

Energy Networks Association

WS1B Product 2 - Whole System FES Coordination of National and Regional FES Deliverables A, B & C

Approved for publication 15th October 2020

FES Building Blocks and Information Exchange

These slides report updates to the Building Blocks and Information Exchange process following completion of the 2020 GB FES delivery. They address P2 deliverables A, B & C.

Extract from 2020 PID:

Ref	Product Element	Activities	Timeline	Deliverables
A	Review and revise the “Building Blocks” (BB) once the information exchange process is completed for GB FES 2020.	Review ongoing use of BB’s and processes to support GB FES 2020. Review the quality of the data provided for BBs in GB FES 2020 and the processes for submission and quality checking. Agree adequate level of granularity required. Amend BBs if required.	Jan 20 – Jul 20	Revised version of BBs included in an updated version of final report.
B	Review and revise the T-D information exchange process.	Review the process undertaken for GB FES 2020 to assess: 1.Timeline, 2.Tasks, 3.Resources, 4.Process	Aug 20 – Sep 20	Revised version of the information exchange process included in an updated version of final report.
C	Licence and code changes to support data exchange and ongoing FES delivery.	Review need for code changes to support ongoing GB FES work. Draft code modification proposals as needed.	Oct 20 – Dec 20	Proposal for the code change.

Effectiveness of 2020 Process

1. For the 2020 GB FES process, all DNOs provided regional forecasts using the set of FES/DFES Building Blocks agreed as part of the 2019 Whole System FES work.
 - In some cases, where data was not available, not all Building Blocks were used. For example, there are some Building Blocks where levels are very small and not known (e.g. MicroCHP), or where the starting positions are not yet known (e.g. EV).
2. In July, after publication of the GBFES, the ESO provided data to DNOs for the 2020 scenarios based on the agreed Building Blocks. These outputs have been reviewed and agreed by the Product 2 team.

Key Changes to the Building Blocks/Timeline

Following the 2020 review of Building Blocks the following changes were agreed:

- New Building Blocks for coal, interconnectors, hydrogen fuelled generation and off-grid offshore-wind. (These are mainly relevant at Transmission level).
- The breakdown of domestic and I&C demand to numbers, MW and square metres.
- New Building Blocks for EV charging units covering numbers & installed capacity.
- A new Building Block for air-conditioning units.

These changes are being implemented by network companies. In some cases, not all Building Blocks will be used to begin with (e.g. data may not be available to express I&C demand in all of the units). This doesn't impede delivery of GBFES & DFES.

The timeline for information exchange remains the same with no changes.

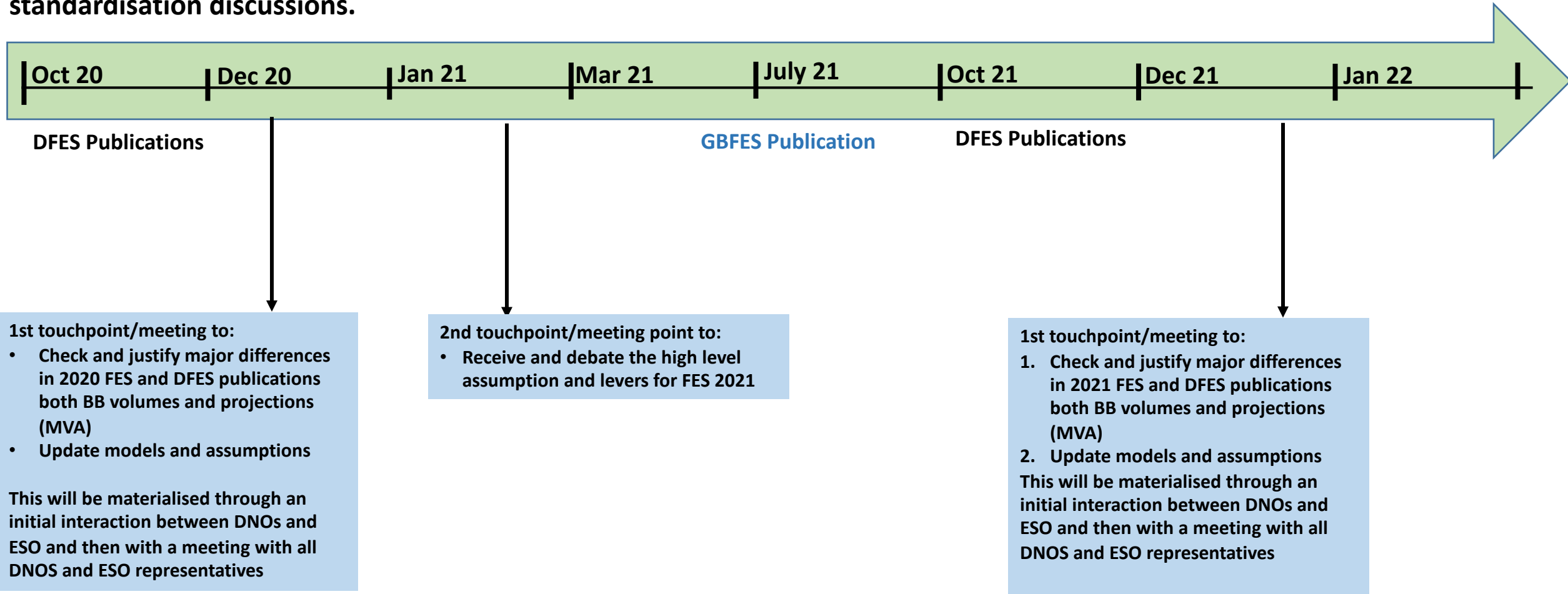
The updated Building Blocks and the timeline are summarised on the next 2 slides.

Key Changes to the Building Blocks

Technology	Building Block ID Number	Technology Detail	Units	Detail	Comments
Coal	Gen_BB021	COAL	MW	Installed capacity	Transmission connected coal fired generation
Interconnector	Gen_BB022	IC	MW	Installed capacity	Transmission connected interconnection of other Transmission networks
Hydrogen fuelled generation	Gen_BB023	Hydrogen	MW	Installed capacity	Hydrogen fired generation
Offshore-Wind (off-Grid)	Gen_BB024	NC_GEN	MW	Installed capacity	Offshore wind capacity not connected to NETS
Demand	Dem_BB001a	Domestic	Number of	Number of domestic customers	
	Dem_BB001b	Domestic	MW	Annualised Peak Demand MW (TBC)	
	Dem_BB002a	I&C	Number of	Number of I&C customers	
	Dem_BB002b	I&C	Metres squared	Area of I&C customers	
	Dem_BB002c	I&C	MW	Annualised Peak Demand MW (TBC)	
Electric Vehicle Charging units	Lct_BB010a	Domestic	Number of	Number of domestic charging units	
	Lct_BB010b	Domestic	MW	Installed capacity of domestic charging units	
	Lct_BB011a	Workplace	Number of	Number of Workplace charging units	
	Lct_BB011b	Workplace	MW	Installed capacity of Workplace charging units	
	Lct_BB012a	Public Slow/Fast	Number of	Number of Public Slow/Fast charging units	
	Lct_BB012b	Public Slow/Fast	MW	Installed capacity of public Slow/Fast charging units	
	Lct_BB013a	Public Rapid	Number of	Number of Public Rapid charging units	defined as >=43kW
	Lct_BB013b	Public Rapid	MW	Installed capacity of public Rapid charging units	defined as >=43kW
Airconditioning units	Lct_BB014	A/C units	Number of		

No Changes to the Timeline

The existing timeline for FES/DFES coordination between ESO and DNOs can be employed to incorporate the standardisation discussions.



Conclusions

- 1. Implementation of Revised Building Blocks** - DNOs aim to implement the revised Building Blocks as part of their 2020 DFES publications. However, as not all DNOs have the required data to populate all of the new Building Blocks, these will not be fully populated.
- 2. Ongoing review of Building Blocks and Information Exchange** – Further updates to Building Blocks and Information Exchange processes will be part of “business as usual” FES processes going forward. Further work by the Product 2 team on deliverables A (Building Blocks) and B (Information Exchange) is not proposed.
- 3. Deliverable C, related licence and code changes** – Given that all network companies are implementing the processes for Building Blocks and Information Exchange, and that these are largely effective, it is not proposed to take forward code changes at this time.
- 4. Remaining 2020 Product 2 work** – Work is ongoing to agree how a “central” or “best view” forecast should be produced to support the Capacity Signposting report and the subsequent implementation of NDP requirements. This would also be based on Building Blocks.