

Investment Highlights

- **Marketability of the energy industry:** At present, the energy storage system (ESS) is an effective means of establishing a stable and efficient energy supply/demand system, and is attracting global attention as a new growth engine with high market potential. Today, secondary battery-based electricity storage methods are drawing attention, and the market environment is being created in earnest, especially focusing on lithium-ion batteries that feature high-energy density and high efficiency. Recently, as lithium-ion battery-applied ESSs have been intensively installed in Korea and around the world, the demand for lithium-ion batteries among global ESSs is expected to grow at an annual average of 97.2%, increasing to 11,420 MWh by 2020.
- **Strengths of the energy storage systems (ESS) market:** As solar power or wind power cannot continue to generate energy, it is important to store the generated electricity before using it as needed. Thus, the ESS market is expected to rapidly grow in conjunction with the expansion of new and renewable energy. The rapid growth of the Korean market is attributable to the government's policy intended to increase the dissemination of new and renewable energy and ESSs since 2016. Technological infrastructure for ESS batteries is superior in terms of selling prices and profitability.

Products and Services

Product and Technology



Outdoor all-in-one ESS



Home ESS

- **Major features of key technology:** The energy storage system consists of four main portions: battery, battery management system (BMS), power conversion system (PCS), and power management system (PMS). All of these are controlled by order of their upper system, which is the energy management system (EMS). The battery system is classified by usage and capacity. In particular, the stability of the battery system can be ensured in the environment temperature ranging from -20°C to 60°C , and its bus bars can control the pulse discharge and high temperature. Furthermore, operation and maintenance services are provided for each step, which allows for immediate and quick on-site responses.
- **Competitiveness of key technology:** Our energy storage systems for new and renewable energy not only meet users' various needs but also provide customized solutions for different purposes in the power market. Our all-in-one products assure economic feasibility and reliability based on their long life, stability, and superior performance. Particularly, the outdoor ESS is designed to operate 5,000 cycles, with the high-quality lithium polymer mounted, and the application of the Power Stack makes its replacement and maintenance easier. The home ESS is manufactured efficiently and effectively, allowing users to utilize its systems conveniently through the user interface after installation in their home.

Major History

- January 2017: Founded
- May 2018: Acknowledged as an excellent company for its technology
- October 2018: Certified by the Korea Venture Business Association

Company Profile

Date of foundation	• January 2017
Investment performance	• N/A
Listed or unlisted	• Unlisted
Patents and certificates	• Under registration of five patents including a patent for a battery management system

Financial Figures

(Unit: USD million)

Division	2016 (Unaudited)	2017 (Unaudited)	2018 (Unaudited)
Sales	N/A	0.52	0.86
Operating Income	N/A	(0.23)	(0.46)
EBITDA	N/A	(0.23)	(0.42)

Business Plans

(Unit: USD million)

Division	2019 (Forecast)	2020 (Forecast)	2021 (Forecast)
Sales	4.68	17.3	23.7
Capex	0.09	0.44	0.44
R&D	0.09	0.52	0.52
Working Capital	0.09	1.75	1.75

- **Sales plan:** Our company aims to achieve total sales of USD 45.68 million through the sales of ESSs and batteries as well as joint projects with other companies for the next three years: USD 4.68 million in 2019, USD 17.3 million in 2020, and USD 23.7 million in 2021.
- **Investments required:** Our company is planning to invest a total of USD 0.97 million in capital expenditures by 2021 to expand the ESS production facilities. Along with R&D investment of USD 1.13 million in apparatus for research, research personnel, and development, USD 3.59 million will be invested in working capital to expand the scale of production and produce new products.

Investment Requirements

Investment Structure	• Minority (Financial Investment)
Amount	• USD 4.5 million
Region	• China