

Energyst Storage Event - Beyond the sales pitch

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Tom Palmer



Cornwall Insight has customers from all aspects of the energy markets. We are proud to be trusted advisors to

Power generators and project developers

From small independent renewables generators to large multinational utilities

Energy suppliers and aggregators

From new entrants to the Big Six energy companies

Regulators, policy-makers and industry bodies

including Ofgem, the Department for Business, Energy and Industrial Strategy, HM Treasury, National Grid and Citizen's Advice

Legal and financial institutions

including lenders, investors, lawyers, investment banks, pension funds, and sovereign wealth funds

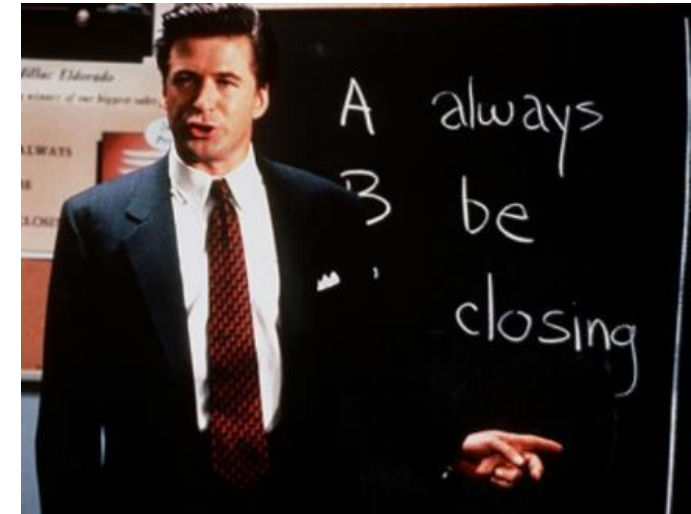
Third party intermediaries (TPIs) and end users

Brokers and TPIs of all sizes and the end consumers



The sales pitch

- Sales pitches are important and useful
- Needed to demonstrate the opportunities available that people may not be aware of
- Help to simplify the complexity and communicate that into opportunities
- But there is always self interest and buyers need to be aware of the risks
- Not the responsibility of sales pitch to inform you of all the risks



£100k+

available per flexible MW

Earn up to £100,000 per megawatt per year

Due diligence

- Any investment or development likely to need due diligence to understand the risk and opportunities
- Key elements to understand
 - Revenues
 - Costs
- Revenue is part of the story, for a storage asset the focus should be Gross Margin – import and export requirement
- Need to be aware of what is within the control of those providing the service in terms of price
- Understand the level of risk and the future expected change likely to take place – European Balancing Guidelines, Targeted Charging Review

Due Diligence

- Important in any energy investment - fundamental opportunities and risks exist
- Can be proportional to the size of the project

EFR and FFR experience

- A number of projects will never make the original project return
- Some are making loss and better to mothball the asset if about the returns

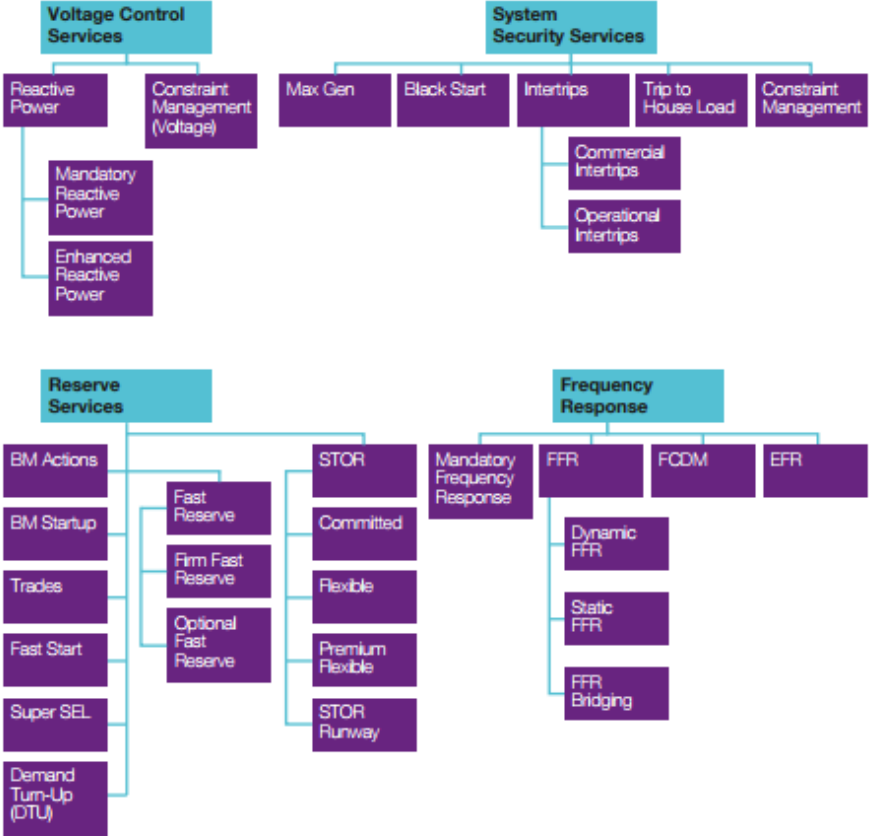
Revenues for markets are complex

- Everything is changing and there can be no guarantees
- Need to be prepared to jump between different options when required
- There is no one size fit all solution

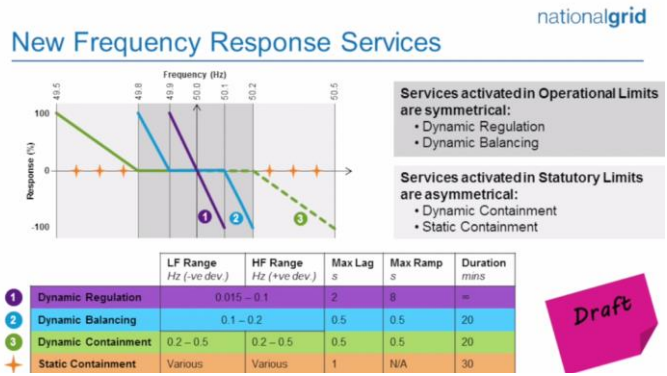


Balancing Services are complex

Pre SNaPS - aaaarrrgghhh



Now – still aaaarrrgghhh?



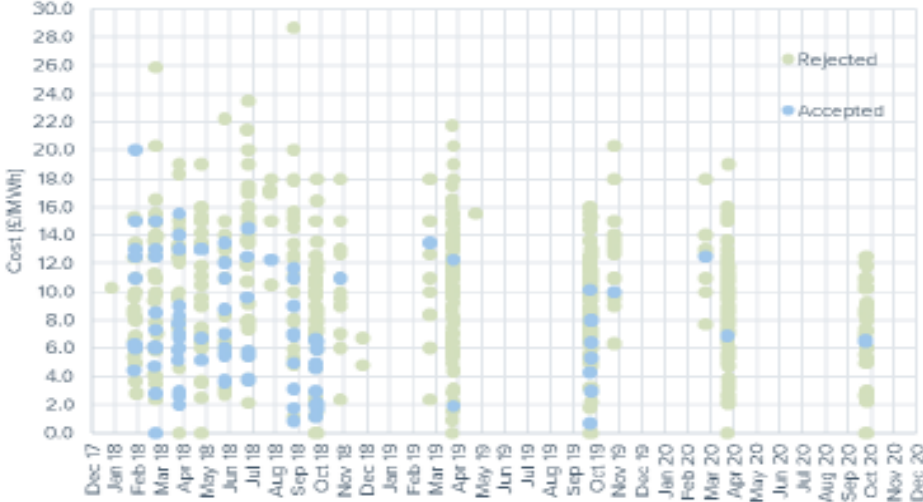
- Testing requirement
- Market Saturation
- Awarding of tenders
- State of Charge Management
- Asset sizing
- monitoring



Revenue Considerations

- Many contracts and agreements have been signed based on known products
- Those products may have reduced in value or changed
- Potential to consider short-term agreements or flexibility within the existing arrangement

Dynamic FFR prices



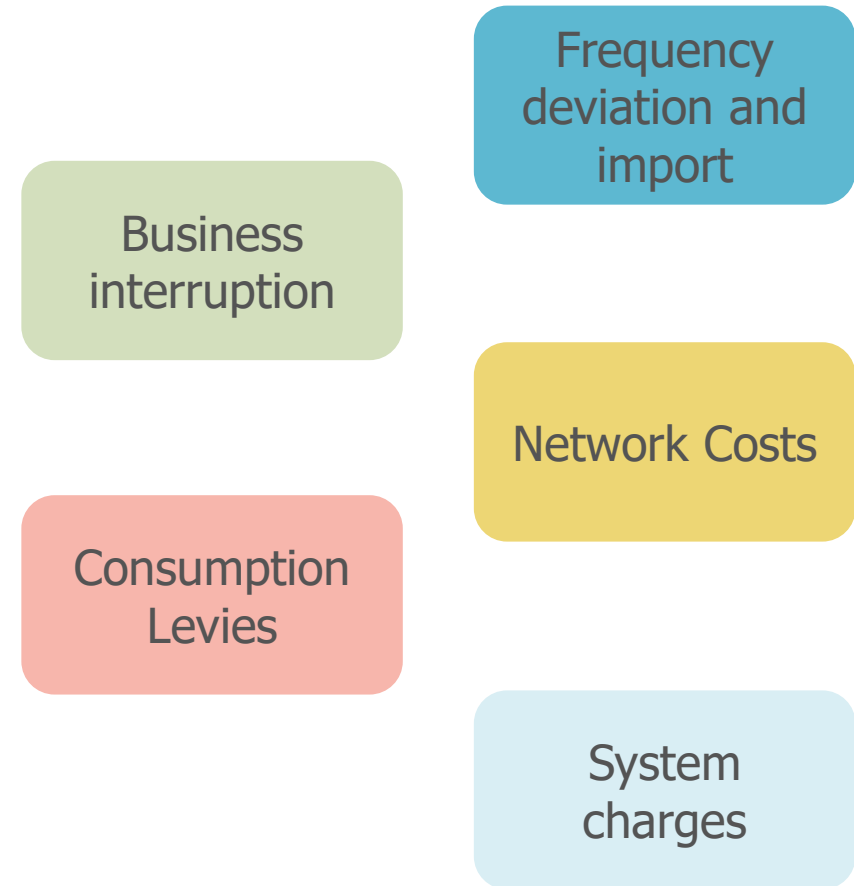
Source: Cornwall Insight

Key Considerations?



What about the costs?

- Costs are often not the focus but important as it is about Gross Margin, not revenue
- Often the bit that is either downplayed or unknown as will depend on service
- Both revenues and costs will be locational
- Costs will often be outside the control of either party – frequency response



Need to consider

- Sales pitches are not going to disappear, but need to understand the risk in the revenues and the things not covered
- The market continues to change and therefore need to understand how the market changes
- Revenue are important, but the costs need to be considered for storage as they are important in determining the overall gross margin
- Due diligence is important on storage projects where their remain a number of uncertainties.

Thank you

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We have specialist skills and expertise in a range of areas, including:

- Investment due diligence
- Business planning and modelling
- Retail market intelligence
- Routes to market and PPAs
- Market entry – supply, generation and storage
- Regulations, licensing and codes
- Trading/ hedging strategies
- Risk management
- EV impacts on electricity supply/ demand
- Power market modelling
- Capacity Market rules, applications and modelling
- Balancing mechanism and balancing services
- Subsidies – RO, FiT, CfD and RHI
- Network charging – transmission and distribution
- Policy design and impacts
- Balancing and settlement

