

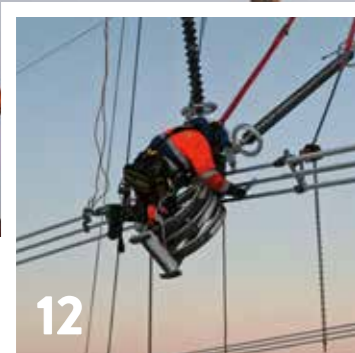
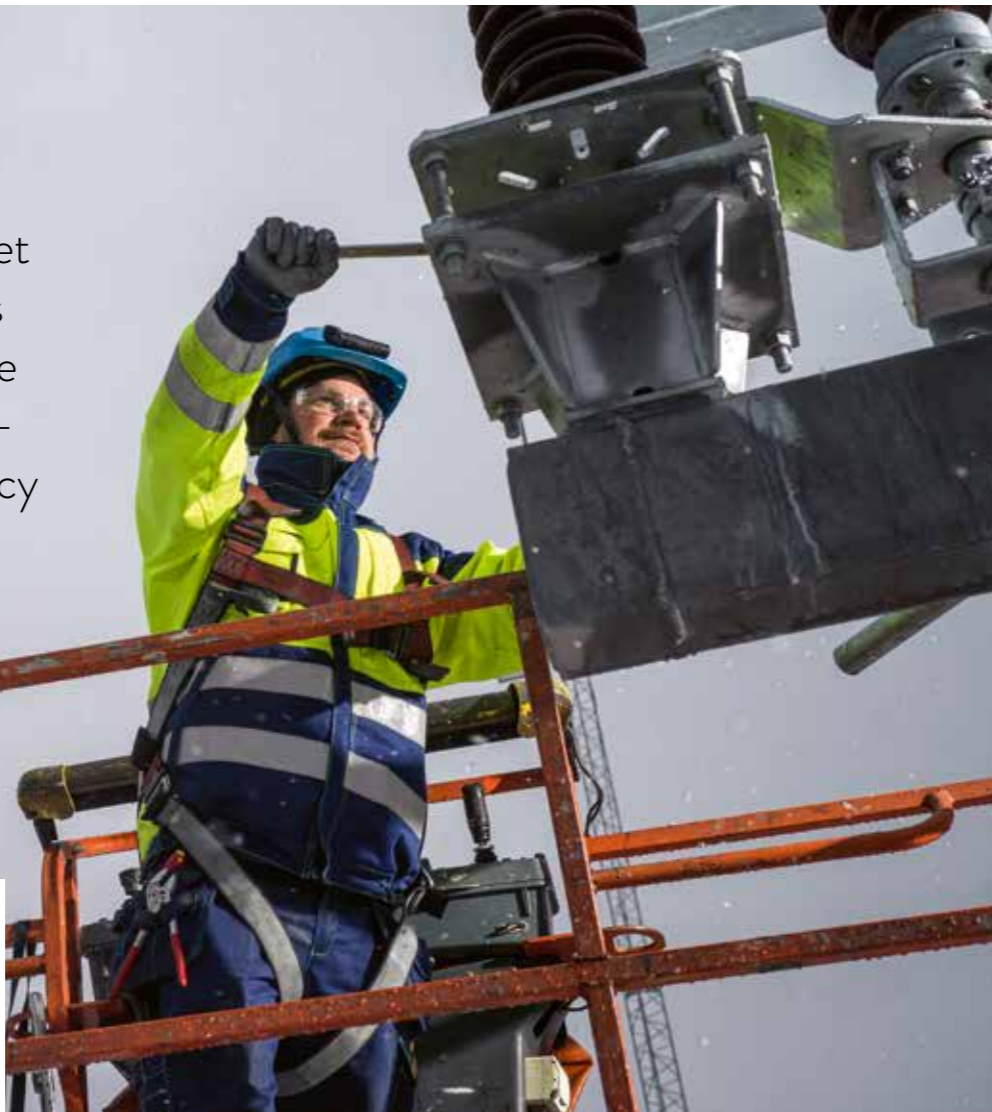
SAFETY ON THE LINES



The theme
for 2023 is
*Safety is a part of
the day-to-day*

6

Fingrid's main target for its worksites is **zero accidents**. The milestone is a lost-time injury frequency of less than five.



12



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4 OCCUPATIONAL SAFETY IN 2022

Active work was done to promote occupational safety on Fingrid's worksites.

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QR codes on the Valkeus worksite make it easier to submit safety observations.

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Success in the "Occupational safety is created by individuals and teams" campaign.

15 PRACTICAL QUESTION

What are the contingency plans for power cuts on worksites?

Safety is a part of the day-to-day

FINGRID HAD a busy year in 2022. It was also a good year in terms of occupational safety, although less so for global situation.

We nudged the lost-time injury frequency further down, even though the total amount of work was huge. In autumn 2022, the injury frequency even dipped below five at the best times.

Naturally, this is still not good enough: every accident is one too many, and we must aim for exactly zero accidents. We are making promising advances towards this target, and years of long-term work seem to be paying off.

The decrease in the injury frequency is thanks to a huge amount of preventive occupational safety work. This is reflected in changing attitudes, as well as in the metrics. The number of safety toolbox talks held, safety observations made, and work risk assessments carried out in 2022 have been incredible.

However, we now need to set our sights on the year ahead and the opportunities it will bring.

This year, we are encouraging personnel to consider safety as a part of their day-to-day activities at work and in their leisure time. We are continuing our efforts to jointly develop a safety culture based on dialogue – this is my everyday job and also yours and all of ours!



"The goal must be exactly zero accidents."

All our normal services will be available to you again this year: we offer various forms of on-site training, briefings, webinars, and specialist support.

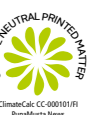
There are plenty of interesting things to come, so stay tuned!

Maija Nurmi
Expert, EHSQ, Occupational Health and Safety Manager
Fingrid

FINGRID

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CONTACT US! Occupational safety is a shared issue that we aim to develop in collaboration with our suppliers. All feedback is important. Contact Karri Koskinen with tips for articles, development ideas, and feedback on the magazine. Do not hesitate to contact us if you have any questions about occupational safety. Karri Koskinen, *Expert, Safety*, tel. +358 40 631 2152, karri.koskinen@fingrid.fi

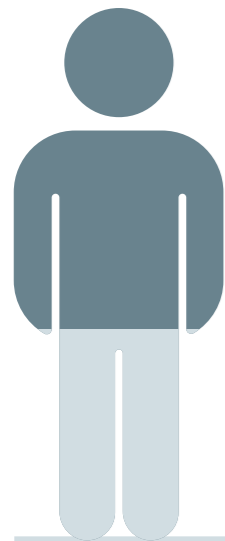


Occupational safety in 2022

In 2022, there were fewer workplace accidents leading to absences in Fingrid's work locations than in the previous year. The lost-time injury frequency also decreased substantially. Unfortunately, the number of workplace accidents leading to more than 30 days of sick leave increased in 2022.

Active work was done to promote occupational safety in Fingrid's work locations.

COMPILED BY KARRI KOSKINEN | INFOGRAPHIC LAURA YLIKAHRI



2022 (2021)
Total person-years of work
1,089 (1,094)

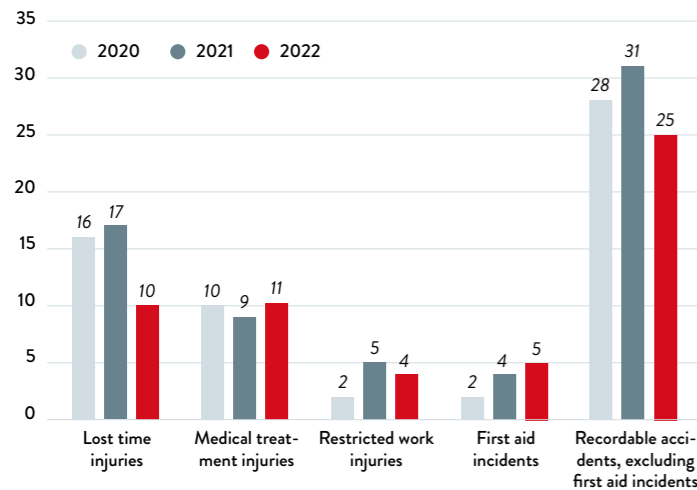
642 (703)
Person-years by service providers

447 (391)
Person-years by Fingrid employees



640
safety observations.

In 2022, the personnel in Fingrid's work locations were active in submitting safety observations, with a clearly larger number submitted than in 2021. At the same time, Fingrid surpassed its target of 600 safety observations. The target for 2023 is 700 safety observations.



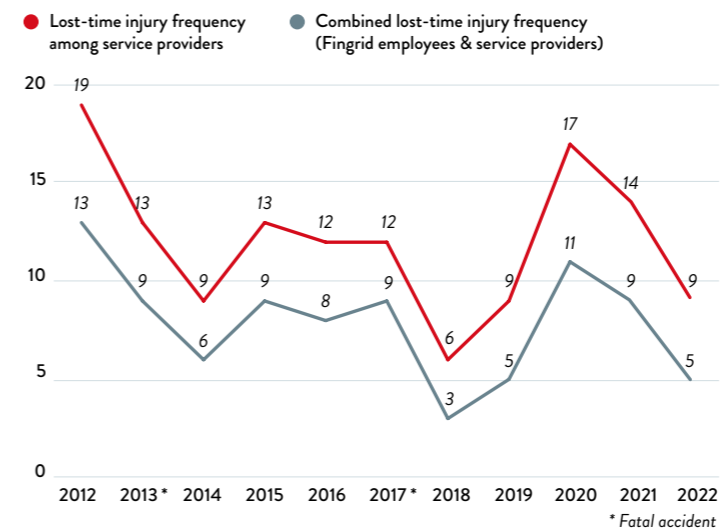
2022 (2021) A total of **25 (31)** recordable workplace accidents occurred in Fingrid's work locations.

Six of the workplace accidents leading to absences resulted in more than 30 days of absence, and they were classified as severe accidents. The majority of the occupational accidents occurred in transmission line and substation projects. Half of the workplace accidents leading to absences were due to slipping or tripping.

Safety toolbox talks contribute to Fingrid's objective of developing a **dialogue-based safety culture** that builds on the Crystal-Clear Line principle. The target for 2023 is more than 1,000 safety toolbox talks.



In 2022, a record **1,010** safety toolbox talks were held. The target of 800 safety toolbox talks was surpassed with ease.



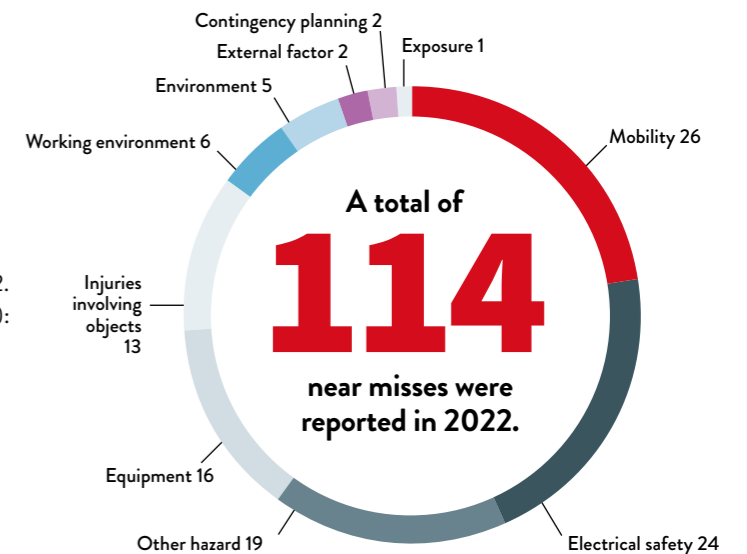
The lost-time injury frequency in 2022 (2021) was **5.4 (9.1)**

The target for the combined lost-time injury frequency in 2022 was below 5. The actual lost-time injury frequency was 5.4, which is much lower than in the previous year. On the journey towards zero accidents, Fingrid's milestone for 2023 is to record fewer than five.

Lost-time injury frequency = number of workplace accidents leading to at least one day of sick leave / million working hours



A total of 114 near misses were reported in 2022. Two were placed in the most severe category (A): in the first incident, a crane boom broke midway through a lift, and the load fell to the ground. In the second incident, an earth fault arose while stringing conductors. A steel traction wire made contact with the phase conductor of a 220 kV transmission line. Electrical safety and mobility were key factors in the near misses.



A total of **114** near misses were reported in 2022.

AIMING FOR **ZERO** ACCIDENTS

A safety mindset is already integral to everyday work on Fingrid's sites. Safety is discussed naturally during orientations and meetings, and the personnel on worksites make weekly observations to enhance safety.

TEXT SUSANNA CYGNEL | PHOTOS VESA RANTA





“Last year, there was not a single accident leading to sick leave on the Valkeus substation worksite,” says **Aleksi Mäkilä**, Worksite Manager at Caverion Industria.

Employees on the Valkeus worksite can submit safety observations using a convenient QR code.



There is reason to be cheerful on the site of the new Valkeus substation, as the personnel working there met all of Fingrid’s preventive safety targets last year.

“There were plenty of risk assessments, safety observations, safety toolbox talks, and safety discussions, and we did not have any sick leave due to accidents,” says **Aleksi Mäkilä**, the Worksite Manager from Caverion Industria.

Operating methods have been developed with safety in mind. For example, QR codes are used on the Valkeus worksite to make it easier to submit safety observations.

“The code links to a form, prefilled with all the worksite details, so employees can start recording their observations right away. The QR code has helped us to submit far more safety observations than before because it is so easy now, and there is no need for employees to spend their coffee breaks dealing with paperwork,” Mäkilä says.

“Far more safety observations were recorded on our site than before, thanks to the QR code.”

SAFETY OBSERVATIONS LEAD TO IMPROVEMENTS

Fingrid’s primary objective is to have zero accidents on its worksites. The milestone is a lost-time injury frequency of less than five.

“Ideally, a safety mindset and preventive approach would become second nature on worksites. For example, submitting safety observations would be an integral part of on-site work rather than an extra step for employees to think about,” says **Timo Kiiveri**, Senior Vice President at Fingrid.

Safety observations can be quite mundane, such as the need for warmer work gloves or a new blade guard for a grinder. One of the



The Valkeus substation worksite met all of Fingrid's preventive safety targets last year.

responsibilities of a supervisor is to read through every safety observation and address any problems. It is frustrating if an employee reports something that undermines safety but nobody takes action.

"Employees are more likely to continue submitting safety observations if they lead to tangible improvements, such as making a better access route or buying brighter lights around the site hut," says Mäkilä.

INSTALLATION TECHNICIANS INVOLVED IN WRITING INSTRUCTIONS

Enersense is a contractor on Fingrid's worksites in Leväsuo, Isojoki and Simojoki, among others. Last year, Enersense began updating its work instructions. This involved reviewing all the instructions and associated safety aspects with the installation technicians and supervisors.

"Work instructions should provide as much detail as possible about how to do the work



correctly and safely. Installation technicians have the most valuable experience in this area. Our subcontractors were also involved in revising the work instructions," says Paavo Kaija, Project Manager at Enersense.

Safety is also covered at worksite start-up meetings. Invitations are also sent to as many installation technicians and subcontractors' supervisors as possible, so important information goes directly to the people who do the work.

"Employees are more likely to continue submitting safety observations if they lead to tangible improvements."

Furthermore, personalised orientation is provided before any work begins, so newcomers learn and internalise all the safety issues.

"We have lots of people with widely differing experience levels on our worksites, so we always customise our orientation programmes based on each person's background," Kaija emphasises.

Caverion Industria, on the other hand, has introduced a top-down approach to orientation. This means that supervisors communicate safety practices to their subordinates, who then hand them down to their own subordinates.

"This enables everyone to take the safety issues on board more thoroughly," Mäkilä explains.

ATTITUDES IMPROVING FURTHER AMONG INSTALLATION TECHNICIANS

Enersense usually uses subcontractors in its large projects, but the project managers and people responsible for safety are mostly Enersense employees.

"We have well-established subcontracting chains, making it easier to look after safety. We are a team of familiar faces, even though some of us wear a different company's colours. We all take responsibility for safety," Kaija says.

Kaija praises the safety attitude of employees and emphasises that those who have been in the industry for a long time also take safety into account in their everyday work. The number of occupational accidents is decreasing all the time, and we hardly have any injuries resulting in sick leave.

"We have veterans who have been working here since the 1980s. We also have newer people starting out in their careers, and everyone in between. Our people are very receptive to safety matters, irrespective of their experience levels."



Tips were given by Timo Kiiveri, Senior Vice President, Asset Management at Fingrid.

Important topics for safety toolbox talks

1 SLIPPING AND TRIPPING can be avoided by keeping the worksite tidy and ensuring there is no mess or rubbish lying around where people need to walk. Suitable footwear helps employees to stay balanced on uneven terrain. If necessary, anti-slip devices are used.

2 Everyone in the industry understands **INDUCED VOLTAGES AND ELECTRICAL HAZARDS**. Nonetheless, it is worth reviewing electrical safety regularly during safety toolbox talks and reminding employees that induced voltages can be conducted from longer distances.

3 TRAFFIC ACCIDENTS can be prevented by planning travel well and ensuring nobody needs to drive when tired or for excessive distances. Appropriate equipment, composure, and safety distances are essential when driving!

4 SAFETY AT WORK AND IN LEISURE TIME are two sides of the same coin. Employees should take their safety mindsets home with them. For example, it might be wise to use anti-slip studs on shoes when walking the dog and take care when climbing ladders at home, as well as in the workplace.

Care must be taken WITH EARTHING

The number of incidents in which the earthing rules were not followed for one reason or another was higher than normal in 2022.

TEXT MATTI VÄLIMÄKI | PHOTOS RISTO UUSITALO AND FINGRID

Jani Pelvo, Senior Expert and Person in charge of operation of electrical installations, says that the earthing statistics for 2022 are a sign of a troubling trend: we normally receive three or four reports of near misses related to additional earthing, but in 2022, there were five.

“In two cases, an additional earthing plan had been drawn up as per the requirements, but for some reason – perhaps carelessness – the installation technicians did not follow the plan.”

In two other cases, the installation technician did not observe the specified safety distance from live components. In the fifth case, an installation technician carrying out repairs at a substation moved a current-carrying connector by hand instead of using an additional earthing rod, as stated in the instructions.

Every year, contractors apply earthing hundreds of times on Fingrid’s worksites. Although no personal injuries occurred this time, every departure from the safety rules is one too many.

“We will place further emphasis on this matter in our training,” says Pelvo.

WORK MACHINERY MUST ALSO BE EARTHED

There were also shortcomings in the earthing of machinery.

Two to four deviations are recorded every year, and four occurred in 2022, all on substation worksites. We also got off lightly on these occasions.



“We now aim to emphasise the importance of earthing work machinery when we provide training.”

Jani Pelvo
Senior Expert and Person in charge
of operation of electrical installations
Fingrid

“If there is a risk of an excavator or even a crane truck crossing the safety boundary into an area with live components, it must have special machinery earthing,” Pelvo points out.

He thinks that the deviations are partly due to contractors using subcontractors who are not accustomed to working on electrical worksites.

“We now aim to emphasise on the importance of earthing machinery when we provide training.”



GOOD NEWS AS WELL

Of course, the statistics for 2022 also contain some good news.

“Main earthing was well under control – there were no deviations in this area.”

Fingrid requires transmission lines to have additional earthing using two tools. The reason for requiring double earthing is to ensure that induced voltage is not conducted to the work location if an additional earthing tool breaks or becomes detached.

“People have taken this requirement on board. Compliance with this requirement in main grid transmission line work has been excellent,” Pelvo says. ♦

Safety requires the right attitude

JANI GRATSCHEV from Omexom is responsible for the contractual maintenance of substations. He says that true professionals always ensure occupational safety – for example, by following additional earthing plans to the letter. Omexom also emphasises this.

“The attitude is the most important thing. We constantly talk about this theme, and we invest in training, for example. Training also communicates the importance of the matter,” says Gratschev. ♦

Occupational safety improves when risks are assessed

Fingrid has run annual occupational safety campaigns on its worksites. Last year's campaign reminded employees that occupational safety is created by individuals and teams.

TEXT MINNA SAANO | PICTURE FINGRID

The campaign aimed to remind employees of the importance of considering the hazards on the site and how to prepare for them. People were encouraged to think about these issues individually or in teams before they started working," says **Markku Pöysti**, Occupational safety Expert at Fingrid.

The campaign ran from April to October 2022, and it was intended for all Fingrid service providers and Fingrid employees.

"We supported risk assessments and encouraged personnel to identify the different work phases and associated hazards. This makes risks easier to break down," Pöysti says.

One topic was brought up for more detailed examination every month. Special attention was paid to the hazards of working at height, traffic and driving, slipping and tripping, lifting heavy items, electrical safety, and work machinery and equipment.

"We received many times more risk assessments than in previous years. The result shows the campaign was necessary and successful," Pöysti says.

ACTIVE PARTICIPATION

Jani Gratschev, Manager of Substation Maintenance Services at Omexom, says that their occupational safety activities complemented Fingrid's campaign nicely.

"It was easy to get our employees to assess the risks of work when Fingrid also considered it important."

The campaign was welcomed at Omexom's sites around Finland, and large numbers of risk assessments were received.

"It was pleasing to see how well our personnel got involved in the campaign. Assessments were submitted from all our sites by many different people working there.

Analysing risks before starting

"Analysing risks before starting work is already a routine step for some people, and this has now motivated everyone else."

Jani Gratschev
Manager of Substation
Maintenance Services
Omexom

work is already a routine step for some people, and this has now motivated everyone else."

The results of the campaign were reviewed with personnel at joint safety toolbox talks. These were an opportunity to disseminate Fingrid's model to units that were not working with Fingrid.

"The campaign generated internal motivation in our company. When we receive positive feedback for being so active, it encourages people in the field to continue working towards better safety. It is good to ingrain this operating model in the day-to-day routines of every one of our employees," Gratschev says.

"Campaigns are needed from time to time, and this was a good one." ♦



A PRACTICAL QUESTION



What are the contingency plans for power cuts on worksites?

Enerke has decades of experience in substation construction and maintenance. Contingency plans have always been made when building substations, and power cuts do not pose a problem. **Perttu Rytivaara**, Environment, Health and Safety Manager at Enerke, says that power outages are normal in their line of work.

TEXT TUIJA HOLTINEN

1 What hazards can a power cut cause on a worksite?

We have contingency plans for all kinds of unexpected challenges. One example of a hazard is when a person works alone and is unaware that a power cut has occurred. This can cause other damage in the substation area.

When the electricity is restored after a power cut, it may break equipment, for example. It is important to ensure safe working conditions at all times, especially after breaks.

2 How can you continue working if a power cut occurs on a worksite?

We use devices and tools that either run on batteries or can operate on reserve power. Our vehicles also have inverters for charging tools and several types of battery-powered lights.

We also keep a small reserve of fuel for our vehicles to ensure some mobility in the event of large-scale disturbances.

3 How do you train your personnel to handle exceptional circumstances?

We are used to working in exceptional circumstances, as we are responsible for resolving disturbances in various contexts. We go through the general occupational safety matters with every employee and continue the orientation on the worksite. The orientation also covers how to ensure the availability of fuels in the event of a disturbance and how to operate tools.

The personnel are regularly provided with the training they need to gain permits, and other types of training are arranged whenever necessary. Continuous learning and keeping knowledge fresh are permanent policies for us. ♦

"It is important to ensure safe working conditions at all times."



Invitation to Fingrid's occupational safety briefings

FINGRID holds regular occupational safety briefings for Fingrid employees and service providers to share information on relevant occupational safety themes, accidents, near misses and safety observations – including positive ones, naturally.

THE OCCUPATIONAL SAFETY BRIEFINGS are in Finnish and are held on Teams. Calendar invitations are sent to everyone on Fingrid's occupational safety mailing list.

FOR FURTHER INFORMATION on the briefings, please contact Markku Pöysti, Occupational safety Expert.

Email addresses are in the form `firstname.lastname@fingrid.fi`.

See you online!



Photo: Risto Uusitalo



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