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CO₂ Refrigeration System Case Study

Creating Eco-friendly shop

Aomori prefecture residents

Consumer's Cooperative Society

February 20th, 2017

Aomori prefecture residents Consumer's Cooperative Society

The organization overview

- ◆ Aomori prefecture residents Consumer's Cooperative Society
- ◆ HQ / 3-707 Hamadate, Aomori-shi, Aomori, Japan
- ◆ TEL / 81-17-742-8686
- ◆ Employees (including part-time worker) / 493
- ◆ Business / Shop (no delivery service), Online-shop, Mobile catering by vehicle
- ◆ Founded / March, 1988
- ◆ Representative / Ryouzo Hirano
- ◆ Number of shops / 12 shops
- ◆ Sales / JP¥ 160HM

Mid-term major issue

- ◆ Improving product quality management, safety & security.
- ◆ Increasing member for new shop success
- ◆ Promoting environmental protection
- ◆ Promoting cooperation between COOPs and joint business

Environmental protection activity

- Recycling papers by setting "Eco cube"
- Collecting & recycling used food oil
- Collection & recycling milk carton, PET bottle, aluminum cans, trays, etc.
- Recycling foamed polystyrene by volume reducing apparatus



CO2 exhaust reduction: about 41.2tonnage (2016)

CO2 Refrigeration System Case Study

Aomori PR COOP
Cosmos shop • Acacia shop

Shop introduction

<p><Cosmos shop> Address / 3-16-8, Tomita, Aomori-shi TEL / 81-17-766-7771 Open / Oct 21th, 2015</p>	<p><Acacia shop> Address / 2-4-22, Yanagawa, Aomori-shi TEL / 81-17-761-7722 Open / Dec 1st, 2016</p>
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<Cosmos shop>

Condensing unit 20HP x 6, 15HP x 4

Energy saving rate (comparing with HFC)	CO2 exhaust reduction
23.6%	519.7 t/year

<Acacia shop>

Condensing unit 20HP x 4, 15HP x 4, 10HP x 1

Energy saving rate (comparing with HFC)	CO2 exhaust reduction
22.8%	491.4 t/year

Trigger to adopt CO2 refrigeration system

- Reducing investment cost by using natural refrigerant subsidy
- Equipment update from 10 HCFC refrigeration system using shop
- Avoiding overlapping investment from HFC regulation
- Introducing environmental problem to COOP members

Future plan

- Autumn 2017, Yaeda shop S&B with CO2 refrigeration system is planned
- During 2017, total renovation of 1 existing shop with CO2 refrigeration system is planned



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Thank you very much!

