Drivers and Barriers to Energy Efficiency in Non-Energy Intensive Manufacturing Industry in Bangladesh

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Name of the interviewee:

Name of the Company:

Designation:

Name of the Interviewer:

Approx. annual consumption of fuel:

Approx. annual expenditure on fuel:

Approx. annual consumption of electricity:

Approx. annual expenditure on electricity:

We highly appreciate your time and effort for giving the feedback of this questionnaire. While trying to focus on key factors to keep the questionnaire as short as possible, we couldn't address all questions. That is why we would like to ask, if you would be available for a further interview (max. length of 30 minutes): Yes/ No

Date: ____/____/_____ (dd/mm/yyyy)
Interview structure: Semi- Structured

Barriers for Energy Efficiency

According to the aggregated experience, please give your rating as followings:

Unimportant	1
Somewhat important	2
Important	3
Very important	4
Extremely important	5

Technical Barriers	1	2	3	4	5
• No available cost effective technical measures					
• Technical risks (such as production disruption or other undesirable influences)					
• Lack of technical experts/services					
• Non-existence of proven technology					
• Poor research & development					

Financial Barriers	1	2	3	4	5
• Limited access to capital					
• High perceived risk due to uncertainty about future energy prices, slow rate of return and others (e.g. prospective subsidies)					
• Other priorities for capital investment					
• Poor information quality regarding energy efficiency opportunities					
• Uncertainties regarding hidden costs (e.g. identification, implementation)					
• Lack of investment incentives					

Organizational and human factors	1	2	3	4	5
• Difficulty to cooperate inter-divisional					
• No possibilities for effective managerial measures					
• Lack of time or other priorities					
• Lack of staff awareness or motivation					
• Lack of information about allocation of energy costs					
• Limited authority of energy management					
• Insufficient top management support/ no commitment from management					

Policy Related Barriers	1	2	3	4	5
• Unclear/ complex legislative issues					
• Lack of financial policy					
• Insufficient attention from government					
• Bureaucratic complexity					

Drivers for Energy Efficiency

According to the aggregated experience, please give your rating as followings:

Unimportant	1
Somewhat important	2
Important	3
Very important	4
Extremely important	5

Internal Drivers	1	2	3	4	5
• Energy management system					
• Long-term energy strategy/company's environmental goals					
• Cost reductions resulting from lowered energy usage					
• People with real ambitions					
• Commitment from top management					
• Demand from owner					

External Drivers	1	2	3	4	5
• Threat of rising energy prices					
• International competition					
• Green certification system					
• Long term agreements with tax exemption					
• Taxes (e.g. energy, CO_2)					
• Regulations					
• Pressure from customers and different environmental non-governmental organizations (NGOs)					
• Energy audit subsidy					
• Beneficial loans for energy efficiency investments					
• Third party financing					
• Investment subsidies for energy efficiency technologies					
• Information and support through the sector organization					
• Detailed support from energy experts					
• Networks within the sector					
• Local authority energy consultancy					
• Possible reduction in carbon emissions					
• Other environmental benefits (other than CO_2 reduction)					

Energy Efficiency Potential

- Based on your experience and your current information about energy efficiency technologies, what could be the overall reduction of energy use assuming all available cost effective energy efficiency technologies were installed in your company (%)?

- Besides technology, what could be the overall reduction of energy use through energy management measures (%)?

- Please rate the importance of considering a system perspective when evaluating options for energy efficiency, i.e. just focusing on best available technologies (BAT) to increase could be suboptimal without considering interdependencies and technology as a part of overall system (1=low to 5=high)?

Energy Service Companies (ESCOs)

ESCOs are recently often portrayed as important change agents to decrease energy demand through increased efficiency.

- Please rate the importance of barriers to consult ESCOs from **low (1) to high (5)**

o Lack of information about ESCO concept	
o Lack of trust	
o Lack of technical competencies/ trained professional (energy engineers)	
o Lack of actors/ competitiveness	
o High fees of service	
o Absence of standardized procedure for energy audit and energy conservation measurement and verification	

- Has your company consulted ESCOs yet? If so, please answer the following questions-

o What kind of ESCOs was consulted? Please indicate the applicable category with "**X**"

Building controls, automation and control manufacturer	Facility management and operation companies
Energy supply and service companies	Consulting Firms

o What kind of services were requested? Please indicate the applicable category with "**X**"

Project identification	Project technical design
Project implementation	Third Party Financing
Guarantee of performances	Operation service
Purchase of the fuel/electricity	Insurance coverage

Energy Management	Applicable?
Policy	
• No policy or unwritten set of goals	
• Energy policy with a long-term energy strategy between 1-3 years	
• Energy policy with a long-term energy strategy above 3 years	
Organization	
• Part-time energy manage with only limited authority or no energy manager	
• Energy manager reports to ad-hoc committee, not fully responsible for energy consumption, low commitment from of top management	
• Energy manager fully integrated into top management structure, clear delegation of responsibilities and authority. High commitment from top management	
Information system	
• Energy consumption is metered. If so, please answer the following questions:	
o How they are allocated (Per m^2/ per employee/ per ton/ sub-metering/other)?	
o What energy is measured (electricity/ fuel/ steam and hot water)?	
o How frequently is energy use recorded (annually-quarterly/ monthly-weekly/ daily)?	
o Are trends in energy use monitored (yes/ no)?	
• Energy audits were conducted in your company (yes/ no)?	
o If so, have you consulted external partners/ experts?	
Awareness	
• No promotion of energy efficiency and no training of personal	
• Same ad-hoc staff awareness training and newsletters/posters	
• Marketing value and performance of energy efficiency on a regular basis	
Investments	
• A financial criterion is used when investing in energy efficiency measures (Yes/ no)?	
o If so, what kind of criterion is used (pay-off/ internal rate of return/ Net present value)?	
• Did you use third party financing when investing in energy efficient technologies in the last 5 (five) years (Yes/ no)?	

Comments:

Note:

- All information will be handled with strict confidentiality.
- Supplementary questions may be asked based on interviewee's response.

Thank you very much for taking the time to fill out the questionnaire!