What is Demand-Side Management?
Demand-Side Management (DSM) refers to initiatives that help end-users optimise their energy use. With DSM, consumers can reduce their electricity costs by adjusting their time and quantity of use.

Energy audit/studies can provide insights on energy usage patterns and achieve savings
Nanyang Technological University (NTU)’s technical study gave them a better understanding of their consumption pattern, and identified potential DSM opportunities. For instance, NTU can potentially save up to $30K per month through the use of technologies (e.g. battery storage) to lower peak energy use and to save on grid charges.

Building management system and sensors can automate energy reduction
Applied Materials is a semiconductor equipment manufacturing firm with relatively flat energy usage. An energy audit showed potential savings by (i) monitoring and automate chillers to reduce energy use and (ii) running back-up diesel generators during periods of high energy usage.

Retailers are exploring schemes to incentivise consumers to shift their consumption away from peak periods
The eResponse pilot with Red Dot Power allowed participating institutions to be compensated when voluntarily reducing consumption during peak periods.

New technologies such as energy storage and advanced sensors can help achieve peak shaving outcomes
Marina Bay Sands, a local leader in energy conservation and sustainability, found that enhanced monitoring of building equipment, such as thermostats with built in sensors and visualisation, will improve the management of peak loads. The use of energy storage systems can also achieve effective peak shaving.

What is Project OptiWatt?
Project OptiWatt is a pilot program that explores DSM initiatives, such as shifting energy demand and changing end-user behaviour.

To find out more, visit www.ema.gov.sg, or scan the QR code below. Otherwise, contact us at EMA_Enquiry@ema.gov.sg.