



Commercial Chillers, Freezers and Combination Storage Refrigerators Testing

As NEA's **MELS** and **MEPS** for Commercial Storage Refrigerators take effect, businesses should be aware of the applicable **energy efficiency criteria** and the relevant **SCDF requirements** for systems using flammable refrigerants.

What you need to know



Many modern high-efficiency refrigeration systems are increasingly adopting **hydrocarbon (HC) refrigerants** such as **R290 (Propane)** due to their excellent thermodynamic performance and very low Global Warming Potential (GWP).

While these refrigerants offer significant environmental benefits, they are also classified as **flammable refrigerants**, requiring careful consideration in product design, installation, servicing and regulatory compliance.

Key Considerations for Industry Stakeholders

Energy Compliance

- Ensure products meet NEA's MELS and MEPS requirements before supply in Singapore.
- Verify EEL performance and registration status.

Product Safety

- Assess risks associated with HC refrigerants, including ignition sources, ventilation, refrigerant charge limits and leak management.
- Confirm compliance with applicable safety standards and SCDF requirements.

Testing & Certification

- Manufacturers, importers, distributors, and end-users should consider both energy efficiency and safety compliance during procurement and deployment.
- Independent testing and certification can help demonstrate conformity with regulatory and safety requirements.

AT SETSCO



One Partner. One Complete Conformity Solution.

- ✓ **MELS Energy Performance Testing**
- ✓ **MEPS Compliance Advice**
- ✓ **Energy Labelling Service**
- ✓ **SCDF Product Certification & Testing**

All these tests work together to provide a holistic assessment.



From New Product Launches to Final Product Compliance

The future of commercial refrigeration is not just about lowering energy consumption. It is about achieving the right balance between energy efficiency, environmental sustainability, and safe adoption of next-generation refrigerants.

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