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Demystifying CRC, Data Centres and Implications for the Renewables Industries

WINNER
2009 UK IT INDUSTRY AWARDS
computing

WINNER
INNOVATION IN THE MEDIUM-DATA CENTRE
DatacentreLeadersAwards09

InformationAge
AWARDS WINNER 2010
Green IT Innovation

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Agenda

- The data centre industry
- The impact of CRC
- Using renewables in the data centre
- The Scottish picture

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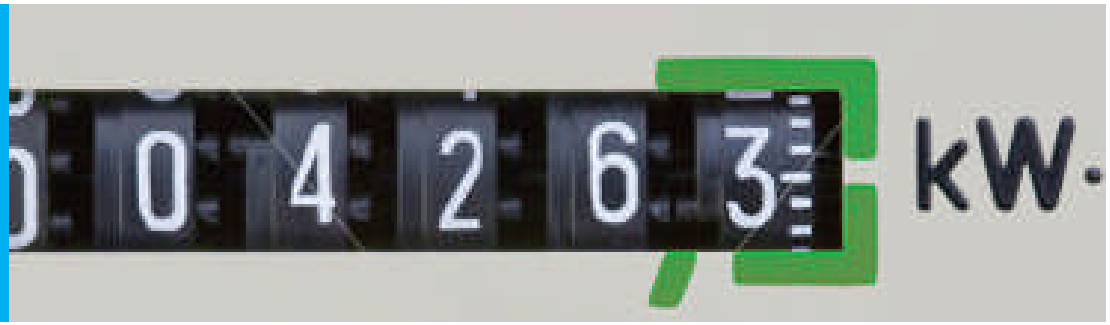
The data centre industry



- **Size**

“According to the Climate Group’s report, titled SMART 2020, energy consumption by data centers will result in 18 percent of the world’s greenhouse gas emissions by 2020, if current growth rates remain unchanged. The organization attributed 14 percent of total 2007 emissions to data centers.”

“Greenpeace estimates that data centres will use 1,963 billion kilowatt hours of electricity by 2020. That is more than the power currently consumed by France, Germany, Canada and Brazil combined, says the campaigner.”

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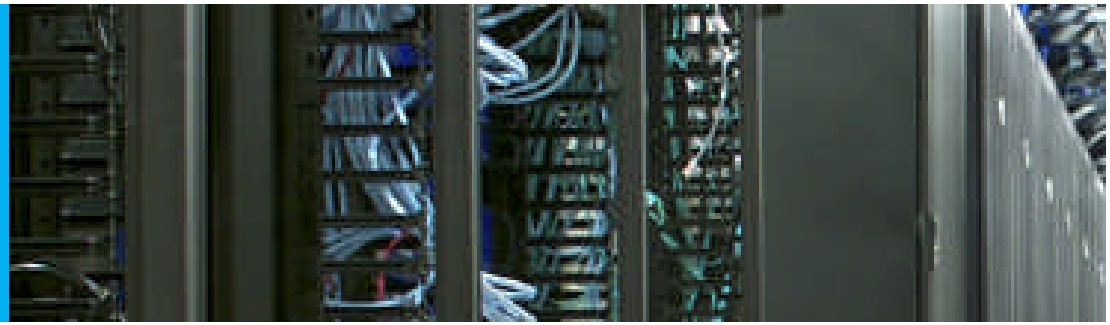
The data centre industry



- In simple terms, vast power consumption and heat generation
- The past
- The now
- The future

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The impact of CRC

- Immediate financial impact – minimal
- Reputational risk
- Power budget for the data centre
- The future impact

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Renewables in the data centre

- 3 steps to sustainability
- Challenges in the data centre
- Opportunities in the data centre
- Scenario for positive use

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The Scottish picture

- The bigger IT picture (WWF position)
- The climatic opportunity
- The renewable opportunity
- The wider opportunity (cloud compute)
- Early players (IVI, Lockerbie, Atlantis Alchemy Plus)

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5 take aways

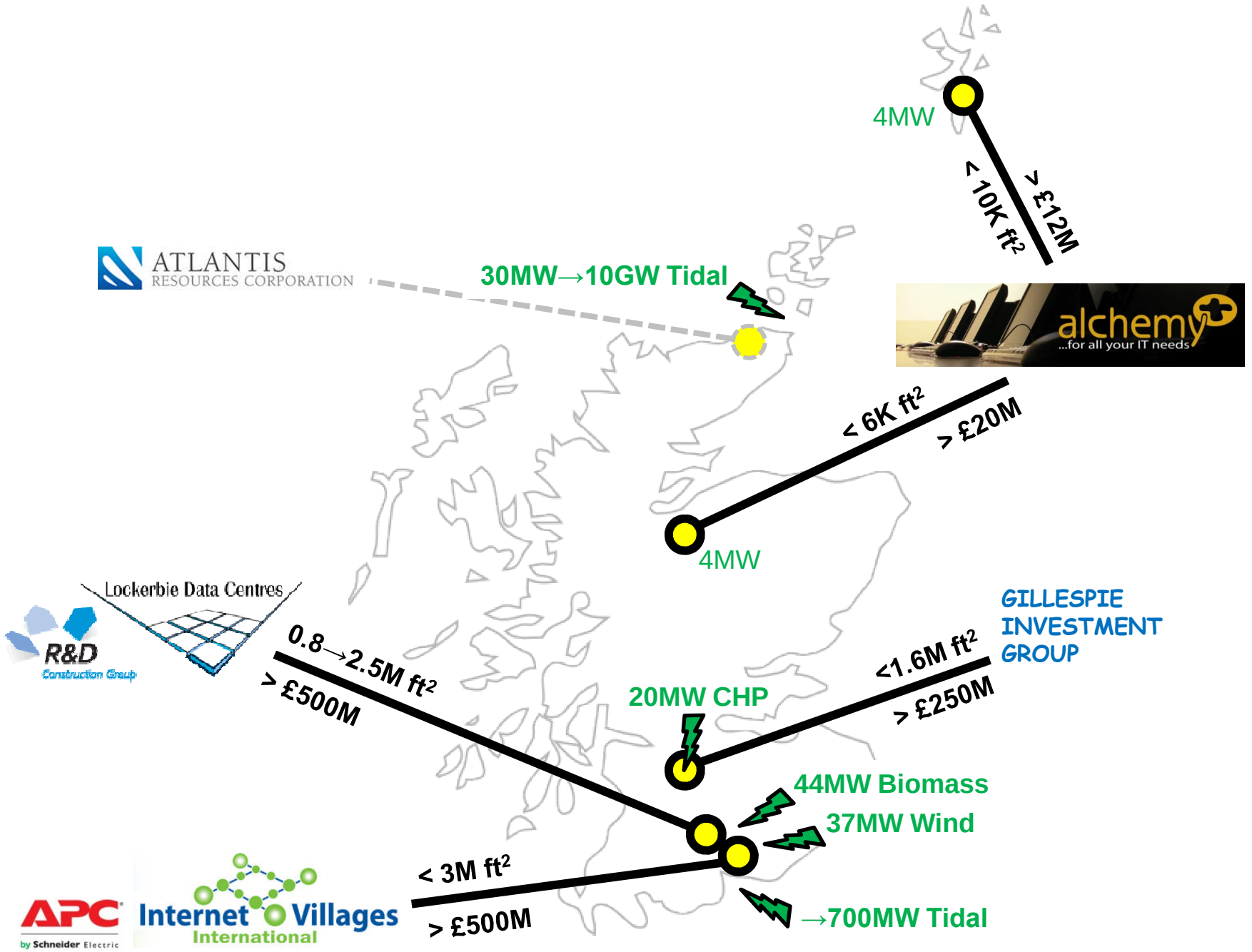
1) Data centre.. easy target = great opportunity!

2) Renewables.. promise me continuity of power!

3) Wider picture.. IT responsibility

4) Future state.. bigger and better

5) Scotland.. great position!


4MW
< 10K ft²
> £12M
ATLANTIS
RESOURCES CORPORATION
30MW→10GW Tidal
alchemy
...for all your IT needs
< 6K ft²
> £20M
4MW
Lockerbie Data Centres
R&D
Construction Group
0.8→2.5M ft²
> £500M
GILLESPIE
INVESTMENT
GROUP
<1.6M ft²
> £250M
20MW CHP
44MW Biomass
37MW Wind
APC
by Schneider Electric
Internet Villages
International
< 3M ft²
> £500M
→700MW Tidal