

A NEW ERA OF ENERGY SAVING IN LIGHTING CONTROL

PSJ

P.S.J. ENERGY SAVE CO.,LTD

3S

Save

Smart

Safe

www.psjenergysave.com

COMPANY PROFILE

P.S.J. Consultant Co., Ltd was founded in 1989, specializing in design, installation and maintenance of lighting, electrical, and security systems. Our reputation in providing high professional standards, quality control, and customer satisfaction reflect in our high-profile references such as royal palaces and many historical sites.

Since ten years ago, we have been actively promoting energy saving in lighting with a new technique called PSJ. Solution(Power saving junction solution). This allows us to control the power consumption of gas-discharge lamps e.g. high pressure sodium, mercury-vapor, metal halide and fluorescent lamps. With years of experience in the field, we have extensively invested in research and development resulting in a number of innovations, including multi-step timers, and wireless remote controls. The close collaboration with the sole manufacturer of the energy saving equipments has led to a merger in year 2010, with the new name P.S.J. Energy Save Company Limited. The company's products are marked under "PSJ Energy Save" branded.

The use of sophisticated industrial-grade components ensures precise control, durable and high reliability. The units are compact and easily to install for either new installation or retro-fit. We plan to introduce our products globally to help reducing energy consumption in lighting. Thus, extra production facilities are being constructed, and an international business development program is underway. The immediate goal is to raise awareness and understanding of this new technology. The training programs are being prepared. The potential growth for global market is exponential and the company intends to become the leader of innovation in energy saving products.

Mission

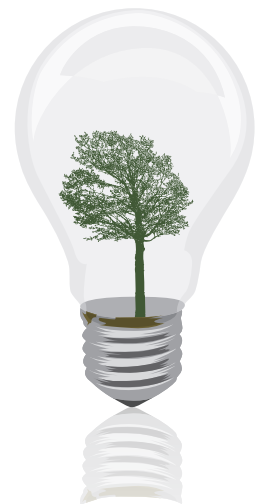
To deliver the benefits of our innovative energy saving in lighting with **PSJ. Solution** technology through the 3S strategy.

Vision

To become the leading global supplier of energy saving products for gas-discharge lamps.

P.S.J. Concept

The human eyes respond to dim light by automatically enlarging the pupil to allow more light into the eye, making the light appear brighter. Thus, measured light (%) is always less than the perceived light (%). Therefore, we can save energy by controlling the excess light level to align with commercial or industrial standards without disturbing occupants.



3S Solution Using the P.S.J. Energy Save Power Controllers

Over Light Compensation

The lighting designer must calculate light fixtures to ensure uniformity on the working plane and meet minimum light level standards for each application. However, some areas do not always require full power. This includes areas that need 24/7 light for safety reasons e.g. fire escape, car park.

Light Loss Factor Compensation

The lighting designer must provide at least 20% margin during the design process to compensate for degraded light output after hours of operation. Therefore, we can control and save the energy from this excess light output right after installation.

Limitation of Lamps

The lamp power from lighting designer's calculation may not be available in market i.e. There is 22W of fluorescent lamps required but only 18W or 36W available in the market. With the gap, P.S.J. Power Controllers can save energy from the excess light level.

Controlling light in different conditions and environments

P.S.J. controllers can be pre-programmed depending on the time, such as breaks or off-peak periods.

P.S.J. Energy Save Benefits

- Cost-saving
- Control the light level from 100% to 50%
- Improve comfort levels of light
- Extend lamp lifetimes reducing maintenance costs
- Easy Installation
- Reduce CO2 emission - carbon credit gain

P.S.J. controllers can be used with high-intensity discharge (HID) lamps



High Pressure
Sodium



Metal Halide



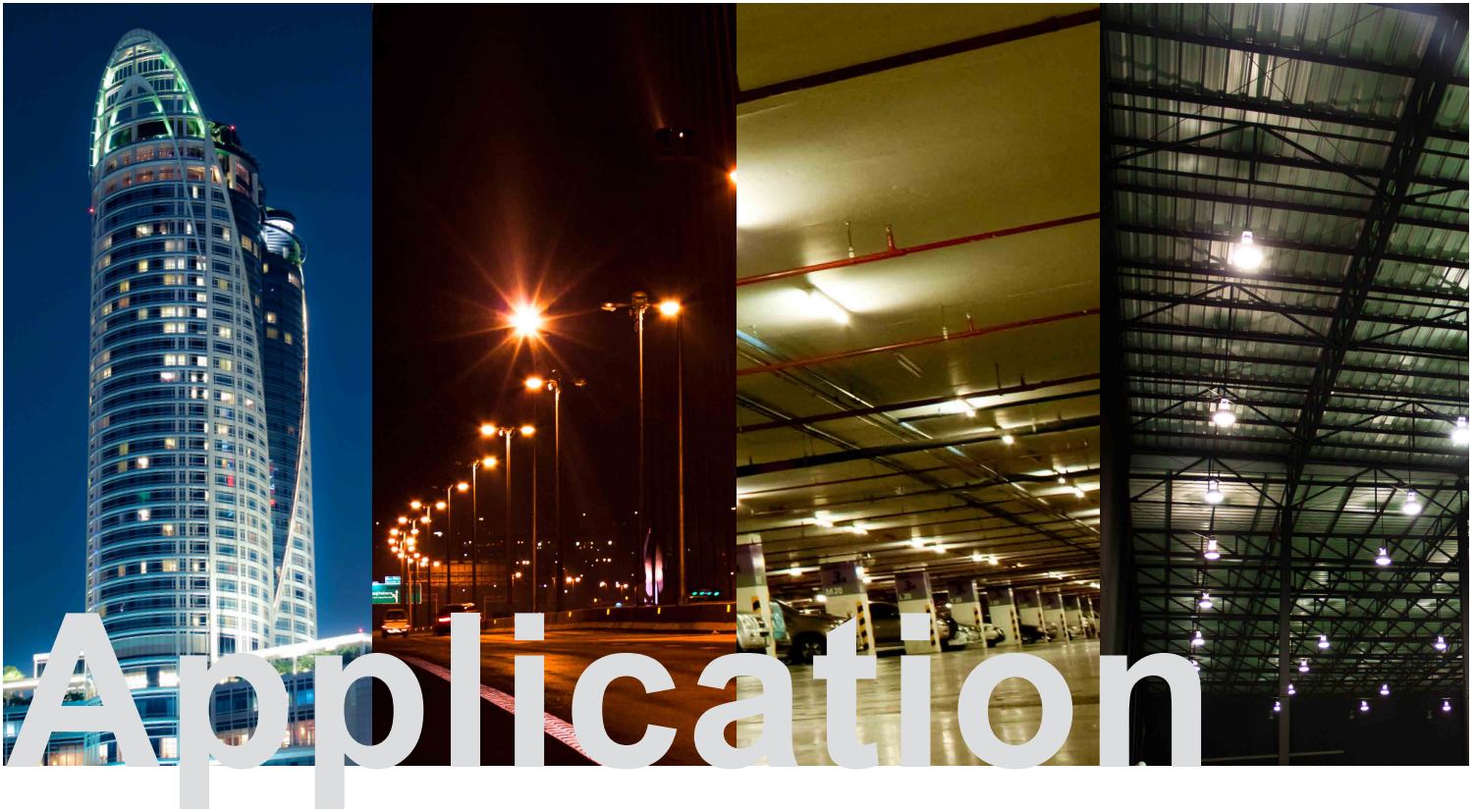
Mercury Vapor



Compact
Fluorescent



Fluorescent

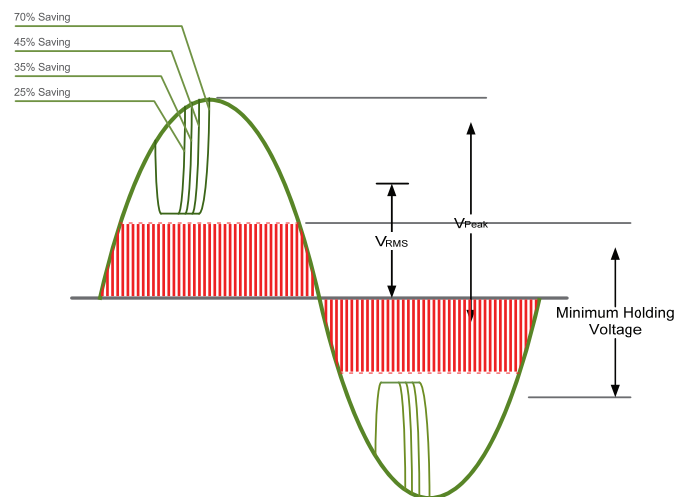


- Street Lighting – Highways/ Express Ways/ Tunnels
- Public or Area Lighting
- Banking
- Gas Station
- Factory

- Warehouse
- Supermarket, Hypermarket or Shopping Mall
- Buildings – Hotel / Hospital / Office Building
- Advertising Billboard
- Sports – Football Field (indoor/outdoor)

Power Saving Junction Solution

PSJ Solution Technique is specifically designed for gas-discharge lamps with magnetic ballast to be able to control power supply to the lamp in order to manage the energy more efficiently where full power-to-load is not required. Additionally, low insertion loss makes it more competitive to other technologies.



PSJ. Solution Concept

Power Controller works only on non-critical area /
No effects on Minimum holding voltage or V_{peak}

PSJ
Solution

PSJ Power Controller can control energy consumption and reduce demand charge. With the new lighting control equipment technology, PSJ.Solution , lighting can be controlled in a range of 100% to 1 % of luminous flux

FLUORESCENT POWER CONTROLLER

FOR Fluorescent

Key feature:

- Design for fluorescent lamp with magnetic ballast. The light level can be controlled as low as 1% of luminous flux



PSJ PRODUCT

MICRO POWER CONTROLLER - HID

FOR High Pressure Sodium /Mercury Vapor /Metal Halide

Key feature:

- One to one Usable
- Wireless control.
- Flexible installation
- Fast installation



PSJ PRODUCT

POWER CONTROLLER WITH REAL TIME CLOCK

FOR Metal Halide /High Pressure Sodium /Mercury Vapor /Fluorescent

Key feature:

- Suitable for current load at 10-30 Amp
- Easy to control via touch button on a screen
- Use with real time clock to control pre-program on-off function (scheduling)



PSJ PRODUCT

POWER CONTROLLER

**FOR Metal Halide /High Pressure Sodium
/Mercury Vapor /Fluorescent**

Key feature:

- Able to control mixed load circuit i.e. combination of different lamp types in one circuit
- Custom made possible



PSJ PRODUCT

MODULE POWER CONTROLLER

**FOR Metal Halide /High Pressure Sodium
/Mercury Vapor /Fluorescent**

Key feature:

- Able to control mixed load circuit i.e. combination of different lamp types in one circuit
- Custom made possible



PSJ PRODUCT

P.S.J. Energy Save Functionality Concept

• Safety

- › No change in frequency - working at 50 Hz
- › Harmonic Distortion - THDv (< 2%)
- › Insertion Loss (< 3%)
- › EMC EMI Test - Pass
- › Industrial Grade Product
- › Can bypass if malfunction

• Easy

- › Can apply with the old existing system
- › 1 to 1 and mixed-load models

• Flexibility

- › Wired control
- › Wireless control via RF

• Integration

- › Can be integrated to Buildings Integration System (BIS) / Building Automation
- › Can be managed over broadband networks

References Site



Dusit Palace



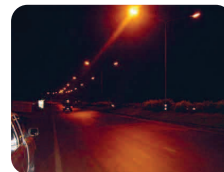
Sanam Chan
Palace



Suan Amphon



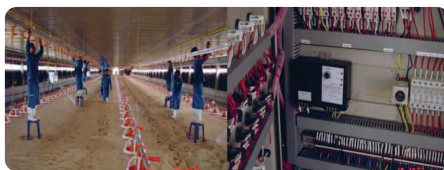
PTT Jiffy Gas
Station



Lighting System -
Department of Highways



Vimanmek Mansion



Charoen Pokphand Foods PCL.
(CP) Chicken Farms



Bang-Pu
Industrial Estate



S31 Sukhumvit Hotel



Phnom Penh
International Airport



รางวัลชนะเลิศ ประเภท Clean and Technology
(Thailand Embedded Product Award : TEPA 2010)

ผลิตภัณฑ์ดีเด่นทางด้านระบบสมองกลฝังตัวของประเทศไทย
ภายใต้การสนับสนุนจากสำนักงานส่งเสริมอุตสาหกรรมซอฟต์แวร์แห่งชาติ

วันพุธที่ 15 ธันวาคม 2553

The 1st Winner of Thailand Embedded Product Award 2010 (TEPA)

In Clean and Green Technology Category

By Ministry of Information and Communication Technology of Thailand 15 December 2010



P.S.J. ENERGY SAVE CO.,LTD

771/2-3 Rama 9 Road Soi15 Bangkapi, Huay Kwang, Bangkok 10310

Tel: +66 2 719 6013, +66 2 319 3557 Fax: +66 2 319 3558

E-mail: psj@psjenergysave.com



รางวัลชนะเลิศ ประเภท Best of Inno Tree

True Innova on Awards 2010 (TIA 2010)

โดยบริษัท ทรู คอร์ปอเรชั่น จำกัด (มหาชน) ร่วมกับ คณะพาณิชยศาสตร์และการบัญชี จุฬาลงกรณ์มหาวิทยาลัย
และสำนักงานข่าวต่างประเทศ CNBC

วันพุธที่ 15 ธันวาคม 2553

True Innova on Awards 2010- Gold Award in Best of Inno Tree

By TRUE Group joins hands with Chulalongkorn University and CNBC (Asia Pacific)

15 December 2010

Save The World
P.S.J. Energy Save

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