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# Metering Business Presentation :
# Competition & Incentives in the provisioning of Smart Metering services

# Metering 101 - What can Smart Meter do?

## IMPORTANT NOTE: Minimum Spec is not in scope of this Review

**Measuring quantities based on energy: for each phase and element and total (Gross or Net)**

- kWh Import
- kWh Export
- kvarh Import
- kvarh Export
- kVAh Import
- kVAh Export

**Additional measuring quantities as instantaneous values and functions:**

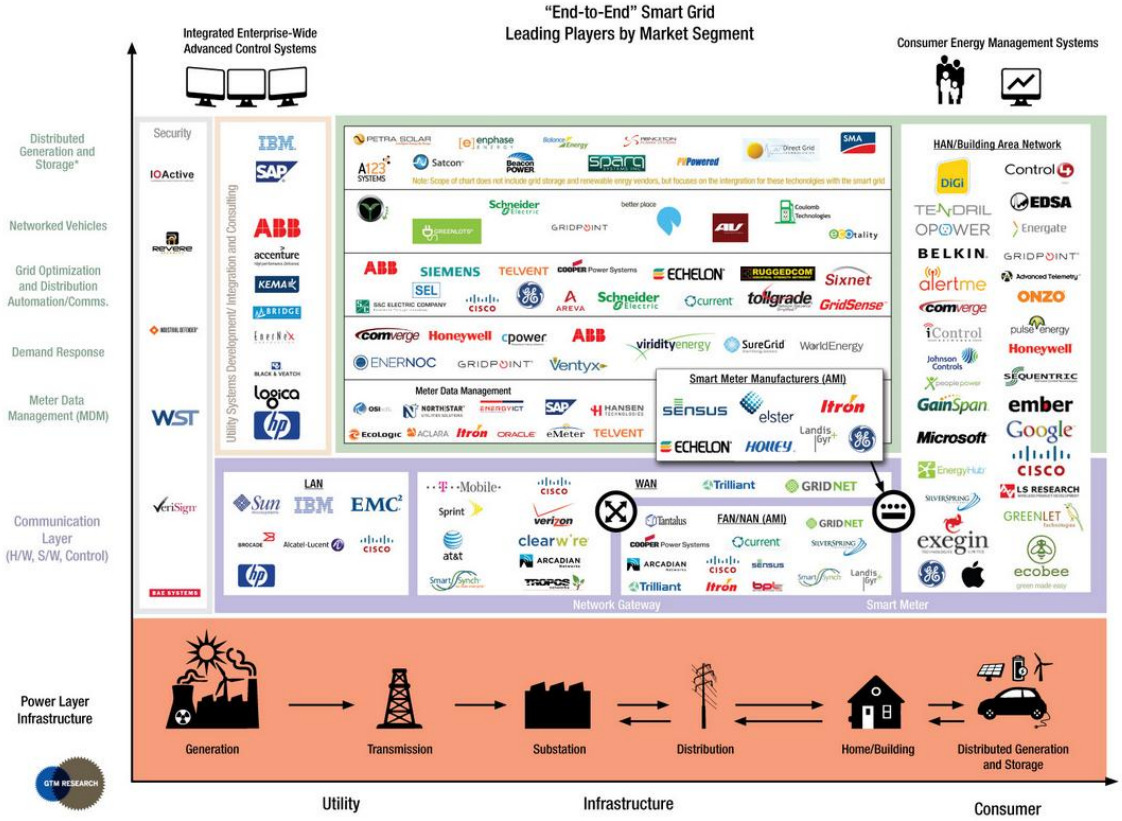
- Voltage
- Current
- Active power and reactive power
- Apparent Power
- Power factor
- Frequency
- Events
- Direct load control; and
- Remote connection/disconnection

# IMPORTANT TO UNDERSTAND - Some functions will not be made available to market

**Meter Provider / MC owns the meter and is responsible for the proper functioning of their asset**

1. **Access**
2. **Manage security keys and certificates**
3. **Congestion**
4. **Meter Management and Maintenance**
   - Firmware Download
   - Last Gasp
   - etc

# Who needs access to data ?




Source: Green Tech Media

- Retailers
- Networks
- Global players (such as Google)
- Or can be one of us providing services to niche group of customers ?

**Question** :

How competition will play out in the market, that is, if *access to smart meter functionality* and *access charges* were *not regulated*, will there be competitive outcomes in the market?

# Question 1 : How will it play out ?
# Real-Life Examples

- **To the best of our knowledge**
  - Most of the global rollouts tend to be vertical integrated led by DB (for example : EDRF and Iberdola)

- **There are only 2 case studies that are retailer/market -led**
  - UK is heavily regulated
  - whereas NZ has little or no regulation

# NZ Smart Meter Deployment

- **NZ is one of the first markets to have over 50% smart meters deployed**
- **No consumer issues**
- **What could be improved**
  - Not all potential benefits have been delivered
  - Some homes with multiple meters
  - Retailers have access to meter data but not aware of any others players having access to meter data
  - Small number of Suppliers
- **Can't be too critical as first movers deliver benefits and learn, doing it better next time**

# Possible issues arising from no regulation

**Number of these are listed in supplementary paper – without going through the cases – the obvious ones include :**

- MC's can choose different access standards increasing integration costs.
  - Unless regulated there could be more multiple standards chosen?
  - What if one of the MC's opts for a proprietary standard?
  - Question will the rules demand that these proprietary standards be published?
  - However there is advantage for global suppliers to utilise global standards
- Will Retailers look to block competitors?
- What if DNSP decide to rollout their own meters

**Question** :

What will be the *incentives* on parties to provide *access* to smart meter functionality ?

# Incentives to access Smart Meter functionality

- Important to understand that smart meter will provide value to multiple industry players but only one party is investing

- Incentive for MC to
  - Recover costs from as many players as possible; OR
  - Get maximum value from small number of players

- If customer chooses innovative supplier, that is prohibited from getting access to MC data, the customers can choose to change MC's;

AND

- MC's who start making profits know that if market is seen as failing Regulators will step in adding to business uncertainty

# New functionalities are special case ?

- What happens if a new feature is invented by meter provider and Retailer A example PredictTemp™
  - Retailer A can use as a differentiator or able to have more efficient operations
  - Retailer B can ask meter manufacturer to develop similar feature

- In this case most likely other market participants will not have access and different standards may evolve
- After period of time – AEMO may choose to incorporate in minimum functionality specification
  - Issue how do we handle different implementations?
  - International standards bodies may define how to treat that feature

Question:
What *factors* will *influence pricing* outcomes?

# Pricing Outcomes

- **MC's need positive business case**
- **Majority of consumers will not be charged up front**
- **Experience from Victorian deployment - integration cost was the largest component of total smart meter deployment cost**
- **Pricing could incorporate**
  - Fixed cost component  proving basic function e.g. interval data
  - Value adding element based on market value rather than cost
  - Value sharing deals can be done

# Key Issue - Support

- Our experience to data shows that even when you have an industry standard such as ANSI 12.19 there is still up front work with partners?
- There is no plug and play – as yet
- Problem will get bigger as we get more players entering the market
- Can Metering Co-ordinators recover costs from multiple vendors who need support to access meter data?

- Will large players get priority over niche providers

# What should we do?

# Way forward

- **We don’t know all the answers yet**
  - We can look at other markets (NZ) or industries
  - None of them are perfect role models

- **Choice of starting, learning and adapting or delaying and over analysing.**
- **Meter manufacturers don’t want uncertainty which results in delays**

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# Thank you for your attention