# YATRON<sup>®</sup> SMART CITY AND ENERGY

## OVERVIEW

Green and Smart City's Integrator Smart Factory and Smart Manufacturing's Integrator Intelligence Makes the Dream Come True Let's be more SMART, GREEN and HEALTH...



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Ver.: 2023.10.25



### **COMPANY PROFILE**

YATRON was established in 2006 with the technical support of General Electric -**GE** of the United States. It is a comprehensive holding group.

Its subsidiary "YATRON Smart City and Energy Group" is the world's leading Green and Smart City diversity organization. Its businesses include: Green and Smart City Solutions, Smart factories and Smart manufacturing, Smart energy management, Smart agriculture, Smart buildings, Smart healthcare, Smart transportation, Smart education, Smart sports, new semiconductor materials, etc. We are present in fields such as industrial manufacturing, energy, semiconductors, commerce, data centers, water treatment, transportation, sports facilities, medical systems, fishery and agriculture, education and culture, event planning and exhibitions, etc. YATRON utilizes its own core technologies and products and integrates various system resources.

We provide customers with comprehensive end products and service solutions to ensure the reliability and protection of production, power and energy infrastructure. And continue to implement Chinese and German TÜV SÜD ISO9001, ISO14001, ISO50001 and ERP systems.

Corporate social responsibility (CSR) and ESG are YATRON's long-term concepts for sustainable development. \*\*\*

- Corporate Social Responsibility (CSR) ESG "Environment" (Environment), "Social Responsibility" (Social), "Corporate Governance" (Governance)

## SCOPE OF BUSINESS

#### Smart Systems

- Green and Smart City
- □ Smart Factory and Smart manufacturing
- Smart Big Data and AI
- Smart 3D Printing System
- Smart Energy Management System
- Smart Power System
- Smart Agriculture and Fisheries
- Smart Education
- Smart Sports
- Smart consultancy

#### Manufacturing and System Integration

- Smart Low-voltage switchgears and controlgear equipment
- Smart LV and MV Components
- Smart Lighting
- Smart Energy Management System
- Smart Power Quality
- Cable and Wire
- Custom made system, hardware and software

#### Energy

- Energy Consulting Service
- Energy Management System (EnMS)
- Renewable Energy
- Wind and Solar Energy System
- Electric Vehicle and Charger System
- Energy Storage System (ESS)
- Industrial and Building automation integration (BAS, SCADA, PLC)

#### Solutions

- Data Center
- Smart UPS and solutions
- Smart Lighting Solutions
- Electrical and Mechanical equipment
- Construction Material

#### Construction and MEP Engineering

- EPC
- Turn-key

#### Facility Management

- Investment and Management
- Contract energy management
- □ PPP, BOT, BT
- Mega Complex building and Infrastructure
  - Mega Shopping Mall
  - Resort, Hotel, Service apartment
  - Commercial building
  - High-end residential building
  - Industrial plant, Intelligence Warehouse
  - Power plant
  - Power substation and Water plant
  - □ Highway, Railway, Airport and Port
- □ Renewable Energy | Wind and Solar Energy
- Industry, infrastructure, Energy Investment Consulting Service





#### YEAR/MONTH

2022/07/01 Establish YATRON Pacific Rim Center in Hainan, China 2021/07/01 Establish YATRON Technology Center in Guangzhou, China 2019/10/01 Establish YATRON Europe 2018/11/02 Reorganized into YATRON Group in UK 2018/09/20 TÜV SÜD/ISO 14001 Environmental Management 2018/08/20 **Establish YATRON Thailand** 2017/10/04 TÜV SÜD/ISO 50001 Energy Management 2015/11/02 Establish YATRON International in Taiwan 2015/07/20 Establish YATRON International in Macau 2014/08/20 Establish YATRON Malaysia(Group HQ of ASEAN) 2014/07/20 Establish YATRON Taiwan and Indonesia 2013/07/20 Establish YATRON Hong Kong 2012/09/11 **YATRON Group ERP Online** TÜV SÜD/ISO 9001 2010/09/29 2010/05/01 Authorized LV Equipment Manufacturer by GE Energy 2010/03/01 Establish YATRON Factory in Zhuhai, China 2009/04/08 YATRON obtains the qualification of authorized partner of General Electric - GE Consumer and Industrial in United States, started deep cooperating with the world's largest conglomerate – an global leader in energy and automation industry 2008/09/01 Establish YATRON Zhuhai, China 2006/07/20 Establish YATRON Macau Establish YATRON R&D and Manufacturing Center in Taiwan 2006/07/20 [Technical support by General Electric - GE of the United States]









Powered by GE

## **GLOBAL FOOTPRINT - EUROPE**



GROUP HQ: London, UK

- R&D CENTER: Germany | Munich
- MANUFACTURING CENTER:
  - Germany | Munich
  - □ Italy | Milano
- BRANCH / REP. / EXP. CENTER
  - □ UK | London
  - Germany | Berlin, Munich
  - □ France | Paris



### **GLOBAL FOOTPRINT - ASIA**



- **ASIA HQ:** Macau S.A.R
- OPERATION CENTER
  - □ China | Guangdong | Zhuhai
- R&D CENTER: Taiwan | New Taipei
- **TECH. CENTER:** China | Guangzhou
- **FINANCE CENTER**: Hong Kong S.A.R
- PACIFIC RIM CENTER
  - □ China | Hainan | Qiongzhong
- MANUFACTURING CENTER:
  - China | Guangdong | Zhuhai, Jiangman
  - Taiwan | New Taipei city

#### BRANCH / REP. / EXP. CENTER

- Hong Kong SAR, Macau SAR
- Taiwan | Taipei, Kaohsiung, Taichung
- China | Guangdong | Zhuhai, Guangzhou
- □ China | Hainan | Haikou, Qiongzhong
- □ Singapore (HQ of ASEAN)
- Malaysia | Kuala Lumpur
- □ Thailand | Bangkok
- Indonesia | Jakarta
- Philippines | Manila
- Vietnam | Ho Chin Minh



- BRANCH / REP. / EXP. CENTER
  - □ South Africa | Johannesburg
  - □ South Africa | Newcastle



### CERTIFICATES

Complies with	Certificates	ало на страто и страт	<b>(19)</b>	
ISO 9001, ISO 14001	TÜV SÜD (Germany)	0 ±10 ≉ CI	CERTIFICATE	
ISO 50001	TÜV SÜD (Germany)	11FICA	The Certification Body	
IEC 62208	TÜV SÜD (Germany)	* CER	of TÜV SÜD Asia Pacific TÜV SÜD Group certifies that YATRON <sup>®</sup> ili	
IEC 60439, IEC 61439	KEMA, ASEFA, CEBEC, ASTA, TUV	<u>100 то</u>	YATRON E&M Equipment (Zhuhai) Co., Ltd.	
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### **TOTAL SOLUTIONS**





















### **CORE BUSINESS**

## **Manufacture and Solutions**

### KenerCITY Smart City

**KenerSys** 

KenerMUS

- Smart Factory and Manufacturing
  - Smart Production Line
  - □ Smart Robot, AGV, ARM, UAV(UAS)
  - Smart Conveyer
  - Smart 3D Printing
- Smart Energy Management
- Smart Building
  - **Smart Fisheries and agriculture**

Smart Museum



### **CORE BUSINESS**

## **Manufacture and Solutions**

KenerPower





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#### **Smart Industrial Solutions**

- Switchgears and Controlgears
- Busway (Busbar Trunking)
- LV and MV Components
- Power Quality and UPS
- EV Charging System
- Cable and Wire
- Lighting Solutions
- Smart Renewable Energy (Solar Photovoltaics)
  - PV panel
  - Inverter
  - Energy Storage Solution
- Smart Pneumatic system



### **SMART CITY - SUSTAINABLE**

### **Smart City**

#### AUTOMATION | IOT | BIG DATA | MACHINE LEARNING | AI

# KenerCITY

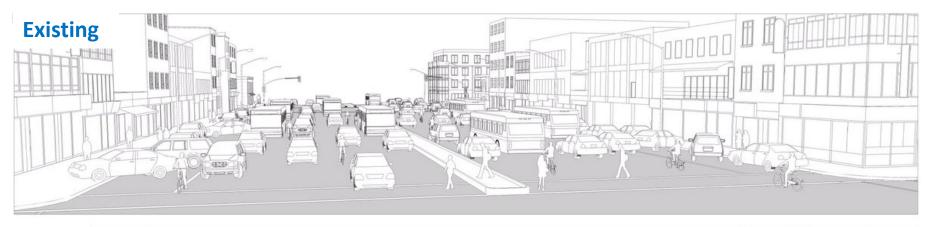
#### Smart City need Smart Energy and IoT Let's be SMART ...

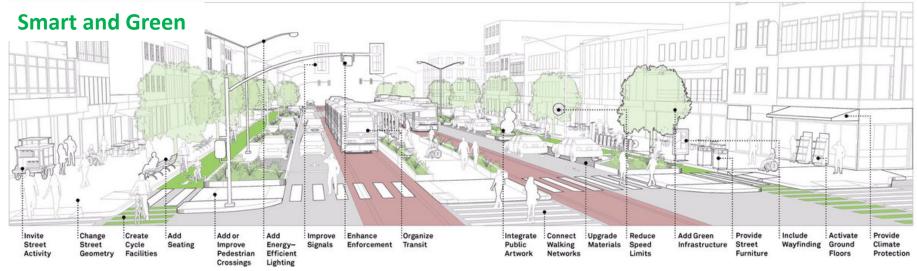


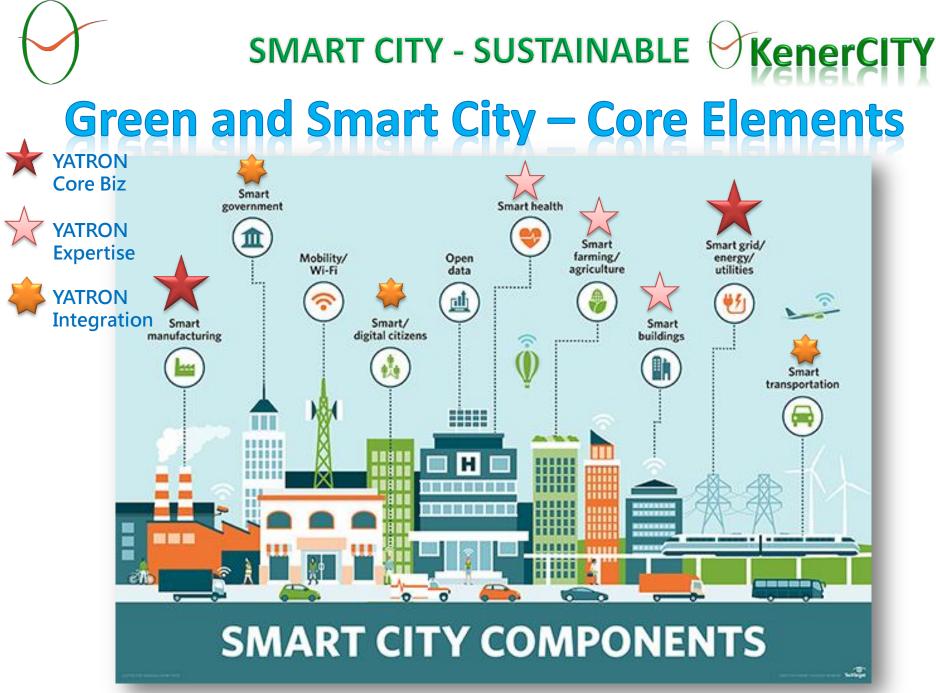
### SMART CITY - SUSTAINABLE **KenerCITY**

### **Smart City**

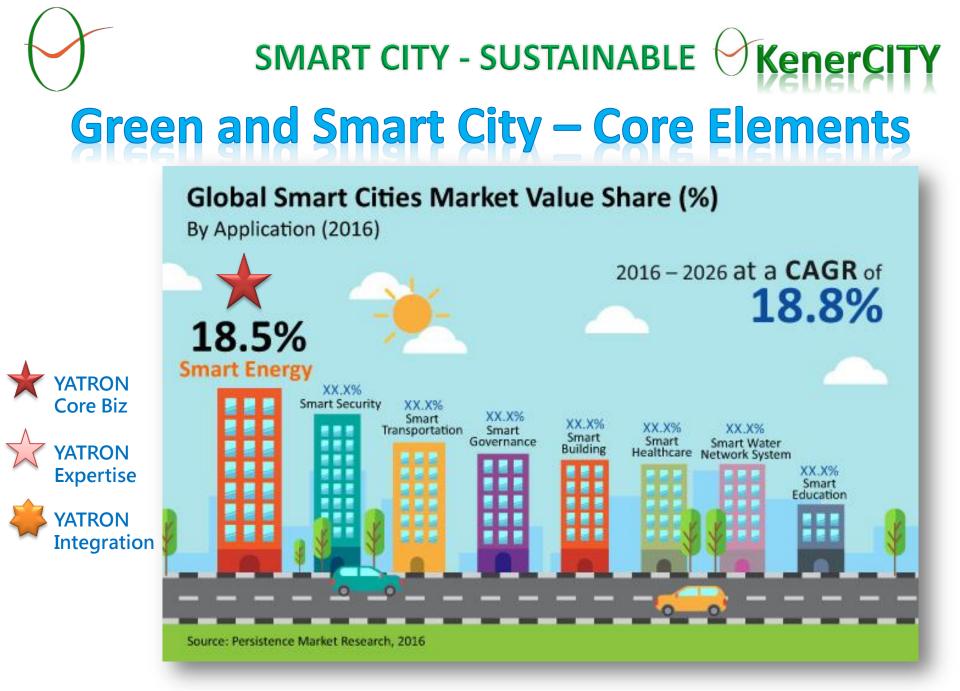
#### AUTOMATION | IOT | BIG DATA | MACHINE LEARNING | AI











# YATRON®

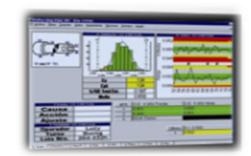
### Smart City IOT | BIG DATA | MACHINE LEARNING | AI





### **Smart Energy Management System** IOT | BIG DATA | MACHINE LEARNING | AI















#### **BENEFIT of YATRON Energy**

- Authorized Business Partner | Powered by <u>GE</u>
  - Global Technical Support, Technical Transfer and Experience.
- Authorized Business Partner | Powered by ITRI Taiwan
  - Top ONE Technical Support, Technical Transfer and Experience of High Technology and Traditional Industry in Taiwan
  - 6,000 R&D employees.
  - 400 R&D employees in Green Energy and Environment Research Laboratories.
  - Support the BIG DATA Analysis and System improvement for end users.
- YATRON Energy's Technical and Service team by Global teams
  - Headquarter of Europe in London, UK  $\rightarrow$  Best service for Europe and Africa.
  - R&D Center in Taiwan, Munich, Milano → High Quality R&D and production team.
  - EMS products <u>Made in Taiwan and Europe</u>  $\rightarrow$  High Quality.
  - Headquarter of Asia in Macau, teams in Macau, Hong Kong , Taiwan and mainland China → Best service for Greater China.
  - Headquarter of ASEAN in Singapore  $\rightarrow$  Best service for ASEAN.
  - Branch Company and Service Center cover each regions  $\rightarrow$  Fast response time.
  - Strong team background and experience about Owner, Consultancy, Contractor, Manufacturer and S.I → Well known all parties' mindset and requirement.







#### ENERGY MANAGEMENT

- ENERGY SAVING
- ENERGY CONTROL AND MONITORING
- SYSTEM IMPROVEMENT
- CSR (CORPORATE SOCIAL RESPONSIBILITY)

#### ESG

- E = ENVIRONMENT
- S = SOCIAL RESPONSIBILITY
- G = CORPORATE GOVERNANCE
- CARBON NEUTRAL









## THE PROBLEMS WITHOUT BAS/EMS

Without BAS and EMS in the factory or building, the equipment and systems will be some issues...

- Control issue
- Management issue
- Maintenance issue
- Risk issue
- Energy loss issue
   Cost increasing...



# $\mathbf{O}$



## WHY YOU NEED ENERGY CONSULTANT?

**ENERGY CONSULTING** 

#### CARBON NEUTRAL AND ESG

- ISO 50001 / ISO 14064 / ISO 14067 / ISO 14044
- Product selling prices getting lower and lower? → Enhance corporate image and enhance the additional value
- Increase cost of the production  $\rightarrow$  Reduce costs of production, improve efficiency
- Facing difficulty in cost control / reduce? "Bottleneck" → Creativity and assist by advance technology
- Competitiveness of price, market and service decreasing? → Utilize advance technology to reduce manpower
- Decline of competitive advantages → Innovation in management practices
- Plan of the corporate sustainable development direction and pace? → Advisory from international professional consultant



- Global client request for the Corporate Social Responsibility Report and ESG report?
   → ISO 50001 / ISO 14064 / ISO 14067 / ISO 14044 → Improve corporate image
- I Compliance with legal requirements in the local markets? → Energy saving → Improve corporate image
- How to improve the corporate culture? → <u>Improve working environment and</u> <u>corporate image</u>

## **ENERGY CONSULTING**



### WHY YOU NEED ENERGY CONSULTANT?

- Compliance with industry best practices or standards  $\rightarrow$  ISO 50001
- Improve the company's reputation among customers  $\rightarrow$  ISO 50001  $\rightarrow$  Improve corporate image
- Employee lack of energy? ISO  $50001 \rightarrow$  Improve the work environment
- Low efficiency in production and yield? ISO 50001→Improve working environment
- Saving technological transformation projects have been done (Frequency conversion, LED, Heat recovery etc.), How to economize more energy and electricity? → ISO 50001 → It should be done to manage energy and the establishment of efficient energy management software platform
- Employee lack of energy saving concept? → ISO 50001 → Apply high-tech Energy management systems
  - Do not have any method to link Energy Saving and KPI together? → ISO 50001 → Apply high-tech Energy management systems and software, it show Monthly, or real-time each sector performance, especially in energy performance.





### **KEY TOPIC**



#### ENERGY MANAGEMENT, SAVING, CONTROL AND MONITORING

- **Build up the EnMS** (Energy Management System): Hardware + Software
- **Power Quality:** Money saving.
- Air conditioning: Process and environment requirement, temperature of rooms (Control and Monitoring).
- **Ventilation Fans:** Air flow in the areas (Control and Monitoring).
- **Elevator and Escalator:** Operation control, time control.
- Air Compressors: Operation control, Pressure guarantee, Air leakage monitoring (Control and Monitoring).
- **Lightings:** lux management in the working and public areas (Management)
- **Roof:** Transparence and ventilation (Renovation).
- Recycle of waste heat and cooling: preheat for process, warm water necessary. Precool and cooling recycle.
- **Energy Management System:** electricity and cost monitoring and reports



#### KEY TOPIC – ENERGY MANAGEMENT CARBON NEUTRAL



## Win the energy challenge with $IS0\ 50001$





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#### ISO 50001 — What is it ?

- ISO 50001:2011, Energy management systems Requirements with guidance for use, is a voluntary International Standard developed by ISO (International Organization for Standardization).
- ISO 50001 gives organizations the requirements for energy management systems (EnMS).
- ISO 50001 provides benefits for organizations large and small, in both public and private sectors, in manufacturing and service, in all regions of the world.
- ISO 50001 will establish a framework for industrial plants ; commercial, institutional, and governmental facilities; and entire organizations to manage energy.
- Targeting broad applicability across national economic sectors, it is estimated that the standard could influence up to 60% of the world's energy use.





#### KEY TOPIC – ENERGY MANAGEMENT CARBON NEUTRAL



#### ISO 50001 — What will it do?

- ISO 50001 will provide public and private sector organizations with management strategies to increase energy efficiency, reduce costs and improve energy performance.
- The standard is intended to accomplish the following :

#### CARBON NEUTRAL AND ESG

- Assist organizations in making better use of their existing energy consuming assets
- Create transparency and facilitate communication on the management of energy resources
- Promote energy management best practices and reinforce good energy management behaviors
- Assist facilities in evaluating and prioritizing the implementation of new energy efficient technologies
- Provide a framework for promoting energy efficiency throughout the supply chain



#### KEY TOPIC – ENERGY MANAGEMENT CARBON NEUTRAL



#### ISO 50001 — What will it do ?

- Facilitate energy management improvements for greenhouse gas emission reduction projects
- Allow integration with other organizational management systems such as environmental, and health and safety (ISO 9001, ISO 18000, ISO 14000)







## What are the top three reasons why your organization is interested in energy management?

- CARBON NEUTRAL, ESG, CSR
- Reduce/control costs
- Comply with industry best practices or standards
- Improve the company's reputation among customers
- Align with the existing corporate culture
- Protect the global climate
- Get relevant ideas from key clients
- Corporate Social Responsibility Statement in the Annual Report
- Comply with the legal requirements of the local market







### **ENERGY MANAGEMENT SYSTEM(EnMS)**

- Power Monitoring and Control System (PMCS)
- Power Quality Management System (PQMS)
- Energy Metering System
- Transformer Monitoring and Control System (TMCS)
- Carbon Emission Management System
- Wind and Solar Energy System
- EV Charger station for Electric Vehicle

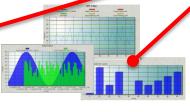






## WebSpace











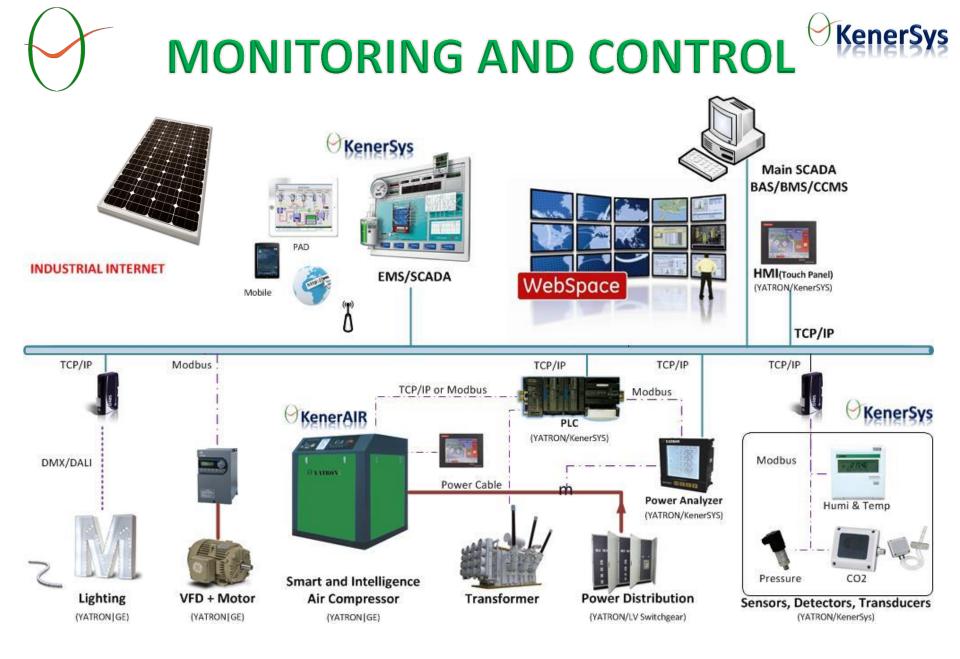
**SCADA Control** 

**Historical Analysis** 

Alarm

**KPI Monitoring** 

**Operation Report** 

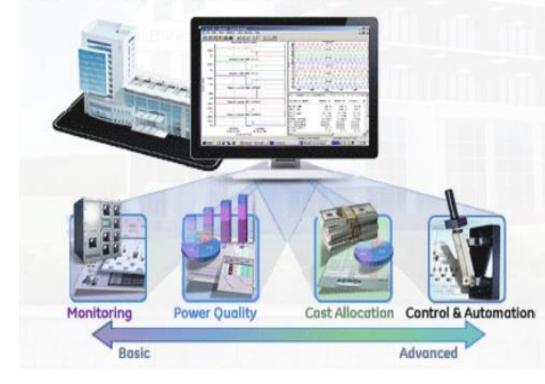






#### Energy Management Systems

Allowing facility owners to shed some light on the unknowns of their power system, the fully integrated PMCS Energy Management System provides the tools to help control energy costs, minimize downtime and increase productivity.



#### Featured Products

Energy Management Systems Complete automation solution customized to your power



KenerSys

View Product Info

management needs

Advanced Power Quality Metering Revenue grade power quality capabilities and waveform recording



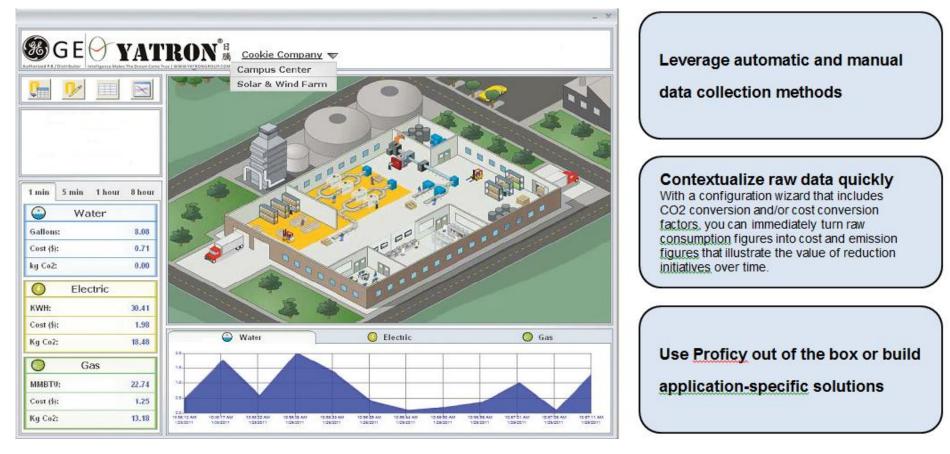
View Product Info

Managed Ethernet Switches Industrial hardened networking solutions



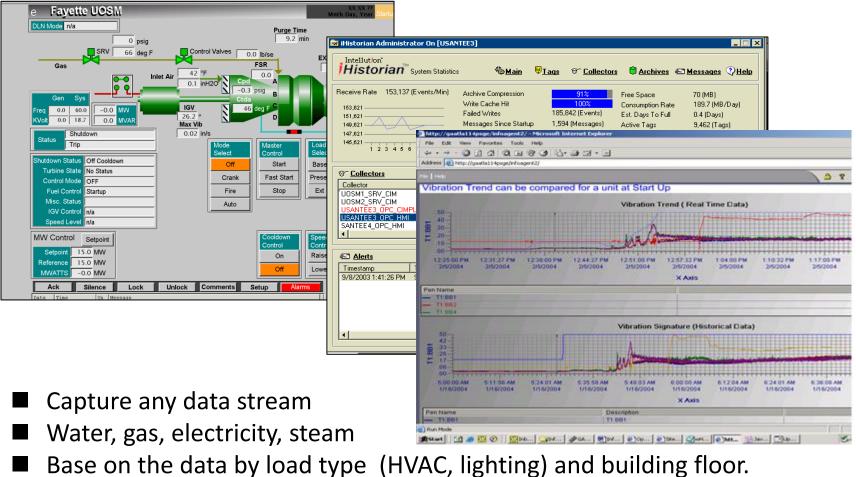
View Product Info





- Capture any data stream
  Base on Consumer type and Loading
- Water, gas, electricity, steam
- View data by load type (HVAC, lighting) or building floor





Base on the data by load type (HVAC, lighting) and building floor. Collect and Evaluate the data. And we use those <u>BIG DATA</u> analysis and improve the system. <u>Energy saving up to 40%.</u>



# **MONEY SAVING**



■ High Efficiency and High Quality EnMS
 → Energy saving up to 40%
 → Money saving up to 40%

Earlier you establish EnMS
 As early you save one more day...
 To earn more money \$\$\$...





**SMART MUSEUM** 

### Smart Museum System IOT | BIG DATA | MACHINE LEARNING | AI

# KenerMUS O

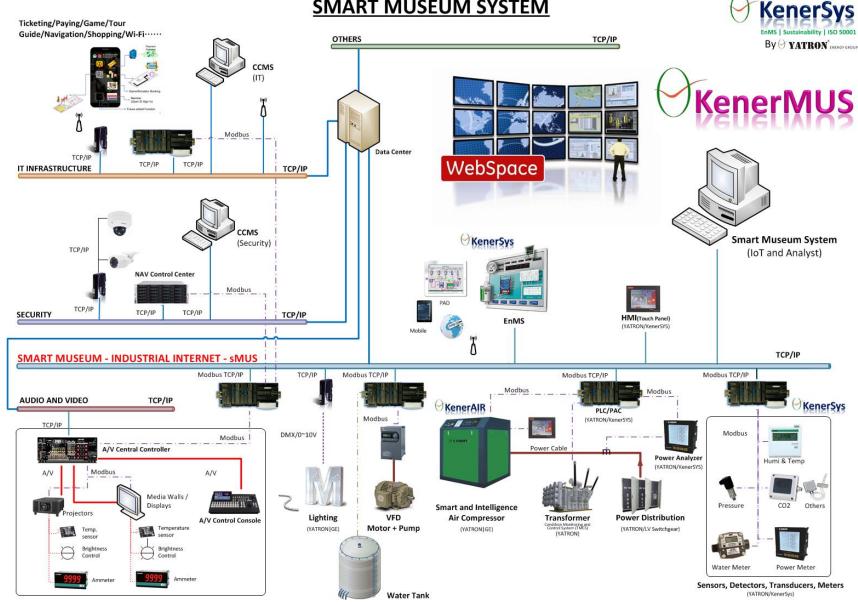
Smart City need SMART MUSEUM Let's be SMART ...





# **SMART MUSEUM**

#### SMART MUSEUM SYSTEM





# **RENEWABLE ENERGY**



### RENEWABLE ENERGY WIND AND SOLAR



# **RENEWABLE ENERGY**



# RENEWABLE ENERGY WIND AND SOLAR ENERGY SYSTEM TECHNICAL COOPERATION | SUPPORT FROM

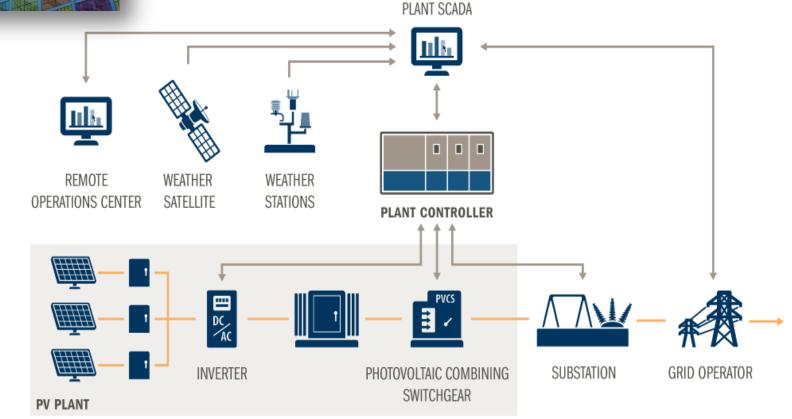


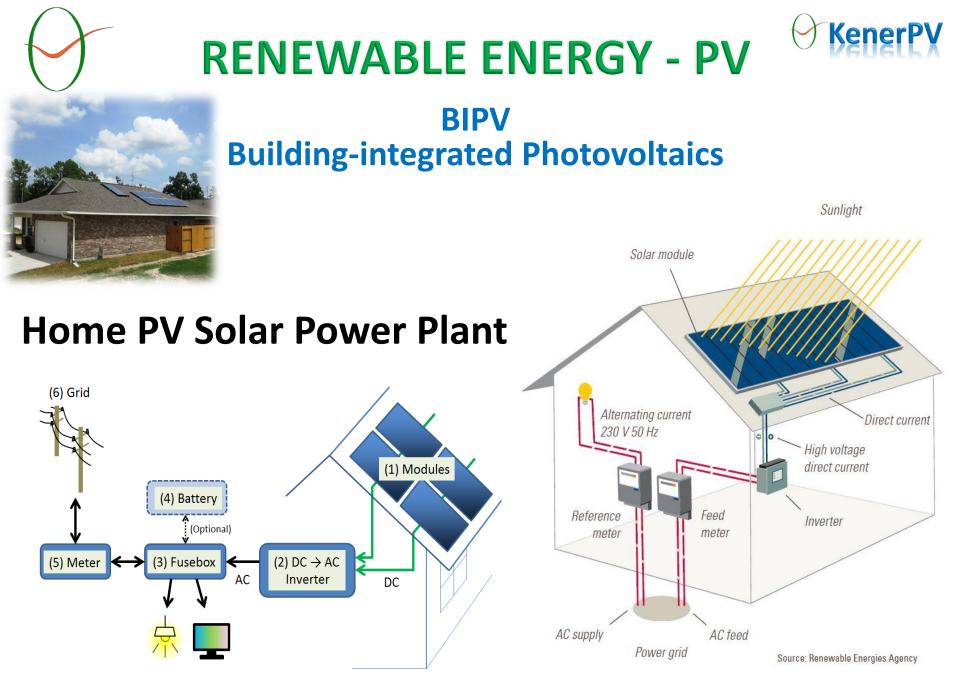






### BIPV Building-integrated Photovoltaics BIPV (large scale) & Grid Scale Solar Power Plant

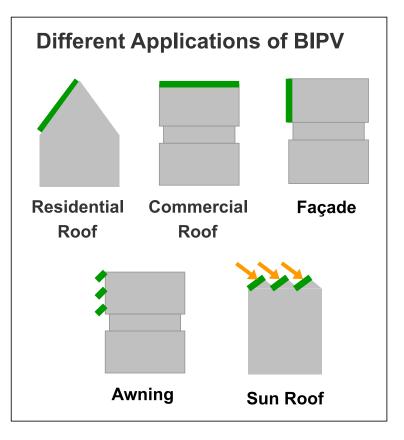




#### BIPV Panel Building-integrated photovoltaics Panel

#### What is our Solutions?

- Polycrystalline Solar PV panels
- Polycrystalline Solar PV panels (Transparency)
- CIGS Solar PV panels
- CIGS Solar PV panels (Transparency)
- Monocrystalline Solar PV panels
- EnMS (Energy Management System) Integrate to YATRON's KenerSys EnMS...









#### BIPV Panel Building-integrated photovoltaics Panel



**CRYSTAL** Polycrystalline Solar PV

#### SYSTEM BENIFITS

- Global Level and Certificates
- 11 years long term operation.
- Comply with Most Exacting Standards
   EN, TÜV SÜD/ISO, ITRI in the world.
- Transparency available.
- EnMS (Energy Management System) Integrate to YATRON's KenerSys EnMS...



Monocrystalline Solar PV

**Kener**P



BLACKKA CIGS Solar PV





#### APPLICATIONS

- Curtain Wall
- Canopy
- Rooftop



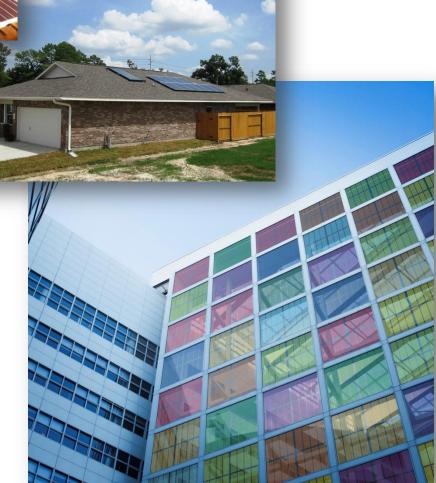
#### BENEFITS

- Beauty and Integrate to Building Façade Curtain wall.
- Transparency available.
- 4 standard colors. Other colors are available.
- Customer made available.



**CRYSTAL** Polycrystalline Solar PV

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**KenerPV** 









**CRYSTAL** Polycrystalline Solar PV

- Crystal Black : 220W
- Crystal Red : 240W
- Crystal Green : 240W
- Crystal Amber : 235W
- Size

- : Customer made
- Cell Type : Poly crystalline cells
- Wind Load : 5,400Pa
- IP rating : IP67
- Standards : EN, TÜV SÜD/ISO , ITRI
- Transparency available



#### **APPLICATIONS**

- Curtain Wall
- Canopy
- Rooftop

#### BENEFITS

- Largest Size in the world
- Beauty and Integrate to Building Façade Curtain wall.
- Easy maintenance.
- Walkable
- Transparency available 5~20%.



**KenerPV** 





BLACKKA CIGS Solar PV



#### BENEFITS

- Beauty and Integrate to Building Façade Curtain wall.
- Easy maintenance.
- Walkable.
  - Transparency.



BLACKKA CIGS Solar PV

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**KenerPV** 



BLACKKA CIGS Solar PV





BLACKKA CIGS Solar PV

#### **@COPYRIGHT YATRON**

- Power : 130W ~ 160W
- Size : 1100 x 1400mm
- Cell Type : CIGS cells
- Front Cover: Tempered glass
- Back Cover : Tempered glass
- Wind Load : 5,400Pa
- IP rating : IP67
- Standards : EN, TÜV SÜD/ISO, ITRI
- Glass, EVA, Glass, EVA, Glass Transparency available
   5~20%



**KenerPV** 









#### **APPLICATIONS**

- Curtain Wall
- Canopy
- Rooftop

#### **BENEFITS**

■ Highest efficiency





**BLACKSTONE** Monocrystalline Solar PV







KenerP\



**BLACKSTONE** Monocrystalline Solar PV

Power : 285W ~ 310W
Size : 1100 x 1400mm
Cell Type : Mono crystalline cells
Front Cover : Tempered glass
Back Cover : Tempered glass
Wind Load : 5,400Pa
IP rating : IP67
Structure : Glass, EVA, Glass, EVA, Glass
Standards : EN 62716, EN 61701
TÜV SÜD/ISO, ITRI



# **CONTROL SYSTEM**







YT-WM Industrial Enclosure

Industrial Type

- BS EN, IEC, GB (EU, UK, China)
  - TÜV SÜD/ISO Certificate
  - □ IEC, BS EN 62208
- Excellent performances
  - IP66
  - Outdoor type Powder coating, 15 years warranty.



# POWER ANALYZER AND METERING



**KenerP** 



KenerSys Power Analyser

Industrial Type

- BS EN, IEC, GB (EU, UK, China)
   TÜV SÜD/ISO Certificate
   IEC, BS EN, EMC
- Excellent performances and accuracy
- Power consumption and CO rating.
- Long distance RS485 communication (Modbus RTU Mode)



# **SOFTWARE AND INTEGRATION**

























# **SOFTWARE AND INTEGRATION**

(YATRON | GE)



KenerSys



KenerSys Energy Management System

#### Integrate KenerPV to KenerSys Energy Management System

(YATRON/LV Switchgear)

- International Level and Certificates
- Industrial Grade

(YATRON | GE)

- BS EN, IEC, GB (EU, UK, China)
  - □ TÜV SÜD/ISO Certificate

IEC, BS EN, EMC

Excellent performances and accuracy



(YATRON/KenerSys)

KenerP\

Main SCADA BAS/BMS/CCMS



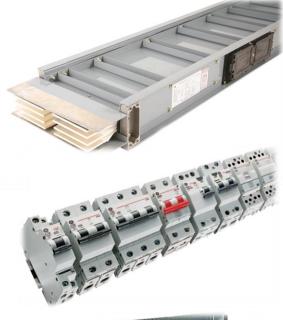


# **POWER DISTRIBUTION**



Modula Plus - Modula 630

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# **POWER DISTRIBUTION**



Power Distribution, Renewable and Green Energy
 HV, MV, LV Switchgear and Controlgear, Component, RMU, Busway
 UPS, ATS, PLC, SCADA, Power Analyzer, Transformer
 Solar and Wind System | EV Charger Station



#### Lighting Solutions



**GLOBAL PARTNERS AND RESOURCES** 华虹集团 MOTION & CONTROL\* **OSRAM** NSK HUAHONG GROUP SICK NANY SMC LEDVANCE **FESTO EMERSON** OMRON PHILIPS **Foxconn** 鴻海科技集團 **Microsoft** Schneider Gelectric FAT•N MCI epico phrozen SIEMENS **Panasonic** Chevron formlabs 😿 TÜV SUD intertek **Mobil** 台塑集团 工業技術研究院 中国铁建 Industrial Technology 中国交通建设 **Research Institute** Technip OBSTRUCTION LIGHTING CHINA STATE CONSTRUCTION INTERNATIONAL HOLDINGS LIMITED

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Ver.: 2023.10.25



# **POWER DISTRIBUTION**



#### Low voltage Switchgears and Controlgears Assembles

Brand:	yatron®	YATRON®	<b>YATRON</b> ®
Series:	Modula Plus	Modula 630	YT-M
Standard:		BS EN / IEC 61439	
Nominal Current:	Up to 4000A	Up to 630A	Up to 125A
Nominal Voltage:	690AC-50/60Hz	690AC-50/60Hz	690AC-50/60Hz
Degrees of protection:	IP30, IP41, IP43, IP55	IP30, IP41, IP43, IP55	IP40, IP43
Size and Units:	H: 2000mm W: 400, 650, 900mm D: 500, 700, 1000mm	H: 545~1910mm W: 600, 900mm D: 250, 300mm	4~60 Units
			Catron:



# **POWER DISTRIBUTION**



#### **Busway (Busbar Trunking System)**

Brand:	<b>YATRON</b> <sup>®</sup>	
Series:	KenerBuss	
Standard:	BS EN / IEC 61439	
Nominal Current:	100 to 5000A	
Nominal Voltage:	690AC-50/60Hz	
Degrees of protection:	IP40, IP54, IP66	
Plugin Units:	25 to 400A	
Options:	Temperature and Vibration Monitoring, IoT	



# **POWER DISTRIBUTION**



#### **Industrial Enclosure and Rack System**

Brand:	<b>YATRON</b> ®	<b>YATRON</b> ®	<b>YATRON</b> ®
Product name:	Industrial Enclosure	Weather proof Encl.	Computer Rack
Standard:		BS EN / IEC 62208	
Series:	YT-WM	YT-SMB	YT-R
Nominal Current:	Up to 630A	Up to 125A	24, 42, 48U
Nominal Voltage:	690AC-50/60Hz	690AC-50/60Hz	400AC-50/60Hz
Degrees of protection:	IP41, IP43, IP55, IP66	IP55, IP66, IP67	IP20
Size and Units:	H: 300~2000mm W: 300~1000mm D: 200~300mm	H: 30~1910mm W: 50~900mm D: 50~300mm	H: 1200~2250mm W: 600, 800mm D: 1100, 1200mm

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Ver.: 2023.10.25



# **POWER DISTRIBUTION**



#### Low voltage and Medium Voltage Components

Brand:			<b>YATRON</b> ®
Product name:	ACB	ACB	ACB
Series:	M-Pact	Entelliguard G	KenerPMP
Nominal Current:	400~4000A	400~6400A	400~6300A
Nominal Voltage:	690AC-50/60Hz	690AC-50/60Hz	690AC-50/60Hz
Breaking capacity:	50~80kA	50~150kA	50~80kA
EMERSON Schneider Electric SIEMENS			



# **POWER DISTRIBUTION**



#### Low voltage and Medium Voltage Components

Brand:			<b>YATRON</b> ®
Product name:	МССВ	МССВ	МССВ
Series:	Record Plus	Record MC	KenerPMC
Nominal Current:	Up to 1600A	Up to 1600A	Up to 1600A
Nominal Voltage:	690AC-50/60Hz	690AC-50/60Hz	690AC-50/60Hz
Breaking capacity:	25~150kA	25~35kA	25~35kA
EMERSON Schneider Electric SIEMENS			



# **POWER DISTRIBUTION**



#### Low voltage and Medium Voltage Components

Brand:		<b>YATRON</b> <sup>®</sup>	<b>YATRON</b> ®
Product name:	MCB Surge Arrester	МСВ	Surge Arrester
Series:	Redline	KenerPGL	KenerPGL
Nominal Current:	Up to 125A	Up to 125A	limp 15~100kA
Nominal Voltage:	400AC-50/60Hz		
Breaking capacity:	6~125kA	6~10kA	
Schneider Electric SIEMENS			Image: Constraint of the constr



# **POWER DISTRIBUTION**



#### Low voltage and Medium Voltage Components

Brand:		<b>YATRON</b> ®	F:T•N
Product name:	Isolator Loadbreak Disconnector	Isolator Loadbreak Disconnector	Fuse Link Fuse Holder
Series:	Dilos Fulos	KenerPD	Bussmann
Nominal Current:	20 ~ 2500A	20 ~ 2500A	2 ~ 1250A
Nominal Voltage:	Up to 690AC-50/60Hz	Up to 690AC-50/60Hz	Up to 690AC- 50/60Hz
EMERSON Schneider Electric SIEMENS		YATRON	E SARAN



### **AUTOMATION AND CONTROLS** OKenerPower



#### **Automation and Control Components**

Brand:		OMRON SICK FESTO ØSMC.	<b>YATRON</b> ®
Product name:	Contactor	PLC, PAC, Contactor, Relay, Controls	Power Analyzer Sensors
Series:	M, CL, CK, CB Line		KenerSys-xx
Nominal Current:	9~1250A		
Nominal Voltage:	690AC-50/60Hz	690AC-50/60Hz	
MOTION & CONTROL MOTION & CONTROL MOTION MOTION MOTION & CONTROL MOTION MOTION			



# **POWER QUALITY**



#### Low voltage and Medium Voltage Components and System

Brand:	<b>YATRON</b> ®	<b>YATRON</b> <sup>®</sup>	<b>YATRON</b> ®
Product name:	Capacitor bank	Reactor	Harmonic Filter System
Series:	KenerCAP	KenerRA	KenerHAR
Nominal Current:			
Nominal Voltage:	240V, 480V, 525V, 600V, 900V		0V
Capacity:	10kVar ~ 100kVar	0.6kVar ~ 20kVar	
<b>ABB</b> EMERSON Schneider Electric SIEMENS			



# **POWER QUALITY**



#### UPS (Uninterruptible Power Supply)

Brand:	E	FAT•N	ABB
Series:	Tower Rack Mount		
Output power rating:	1 to 600kVA		
Nominal Voltage:	380/400/415VAC-50/60Hz		
Efficiency:	Up to 99%		





#### Standard RPA<sup>™</sup> Configuration: True Redundancy with Distributed Control & Bypass





# **RENEWABLE ENERGY**



#### Solar Photovoltaics (PV)

Brand:	<b>YATRON</b> ®	<b>YATRON</b> ®
Product name:	PV Panel	PV Panel
Series:	KenerPV - BLACKSTONE	KenerPV - CRYSTAL
Cell type:	Mono crystalline	Polycrystalline
Power:	285W ~ 510W	220W ~ 240W
Size:	1100 x 1400mm	Customer made
Standards:	EN 62716, EN 61701	EN 62716, EN 61701



### **RENEWABLE ENERGY**



#### Solar Inverter

Brand:	<b>YATRON</b> <sup>®</sup>		
Product name:	Inverter		
Series:	KenerPV		
Application:	Solar PV		
Power:	1000 ~ 7200W		
Battery voltage:	12, 24, 48VDC		
Standards:	BS EN / IEC		



### **RENEWABLE ENERGY**



#### ESS (Energy Storage System)

Brand:	<b>YATRON</b> <sup>®</sup>			
Product name:	ESS (Energy Storage System)			
Series:	KenerPV			
Application:	Solar PV EV Charging Station			
Power:	3 ~ 350kW			
Size:	Customer made			
Standards:	BS EN / IEC			



## **CABLE AND WIRE**



Brand:	<b>YATRON</b> ®	<b>YATRON</b> ®	<b>YATRON</b> ®	
Product name:	H07V-U (Solid, Class 1)			
Series:				
Nominal Cross Section Area:	0.5 ~ 4mm2	1.5 ~ 240mm2	1.5 ~ 240mm2	
Standards:	IEC 60227-3 EN 50525-2-31	IEC 60227-3 EN 50525-2-31	IEC 60227-3 EN 50525-2-31	
Rated Voltage:	300/500V, 450/750V	450/750V	450/750V	
Temperature:	<b>70</b> °C / <b>90</b> °C	<b>70°</b> ℃ / <b>90°</b> ℃	<b>70</b> °C / <b>90</b> °C	
	<b>YATRON</b> H07V-U 1x1.5 450/750V IEC 60227-3	YATRON HO7V-R 1x16 450/750V IEC 60227-3	<b>YATRON</b> H07V-K 1x16 450/750V IEC 60227-3	



## **CABLE AND WIRE**



Brand:	<b>YATRON</b> <sup>®</sup>	<b>YATRON</b> ®	<b>YATRON</b> ®	
Product name:	XLPE/PVC	Halogen Free (LSOH)	SWA or AWA	
Series:				
Nominal Cross Section Area:	1.5 ~ 800mm2	1.5 ~ 800mm2	1.5 ~ 800mm2	
Standards:	IEC 60502-1	IEC 60332-1 & 3 IEC 60754, IEC 61034	IEC 60502-1	
Rated Voltage:	0.6/1kV	0.6/1kV	0.6/1kV	
Temperature:	<b>90</b> °C	<b>90</b> °C	<b>90</b> °C	
	XLPE Insulation Inner Covering PVC Sheath	XLPE Insulation Inner Covering Under Kasser Under Kasser	Copper Conductor XLPE Insulation Galvanized Steel Wire Armour (SWA)	



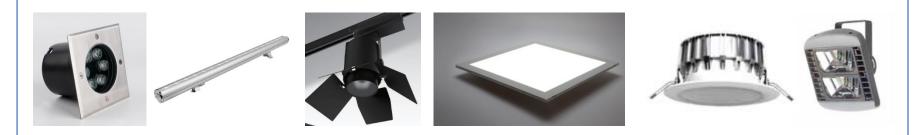
## **LIGHTING SOLUTIONS**

ee)	OSRAM LEDVANCE	Commercial Industrial Custom made	
Commercial Industrial	Commercial Industrial		
Traditional LED	Traditional LED	Traditional LED	
2700K / 3000K / 4000K / 6500K / RGB			
50,000 (standard) and up to 100,000 (options)			
IP30, IP41, IP43, IP55, IP66, IP67			
		e Z	
	Industrial Traditional LED 2700k 50,000 (sta	Commercial IndustrialCommercial IndustrialTraditional LEDTraditional LED2700K / 3000K / 4000K / 65050,000 (standard) and up to 100,	



## **LIGHTING SOLUTIONS**

Brand:	ee	OSRAM LEDVANCE	<b>YATRON</b> <sup>®</sup>
Application:	Commercial Industrial	Commercial Industrial	Commercial Industrial Custom made
Fixtures:	Traditional LED	Traditional LED	Traditional LED
Color temperature:	2700K / 3000K / 4000K / 6500K / RGB		
Working time (hours):	50,000 (standard) and up to 100,000 (options)		
Degrees of protection:	IP30, IP41, IP43, IP55, IP66, IP67		





### **AUTOMATION AND ROBOTICS**



Brand:	<b>ABB</b> YATRON®	<b>ABB</b> YATRON®	<b>YATRON</b> ®		
Product name:	Robot	AGV, ARM	UAV		
Series:	IRB / KenerBOT	KenerBOT	KenerBOT		
Payload:	1.5 ~ 800kg	Up to 10,000kg	Up to 5kg		
Reach, Speed: Time:	0.37 ~ 4.2m	Up to 2m/sec Up to 60 mins	Up to 80km/hr Up to 60 mins		
Standards:		BS / EN / IEC / UL / ASTM			
	A REAL PROPERTY OF THE REAL PR	VATRON         VATRON         MUSELNE         MUSELNE         MUSELNE         MUSELNE         Trosgestigo zooo)	Forces       Partoxine         Partoxine       Partoxine		

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## **3D PRINTING**



Brand:	🕖 phrozen	formlabs 😿	<b>YATRON</b> <sup>®</sup>		
Product name:	3D Printer	3D Printer	3D Printing System		
Application:	Commercial	Commercial Industrial	Commercial Industrial Custom made		
Series:	Sonic	Form	n KenerSys		
Standards:	BS / EN / IEC / UL / ASTM				
Grade:	Player	Player Professional			



## MONITORING AND CONTROL

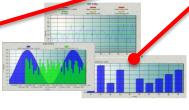




## MONITORING AND CONTROL Greener Sys

## WebSpace











**SCADA Control** 

**Historical Analysis** 

Alarm

**KPI Monitoring** 

**Operation Report** 

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# SOFTWARE AND INTEGRATION





KenerSys Energy Management System @COPYRIGHT YATRON

#### Integrate KenerPV to KenerSys Energy Management System

- International Level and Certificates
- Industrial Grade
- BS EN, IEC, GB (EU, UK, China)
  - □ TÜV SÜD/ISO Certificate

IEC, BS EN, EMC

Excellent performances and accuracy





## POWER QUALITY MANAGEMENT SYSTEM (PQMS)





#### RPC&HF equipment



- Capacitor units
- Reactors
- Electronic products
- Capacitor banks
- Active filters

#### Special applications



- FACTS solutions
- HVDC projects
- AC/DC rectifier substations

#### Services

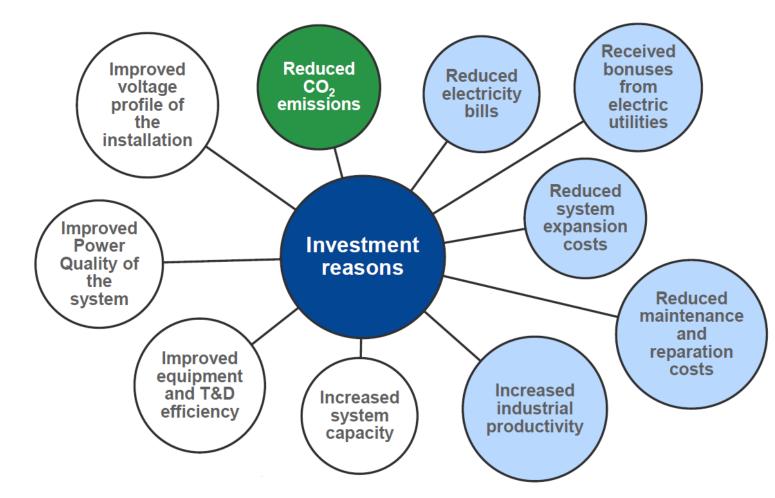


- Network consulting
- Project support
- After sales





### **INVESTMENT REASONS**







### POWER QUALITY MANAGEMENT SYSTEM (PQMS)

### **INVESTMENT REASONS**

#### REDUCED ELECTRICITY BILLS

- Power consumption reduced
- Low power factor penalties avoided

#### REDUCED SYSTEM EXPANSION COSTS

Reduction in demand allows increase the loads in the installation without needing more contracted power

#### REDUCED MAINTENANCE AND REPAIR COSTS

- The lifetime of switchgear and cables increases due to reduction of current passing through them (which leads also to decreasing the operating temperature)
- Avoided blown fuses and blown distribution boards





### **INVESTMENT REASONS**

#### INCREASED SYSTEM CAPACITY

- Extra kVA availability from the existing supply allow the connection of new loads
- Overloaded transformers are avoided

#### IMPROVED EQUIPMENT AND T&D EFFICIENCY

- □ Increased active power output from power transformers
- Decreased power losses (decreased of total current flow)

#### IMPROVED POWER QUALITY OF THE SYSTEM

- □ Improved power factor
- □ Improved system stability
- Reduced harmonic content

#### IMPROVED VOLTAGE PROFILE OF THE INSTALLATION

- □ Rise of installation voltage
- Reduced voltage drop in cables

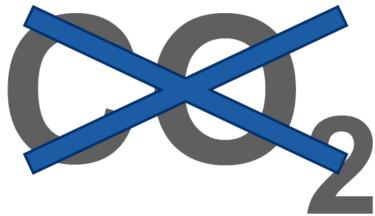




### **INVESTMENT REASONS**

#### **ENVIRONMENTAL**

Use of PQ&EE equipment reduces the amount of carbon emissions released into the atmosphere

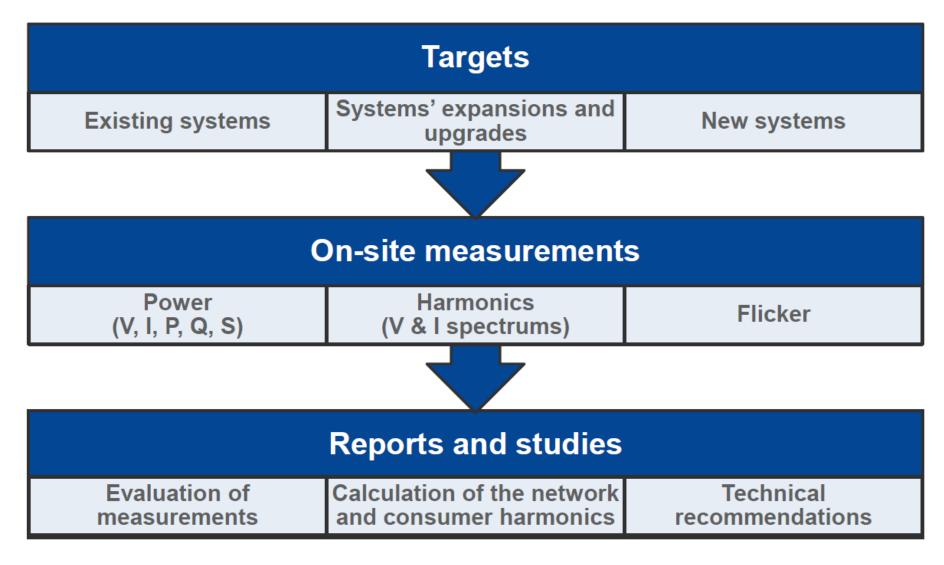


#### PQ&EE = Money savings + Better installation efficiency + Reduced CO2 emissions





#### Power Quality Management System (PQMS)







#### Power Quality Management System (PQMS)

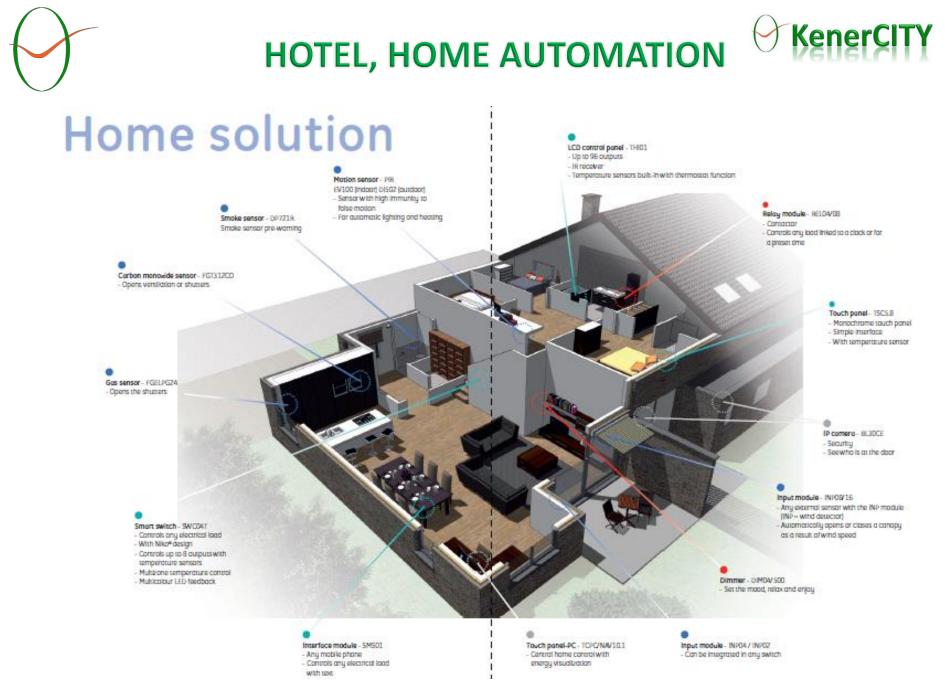
Solution configuration					
Dimensioning an product selection		Technical support		Product and system engineering	
Erection works					
Civil works		echanical Electrical Supervision		Supervision	
Commissioning					
Performance and functional conformity measurementsTraining of operating personnelCommissioning report			missioning reports		



#### FACTORY AND BUILDING AUTOMATION











#### • Home and Building Automation

- Lighting Control System

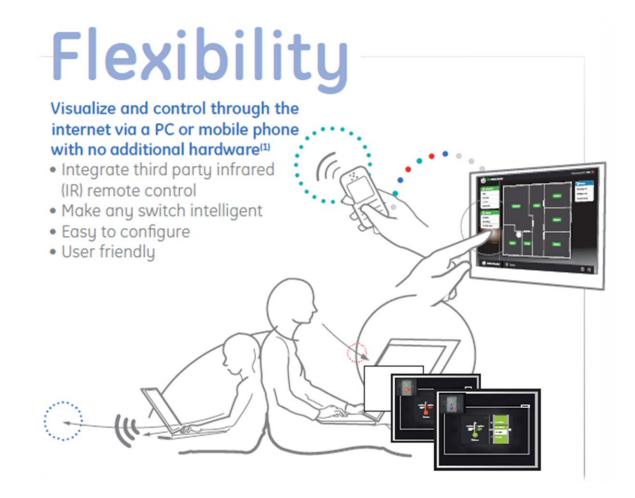


**KenerCITY** 



### HOTEL, HOME AUTOMATION





- Home and Building Automation
  - Lighting Control System



## High Tech R&D





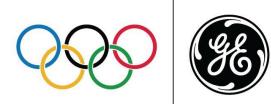


## Energy (Power, Solar etc...)





## **Lighting Solutions**













## **Big Data and Analytics**







## IoT – Internet of Things







## Machine Learning







## 3<sup>rd</sup> Inspection and Test







**GE** 

**CORE BUSINESS** 

### POWER PLANT POWER SUBSTATION



GE provides the control and automation that utilities need to build a smarter more reliable power grid. シ 深電 Cem

570 AQ772 0 T820 R

ARCE- CRIMANSY 75



### GLOBAL KEY ACCOUNTS (ENERGY, POWER UTILITY AND INFRASTRUCTURE)





#### WORLDWIDE PARTNER



Macau Electric

ALSTOM



Hong Kong-CLP Power



China粤電-珠海電廠:: 2023.10.25













**Philippines National Power** 



## GLOBAL KEY ACCOUNTS (OIL & GAS)





#### WORLDWIDE PARTNER

# Nobil



Chevron



## GLOBAL KEY ACCOUNTS (HOTEL, RETAIL, BANK)





















## GLOBAL KEY ACCOUNTS (DEVELOPER, HOTEL & RESORT)



PACIFICVIEW

## GLOBAL KEY ACCOUNTS (INDUSTRIAL AND INFRASTRUCTURE)







### 澳門民政總署

**IACM** - Civic and Municipal Affairs Bureau, Macau

澳門土地工務運輸局

**DSSOPT-** Land services, Public Works and Transport Bureau of Macau

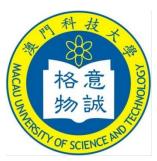
### 澳門建設發展辦公室

**GDI** - Office for the development of infrastructure, Macau



### 澳門交通事務局

**DSAT** - Services for the affairs of traffic Bureau, Macau



### 澳門教育暨青年局

**DSEJ** - Education and Youth Services Bureau, Macau

澳門旅遊局

**DST** - Tourism services Bureau, Macau



# GLOBAL KEY ACCOUNTS (TRANSPORTATION)



### 澳門國際機場 Macau International Airport





Hong Kong-Metro



# GLOBAL KEY ACCOUNTS (EPC)



澳門-中國建築 China Construction



中国交通建设 CHINA COMMUNICATIONS CONSTRUCTION China Communications Construction



中國鐵建 China Railway Construction



廣東建工 Guangdong Construction Engineering Group Co., Ltd China



廣東省工業設備安裝公司 Guangdong Industrial Equipment Inst. Corp. China



**French Corporation** 



# GLOBAL KEY ACCOUNTS (EPC)





澳門-豪進建築 Hou Chun Construction Macau



台灣-鼎台營造 TingTai Construction Taiwan



香港-高雅 Krueger Engineering Hong Kong



# **BUSINESS CONCEPT**

• Intelligence Makes the Dream Come True

• Efficiency | Quality | Service

• Sincerity | Commitment | Success

# According to customer's requirement to provide the site service

On site service(Free)

### Technical update

Update the newest and leading Products & technology of Energy, Power distribution, Industrial and Building Automation

### **@COPYRIGHT YATRON**

# **COMPETITION/ADVANTAGE**

### Customer support and service

Customer satisfaction and recognition is our eternal pursuit!

### GE Global technical support

□ YATRON is the Core Business partner of GE Energy in Macau, HK, Taiwan, China and Asia

- Service hotline 24/7 hrs hotline and within 2 hrs respond
- Emergency service(Pay) □ 24/7 hours Emergency On site service



# CSR (Corporate Social Responsibility) by MIRROR POST Chief Executive of Hong Kong, CY Leung

27th March, 2015 Year





# AWARD | HONG KONG

積極參與企業社會責任獎評選活動,獲「企業社會責任大使」稱號 Participating in Corporate Social Responsibility Award (CSR) Selection Activities, Became One of the CSR Ambassador

日騰是一家以能源管理和建設可持續發展為發展目標的企業。社會的發展與企業的發展息息相關。 社會發展得好,為企業提供良好經濟的環境。企業 發展得好了,力所能及地回饋社會,創造更好的經 濟環境。如此良性循環。日騰能源集團就是在這個 理念經營下才有今天的成績。

於2014年11月24日,日騰獲選「企業社會責 任大使」稱號。



YATRON is an enterprises specializing on energy management and sustainably development as goals. The development of the society and the enterprise is closely related to each other. Provide a good economic environment for enterprises, so that enterprises development better; Serving society the best, Society will create a better economic environment for enterprises. This is such a virtuous cycle. YATRON energy group knows this business philosophy and practice it personally. Thus, we get the achievement today.

On 24th Nov 2014, YATRON was awarded "Corporate Social Responsibility Ambassador" title.





# AWARD | MACAU



# YATRON Energy Group BUSINESS AWARDS OF MACAU Environmental Performance 26<sup>th</sup> November, 2015 Year







awardsmacau.com

# RECOMMENDATION



### Macau Electric

From: Four Seasons Hotel Macao, Cotai Strip®

To: Wynn Resorts (Macau) S.A. Rua Cidade de Sintra NAPE, Macau

 Attention:
 Ms. Kimberly Tan, Director of Purchasing

 Email:
 Kimberly.Tan@wynnmacau.com

 Tel:
 (853) 8986 5401

### Subject: Trade Reference Check

This is to certify that the service of *YATRON Engineering Co., Ltd.* has been exceptional. We would have no hesitation in recommending them as a supplier to you.

Authorized Signatory:

(Kennix Pak)

 Designation of the signatory: Engineering Coordinator

 Date: 02<sup>nd</sup> Jan, 2014
 Company Chop:

 Tel: +853 81128506
 Email address: P



Email address: Kennix.Pak@fourseasons.com

From: Companhia de Electricidade de Macau - CEM, S.A.

 To:
 Wynn Resorts (Macau) S.A. Rua Cidade de Sintra NAPE, Macau

 Attention:
 Ms. Kimberly Tan, Director of Purchasing Email:

 Kimberly.Tan@wynnmacau.com

 Tel:
 (853) 8986 5401

### Subject: Trade Reference Check

This is to certify that the service of *YATRON Engineering Co., Ltd.* has been exceptional. We would have no hesitation in recommending them as a supplier to you.

Authorized Signatory:



Designation of the signatory: Manager/Procurement and Logistics Department.

Date: 02<sup>nd</sup> Jan,2014 Tel: +853 28339933 Company Chop: Email address: ccf.cheung@cem-macau.com



# Chairman and CEO - Kenneth Chan Interviewed by Macau Asia Satellite Television

On 2014/10/28, Chairman and CEO Kenneth Chan was interviewed by MASTV and attended "Moved Macau" TV programs. YATRON Energy Group CEO Mr. Kenneth Chan was such a practical person, with their diligence and wisdom to achieve his dreams. After he finished his University in Taiwan, he return Macau for hometown's construction as a special zone identity of the owner with other community. Contributing for the motherland's prosperity and stability and set a good example for the majority of adolescents in Macau.







# At light speed

A local energy management and lighting solutions company will roll out a second factory after six successful years of operation

BY ALEXANDRA LAGES

fter just six years, Yatron Energy Group, a local tric Company (GE) technology. company providing energy management services and lighting solutions, is about to open a new factory in mainland China. It will triple its current manufacturing unit capacity as the business expands from Greater China to Southeast Asia.

In an exclusive interview, Kenneth Chan Chio Hong, chairman and chief executive officer of the firm, tells Macau Business how he started a business with MOP10,000 (US\$1,250) and grew it into a US\$15 million-revenue conglomerate

Yatron is a diversified organisation providing energy management and lightning solutions to utilities and energyintensive industries, including commercial, healthcare, data centres and transportation. The company uses General Elec-

54 | macaubusiness | DECEMBER 2014

上圖: 日騰能源集團CEO陳超雄 接受《澳門商業雜志Macau Business》採訪

### **@COPYRIGHT YATRON**

GE is an American multinational technology and financial services company, with products and services ranging from aircraft engines, power generation, water processing, and household appliances to medical imaging, business and consumer financing and industrial products. It serves customers in more than 100 countries.

Yatron is GE's sole authorised switchgear panel builder and distributor here, opening its factory in Zhuhai in 2010.

### **Targeting millions**

It has branches in Macau, Hong Kong, Taiwan and, more recently in Malaysia, which is overseen by Mr. Chan's French partner, who is in charge of tapping the Southeast Asian market

Let there be a new light www.macaubusiness.com

### Newsdesk | 18/12/2014 | in BUSINESS

### A local energy management and lighting solutions company will roll out a second factory after six successful years of operation

After just six years, Yatron Energy Group, a local company providing energy management services and lighting solutions, is about to open a new factory in mainland China. It will triple its current manufacturing unit capacity as the business expands from Greater China to Southeast Asia.

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(Page 1/2)

2014/12/18



### 2014/12/18

"In November, we will move into a new plant and our capacity will triple. I had to increase our manufacturing unit's capacity in order to meet our clients' demands. With our business setting foot in Southeast Asia, the market is very big." Mr. Chan says.

He is expecting the company to rake in around US\$15 million in revenues this year; as of October, Yatron had made almost US\$13 million.

"We [aim for] our 2015 revenue to be around US\$25 million. This year, the target should be US\$15 million," the local businessman says.

The firm's major manufacturing products are switchgear and automatic components for energy management and lightning fixtures, and it has now started manufacturing air compressors for industrial use.

Yatron provides end-to-end products and service solutions that seek to ensure the reliability and protection of electrical infrastructure, from power plant, substations, to a facility's critical equipment, and all the power technology in-between. "The purpose of these systems is to increase the efficiency and reliability of operations and become more competitive", he says.

### Casino world

The company's main clients are located in Macau, followed by Hong Kong and Taiwan. It also has clients in Southeast Asia now.

"In Macau, our major client two years ago was the government. The government's requirements are very high and we are making high-end products and solutions. Then, fortunately, we started doing casino projects two years ago, like Sands China Ltd, Galaxy Entertainment Group and Melco Crown Entertainment Ltd," he says.

Yatron is providing air conditioning and ventilation systems for Melco Crown's new signature project in Cotai, Studio City, and energy management systems and low voltage switchgear for Sands Cotai Central.

"Two years ago, most of the casino business was controlled by Hong Kong consultants and end-users. We didn't have any connection there. That's why we established the Hong Kong branch and got Hong Kong clients step by step." he says.

When asked about his recipe for success, Mr. Chan laughs out loud. "We're growing now. I cannot say we are successful yet. We're studying the market. I established Yatron with MOPI0,000. When I rented the office we didn't have any money [he laughs]. Up to now, we're focused on quality service.

"We have no secrets; just honesty, quality and service". Energy management includes planning and operation of energy-related production and consumption units. It embraces resource conservation, climate protection and cost savings, while users have permanent access to the energy they need.

### Virgin lands

Mr. Chan believes that Macau is still at the beginning stage of environmental control and sustainability.

"For the last 10 years, economic growth has been very high and the government is arranging some departments in this area. The Environmental Protection Bureau was established only a few years ago.



Mr Chan is expecting his company to rake in around US\$15 million in revenues this year; as of October, Yatron had made almost US\$13 million

"Yatron and GE are focused on energy management, which is one of the tools for sustainability. When the government or a client would like to bet on sustainability, we have to do energy management. I think the local market is a very big market for energy management, he says.

He adds that the company has been discussing with some existing casino projects how they can improve energy management systems; and also private and government schools, and other government departments. He says that most end-users are still in the 'considering' stage.

"We're talking to some chairmen and top managers of companies and they would like to try energy management. We're still providing consultancy services," he says.

In what concerns environmental and energy conservation rules and laws, Macau also has a long way to go, he says. "In Macau, people are more relaxed. It will take three to five years for society to develop some mentality in this regard. In Taiwan and Southeast Asia, they accept our ideas.

DECEMBER 2014 | macaubusiness | 55

Let there be a new light www.macaubusiness.com

### Newsdesk | 18/12/2014 | in BUSINESS

### A local energy management and lighting solutions company will roll out a second factory after six successful years of operation

"In November, we will move into a new plant and our capacity will triple. I had to increase our manufacturing unit's capacity in order to meet our clients' demands. With our business setting foot in Southeast Asia, the market is very big," Mr. Chan says, adding that "our aim for 2015 is for revenue to be around US\$25 million. This year, the target should be US\$15 million," the local businessman says.

The company's main clients are located in Macau, followed by Hong Kong and Taiwan. It also has clients in Southeast Asia now. "In Macau, our major client two years ago was the government. The government's requirements are very high and we are making highend products and solutions. Then, fortunately, we started doing casino projects two years ago, like Sands China Ltd, Galaxy Entertainment Group and Melco Crown Entertainment Ltd," he says.

The full story can be read in this month's issue of Macau Business magazine, available at newsstands or online at www.magzter.com

(Page 2/2)



### Chairman and CEO interview by Mirror Post, Hong Kong | Nov, 2014

尋找GE的第二故鄉

——訪日騰能源集團董事長**陳超雄** 

「智慧成就夢想」。日歐能源集團董事長陳超雄這樣說,日臨集團憑藉美國通用 電氣(General Electric-GE)智慧化系統等的技術力量、管理思維、企業文化,把本 地化企業帶起來,成就中國人偉大的夢想。

⊙文/天樂

■ 20年的時 間裡,基礎設施方 面投資力度巨大,當中為 能源管理的發展提供了必 備的條件。今天,由年輕 工程師陳超雄成立的日鷹 能源集團將如何把握亞洲 這個能源市場的管理及發 展機遇,使集團成為港澳 能源管理企業的標桿?

特稿

Business Development in 2014 19 © GE YATRON

◆日臘能源集圖董事長陳超雄稱,日羅作為能源管理者、GE在中國的合作夥伴, 將抓緊中國能源管理行業的機遇。

與GE一起把企業達致本地化

該起能源管理這一課題,日腾 能源集團董事長陳超雄這樣說,自愛 她生發明電燈泡以及CE面世以來, 人類開始使用電力,帶來科技的進步 和便利,但同時地造成巨大的能源消 耗,一直以來人們亦忽略能源管理這 一概念。陳超雄稱,直至近5年來, 能源管理才逐漸成為世界各地的重要 議題,能源管理涉及天然氣、石油、 頁岩氣、電力、煤炭等類別。能源管 理是一種管理手法,但其操作模式不 只是以人力去管理,而是以自動化系 統、電氣組件、軟件以及人的經驗去 作綜合管理。

成立於2006年的澳門日騰能源 弊關至今已發展成為一個多樣性組織 企業,包括能源管理、能源全方位解 決方案等,從事能源、數據中心、水 處理、交通乃至醫療系統的業務。在 業務進入快車道上,陳超雄如何帶領 建築 集關在促進能源發展的前提上擔當着 。一個重要的角色?陳超雄這樣回答, 重要 集團一直與美國通用電氣(GE)合作, GE目前主要為全球提供最新技術, 仍知電氣軟件、監察系統等進行生產 整合。它雖然是全球最領先的設備和 上系 系統生產商,但它仍需要在本地化市 檢去 場擁有一個作系統整合及具生產能力 的企業,與他們一起把企業違致本 地化,打造堅實的合作夥 伴關係以質現共同發展和 達致雙贏,日際能源集團 便是GE在大中華區其中一 個主要的授權合作夥伴。 也正因為這概念,GE可以 130多年來屹立不倒,因 為它澤知再大的企業,當 處在不同市場時,都需要 適應當地的文化和講通方 式。

### 成就中國人偉大的夢想

「智慧成就夢想」是日際的宗 旨。陳超維指出,集團為GE的授權生 達商,由建廠、規劃到生產都得到GE 很大的支持。日騰集團憑藉GE智慧化 系統等的技術力量、管理思維、企業 文化,把本地化企業帶起來,成就中 國人偉大的夢想。

能源管理是一個資金密集型、 人才技術密集型的行業, 日陽在亞洲 區域的戰略部署又是如何? 陳超雄表 示,集關除了一直在香港、強鬥等地 發展外,其亞洲重心將是大中華區, 富然東南亞遠全球市場的焦點亦不容 忽视,集團最近已在馬來西亞成立東 南亞地區總部。集團將與GE和GE最新 收購的法國阿爾斯通,共同發展亞洲 市場。

### 為客戶提供全方位能源管理服務

國家發展能源還屬起步階段, 這需要吸引世界專才和國際級企業來 扶助當地企業及政府部門來發展能源 企業事業。GE公司大中華區總裁兼首 席執行官夏智誠(Mark Hutchinson) 曾稱中國將成為GE第二故鄉,故每年 會作大力度的投資項目,例如:在中 國培訓管理人才、企業整合,以達致

本地化;與此同時,GE履行企 業社會責任,將中國的人才交 流、技術增長帶動起來。

日勝作為能源管理者、 GE在中國的合作夥伴,將抓緊 中國能源管理行業的機遇。陳 超雄稱,現在建造智能化大廈 和工廠,一般企業成本會增加



展。

◆日臘能源集團至今已發展成為一個多樣性組織企業,包括能源管理,能源全方位解決方案等,從事 能源、數據中心、水處理、交通乃至醫療系統的業務。 把握粵港澳三地的合作契機

3%,但3至5年內可回本。日騰為客戶

提供全方位能源管理支援技術服務,

集團會先與客戶作簡單的溝通,了解

他們有什麼問題,怎可達致可持續發

展。之後會給予顧客簡單的建議書,

為對方提供能源顧問服務,評估在能

源方面上有什麼可改進空間。他續

說,這個社會若不抓能源管理,會衍

生很多問題,例如:空氣污染、員工

**質素下降、效能降低,這或令企業帶** 

來更大的損失。所以,一系列能源管

理措施不僅可改善企業自身,也可提

升員工質素乃至實現社會的可持續發

随着港珠澳大橋的即將興建落 成和橫琴新區開發項目的進一步落 實,將深化粵港澳三地的合作。日騰 又如何使澳門在能源管理的發展上得 到提升,把握粵港澳三地的契機?陳 超雄表示,澳門雞是個小城市,但集 關立志朝着成為澳門輸配電及空調產 品領導者角色邁進。他創立的日騰已 有8年的時間,在澳門擔當着輸配電 的重要角色。他認為,空調控制系統 還有待改進空間。現時澳門的大型企 業、工廠、酒店都設有樓字自動化系 統,然而,仍只是流於表面,沒有將

> 能源管理落到實處。他希望 集團未來可把那些現有已實 行樓字自動化的企業、大樓 再作改善,未有的則會幫他 們建立樓字自動化和能源管 理系統。

陳超雄特別指出, 日 騰將借助橫琴、深圳前海、

泛珠三角9+2區域等周邊地區進行發 展。現在集團先在橫琴、海南等地進 行洽該發展項目,扶助當地企業發展 能源管理,藉出第一步。他表示,現 與世界接軌並不容易,他感謝GE給 予他們平台和學習機會,特別是以其 專業技術、財務等方面為集團作出援 助,讓他們逐漸地成長壯大。

近年中國經濟正在急速增長, 它有望成為全球最大經濟體。日藤將 集續紮根自己家鄉港溴,並密切配合 GB在中國及亞太區的發展,將能源管 理做深做大。我們有理由相信在像日 腸這樣默默耕耘企業的努力下,他朝 中國可成為GE的第二故辦。(4)

2014年11月 1月1 87

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86 [[]月日 2014年11月



# PRESS CONFERENCE | MACAU, HONG KONG

### YATRON Energy Group Business Development in Asia Press Conference

2014/08/19 YATRON Energy Group Business Development in Asia Press Conference was held in Sands City Center Sheraton Hotel. Taking this opportunity for more Macau and Asian company have a in-depth understanding of YATRON business and products. In hope of provide assistance from different aspects so that to promote the enterprises to establish a set of efficient energy management systems and solutions.

The conference invited the Chinese Liaison Office Ministry of economic management of Enterprise Department Mr. Yan, senior manager of Macao productivity and technology transfer center director office Mr. Zeng, General Manager of General Electric (GE) Group of Energy Industry system in North Asia and Greater China Mr. Liu Fang and representative Li Qing, Macao Electric Ltd power system Dispatching Department manager Mr. He and Purchasing Department manager Mr. Zhang, Macao the Chinese General Chamber of Commerce, Executive Director Mr. Chen, Vice President of the Macao small and Medium Enterprises Association General Chamber of Commerce Mr. Ye and over 150 overseas guests and business political representatives attended the activities, lively atmosphere.



Chairman and CEO of YATRON Energy Group Interview by TDM Macau



Press Conference

# PRESS CONFERENCE | MACAU, HONG KONG

YATRON Energy Group Chairman and CEO Mr. Kenneth Chan said, with the Hong Kong Zhuhai Macao Bridge Construction and Hengqin new area development project opportunity, make the development and demand of energy management, wisdom city building get the attention and promotion focus. YATRON was founded in 2006, now we are focusing on service in Macau. With the support of all parties, the group's business gradually extended to other regions, the realization of Macau enterprises to go out of the target. Provide solutions for customers. Then, respectively YATRON energy group held agreement signing ceremony with Macao Investment Development Company Limited cooperation for "Studio City Macau", "Venetian Resort 110kV substation" projects.

In this business development conference, hope that with the help of our Asia layout, and General Electric (GE) technology, financial support, to help enterprises to go out. There are a number of projects in Hengqin development, participate in some government infrastructure, commercial buildings, including the LED lighting technology, motor control.

Technical promotion will be actively facing to relevant departments in future. 8 years since YATRON was found, we kept training and had hired a number of local engineers, they are using GE technology and the new technology for the working.

GE Energy Group Industrial System in North Asia and greater China GM Mr. Liu Fang said YATRON energy group is a long-term partner in China, the future will support YATRON in the technology, finance and other aspects, hoped YATRON will develop in scale, or even go public. **@COPYRIGHT YATRON** 

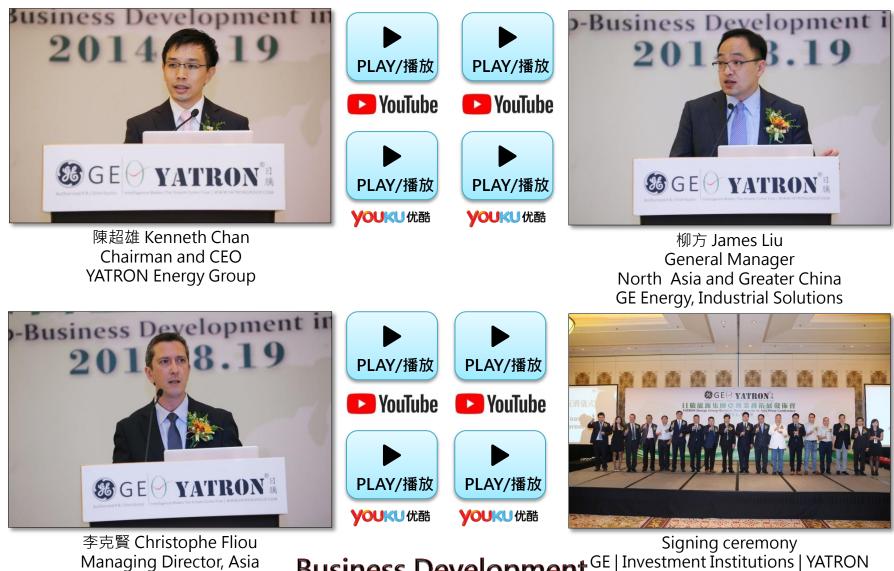


Left to Right: Chairman and CEO (Kenneth Chan) | Managing Director of Asia (Christophe Fliou) **YATRON Energy Group** 



James Liu | General Manager, North Asia and Greater China GE Energy, Industrial Solutions Ver

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YATRON Energy Group

Business Development GE | Investment Institutions | YATRON in Asia Press Conference

Energy Group

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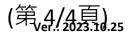
### Macao Daily



2014年08月20日: 澳門日報 Macao Daily



2014年09月: 香港鏡報 Mirror Post







### Macau Asia Satellite Television

Macau



GUANGZHOU | CHINA



Mirror Post | Hong Kong



Macau

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# MEDIA | SEMINAR | MACAU, HONG KONG 2017/01

### CSR seminar Hong Kong Mirror – City University of Hong Kong



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2017.01

### MEDIA | SEMINAR | MACAU, HONG KONG 2014/11/20

CSR seminar Hong Kong Mirror – City University of Hong Kong

The 6th CSR Seminar and Seminar YATRON - CEO Kenneth Chan / TUV SUD – LAI MIN

### 2016年12月06日, 2017年1月號











### CSR seminar Hong Kong Mirror – City University of Hong Kong



理系统。

方工業革命使人類工業文明前進了一大步,能 源效益提高了很多。伴隨着工業革命的開展, 也給生態環境和城市發展帶來了破壞性影響。在 二十一世紀的今天,我們應重新思考要否擁抱生態 文明?我們與生俱來肩負着責任,不論是對家庭 朋友、社會、環境,IS0 50001今我們思考到我們要 繼續造成能源虛耗,還是應有效地管理能源?本刊 將推出系列關於善用能源管理和對如何履行保護環 境責任的文章,以響讀者。

聯合國因應氣候變遷,多年來透過各國政府 民間和標準化組織的持續努力,制定了各種國際標 進和協議(簡述如下)。希望各國和地區,在享受經 濟成果之餘,對自己國家和國民以及全球生態平衡 作出應有的同饋和責任。

■全球性協議:《京都協議書》,1997年12月 在日本京都共有183個國家通過了該條約(超過全 球排放量的61%),條約於2005年2月16日開始強制 生效。《巴黎協議》取代將於2020年到期的《京都 協議書》。2015年在巴黎,工業革命啟動近250年 後,全球各國達成減少溫室氣體(二氢化碳為主)排 放的協定,展開挽救人類免於氣候變遷帶來毀滅的 第一步,也等於宣告了工業革命後仰賴石化燃料帶 来成長的時代終結,低碳與永續的時代正式展開。 《巴黎協議》目標是在二十一世紀後半葉,將全球 氣溫上升限制在與工業化前相比上升2℃以下,甚 至希望能達到限制在1.5℃。《巴黎協議》亦已於 2016年11月4日正式生效啟動,並通過中國簽定, 延伸至香港和澳門特區。

■國際標準化組織1S0及歐盟關於《可持續發 展》之相關標準: ISO 26000社會責任指引、ISO

6 EEE ### 2017年1月



### ■國際標準化組織IS0及歐盟標準詳細介紹 \* | SO 26000社會責任指引簡稱(SR):①SR中 7大要素的《環境》要素着重於能源管理系统、環境

管理系统、绿 色产品管理系 統、溫室氣體 管理系統。② 折年全球孵化 造成氣候變遷 的問題日趨嚴 重,企業須承

擔的企業社會責任亦隨之增加。目前國際間由投信 機構發起的「碳揭露計劃」,以作為投資決策之考量 因素。歐盟的整合性產品環保政策,已發展一系列與 市場機制相結合的環保指令,只有符合相關規範之產 品方能進入歐盟市場。

\*ISO 14001環境管理系統:①ISO從1993年開始 制定的一系列環境管理國際標準。②環境污染與公害 事件的產生使人們從治理污染的過程中逐步認識到 要有效的保護環境,人類社會必須對自身的經濟發展 行為加強管理。

\*ISO 50001/EN 16001能源管理系統:①人類從 **澄展能源、使用能源、節約能源,現在必須升高其** 層次至管理能源。②EN 16001: 歐盟於2009年7月登 布,期望合理地管理能源。③IS0 50001: 由IS0於 2011年6月頒布,將能源效率納入管理辦法框架中;

更好地利用現有能源消耗資產制定標準、測量、記錄 和報告能源強度,改進及其預計的對消減溫室氣體排 放量的影響;能源資料的透明管理和交流;能源管理 的最佳做法和良好的能源管理行為;評估並確定新能 源效率技術的實施和其優先順序;通過供應鏈促進 能源效率的框架和溫室排放消減計劃有關的能源管 理改進。④ISO 50001/EN 16001包括: 能源審查、 能源基準、能源績效指標(EnPIs)、能源目標與能源 指標等,最終達到管理能源。⑤1S0 50001遵循PDCA (Plan計劃-Do執行-Check檢查-Action行動) 的原 則, 與[S0 9001品質管理和][S0 14001環境管理有 最大的相容性。⑥在今天,有效能源管理的議題對 任何企業的成功,比以往任何時候更具有重要性。 除了提升能源效率外,能源管理系统可降低成本並 减少温室氣體排放和提升室內環境質量,讓員工和 企業組織更具有國際競爭優勢。⑦1S0 50001適用於 任何企業組織,不論其規模、所屬的產業部門或地 理位置。如果企業組織屬於能源密集的產業,或面 随温室氨糖排放立法的產業,這項標準尤其重要 ⑧ISO 50001 能源管理的優點: (i)降低成本:透過架構化的方法以確認、監

測及管理能源消耗,降低能源支出。

(ii)改善企業績效:找出最高能源效率方案, 影響員工行為模式以減少能源消耗,進而促進更高的 生產力。

(iii)符合法律法规: 逵到目前或未來的強制性 能源效率目標及/或減少溫室氣體排放的法律要求。 (iv)減少溫室氣體排放:於現在及未來達成利

害關係人的期待/善盡企業社會責任之義務。 (v)整合管理系統:將您的能源管理系統與既

存的管理系統(ISO 9001, ISO 14001, ISO 18001 等)整合,提高管理效益,使利益擴始

(vi)國際調查機構BSI進行全球最大的能源管理 調查,結果顯示:①78%資深經理人相信能源管理是 重要或非常重要,其中能源管理代表有64%為董事會 圆级。②為什麼需要能源管理系統?79%表示成本核 制是能源管理的主要原因,35%認為氣候變遷,28% 認為可以提高公司聲譽。

\* 先進技術YATRON KenerSys和TÜV SUD ①ISO 50001能源管理認證,使企業組織可利用 標準化流程,進行能源管理和程序架構。高效和實 用的能源管理系统,需要使用大量傳感器、儀錄等 收集大量數據作為系統分析和改善之用。這些資料 和數據極其大量和複雜,用傳統方法,使用人力抄 寫方式進行數據記錄實在是不可能,只有高效、穩 定和智能化的自動化能源管理系統,才能協助用戶 持續地作最有效的記錄、分析和改善。

②日騰能源之能源管理系統KenerSys以ISO 9001, ISO 14001及ISO 50001為基礎和核心,透 過與國際能源和工商業巨頭如:GE美國通用電氣

Microsoft微軟、徳 國TÜV SUD認證、 ITRI台灣工業技術研 究院的技術、課程和 認證合作,結合《物 聯網Internet of Things (IoT)》及 《大敷據Big Data》 技術之應用和分析, 長遠與用戶共同對系 統持續改善,創造更 ▲《物幣網Internet of Thir



大數據Big Data》記錄、統計、分

高附加價值和收益。 和改善. ③YATRON KenerSys是一套可持續性軟件和硬體 解決方案,在現有的自動化和系統中解鎖數據,以 及利用大量儀錶和傳感器,使其同時作大數據分析 和消除過度使用的程序和設備。並可結合ERP系統和 KPI整合使用

④KenerSys不只是 節能系統,其更是一系列 KenerSys 的高效管理能源系統。

⑤適量減少和控制使用公用設施的投入、提升 工作環境質量和員工動力,節省最高達50%的能源 消耗,如:雷力、鲜犀冷氣系統、燃氣、水、應統 空氣等。回

2017年1月 鏡線月刊 7



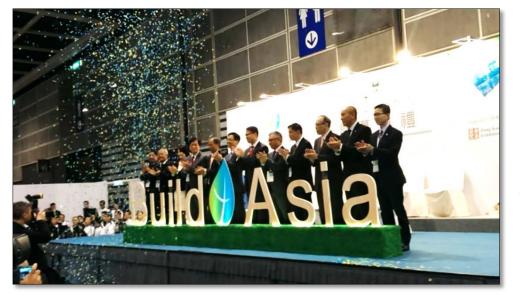
2017.01



# **EXHIBITION | HONG KONG**

# **YATRON** exhibit the Build4Asia 2014 in Hong Kong





**Build4Asia** is the largest building exhibition in Hong Kong and Macao for building equipment in Asia. 2014/05/07 grand opening at the Hong Kong Convention and Exhibition center. As an exhibitor, YATRON not only shown our high quality products to clients from all over the world, but also got a quite good beginning.



# **MEDIA | EXHIBITION | GUANGZHOU**

2010/03/08

### CHIAF/SIAF 2010 - China (Guangzhou) International Industrial Control Automation and Instrumentation Exhibition

YATRON participated in CHIFA/SIAF 2010 - China Guangzhou International Industrial Automation Technology and Equipment Exhibition (SIAF) from March 8-11, 2010. SIAF exhibition is a perfect combination of SPS, the world's largest industrial automation exhibition, and CHIFA, the largest industrial automation exhibition in South China, in China.

YATRON met a large number of industry partners and customers at the exhibition.



SIAF is the largest Automation exhibition in China.





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Smart Factory Automated and Management System (Demo)

Ver.: 2023.10.25

# MEDIA | EXHIBITION | GUANGZHOU 200

2009/03/04

### 13th (CHIFA 2009) in Guangzhou

YATRON participated in CHIFA 2009 - The 13th China Guangzhou International Industrial Control Automation and Instrumentation Exhibition from March 4-7, 2009, which was rated as one of the "Top Ten Brand Exhibitions in Guangzhou" by Guangzhou.

YATRON believes that as an exhibition with excellent brand value, it will provide an ideal business platform for exhibitors and visitors, where information meets and value is realized.



CHIAF is the largest Automation exhibition in China.



















# GREATER CHINA MACAU, HK, TAIWAN AND MAINLAND CHINA

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Hong Kong S.A.R

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Johannesburg Newcastle South Africa







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Public Account Wechat



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# The (96) equation HATRON

" WHAT WE IMAGINE ... WE CAN MAKE HAPPEN."