‘PAT’ Scheme for Indian Industry-Some Perspectives

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Presentation structure

- Brief introduction to DSCL Energy Services
- PAT scheme in brief-our understanding
- Review of Global development
- PAT Scheme & Industry
- Conclusions

The leader in environmental services

VEOLIA ENVIRONNEMENT

The only company in the world able to cover the entire range of environmental services

VEOLIA WATER

The global benchmark in water services

World leader
€12.5bn

VEOLIA ENERGY

Dalkia

The leading European provider of energy services

European leader
€7.5bn

VEOLIA ENVIRONMENTAL SERVICES

The global benchmark for waste management and resource recovery

Worldwide reference
€10.1bn

VEOLIA TRANSPORT

The standard for managing safe and sustainable mobility solutions

European leader
€6.1bn

DSCL Energy Services (DESL), a member of the Veolia/Dalkia group from 14th Dec, 2009

Affiliations and Recognitions-DESL

Empanelled with

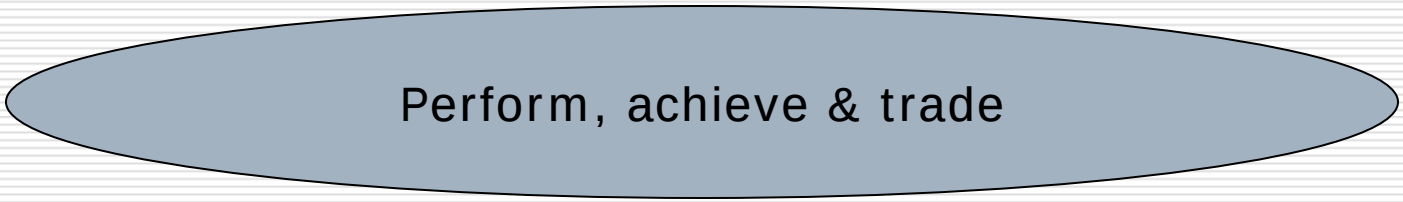
- BEE
- World Bank
- Asian Development Bank
- Department For International Development, UK

Only Non-Vendor Energy Services Company rated Grade-1 by BEE/CRISIL

Recipient of
BEST ENERGY SERVICES COMPANY AWARD
For four years
From PCRA, MoP&NG

PAT Scheme-Snapshot

- Development phase-Timeline?
  - Assign EE target for industry
  - Set goal-SEC for each unit
- Reduction phase-2009-12
- Trading phase-Post 2012?
  - EScerts (Energy saving certificate=1 Toe)



Aim & Objective

- 5% reduction in annual energy consumption by 2015
- Development of alternative EE market
  - Estimated Rs 75000 Crs business transaction
  - Promotion of ESCO
  - Development of new financial mechanism
    - PCG
    - VCF

My Learning from International Developments

- Pros & cons of the schemes
- Setting the ‘Rules of the Game’
- Organizing & Managing Business processes
- Critical implementation issues

Pros & Cons

- Pros
  - Guarantees meeting the agreed target
  - Tradability promotes least cost solution
  - Unlock savings potential not done by current mechanisms
  - Reduce pressure on budget
  - Promote ESCOs (577 affiliated with regulators in Italy)
- Cons
  - Only efficiency is covered and not overall reduction
  - Could involve large transaction cost (Like CDM projects, ESCO project in the Govt sector in India)
  - Might work till capture of ‘Low hanging fruits’ (CDM examples)

Learning-Contd--

Like S&L Program, PAT has the potential
For
Market transformation for EE

Setting the ‘Rules of the Game’

- Defining targets
- Coverage period
- Identification of obligated parties (PAT starts with industrial units-what about DSMs)
- Period of compliance
- Validity of EScert/banking/borrowing
- What types of projects (If beyond entity level)
- M&V systems
- Accounting behavioral savings
- Capacity building-stake holders

Organizing & Managing Business Processes

Opportunities & Issues

- Opportunity
- Issues
  - Baseline
    - Benchmarking
    - Converting
    - M&V
  - Market Signal
    - PAT price
    - Impact on overall savings

Opportunity

- 1st scheme to capture gain from EE to the top line
- Only scheme to provide both top line & mid line benefit
  - Double impact on bottom line

Opportunity & Issues-Case example

Case example-Steel	Unit	Year-1	2	3	4
Production	MnT	6.2	6.71	6.3	6.8
SEC	Gcal/Tcs	6.64	6.98	6.84	6.7
SEC	Toe/Tcs	0.664	0.698	0.684	0.67
Energy savings	Toe/Tcs				
Year 4 over 3	Toe/Tcs				0.014
% Savings					2.1%
Overall saving	Toe/year				
Year 4 over 3	Toe/year				95200
Value	Rs Crs/Year				52
For 20% incentive	Rs Crs/Year				10.472
Value of PAT	Rs/Escert				1100

Case Example-Cement

Case example-Cement	Unit	Year-1	2	3	4
Production	MnT		2.43	2.6	2.48
SEC	Kcal/kg clinker		692	686.6	687.4
SEC	kWh/T cement		87.14	84.4	86
SEC*	Toe/Tcement		0.07615	0.07600	0.00740
Energy savings	Toe/Tcs				
Year 3 over 2	Toe/Tcs				0.00016
% Savings					2.1%
Overall saving	Toe/year				
Year 4 over 3	Toe/year				385.9872
Value	Rs Crs/Year				0.270
For 20% incentive	Rs Crs/Year				0.054038
Value of PAT	Rs/Escert				1400
*For simplicity, thermal SEC for clinker has been taken for cement too					

Case example-Paper

Case example-paper	Unit	Year-1	2	3	4
Production	MnT		0.23	0.231	0.245
SEC	T/T Steam		6.72	6.69	6.47
SEC	kWh/T		1476	1461	1421
SEC*	Toe/T		0.66454	0.66085	0.63981
Energy savings	Toe/T				
Year 3 over 2	Toe/T				0.00369
% Savings					0.6%
Overall saving	Toe/year				
Year 4 over 3	Toe/year				904.0
Value	Rs Crs/Year				0.362
For 20% incentive	Rs Crs/Year				0.0723
Value of PAT	Rs/Escert				800
Project based reported savings-Rs 2 Crs					

In Summary

Industry unit	Energy saved-Rs Crs/year		PAT Price for 20% impact-Rs/Escert		
	Unit based	Proj based	Relisation	Trans cost	Sale price
Steel	52	65	1100	330	1430
Cement	0.27	1.4	1400	420	1820
Paper	0.36	2.16	800	240	1040

Identified issues

- Baseline & Benchmark
  - Identification of variables and establishment of relationship
  - Would there be baseline adjustment methodologies
  - Benchmark
    - How to encourage achievers & prevent windfalls

Identified issues

- Energy savings values-Reconciling the differences (Unit based vs. project based)

Positive pressure-Development of transparent baseline & M&V methodology

Negative pressure-Increased barrier to bottom up EE investment proposal

Identified issues

- Value of PAT
  - To make an impact (What %age)- significance in the overall context
  - Somehow would get linked to the local energy price-varying from industry to industry and unit to unit
  - What policy tool to drive the price

Conclusions

- The PAT scheme can be pathfinder in developing EE market
  - 1st such scheme with visible cash flow
- The scheme is likely to become an evolutionary scheme
  - Can capture some learning from similar schemes operating globally
  - The scheme is still unique (Unit based)
- Identification of key success factors
  - Scheme overall
  - Industry specific
  - Provision for review mechanism

Thank You