FULL RETAIL COMPETITION
What Can Consumers Expect and
How Will the Industry Evolve?
18th August, 2017
Energy Studies Institute, NUS
JULIUS TAN
CO-FOUNDER & CEO

- PROJECT OFFICER
  CLEANTECH DIVISION, ECONOMIC DEVELOPMENT BOARD (EDB)
- RESEARCH ENGINEER
  SOLAR ENERGY RESEARCH INSTITUTE OF SINGAPORE (SERIS)
- HEAD OF ENERGY, SUNSEAP GROUP

Over the course of 24 months, he set up and operationalised Sunseap Energy, growing it into one of the largest independent electricity retailers in Singapore.

Julius has a Bachelor’s degree in Mechanical Engineering from the University of Cambridge.

Key Skillsets: Electricity markets, Trading and Hedging, IoT, Solar
TEAM ELECTRIFY

MARTIN LIM
CO-FOUNDER & COO

- OVER 20 YEARS IN MEDIA AND BUSINESS DEVELOPMENT
- LED RETAIL AND GO-TO-MARKET CAMPAIGNS
  Procter & Gamble, Logitech, Chanel, Sony Mobile, Samsung
- LED STRATEGY AND DEPLOYMENT ON REGIONAL CAMPAIGNS
  Mitsubishi, Iomega, Intercontinental Hotels, UFC, DTZ, Nokia, Motorola, InMobi, HTC

In addition, his interests in energy and water led him to co-found a company in Malaysia to develop water treatment systems for disaster relief in the region.

Key Skillsets: Go-to-market strategy, Business development and implementation, Marketing and communications
Singapore is the first market to liberalise in SEA

- East Asian approach to retail
- Heavy use of eCommerce in retail
- Mobile is the key mode of digital engagement
- Mobile penetration: 149.8%
  (Dec 2016 - Data.gov.sg)
Electricity market liberalisation began in 2001

Only non-domestic accounts are eligible to switch to private retailers

Current threshold >2000 kWh/month

Full Retail Competition - 2H 2018
THE FIRST & ONLY ELECTRICITY MARKETPLACE IN SINGAPORE

- Launched in July 2017
- Singapore’s First Marketplace for electricity plans

DEVELOPMENTS

- FIBONACCI™ - Proprietary pricing engine
- FARADAY™ - Retailer’s Toolbox
CURRENT OFFERING

THREE SOLUTIONS FOR ALL BUSINESS TYPES

**INSTAQUOTES**

E-Commerce for electricity plans

**EASYQUOTES**

Targeted at medium-sized SMEs, this solution provides a business with rapid bespoke quotations and efficient digital contracting.

**POWERQUOTES**

Launch an electricity RFQ for key accounts with consumption over 100 MWh/month.
Components of the SP regulated tariff

- Energy cost* - 72%
- Grid charges - 26%
- Misc charges - 2%

* Governed by EMA’s vesting contracts, pegged to Brent, HSFO and USD/SGD rates

Source: SP Group
7 Generation companies (affectionately known as gencos)

13.5 GW capacity (2.45X average load)

25 licensed electricity retailers

Potentially 5-10 more by end of 2017

Increased retail competition

- Lower retail prices
- Development of new price plans
- Lower retail margins

Market consolidation within 1-3 years

- Smaller retailers merge or acquired by larger retailers
- Retailer margins insufficient for some to continue operations

ELECTRICITY FUTURE MARKET

A BACKGROUND

- July 2015 - EMA/SGX started the electricity futures market
- “EF” - Quarterly CFD contract
  - 500 kW flat load
  - Financial settlement: quarterly average USEP
- 2017 - “EE” Monthly CFD contract was introduced

Source: SGX
ELECTRICITY FUTURES MARKET

WILL IT SUSTAIN?

- **2015** - EMA introduced 3-year scheme* to incentivise market makers to provide liquidity - relatively successful
- **Aug 2017** - EMA Issued consultation paper - proposed a further 3-year scheme to ensure continued liquidity in the futures market**

**SURVIVABILITY FACTORS**

- Market makers
- Generation companies providing sell-side liquidity
- Retailers providing buy-side liquidity
- Traders - arbitrage opportunities by taking buy-side or sell-side positions

*Read more: [https://www.ema.gov.sg/cmsmedia/Electricity/Electricity_Futures/23052013_RFI.pdf](https://www.ema.gov.sg/cmsmedia/Electricity/Electricity_Futures/23052013_RFI.pdf)

FULL RETAIL COMPETITION

- 2H 2018
- Eligibility: All accounts including residential consumers
- Increased competition and able to purchase power closer to contestable rates
FULL RETAIL COMPETITION

Short term expectations

- Expect >10% discounts from SP tariff
- Shorter contract terms
- Bundled services (Telco, transportation, lifestyle, petrol)
- Blended energy (solar)
- Carbon credits or renewable energy credits
- Demand Response offering for households => revenue generating opportunity
- Increase in cost of acquisition per kWh
FULL RETAIL COMPETITION

Long term expectations

- Greater efficiencies in processing through automation and self-service
- Reduction in cost of acquisition
- Greater awareness of energy markets, USEP, wholesale risk
- Development of novel products to cater to more sophisticated consumers
- Development of monitoring and storage technology
- Change in consumption behaviour according to price signals
FULL RETAIL COMPETITION

Rough calculation (in cents/kWh)

- Household consumption = 400 kWh/month
- Cost of energy (USEP) = 8.5¢
- Risk + profit = 0.8¢ (assume 10% of USEP)
- Cost to acquire + serve + bill = 1.5¢
- Grid-related + Misc costs = 6¢
- Metering costs = 0.5¢
- Total = 17.3¢ => 16.5% DOT
- Savings of $164/year
# VALUE MATRIX

<table>
<thead>
<tr>
<th>Housing Type</th>
<th>1 or 2 Room</th>
<th>3 Room</th>
<th>4 Room</th>
<th>5 Room</th>
<th>Private Housing</th>
</tr>
</thead>
<tbody>
<tr>
<td>kWh/month</td>
<td>175.7</td>
<td>291.9</td>
<td>395.5</td>
<td>484.5</td>
<td>725.0</td>
</tr>
<tr>
<td>Probability of switching</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Annual savings</td>
<td>$63</td>
<td>$105</td>
<td>$142</td>
<td>$174</td>
<td>$261</td>
</tr>
<tr>
<td>(Assuming 15% DOT)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary benefits</td>
<td>$21</td>
<td>$35</td>
<td>$47</td>
<td>$58</td>
<td>$87</td>
</tr>
<tr>
<td>(from other bundled services estimated at 33.3% of savings)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Benefits</td>
<td>$84</td>
<td>$140</td>
<td>$190</td>
<td>$233</td>
<td>$348</td>
</tr>
</tbody>
</table>
## DEMOGRAPHICS

<table>
<thead>
<tr>
<th>Income Level</th>
<th>Consumption Characteristics</th>
<th>Consumer Profile</th>
<th>Interests and Opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Low Income</strong></td>
<td>Low, steady consumption</td>
<td>Highly predictable profile</td>
<td>Subsidised consumer, U-Save offset, susceptible to perceived savings</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bill-conscious: Deal seeking; rewards</td>
<td>Redemption points interest</td>
</tr>
<tr>
<td><strong>Mid Income</strong></td>
<td>Varying seasonal consumption</td>
<td>Less predictable profile</td>
<td>Aspirational consumer, open to bundles and blends</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Value-conscious: Trend follower</td>
<td>Lifestyle loyalty points interest</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Opportunities for sustainable energy credits</td>
</tr>
<tr>
<td><strong>High Income</strong></td>
<td>Consistent consumption</td>
<td>Moderately predictable profile</td>
<td>Secure consumer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Status-conscious: Trend starter</td>
<td>Reward with recognition</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Opportunities for sustainable energy credits and for solar PV</td>
</tr>
</tbody>
</table>
THE NEW OFFERINGS

MOBILE/DIGITAL CHANNELS

NEW BUSINESS AND SALES MODELS

HEAVILY VARIED BUNDLING OPTIONS

MORE PRODUCT DIFFERENTIATION

SINGAPORE'S FIRST RETAIL ELECTRICITY MARKETPLACE
ELECTRIFY’S ROLE

Marketplace
To improve flow of information between consumers, retailers, markets, other service providers and improve the efficiency of the sales process.

Education
Mass market education on topics: What is a kWh? How is electricity generated and transmitted? What are the roles of EMA, SP, retailers and marketplaces? Why liberalisation?
ELECTRIFY'S ROLE

⚡ Thought-leadership

Provide analysis and commentary on popular digital and energy related technology. Which hybrid models work and which don't. Assess feasibility and benefits to consumers.

⚡ Partnerships

To collaborate with academic institutions, regulatory bodies and industry stakeholders ensure sustainable development of the power market:
- EMA
- Local universities
- SERIS
- SP
- Electricity retailers
- Energy-solutions and technology providers
- Other service providers
RISK MANAGEMENT

**Defaulters’ Database**
Shared database of defaulters that shares data between retailers and external parties. Will cover commercial and domestic customers.

**ConsumerDNA**
Live database with profile score against consumer’s payment habits. Ranking will help retailers determine risk profile of customer and level of benefits.
THANK YOU
FOR MORE INFORMATION,
PLEASE CONTACT

JULIUS TAN
+65 9624 6628
JULIUS.TAN@ELECTRIFY.SG

MARTIN LIM
+65 8118 8112
MARTIN.LIM@ELECTRIFY.SG