

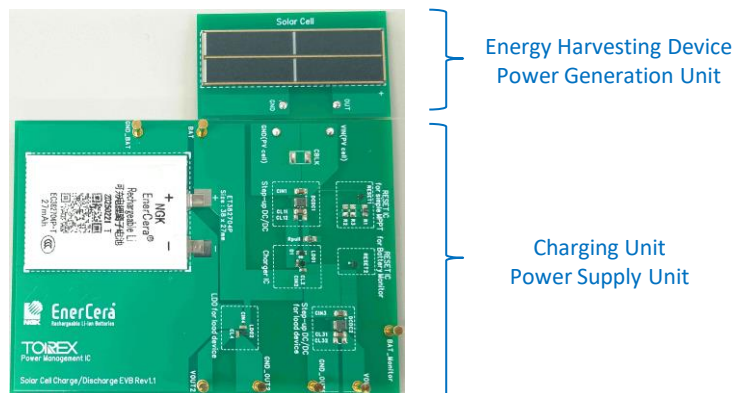
Energy Harvesting Solution

■ Examples of charging from Energy Harvesting to LTO battery, Solid-State battery, Supercap (EDLC), and Li-Cap

- Challenges :
 - Limited and unstable power from energy harvesting
 - Need for storage devices and backup circuits to keep the system running under low-generation conditions
 - No single power management IC fits all harvesters and storage devices, each project requires an optimized power architecture
- Energy-Harvesting Sources : Wireless power transfer (WPT), NFC, solar cells, vibration energy, etc.
- Storage Devices : LTO batteries / Solid-state batteries / EDLC (supercap) / Li-Cap, etc.

■ TOREX Proposal : Tailored Power Architectures, Evaluation Boards, and Technical Support

Depending on the energy harvesting elements and energy storage devices intend to use, we propose optimal power supply configurations and provide evaluation boards.



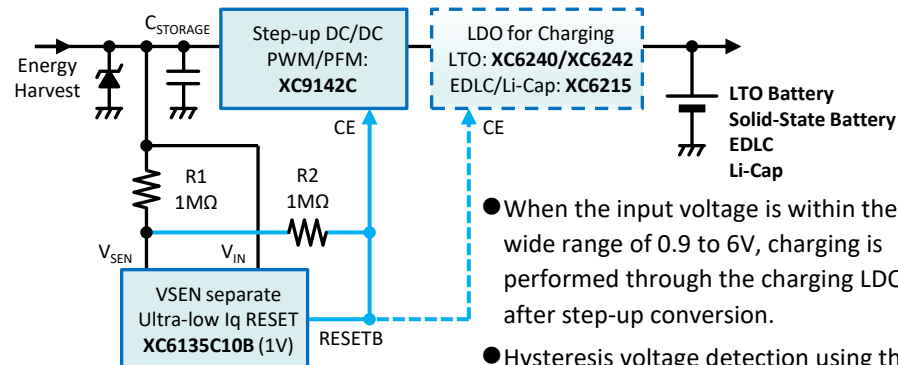
In energy harvesting, which deals with minute amounts of power, issues such as power generation or charging not occurring as intended are commonplace. TOREX provides comprehensive technical support, extending beyond mere technical proposals to include [evaluation board provision and practical operation verification](#), thoroughly supporting your development process.

Contact

<https://product.torexsemi.com/en/contact-us/technical-inquiry>

■ Proposal example : Energy harvesting

0.9V~2.7V / 0.9V~6V input : Simple MPPT



- When the input voltage is within the wide range of 0.9 to 6V, charging is performed through the charging LDO after step-up conversion.
- Hysteresis voltage detection using the XC6135 and resistors.
Example: When C_STORAGE is charged to 2V, step-up conversion commences and charging begins. It stops when the voltage drops to 1V.

NFC and other Wireless power transfer

