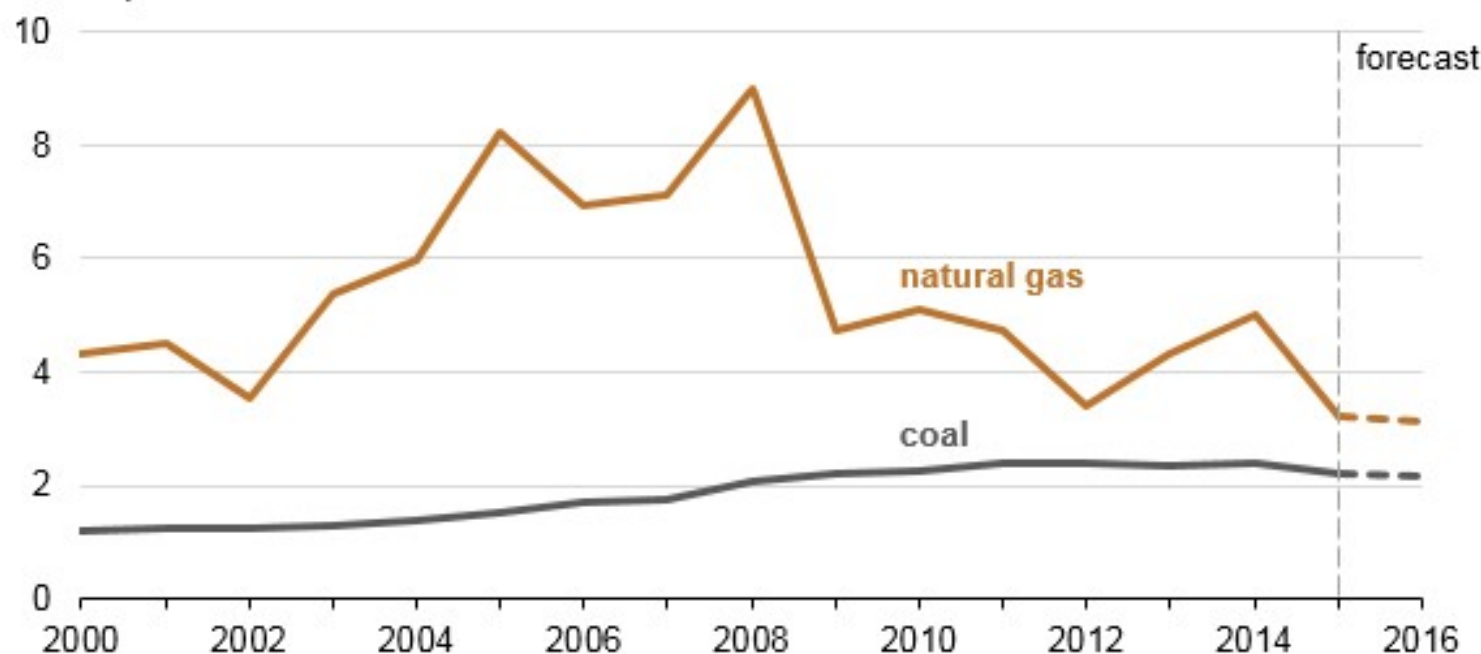


STEAM SALE HIGHLIGHTS - PRICING



Prices connected to coal rates - ensures transparent and dynamic pricing for a long term reliable business

Average fuel receipt costs at electric generating plants (2000-2016)
dollars per million Btu



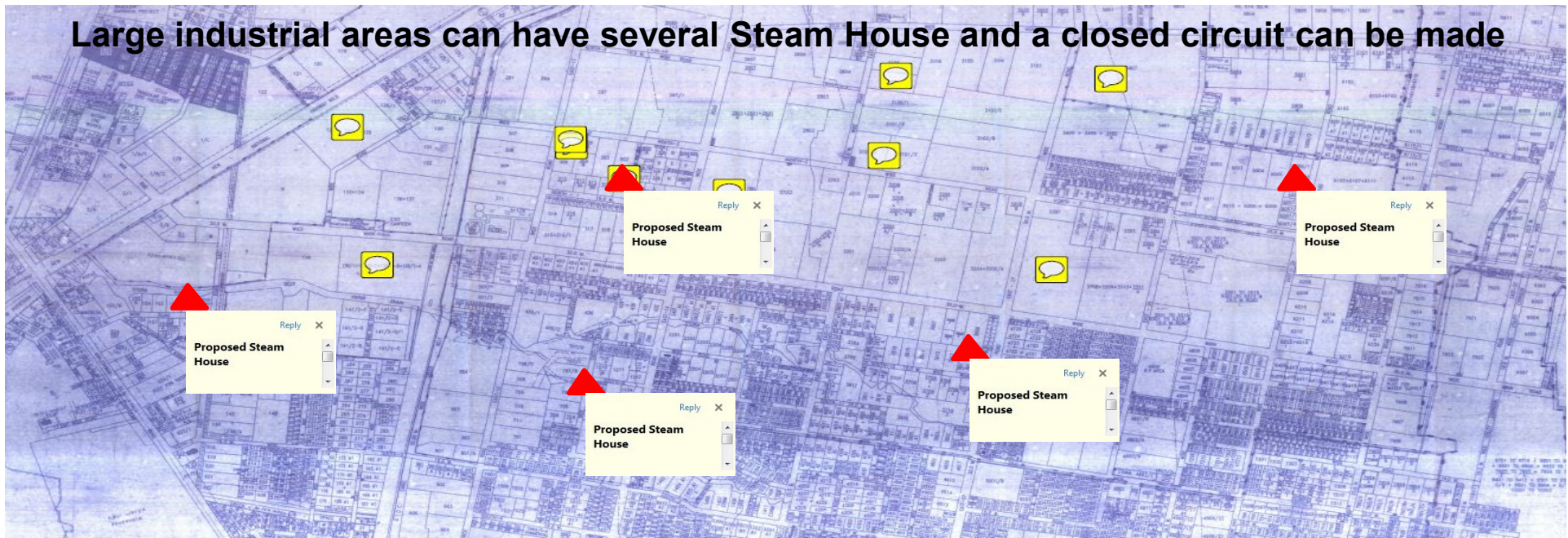


Help Expected from STAKEHOLDERS



- A tri-Partie MOU between Government/SPCBs, Industry development agency or association & Steam House for setting up and giving required permissions on fast track basis
- Help in Securing Land from – Industrial area development agency / Sub Lease / Sale on preferably central locations of industrial area, 3000 Sq Mtr per 60 TPH Capacity is required
- Helping us in survey of the industrial area

Large industrial areas can have several Steam House and a closed circuit can be made



THANKS

