

Impact of MEPS and EE Labels :

Manufacturer Perspective

Lighting, appliances and Equipment: Industry Transformation Session Michel Farah – Regulatory Affairs – Daikin Middle East and Africa Paris - May 21st, 2019

Air Conditioning role to mitigate Climate change



MEPS Influence on Daikin

- R&D on new technologies became a continuous process to find ways to reduce power consumption and to reduce wasted power without reducing comfort i.e. Inverter variable speed AC, Variable refrigerant flow, occupancy sensors
- Compliance process to prepare products to meet local Energy Efficiency regulation requirements i.e. Product testing, Performance tolerances, Product safety, Product registration and EE labeling
- Build Market awareness on Energy Efficiency benefits towards consumers, consultants and Building owners to balance the first cost with the lifecycle cost of ownership
- Engagement with regulation authorities to give feedback on regulation drafts and on implementation difficulties to ensure a level playing field

Evolution of Energy Savings – Room Air Conditioner (4.0 kW Model)



Engagement with Regulation Authorities

- Stakeholder Consultation
 - Comments on new regulation MEPS
 - Comments on methods of testing
 - Comments on Energy Efficiency method of Calculation (EER vs. SEER)
 - Comments on Best Available Technology
 - Comments on Regulation text draft
- Demonstration of Technology
 - Inverter air conditioners vs non Inverter lab testing
 - Inverter air conditioners vs non Inverter field testing
 - Lower GWP refrigerants

MEPS and Energy labeling challenges

- Regulation requirement clarity
- Regulation requirement applicability
- Application procedure
- Certification renewal
- Requirement differences between countries
- Label management
- Frequent regulatory updates
- Stakeholder consultation



Increasing EE requirements for ACs



Compliance starts with Energy Efficiency Regulation Study

- Scope (by cooling capacity, by type, by application,...)
- Normative testing standards (ISO, EN, AHRI, IEC,...)
- Minimum Energy Efficiency Ratio (EER, COP, SEER, CSPF,....)
- Testing points (at what Ambient Temperature)
- Tolerance between tested and rated values
- Test report requirements (Inhouse, Third Party, Lab accreditation,..)
- Nameplate Marking requirements
- Energy label design (dimensions, colors, capacity, power input, EER,..)
- Energy class levels (A,B,C,...or number of stars)
- Energy label placement location



Thank You