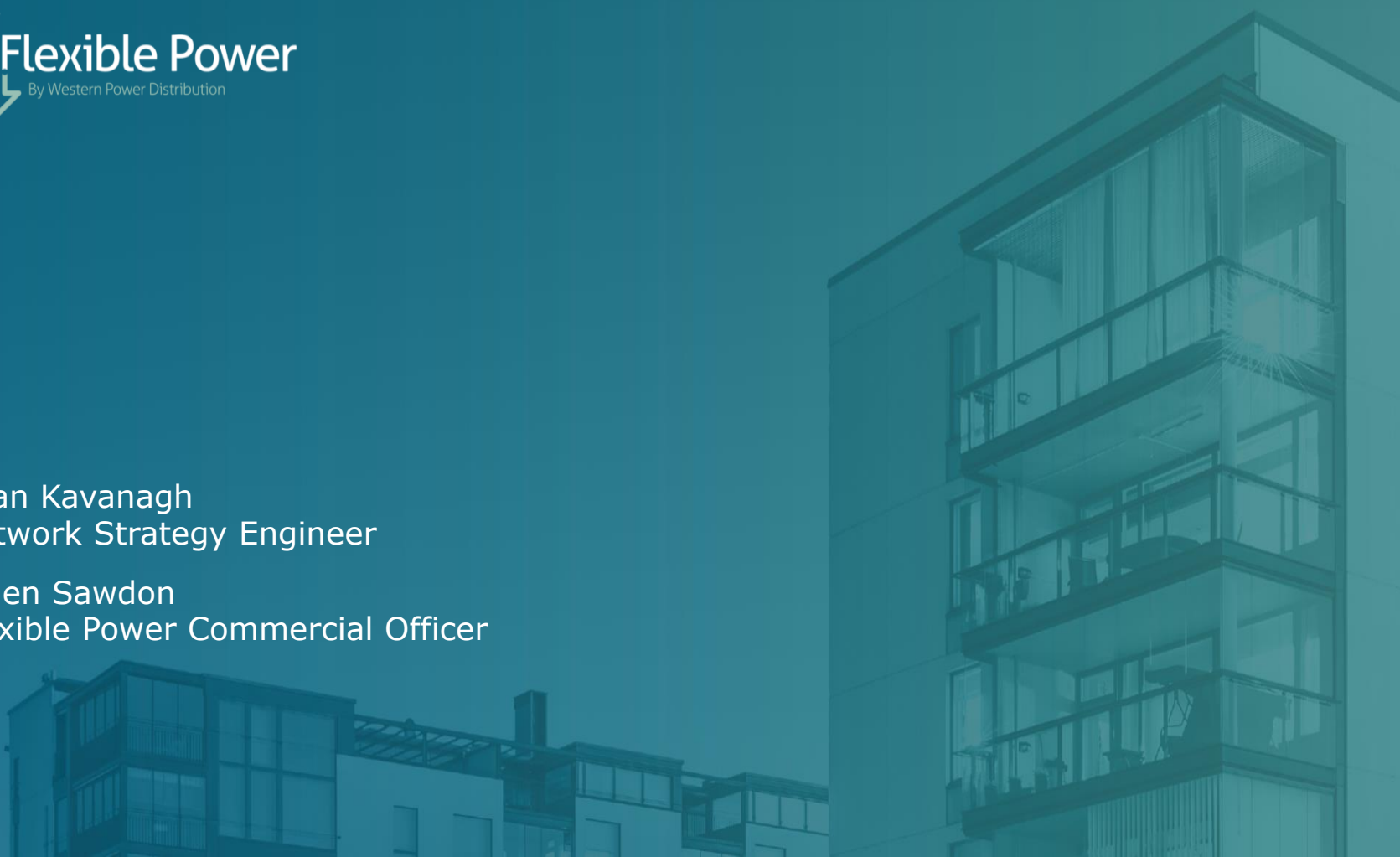




Ryan Kavanagh  
Network Strategy Engineer

Helen Sawdon  
Flexible Power Commercial Officer



# Content covered today

## 1. What is Flexible Power

- Why DNOs need flexible Power
- What is Demand Response

## 2. Is Flexible Power suitable for you?

- Where is FP available
- Potential revenues
- Key operational & contractual requirements

## 3. How to participate in Flexible Power

- Signposting
- Procurement
- Operation

## 4. Timeline & Key dates

## 5. Q&A

## 6. Workshop Questions

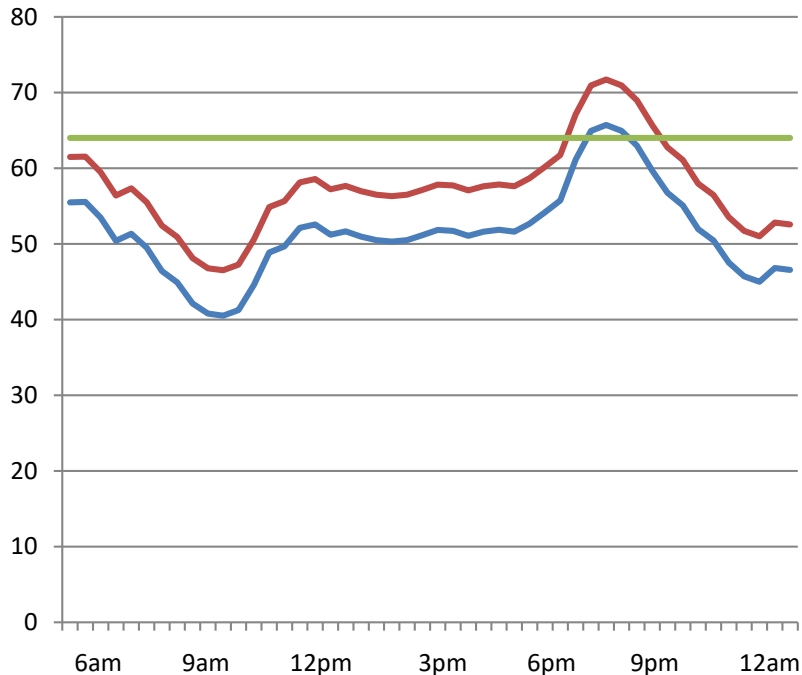
# 1. What is Flexible Power?

Flexible Power has been created by Western Power Distribution (WPD) to deliver the procurement of **demand response services**.



- Participants who can be flexible with their energy usage or generation assets.
- Access to new revenue stream.
- Location specific; seeks to resolve local constraints on the Distribution Network.

# Why DNOs need Flexibility Services



- Traditionally we would build bigger networks to accommodate.
- Shift towards EVs, electric heating, etc. increasing electrical demand.
- We are looking for customers that can increase generation or decrease demand at these peak times.
- Flexibility means we can avoid or defer reinforcement works.
- Reduce socialised cost to customers.

# What is Demand Response?

Many electricity consumers have the potential to reduce demand for electricity during peak periods by shifting energy use to other times or have the ability to increase energy supply by using existing on-site generation.

**For example at times of peak network demand...**

- **a supermarket could turn down/off air-conditioning or refrigeration systems**
- **a factory with back up diesel generators could switch them on**

**Other generation types are just as suitable, such as Battery Storage, CHP, Natural Gas...**

Where we have known constraints on our network, we're building partnerships that utilise this demand and generation flexibility in return for a financial payment.

## 2. Is Flexible Power Suitable for you?

### **Key benefits of Flexible Power:**

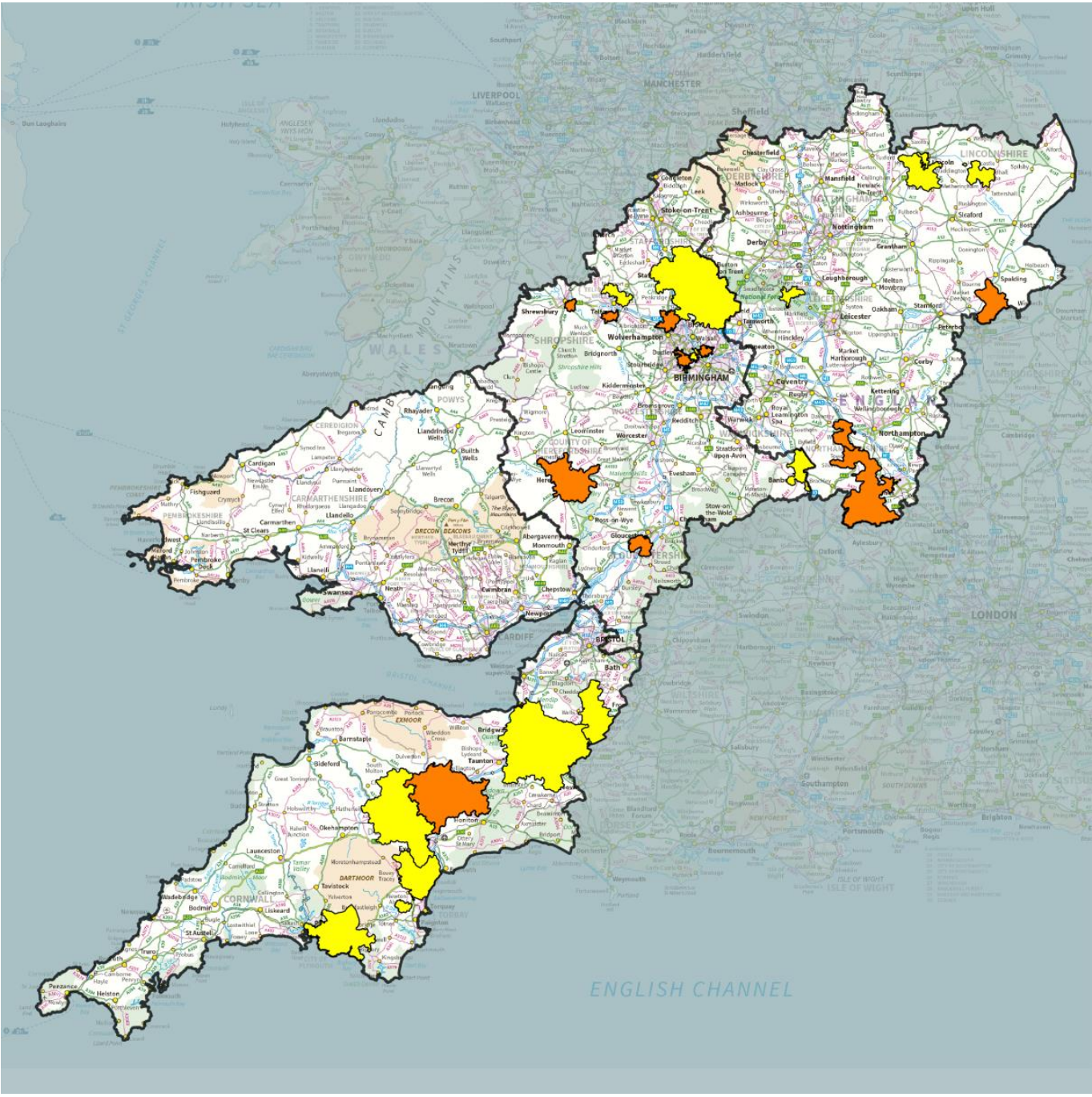
- ✓ All Energy Resources connected to the Distribution Network
- ✓ No Minimum capacity for participation
- ✓ Stackable with other revenue streams
- ✓ Routes for direct entry or through aggregation
- ✓ Electronic availability and dispatch platform
- ✓ Automated performance reporting to enable monthly settlement

Dedicated Flexible Power website provides information and documentation for all aspects and stages of interest: [www.flexiblepower.co.uk](http://www.flexiblepower.co.uk)

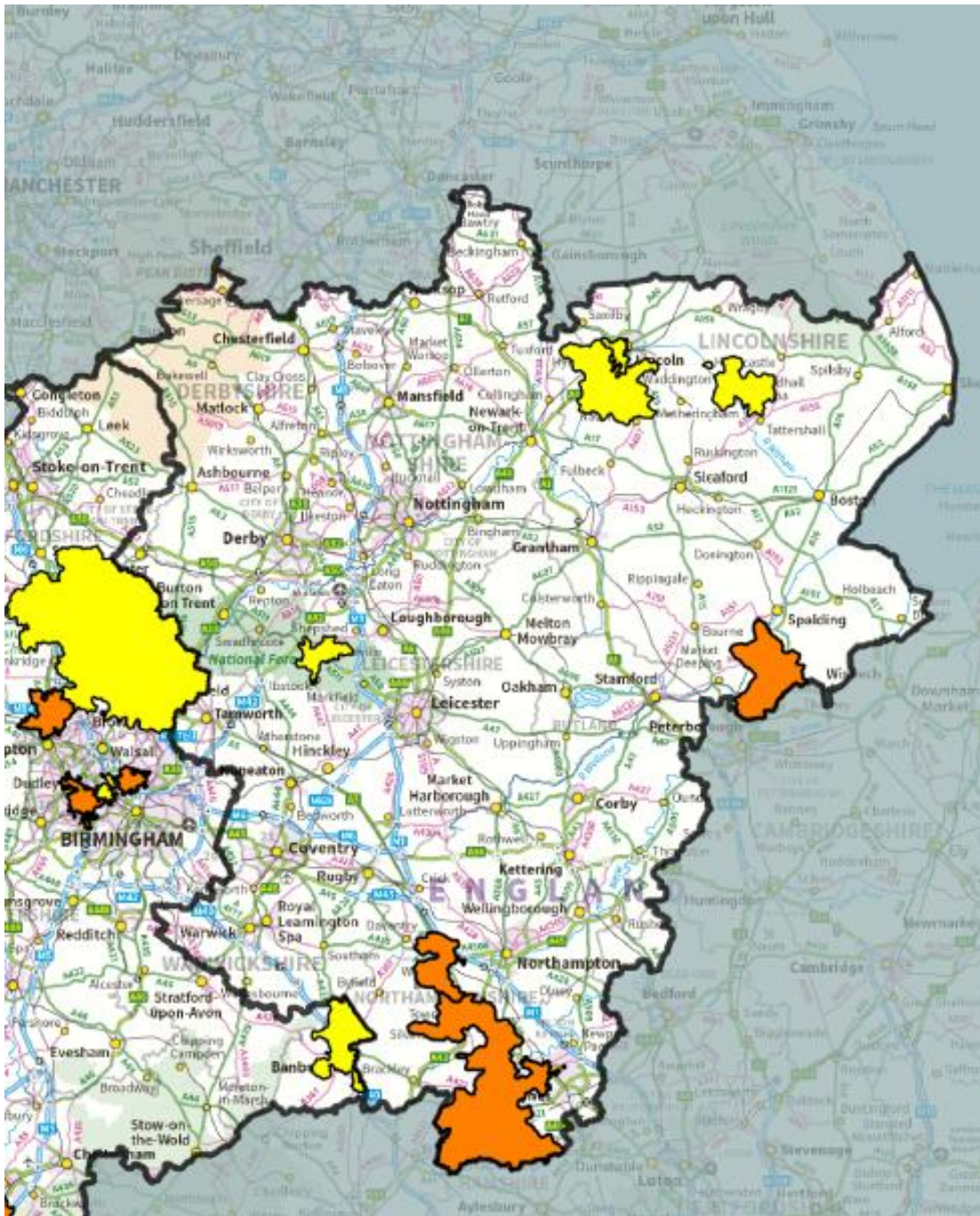
# Where is Flexible Power available?

Constraints on our network are confined to specific geographical locations. CMZs we're currently procuring for are;

<b>1</b>	Banbury	Banbury, Oxfordshire	<b>7</b>	Plymouth/Sou th Hams 1 & 2	Plymouth & South Hampton, Devon
<b>2</b>	Bridgwater/Str eet	Bridgwater, Somerset	<b>8</b>	Newton Abbot	Newton Abbot, Devon
<b>3</b>	Donnington	Donnington, Ledbury	<b>9</b>	Radstock	Radstock, Somerset
<b>4</b>	Lincoln/Beevor Street	Lincoln, Lincolnshire	<b>10</b>	Woodhall Spa	Woodhall spa, Lincolnshire
<b>5</b>	Lincoln/North Hykeham	Lincoln, Lincolnshire	<b>11</b>	Rugeley GSP	Rugeley, Staffordshire
<b>6</b>	Mantle Lane	Coalville, Leicestershire	<b>12</b>	Smethwick	Smethwick, Birmingham







Yellow areas – need identified to start using flexibility from Winter 2019. Currently out for procurement.

East Mids CMZs include:

**Mantle Lane, Leicester**  
4.6MW peak,

**Woodhall Spa**  
0.5MW peak, 19MWh

**North Hykeham**  
3.7MW peak, 143MWh

**Beevor Street**  
2.6 MW peak, 45MWh

Orange areas – signposting for need identified in next 5 years.

# What's the earning potential?

We have calculated a fixed price for flexibility within our **Constraint Management Zones** (CMZs) based on cost efficiency. Our fixed prices are currently operating at...

	<b>Arming</b>	<b>Availability</b>	<b>Utilisation</b>
<b>Secure</b>	£125/MWh	N/A	£175/MWh
<b>Dynamic</b>	N/A	£5/MWh	£300/MWh
<b>Restore</b>	N/A	N/A	£600/MWh

On average, participants can make between **£1,500 - £6,000 per MW** they make available over the course of a year.

These prices will only be applicable to CMZs that do not have multiple flexibility providers with a total capacity that exceeds the CMZs needs.

Where a CMZ does has multiple providers with a total capacity that exceed the CMZs needs then the zone will go to clearing to achieve the best market price. This market price then becomes that CMZs new fixed price and is awarded to all providers.

# What's the earning potential?

Some examples of potential earnings...

**Asset:** 2 x 500kW Batter Storage

**Total capacity:** 1MW

**Zone type:** Dynamic – Winter requirement (Nov – Feb)

**Earnings through availability:** £2,640  
(Mon- Fri, 3pm – 9pm at £5 per MWh)

**Earnings through utilisation:** £4,800  
(utilised for a total of 16MWh)

**Total earnings:** £7,440

**Average Monthly earnings:** £1,860

**Average No. of hours utilised per month:** 4MWh

**Asset:** 500kW Demand turn down

**Total capacity:** 0.5MW

**Zone type:** Secure – Winter requirement (Nov - Feb)

**Earnings through arming:** £2,000  
(avg.1 days a week, 5pm – 7pm at £125 per MWh)

**Earnings through utilisation:** £2,800  
(utilised for a total of 64MWh)

**Total earnings:** £4,800

**Average Monthly earnings:** £960

**Average No. of hours utilised per month:** 8MWh

But remember – All our zones have different sized needs, so earnings will vary. We have developed an **Earnings Calculator** which will give you a tailored estimated based on your assets location & size: [www.flexiblepower.co.uk/value-calculator](http://www.flexiblepower.co.uk/value-calculator)

## Key operational requirements

- Site/asset location within CMZ boundary.
- Commitment to build Application Programme Interface (API).
- Ability to provide minute by minute metering data over API.
- Asset ability to respond to within 15mins and hold response for minimum of 2 hours.
- Acceptance of CMZ Terms & Conditions.
- Each site must be built or have a connection agreement with the final milestone before the CMZs operating window.
- Provision of the service must not put the participant in breach of other agreements (e.g. connection agreement).

## Key Contractual requirements

- No exclusivity clauses.
- No obligation to provide availability.
- No penalties for non-delivery, only loss of revenue through underperformance clawback.
- Shared & Capped Liabilities

### 3. How to Participate - Signposting

Signposting > procurement > declaration > acceptance > dispatch > settlement > billing

Our signposting information shows our requirements up to five years out across our network on the WPD website – [www.westernpower.co.uk/network-flexibility-map](http://www.westernpower.co.uk/network-flexibility-map)

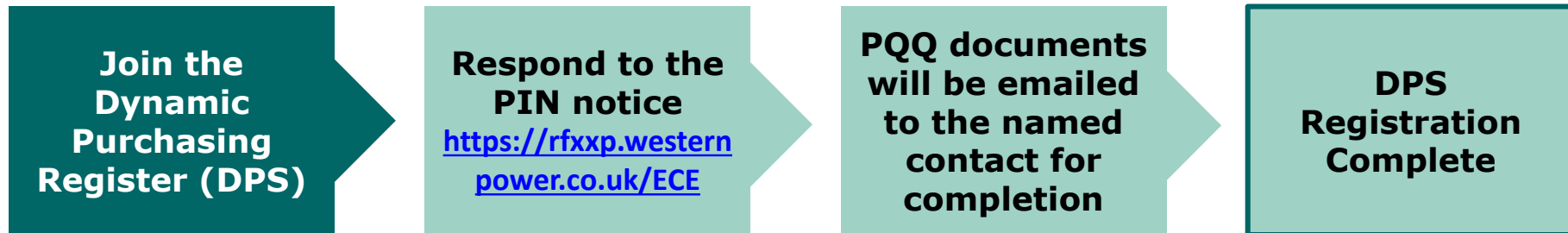
Here potential participants can see where and when flexibility locations will open for procurement. It also provides information on each locations requirements; months service is needed, times of day, volumes & utilisation frequency.

We also provided a downloadable document detailing all this information: [www.flexiblepower.co.uk/our-schemes](http://www.flexiblepower.co.uk/our-schemes)

Our **postcode checker** will also tell you is your site is within a CMZ: [www.flexiblepower.co.uk/postcode-checker](http://www.flexiblepower.co.uk/postcode-checker)

### 3. How to Participate - Procurement

Signposting > **procurement** > declaration > acceptance > dispatch > settlement > billing



- The DPS holds a record of all parties who have completed a pre-qualification process to be eligible to tender for demand response services in any of our current or future zones.
- Eligibility to join the DPS is not assessed on technical ability or on geographical location of assets. Only company/individual address and contact details must be provided.
- Parties who have successfully been added to the DPS will be invited to all future tenders.



# 3. How to Participate - Operation

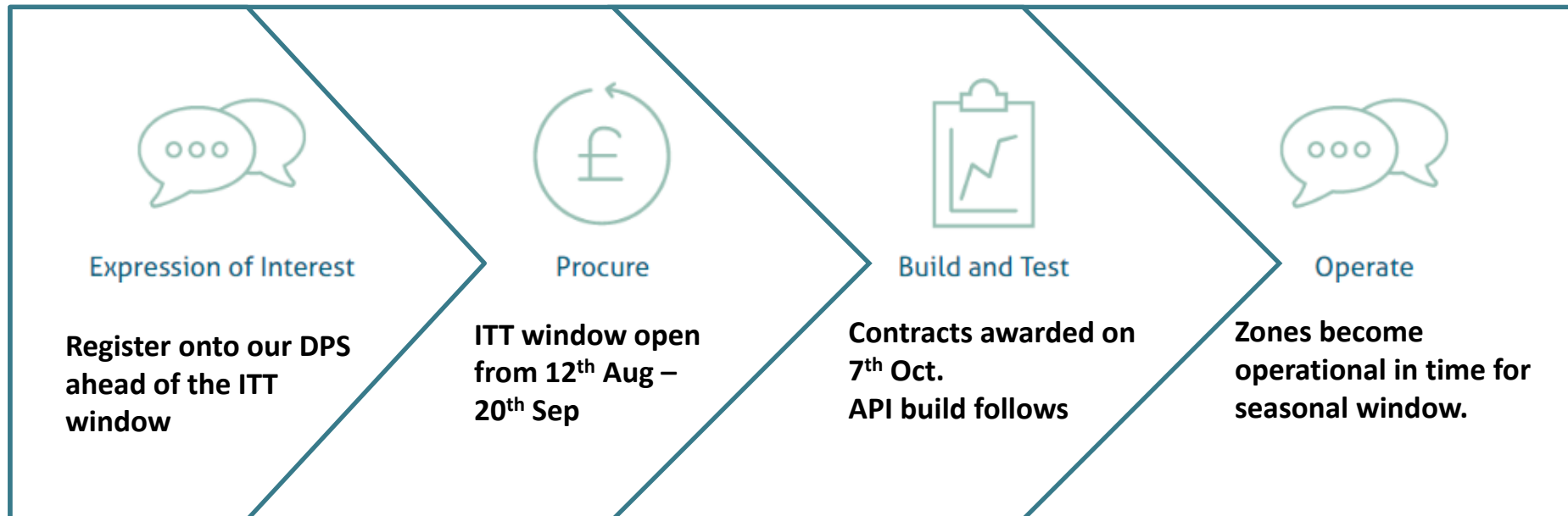
Signposting > procurement > **declaration > acceptance > dispatch > settlement > billing**

- We provide all participants with access to our dedicated participant portal.
- Here participants can;
  - Provide their week ahead asset availability - Weds midnight cut-off.
  - Find out what has been accepted - Thurs mid-day cut-off.
  - Receive stop start signals.
  - Submit event metering data.
  - View event performance statement.
  - View event earning statements.
  - View and approve monthly invoices.
- An API link must be built to facilitate the communication between the portal and the participants asset control.
- The cost of building the API link is the responsibility of the participant. This is a basic interface and in most cases a low cost to implement.

## 4. Timeline & key dates

### 2019 Autumn Procurement cycle:

- 1<sup>st</sup> July 2019 – CMZs with Requirements published on our website
- 12<sup>th</sup> August 2019 – ITT issued to all participants accepted onto the DPS
- 20<sup>th</sup> September - ITT Deadline
- 7<sup>th</sup> October – Procurement results





## 5. Questions?

## 6. Workshop Questions

1. Do you consider that the route to participation in Flexible Power is navigable?
2. Could any of the participation requirements present a barrier to your ability to participate in Flexible power?
3. Are the tools we've provided adequate to support you through the process?
4. What more can we do?