

ASEAN – Japan Smart Cities Network High Level Meeting ASCN Sectoral Workshop (Group#4) October 8, 2019 Yokohama, Japan

Narumon Intharak Energy Policy and Planning Office

AMATA SMART CITY



(More Than 30 M. Passengers per Year) SUVARNABHUMI **Existing Location in Thailand** IRPORT (More Than 70 M. flights per Year) BANGKOK - CHONBUR MOTORWAY ACHOENGSAO **DISTANCE FROM** KM. TRAVEL TIME: 2 RAILWAY BU 57 60 min. Bangkok BANGNA - TRAD ELEVATED EXPRESSWAY AMATA Suvarnabhumi Int. Airport 42 35 min. CITY CHONBURI I 46 Laem Chabang Seaport 45 min. ()CHONBUR 5 Chonburi City 10 min. 33 Sriracha City 40 min. HIGHWAY #33 SRIRACHA LAEM CHABANG **DISTANCE FROM** KM. TRAVEL TIME: AMATA SEA PORT CITY RAYONG 136 Bangkok 120 min. PATTAYA 40 A Utapao int. Airport 40 min. Laem Chabang Seaport 27 30 min. 50 AIRPORT Chonburi City 50 min. 35 Sriracha City 45 min.

DON MUANG





Stablished: 1989 Location: Chonburi province Total Area: 27,067 rai (10,953 acres or 4,330 hectares) Number of factories: 676 (in operation) Workforce: approx. 215,000 as of q4, 2017 Residential/Commercial Zone: 1,394 rai (approx. 551 acres) Area for Public Utilities & Facilities: 1,600 rai (approx. 632 acres) Green Area: 850 rai (approx. 336 acres)





AMATA Smart City Development



SMART ENERGY

Energy efficient city with renewable energy source and sustainable environment management



SMART ENVIRONMENT

Use of innovation and technology to enrich sustainable lifestyle and improve people's quality of life environment management

SMART AEROSPACE CITY



A hub of aerospace MRO, original equipment manufacturers (OEM) and ASEAN Aviation Training Center

SMART INNOVATION



An innovation hub bringing the most advanced and leading companies in innovation and High Technology sector, R&D centers, contract research providers and Startups



SMART COMMUNITY

Mixed-use sustainable development consisting of hotel, service apartment, restaurants, commercial facilities, conference & exhibition area



SMART MANUFACTURING

Create a platform to attract factories with Full Value Chain solution combining system and data among logistics, finance, manufacturing, procurement and trade



SMART MOBILITY

Sustainable traffic solution and transport monitoring through an integrated management system



SMART EDUCATION

Develop all levels of education to support Amata Smart City Development

AMATA Smart City Projects



Current Status : AMATA SMART City

Confidential

Smart Solar Roof

1. PV SOLAR



Energy Saving in Reclamation Process by Solar Roof

AMATA Water Company Limited, a subsidiary of AMATA Corporation, has aligned with the mission and vision of the Company on efficient energy management by reducing the use of electricity in its water reclamation supply (recycled waste water).

AMATA Water has studied and developed the use of solar energy to use in its reclamation system.

AMATA Water has installed the solar panels on the roof top of the Reclamation Building in AMATA City Chonburi Industrial Estate to produce electricity from solar energy to replace the current power supply source by <u>6%of total electricity consumption</u> of the reclamation system and reduce greenhouse gas emissions by 45 tons CO_2e /year.





Current Status : AMATA SMART City

Confidential

2. SMART GRID

SMART MicroGrid Development

AMATA City is planning to implement **Micro Grid management system** to optimize generation, loads, distributed energy resources and interactions with the grid.

The project is under studying and applying for the SANDBOX project with Energy Regulatory Commission (ERC) as test-base on;

- Energy Balancing Scheme : Ancillary Service
- Energy Storage System



Current Status : AMATA SMART City

3. WASTE to ENERGY

Industrial Waste and Solid Waste Management

This project aims to address the waste treatment and management issues arising from the generated waste at Chonburi, and to source for renewable energy integration and regional smart micro-grids, which is aligned with the relevant National Plans on built infrastructure developments in Thailand.

Zero Waste to Landfill

The total amount of general waste in AMATA City Chonburi of 20,000 tons per year (80 tons/day)

The project implementation, could increase the efficiency of sorting the recycled waste from solid waste, from 10% to 15% of the total amount of solid waste in the waste segregation plant. The amount of waste disposed by landfill was reduced to 0.92% of the total waste.



Project Timeline

- Q1 2020 Stakeholder agreement
- Q3 2020 JV for SPC set-up
- Q4 2020 Start for the plant design
- Q4 2021 Start for construction
- Q2 2023 Commercial operation (business operation)

Confidential



Thank You