



EECs support for Indian Power Sector

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5th January 2013
Bangalore**



EEC – focal areas

Comprehensive approach

Technology

- International know how
- Energy efficiency
- Clean coal

Processes

- Best practices
- International guidelines

Trainings

- Training modules in India
- Training modules in Germany
- Training of trainers



EEC activities

- **Regional workshops** (Kolkata, Hyderabad, Chennai, Jaipur, Bhubaneswar, Nagpur, Kohima)
- **Technical working groups on**
 - support in PAT achievements
 - Modification on LMZ machines
 - Condenser monitoring
 - Coal blending
 - Low grade imported coal
- **Technical guide lines for Best Practices**
- **Pilot projects**



Facilitation of PAT implementation by EEC

PAT targets

Percentage improvement over baseline	No. of power stations (coal based)	Category
less than 1%	24	I
1-2%	19	II
2-3%	14	II
3-5%	24	III
More than 5%	16	IV
	<hr/> 97	



Facilitation of PAT implementation by EEC

Strategic action

- Category I
 - Good performing stations
 - Target low, can be achieved with little intervention

- Category II
 - Average performance
 - Detailed study required
 - Medium intervention in terms of cost and activities

- Category III+IV
 - Base line performance poor
 - candidate s for extensive R&M for long term sustainability and life extension



Facilitation of PAT implementation by EEC

Actions for PAT targets (Category III + IV)

- Discussions held by CEA with utilities
- Partial or fully achievement of PAT targets seems feasible without comprehensive R&M
- For PAT targets, there is a need to focus on:
 - Necessary maintenance
 - Identification of critical areas
 - Need based small R&M works
 - Improved O&M practices
- Decommissioning of old units in a plant also seen as a strategy for PAT targets
- To speed up long term life extension and R&M already under progress



Facilitation by EEC - PAT

Core group

1. Identify 2-3 representative cases
2. Develop methodology for case study
3. Identify TOR of study
4. Coordinate the work of sub-groups



Study teams for each case

- Technical support from CEA, VGB
- Review of Data/Audit report
- Additional test as required
- Assessment of funds requirements
- Interaction with power plant engineer
- Review of EBSILON results
- Preparation of detailed action plans with activities and benefits



Reports generated to serve as guideline for wider use



Review results after implementation



EEC – some Feedback from workshop 29.8.12

Review of PAT targets, with respect to NORMALISATION.

- To take care of start ups/shut downs
- PLF, coal quality, sudden unexplained change in performance
- Need for progressive targets

EEC can take up **pilot projects** to establish benefits from effective insulation

Manufacturers to be taken on board in **senzitisng and confidence building** of the utilities for R&M – EEC to coordinate

Technical articles, feedback, case studies to be made available on **EEC website**

EEC can pick up the issues such as operation with **wide variety of coals** and use of smart soot blowing



EEC – activities 2012 - 2013

January February March April May June

Regional workshops in
Kohima, Hyderabad,
Chennai, Jaipur,
Bhubaneswar, Nagpur, etc.

Technical working groups
- PAT – support
- LMZ machines
- condenser monitoring
- coal blending

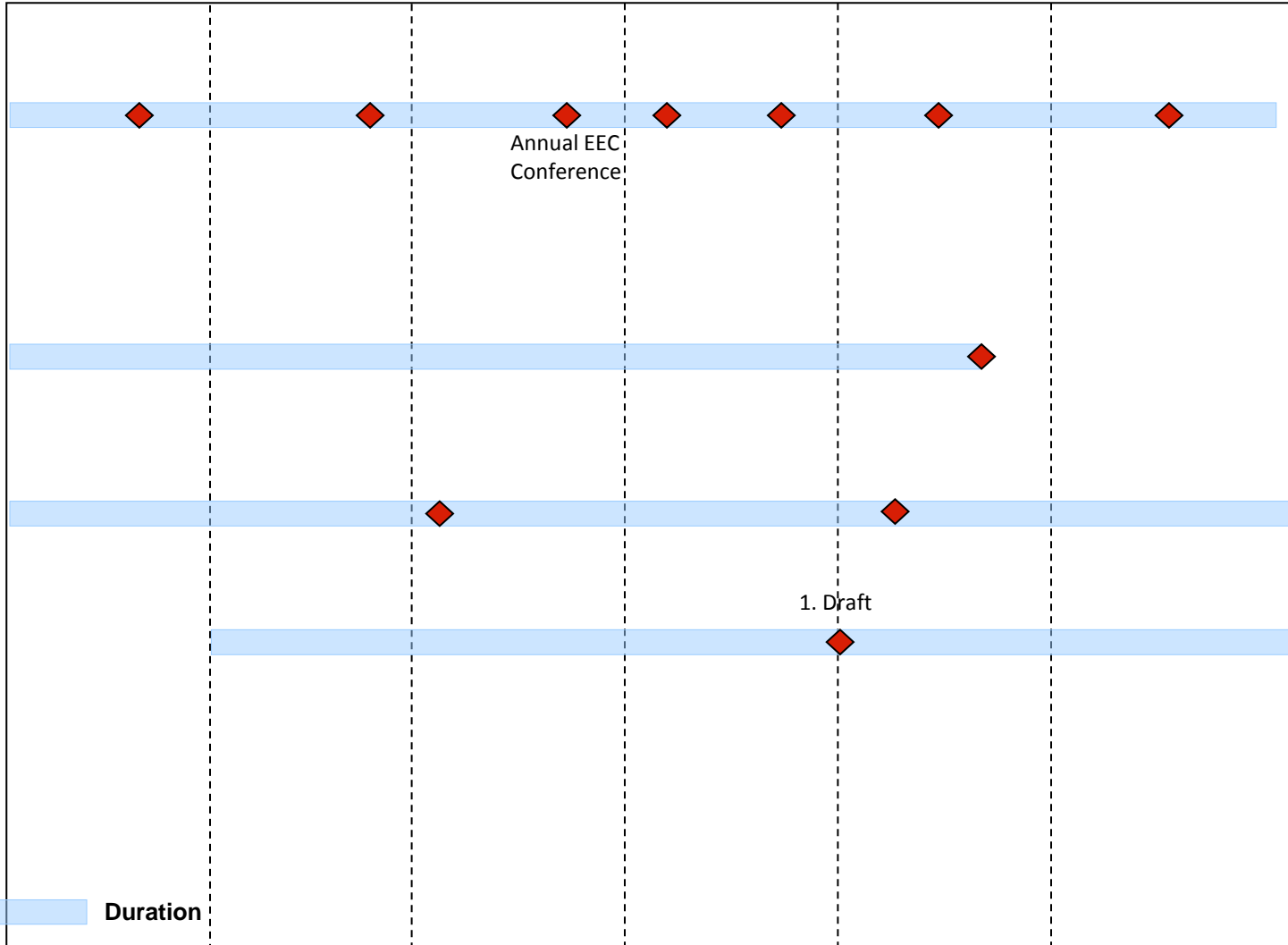
VGB – KWS workshop

Preparation of 2 technical
guidelines

Annual EEC
Conference

1. Draft

◆ Milestone ■ Duration





Thank you