

Finding new S-curves in Distributed Energy Resources (DERs) for PTT

Bangkok, Thailand
G-Lab 2017



PTT & Espresso Group

PTT is a Thai state-owned energy company that has traditionally made the majority of its revenue from the production of oil and gas. The Espresso group is a strategic project management group reporting to the CTO within PTT. It is primarily concerned with finding new areas of growth for PTT as energy markets change. Our team worked primarily with the Espresso group.

DERs

Distributed energy resources (DERs) are small scale generators and/or storage units of electricity located at the place of consumption. They allow a home or business to quickly and cheaply increase power generation capabilities, reduce energy spike consumption, and increase system reliability. They also usually rely upon green power sources, and thus have a positive impact on the environment.

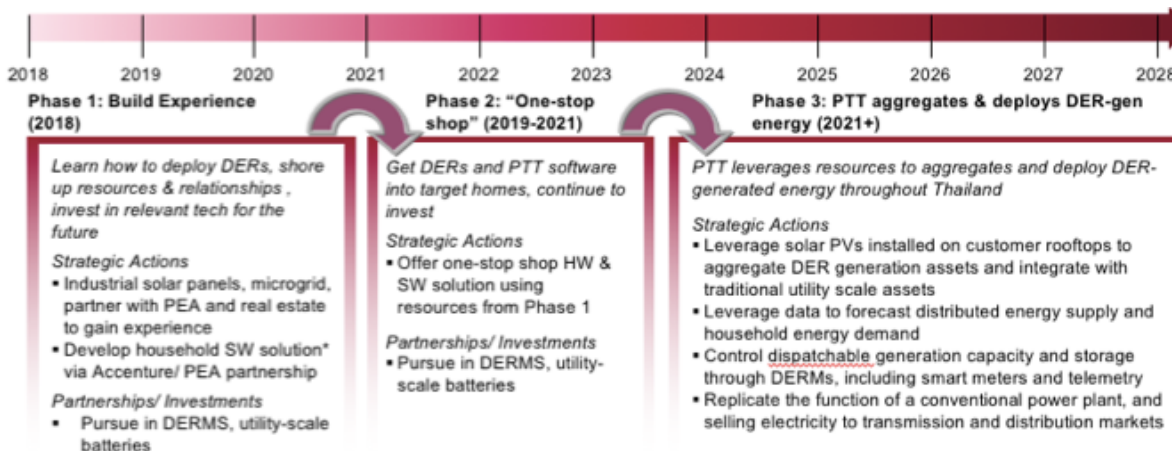
Project Goal

According to the World Economic Forum (WEF) and other sources, the global energy system is becoming increasingly distributed, and DERs will soon become much more prominent. Our goal was to propose a strategic vision and action plan that will allow PTT to create a new S-curve business to take advantage of these changes in the energy market, and to maintain its market share in the energy industry.

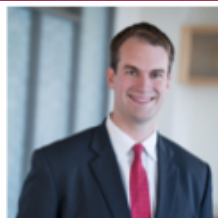
Methodology

- We broke our work down into three core steps:
- 1) Assess the global DER landscape with a focus on oil & gas companies, utilities, start-ups and governments
 - 2) Review Thai government energy policy and provide recommendations for future policy changes
 - 3) Provide PTT with a strategic vision and action plan

Recommendation: PTT should aim to become a Virtual Power Plant



Team



Charlie Ellison



Deborah Skarbnik



Devin Walsh



Christopher Sykes

Visiting a smart home prototype at PEA, a Thai utility

