

# FINGRID

Datahub

**Trial production run**

23.4.2021



## Change history

Date	Version	Change
19 February 2020	0.1	Draft
31 March 2020	0.2	First commented version
8 June 2020	1.0	First version published to the industry for comments
13 November 2020	2.0	Updated version
15.4.2021	2.1	Third parties and usage of third parties Meter data delivery update User & access management Updates throughout the document
23.4.2021	2.2	Updated dates in Runbook attachment in section 3, Pre-Migration of master data and metering data

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## Appendix 1

### Fingrid Datahub Oy

Street address	Postal address	Telephone	Fax	Business ID 2745543-5, VAT reg. firstname.lastname@fingrid.fi <a href="http://www.fingrid.fi">www.fingrid.fi</a>
Läkkisepäntie 21 00620 Helsinki	P.O. Box 530 00101 Helsinki, Finland	+358 (0)30 3955000	+358 (0)30 3955196	

## Definitions and abbreviations

Terms and abbreviations	Definitions
Accounting point	A concept related to a physical location, for example, a dwelling, which connects a customer to a distribution system operator and electricity supplier through a network and sales agreement, and in which the consumption or generation of electricity can be measured. In Datahub, the accounting point is a logical point of delivery.
Balance deviation	An error caused by a post-hoc change to data remaining outside the imbalance settlement window. The change may be caused by incorrect metering data or supplier data at the accounting point.
Basic data	Basic data means all non-time-series market data, such as accounting point data, customer data, agreement data, party data, metering grid area data and authorisation data.
Business process	A group of tasks linked to each other, which are done in order to achieve a set target, for example, the switching of a customer's supplier.
Consumer	A consumer as referred to in chapter 1, section 4 of the Consumer Protection Act (38/1978). A consumer is a natural person who acquires electricity primarily for purposes other than business activities.
Correction/processing of balance deviations	A retrospective correction carried out on errors outside the imbalance settlement window. In the process, a monetary supplier- and metering grid area-specific correction is carried out after the closing of the imbalance settlement window, as a result of corrected metering errors and balance information.
Customer	A physical person, company, association, or other community, such as a municipality, that has a contract for electricity sales, electricity supply, and/or production purchasing with a supplier, and/or a grid agreement with a distribution system operator, and that acquires or produces electricity mainly for its own use.
Data migration plan	In order to support data migration work, a Data Migration Plan is prepared, which contains a description of the stages of the data migration project, the tasks and responsibilities of the parties, and the data migration process itself.
Datahub (the Datahub system)	Datahub is a centralised information exchange solution for the Finnish electricity retail market.
Datahub system deployment	Deployment of the Datahub information system, which is the responsibility of Fingrid Datahub Oy.
Datahub Go-Live/commissioning	Datahub Go-Live/commissioning means all actions and tasks in the industry concerning the preparation, Go-Live, and enhanced usage monitoring of services of the centralised information exchange in the electricity retail market.

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Street address	Postal address	Telephone	Fax	Business ID 2745543-5, VAT reg.
Läkkisepäntie 21 00620 Helsinki	P.O. Box 530 00101 Helsinki, Finland	+358 (0)30 3955000	+358 (0)30 3955196	firstname.lastname@fingrid.fi <a href="http://www.fingrid.fi">www.fingrid.fi</a>

Distribution system operator	A party that manages a distribution network or high-voltage distribution network, or part thereof, and that practises licensed electricity network operation in the network. The Electricity Market Act obligates the distribution system operators who engage in electricity network operations in a distribution network referred to in the Electricity Market Act to use the services of a centralised information exchange in electricity trade. Therefore, the obligation applies to distribution system operators who have been granted an electricity system licence for power grid operations in a distribution network or closed distribution network. However, the obligation does not apply to distribution system operators who operate a high-voltage distribution network or a high-voltage closed distribution network.
EDI	see PRODAT
Ediel	A message used in the electricity retail market for information exchange ( <a href="http://www.ediel.org">http://www.ediel.org</a> ), as developed by the Nordic Ediel Forum, which is continuing under the name ebIX ( <a href="http://www.ebix.org">http://www.ebix.org</a> ).
EIC	Energy Identification Code. EIC is a standardised code system developed by ENTSO (the predecessor of ENTSO-E) for the intra-European energy market. The code is used as a unique identifier for the market parties and other objects participating in the market.
Electricity supplier (supplier)	Any person, organisation, or company that sells electricity or buys it (in this context, small-scale production by a customer or a production unit). If the delivery takes place via the distribution system operator's distribution network directly to end-users, the supplier is a retail vendor.
eSett	Imbalance settlement unit. A service company jointly owned by Fingrid, Statnett, and Svenska Kraftnät that acts as the operative arm of the Nordic imbalance settlement model.
Fingrid Datahub Oy	A wholly-owned subsidiary of Fingrid Oyj that is a unit for centralised information exchange for electricity trading, established for Datahub operations.
GLN	Global Location Number. The GS1 system identifier used to identify a party on the Datahub. The GLN is a 13-character identifier consisting of the GS1 Company Prefix, freely selected numbers (3–5 digits) and a checksum.
Go-Live	Go-Live means Datahub's Go-Live stage, in which the present information exchange between market parties is gradually phased out for the introduction of an operating model based on Datahub. This lasts as long as the freezing period.
Go-Live Plan	The Go-Live Plan is a plan meant for the whole industry. In other words, it is a Go-Live Plan for an industry or the Go-Live Plan of an industry. All market parties and Fingrid Datahub also prepare their own Go-Live Plan for the commissioning of Datahub.
GSRN	Global Service Relation Number. A GS1 system identifier that identifies a metering point in Datahub. The GSRN consists of a GS1 Company Prefix, a serial number and a checksum.

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GS1	An international organisation that distributes unique organisation-specific identifiers. Finland's country code is 64. The term for the combination of a country code and a company-specific ID granted by GS1 Finland Oy is 'GS1 Company Prefix'. The company prefix makes it possible to formulate other identifiers, such as GLNs and GSRNs.
Imbalance settlement for a distribution network	Imbalance settlement of the electricity transactions in the metering area(s) of a distribution network, as defined in the Electricity Market Act and Electricity Market Decrees.
Limited data migration	Migration that is performed by following the same rules as a go-live but with a smaller data volume with regard to metering data for a specific period.
Market process	A business process between market parties, which concerns the exchange of information between the parties. The processes include contract processes, such as moving or switching suppliers, the delivery of metering data, and imbalance settlements.
Market participant or electricity market party	A company or organisation (a party) that operates in one or more roles in the electricity retail market. In this plan, 'electricity retail market party' refers to distribution system operators, electricity suppliers, balance responsible parties, the imbalance settlement unit, and third parties.
Metering point	A point at which the consumption, production, or transmission of electricity can be determined. This may take place by metering, based on assessment, or based on calculation. A metering point may also be an accounting point, exchange point, or production unit.
Metering data	An individual piece of data that concerns a specific time period, is produced by a meter or estimated or calculated by a distribution system operator, and is used as the basis for imbalance settlement and customer invoicing.
Network owner	An operator that manages a distribution grid, or part thereof, and that practises licensed electricity grid operation in the grid.
PRODAT (message)	A group of EDIFACT messages that have been developed for the transmission of electricity companies' accounting point, contract, and customer information. A PRODAT message (e.g. Z03[1]) comprises a certain message type (Z03) and a reason code expressing a more precise purpose ([1]).
Production data	A genuine item or collection of items of data arising from a production event.
Production transaction	A genuine transaction arising in the electricity retail market, including a business transaction, such as a move, change or retailer and metering result.
Production operation	The Datahub system has been deployed after an approved Go-Live.
Runbook	A technical plan for Datahub Go-Live, which contains further specifications on the freezing period that is a part of the Datahub Go-Live Plan, as well as a detailed description of the actions that each party shall take in Go-Live.
System architecture	A description of systems, applications, and data storage, as well as the connections between them.

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TePa	Testing and certification service
Third party (3 <sup>rd</sup> party)	A service provider that has registered as a Datahub user and that uses the data in Datahub in the context of authorisations and assignments. A third party may also be a market party.
Titta data migration service	A system or publication platform that checks incoming data from market party source systems and reports any deviations back to the market parties. The Titta data migration service generates summary data for Fingrid about the progress of the migration process and what stage each market party has reached.
Trial production run	The system validation phase intended to ensure that the parties and Datahub are able to operate with DH messages. Also referred to as a "trial run".
Trial run	see Trial production run

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00101 Helsinki, Finland

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+358 (0)30 3955000

Fax

+358 (0)30 3955196

Business ID 2745543-5, VAT  
reg.  
firstname.lastname@fingrid.fi  
[www.fingrid.fi](http://www.fingrid.fi)

## References to other documents

The latest versions of documents are always available on the Datahub service portal ([palvelut.datahub.fi](https://palvelut.datahub.fi)).

Document	
Using GS1 IDs in the electricity retail market	<a href="https://palvelut.datahub.fi/api/documents/file/0-233044-1-295835">https://palvelut.datahub.fi/api/documents/file/0-233044-1-295835</a>
Data migration plan	<a href="https://palvelut.datahub.fi/api/documents/file/0-232886-1-295631">https://palvelut.datahub.fi/api/documents/file/0-232886-1-295631</a>
Electricity retail market business processes in Datahub	<a href="https://palvelut.datahub.fi/api/documents/file/0-232454-1-294929">https://palvelut.datahub.fi/api/documents/file/0-232454-1-294929</a>
Testing and certification plan	<a href="https://palvelut.datahub.fi/api/documents/file/0-236835-1-302046">https://palvelut.datahub.fi/api/documents/file/0-236835-1-302046</a>
Datahub Go-Live plan	<a href="https://palvelut.datahub.fi/api/documents/file/0-233038-1-295829">https://palvelut.datahub.fi/api/documents/file/0-233038-1-295829</a>
Milestones for Datahub Go-Live for market parties	<a href="https://palvelut.datahub.fi/api/documents/file/0-243783-1-313885">https://palvelut.datahub.fi/api/documents/file/0-243783-1-313885</a>
Guidance for parties responsible for metering	<a href="https://palvelut.datahub.fi/api/documents/file/0-233603-1-296799">https://palvelut.datahub.fi/api/documents/file/0-233603-1-296799</a>
Datahub events	<a href="https://palvelut.datahub.fi/api/documents/file/0-232449-1-294924">https://palvelut.datahub.fi/api/documents/file/0-232449-1-294924</a>
Agreement on testing associated with the Go-Live of the centralised information exchange system for electricity trading	<a href="https://palvelut.datahub.fi/api/documents/file/0-247143-2-320208">https://palvelut.datahub.fi/api/documents/file/0-247143-2-320208</a>
Guidance for third parties within the scope of the Datahub service	<a href="https://palvelut.datahub.fi/api/documents/file/0-267214-1-345117">https://palvelut.datahub.fi/api/documents/file/0-267214-1-345117</a>

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Street address

Läkkisepäntie 21  
00620 Helsinki

Postal address

P.O. Box 530  
00101 Helsinki, Finland

Telephone

+358 (0)30 3955000

Fax

+358 (0)30 3955196

Business ID 2745543-5, VAT reg.  
firstname.lastname@fingrid.fi  
[www.fingrid.fi](http://www.fingrid.fi)

## 1 Purpose of the document

This document describes the meaning of the Datahub trial production run and how it relates to other preparatory tasks related to the Datahub Go-Live. Datahub is a project to enhance the exchange of information and the efficiency of the electricity market. It will affect the entire industry. Datahub Go-Live covers all actions and tasks within the industry and the companies that are related to preparing for the introduction of the new information exchange model, commissioning, and the time immediately after commissioning. The trial production run is a part of these preparations.

The top-level schedule for Datahub Go-Live is shown in Figure 1. A broader list and description of the tasks of importance to market parties (milestones) is in the table of milestones. A more detailed schedule for the trial production run is provided in Appendix 1.

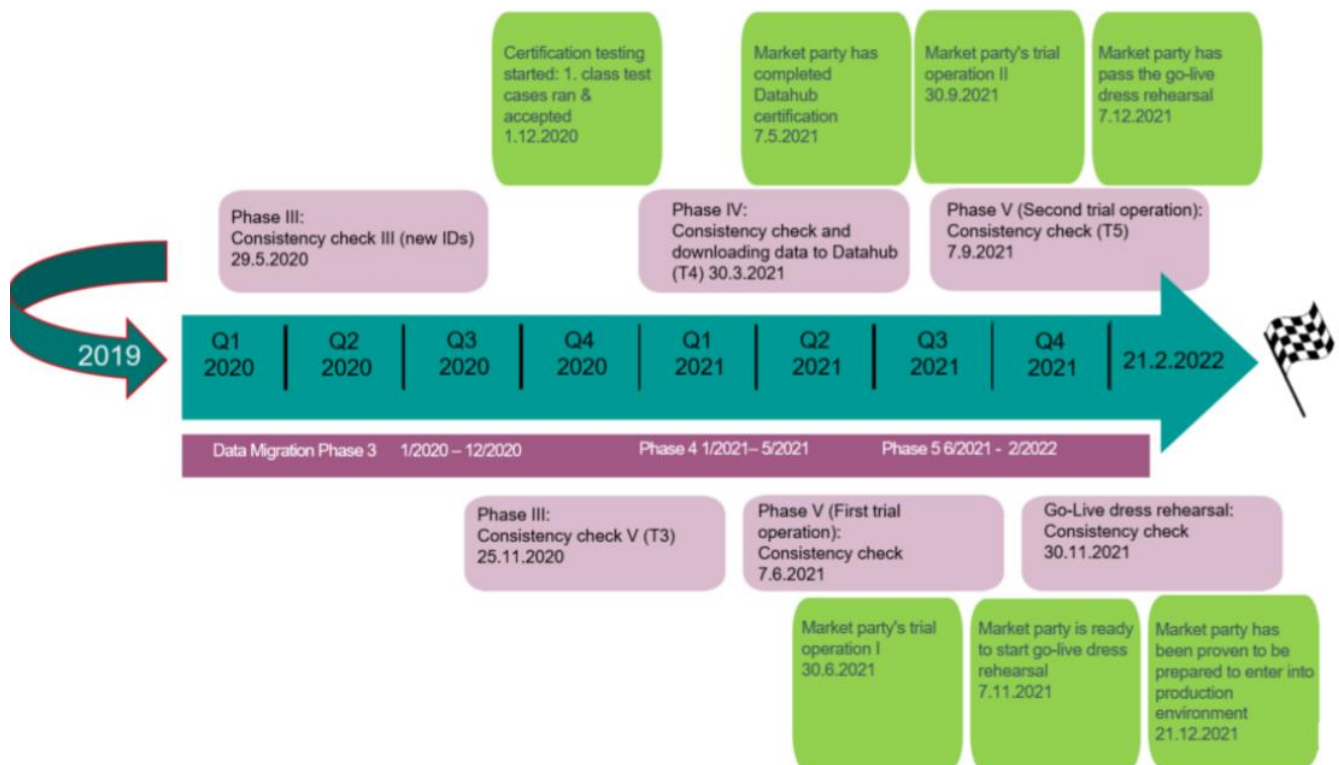


FIGURE 1. SCHEDULE OF DATAHUB GO-LIVE MILESTONES

### Fingrid Datahub Oy

Street address

Läkkisepäntie 21  
00620 Helsinki

Postal address

P.O. Box 530  
00101 Helsinki, Finland

Telephone

+358 (0)30 3955000

Fax

+358 (0)30 3955196

Business ID 2745543-5, VAT reg.  
firstname.lastname@fingrid.fi  
[www.fingrid.fi](http://www.fingrid.fi)

## 2 Datahub Trial production run

The trial production run will ensure the transition to the operational adoption of centralised information exchange for electricity trading by all parties in the electricity retail market and Fingrid Datahub Oy. In other words, the trial production run is intended to ensure business continuity, functioning electricity market transactions in Datahub, and the accuracy of imbalance settlement before the actual Go-Live takes place. Electricity market transactions include business processes and reporting metering data.

The trial production run is an exercise that will not be visible to end-customers.

### 2.1 Targets

The following is stated in the Datahub Go-Live plan:

*During Datahub Go-Live, the continuity of the business of market parties must be ensured. The efficiency of the retail market and the business processes of its parties must not be jeopardised at the moment of Go-Live or after Go-Live.*

The targets for the trial production run can be summarised as follows:

- 1. Ensure the functionality of electricity market transactions between all market parties and Datahub before the actual Go-Live.**
- 2. Ensure the efficiency of everyday operations on the required scale using production data.**
- 3. Ensure and practise the tasks in go-live runbook**

A successful trial run means that the industry is ready for the dress rehearsal that precedes the Go-Live of the Datahub system. From the perspective of market parties, the trial run can be considered a success if the parties have successfully transmitted data to Datahub and received data from it. From the perspective of Datahub, the trial run is successful if the market processes are shown to function in accordance with the specifications in the market documentation.

In addition to the main targets, a further objective is to practice for the Go-Live by complying with the Datahub Go-Live runbook as applicable.

Market parties have a chance to ensure the processing of authentic market transactions during the trial production run, thereby ensuring the continuity of their business activities with the Datahub business processes.

#### Fingrid Datahub Oy

Street address	Postal address	Telephone	Fax	Business ID 2745543-5, VAT reg.
Läkkisepäntie 21 00620 Helsinki	P.O. Box 530 00101 Helsinki, Finland	+358 (0)30 3955000	+358 (0)30 3955196	firstname.lastname@fingrid.fi <a href="http://www.fingrid.fi">www.fingrid.fi</a>

## 2.2 Schedule and phases

There will be two trial production runs, which will take place at the same time with all parties. Between the trial runs, there will be time to make corrections to the systems and the data, and clarifications of runbook-tasks. The trial run phase in which production DH messages are forwarded between the Datahub system and market participants will last for two weeks. Parties must participate throughout the trial run period including preparations and termination of the trial run. The first trial run period will take place in May-June 2021, and the second will take place in August-September 2021.

The phases of the trial production run are described below. Both trial production runs will include the same tasks in terms of preparation and completion of the phase. In conjunction with the trial run, the Go-Live will also be rehearsed, and the tasks listed in the Datahub runbook will be performed as applicable. A separate runbook (appended to this document) has been prepared for the trial production runs. The figure below does not discuss the duration or scope of the phases; it merely seeks to illustrate the relationship between the phases. The phases and schedule are described in more depth in dedicated sections in chapter 3.

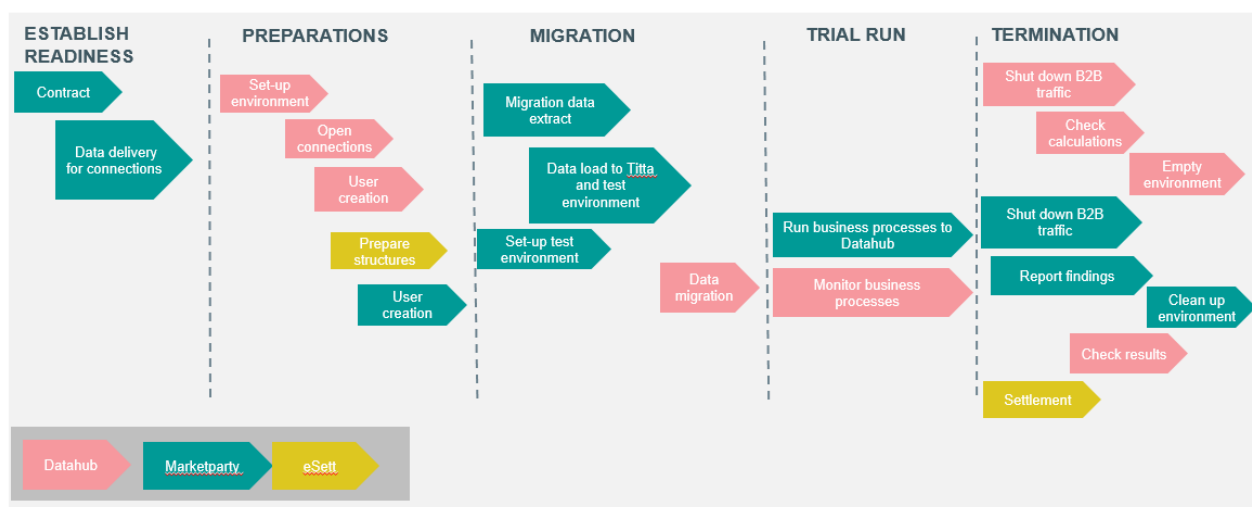


FIGURE 2. PHASING OF THE TRIAL PRODUCTION RUN

As the trial run will begin with data migration, the data migration phase 4 milestone must be successful (March-April) in order to transition to the trial production run.

## 2.3 Arrangement of the trial run

During the trial production run, messaging traffic in the electricity market will continue to be handled using PRODAT and MSCONS messages in accordance with the EDIEL specification, but, alongside these, equivalent production market transactions will be run between the parties' test environments and Datahub.

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Street address

Läkkisepäntie 21  
00620 Helsinki

Postal address

P.O. Box 530  
00101 Helsinki, Finland

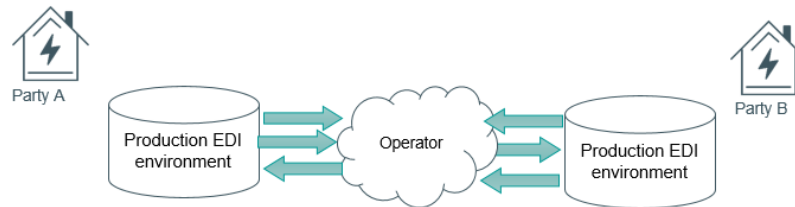
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+358 (0)30 3955000

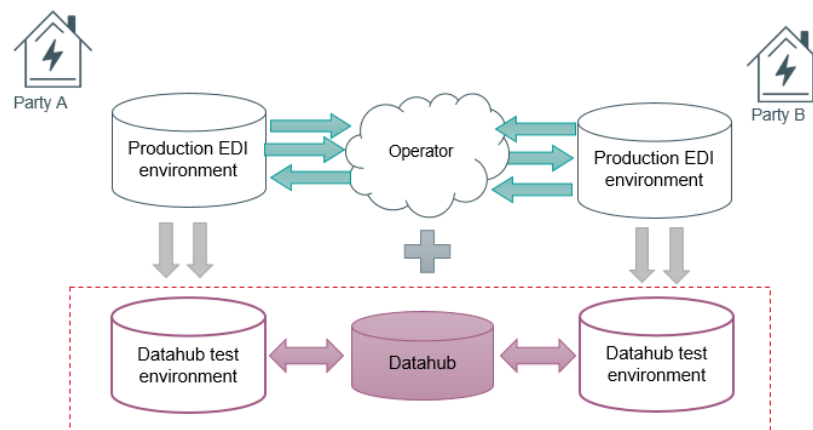
Fax

+358 (0)30 3955196

Business ID 2745543-5, VAT reg.  
firstname.lastname@fingrid.fi  
[www.fingrid.fi](http://www.fingrid.fi)



**FIGURE 3. NORMAL INFORMATION EXCHANGE MESSAGING TRAFFIC BEFORE THE DATAHUB GO-LIVE.**



**FIGURE 4. MESSAGING TRAFFIC DURING THE TRIAL PRODUCTION RUN**

The production EDI environments presented in Figure 3 consist of all of the environments that will transmit information to Datahub, such as the MDM and CIS systems. The grey arrows describe the export of production transactions from production EDI systems to the parties' Datahub test environments. The arrow does not indicate whether the data is transferred automatically or manually. In Figure 4, the purple arrows describe the information exchanged by parties with Datahub (B2B messaging traffic or using the Datahub user interface).

In the trial production run, market parties must use an environment whose information security corresponds to the production environment and which is connected to the Datahub production environment. Parties may transmit data (such as metering data) directly from their own production environment to the Datahub system if they have the capability to do so. Taking part in the trial production run will enable companies in the industry to thoroughly prepare themselves for the Go-Live of Datahub and for a systematic and managed execution of the Go-Live, irrespective of whether the party uses Datahub via a programmatic interface or manually via the user interface. The trial run phase is critical for the market as it will be the first time that genuine transactions are transmitted from one party to another. Productional trial run will also ensure effective operation with migrated data.

### Fingrid Datahub Oy

Street address

Läkkisepäntie 21  
00620 Helsinki

Postal address

P.O. Box 530  
00101 Helsinki, Finland

Telephone

+358 (0)30 3955000

Fax

+358 (0)30 3955196

Business ID 2745543-5, VAT reg.  
firstname.lastname@fingrid.fi  
[www.fingrid.fi](http://www.fingrid.fi)

The productional trial run will use the same tools and procedures as will be used for the Go-Live. Participants have therefore the opportunity to practise go-live tasks and reporting of them before the actual Go-Live of Datahub. More of communications and follow-up on go-live tasks in chapter 4.

### 2.3.1 User access management

Access management to the datahub in production trial run is arranged in the same way as in production operation. 2-factor authentication with TOTP technology is used for login. Authentication requires an authentication application, which can be on your phone or as an extension of a web browser (e.g. google authenticator). The user is notified of the creation of a user in their e-mail with a unique key code that activates the authentication application.

The datahub operator creates the parties' administrators and assigns them limited admin access to the datahub system. The parties' administrators are responsible for creating the user interface users in their own organization for the datahub.

The Datahub system has pre-created access groups ([Guidance to create users](#)). The parties must adhere to the principle of minimum access when granting access.

### 2.3.2 Third party usage

The Guidance for third parties explains in more detail how to establish connections to the datahub and what are the prerequisites for the participation of these parties. Third parties always act based on delegations. Delegation verification is optional for the first trial production run.

A party that uses a 3rd party as part of the implementation of market processes must notify the delegation to the Fingrid data hub. Fingrid datahub maintains delegation data in the datahub system. Delegations must be notified to Fingrid datahub via the support service (support.datahub.fi). The delegation is notified by selecting "Other" as the service request type and "Commissioning – Go-Live" as the topic. Delegations must be announced by April 30, 2021. The delegation is always notified by the delegating party. In the notification, the delegating party, the delegated party, and whether the delegation is specific to a data group and / or event and which event is affected must be stated. More about the delegation in a document to be published separately.

Authorizations between the parties will not be verified in a production trial run.

## 2.4 Participants

Various entities will be involved in the trial production run. The third parties that market parties may use for purposes such as providing metering data will also be involved in the

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Läkkisepäntie 21 00620 Helsinki	P.O. Box 530 00101 Helsinki, Finland	+358 (0)30 3955000	+358 (0)30 3955196	firstname.lastname@fingrid.fi <a href="http://www.fingrid.fi">www.fingrid.fi</a>

trial run. Market parties must reach an agreement with their third parties concerning their participation in the trial run and notify Fingrid of the third parties involved in the trial run before it begins. The details of third parties should be reported to Fingrid in a service request via the Datahub Support Service using service request type "Other", service category "Commissioning - Go-live" and Subject "Third parties". Guidance for third parties within the scope of Datahub has been published in Datahub services portal ([palvelut.datahub.fi](http://palvelut.datahub.fi)).

Entity	Grounds	Additional information
<b>Distribution system operator</b>	Owns the metering and accounting point data and is responsible for delivering them to Datahub	Is responsible for fulfilling statutory obligations concerning the provision of data
<b>Supplier</b>	Owns the contractual processes and customer data and is responsible for delivering them to Datahub	
<b>Datahub</b>	Acts as the operator of Datahub processes in the electricity retail market	Monitors the functionality of the Datahub system, performs imbalance calculation and takes responsibility for repairs conducted directly on Datahub
<b>Supplier of metering data (3rd party, delegated party)</b>	Is responsible for delivering the DSO's metering data under a delegation contract. Makes an agreement with the distribution system operator concerning participation in the trial production run*	Metrics as for the DSO
<b>Recipient of metering data (3rd party, delegated party)</b>	Handles the processing of metering data on behalf of the vendor under a delegation contract. Makes an agreement with the supplier concerning participation in the trial production run*	Metrics as for the supplier
<b>Authorized party (3<sup>rd</sup> party, authorized party)</b>	Handles authorization-related tasks with the end customer (company customer in the trial production run). Makes an agreement with the market party concerning participation.	Searches end customers' information from datahub based on customer authorizations
<b>Other network operator /party responsible for metering</b>	The party responsible for metering at an exchange point supplies metering data The party responsible for providing exchange point metering data connected to the distribution network. Metering data must be provided to Datahub as part of Datahub's imbalance settlement responsibility	Network outside Datahub  Metrics as for the DSO
<b>eSett</b>	Receives the data provided by Datahub	An important party with regard to verifying imbalance settlement, that needs settlement data from DSO's for the national imbalance settlement

\* The system must be certified

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Street address

Läkkisepäntie 21  
00620 Helsinki

Postal address

P.O. Box 530  
00101 Helsinki, Finland

Telephone

+358 (0)30 3955000

Fax

+358 (0)30 3955196

Business ID 2745543-5, VAT reg.  
firstname.lastname@fingrid.fi  
[www.fingrid.fi](http://www.fingrid.fi)

## 2.5 Metrics and verifiable transactions

**The most important aspect in productional trial runs is to ensure that everyday routines are functional and effective and that parties are able to conduct the most common and most critical market processes without disturbances to other parties and the market.**

Suppliers and distribution system operators should bear in mind that they must report delegations/authorisations if they intend to use service providers to supply data. There is more information about assignments in chapter 3.9.2.2 (Electricity retail market business processes in Datahub).

During the productional trial run, different parties have vastly different productional transactions. This is why it is not possible to set a general number of transactions to be delivered. During the trial run, parties should estimate how many transactions they will need to gain sufficient assurance that their businesses are able to operate with Datahub processes. Suppliers have a heightened responsibility as the parties initiating and terminating business processes as the DSO's responsibility is in processing and continuing market processes.

**Suppliers must estimate how many transactions they will need to gain assurance of their ability to operate in the Datahub environment and to ensure their business continuity.**

**Distribution networks must process all transactions that are delivered to them in their Datahub environment.**

### 2.5.1 Trial run metrics and mandatory transactions

Go-Live readiness will be assessed using the following metrics of the success of the trial production run

- 1. The party gets the System connections to work**
- 2. The party is able to deliver migration data to Titta**
- 3. The DSO is able to deliver metering data within the time limits**
  - By midnight on any given day, distribution system operators are able to deliver preliminary metering data for the preceding day to Datahub (accurate metering data from meters all the way to Datahub)
  - Datahub performs imbalance calculations for all delivered transactions

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Street address	Postal address	Telephone	Fax	Business ID 2745543-5, VAT reg. firstname.lastname@fingrid.fi www.fingrid.fi
Läkkisepäntie 21 00620 Helsinki	P.O. Box 530 00101 Helsinki, Finland	+358 (0)30 3955000	+358 (0)30 3955196	

#### 4. The supplier is able to extract metering data from Datahub

#### 5. Every market party is able to retrieve its own data

- This also applies to service providers who operate on behalf of another party and who are involved in the trial run. An authorised party is responsible for ensuring that the process works in the same way as it will in production

#### 6. DH transactions initiated by parties can be sent and received according to the Events document

The metrics are the same, irrespective of whether a party uses the Datahub messaging interface or the user interface.

The following factors will be monitored to gauge the success of the trial production run in terms of the Datahub system:

- Datahub sends submitted data to the correct party, and the parties are able to receive data sent by Datahub
- Datahub delivers imbalance settlement data to eSett
- Datahub calculates the imbalances in distribution network metering areas correctly (comparing with eSett's data)
  - Delivering supplier-specific sums for metering areas (metered consumption and profile consumption separately per supplier per metering area) and losses
  - Exchange point sums for metering areas in relation to other metering areas output of generating units in metering areas

With regard to imbalance calculation, the distribution system operator may calculate imbalances alongside Datahub if the capability exists. Datahub will calculate imbalances for all sites that are supplied. Parties are able to view the imbalance calculations using the Datahub GUI and they can be downloaded to excel. Imbalances can be also reported as CSV (report "Time series data for selected imbalance time series"). Parties can also disable sending of the imbalance information.

As regards imbalance calculation it will not be possible to obtain exactly the same result as in production, if not all transactions are delivered to datahub during the productional trial run. The calculation will take into account the supplied data and changes.

#### Fingrid Datahub Oy

Street address

Läkkisepäntie 21  
00620 Helsinki

Postal address

P.O. Box 530  
00101 Helsinki, Finland

Telephone

+358 (0)30 3955000

Fax

+358 (0)30 3955196

Business ID 2745543-5, VAT  
reg.  
firstname.lastname@fingrid.fi  
[www.fingrid.fi](http://www.fingrid.fi)

### 2.5.2 Other transactions

Efforts must be made to produce the transactions listed below on the Datahub system during the trial production run, as they arise in the party's productional environment during the trial run. This is the only way to obtain genuine end-to-end validation. Not all of the transactions listed below apply to every party involved in the trial run. The initiation of these transactions depends on the party and whether such transactions arise in the party's business during the trial run. Datahub does not impose an upper limit on the number of transactions. The requirement is that only the transactions that occur in production during the trial run may be delivered to the test environment and the Datahub system.

Suppliers	Distribution system operators and parties responsible for metering
<ul style="list-style-type: none"> <li>• Sales agreement notifications in the event of move-ins and supplier changes</li> <li>• Including retrospective transactions</li> <li>• Connection and disconnection requests</li> <li>• Agreement terminations</li> <li>• Monitors its own imbalance settlement data via the Datahub interface</li> <li>• Updates of customer data</li> <li>• Updates and cancellations of agreements</li> </ul>	<ul style="list-style-type: none"> <li>• The distribution system operator receives a notification from Datahub concerning the sales agreement for the accounting point and the connected customers               <ul style="list-style-type: none"> <li>○ The distribution system operator is able to confirm the grid agreement (the distribution system operator makes its own grid agreement for the accounting point to the customers corresponding to the sales agreement)</li> </ul> </li> <li>• Maintaining transmission products and information exchange*</li> <li>• Connection and disconnection transactions and related notifications</li> <li>• Agreement terminations</li> <li>• Change in the metering method at an accounting point</li> <li>• Monitors its own imbalance settlement data via the Datahub interface</li> <li>• Updating accounting point data</li> <li>• Creating accounting points</li> <li>• Requests to update customer data</li> </ul>

\* Operation via the user interface is sufficient

Everyday invoicing and mass invoicing will also take place during the trial run. With regard to these invoice messages sent to Datahub, it will also be an opportunity to verify performance. Parties must make their own prior agreements on testing the delivery of invoice item data.

#### Fingrid Datahub Oy

Street address	Postal address	Telephone	Fax	Business ID 2745543-5, VAT reg.
Läkkisepäntie 21 00620 Helsinki	P.O. Box 530 00101 Helsinki, Finland	+358 (0)30 3955000	+358 (0)30 3955196	firstname.lastname@fingrid.fi <a href="http://www.fingrid.fi">www.fingrid.fi</a>

## 2.6 Requirements for participation in the trial production run

As the trial run will involve processing genuine market transactions and, therefore, real personal data, the parties involved must have completed certification per se before they can begin the trial production run. Fingrid Datahub will assess case by case the party's ability to take part in the trial run if the certification is not completed. Certification still requires that most critical processes are accepted. The trial production run will be performed against a different Datahub environment than certification, so the telecommunications connections and access to the user interface must be created and tested between the participant and datahub before the trial production run starts.

The right to a trial production run of the Datahub System requires that:

1. The party has a GLN ID compliant with the GS1 standard and the Customer has registered with eSett Oy for national imbalance settlement;
  - (a) The party ID compliant with the GS1 standard is sent to eSett and Datahub in February 2021
2. The party is capable of submitting data to the data migration service in accordance with the data migration plan and the instructions concerning the transfer file
3. The party's information systems conform to the requirements and have passed Datahub's certification process
  - (a) Fingrid Datahub will assess case by case the party's ability to participate if certification is not complete
4. The party has an appropriate standard of information security in its information systems and processes and meets the requirements set for information security
5. The party has signed the "Agreement on testing associated with the Go-Live of the centralised information exchange system for electricity trading"

## 3 Schedule and phases

The trial run begins by practising the actions required for the Go-Live (some of the runbook tasks) and data full scope data migration. During migration, the parties may choose to practise the core-freezing period and message buffering. Time has been reserved for unloading the buffers before the trial run begins. For more detail on the days, see the runbook for the trial production run (Appendix 1). After the migration phase, the market parties will execute genuine production transactions in the Datahub system. This

### Fingrid Datahub Oy

Street address	Postal address	Telephone	Fax	Business ID 2745543-5, VAT reg. firstname.lastname@fingrid.fi www.fingrid.fi
Läkkisepäntie 21 00620 Helsinki	P.O. Box 530 00101 Helsinki, Finland	+358 (0)30 3955000	+358 (0)30 3955196	

will involve using production transactions that arise in the market parties' businesses during the trial run. In addition to normal EDI message transactions, market parties will need to generate corresponding market transactions in the Datahub environment using either DH messaging or the user interface. For further information about transactions, see chapter 2.5. When the trial run phase ends, checks, reports and calculations will be performed on Datahub to analyse the outcome. At the end of the phase, the parties' access to Datahub will be rescinded, and the transactions created during the phase will be erased from the database. Parties must ensure that they clean up their own environments from privacy perspective, bearing in mind the needs of upcoming Go-Live rehearsals.

The following is a description of the various phases. Detailed schedule in attachment 1 Productional Trial run Runbook. The dates may be subject for change based on the progress of the Trial run.

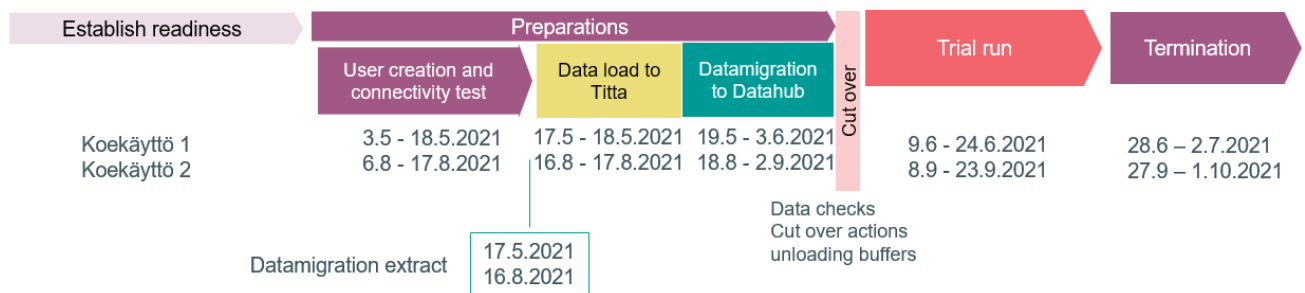


FIGURE 5. TRIAL RUN TIMELINE

According to the plan, approximately 3 weeks will elapse between the start of the trial run and the extraction of data, and it is not necessary to input metering data into the trial run phase during this period. If a network operator is able to provide the missing metering data, it can be provided during the cut-over phase (referred to as the final migration in the technical Go-Live plan) before the trial run phase begins. No reminder messages will be sent regarding missing metering data between the extraction date and the beginning of the trial run.

Changes in master data between the extraction date and the beginning of the trial run do not need to be sent to Datahub. However, information on exchange points and production unit data must be kept up to date. Updates to this information must be provided at the beginning of the trial production run. If the parties are willing and able, they may also practise buffering messages during the initialisation phase and unloading the buffers at the beginning of the trial run phase (cut-over).

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Läkkisepäntie 21 00620 Helsinki	P.O. Box 530 00101 Helsinki, Finland	+358 (0)30 3955000	+358 (0)30 3955196	firstname.lastname@fingrid.fi <a href="http://www.fingrid.fi">www.fingrid.fi</a>

Due to these timing differences, certain errors are anticipated during the trial run. However, the number of errors is expected to be marginal in relation to volume of data.

Datahub will perform one comparative calculation on the migrated metering data.

### 3.1 Establishing readiness for the trial production run

Approximately three weeks (\*) have been reserved for preparatory measures for the Datahub before the start of the trial production run. Parties should reserve the necessary amount of time for their own preparatory measures ahead of the trial production run insofar as they are related to the readiness of the parties' own systems. The preparatory measures are the same as those taken by the parties when testing for certification began.

Duties of the parties in relation to preparation

Task	Details
Agreement on testing associated with the Go-Live of the centralised information exchange system for electricity trading	
Party data delivery to Titta	Parties must deliver party information to Titta, based on which the B2B-interface connection is created. Also Admin user details need to be delivered
Obtaining and installing certificates	The use of Datahub's technical interfaces (B2B interface) requires the system connected to the interface to be identified. The market parties must obtain and install certificates in accordance with Fingrid's instructions.

\* Some of the preparatory measures, such as signing the agreement and collecting certificates, can begin well in advance of the other preparatory measures for the trial run

Parties must define in Titta-service information required to create the admin users and B2B-connection. IP-addresses are needed for all the connection points, from where the party will call Datahub CMS. The amount of needed SSL-certificates for using the B2B-interface.

#### Fingrid Datahub Oy

Street address

Läkkisepäntie 21  
00620 Helsinki

Postal address

P.O. Box 530  
00101 Helsinki, Finland

Telephone

+358 (0)30 3955000

Fax

+358 (0)30 3955196

Business ID 2745543-5, VAT reg.  
firstname.lastname@fingrid.fi  
[www.fingrid.fi](http://www.fingrid.fi)

Aloitussivu

- 1 Markkinaosapuolittiedot
- 2 Taustatiedot
- 3 Käyttöönolon suunnittelu
- 4 Järjestelmämuutoksen toteutus
- 5 Tietokonservit
- Q1/2020
- Q2/2020
- Q3/2020
- Q4/2020
- Q1/2021
- Dokumentit
- Datahub-tiedot
- Tulosta
- Titta

### Datahub-tiedot

Tallenna

Yhtio	Datahub-osapuolen sähköpostiosoite	Osapuoli käyttää vain käyttöilittyä	Datahub-pääkäyttäjän nimi	Datahub-pääkäyttäjän sähköpostiosoite	Datahub-pääkäyttäjän puhelinnumero
FGM4 FG performance retailer 4	<input type="text"/>	<input type="checkbox"/>	<input type="text" value="Etunimi Sukunimi"/>	<input type="text"/>	<input type="text"/>

Tallenna

Käyttöönolon testaussopimusta koskevat tiedot

Sopimuksen yhteyshenkilön		Sopimusta koskevat ilmoitukset			Ilmoitukset tiedoksi		
Yhtio	Nimi	Sähköpostiosoite	Osoite	Sähköpostiosoite	Nimi	Sähköpostiosoite	Nimi
FGM4 FG performance retailer 4	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Tallenna

Testiympäristön tiedot

Yhtio	Testaussopimus solmittu	Pääkäyttäjää luotu	Testiympäristön IP-osoitteet	Testiympäristön IP-osoitteet avattu	Osapuoli tarvitsee b2b-varmenteen	Varmenne haettu	b2b-käyttäjää luotu
FGM4 FG performance retailer 4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Tallenna

Tuotantoympäristön tiedot

Yhtio	Käyttöönolon testaussopimus solmittu	Pääkäyttäjää luotu	Tuotannon IP-osoitteet	Tuotannon IP-osoitteet avattu	b2b varmenteiden tarve	Varmennelinkit toimitettu
FGM4 FG performance retailer 4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>

Information is collected from Titta-service on certain date, after which Fingrid Datahub will initiate creation on party admin users, whitelisting IP's for firewalls and delivering SSL-certificate links for admin users. Party's admin user will receive e-mail with a link to download the SSL-certificate and a SMS containing the Certificate's password. The SSL-certificate needs to be downloaded by the indicated date, so that Fingrid Datahub can create the System user identity needed for the B2B-interface. If the market party has not accomplished the tasks by the defined deadlines, he is at risk of not having the possibility to test the interface connections before the start of the trial run.

### 3.2 Preparing for the trial production run

The basic production data must be set up on the Datahub system and the systems used by parties before the trial production run. The trial run cannot be conducted in an empty environment. The intention is to conduct the same setup measures as in the Go-Live, thereby practising the Go-Live and the runbook.

The setup phase is similar to the Go-Live core-freezing period with regard to the Datahub system.

Duties of the parties in relation to system setup

Task	Details
Testing telecommunications connections	Before testing begins, the functioning of the telecommunications connection between the market party's test system and the Datahub test system should be verified. The IP addresses from which the parties will

#### Fingrid Datahub Oy

Street address	Postal address	Telephone	Fax	Business ID 2745543-5, VAT reg.
Läkkisepäntie 21 00620 Helsinki	P.O. Box 530 00101 Helsinki, Finland	+358 (0)30 3955000	+358 (0)30 3955196	firstname.lastname@fingrid.fi <a href="http://www.fingrid.fi">www.fingrid.fi</a>

	connect to the Datahub system will be needed for this purpose. The connection is tested b using a Peek-message
Creating market party users on the DH B2B messaging interface and the user interface	Specifying and verifying the parties' required users and associated access rights for the trial run
Uploading the master data to the party's environment that will be used in the trial production run. Data from the point in time when the data migration extraction was made	Uploading the data necessary to execute DH processes during the trial run. Set-up the used environment with data from point in time when the migration data was picked
Pre-migration of Metering data and master data	
Migration of master data and metering data to Titta	All master data Metering data must be extracted in accordance with the extraction rules in the data migration plan, but only in accordance with the specified two-week time window
Data migration from Titta to Datahub	Fingrid's responsibility

Testing of B2B connections can be done through sending Peek-messages. Peek-messages can be sent once every hour to the beginning of the actual trial run phase. Peeking is not allowed in a productional intensity until the Productional trial run has moved into the trial run phase. This rule is to ensure the capacity for data migration. After the parties have submitted the data to Titta, Datahub will export this data to the datahub system.

### 3.2.1 Data migration

The trial production run will begin with full scope data migration. Datahub data migration means ensuring the quality of the master data and metering data before transferring it from the source systems to the Datahub system before Datahub goes live. The source systems are primarily the business applications that the distribution system operators and electricity suppliers use to maintain customer, accounting point, agreement, and metering data.

The parties must ensure that the data listed below has been sent, with the same values and for the same period as stated in the plan, to their own trial production run systems and Datahub's Titta system. The rules for extraction will be the same as in actual data migration.

#### Fingrid Datahub Oy

Street address

Läkkisepäntie 21  
00620 Helsinki

Postal address

P.O. Box 530  
00101 Helsinki, Finland

Telephone

+358 (0)30 3955000

Fax

+358 (0)30 3955196

Business ID 2745543-5, VAT  
reg.  
firstname.lastname@fingrid.fi  
[www.fingrid.fi](http://www.fingrid.fi)

Data to be uploaded for the trial production run	Timeline / amount*
Master data	All – including agreements that have ended in accordance with the normal data migration rules
Metering data	Six years

The data migration plan contains a description of the stages of the data migration project, the tasks and responsibilities of the parties, and the data migration process itself.

The data migration plan is available at [palvelut.datahub.fi](http://palvelut.datahub.fi)

### 3.3 Trial production run phase

Duties in the trial run phase

Task	Details
Unloading buffered transactions	The parties that are able to practise buffering and buffer unloading during this phase. The date of the message to be buffered must be the actual date of the event.
Initiating DH messaging traffic to the Datahub system	The trial production run begins for all parties
Delivering and supplementing metering data on Datahub	
Executing production business processes in the trial production run Datahub environment	Initiating and acknowledging transactions in accordance with chapters 2.2 and 2.3 of the trial production run plan. Updating data on exchange points and production units
Performing imbalance settlement calculations	Datahub performs calculations on the delivered data (setup phase separately and trial run phase separately).

The intention is to conduct the trial run phase in a way that resembles production operation as closely as possible. Every day, the parties will deliver data in the same way as they will deliver data according to the Datahub processes, either over the messaging interface or on the user interface. As regards metering data, the same time limits and rules will apply to new and supplemented metering data. Parties must determine for themselves how they will produce transactions in the Datahub environment within these constraints during the trial run. The date of the message to be buffered must be the actual date of the event. During buffer unloading, time limit checks are not on. If a party intends to practice message buffering and buffer unloading in the trial production run, please notify Fingrid Datahub via the support service. In this way, the operator can monitor that the events unpacked from the buffer do not end in error.

As some parties have business processes that depend on receiving acknowledgements from other parties, each party must verify and process the transactions that occur every

#### Fingrid Datahub Oy

Street address

Läkkisepäntie 21  
00620 Helsinki

Postal address

P.O. Box 530  
00101 Helsinki, Finland

Telephone

+358 (0)30 3955000

Fax

+358 (0)30 3955196

Business ID 2745543-5, VAT reg.  
firstname.lastname@fingrid.fi  
[www.fingrid.fi](http://www.fingrid.fi)

day during the trial run, and initiate a sufficient amount of business processes. This means that the parties must process all of the transactions sent to the Datahub system in order for the sending party to be able to validate the success of the process. Processing (acknowledgement events) can take place via the party's own system (messaging interface) or Datahub's user interface. Data migration involves importing all accounting points, but the parties are not obliged to keep the data on all of the accounting points up to date in the system they use for the trial run.

If a party uses the messaging interface, it can use the reports provided by the Datahub user interface to verify that all of the Datahub transactions belonging to the party have also arrived in the party's own system.

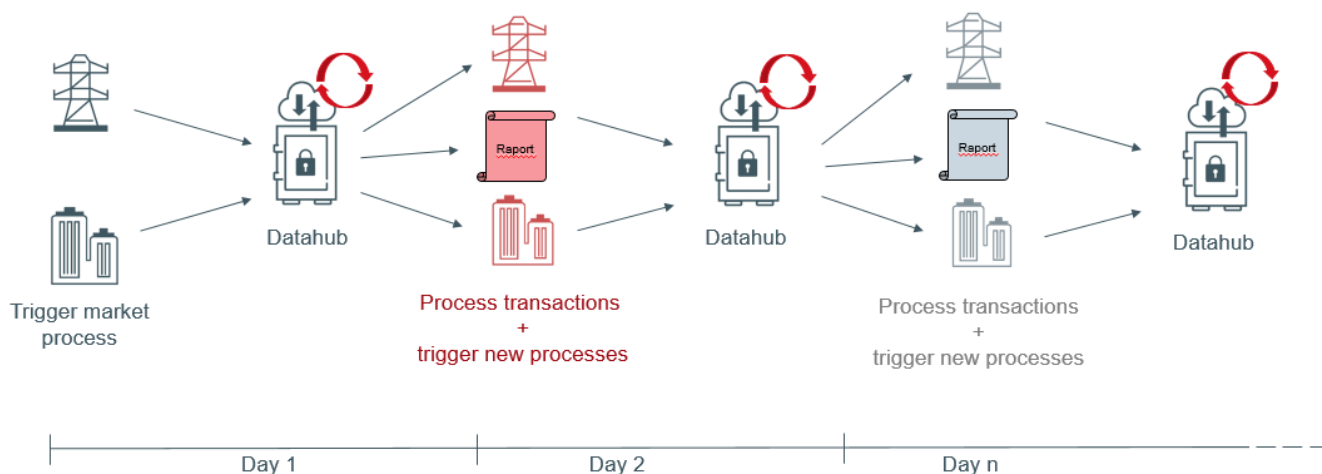


FIGURE 6. EXECUTION OF THE TRIAL PRODUCTION RUN

Suppliers are responsible for ensuring that they initiate transactions for their own businesses towards Datahub. Network operators must at least process all of the transactions delivered to them, and they must initiate transactions (such as DH-112-1 Request to update customer data and DH 122-1 Update accounting point data). Suppliers and third parties are obliged to process the transactions allocated to them on a daily basis. This ensures that the processes are validated from end to end between the parties. The effective dates of the events to be initiated must correspond to the effective dates of the production, even if they are made retrospectively. Thus, for example, a quick move-in on the same day should be reported to the datahub in trial production run on the same day as it occurs in production, or not at all.

### 3.4 Termination of the trial production run

#### Duties related to the end of the trial run phase

##### Fingrid Datahub Oy

Street address	Postal address	Telephone	Fax	Business ID 2745543-5, VAT reg.
Läkkisepäntie 21 00620 Helsinki	P.O. Box 530 00101 Helsinki, Finland	+358 (0)30 3955000	+358 (0)30 3955196	firstname.lastname@fingrid.fi <a href="http://www.fingrid.fi">www.fingrid.fi</a>

Task	Details
<b>Disconnection</b>	Discontinuing the sending of transactions
<b>Erasing trial run transactions from the environments</b>	The environments used must be emptied at the end of the trial run phase

The clean-up of environments mainly refers to the erasure of the data imported during migration and in the trial run phase. Due to technical factors, it may be necessary to set up the Datahub environments again, so the users will also need to be created again for the next trial run phase. The parties should take action to ensure that the environments they use in the trial run are cleaned up so that they do not unnecessarily retain any personal data without authorisation.

## 4 Monitoring of trial production run

Fingrid Datahub uses the Project Top application to monitor and report trial production run. In addition to the runbook tasks, the application has set up to-do lists to support the parties in performing the trial production run. The application serves as a deployment tool where parties report on deployment progress.

Through the application, the parties acknowledge the tasks and report delays in completing the deployment tasks. Based on this information, the Fingrid datahub will guide the joint deployment of the industry.

The user management and login of the application will be presented separately on May 3, 2021, and at the same time the application will publish the deployment to-do lists of the parties, which will be followed in the trial production run.

### 4.1 Communication

During the trial production run, Fingrid Datahub will also practice deployment communication.

Weekly status review on Thursdays from 9 am to 9.30 am on a separately announced channel. The status reviews are repeated every week from April 15 to July 2 and August 5 to October 7, 2021.

In addition to status reviews, Datahub reports in newsletters about the progress of the deployment and the next steps.

If a party has problems with performing Datahub tasks, it should be commented on in Project Top. mission.

#### Fingrid Datahub Oy

Street address

Läkkisepäntie 21  
00620 Helsinki

Postal address

P.O. Box 530  
00101 Helsinki, Finland

Telephone

+358 (0)30 3955000

Fax

+358 (0)30 3955196

Business ID 2745543-5, VAT  
reg.  
firstname.lastname@fingrid.fi  
[www.fingrid.fi](http://www.fingrid.fi)

Other problems or support requests from a party in the datahub direction should be made with a support request at [support.datahub.fi](mailto:support.datahub.fi). Fingrid datahub supports the parties during the trial production run. The Datahub Support Service ([support.datahub.fi](mailto:support.datahub.fi)) is used normally, but you are asked to add the tag TUKO to the title of support requests.

## 4.2 Error handling

Errors can be expected to occur during the trial run phase. Errors may occur during the Go-Live rehearsal phase in which preparatory measures are taken for the trial run phase in accordance with the runbook, as well as during the trial run phase itself. Parties should report any errors detected so they can be analysed. In principle, there is not expected to be time to handle all errors during the trial run. Instead, errors will be analysed after the trial run, unless an error prevents transactions from being sent entirely, thereby effectively preventing participation in the trial run phase.

However, the detection of errors will prepare the industry as a whole for the Go-Live and provide an opportunity to plan what to do if any identified errors arise after the Go-Live, unless it is possible to rectify the problem before the Go-Live.

Errors may include:

- customer data updates for customers that do not exist/are not identified
- missing metering data for an accounting point
- Datahub rejects the sent message
- incorrect acknowledgement of a transaction

Any errors during the trial run should be reported to Datahub's support service at [support.datahub.fi](mailto:support.datahub.fi).

Depending on the error, the Datahub operator may notify all of the parties in a manner determined separately.

Parties are requested to note that events that occur between the extraction of events and the start of a trial run are not exported to trial run environments, and not all business transactions are replicated to the trial run environment. This creates error situations in the systems. As the systems are not entirely the same as in production, situations will arise in which a transaction in the trial run environment ends up with a party who would not receive it in the production environment.

### Fingrid Datahub Oy

Street address

Läkkisepäntie 21  
00620 Helsinki

Postal address

P.O. Box 530  
00101 Helsinki, Finland

Telephone

+358 (0)30 3955000

Fax

+358 (0)30 3955196

Business ID 2745543-5, VAT  
reg.  
[firstname.lastname@fingrid.fi](mailto:firstname.lastname@fingrid.fi)  
[www.fingrid.fi](http://www.fingrid.fi)

## 5 Responsibilities and obligations of the parties

The market parties are obligated to participate in data migration, testing and certification and taking the other measures necessary to ensure the success of the trial production run. Parties may only participate in the trial production run if they have completed certification and signed the agreement on testing associated with the Go-Live of the centralised information exchange system for electricity trading.

If a market party will use the services of third parties in the trial production run, it is the market participant's responsibility to agree directly with the third party. Market parties shall also notify the third party of the necessary agreements based on the Guidance for third parties. A market party must inform the third party participation in production trial run in accordance with section 2.4.

### 5.1 System requirements

The party's system used for the trial production run must produce the same metering data that is processed in the production environment during the trial run. The party must be able to produce similar business processes as in production, and the design capacity must be sufficient. With regard to changes in the master data and the related electricity market transactions, the system must be capable of delivering data in accordance with Datahub's business rules.

The parties may use the environment that they used for certification if it has enough capacity to handle production volumes. The environment must also be equivalent to production environment in terms of information security and data protection. It should be noted that the environment must be connected to Datahub's production environment. The change requires time to establish connections.

The environments are subject to the following general requirements:

- It must be possible to integrate the environment into Datahub. In other words, it must be capable of communicating with Datahub. To perform production tests in the system, it must be possible to import a copy of the production system data into the test environment.
- The standard of information security and data protection in the test environment must be the same as in the production system. The parties must also manage access control to their test environments in the same way as in the production system.

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Street address

Läkkisepäntie 21  
00620 Helsinki

Postal address

P.O. Box 530  
00101 Helsinki, Finland

Telephone

+358 (0)30 3955000

Fax

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firstname.lastname@fingrid.fi  
[www.fingrid.fi](http://www.fingrid.fi)

- A Datahub production certificate must be obtained for the environment (Datahub will provide certificates)
  - That is, the production certificates will be used in the trial production run

It is possible that separate certificates will be downloaded for both rounds, or that the certificates used now will not be the same as at the time in production. Separate instructions will be issued on this.

## 5.2 Access management requirements

The system used during the trial run for storing personal data must have the same access rights as the system in production. Access should only be granted to personnel who have genuine grounds for processing the data.

During the trial production run, access to the Datahub system will be managed in the same way as during production. Parties should create the necessary access rights to Datahub's user interface in the same way as they would in production. Datahub has specified access right levels for the user interface, and parties should use these to create own access rights for their users corresponding to their requirements.

The creation of users using the user interface is done in the same way as it was done during testing, only the authentication type is different 2Fa. Two-factor authentication is used in production trials. Updated instructions for user creation is available at [services.datahub.fi](https://services.datahub.fi).

## 5.3 Data used

The trial production run will not use synthetic data. Instead, genuine production data created on the systems of market parties during the trial run will be used. This data also includes personal data. At this stage, the transactions are transferred from one party to another in the same way as they will when Datahub is in production. Therefore, Datahub transfers data between parties in accordance with business processes in the electricity retail market. One of the goals of the trial run is to verify imbalance settlement calculations, and this will only be possible by using production transactions to compare the sums calculated by Datahub with the calculations made by networks and eSett.

It is extremely important that only genuine market transactions are used. This is to ensure that parties do not transfer any personal data to each other via Datahub without authorisation, which would give rise to an information security breach of personal data, as well as to gain genuine assurance that the system is ready for production use in terms of aspects such as imbalance settlement.

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Street address	Postal address	Telephone	Fax	Business ID 2745543-5, VAT reg.
Läkkisepäntie 21 00620 Helsinki	P.O. Box 530 00101 Helsinki, Finland	+358 (0)30 3955000	+358 (0)30 3955196	firstname.lastname@fingrid.fi <a href="https://www.fingrid.fi">www.fingrid.fi</a>

EIC codes will be used for metering areas, and genuine GS1 and GLN IDs will be used as party IDs.

## 6 Processing of personal data

Personal data shall be processed lawfully, adhering to good data management practices in a manner that ensures appropriate security of the personal data, including protection against unauthorised or unlawful processing and against accidental loss, destruction or damage, using appropriate technical or organisational measures. The processing of personal data is subject to regulation 2016/679 of the European Parliament and of the Council on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (the “**General Data Protection Regulation**”) and the Data Protection Act (1050/2018), a national law enacted to clarify and supplement the Regulation.

Fingrid has evaluated the lawfulness of processing personal data during the preparatory phase for the Go-Live of the centralised information exchange solution for the electricity retail market from the perspective of data protection legislation. The preparatory phase for the Go-Live is divided into i) the data migration project and ii) testing and certification, which will proceed as separate, parallel processes and which will ultimately be implemented together in the final phase of preparations for the Go-Live in the trial production run and the Go-Live dress rehearsal. Before the trial production run begins, the market parties must complete certification to demonstrate that their services and systems are compatible with Datahub and they have the technical and formal readiness to begin production use of Datahub in accordance with their roles. Parties cannot participate in the production trial run if they have not completed certification. Datahub will conduct a status review with regard to milestones.

In the phases preceding the trial production run (system testing, stakeholder testing and certification), only synthetic or anonymised data is used. Production data containing personal data will only be processed in the trial production run and the Go-Live dress rehearsal. The trial production run is, therefore, the first phase in which electricity market parties supply production data to the Datahub system for forwarding onward to other electricity market parties in order to execute genuine production transactions. However, electricity market parties are only provided with the same data that they receive when they execute the genuine production transactions that occur during the trial production run.

Neither the current legislation nor the legal praxis prevent personal data from being processed during the development of information systems. However, if personal data is processed to this end, the information systems must be protected, and the amount of data processed must be minimised to suit the purpose. Furthermore, before processing

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begins, the controller must make and document an assessment of the prerequisites for and necessity of data processing, the personal data that is processed and the measures taken to protect the data. Fingrid has prepared such an assessment, and the conclusions are set out below.

Considering that this is a system of national importance which is intended to handle centralised information exchange for the national electricity market as a whole, the use of production data containing personal data for system testing is considered essential in order to ensure the functionality and information security of the system before Go-Live. However, this only applies to the final testing phase for the system insofar as the functionality of the system cannot reasonably be ensured using synthetic data. As such, the use of personal data in the trial production run can be considered justified and lawful.

## 6.1 Data Controller

The Act on the Amendment of the Electricity Market Act (108/2019) designates the main grid operator's subsidiary (Datahub Oy) responsible for the systems as a controller in tasks associated with centralised information exchange services for electricity trading. Market parties are controllers if they process data on their own personal registers, including during the trial production run.

Fingrid Datahub should, therefore, be considered the controller as of the first time that the electricity market parties deliver production data containing personal data to the data migration service's publication platform for transfer to the Datahub system to enable the trial production run. As the trial production run will cause Datahub to become the controller before the Datahub Go-Live date specified in the Electricity Market Decree, the parties must sign an agreement (agreement on testing related to the Datahub system deployment), which stipulates the rights and obligations pertaining to the trial production run in more depth. Datahub will coordinate the signing of the agreement.

Notwithstanding the agreement, a company that operates in the electricity sector and uses Datahub must maintain its own processes and systems in a way that ensures an appropriate standard of information security and thus creates the preconditions for efficient electricity markets. Datahub has a statutory obligation to ensure the information security of data exchange and the data stored.

The market parties must look after their own systems, keep their information security up to date, and take adequate measures to protect personal data. Each market party is responsible for making its own assessment on which safeguards are sufficient, weighing the risks against the rights of data subjects.

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#### Appendix 1 Trial production run top-level runbook

Tasks in accordance with the Go-Live runbook			Trial run 1		Trial run 2		
#	Phase name	Description	Party responsible	Start	Deadline	Start	Deadline
	Preparations for the trial run	Market parties fill in the production information to Titta (IP addresses, number of certificates needed, admin user information)	Market parties		Fri 30 April 2021		Fri 30 July 2021
1	Initialisation of the Datahub system to production readiness	The work phase in which the Datahub is initialized to production readiness.	Fingrid		Fri 7 May 2021		Fri 6 Aug 2021
1.1	Setting up the Datahub system	The Datahub system is installed as Fingrid's production environment in production readiness with an "empty database". The interfaces remain closed in this stage.	Fingrid		Mon 10 May 2021		Mon 9 Aug 2021
		Downloading of SSL certificates	Market parties	Tues 4 May 2021	Mon 10 May 2021	Tues 3 August 2021	Mon 9 Aug 2021
1.2	Opening the Datahub interface	Fingrid opens the Datahub interface for connection tests and later production use.	Fingrid		Thur 13 May 2021		Thur 12 Aug 2021
1.3	Initialisation of permissions to Datahub	Fingrid sets up users for the Datahub user interface and machine users for the B2B interface	Fingrid	Mon 3 May 2021	Thur 13 May 2021	Mon 2 August 2021	Thur 12 Aug 2021
2	Datahub production connections are opened and verified	The Datahub interface is opened to market parties, who verify that the connections work by sending a Peek message. Datahub's market processes will not yet be available at this stage.	Fingrid, Market parties	Thur 13 May 2021	Mon 31 May 2021	Thur 12 Aug 2021	Mon 30 Aug 2021
3	Pre-Migration of master data and metering data	Grid operators deliver master data and metering data to Titta. Suppliers update GSRN codes to their own systems.	Market parties	Mon 10 May 2021	Sun 16 May 2021	Mon 9 August 2021	Mon 9 August 2021
		<i>Grid operators deliver master data to Titta and run integrity checks</i>	Grid operators	Mon 10 May 2021	Mon 10 May 2021	Mon 9 August 2021	Mon 9 August 2021
		<i>Grid operators deliver metering data to Titta from period 8 June 2015 at 00:00 to 5 April 2021 at 00:00</i>	Grid operators	Mon 10 May 2021	Sun 16 May 2021	Mon 9 August 2021	Sun 15 August 2021

	<i>Grid operators run integrity checks on the metering data delivered in the pre-migration. Metering data checks are only started after the master data has been delivered and checked.</i>	Grid operators	Tue 11 May 2021	Sun 16 May 2021	Tue 10 August 2021	Sun 15 August 2021
	<i>Suppliers update GSRN code to their own systems</i>	Suppliers	Tue 11 May 2021	Sun 16 May 2021	Tue 10 August 2021	Sun 15 August 2021
4	Stepwise phasing out of PRODAT processes and the deployment of buffers <b>Not mandatory in the trial production run</b> Testing of message buffers is voluntary	Market parties	Fri 21 May 2021	Mon 31 May 2021	Fri 20 Aug 2021	Mon 30 Aug 2021
5	Migration of master data to Titta Market parties deliver master data to Titta and run integrity checks.	Fingrid, Market parties	Mon 17 May 2021	Mon 17 May 2021	Mon 16 Aug 2021	Mon 16 Aug 2021
	<i>Extraction of master data (means taking a snapshot of the May 17 situation in which the system used in the production test run is initialized)</i>		<b>17 May 2021</b>	<b>6 am–10 am</b>	<b>16 Aug 2021</b>	<b>6 am–10 am</b>
	<i>Delivery of master data and metering data to Titta</i>		Mon 17 May 2021 at 6 am	Mon 17 May 2021 at 4 pm	Mon 16 Aug 2021 at 6 am	Thu 26 Aug 2021 at 4 pm
TUKO	<i>The parties copy business data from the production environment to the test environment</i>		Mon 17 May 2021	Sun 6 Jun 2021	Mon 16 Aug 2021	Sun 5 Sep 2021
5.1	Master data consistency checks in Titta <i>Fingrid assesses the quality of the data based on the results of the consistency check</i>	Fingrid, Market parties	Mon 17 May 2021 at 5 pm	Mon 17 May 2021 at 9 pm	Mon 16 Aug 2021 at 5 pm	Mon 16 Aug 2021 at 9 pm
	<i>Additional consistency check in Titta (if necessary)</i>		Tue 18 May 2021 at 5 pm	Tue 18 May 2021 at 9 pm	Tue 17 Aug 2021 at 5 pm	Tue 17 Aug 2021 at 9 pm

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[www.fingrid.fi](http://www.fingrid.fi)

6	Main migration of metering data to Titta	Distribution system operators deliver metering data to the main migration	Fingrid, Market parties	Mon 17 May 2021 at 4 pm	Thu 18 May 2021 at 4 pm	Mon 16 Aug 2021 at 4 pm	Tue 17 Aug 2021 at 4 pm
		<i>Extraction of metering data for the period from 5 April 2021 00:00 to 17 May 2021 00:00</i>		Mon 17 May 2021 at 4 pm	Tue 18 May 2021 at 4 pm	Mon 16 Aug 2021 at 4 pm	Tue 17 Aug 2021 at 4 pm
		<i>Distribution system operators run integrity checks for metering data</i>		Tue 18 May 2021 at 6 am	Tue 18 May 2021 at 4 pm	Tue 17 Aug 2021 at 6 am	Tue 17 Aug 2021 at 4 pm
7	Migration of master and metering data to Datahub	The data submitted to Titta and verified by Titta will be migrated to Datahub by Fingrid.	Fingrid	Wed <b>19 May 2021</b>	Thu <b>3 Jun 2021</b>	Wed 18 Aug 2021	Thu 2 Sep 2021
		Fingrid loads the master data into the datahub system		Wed 19 May 2021	Fri 21 May 2021	Wed 18 Aug 2021	Fri 20 Aug 2021
		Fingrid loads the metering data into the datahub system		Mon 24 May 2021	Sun 30 May 2021	Mon 23 Aug 2021	Sun 29 Aug 2021
7.1	Checks of data migrated to Datahub	Data quality checks to be performed after the migration of data to Datahub. The market parties will verify the success of the data migration to Datahub by checking the reports generated by Titta.  The main responsibility for data checks lies with Titta (section 5.1). At this stage, migration errors in master data are only expected in exceptional circumstances. However, more errors may be detected in metering data that is not validated by Titta.	Fingrid, Market parties	Mon 31 May 2021	Fri 4 Jun 2021	Mon 30 Aug 2021	Fri 3 Sep 2021

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8	Unloading of buffers for master data	<b>Voluntary</b> The phase during which the market transactions buffered during the freezing period (such as supplier switches) and data changes (such as updates to customer data) are reported to Datahub. The buffers are unloaded using Datahub's market processes.	Market parties	Mon 7 Jun 2021	Mon 7 Jun 2021	Mon 6 Sep 2021	Mon 6 Sep 2021
9	Final migration of metering data	<b>Voluntary</b> The phase during which metering data that is new or changed in relation to the data in the premigration and main migration phase (including data that has caused an error in the past) is delivered to Datahub using the process DH-211 with regard to exchange points and production plants. Datahub also transmits metering data submitted by the DH-211 process to suppliers as per the normal process.	Market parties	Tue 8 Jun 2021	Tue 8 Jun 2021	Tue 7 Sep 2021	Tue 7 Sep 2021
<b>10</b>	<b>Actions at the moment of change</b>	Actions to be taken after the unloading of buffers and the final transfer of metering data in order to put Datahub into production use.	Fingrid	Wed 9 Jun 2021	Wed 9 Jun 2021	Wed 8 Sep 2021	Wed 8 Sep 2021
11	Post-hoc actions	Post-hoc checks of the data quality and the functioning of market processes, corrections of errors detected in the data or process, transfer of imbalance settlement and balance deviation responsibility to Datahub, and other actions to verify the success of the Go-Live.	Fingrid, Market parties	Wed 9 Jun 2021	Thu 24 Jun 2021	Wed 8 Sep 2021	Thu 23 Sep 2021
TUKO	<b>Trial production run</b>	Running business processes using DH messages to Datahub	Fingrid, Market parties	Wed 9 Jun 2021	Thu 24 Jun 2021	Wed 8 Sep 2021	Thu 23 Sep 2021
TUKO	Terminating the trial run phase	Erasing transactions created during the phase from the environment	Market parties	Mon 28 Jun 2021	Fri 2 Jul 2021	Mon 27 Sep 2021	Fri 1 Oct 2021

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