# Signposts to 2020







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#### **Agenda**

The environmental targets

Gone Green: what needs to happen?

How are we doing?



#### **Environmental Targets**



By 2020, 15% of UK final energy consumption from renewables

By 2050, an 80% reduction in greenhouse gas emissions

#### Renewable energy as % of energy consumption



Source: DECC Energy Trends



## **EU Renewable Energy Progress**

Member State	1 <sup>st</sup> Interim target (%)	2020 Renewable Energy Share (%)
Belgium	4.4	13
Germany	8.2	18
Denmark	19.6	30
Spain	10.9	20
France	12.8	23
Ireland	5.7	16
Netherlands	4.7	14
UK	4.0	15
EU	10.7	20

#### Our stakeholder engagement



#### Gone Green: meeting the targets on time is...

# "Challenging but achievable"

# Gone Green: what needs to happen?

LED bulb cost Green Deal Housing stock Heat pump **Improved** Zero carbon homes insulation energy efficiency performance Smart appliances **Energy Company** Boiler Strong Obligation Smart meter rollout replacement Government Increased productivity policy Integrated smart systems per unit of energy Effective supply Electric vehicles Development chains Consumer Contracts for Strong govt of networks costs reduced Difference transport policy engagement Battery technology Reduced PV costs **EMR** Adoption of new Nuclear life technologies Wind generation extensions implemented CCS deployed Sustainable biomas Capacity market

#### **Gone Green**

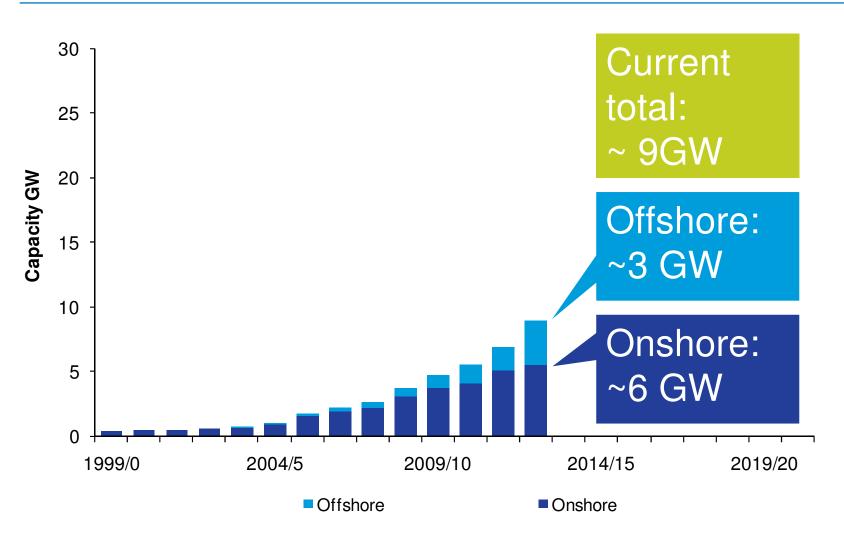
In Gone Green, by 2020, 34% of power generation is from renewable energy

The biggest contribution is from wind



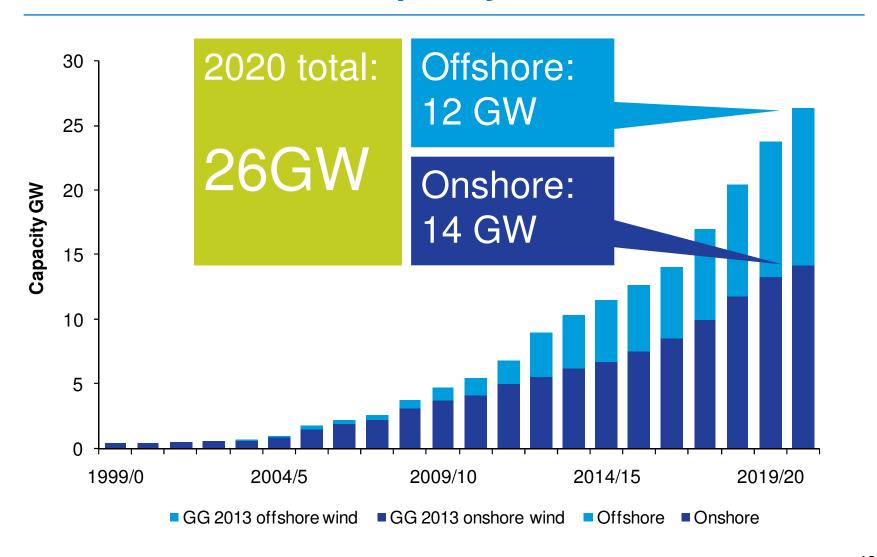


#### Wind capacity





#### Gone Green: wind capacity



#### Additional wind capacity requirement

2020: additional 9 GW offshore

2020: additional 8 GW onshore

Total new renewable generation contracted to connect to Transmission system by 2020:

49 GW

Total: 17 GW



# Scoping 38 GW

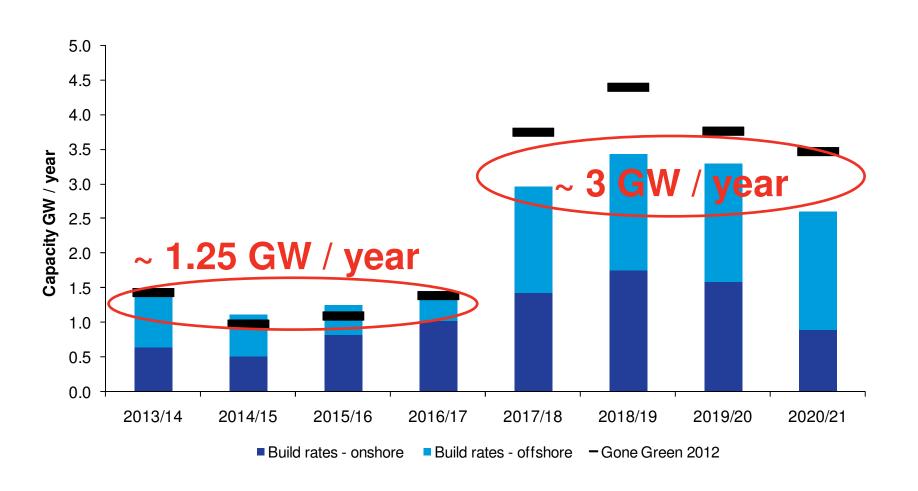
Awaiting consents

**7 GW** 

3 GW Consents approved

1 GW Under construction / commissioning

#### Gone Green 2013 build rates: GW per year



#### Recent build rates?

In 2011: Total capacity installed in UK: 1.3 GW

In 2012: Total capacity installed in UK: 1.9 GW

Offshore wind capacity installed: 0.9 GW

234 turbines connected offshore

From 2017:

Gone Green requires ~ 300 5MW turbines per year to be connected offshore until 2020

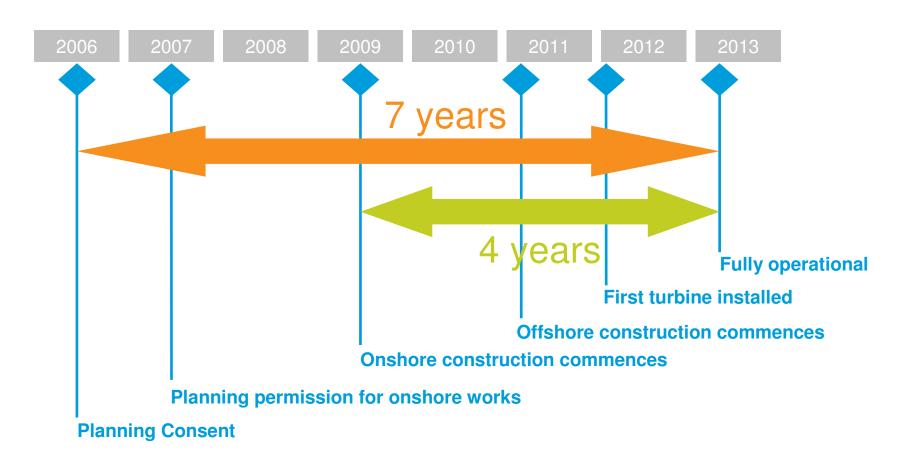
Now to 2020:

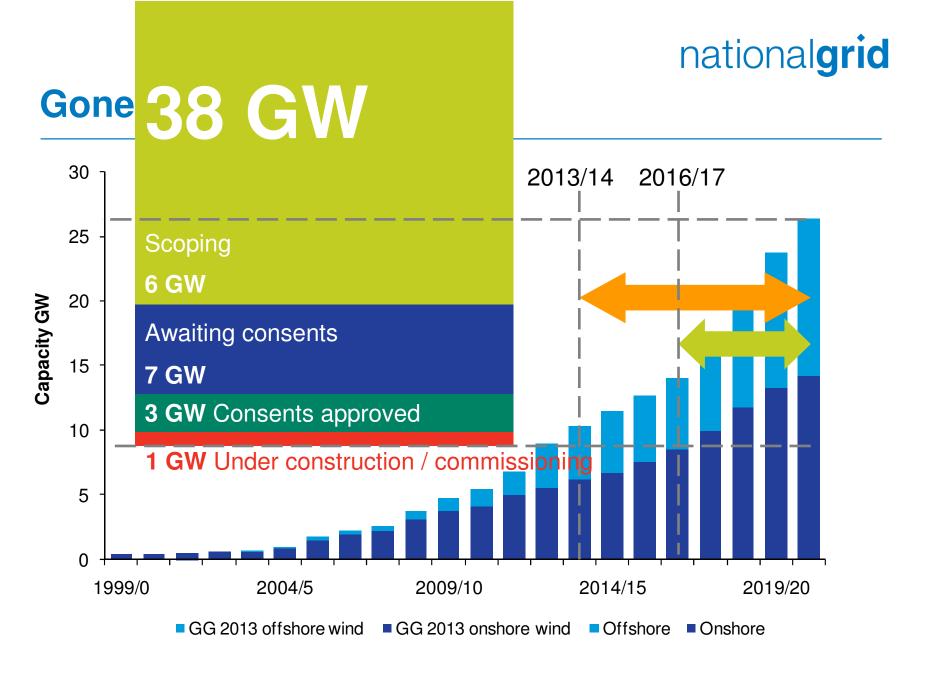
9GW offshore = 14 additional London Array Phase 1

#### **David Cameron**

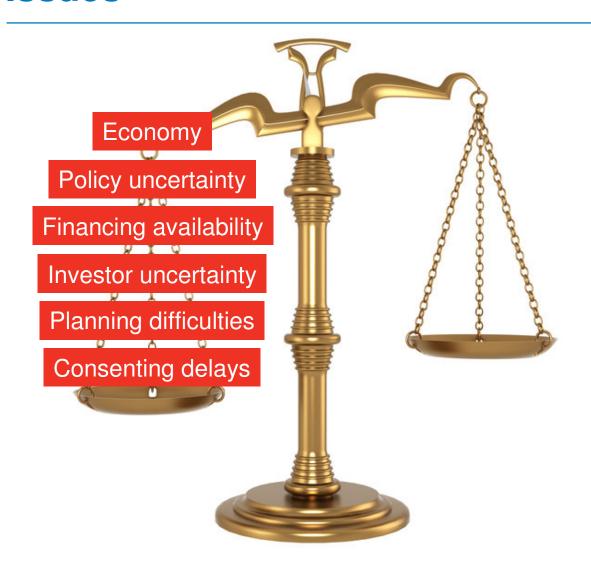


#### **London Array**

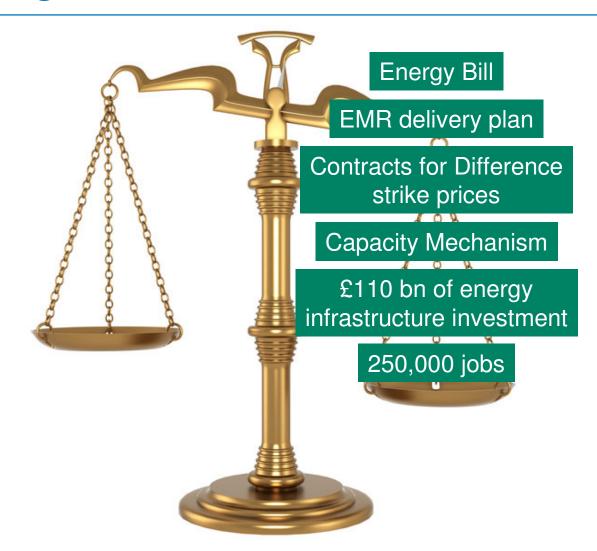




#### Issues



#### **Progress**



#### **Ed Davey**



#### Gone Green: meeting the targets on time is...

# "Challenging but achievable"

#### In summary

Progress within the next 1 to 2 years is critical

Continued development of UK energy policy is essential

Gone Green remains "challenging but achievable"



# The clock is ticking...



#### The race is on...

