

Using the Grid to Develop Your Assets

**APSE Energy 'Big Energy Summit'
17th March 2017**

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Commissioning 'Place'



Why are we interested?

- Declining revenue - £114m savings achieved, £75m savings required by 2018/19, budget pressures will continue
- Securing significant revenue income from capital assets
- Large land owner – rural and urban areas
- Already secured £12.7m Council approval for ground-mounted solar (GMS)
 - *'DECC'd'* – secured Cabinet approval to go for planning on the day DECC announced FiT/RO subsidy consultation
- Loss of Government subsidy requires 50% reduction in capital costs for positive NPV

Battery Storage Opportunities



- Increase income from solar generation by selling at peak demand
- Takes up less space
 - 1.2MW standalone battery 40' shipping container vs 5 acres for GMS
- Easier to connect
 - suitable for small urban sites, closer to 33kV network
- Planning should be easier
 - Smaller, suitable for small scrappy sites
 - Can be disguised – cladding; housed inside building
- Working with Asset Utilities via APSE Energy to secure grid connections

Risks

- Not being able to connect
 - Dash for grid connections
- National Grid statement of works requires additional reinforcement – can be expensive and lengthy!
- Reliable income streams over technology lifetime
- Planned changes to electricity market
- Will there be a market to sell into?
- Increased grid balancing smooths charges?
 - Smaller difference between peak and off-peak charges; less money to be made
- Ofgem's proposed 96% cuts to embedded generators' payments
- DNOs to DSOs – implications?



Where we've got to

- 10 sites identified with potential for grid capacity near our land
 - Shortlisted 16, then site visits and budget applications
- 2 formal grid offers accepted (1 is interactive)
- 6 more formal applications in progress (6 due by end Mar)
- 2 park & ride sites
 - Battery to be followed by solar and electric vehicle (EV) infrastructure when economically viable
 - Potential for private wire to local businesses
- 1 rural tenanted farm
 - Battery plus solar
- 5 standalone battery
- 123MW export applied for in total, ranging from 1MW to 30MW
- Further 30MW potential on partners' land, looking to progress

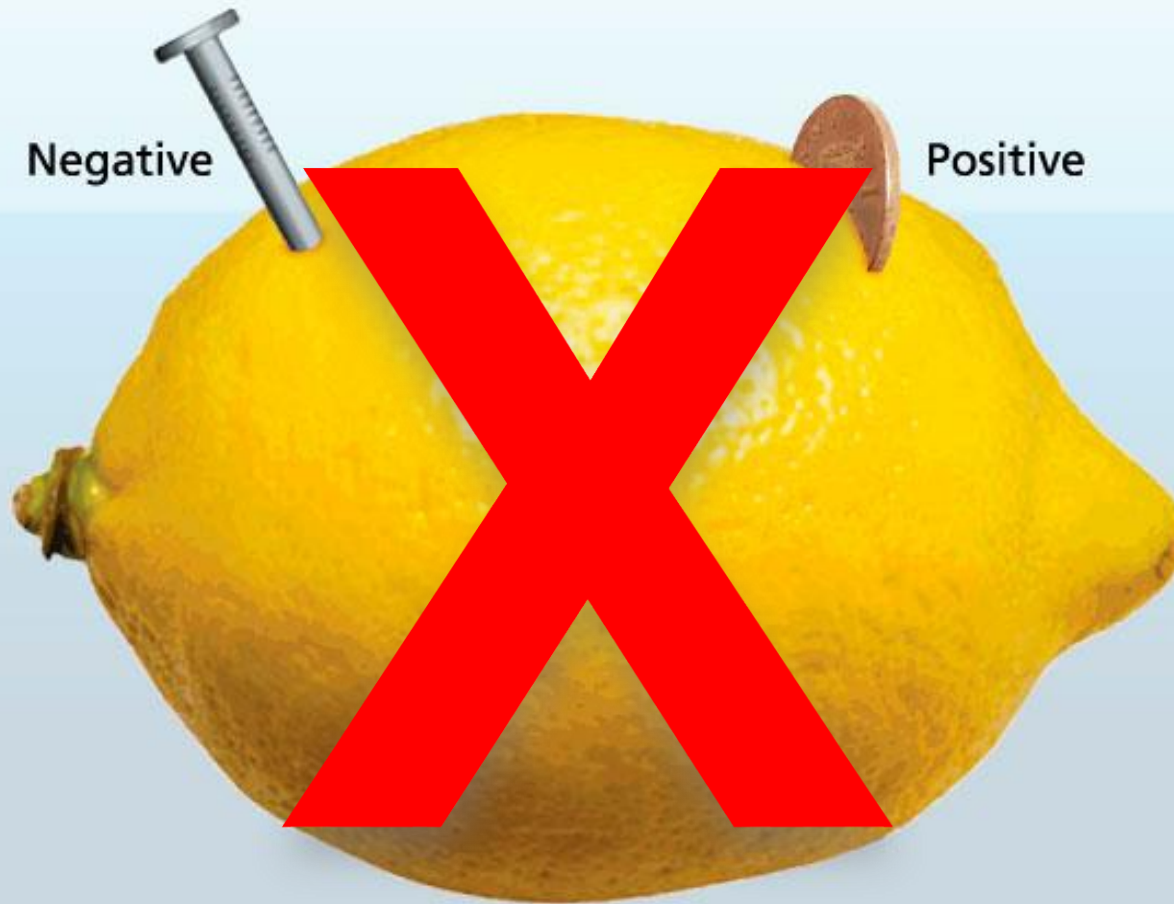
Next steps

- We need to be able to demonstrate the financial case before seeking approval to procure
- We can't afford to develop all the sites, c£80m
- Need to spread the risk

Next steps

- Soft market testing Mar/Apr
 - Inviting several developer/investors to make formal non-binding offers, inc lifetime discounted cashflow for
 - Rental
 - Joint Venture (JV) land only
 - JV with 50% capital
 - ‘Sliding scale’ of opportunity, eg 4 sites vs just 1
 - Option to buy into after market changes introduced?
- Use outputs to demonstrate the economic case and secure business case approval
- Seek Cabinet approval (Sep?) to take sites through planning, subject to economic case, and procure development

Making a Battery with a Lemon



Thank you

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