

Analysis of Thailand's Commercial Refrigeration and Air-Conditioning (AC) Service Sector

The Green Cooling Initiative (GCI) is funded by German Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV) and is a global project aiming to promote sustainable and climate-friendly cooling technology.

Focus on the sustainability of existing and potential training on green cooling in compliance with international standards. Specifically, the project ensures to promote and support the long-term capacity development of Thailand's technicians and technical officers working in the service sector of Refrigeration and Air-Conditioning (RAC) products.



Targeted Cooling Technologies

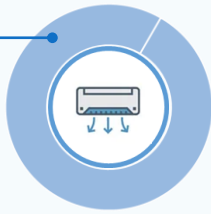
Natural Refrigerants Usage

Type of Servicing

Non-Natural Refrigerants

5.57 Million Units

100%

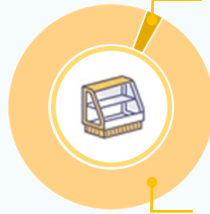


Split-type AC

Natural Refrigerant (R290)

2,500 Units

2.7%



Commercial Refrigerator

Source: EGAT (2019)

- | • Installation |
- | • Maintenance |
- | • Repair |
- | • Cleaning |
- | • Decommissioning |



Product Standards

Split-type AC

Commercial Refrigeration

TIS 1155 – 2557

TIS 385 – 2524

TIS 1529 – 2561

TIS 2712 – 2558



General

TIS 2700 – 2558

TIS 2808 – 2560

TIS 2675 – 2558

TIS 2738 – 2559

TIS 1235 – 2556

TIS 2134 – 2553



Restricted

TIS: Thailand Industrial Standard

Type of Service Providers

- Building Technicians
- Technicians from Producers/Representatives/Retailers
- Technicians from Service Shops (Individual Service Centers)
- Self-Employed Individuals (Technicians)

Service Contract

- Product Warranty (1-2 years)

The contract duration depends on the terms of the agreement between the service provider and the customer.



Service Standards

ACAT Standard: Regulation for installation

TIS 2564 – 2555: Installation for room air conditioner

TIS-S 24 – 2561: Air Conditioning Maintenance and Cleaning Services

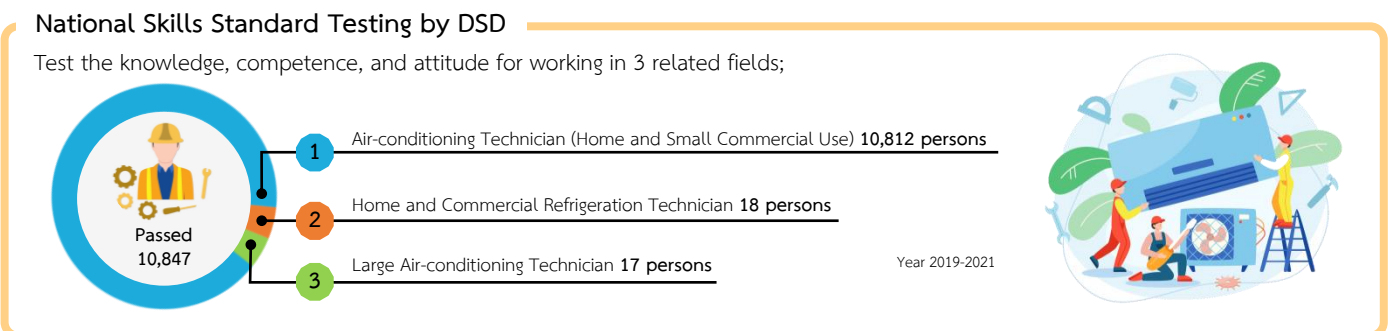
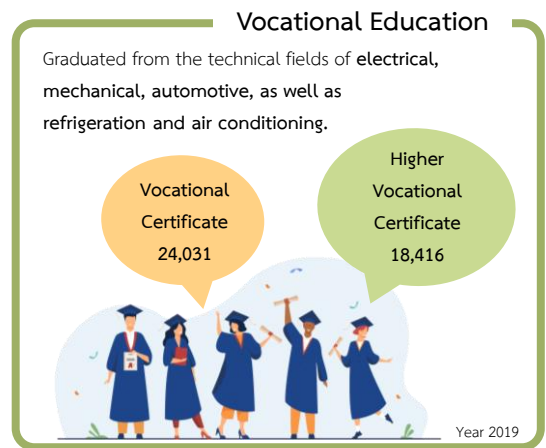
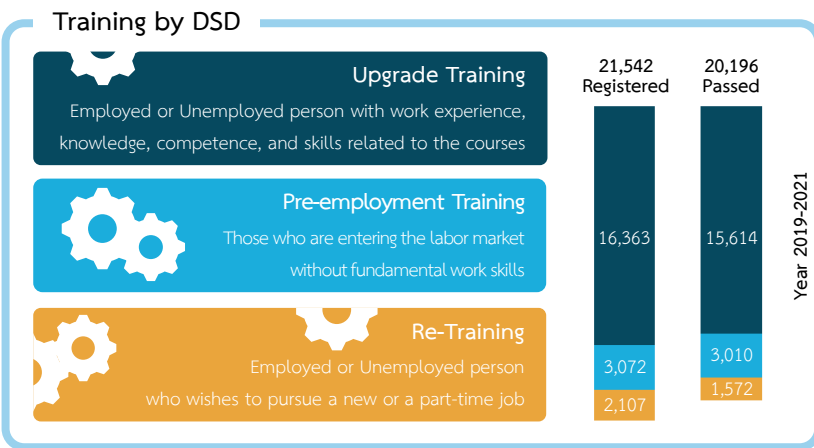
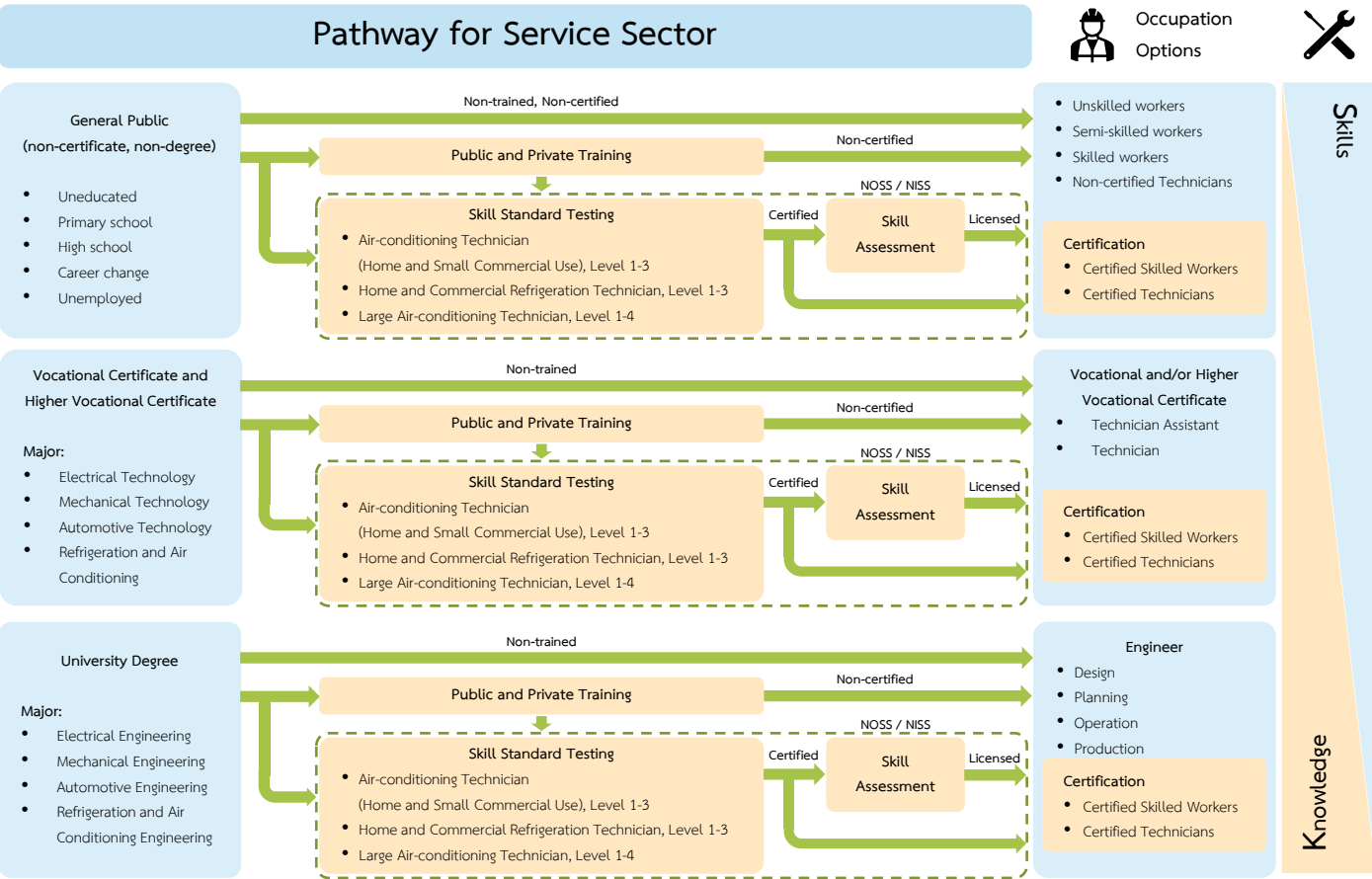
ACAT: Air Conditioning Engineering Association of Thailand

Targeted Customers

Residence | Office Buildings | School | Hospital | Hotel
Department Store | Supermarket | OEM | etc.



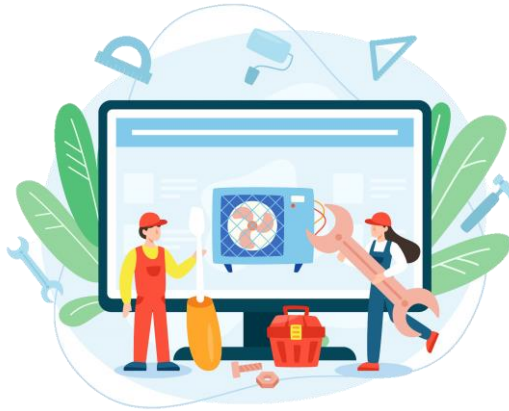
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Standardize the existing training curriculum in addition to alternative refrigerants



Enhance the existing certification & licensing scheme incorporating the knowledge and skills on servicing the natural refrigerants

1

Extend certification and licensing scheme to cover natural refrigerant for green cooling technology in the focused areas

2

Improve the DSD programmes incorporating green cooling technology for future up-gradation



1

Emphasize on high GWP (HCFC and HFC) refrigerant used in appliances to the alternative refrigerants

Educational Institutes | Private Sector | GIZ (RAC NAMA)
Department of Skill Development (DSD)

2

Private sector curricula should align with the NOSS based on the focused areas

3

Increase the number of training centers that are related to natural refrigerants



Enhance policies/regulations and coordination of government agencies

1

Enhance policies and regulations to promote green cooling technology

- Reduce using HFC as high GWP refrigerants
- De-regulation for using flammable refrigerants in building

2

To develop value chain for green cooling technology

Green Procurement | Funding

3

To improve product and technician standards toward the green cooling technology

- Improve rate of energy efficiency (MEPS) and labelling
- Improve safety standard for appliances
- Develop installation standard for flammable refrigerant use
- Increase number of training and testing centers as well as relevant facilities

4

To enforce the certification and licensing scheme for the service technicians



Raise the public awareness, skills, and capacities for alternative refrigerants

