Introduction
Building on sustainable high performance

**Performing in AMP6**

**Customer service**
Service mark with distinction from UKICS

**Drinking water quality**
Top WaSC for Mean Zonal Compliance
Most improved company in 2017

**Environment**
Assessed as 4* by the EA for three consecutive years

**Governance**
Attained world class status in Dow Jones Sustainability Index for eleven consecutive years

**Ready to go for AMP7**

All green and amber WINEP3 schemes cost benefit tested

DWI support for schemes included in plan

Ready to move forward on direct procurement

Detailed bottom-up plan by price control, delivering targets with efficient totex
Efficiency in wholesale, efficiency in retail

We have stepped up to the efficiency challenge ahead of AMP7

<table>
<thead>
<tr>
<th>Programme</th>
<th>Innovation</th>
<th>Market Testing</th>
<th>Cost Challenge</th>
<th>AMP7 Submission</th>
</tr>
</thead>
<tbody>
<tr>
<td>£m</td>
<td>6,469</td>
<td>359</td>
<td>231</td>
<td>5,434</td>
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</tbody>
</table>

Innovation, market testing and cost challenge leading to **£1bn reduction in wholesale totex**

Overall retail costs down by one third; bad debt down by half by end of AMP7 vs start of AMP6

<table>
<thead>
<tr>
<th>Year</th>
<th>2014/15 Retail Totex</th>
<th>Input Price Pressure</th>
<th>Bad Debt Reductions</th>
<th>Service Cost Reductions</th>
<th>2024/25 Retail Totex</th>
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</thead>
<tbody>
<tr>
<td>£m</td>
<td>145.8</td>
<td>33.1</td>
<td>53.8</td>
<td>27.2</td>
<td>97.9</td>
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**Introduction**
ODI package balancing risk and reward

Appropriate balance of risk and reward ±2% RoRE (±c£410m)

Potential impact of ODIs

- Water quality
- Water reliability
- Environment
- Supporting customers
- Sewer flooding
- Gap / vacant sites

- Underperformance
- Outperformance

- Encourage service improvement and protect customers if we fall short
- Derived from customer research covering all aspects of service and environmental performance that are important to customers
- Adopted common performance commitments proposed by Ofwat and a comprehensive set of bespoke commitments
Agenda

**Introduction & Summary**

*Auditorium*

- **Steve Mogford**  
  Chief Executive Officer

  - 12:45 – 13:00  Introduction
  - 13:00 – 13:50  Breakout 1
  - 13:50 – 14:10  Break
  - 14:10 – 15:00  Breakout 2
  - 15:00 – 15:30  Customer Service & Affordability
  - 15:30 – 16:00  Summary

**Systems Thinking & Innovation**

*Auditorium*

- **Simon Chadwick**  
  Central Operations Director

- **Kieran Brocklebank**  
  Head of Innovation

- **Keith Haslett**  
  Director of Wastewater Network Plus

- **Martin Padley**  
  Director of Water and Scientific Services

**Customer Service & Affordability**

*Auditorium*

- **Louise Beardmore**  
  Customer Service and People Director
Systems Thinking & Innovation
Innovation at United Utilities

**Systems Thinking**
- Recap on framework
- Case study

**Innovation**
- Innovation approach
- Breakthrough innovation case study
- Digital acceleration of Systems Thinking
Systems Thinking

Innovation in our operational strategy
An introduction to Systems Thinking capability

Traditional analysis focuses on the individual pieces of what is being studied

Systems Thinking focuses on how the things being studied interact with the other constituents of the system.

Instead of isolating smaller and smaller parts of the systems being studied, Systems Thinking works by expanding its view to consider larger and larger numbers of interactions as an issue is being studied.
Systems Thinking Capability Model

Maturity level characteristics

1. Traditional approach
   Silo thinking
   - Customer identified disruption
   - Operational / discrete view of asset status
   - Disconnected performance monitoring
   - Event led human driven analytics

2. Early adoption
   Systems Thinking
   - Tracked customer experience
   - Centralised view of discrete production line status
   - Manual data analysis with human dependant decisions supported by data and technology
   - Event led human driven analytics

3. Designated delivery
   Systems Thinking
   - Joined up customer experience
   - Central production line view at a catchment scale
   - Human response to systemised data
   - Technology enabled, standardised analytics and insight

4. Regionally connected
   Systems Thinking
   - Pre-emptive customer relationship
   - Centralised view of full system performance
   - System response with human validation of data led insight
   - Technology driven analytics and insight

5. Machine managed
   Systems Thinking
   - Collaborative customer relationship
   - Centralised, predictive control at a system scale
   - Dynamic plans based on dynamic system data
   - Machine-led system analytics and system management

Artificially Intelligent
Systems Thinking
   - Connected customer relationship
   - Machine led system control (A.I.)
   - Regionally and nationally connected data and insight
   - Machine learned system analytics with connected insight
### Operational Monitoring Example

<table>
<thead>
<tr>
<th>Maturity level 1</th>
<th>Maturity level 2</th>
<th>Maturity level 3</th>
<th>Maturity level 4</th>
<th>Maturity level 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Event led human driven analytics</td>
<td>Centralised view of discrete production line status</td>
<td>Technology enabled, standardised analytics and insight</td>
<td>Machine led system analytics and system management</td>
<td>Machine led system control (A.I.)</td>
</tr>
</tbody>
</table>

- **Operational Monitoring of Water Quality (in full operation)**
  - 115 resources
  - £3.4m opex p.a.

- **Remote Operational Monitoring of Water Quality Performance**
  - **July 2018:**
    - 25 resources
    - £0.8m opex p.a.
  - **2019:**
    - 6 resources
    - £0.2m opex p.a.

- **Machine led remote operational monitoring of water quality performance**
  - **2020**
  - Predictive machine led remote operational monitoring of water quality performance
Accelerating delivery of Systems Thinking

Within our AMP7 plan we have proposed an innovative ODI to incentivise acceleration of Systems Thinking.

- **LEVEL 1**: Current baseline
  - Regression below a level 1 would incur a penalty - £37m

- **LEVEL 2**: Forecast improvement in base plan
  - £0

- **LEVEL 3**: Accelerated improvement opportunity
  - £0

- **LEVEL 4**: Accelerated improvement opportunity
  - +£37m

- **LEVEL 5**: Re-assessed at PR24
  - -

Penalty: Recovery at PR24

Reward: ODI incentive

Accelerating delivery of Systems Thinking: Within our AMP7 plan we have proposed an innovative ODI to incentivise acceleration of Systems Thinking.

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  - -

Penalty: Recovery at PR24

Reward: ODI incentive
Our Innovation Strategy

Kieran Brocklebank
Head of Innovation
Innovation overview

Cheaper, faster, better, safer

Our Strategy

Accessing the innovation ecosystem
- Triage
- Idea scouts
- Innovation Lab

Prototyping breakthrough innovation
- Dedicated team
- Trial zones
- Adapting

Working with academia
- Stimulating research
- Applying research
- Leveraging funding

Inspiring innovation
- New entrants
- Employees
- Value
- Innovation Centre

Harnessing and exploiting good ideas – big and small – to improve performance and reduce totex
First mover advantage

Maturing our Systems Thinking capability

Breakthrough Treatment Technology
There are two traditional approaches to treat water:

- MERCURY UV: remove biological contaminants and
- CHEMICAL DOSING: remove compounds that produce taste & smell issues (e.g. from algae)

These approaches are high totex technologies with little innovation due to a stable supplier market.

Research has been underway since 2014 on an alternative treatment technology.
## Typhon UV LED Collaboration

<table>
<thead>
<tr>
<th>Scale</th>
<th>Treatment</th>
<th>Duration</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lab scale</td>
<td>5 litres/day</td>
<td>24 months</td>
<td>Collaborative working with the supplier to develop the technology from pilot to full scale operation</td>
</tr>
<tr>
<td>Pilot plant scale</td>
<td>6,000,000 litres/day</td>
<td>12 months</td>
<td>Proven for biological and taste and smell at large scale – a real scientific breakthrough and game-changer:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• This new technology uses up to 90% less energy, is more flexible and easier to operate</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Technology reduces reliance on chemical use</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Provides solution for increased resilience in water treatment</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Offers precision control for efficiency optimisation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• The physical footprint is up to 75% less than a traditional solution</td>
</tr>
<tr>
<td>Full scale</td>
<td>30,000,000 litres/day</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Collaborative working** with the supplier to develop the technology from pilot to full scale operation
The Future of Typhon UV LED

Benefits from the world’s first installation of UV LED
A £280k whole life cost saving vs traditional UV solutions
• 22% decrease vs traditional treatment
• Opex saving, from reduced energy consumption and maintenance

The future efficiency and performance possibilities are impressive, in three scenarios:
• Water biological – proven
• Water taste – technically capable, developing whole life cost comparison
• Wastewater biological – under development

Scale of opportunity:
£8-10m saving
Wastewater: trials – for late AMP7 / AMP8 implementation

During AMP6 we’ve delivered 47 other early adoption technology trials; these have already delivered >£7m of early benefit to customers and are forecast to deliver a further £70m of expected benefits by 2025 as part of our overall innovation plan.
Innovation Lab

Encouraging new entrants
Accelerating technology development
A reminder on the Innovation Lab

The first ever Innovation Lab in the water sector, designed to access the innovation ecosystem

1500 suppliers
80 applied
55 new to UU
22 presented
7 to join the lab
4 in development for long term contracts

Our 5 problem areas
- Connected water and customer
- Proactive customer actions
- Predictive asset maintenance
- Safe and healthy worker
- Future of water

Our 7 lab partners
- UV LED treatment
- Pipes with built in sensors
- Water efficient showerhead
- Motor condition monitoring
- Al for water management
- Sewer condition
- Drones for safety
Hear from one of our suppliers
Lab Results

Maturing our Systems Thinking capability

A.I. for Water Network Management
Innovation Lab Results
A.I. for water network management

One of our Innovation Lab partners developed a unique A.I. tool to manage utility infrastructure.

They joined the lab after struggling to get good engagement with other large water companies.

The approach is radically different from the traditional methods seen at other water companies.

Traditional Industry Modelling Approaches

Deterministic model with no knowledge base

Numerical model limited to single physical application

Requires significant human effort to calibrate and maintain

Slow simulation takes hours to evaluate and collate results

Self-learning: auto-corrects predictions

Scalable to multiple applications

Minimal human effort

Rapidly responsive to system changes
How HARVI generates recommendations

**Step 1**
Build machine learning models
- Extract historical hydraulic and chemical data
- Learn temporal and spatial correlations between data

**Step 2**
Feed real-time data to models
- OSI PI
- Twitter APIs
- CMMS
- Netbase
- Weather APIs
- STS
- LIMS

**Step 3**
Optimise system based on model simulations
Area 1: Oldham

- Treatment works
- Pumps
- Distribution network
- End users

Schedule pumps
Proactively manage hydraulics and alarms
Predict demand

Reservoir

HARVI
### Oldham Return On Investment

#### The business case is good

<table>
<thead>
<tr>
<th>Area 1: Oldham Energy Costs</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline annual cost of operations (£)</td>
<td>230,367</td>
</tr>
<tr>
<td>Optimised annual cost of operations (£)</td>
<td>180,148</td>
</tr>
<tr>
<td>Savings (%)</td>
<td>22%</td>
</tr>
<tr>
<td>Cost savings per annum (£)</td>
<td>50,219</td>
</tr>
<tr>
<td>Cost savings AMP7 (£)</td>
<td>251,095</td>
</tr>
<tr>
<td>Payback Period</td>
<td>5 months</td>
</tr>
</tbody>
</table>

#### The benefits are wider than just direct energy savings

- Pump optimisation energy saving
- Frees up time
- Reduced asset monitoring alarms
- Mobile visibility of system
- Equivalent to 300 homes carbon saving

#### The scalability and flexibility provide further opportunities

- **Water network**
  - Regional rollout (33 areas)
  - Up to £10m savings across AMP7
- **Water network**
  - HARVI implementing recommendations remotely
- **Wastewater**
  - Real-time control platform for wastewater treatment work optimisation
- **West Cumbria**
  - Real-time control platform for the new West Cumbria water supply and distribution system

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Capital Markets Event  •  Systems Thinking and Innovation
Summary

• The previous case studies are examples of those that contribute to the £445m of innovation savings

• The holistic approach of Systems Thinking continues to unlock further innovation opportunities

• The disruption from digital technologies is providing alternative solutions, these are enabling us to accelerate the delivery of benefits

• Accenture’s recent benchmarking report supports our comparative position on Systems Thinking maturity, and reinforces the potential scale of benefits that companies can deliver through such a strategy

We are therefore confident in delivering the efficiencies set out in our AMP7 plan

‘Accenture considers UUW to be leading the water sector in executing a system thinking approach in the way they operate their business....
this strategy necessitates a level of strategic maturity, long term focus and investment in innovation that is amongst the most sophisticated in the sector’

Accenture Benchmarking Report: Assurance of the systems thinking transformation journey. August 2018

‘We remain convinced that this strategic focus will result in sector leading performance both in terms of cost to serve, customer experience and environmental impact’

Accenture Benchmarking Report: Assurance of the systems thinking transformation. August 2018
Any questions?
Water Service Performance

Martin Padley
Director of Water and Scientific Services
AMP6 - enhancing our resilience

Water and Scientific Services vision
How we are transforming...
Our transformation programme

**People**
- Mandatory Quality Training
- Industry leading technical training & development
- Industry leading Licence to Operate

**Processes**
- Systems Thinking: Visualisation and control
- Engineer led HazRev and NetRev
- Central Risk Management Team

**3R approach:**
- Prioritising customer restoration
- Largest UK water industry fleet of Alternative Supplies Vehicles (ASVs)
- Major UV Treatment programme
  - Industry First: Installation of Shut Down/Start Up at ALL WTWs
  - Mains cleaning
Evolving our risk based investment approach

HazRev is a very successful AMP6 innovative engineering led approach, reducing risk and optimising totex solutions at Water Treatment Works.

During AMP7 we will extend the HazRev approach to Water Networks (NetRev) – delivering multiple customer, quality, interruptions, leakage and pressure benefits.
Interruptions – AMP7 strategy

Continuation of successful ways of working

- Use of enhanced ASV fleet – the largest in the industry
- 3Rs has successfully reduced the impact of water supply interruptions to customers

Targeted investment

- NetRev – understanding and effectively managing network risk
- Replacement of high consequence asbestos cement and PVC Mains

New ways of working

- Formula One ASVs – deploying alternative supplies like a F1 pit team
- Increase strategic valve coverage to enable shut offs size
Interruptions – real life case study
UU’s “3R” operational innovation in practice

Systems Thinking
Central real time performance data

Spatial Analysis
Central spatial impact assessment (2,549 properties affected), dispatch of field staff
Interruptions – real life case study
UU’s “3R” operational innovation in practice

<table>
<thead>
<tr>
<th>Respond</th>
<th>Restore</th>
<th>Repair</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field mobilisation, risk assessments completed</td>
<td>ASV injection points identified, ASVs dispatched and water restored to 2,525 properties within 3 hours</td>
<td>Repair completed in parallel with restoration</td>
</tr>
</tbody>
</table>

**Benefits**

£3.3m

Net ODI penalty avoidance and improved customer service

<table>
<thead>
<tr>
<th>Previous Approach</th>
<th>3R’s Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration</td>
<td>12:09</td>
</tr>
<tr>
<td>Properties Affected &gt;3 hours</td>
<td>2,549</td>
</tr>
<tr>
<td>CML Impact</td>
<td>00:00:34</td>
</tr>
<tr>
<td>Penalty</td>
<td>£3,349k</td>
</tr>
</tbody>
</table>
Leakage – AMP7 strategy

**Continuation of successful ways of working**

- Additional and insourced leakage detection
- Extension of sniffer dogs in rural situations

**Targeted investment**

- Installation of acoustic loggers within a significant proportion of the water network
- Satellite detection
- Innovative customer side leakage detection

**New ways of working**

- Changes to contract working and incentives
- Transformation of detection linked

**Traditional approach**
Well understood but labour intensive and low productivity

**Deployed loggers**
Fast and targeted, real time dispatch and response, requires transformation in approach

**Satellite detection**
Fast and targeted, real time dispatch and response, requires transformation in approach
Leakage – our plan
Fast track deployment of new techniques

Satellite technology
3x more efficient

Pressure management
- preventative

Acoustic loggers
4-5x more efficient

Customer side leaks and gas injection
Taste and smell – AMP7 strategy

**Continuation of successful ways of working**
- Water Transformation Programme
- Process consistency driver – HazRev
- Integration between laboratory, operational science and water teams

**Targeted investment**
- Enhanced chlorine control dosing and monitoring, using chlorine decay assessments
- UV installation

**New ways of working**
- Optimise carbon and chlorine control
- Changes to licence and training assessments
## Delivering an integrated plan

<table>
<thead>
<tr>
<th>Water Resources</th>
<th>ODI Drinking Water is Safe and Clean</th>
<th>ODIs: Reliable Supply</th>
<th>ODI Natural Environment</th>
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</thead>
<tbody>
<tr>
<td>Impounding Reservoirs</td>
<td></td>
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<tr>
<td>Raw Water Assets</td>
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<tr>
<td>Environmental Q</td>
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<tr>
<td>Catchment</td>
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### Water Network +

<table>
<thead>
<tr>
<th>Leakage</th>
<th>Targeted Water Mains Replacement</th>
<th>Supply Interruptions programme</th>
<th>Mains cleaning</th>
<th>Raw / non-potable water mains</th>
<th>Lead replacement</th>
<th>Aqueduct and HA T02 programme</th>
<th>Service reservoir programme</th>
<th>WTW maintenance and water quality programme</th>
<th>Resilience Programme</th>
<th>Instrumentation replacement</th>
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<table>
<thead>
<tr>
<th>CRI</th>
<th>T&amp;O</th>
<th>Lead</th>
<th>Looking After Water</th>
<th>Keeping Reserves Resilient</th>
<th>Interruptions to Supply</th>
<th>Unplanned Outage</th>
<th>Drought Resilience</th>
<th>Leakage</th>
<th>Mains</th>
<th>Repairs</th>
<th>PCC</th>
<th>Low Pressure</th>
<th>Water Service Resilience</th>
<th>Pollution Incidents</th>
<th>Treatment Works</th>
<th>Compliance</th>
<th>Abstraction Incentive Mechanism</th>
<th>Improving the Water Environment</th>
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**Capital Markets Event + Water Service Performance**

40
Any questions?
Wastewater Service Performance

Keith Haslett
Director of Wastewater Network Plus
Environment Compliance – AMP6 approach to leaders in the sector

Examples of some of our best practice solutions that helped us on our journey to 4* leading company status

- Achieved 4 star rating for the past 3 years
- Large investment of £1bn on our wastewater treatment facilities
- Upskilling of our people to adapt to new technology
- Staff engagement to focus on improvement areas
- Network operating model that is the envy of the industry
- 2017 was our best ever year of environmental performance

AMP6 ODI reward to date of £10m
Our journey to centralised Systems Thinking

2015
Remote site based tours

2018
Amalgamated area control centre hubs

AMP7
Smart, technology driven centralised system control

£48 million investment in AMP6
AMP7 strategy to environmental compliance

**Treatment work performance**
- Process automation
- Signature monitoring
- Risk management

**Spill performance**
- Event duration monitoring project
- Real time monitoring
- Dynamic network management

**Pumping station performance**
- Signature monitoring
- Understanding our assets and how they perform end to end
- Business rules using the monitoring

*Pushing the frontier in environmental performance*
Wastewater Network Operating Model

Evolving the model to meet AMP7 commitments

Our vision:
Proper Network Management

Pyramid of Intelligence:
more proactive, less reactive

Private Sewers
Transfer: new operating model

Wastewater Network Management (WwNM)
transformation project

WwNM Ways of Working implementation

AMP7 and beyond

2008
2011
2018
2025

Employees
Employee engagement: 31% improvement

Customer
Customer satisfaction and SIM: 30% improvement
Written complaints: 62% reduction
Stage 2 (including CCW): 92% reduction

Service
Pollution Category 1&2: 93% reduction
Pollution Category 3: 40% reduction
Flooding Other Causes (FOC) internal: 45% reduction

AMP6 reward to date of £21m for network performance
Network – AMP7 Strategy

- Integrated Drainage Area Strategy (IDAS)
- Flood resilience
- Enhanced targeting
- Operating model
- Sustainable Urban Drainage System (SuDS)
- Customer engagement

Potential impact of ODIs

- Pollution incidents
- Sewer blockages
- Internal flooding incidents
- Internal flood risk resilience
- External flood risk resilience
- Improving river water quality
- Other

<table>
<thead>
<tr>
<th>Category</th>
<th>Underperformance</th>
<th>Outperformance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pollution incidents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sewer blockages</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal flooding incidents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal flood risk resilience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>External flood risk resilience</td>
<td></td>
<td></td>
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<tr>
<td>Other</td>
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Capital Markets Event  Wastewater Service Performance
Integrated Drainage Area Studies

- **18 Integrated Drainage Area Studies completed**
- **41 Catchments** identified to complete IDAS studies
- Coverage will be **77% of our population**
- **Risk based approach** using network performance data
- Understanding 3rd parties to feed **situational awareness** and **Systems Thinking** approaches
- Reduces the risk of pollution events and properties flooding

AMP7 TOTEX investment of £860m
Our approach to managing our Wastewater network
Any questions?
Customer Service Strategy

Our clear household retail strategy continues into AMP7, delivering new services and capabilities now and in the future...

...and at the same time we are responding to the unique demographics of our region.

Great Service Costs Less

Reducing costs

Improving Service
Improving Service

Step change in performance
Leading Service

New capabilities are core to our improved levels of customer service

Data matching and visualisation
Geographic data on network and property locations matched to customer contact records allow for swift identification and communication to impacted customers.

Reduction in Dissatisfaction
• 34% reduction in stage 1
• 64% reduction in stage 2
• 2nd WASC for unwanted
• 4th for total complaints
• Leading listed

New processes and activities delivering improved service

- Moving Home
- High Measured Bill
- Customer Segmentation

New technology
New channels and services
Better complaints handling
Proactive customer contacts
‘Tell Me’ - linking front line direct to decision makers
Driving Priority Services offering for our customers and the utility sector

Learning from all our insight and customer experiences, we identified the need to review and enhance the services offered to customers in vulnerable situations and to engage multi-agencies and third parties in the identification of these customers.

Independent Affordability and Vulnerability Panel as part of the Customer Challenge Group.

Registrations remain strong and embedded within core customer touchpoints

There are now more than 50,000 Priority Services customers registered

Launched industry pilot with Electricity North West to share priority services data

Leading role in trialling a full data share protocol with Electricity North West

One of the most effective ways of identifying customers eligible for Priority Services is through sharing information with other organisations that maintain similar registers.

Results are positive, with clear lessons for wider roll-out of data sharing arrangements across the water and energy sectors.

Our Priority services proposition has been shaped by insight...

- Physical
- Mental health
- Life events
- Language
- Financial

A complete and dedicated service when our customers need it most

Working with partners, stakeholders and charities to drive registration. Training for employees to spot and support those customers who are ‘suffering silently’

AMP 7 ODI +/- £1m
2017/18 saw us deliver big customer service improvements against the WASCs. Encouragingly we are significantly ahead of the other two listed companies.

Now expecting a reward for AMP6 SIM performance.
Leading on service beyond the water sector

**SIM**

Qualitative + Quantitative performance *trending significantly above* industry average

United Utilities is now a leader amongst all companies

Best listed performer

**The most improved Utility company**

Step change in ranking and performance

+ 5.1 point increase in 12 months

We have made significant progress in the latest UK Customer Satisfaction Index, 2nd water company overall, 1st out of the 10 WASCs.

**Service Mark**

Service Mark is a national standard recognising an organisation’s achievement in customer service, and its commitment to upholding those standards.

There are only 14 companies in the country who have achieved a ‘Distinction’

Only listed water company to achieve ‘Distinction’

*Customer Service*
Reducing Costs

Significant reduction in operational costs and bad debt
Achieving Cost to Serve targets

Reducing Cost to Serve continues to be a significant area of focus. In the last four years we have effectively reduced Cost to Serve per customer from over £50/Hh to £38/Hh.

Driving down Cost to Serve

We have put in place a series of initiatives to reduce costs without negatively impacting on customer service:

- Operational costs
- Bad debt reduction
Driving down operational costs

As customers increasingly choose automated channels we are focused on ensuring these channels continue to deliver a great customer experience.

Our digital channels continue to grow in scale and sophistication. 43% of customer interactions now automated.

Digital shift enables operational cost reductions

We have put in place a series of initiatives to reduce costs without negative impact on customer service:

• Delivering operational efficiencies
• Growing digital penetration
• Customers choosing to use self service channels
Tackling customer bad debt

Driving down bad debt

1. **Improving data** – Better data leads to more accurate billing

2. **Credit sharing** – Combining data held by Credit Reference Agencies, UU and other partners

3. **Enforcement** – Where appropriate utilising a full suite of debt collection enforcement options

4. **Affordability schemes** – Widest range of affordability support options in the industry

5. **Payment plan optimisation** – Getting customers on the right payment plan for them

"We have concluded United Utilities has a mature bad debt function with deep knowledge of the water industry and its associated challenges... Key debt management activities are in place and well developed. We have therefore concluded that UU’s approach is substantially in line with Ofwat’s leading standards.”

Deloitte Debt Management capability review 2018
Our proposals to address the affordability challenge

The North West faces some specific affordability challenges. Encouraged to see factors of deprivation built into Ofwat’s draft econometric models.

We have designed our plans in full recognition of the environment in which we operate.

Households in the North West sit in the top decile of arrears risk according to external data from Equifax

<table>
<thead>
<tr>
<th>Region</th>
<th>1% most deprived</th>
<th>5% most deprived</th>
<th>10% most deprived</th>
<th>20% most deprived</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Utilities</td>
<td>41%</td>
<td>32%</td>
<td>27%</td>
<td>21%</td>
</tr>
<tr>
<td>Anglian</td>
<td>8%</td>
<td>7%</td>
<td>8%</td>
<td>9%</td>
</tr>
<tr>
<td>Northumbrian</td>
<td>13%</td>
<td>11%</td>
<td>11%</td>
<td>11%</td>
</tr>
<tr>
<td>Severn Trent</td>
<td>16%</td>
<td>22%</td>
<td>24%</td>
<td>22%</td>
</tr>
<tr>
<td>Southern</td>
<td>4%</td>
<td>4%</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>South West</td>
<td>1%</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>Thames</td>
<td>0%</td>
<td>3%</td>
<td>9%</td>
<td>18%</td>
</tr>
<tr>
<td>Wessex</td>
<td>3%</td>
<td>2%</td>
<td>2%</td>
<td>3%</td>
</tr>
<tr>
<td>Yorkshire</td>
<td>20%</td>
<td>20%</td>
<td>17%</td>
<td>13%</td>
</tr>
</tbody>
</table>

AMP 7 ODI +/- £24m
Our proposals go further on affordability support.

We will continue to increase the reach of our financial assistance schemes, with an enhanced focus on alleviating water poverty.

**Support tariffs “back on track”**
- £46m for 2020-25
  - Discounted tariffs for low income households

**UU Trust “restart grant”**
- £18m for 2020-25
  - Provides grants to customers struggling to pay the water bill

**Social tariffs “help to play”**
- £7m for 2020-25
  - Caps annual charges for pensioners in receipt of pension credit

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**Number of customers on Financial Assistance Schemes compared to FD assumption**

- **Actual/forecast**
- **PR14 targets**
Our industry leading approach to affordability support

We have fundamentally changed our approach to help those on low to middle incomes.

Redesigned old schemes, and introducing new ones to help customers that need it most.

### Increased reach of assistance schemes

- **34,000** benefiting from accelerated arrears clearance schemes
- **32,000** more customers helped this year

Continue award winning **Town Action Plans**, engaging hard to reach customers

### Specialist advice on the doorstep

“Weight off our shoulders”
“Guy was brilliant, really helpful”
“Lovely, absolutely brilliant, so nice, helpful”

### Sustainable payment plans

### Town action focused

**Winner of**
**Responsible Approach to Consumers Award**
CICM British Credit Awards 2018

**Winner of**
**Vulnerable customers team of the year**
The Credit Awards 2018

**Shortlisted for**
**Best vulnerable customer support team**
U&T Awards 2017

**34,000** benefiting from accelerated arrears clearance schemes

**32,000** more customers helped this year

Continue award winning **Town Action Plans**, engaging hard to reach customers
New propositions supporting low and middle income households

Lowest Bill Guarantee
Helping customers overcome concerns about metering

- Developed a busting the myths of metering campaign.
- New Lowest Bill Guarantee/price promise proposition.
- Signed up independent consumer advocate – Gloria Hunniford.
- Targeted promotion to pensioners/empty nesters where we know they will save if they switch and may be influenced by the endorsement.

Take a Break
New payment break scheme to help low income households manage day to day household budgets

- We currently offer Payment Breaks as a key support option for helping customers to manage short-term financial pressures, such as the transition onto Universal Credit.
- Similar to schemes in the financial services sector, a payment break offers customers the option of reducing or delaying bill payments for a short period to help them manage through an unexpected financial shock.
Promoting efficient use of water

We plan to utilise the latest in live consumption reporting and insight from behavioural economics to help us achieve Per Capita Consumption targets.

Per Capita Consumption forecasts

<table>
<thead>
<tr>
<th>Year</th>
<th>Per Capita Consumption (l/head/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>19/20</td>
<td>136</td>
</tr>
<tr>
<td>24/25</td>
<td>134</td>
</tr>
</tbody>
</table>

Home Usage Reports

Mobilising to go live with our new home usage reports this year.

- Digitally focused
- Behavioural science led
- Piloting different interventions to see which drives best engagement and reduction in consumption

Initial pilot targeting 140,000 metered customers

AMP 7 ODI for Per Capita Consumption +/- £5m
AMP 7 ODI for Helping customers look after water in their home +/- £4m
Well placed for the next AMP

Improving service and reducing costs for customers today and our future customers

**Service**

- **Ofwat SIM Survey Annual Report**
  - Industry Leading

- **United Utilities**
  - Electricity North West

- **UU and ENW first utility data share for Priority Services customers**

- **Leading Priority Services proposition**

- **ServiceMark**
  - Accredited from Aug 18 to Aug 21
  - The Institute of Customer Service

- **Institute of Customer Service: UKCSI results – July 2018**
  - Most improved Utility
  - Achieved ICS ServiceMark with Distinction

**Cost**

- Since 2014/15 we have reduced regulatory bad debt by £25m/yr

- The highest DD penetration across the industry at 70% despite our affordability challenges

- Using segmentation and external data to drive efficient service and cash collection

- >750,000 customers registered for My Account portal

- Reduced Cost to Serve per a customer from over £50 to £38

**Innovation**

- Highest digital presence with 43% of customer contacts automated

- New payment break scheme helping customers to avoid falling into arrears

- Co-creation with our 7,300 Water Talk panel helping design our services and propositions

- First fully integrated app in sector

- New Mobile App capabilities coming. Recently launched ‘Report a leak’ capabilities

- More than 115,000 customers being helped through one of our support schemes

**Capital Markets Event • Customer Service**
External recognition for our great performance

We are receiving external recognition for best practice in Customer Services, Collections and Debt Management and Complaint Handling.

WOW!
Best rising star - Victoria Chester from our contact centre in Whitehaven
100 Club - 30 of our Field staff won the 100 award as they have received over 100 personal nominations each direct from customers
Customer experience delivery of the year - best large business

WOW! Awards WINNERS November 2017

Cash Collection
Water Team of the Year
U&T Awards WINNER September 2018

Vulnerable Customer Team of the Year
Credit Awards HIGHLY COMMENDED May 2018
Outstanding Conduct in Collections
Credit Awards Finalist May 2018
Responsibility Approach to Consumers
2018 CICM British Credit Awards WINNER
February 2018

Social
#1 in the January 2018 water brand influence report

Complaint Handling
Best Utilities
Pro-active Complaint Handling – Utilities Team – Utilities, Trains & Housing
UK Complaint Handling Awards WINNERS
February 2018

Water Team of the Year
U&T Awards WINNER
October 2017
Best Vulnerable Customer Support Team
U&T Awards Finalist
October 2017

Excellence in Treating Customer Vulnerability – Collections & Debt Management
Credit Awards WINNER May 2017
What Customers Think of The Plan
Any questions?
Cautionary statement

This presentation contains certain forward-looking statements with respect to the operations, performance and financial condition of the group. By their nature, these statements involve uncertainty since future events and circumstances can cause results and developments to differ materially from those anticipated. The forward-looking statements reflect knowledge and information available at the date of preparation of this presentation and the company undertakes no obligation to update these forward-looking statements. Nothing in this presentation should be construed as a profit forecast.

Certain regulatory performance data contained in this presentation is subject to regulatory audit.

This announcement contains inside information, disclosed in accordance with the Market Abuse Regulation which came into effect on 3 July 2016 and for UK Regulatory purposes the person responsible for making the announcement is Simon Gardiner, Company Secretary.