

Embarking on the Journey of Energy Efficiency with KSE Infinity @ BEX Asia, Singapore

KSE Infinity Pte Ltd will be showcasing their unique and proven energy solutions at the 'Built Environment Xpo Asia' (BEX Asia) in Singapore from September 4 to 6, 2024. This premier event serves as a pivotal platform for the built environment industry across Southeast Asia. As a trailblazer in Singapore's push towards organic energy efficiency, KSE Infinity will present industry-leading solutions at **Booth B-H05**.

Technical Seminar Hosted by Mr. Heng Yih Jer

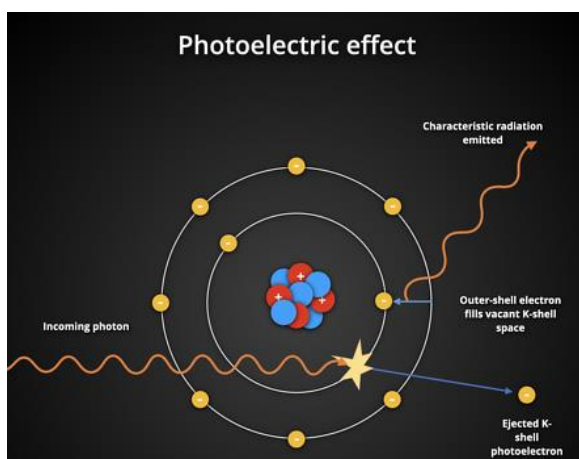
Join Mr. Heng Yih Jer, Managing Director of KSE Infinity, for a technical seminar on **September 6 (Friday) from 2.30 PM to 2.55 PM**, held at **Main Stage @ Hall B**. The seminar will delve into practical application of our patented Balance Wave Technology (BWT), how to provide optimal return of investment for various applications.

Technology Overview of Balance Wave Technology (BWT)

Originating from Korea and patented in the United States, BWT is designed to reduce energy consumption when integrated with a power panel. This innovative solution operates on unique principles that optimize electron flow, enhancing electricity consumption efficiency, productivity and significantly reducing the carbon footprint.

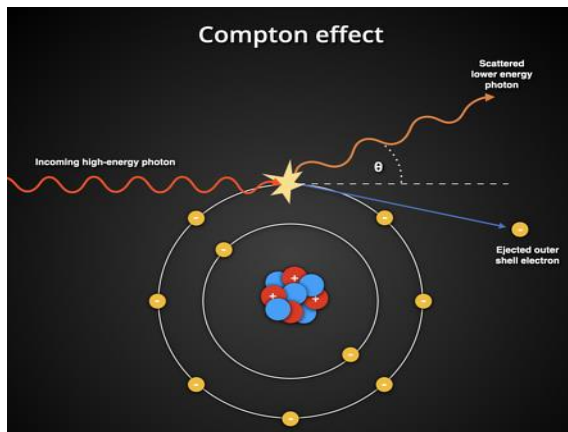
Key Principles of Balance Wave Technology (BWT)

1. Photoelectric Effect



Discovered by Heinrich Rudolf Hertz in 1887 and explained by Albert Einstein, this effect allows light (photons) to cause the emission of electrons from a material. BWT uses low-energy photons to create free electrons, optimizing energy use with minimal power.

2. Compton Effect

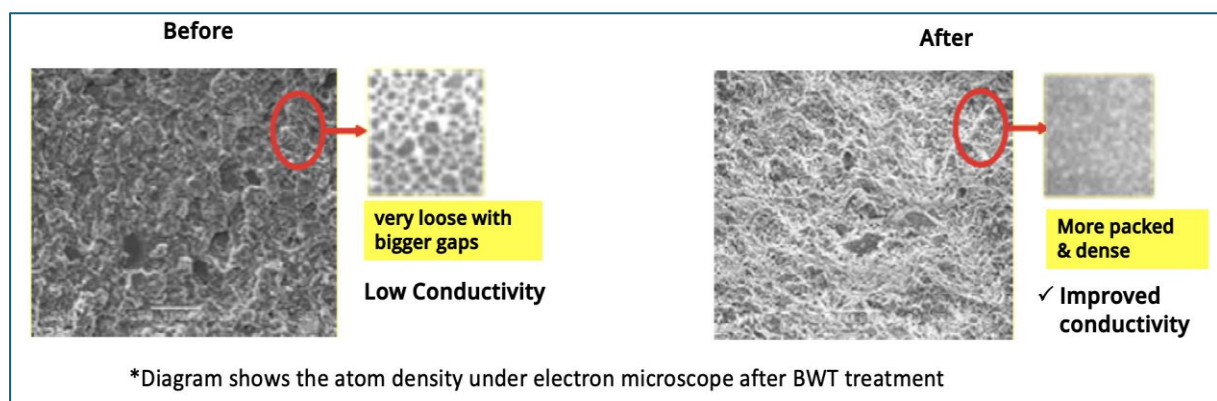


Identified by Arthur Holly Compton in 1923, this effect shows that photon interactions increase electron energy and reduce collisions, leading to lower current requirements and improved efficiency.

3. Electron Scattering

Energized electrons collide with atoms or ions, creating free electrons that enhance electrical conduction. This process results in a more efficient current flow and improved performance of inductive loads.

4. Photochemical Effect

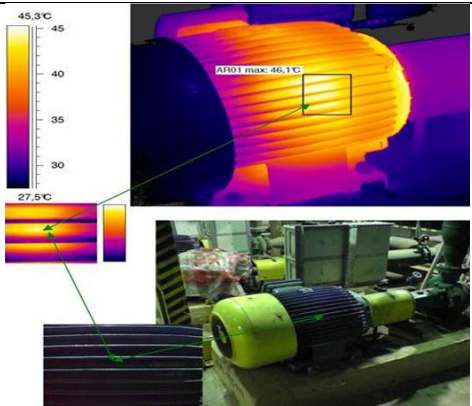
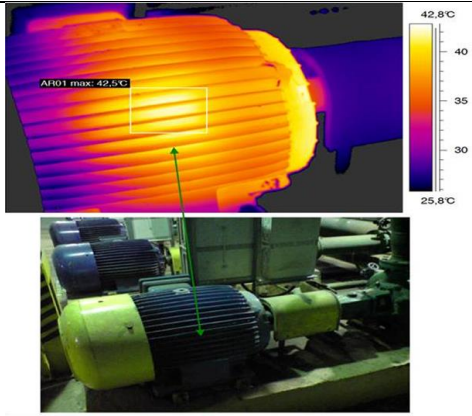


BWT treatment increases free electron density and stabilizes their flow, reducing resistance and enhancing conductivity. Treated materials exhibit higher efficiency and reduced heat generation.

Benefits of Balance Wave Technology (BWT)

1. **Reduced Heat Generation:** Less heat is produced as electricity travels through circuits, enhancing the lifespan and maintenance of equipment.
2. **Improved Efficiency and Power Savings:** BWT minimizes electron collisions, allowing for more efficient power delivery.
3. **Enhanced Conductivity:** Reduces resistance in electrical components, improving overall system performance.

Field Implementation and Temperature Comparisons:

Temperature Comparisons:	
Before BWT Treatment: <ul style="list-style-type: none"> • Motor Temperature: 46.1°C • Ambient Temperature: 19.2°C 	
After BWT Treatment: <ul style="list-style-type: none"> • Motor Temperature: 42.5°C • Ambient Temperature: 22.6°C 	

Despite a 3.4°C increase in ambient temperature, the motor temperature decreased by 3.6°C, showcasing the cooling benefits of BWT.

Key Points:

1. **Energy Savings:** Achieve a 15% reduction in energy consumption.
2. **Heat Reduction:** Lowers heat generation, extending equipment lifespan and reducing maintenance needs.
3. **Improved Conductivity:** Enhances overall system performance.

Certifications and Recognition

Safety Certifications: CE-LVD, CE-EMC, UL.

Green Mark: Recognized by the Singapore Green Building Council for its energy-saving benefits and use of sustainable material.

Visit KSE Infinity's Booth: Explore our cutting-edge solutions at Booth B-H05 or visit our digital exhibition platform at [KSE Infinity](#). For complimentary registration, visit [BEX Asia 2024](#).

About KSE Infinity: KSE Infinity Pte Ltd specializes in innovative energy solutions tailored to the energy industry's unique needs. With a deep understanding of the critical challenges in this rapidly growing sector, KSE Infinity empowers organizations to optimize operations, enhance efficiency, and strengthen security.

With strategic business offices in Singapore, Hong Kong, Malaysia, the Netherlands, and Indonesia, and an R&D hub in Daegu, South Korea, KSE Infinity boasts over 20 years of research and development experience, specializing in **Balance Wave Technology**.