DCP0047 Attachment - Shortening Profile Production Timescales: Twice Yearly Profile Production Option

Background

The current Profiling process takes 2 years, from the start of the collection of half hourly demand data (from the samples) to the use of the Profiles (derived from that data) in Settlement.

The processes are as follows:

Year 1

- Demand Data Collection

Year 2

- Data Validation;
- Data Analysis;
- Profiling Expert Group (PEG) review of average demand data;
- Profile Production;
- Profile Assessment and PEG review of Regression data and profiles;
- SVG Approval of the profiles for use in settlement;
- MDD Change Request Raised; and
- SVG Approval MDD.

Year 3

- Use of the profiles in Settlement.

This paper defines how an approach can be taken to reduce the production timescale to only 1 year. This approach is based on a twice yearly approach and thereby making the profiles more up to date with regards to changes in customer behaviour.

The Profiling Seasons

There are five Profiling Seasons these are used in both calculation and application of the Profiling Regression data. The current Profiling season are defined as follows:

- Winter (Season Id 1): defined as the period from the day of clock change from British Summer Time (BST) to Greenwich Mean Time (GMT) in October, up to and including the day preceding the clock change from GMT to BST in March;

- Spring (Season Id 2): defined as the period from the day of clock change from GMT to BST in March, up to and including the Friday preceding the start of the Summer period;

- Summer (Season Id 3): defined as the ten-week period, preceding High Summer, starting on the sixteenth Saturday before the August Bank Holiday;

- High Summer (Season Id 4): defined as the period of six weeks and two days from the sixth Saturday before August Bank Holiday up to and including the Sunday following the August Bank Holiday; and

- Autumn (Season Id 5): defined as the period from the Monday following the August Bank Holiday, up to and including the day preceding the clock change from BST to GMT in October.

The twice yearly profile process

It is proposed that a twice yearly process be implemented as follows:

- First run: Uses Autumn and Winter sample data

- Second run: Uses Spring, Summer and High Summer sample data

The First Profile Production Process

1. Production, Review Approval Period:
At the start of Spring and extending through the Summer and High Summer.

2. Data to be processed:
The data for the preceding seasons: Autumn and Winter.

3. Profile Data to be used in Settlement:
The season following: Autumn and Winter.

The Second Profile Production Process

1. Production Review and Approval Period:
At the start of Autumn and extending through Winter.

2. Data to be processed:
The data for the preceding seasons: Spring, Summer and High Summer.

3. Data to be used in Settlement:
The season following: Spring, Summer and High Summer .

Detailed Production Timescales

Using the existing process steps then a detailed timescales would look as follows.

The First Profile Production Process

Process	Period	Comment
Demand Data Collection	Completed by Working Day (WD) +15 from the start date in Spring (Season Id 2) [approx. 20th April depending on Clock Change date]	This allows for all data to be either collected by the PrA or provided by Suppliers.
Data Validation	Completed by WD+15 from data collection end date. [approx. mid May]	Validation can start from Spring (Season Id 2) but will only be complete by this date.
Data Analysis	Completed by WD+15 from data validation end data and sent to PEG [approx, start June]	Includes calculation and internal assessment of data. Standing data can be updated prior to the analysis.
Profiling Expert Group (PEG) review of average demand data	Completed by WD+10 of receipt with a meeting in mid June. [approx, mid June]	
Profile Production	Concurrent with PEG review but completed with incorporation of any changes by the Start of July and sent to PEG	
Profile Assessment and PEG review of Regression data	To be completed by WD+10 of start of June. Recommendation and SVG paper to be prepared for August SVG.	
SVG Approval of Profiling Data.	August SVG	
MDD Change Request Raised	Following August SVG	Defaulting to existing data to apply if not agreed by SVG and data loaded into SVAA and MDD pending SVG approval of MDD change.
SVG Approval of MDD change	MDD changes approved September SVG data will already be loaded as change effectively already approved at August SVG.	
Use of the data in Settlement.	From the start of Autumn (Season Id 5)	

The Second Profile Production Process

Process	Period	Comment
Demand Data Collection	Completed by WD+15 from the start date in Autumn (Season Id 5). [approx. mid September]	This allows for all data to be either collected by the PrA or provided by Suppliers.
Data Validation	Completed by WD+15 from data collection end date. [approx. mid October]	Validation can start from Autumn (Season Id 5) but will only be complete by this date.
Data Analysis	Completed by WD+15 from data validation end data and sent to PEG [approx. start November]	Includes calculation and internal assessment of data. Standing data can be updated prior to the analysis.
Profiling Expert Group (PEG) review of average demand data	Completed by WD+10 of receipt with a meeting at start November [approx. mid November]	
Profile Production	Concurrent with PEG review but completed with incorporation of any changes by the Start of December and sent to PEG.	
Profile Assessment and PEG review of Regression data	To be completed by First week in January. Recommendation and SVG paper to be prepared for February SVG.	
SVG Approval of Profiling Data.	February SVG	
MDD Change Request Raised	Following February SVG	Defaulting to existing data to apply if not agreed by SVG and data loaded into SVAA and MDD pending SVG approval of MDD change.
SVG Approval of MDD change	MDD changes approved March SVG data will already be loaded as change effectively already approved at February SVG.	
Use of the data in Settlement	From the start of Spring (Season Id 2)	

The Benefits and Risks of a Twice Yearly Approach

In assessing the risks and benefits of the proposed approach, it should be noted that the default position under the current process is to use the existing set of data. This would be when the SVG does not approve the new set of the profiles for the next BSC Year, say due to advice from the PEG that the new profiles had some error or were not fit for purpose.

Under the twice yearly approach, using the same principle as above, the default would be to the existing baseline (Data will be from Year T – 2). Therefore, the proposed approach would be just as accurate, or better, than the current baseline. Issues relating to profiling accuracy and GSPGCF do not need to be considered.

Benefits

The main benefit would be that more up to date data would form part of the profiling data set. This would mean that any changes in customer behaviour would be captured in the profiles quicker.

It should be noted that the current profiling approach calculates an average profile over the last 3 valid years. This approach seeks to mitigate any adverse affects of temperatures in the sample year. If it was felt that the customer behaviour was changing very rapidly, single year data rather than pooled data could be used (if it was assessed that the change in shape out-weighed issues relating to temperature effects).

Additional Effort and Costs

The additional effort involved will mainly be for the PrA and ELEXON (including MDD) with increased effort in validating and processing the data twice (albeit in 2 smaller chunks). The Profiling Expert Group would also be affected in assessing the data and SVG in approving the data. There would also be impacts on other parties, Suppliers on receiving and loading (and checking) the data and a minor impact on the SVAA in loading the profiles.

The main area of cost is related to the PrA analysis process undertaking the process twice. Since the PrA Service is currently due for re-procurement, the exact cost of this additional effort cannot be assessed at this time.

Potential Risks

Risk Number	Risk	Probability	Severity	Rationale	Mitigation
1	The risk that all the data cannot be collected from the sample to the proposed	Low	Low	The risk is estimated as being low since data is collected remotely on a monthly basis.	If the last month of data had not been collected processing of previous data could still be implemented.

Risk Number	Risk	Probability	Severity	Rationale	Mitigation
	timescale.				
2	The risk that data not received from Supplier to timescales.	Medium	Low	Slightly higher probability since this is not in direct control of the PrA.	PrA can chase missing data. Further Top-Up data can be requested from Suppliers. A 'lessons learnt' exercise can be conducted on the existing P223 process to identify any improvements.
3	The risk that data cannot be validated to timescales.	Medium	Low	An over run of validation could occur as a knock on from Risks 1 and 2. This could affect production timescales.	More resource could be added to validation if the risk became high.
4	The risk that the overall timescales are affected.	Medium	Low	Delay at any stage could cause an over-run in production timescales.	Default the first season to existing data and continue process for following season. E.G. Default Autumn and get the new Winter Season data ready.