

A Green Intelligent Terminal



Evergreen Kaohsiung Container Terminal 7

Capt. Wu





**A Green
Intelligent
Terminal**

Evergreen Container Terminal No.7 Phase 1 launched in May 2023 and Phase 2 has been launched in July 2024.

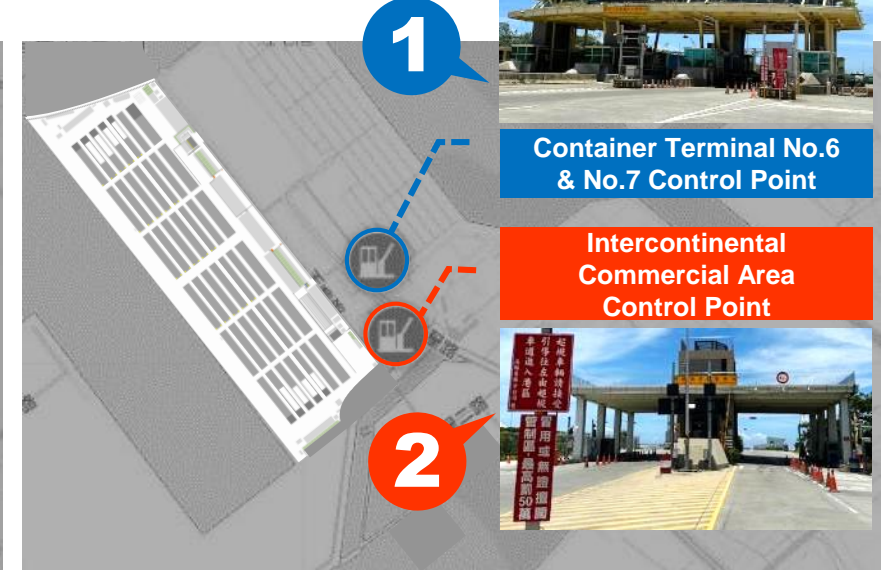
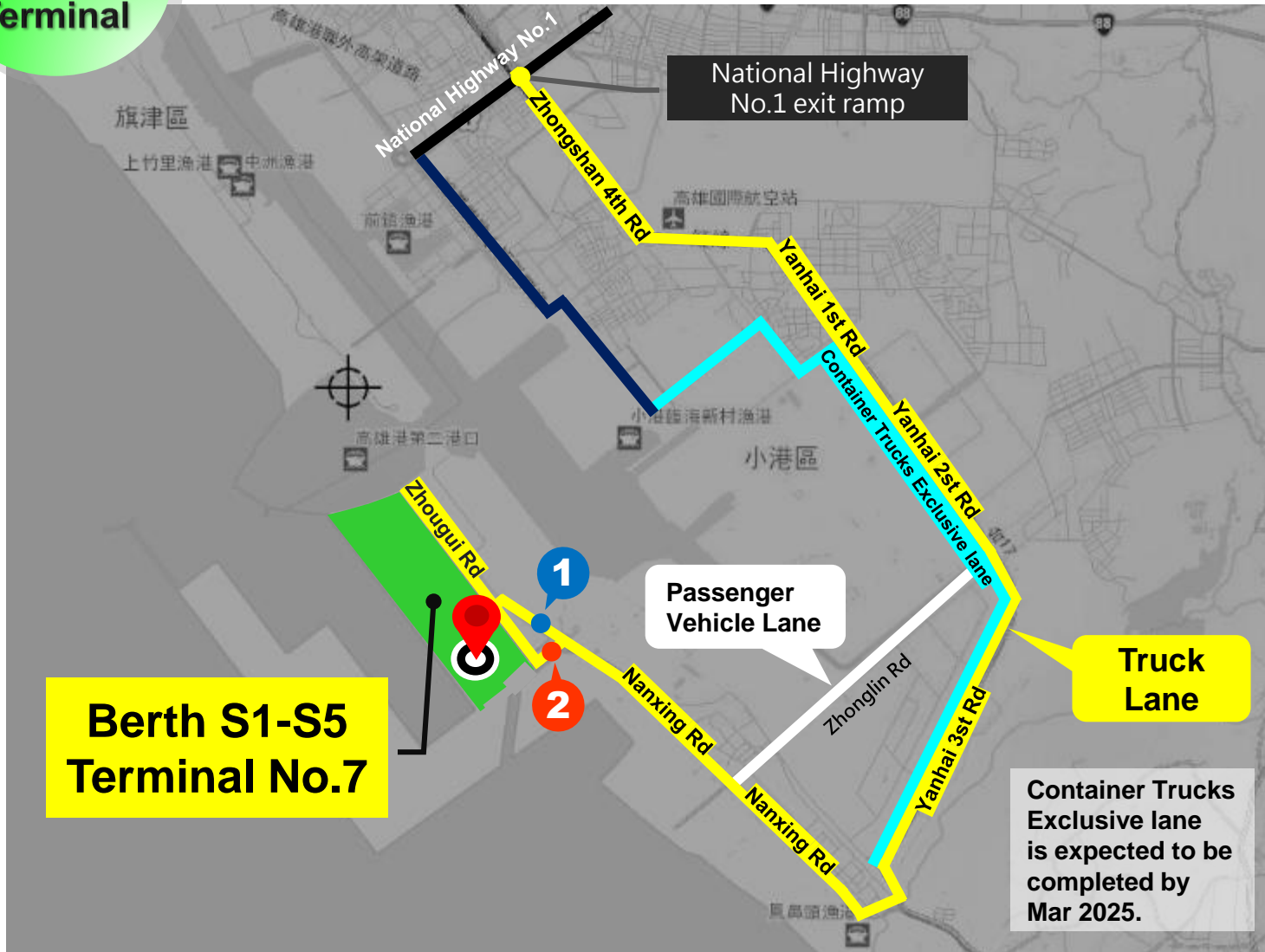
TAIWAN

Kaohsiung



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Location and traffic information for Terminal 7



Terminal No.7

Berth S1 - S5

National Highway No. 1 Zhongshan Road ramp → along Zhongshan 4th Rd → turn right onto Yanhai 1st Rd → At the bottom of Yanhai 3rd Rd, turn right onto Nanxing Rd.

1. OOG cargo height limit 4.6M Driving through 『Container Terminal No.6 & No.7 Control Point』
2. OOG cargo Width limit 3.3M Driving through 『Intercontinental Commercial Area Control Point』

16.4km away from the off-ramp of National Highway No.1 on Zhongshang Rd. , with approx. 32 min travel time.

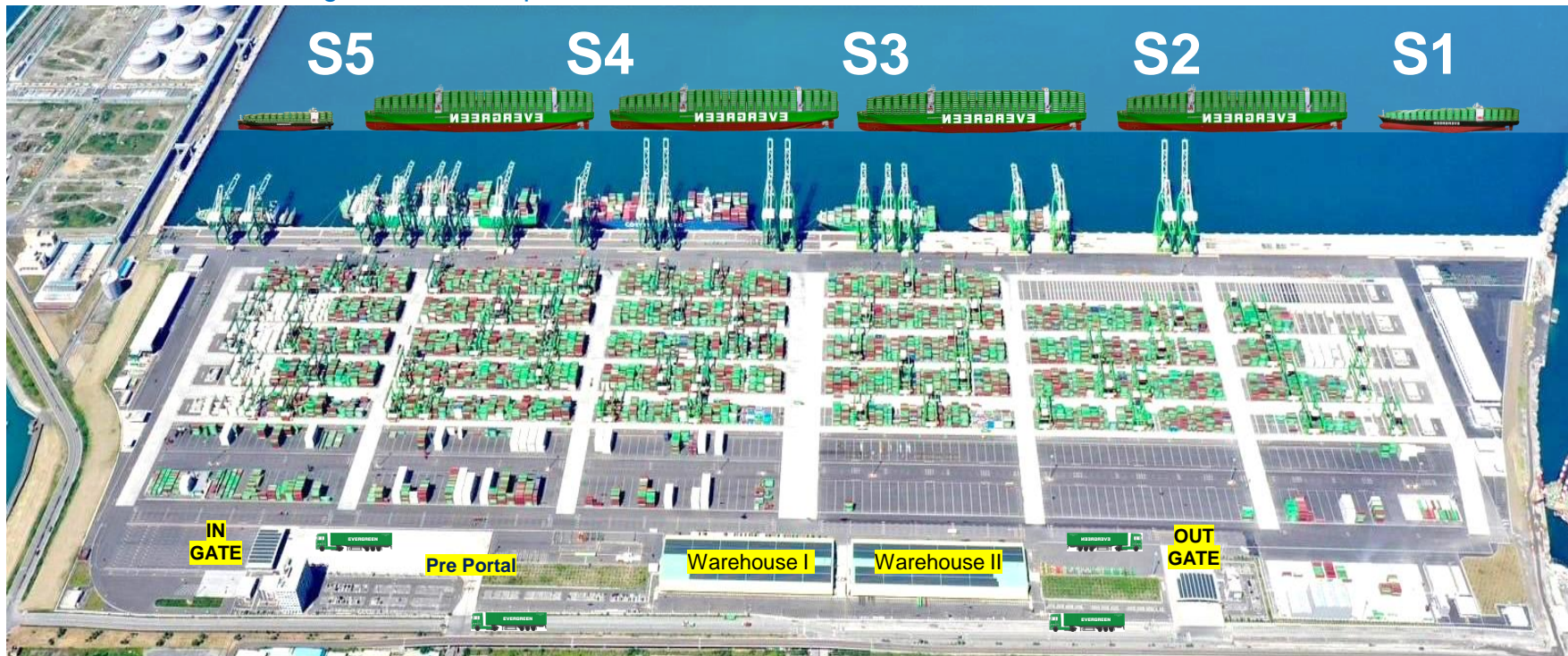
A Green Intelligent Terminal

Automation & Green Commitment

The new automated terminal features various new types of unmanned automated equipment and incorporated eco-friendly and energy-saving green building facilities. It aims to reduce environmental pollution, showcasing the company's core spirit of sustainability.

Yard Area **147.5** hectares **5** -18 meter deep berths **2,415** m long quay

Can accommodate 4 mega container ships and 2 feeder vessels



Shore Power



Focusing on evaluating the feasibility of implementing shore power facilities at the terminal by cooperating with Taiwan International Ports Corporation.

Terminal Facilities

Terminal 7

Berth Number	5
Berth Length	2,415 M
Water Depth	-18 M
Yard Area	147.5 Hectare
Yard Storage	Full
	89,238 TEU
	Empty
	43,656 TEU
Warehouse	17,344.8m ² * 2
Reefer Plug	2,924
Gantry Crane	24
Automated Rail Mount Gantry Crane	60
Reach Stacker	2
Side Loader	15
Gate Lanes	12 In / 12 Out
Throughput	4.5 million TEU

5G / Internet of Things (IoT)

5G private Network and Spectrum

- Automated equipment collaboration.
- Real-time monitoring and management.
- Remote control and monitoring.

Optical Character Recognition

- Check-in of remote and local vehicles.
- Container and vehicle identification.
- Container yard management.

EMCTOS

- Smart container stacking.
- Intelligent assignment of work orders.



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Evergreen CONTAINERLINK

<https://www.containerlink.com.tw/>

"Evergreen CONTAINERLINK" shows the information of the container in real time, with paperless and contactless user interface to improve the safety and efficiency of the delivery/ redelivery of containers for truckers/customers.

Obtain vessel schedule on the website to declare to customs in advance, then schedule a truck for delivery or redelivery of containers



Easy indicators showing turnaround time of the terminal

場內任務數		
重櫃	冷凍重櫃	空櫃
42	1	10
場外任務數		
進站中	即將抵達	確認執行
47	97	47

Customers can easily complete online payment, get an e-DO bill of lading, directly handle operations such as cargo sales, application for warranty and landing tracking, etc., saving shipping companies and container yards. Time, and reduce human contact, safe and fast.

進口銷櫃與保三落地追蹤

+新增銷櫃申請

+新增保三落地追蹤申請

提供進口銷櫃及保三監察落地追蹤申請，與查詢審核結果。

今天

近三天

自訂

搜尋

🔍

領櫃編號：

櫃場/船公司：KSC4/ EMC

提單號碼：

掛號/ 船號：

貨主名稱：

銷 櫃 申 請：2023/01/13 17:24

銷 櫃 完 成：2023/01/13 19:33

船名/ 航次：

GPWR/1046-057N

落地追蹤申請：

2023/01/16 08:41

落地追蹤完成：

2023/01/16 09:25

銷 櫃

已 完 成

落 地 追 蹤

已 完 成

費 用

已 繳 費



IoT In, Paper Out.

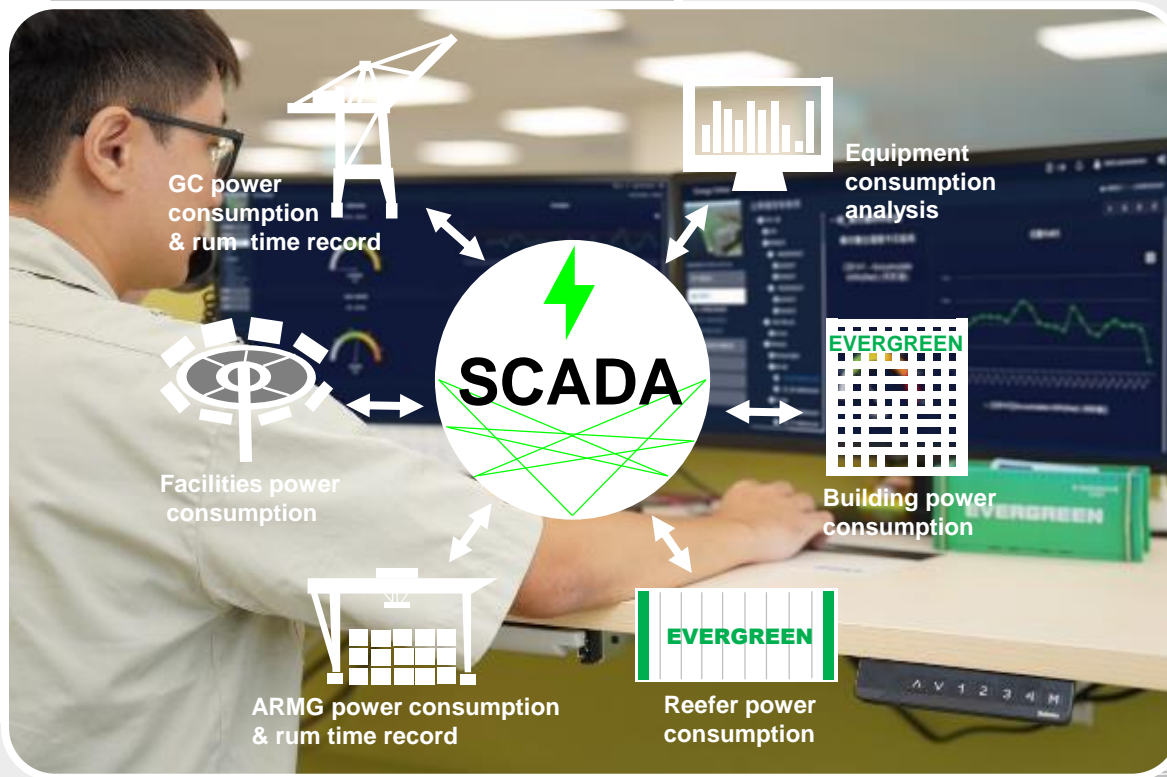
CONTAINERLINK integrates and share all the information through Application Programming Interface.

3 steps through CONTAINERLINK app can complete all the process of delivery /redelivery applications



Supervisory Control And Data Acquisition

SCADA



Real-time Power
Usage Monitoring

Container Yard
Data Integration

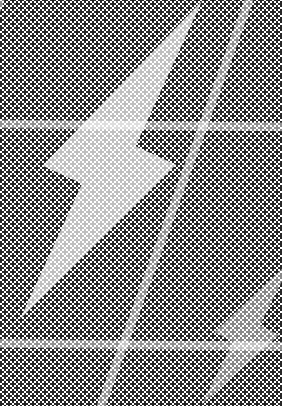
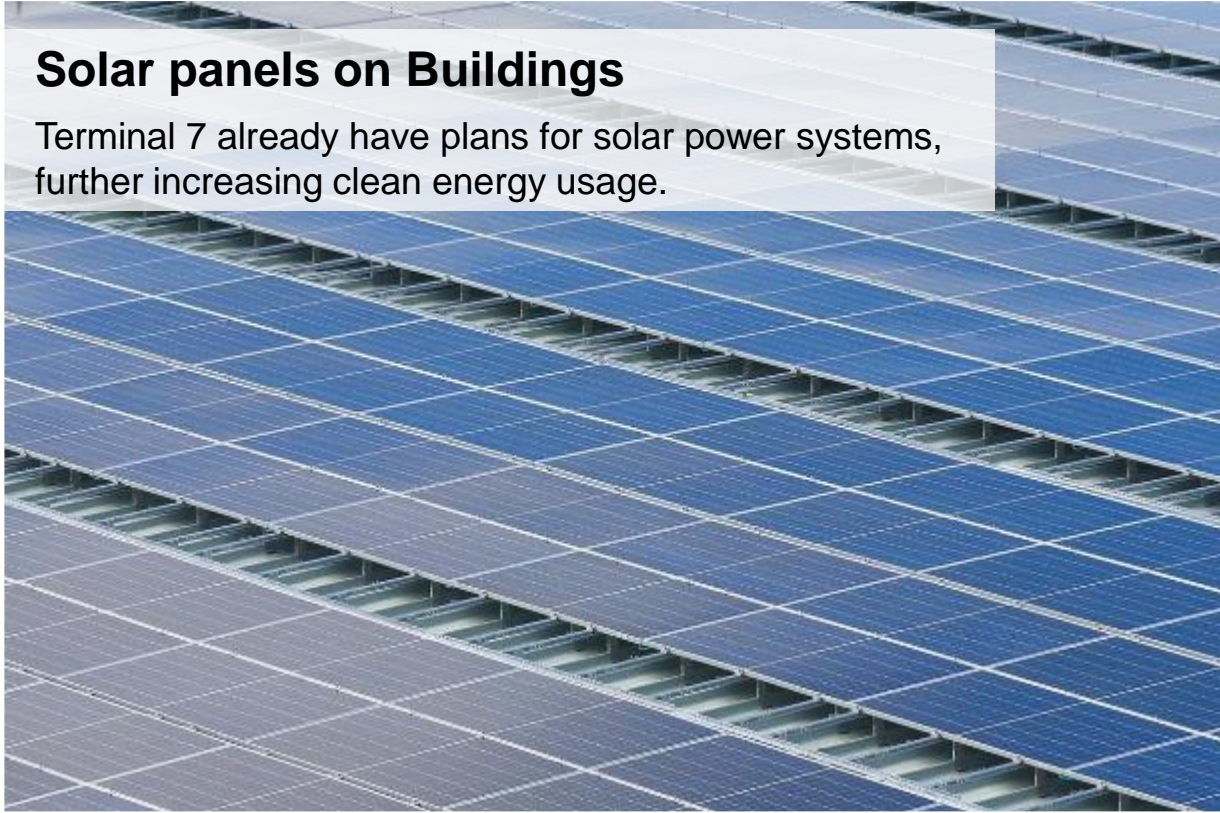
Energy Efficiency
Management

Tracking and
Analyzing Energy
Consumption

GREEN ENERGY

Solar panels on Buildings

Terminal 7 already have plans for solar power systems, further increasing clean energy usage.



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GREEN TERMINAL



**Machines
electrified**



**Side loaders / reach
stackers adopting high
environmental standard
engines**

ESG

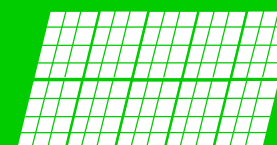


**Electric trucks
(In the future)**



Container Link

Reduce paper printing and personnel
traffic to and fro to achieve carbon
reduction performance



**Buildings equipped
with solar panels**

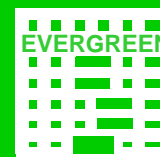


**Company cars
switched to hybrid
/ all electric**



**Smart meter
Management**

Auto check in OCR
Improve operating efficiency/reduce
the detour of operating vehicles.
Fuel consumption achieves carbon
reduction efficiency



**Wastewater
treatment**

**Light poles using
LEDs**



Office equipment / Yard
Fully adopt LED energy-saving lighting
equipment
Equipment consumables adopt
environmentally friendly certified products

**Friendly working
environment**

Container terminal equipments

Terminal 7 is equipped with 60 fully automated unmanned rail-mounted gantry cranes and 24 STS gantry cranes (19 of which are among the first nationwide to be remotely controlled unmanned STS gantry cranes).

Automated unmanned crane



**Machines
electrified**



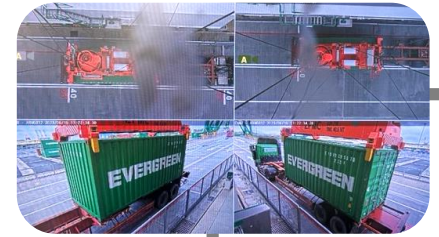
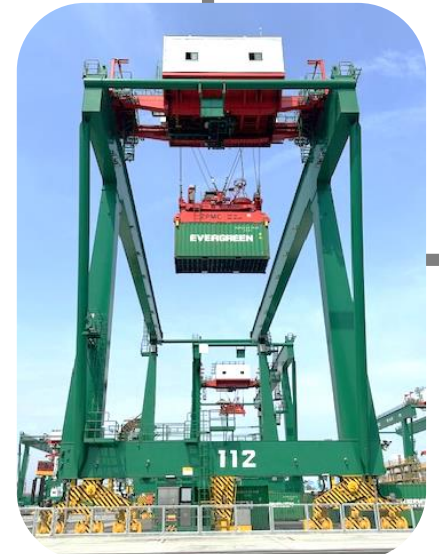
**Adopting high
environmental
standard
engines**



Control Center personnel remotely monitor



STSGC
RCOS



ARMGC
RCOS



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Gate Lanes

IN GATE



Six 60-ton & an 80-ton electronic scales are installed on the ingate lanes

12 lane

Evergreen Kaohsiung Container Terminal

OUT GATE

12 lane



An 80-ton electronic scale is installed on the outgate lanes

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Smart customs E-gate

Smooth and convenient container handling, improving the efficiency of trailer container operations.

Reduce
paper

PRE PORTAL Set OCR



INGATE



Self check-in



CONTAINERLINK

Container service all the way

Evergreen Marine Corp.



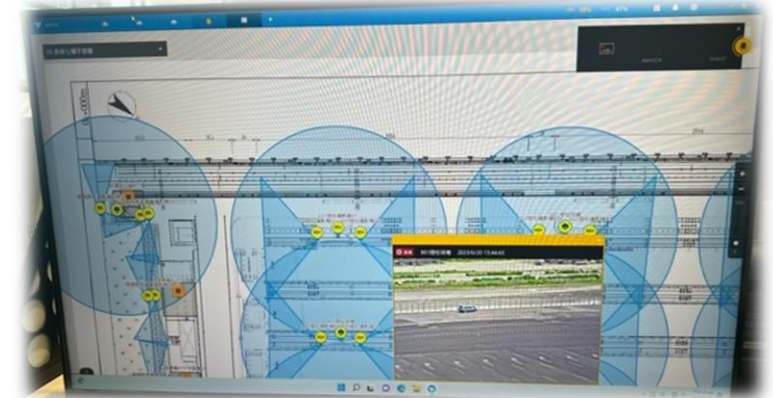
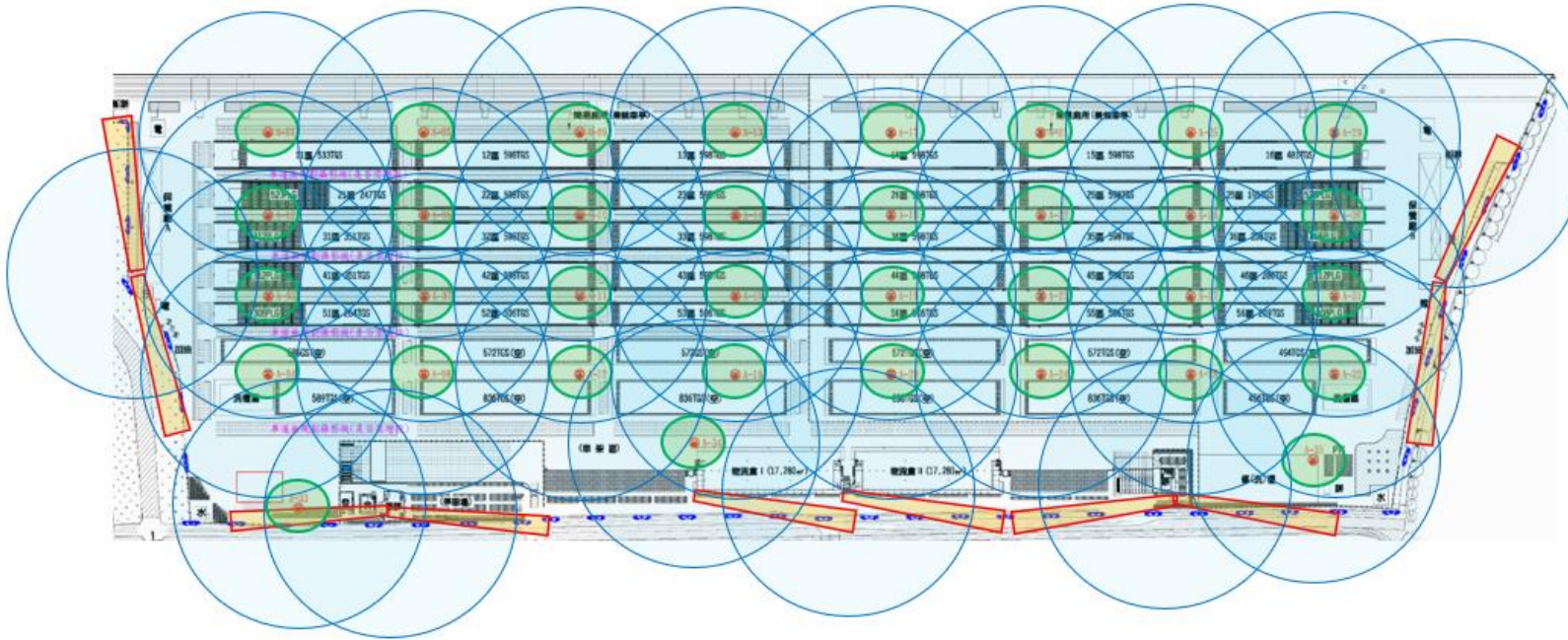
Monitoring system

Electronic access control and CCTV

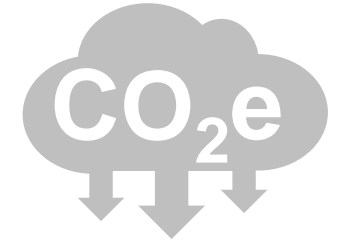
Over 600 CCTV cameras,
Providing comprehensive intelligent surveillance coverage of the entire area.

Electronic pulse fencing

During alarms and allows for confirmation of the site from multiple angles with CCTV surveillance for automated management.



Reduce carbon emissions



Machines electrified
1,630.28 tons

The 60 fully automated gantry cranes are estimated to reduce diesel usage by 625,580 liters per year, approximately 2,200 GJ.



Energy-efficient lighting
575.05 tons

Terminal 7's high mast lighthouse lighting is fully equipped with LED lights, it is estimated to save 1,161,722 kWh of electricity annually, approximately 4,182 GJ.



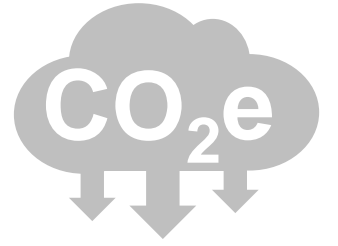
Electronic patrol
1.78 tons

Estimated annual reduction: 788.32 liters of diesel consumption, approximately 2.8 GJ energy consumption.

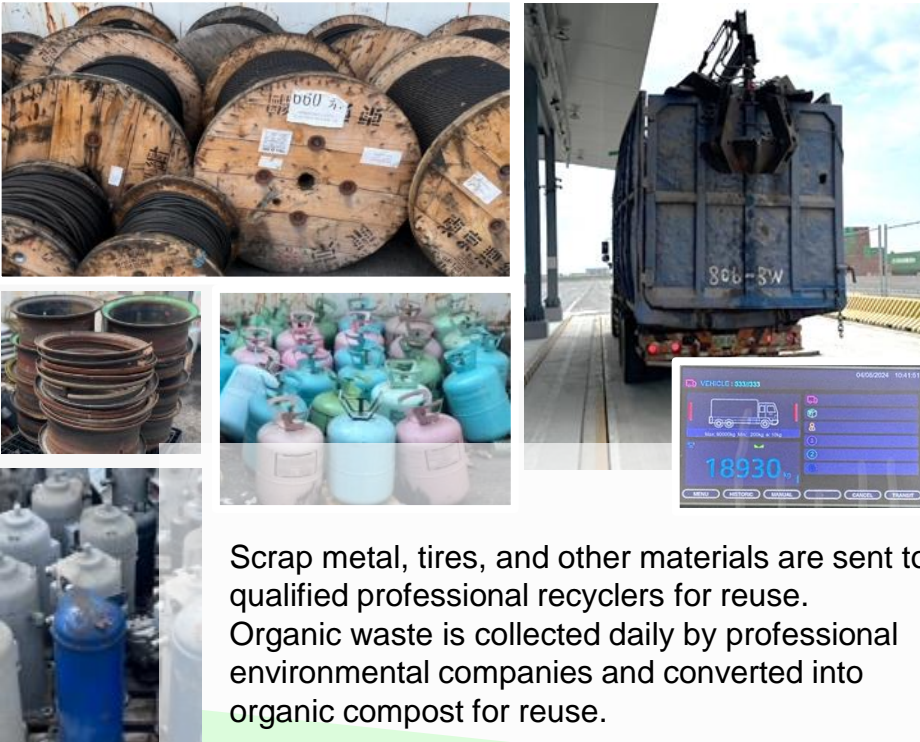


Hybrid Electric Official Vehicles
1.49 tons

Replacing each official vehicles with a new hybrid electric car is estimated to reduce gasoline consumption by 660 liters annually, approximately 22 GJ of energy.



Waste Recycling



Scrap metal, tires, and other materials are sent to qualified professional recyclers for reuse. Organic waste is collected daily by professional environmental companies and converted into organic compost for reuse.

Wastewater Treatment Equipment



Terminal 7 has installed a wastewater treatment plant to process sewage generated from washing and repair areas, ensuring compliance with environmental regulations.

Efforts are ongoing to enhance wastewater treatment capabilities continuously.

Talent Development

Evergreen Marine Corp. believes that “talent is the most important asset of the enterprise.”



A Green Intelligent Terminal

A Safe and Friendly working environment

Transportation Services 、 Employee group meal arrangement 、 Bright and spacious lounge and high-quality gym to improve personal health.



Occupational Safety and Health

Health examination



Family day



Physical and mental health



Employment Security
Education and
Training



Ecological Conservation

Diversity Activities

Evergreen Marine Corp. actively collaborates with environmental organizations and local governments, encouraging employees and their families to participate in various environmental activities, thereby increasing employee and community engagement.

Habitat Conservation

Support environmental protection through practical action by removing waste and invasive species from natural habitats, promoting the health and stability of ecosystems.

Tree Planting Activities

Increase green space, enhance carbon dioxide absorption, reduce greenhouse gas emissions, and improve the regional climate.



**Evergreen
works towards
a new world of
global
sustainability
with you.**

