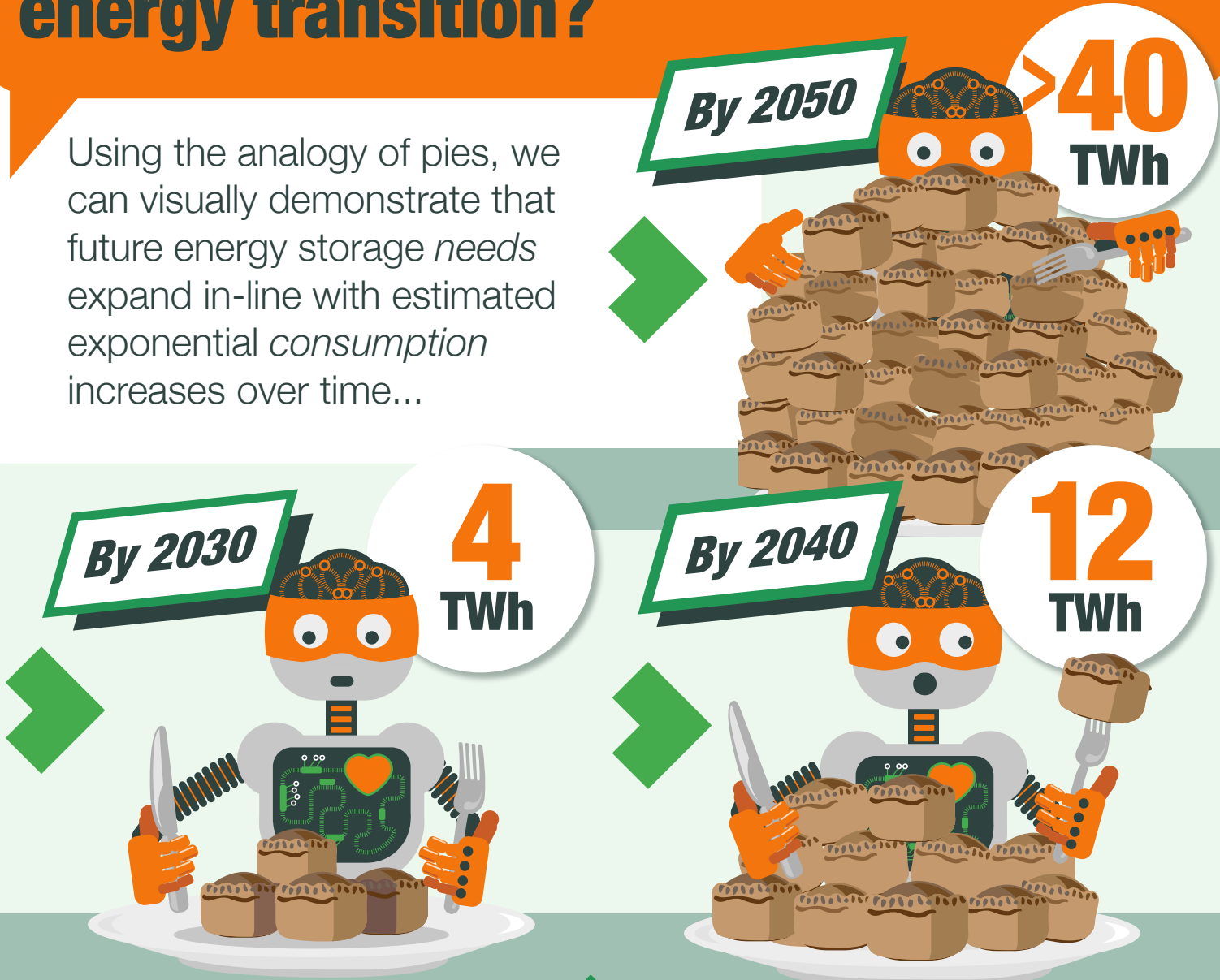


# How much energy storage are we going to need to support the UK 2050 net-zero energy transition?

Using the analogy of pies, we can visually demonstrate that future energy storage needs expand in-line with estimated exponential consumption increases over time...



## UNITS in Terawatt hours (TWh)

Current UK storage capacity

$\frac{1}{30}$  of 1TWh hour = **AROUND 40 mins**

## CONVERSION TABLE [Approximate]

<b>1 PIE</b> ~ 1 TWh	<b>4 PIES</b> ~ 4 TWh	<b>12 PIES</b> ~ 12 TWh	<b>40 PIES</b> ~ 40 TWh
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(Average consumption)

## STORAGE DURATION

The storage discharge times will range from 1 second to 2,000hrs and energy could be held for up to three years.

## POWER RANGE

- Short-duration ranging from seconds to a couple of hours (100 gigawatts)
- Medium-duration ranging from 4hrs to 200hrs (70 gigawatts)
- Long-duration ranging from 200hrs up to 2,000hrs (about 40 gigawatts)