

Annex to the Workshop Summary Break-out sessions results

Group 1 (Group leader: Liam Mc Laughlin)

Step 1: Identification of 5 key obstacles facing industrial energy efficiency

Priority	Obstacle description
	Compete for CAPEX Training and awareness of EE technologies and savings Need level playing field in regulation Energy price
	Align GHG emissions and energy savings Lack of connection between EE and operations efficiency Measurement and verification of savings Trust of new technology Non-core business
	Presentation and marketing Understanding of non-energy benefits Impact on production Case studies for EE (evidence)
	Risk aversion Technical limits Credit quality of end customers Fragmentation of projects (size is too small, need for bundling) Regulation for governments (cannot do EE projects even if they want to) – accounting rules for public sector

Step 2: Solution outlines for top 2 obstacles

Top 2 Obstacles	Solution outline
<ul style="list-style-type: none"> • Lack of Training and awareness of EE technologies and savings • Lack of Trust in new technologies • Need for accurate Measurement of energy savings 	<ul style="list-style-type: none"> • Training, education of the energy equipment and systems (policymakers to promote such education at the university and postgraduate levels) • Equipment standards • Installation • Operation • Measurement
<ul style="list-style-type: none"> • Absence of Level-playing field • Issues related to Accounting rules 	<ul style="list-style-type: none"> • Standards for measurements and reporting of equipment (original equipment manufacturer) (factory benchmarking) (scope) (key performance indicators – KPIs) • Energy-relevant product declaration – to be mandatory (Consumer choice) • Standardized environmental regulations • Include full value chain • Life-cycle assessment • Tax incentives for sustainability projects (particularly for SMEs) • On/off balance sheet

Group 2 (Group leader: Al-Karim Govindji)

Step 1: Identification of 5 key obstacles facing industrial energy efficiency

Priority	Obstacle description
1	Lack of communication between policy makers and industry
2	Lack of key policy drivers
3	Lack of knowledge and best practice
4	Energy price/ tariffs
5	Lack of communication internally/ within industry

Step 2: Solution outlines for top 2 obstacles

Obstacle	Solution outline
Lack of communication between policy makers and industry	<ol style="list-style-type: none"> 1. Education of policy makers 2. Industry network 3. Recognition for innovation 4. Data sharing through trusted intermediaries 5. Facilitator approach through a third party
Lack of key policy drivers	<ol style="list-style-type: none"> 1. Target setting on CO2 reduction/ energy efficiency 2. Incentives to achieve targets faster 3. Low cost/ More flexible loans/ Government guarantee 4. Legislation/ normative framework 5. Government targets for investment in innovation 6. Standardized carbon labels 7. Voluntary measurement disclosure

Group 3 (Group leader: Helge Schramm)

Step 1: Identification of 5 key obstacles facing industrial energy efficiency

Priority	Obstacle description
1	Supply chain linkages: <ul style="list-style-type: none"> • Shareholder expectations; increasing costs • Pressure to make money
2	Energy Pricing /Functioning energy market: <ul style="list-style-type: none"> • Energy price = core problem, common methodology to evaluate • Functioning energy market; incentive for industry to act versus political will • Legal framework for energy price impact
3	<ul style="list-style-type: none"> • Lack of senior management commitment, change of culture in everybody; lack of education • «Too busy, too expensive»
4	Access finance / Increase efficiency of plants: <ul style="list-style-type: none"> • Inefficient plants continue to be built due to lack of finance; • Energy access as fast as possible; tension between economic, social and environmental objectives; example South East Asia
5	<ul style="list-style-type: none"> • Energy efficiency in isolation; no ownership; not core business

Step 2: Solution outlines for top 2 obstacles

Obstacle	Solution outline
Supply chain linkages, Shareholder expectations; increasing costs Pressure to make money	<ul style="list-style-type: none"> • EE is linked to industrial excellency • Standards in supply chain • Scale of economy • Innovation – awards and rewards • Global Compact; PPP • National law (France); supply chain • Link to procurement, design, development, sales etc (size and type of companies)
Energy Pricing Functioning energy market;	<ul style="list-style-type: none"> • Reinvest savings in EE back into EE measures • Set a higher level playing field for all of them – commodities – service – close down inefficient power plants • Minimum performance standard, energy labelling per unit produced • ETS...carbon pricing • Tax inefficient plants • Effective inforcement mechanisms • Sustainability pricing, no subsidies • Link of producers and users
Sustainability culture/integrated approach Mindset (This is linked to previous obstacle)	<ul style="list-style-type: none"> • Reinvest savings in EE back into EE measures • Focus on sustainability programme • Develop product that fits for end consumer needs • Raise awareness, raise price • Education, long process, 10-15 a, continuous • Bottom up and top down • Role of other agencies, governmental agencies

Group 4 (Group leader: Bernard Mathieu)

Step 1: Identification of 5 key obstacles facing industrial energy efficiency

Priority	Obstacle description
1	Knowledge: Lack of ability to identify and assess projects
2	Policies: Incentives, stability, predictability, consistency
3	People: Education, awareness, behaviour
4	Capex 1: Availability, prioritised for growth Capex 2: Short term capex driven decisions, Total cost of ownership is neglected
5	Energy 1: Low prices - > low pay back, no differentiation between power sources, versatility and volatility Energy 2: Lack of transparency of the energy market

Step 2: Solution outlines for top 2 obstacles

Obstacle	Solution outline
Knowledge: Lack of ability to identify and assess projects	<ol style="list-style-type: none"> 1. B to B (platforms, initiatives, databases), B to Gov., B to Consumer (being more transparent, sharing info) 2. Education 3. Standardisation
Policies: Incentives, stability, predictability, consistency	<ol style="list-style-type: none"> 1. CO2 pricing 2. Long term framework based on consensus 3. Strong and skilled agencies 4. Renewable Energy Vs Energy efficiency