Guernsey Electricity
Powering the Islands' energy future
This is not the first 'transition'

We have been operating for over 100 years, moving from local generation of power from coal, and later oil, to investing in cables to connect into the grids in Jersey and France through the Channel Island Electricity Grid, supporting local solar through large scale community installations.
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Our role is to provide a **secure, sustainable and reliable** electricity service to the island which is **affordable** and minimises impact on the **environment**.

We aim to enable an energy system that **supports** the growing needs of our Island well into the future (energy transition) and facilitates **local renewable** aspirations.
Challenges

Volatility in the energy market and rising costs.

Economies of scale

Significant under investment
LET'S PLAY TRUE OR FALSE
True / False

Guernsey has already decarbonised local electricity consumption.
Over 90% of our electricity comes from renewable sources, like hydro, wind and solar power, through the subsea cable connecting us to Europe.

**TRUE** / **FALSE**
**Figure 4.13: Energy supplied to Guernsey consumers**

*Energy, in the form of gas oil and heavy fuel oil, consumed by Guernsey Electricity in the process of generating electricity on island (i.e. which is not supplied to customers) is not included in this category.*

Source: Customs and Excise, Guernsey Electricity, Guernsey Gas
When the electricity strategy is decided, we won't need a power station.
The power station will always play a role on-island, the extent to which we'll need it in the future depends on the Electricity Strategy direction.
The Electricity Strategy's proposals are going to cost billions more.
The proposed pathway costs less than carrying on the same, provides greater security and is less carbon intensive.
Guernsey Electricity don't want local renewable generation
Guernsey Electricity supports local renewable generation; however, we need to be able to maintain the grid and provide security of supply for intermittent renewables.
The grid can't cope with the adoption of EV's
Most charging will occur overnight and they won't all need charge at once. Charging is becoming more controllable and intelligent. The pace of adoption means we can update grid as it is required.

TRUE / FALSE
Guernsey Electricity is a monopoly. There is no competition in the market.
Competition in electricity generation has been open for years. The electricity strategy proposes specific competition in local renewable generation.
The subsea cable contract with EDF is up in 2023.
The existing contract with EDF will end in 2027. But negotiations are already in motion to secure the future.
We have a great tidal range, yet tidal energy and other renewables have been ignored.
Tidal technology remains costly and is not yet commercial. Tidal energy, though intermittent, is predictable and in the future, could add to security and resilience of our supply.
THE ELECTRICITY STRATEGY
WHAT SUPPLIES THE INCREASED DEMAND?

Guernsey currently demands between 25MW and 95MW of electricity.
THE PATHWAY JOURNEY

A  
BASE CASE

B  
INDEPENDENCE

C  
RENEWABLES FIRST

D  
DUAL INTERCONNECTOR WITH OFFSHORE WIND

E  
DUAL INTERCONNECTOR WITHOUT OFFSHORE WIND

F  
LIGHTHOUSE

SIEMENS
THE PATHWAY JOURNEY

A  BASE CASE
B  INDEPENDENCE
C  RENEWABLES FIRST
D  DUAL INTERCONNECTOR WITH OFFSHORE WIND
E  DUAL INTERCONNECTOR WITHOUT OFFSHORE WIND
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THE ELECTRICITY STRATEGY
PROPOSAL

• Additional interconnection
• Additional interconnection

• On-island renewables in the form of solar PV
• Additional interconnection

• On-island renewables in the form of solar PV

• Offshore renewables to meet the Island's needs.
THE FUTURE
WHAT IS KEY...
Security of supply is of upmost importance.

- Securing additional interconnection is key to ensuring we can provide low carbon energy to meet demand, today and well into the transition period.
Security of supply is of upmost importance.

The Power Station needs planned investment now.

- We have to retire the old and pay for the new thermal generation.
Security of supply is of utmost importance.

The Power Station needs planned investment now.

Investment in the Grid.

• We must continue maintaining the Island's grid.
• Whilst building it bigger and more robust, to be fit for current and future purpose.
Security of supply is of upmost importance.

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Investment in the Grid.

Provide greater transparency of how costs are created to allow investment.

- So, investments and operational costs are understood by all.
- Interim measures have the potential to kick start the process.
THE ELECTRICITY STRATEGY

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What “big” questions does the Electricity Strategy raise?
Who is going to pay for security of supply?

1. THE STATES
2. GUERNSEY ELECTRICITY
3. THE CONSUMER
4. A MIX OF ALL
Who is going to pay for security of supply?

1. The States
2. Guernsey Electricity
3. The Consumer
4. A Mix of All

Answer: The Consumer

The Consumer is going to pay for security of supply.
Guernsey’s Power Station exists to provide two important functions:

📅 Firstly, it provides a top-up service to ensure there is enough power generated to meet the Island’s needs – it gets paid for this.

📅 The second key function of the power station is to provide a back-up in the event that the import cables become unavailable – it doesn’t get paid directly for this but will need too.
QUESTION

Who is going to pay to move away from least cost?

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2. GUERNSEY ELECTRICITY

3. THE CONSUMER

4. A MIX OF ALL
Who is going to pay to move away from least cost?

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Answer: The Consumer
LOW CARBON IMPORT

LOCAL RENEWABLE GENERATION
A new merit order for dispatch is required.
Who is going to fund the Electricity Strategy?

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2. Guernsey Electricity
3. The Consumer
4. A Mix of All
ANSWER

Who is going to fund the Electricity Strategy?

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But how and when?
The time for talking about it is over. The time for action is now.
QUESTIONS
We're building out today, what we'll need to carry us through the energy transition.

Beau Sejour Substation, Bordeaux Substation, new Substation build at the PEH, Beau Sejour transformer delivery.