



INNOVATION

From Complexity to Optimisation

A portfolio approach to energy strategy

A2EP Webinar Series 13 October 2021

Lisa Zembrodt, ERP



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GLOBAL 100

2021 Most Sustainable Corporation in the World



Schneider Electric™

Top quartile performance on:

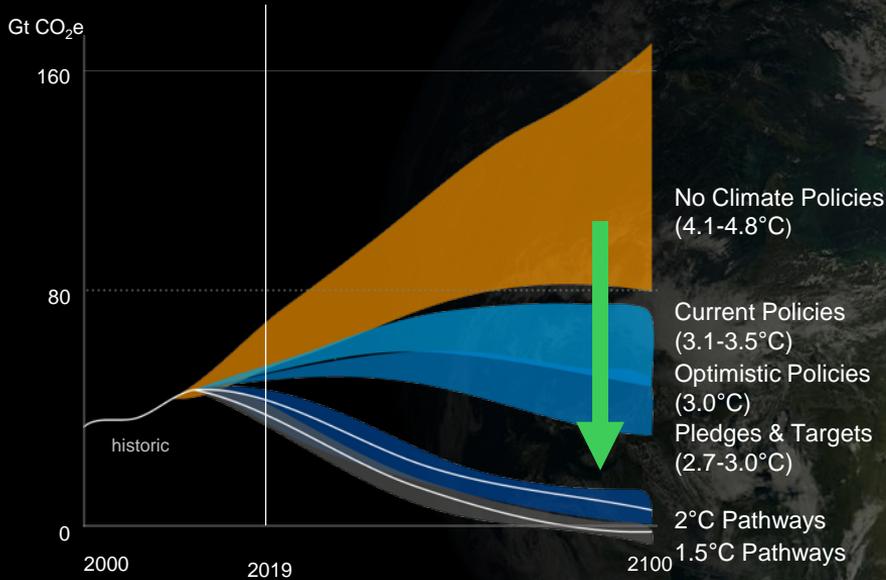
- | | |
|---------------------|----------------------------|
| % clean revenue | waste productivity |
| % clean investment | safety record |
| energy productivity | executive gender diversity |
| Carbon productivity | board racial diversity |

Life Is On



Energy Portfolios are Transitioning

Not only because they must, but also because it makes commercial sense



Companies are **acting now** to decrease the impact of climate change.

Commitments

23%
of Fortune 500 made
climate commitments
to meet by 2030

Ambition

14,200+
companies have
signed on to UN
Global Compact to
shape a sustainable
future

Opportunity

\$30B
growth in green
technology and
sustainability solutions
market in just 4 years

Sources: International Energy Agency, Schneider Electric

Energy Portfolios in Ancient Times

PHYSICAL
ASSETS

FINANCIAL
ASSETS

TARGETS &
CONSTRAINTS

CONSUMPTION

BACKUP
GENs

FLAT

LGCs

RETAIL
ELECTRICITY
CONTRACTS

And Now... Competing Considerations

PHYSICAL ASSETS

FINANCIAL ASSETS

TARGETS & CONSTRAINTS

CASHFLOW LIMITS

DEMAND RESPONSE

WEATHER DERIVATIVES

MICROGRIDS

BATTERIES

INVERSE SOLAR

PEAK

GENERATION ASSETS

PROXY REVENUE SWAPS

PPAs

REVENUE TARGETS

CONSUMPTION

FLAT

CAPS

WIND INSURANCE

VIRTUAL STORAGE

RETAIL ELECTRICITY CONTRACTS

LGCs / ACCUs

ASX OPTIONS

EVs

RENEWABLE TARGETS

EMISSIONS REDUCTION TARGETS

RISK LIMITS

WIND/SOLAR FIRMING

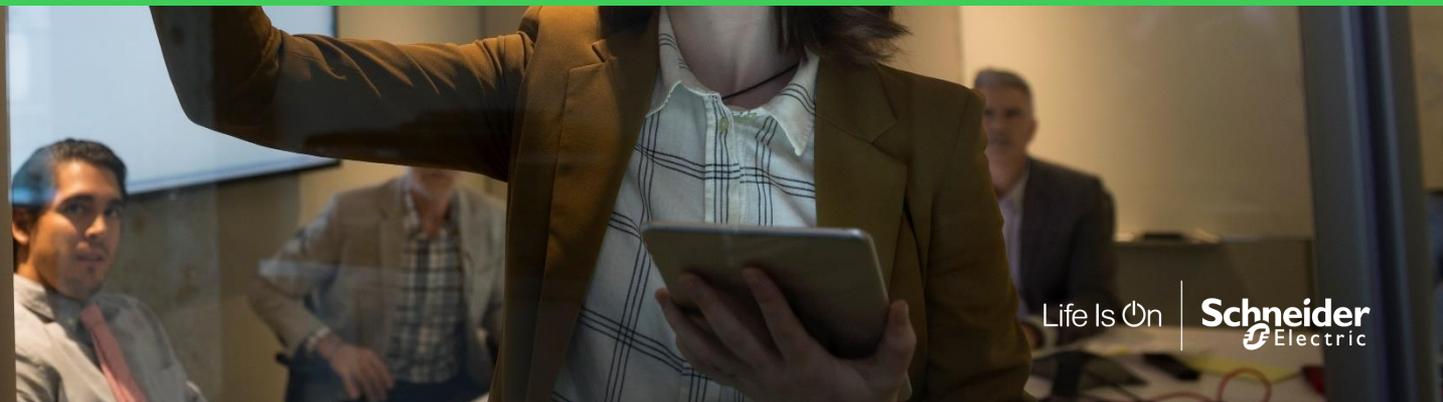
ONSITE SOLAR

BACKUP GENS



What can I do to ensure success?

Best practices



Back in 2019, I shared...

5 Critical Success Factors For Energy Management in a Dynamic Landscape

1. Think holistically
2. Start with a strategy
3. Know the markets
4. Engage stakeholders early & often
5. Harness the power of your data

Let's focus on these



Assess Your Corporate Risk Tolerance

A due diligence step in creating strategies

Assess Your Risk Tolerance

Engage stakeholders to assess the corporate risk profile

- Answered by stakeholders from their point of view
 - Corporate risk tolerance
 - Goals of risk management
 - Financial limits
- Typically, different functions within a company view goals and risk tolerance differently
- Determines suitability of products
- Fosters dialogue leading to consensus about organization goals





Analyse the Possibilities to Find the Optimal Approach

Understand risk at a granular level to make the right strategic and tactical decisions

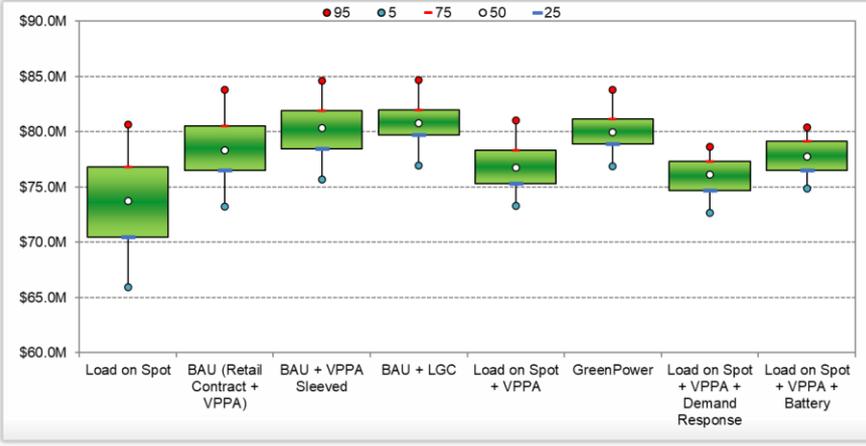
Strategy Testing to Identify Optimal Outcomes

Quantify risk and outcomes, enabling tailored decisions

We use our Portfolio Scenario Analysis Tool:

- Enables testing of different mixes of contract or retail product structures, hedges, derivatives, physical strategies and spot price exposure to gauge the overall total portfolio value & potential outcomes
- Enables user to test a mix of approaches to inform strategies, as well as to make real-time trading decisions by valuing products/approaches
- Displays probabilistic distributions for spot prices, generated energy (or consumption), revenue/cost
- Quantifies risk across a portfolio and calculates EaR and CFaR

Schneider Electric Portfolio Cost Comparison - 10 Year Total



Illustrative of many different approaches being compared, this **mock example*** show how the PSAT informs strategies by quantifying risk and forecasting potential outcomes

*of course, these are not real outcomes so don't use them to make decisions

Portfolio Approach Forecast to Save \$269m

Purpose

- Assess how best to integrate the customer's VPPAs into their portfolio
- Provide expert insight and analysis to determine what retail contracting strategy would best suit the RE strategy and situation
- Recommend a path forward for both RE and retail contracting

Path

- Leveraged our local knowledge and expertise to describe the procurement approaches available
- Assessed their risk tolerance to determine suitability of products & approaches
- Utilised the PSAT to quantify the range of outcomes associated with each retail contracting strategy
- Presented findings to customer and recommended a path forward

Solution

- Change in retail contracting strategy to optimise financial and physical assets
- Change in handling of PPAs to reduce risk and improve energy portfolio outcomes
- Change in DR and automation to reduce risk and improve energy portfolio outcomes
- Recommended tools to reach RE goals

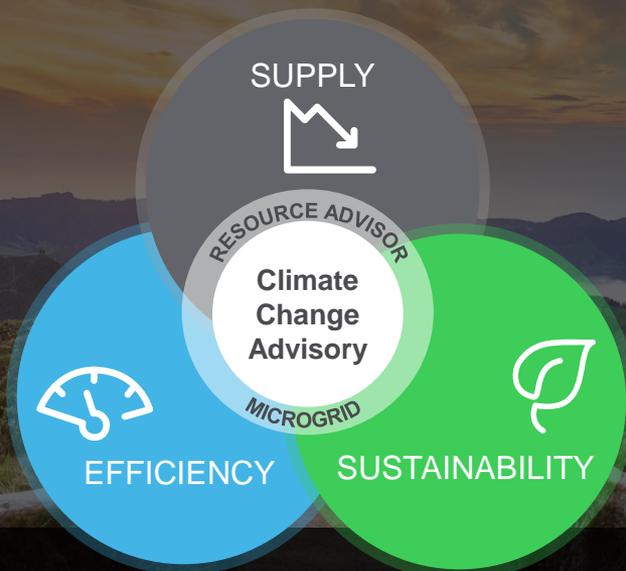
Results

- **Potential savings identified vs. BAU approach of \$269m over 15 years**
- Able to achieve 100% RE cost effectively
- An educated and engaged SteerCo, keen to learn more about the detailed analyses and how to implement the recommendations

Overcome Challenges by Thinking Holistically



Buy Energy at
the Lowest
Possible Cost



All While
Stewarding Global
Resources

ESS Enables World-Leading Organizations to **Overcome Challenges & Capture Opportunities** in Energy & Sustainability

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