

Managing Transition to Retail Competition

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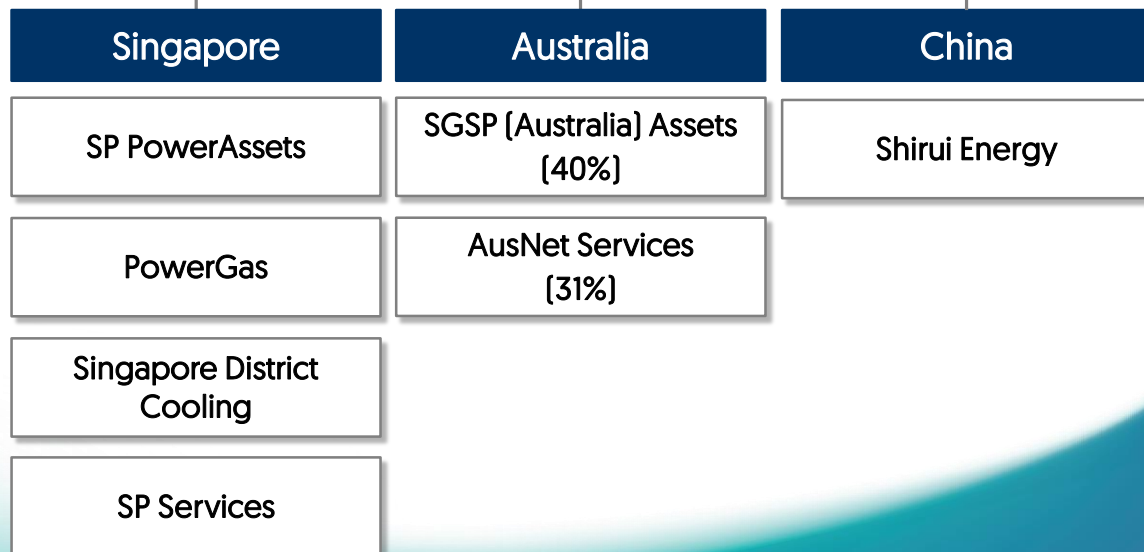




Total Assets: \$18B

**TEMASEK
HOLDINGS**

100%



Our Mission



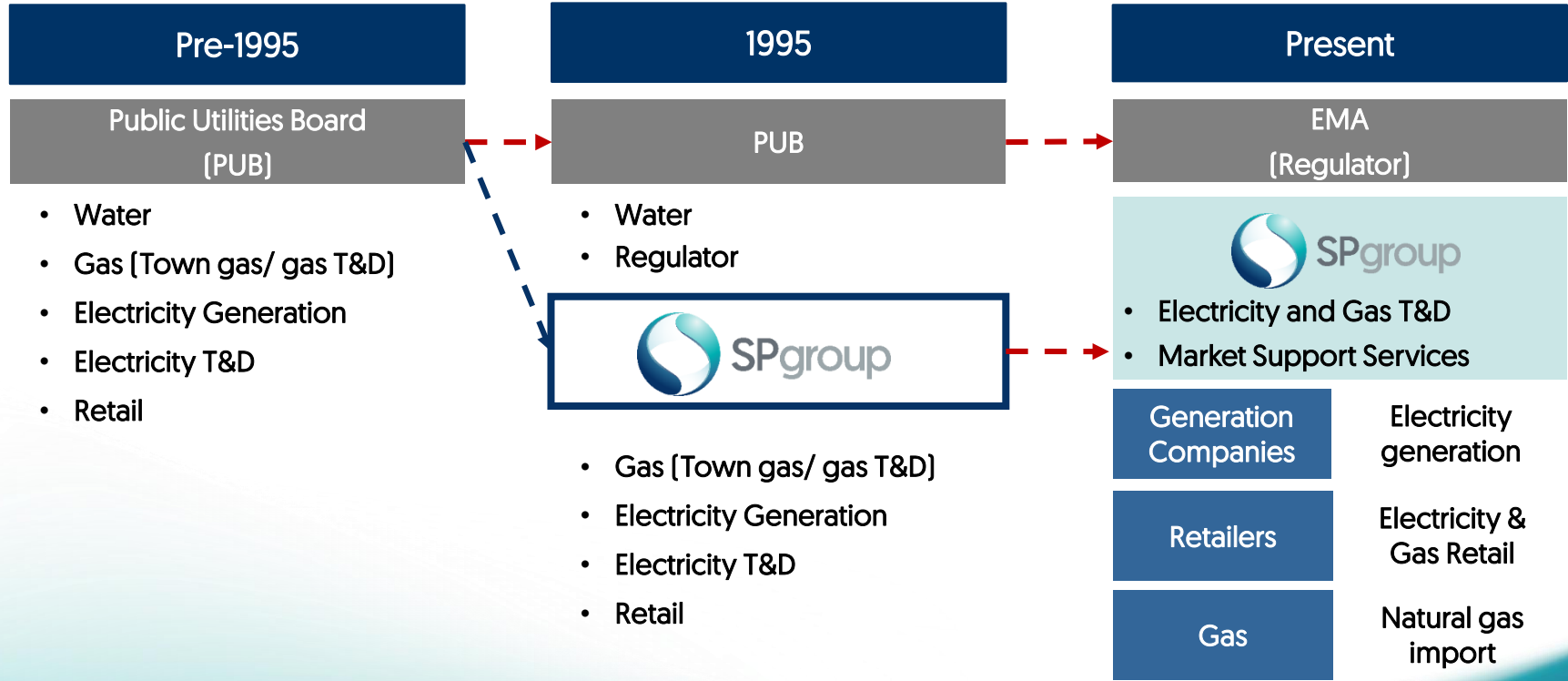
We provide reliable and efficient energy utility services
to enhance the economy and quality of life



SINGAPORE ELECTRICITY LANDSCAPE



Industry Restructuring



Electricity Market Structure



Energy Market Authority (Regulator & system operator)



Energy Market Company (Wholesale market operator)

Generation



Competitive Gencos
(wholesale market)

Transmission & Distribution
(T&D)



Regulated Grid Company

Retailing



Competitive Retailers
(contestable market)

Competitive sectors separated from monopoly sector

Key Players



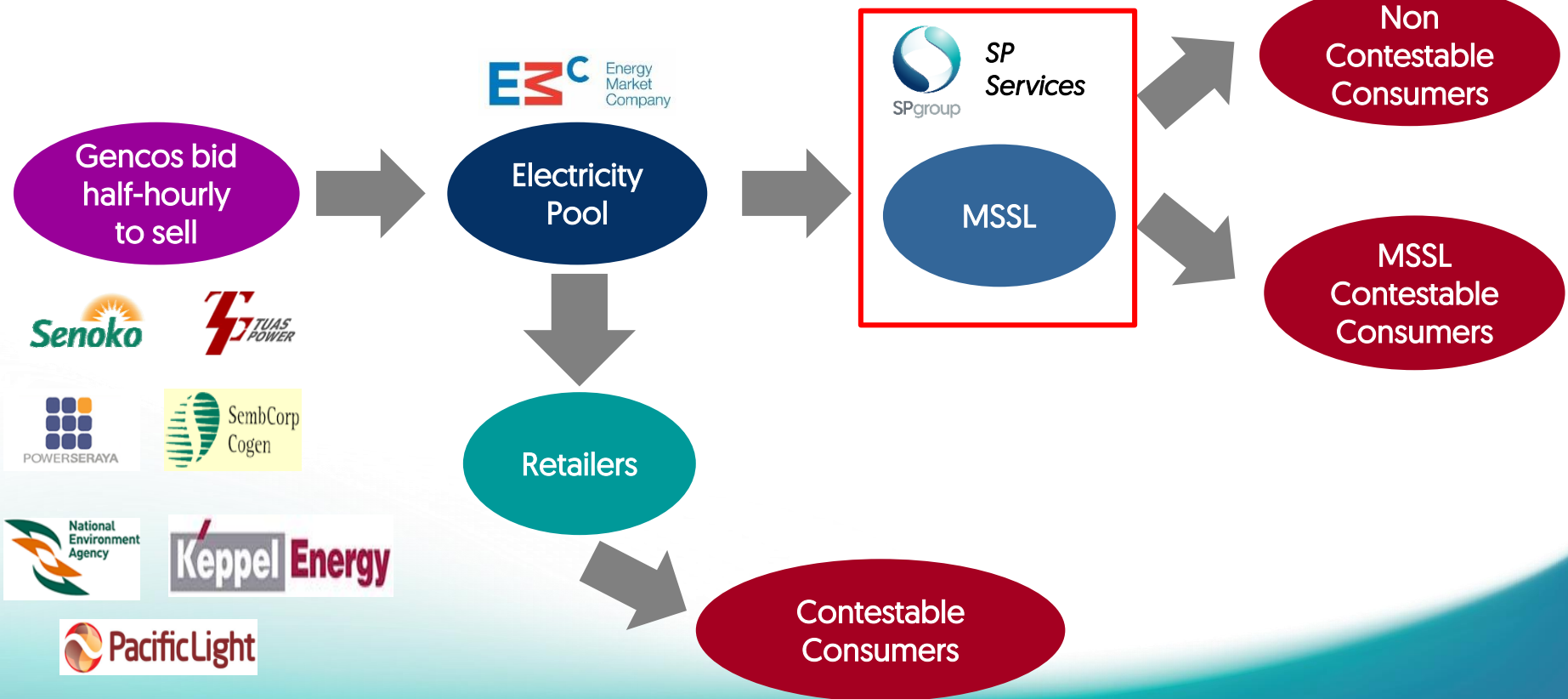
Billing & Market Support



Retailers



National Electricity Market



Regulated Business



- Supplier for non-contestable customers
- Retail Settlement/ Switching

One-Stop Service

- ✓ Installation
- ✓ Metering
- ✓ Consolidated Billing
- ✓ Payment Collection
- ✓ Customer Services
- ✓ Debt Management

Non-Regulated Business



Billing and Collection Agent

Electricity Customers Composition

By Customer Accounts

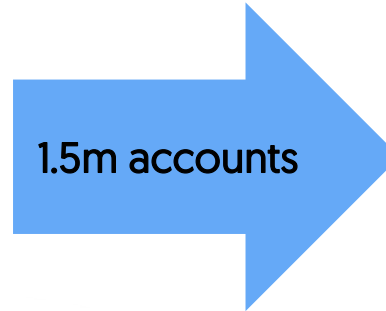
Total ~ 1.5m customers



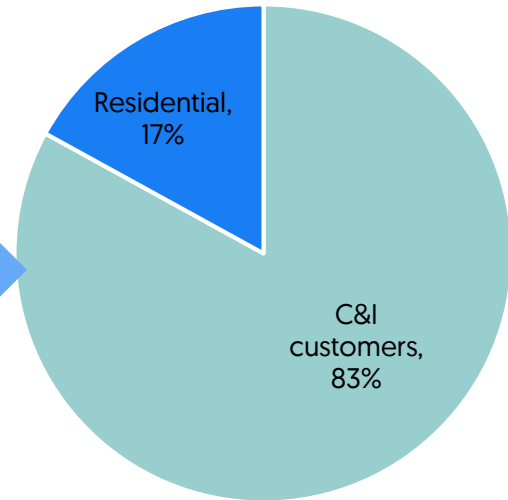
1.4m (89%) Residential Households



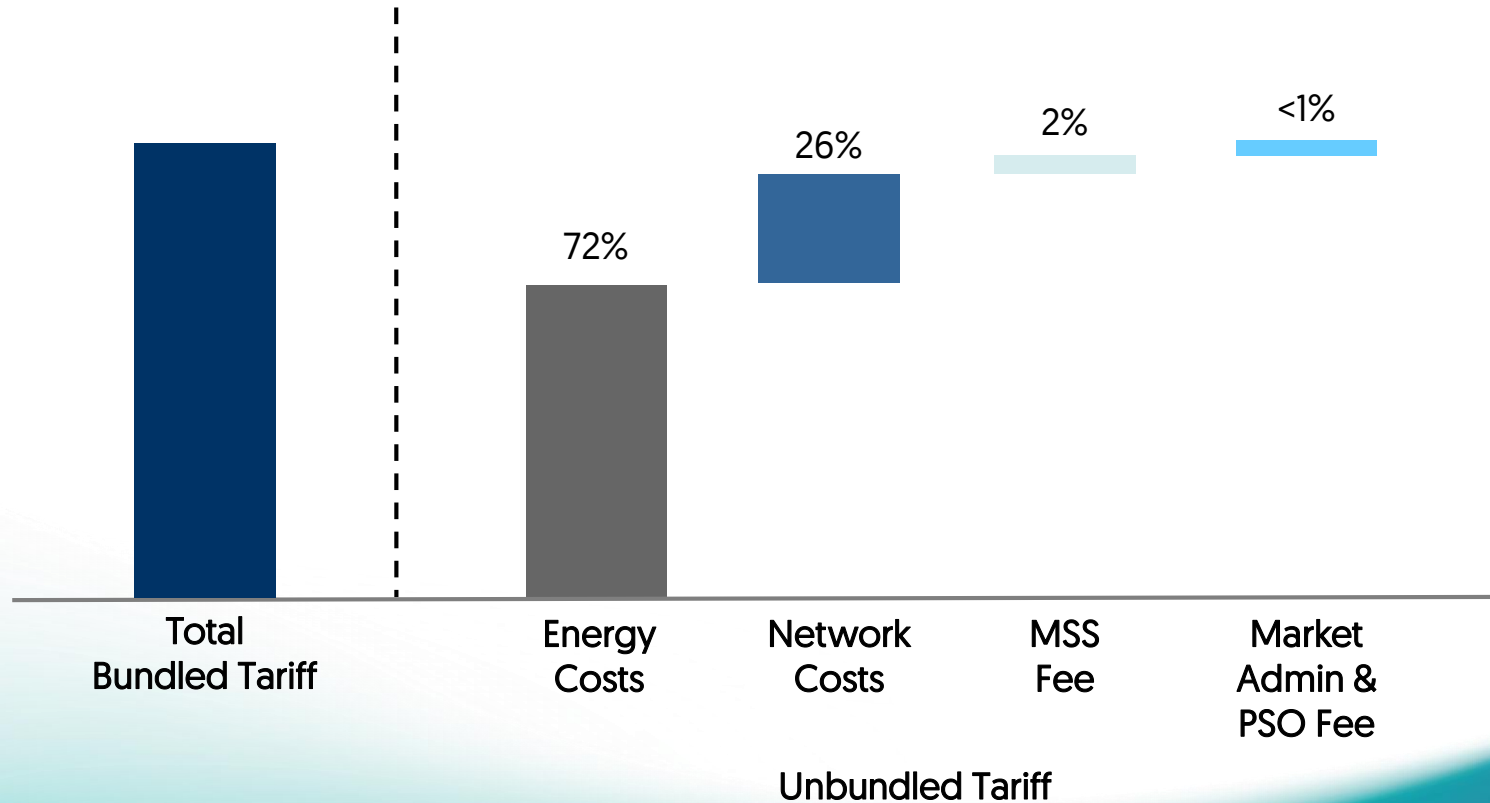
0.1m (11%) Commercial & Industrial



By Volume Monthly ~3,900GWh



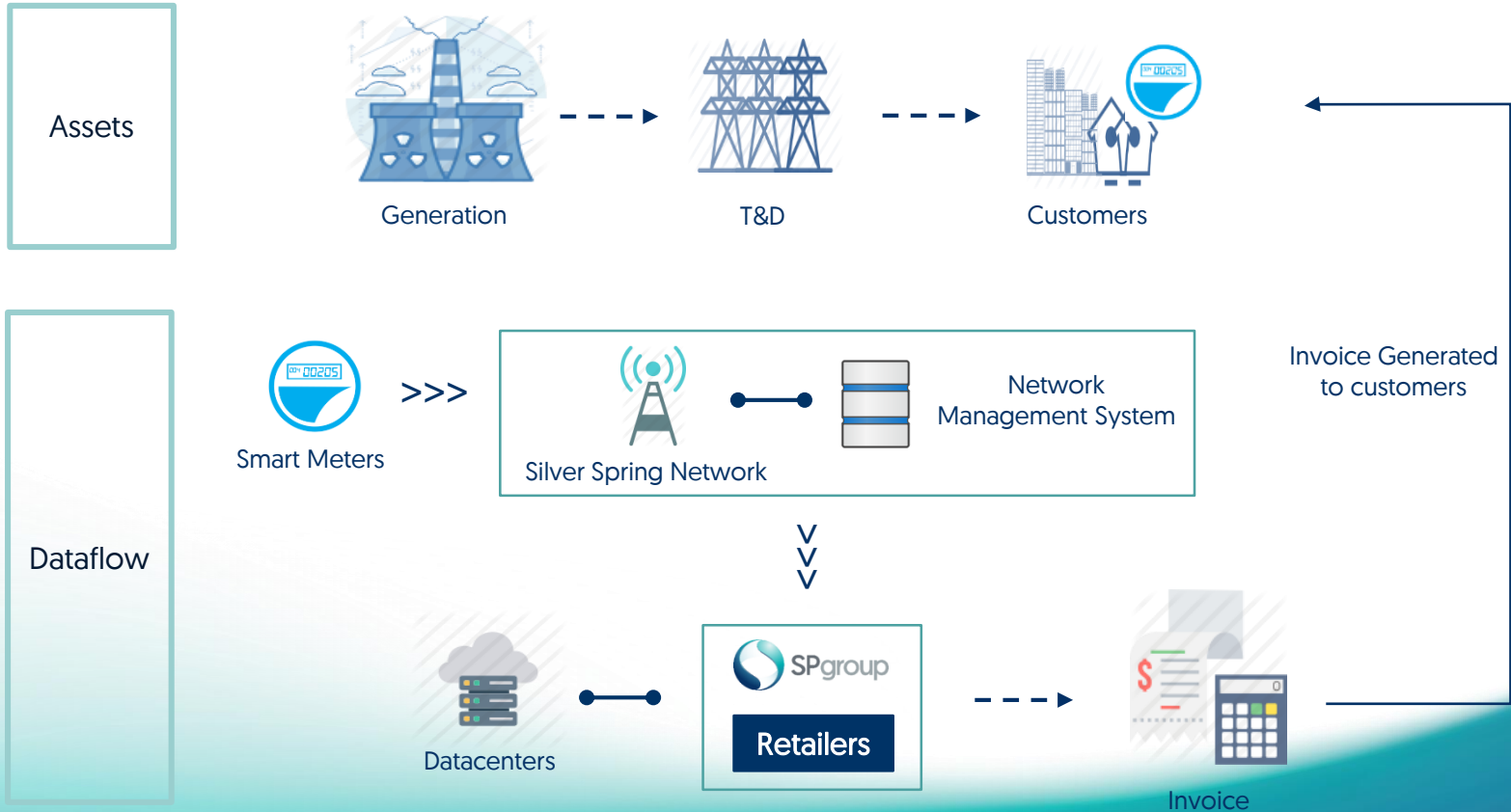
Unbundled Tariff Structure



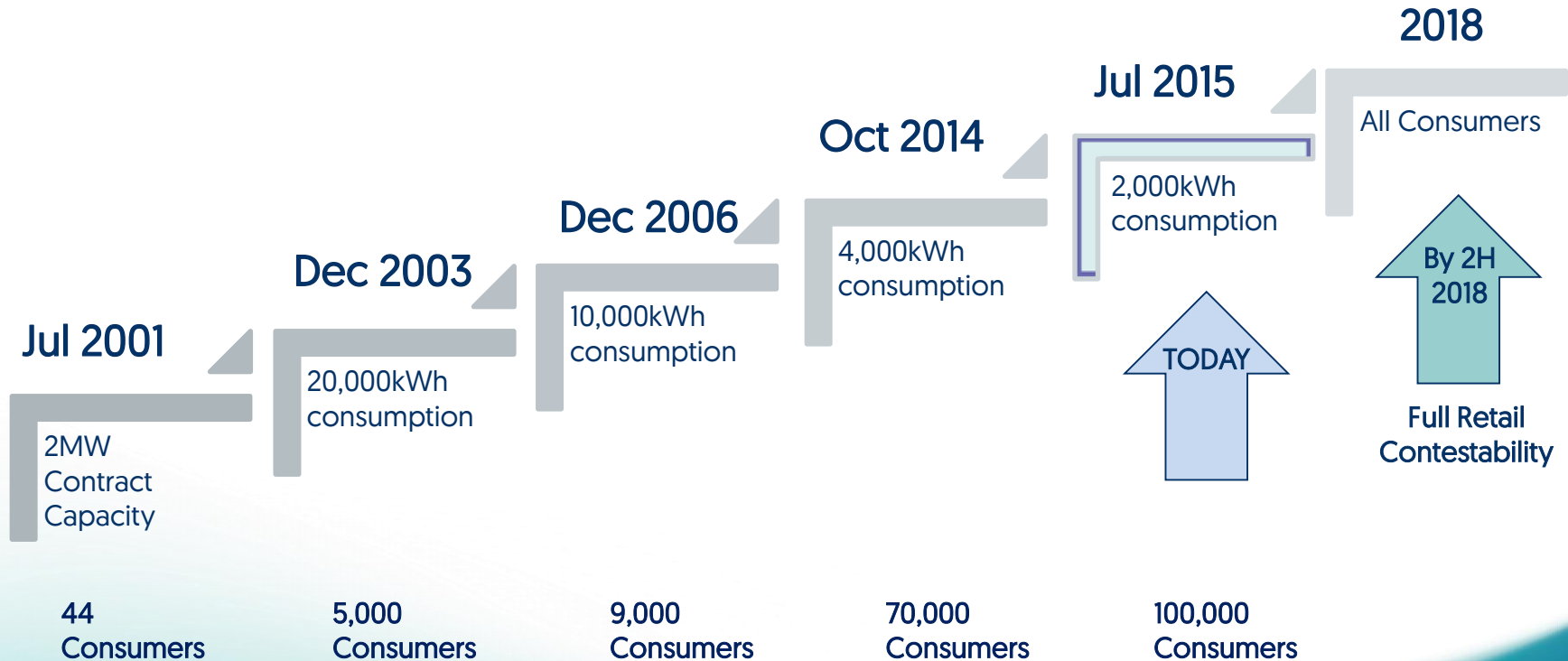
OPEN ELECTRICITY MARKET



Open Market Value Chain



Market Contestability Journey

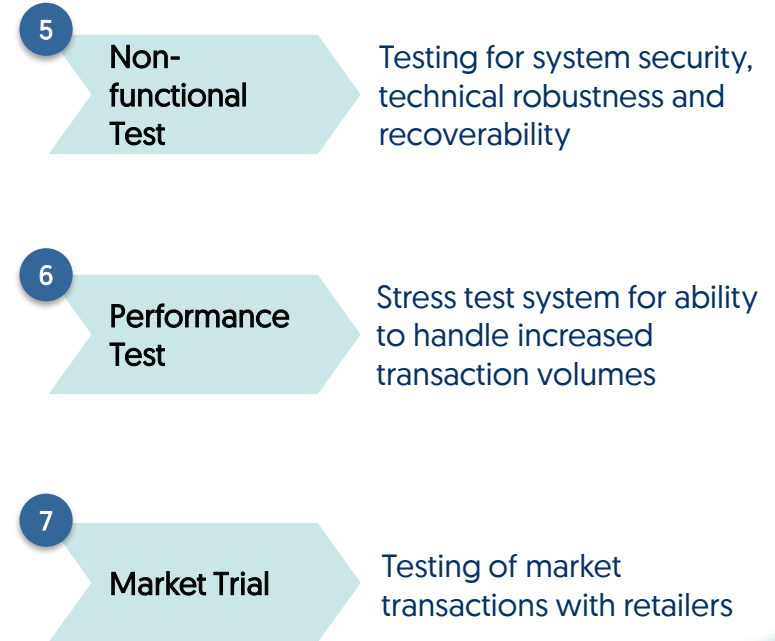
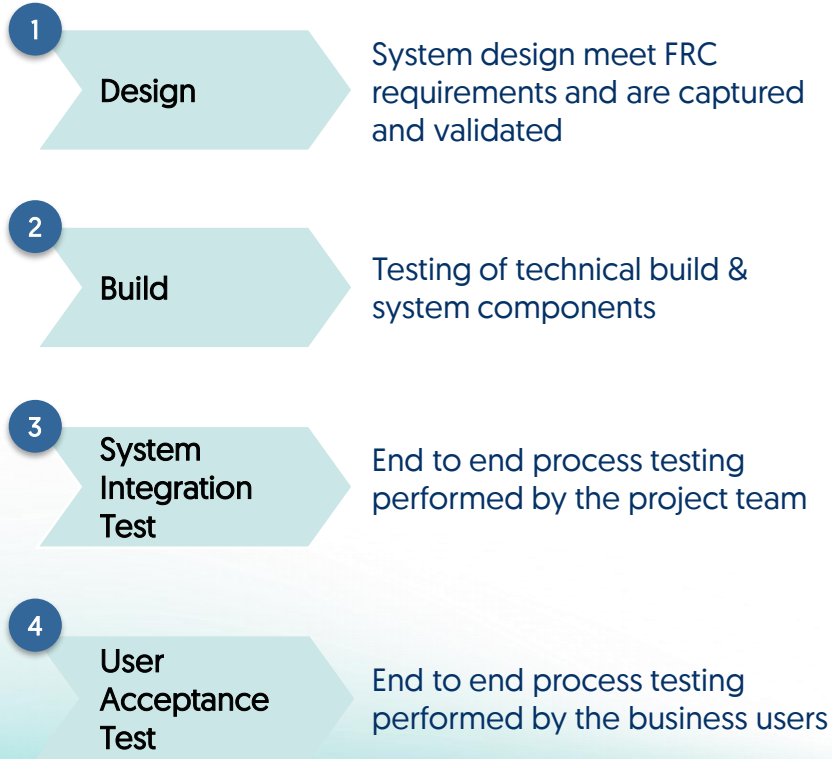


EMPOWERING CHOICE BY JANUARY 2018

FRC



Project Phases



Project Milestones

Milestone 6: Nationwide FRC Launch

Milestone 5: Pilot Run

Milestone 4: Preparation & Go-Live Phase

Milestone 3: Test Phase

Milestone 2: Build Phase

Milestone 1: Business Blueprint Phase



Critical Success Paths

1
IT Infrastructure

Backbone of the entire OEM mechanism

2
Retailers' Readiness

Seamless transition; No disruption to consumers

3
Consumers' Education

Active participation from informed consumers

Upgrade of IT applications

- Upgrade hardware & software applications to support higher volume of market interactions & new market processes
- Introduce digital channels to facilitate consumer & retailers participation

Key Risks

- Cyber & data security
- System design & readiness
- Integration of retailers, consumers and SP Services

Retailers' Readiness (1/2)

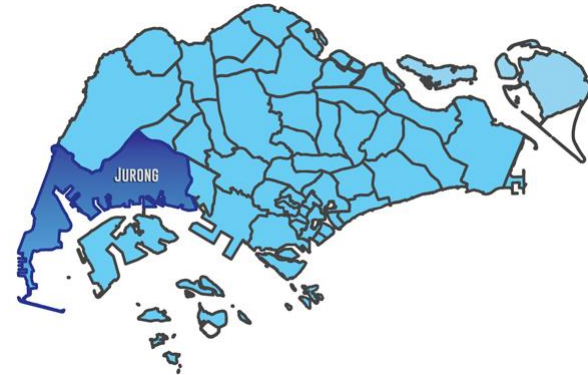


- Market trials with retailers to ensure IT systems readiness
- Briefings and information session to inform retailers of Project progress
- On-going industry consultations
- Pilot launch (Jurong Estate)

Retailers' Readiness (2/2)

Pilot Launch (Jurong Estate)

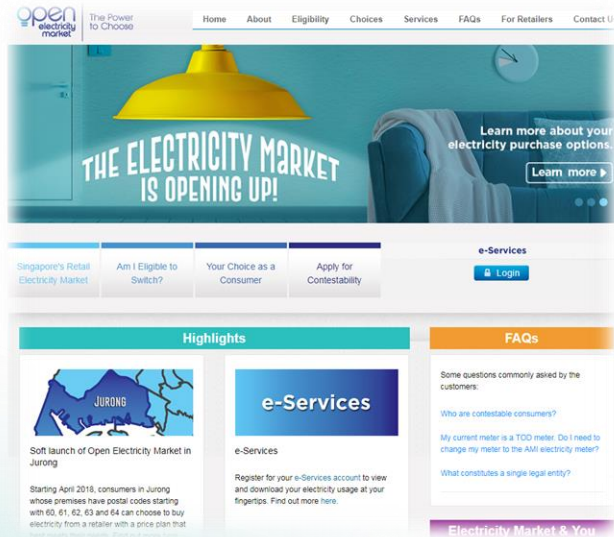
- Soft launch of OEM with full functionalities
 - 108k Residential accounts
 - 10k business accounts
- Option to continue buying from SP at regulated tariff or switch to retailer of choice
- Consumers will be notified of eligibility in Q1 2018



Provide insights for EMA, SP & Retailers to gather feedback and fine-tune processes

Consumers' Education (1/2)

Online Information Platform

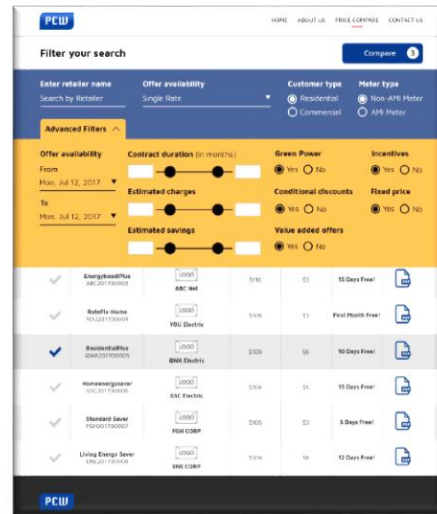


- Education on Singapore Electricity Landscape and application of Open Electricity Market
- Consolidated information site for both consumers and retailers
- Application to opt in as contestable consumer

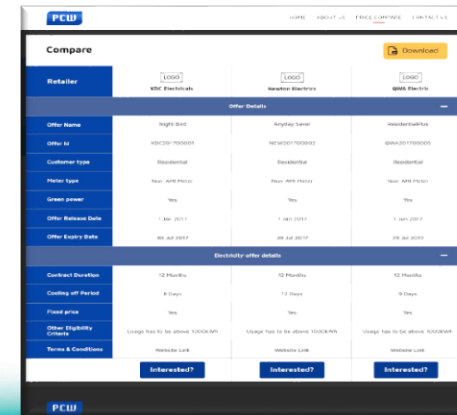
<https://www.openelectricitymarket.sg/home>

Consumers' Education (2/2)

Price Comparison Website



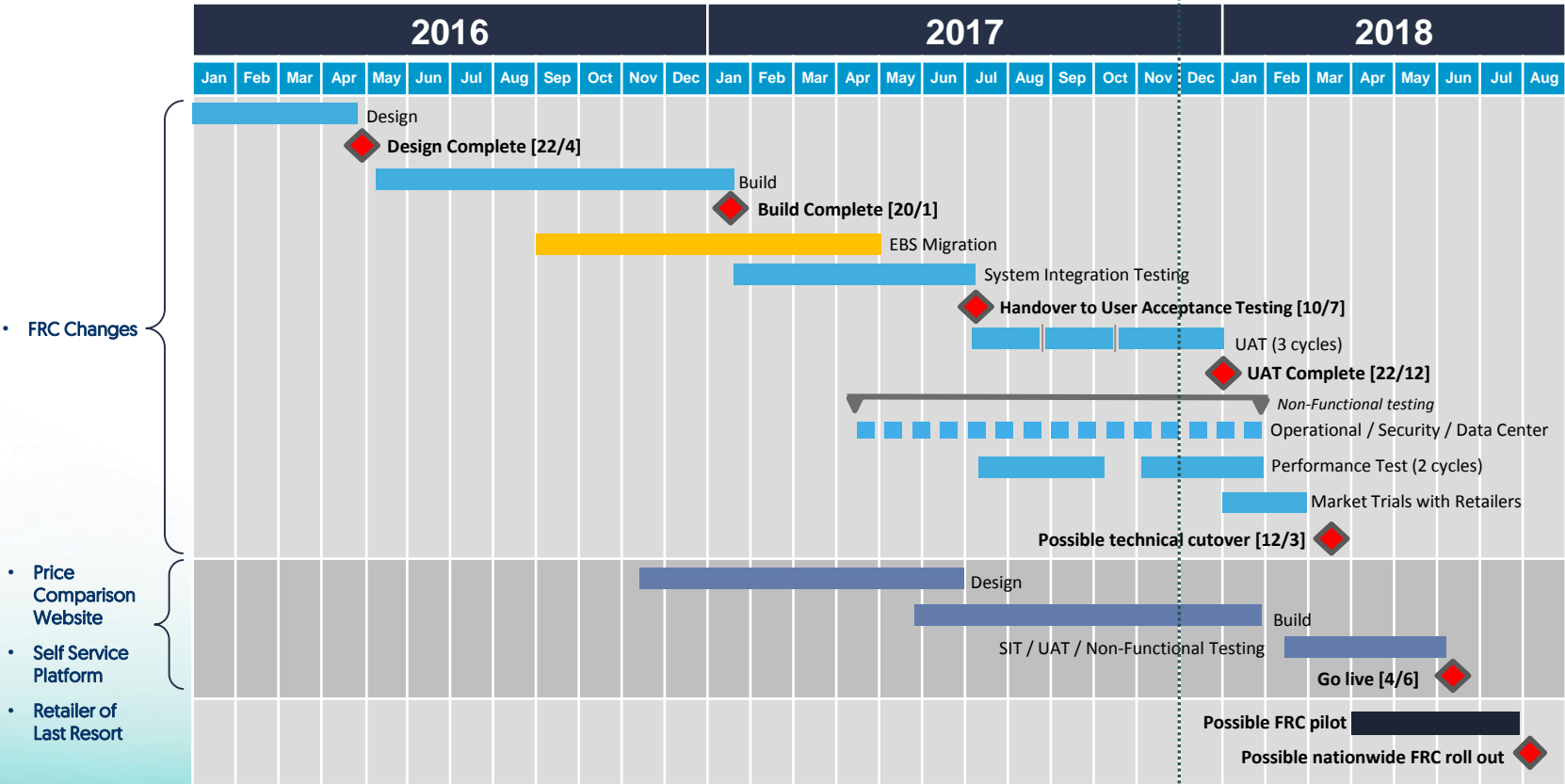
- Consolidated site for consumers to compare offers from retailers
- Match retailers offers to consumers requirements



Project Timeline



Today





powering the nation