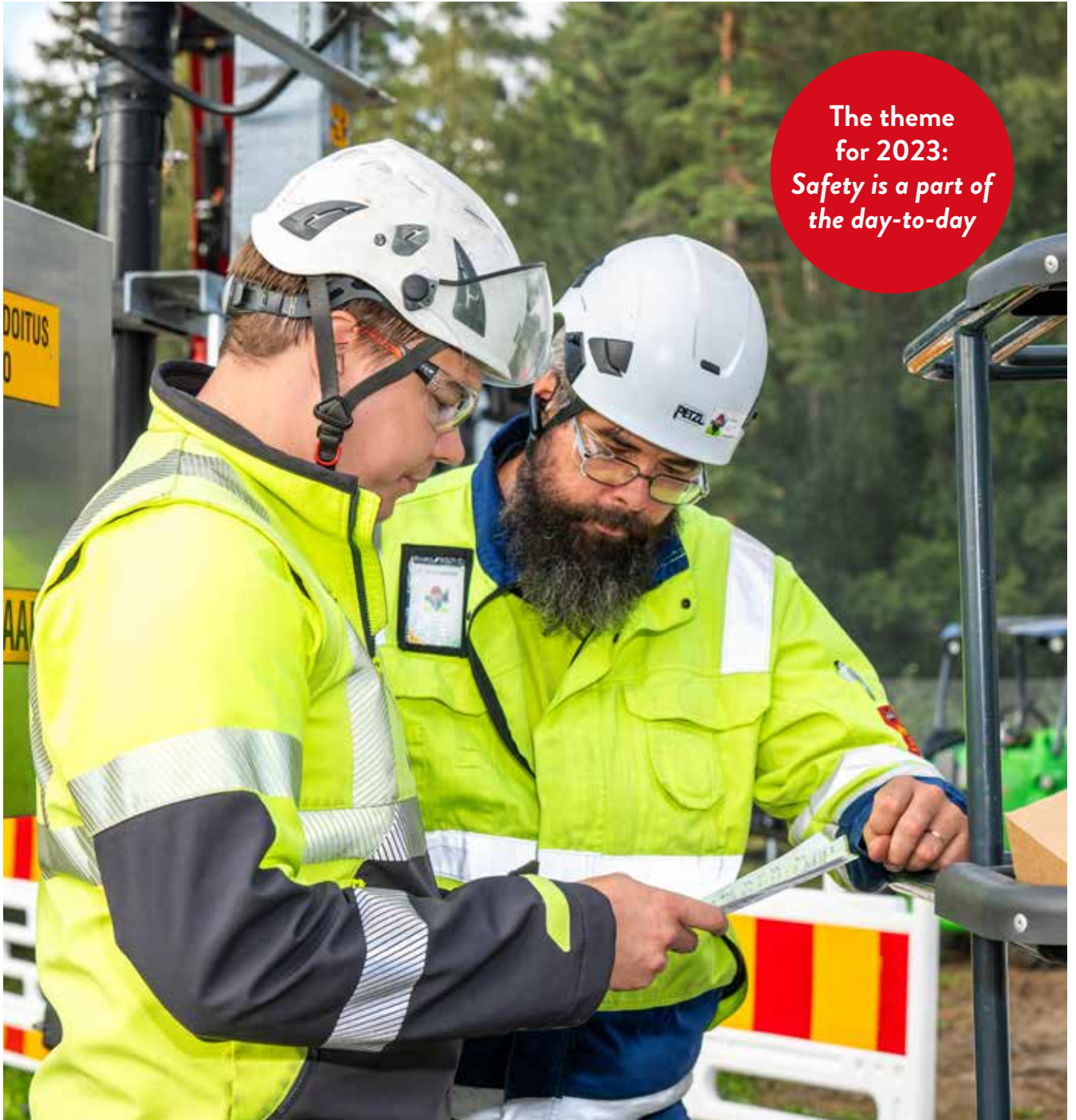


SAFETY ON THE LINES



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

4 “Coordinating tasks is particularly important on large worksites so everyone can work safely.”



4 SAFETY ON ELECTRICAL WORKSITES
 Choosing the right working methods and complying with instructions are essential when building the main grid.

10 ELIMINATE RISK BEHIND THE WHEEL
 Safe drivers make sensible choices and obey traffic laws.

12 OCCUPATIONAL SAFETY TRAINING
 Wise to practise rescuing people from confined spaces.

14 SAFETY IN LEISURE TIME
 Avoid accidents at home by thinking ahead and planning.

15 A PRACTICAL QUESTION
 Patience and planning also ensure safety outside of work.

Put your safety shoes on, Dad!

OUR OCCUPATIONAL safety theme this year is Safety as a Part of Every Day. Many of us will hardly be surprised to learn that the accident rate in Finland is relatively high. We are a nation used to taking care of a lot of things ourselves.

The “I don’t need help” mindset is part of the famous Finnish *sisu* and folklore. Finland was built on *sisu*, and hopefully we will never lose it.

I also enjoy a good project – my most recent one was to build a cottage on an island. And, of course, I had to do it all myself.

In four years of construction work, I went through my fair share of tiredness and frustration. All too often, being tired and rushed, my safety-first approach began to slip. I didn’t always remember to do things safely, and even when I did, I lacked the energy to think it through. But this is just human nature.

Luckily, someone else had their eye on the ball at these moments: “Hey Dad! Why aren’t you wearing your safety goggles?,” “Hey Dad! Put your safety shoes on now!”

There is strength in numbers – it creates safety. Without this, our cottage would still not be finished. Just when I lost focus, my nearest and dearest looked after my safety, thanks to the lessons I had taught them.

“Let’s stay alert and think safely every day.”



I may have regressed to my old habits, but I was also pleased to see that I had managed to pass something on to the next generation.

There are a few months still left of this year. Many homeowners may not yet have finished all their autumn chores, the streets are darker during our commutes, the roads are slippery, and we feel busy and tired.

So let’s challenge our old habits, stay sharp and think safely every day. If a friend or colleague misses something, help them out and keep them safe. Warning is caring!

Wishing you safety every day,

Markku Pöysti
 Expert, Occupational Safety
 Fingrid

FINGRID

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EDITOR-IN-CHIEF Karri Koskinen, tel. +358 40 631 2152, karri.koskinen@fingrid.fi **MANAGING EDITOR** Lotta Hakanpää, tel. +358 400 514 576, lotta.hakanpaa@fingrid.fi **AD** Laura Ylikahri **PRODUCER** Susanna Haanpää **EDITING** Legendium **PRINTING** Punamusta
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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



*Coordination and
communication improve*

SAFETY ON ELECTRICAL WORKSITES

With many working groups operating side-by-side on a main grid worksite, everyone must know exactly what work is underway and which stage it has reached. Since the start of June, it has been mandatory to announce the need for additional earthing – this is one of the steps Fingrid has taken to ensure safety.

TEXT SUSANNA CYGNEL | PHOTOS KATI LÄNSIKYLÄ

Construction of the main grid involves working with high voltages. We cannot afford any accidents.



Personal safety is the top priority in all activities on Fingrid's worksites. Construction of the main grid involves working with high voltages, and avoiding all accidents and near misses is essential.

"Our target for main grid worksites is zero accidents. In addition, there should be no hazards to third parties near transmission lines," emphasises **Jani Pelvo**, person in charge of operation of electrical installations at Fingrid.

Safety equipment, safety distances from live components, correct working methods, and compliance with instructions are essential when working with high voltages.

Fingrid holds separate electrical safety training events to cover these and many more aspects of electrical work. The events are tailored for people working on high-voltage installations.

"In our opinion, the statutory electrical safety training is not comprehensive enough for high-voltage operations, so we include additional emphases in our training courses as challenges arise. That is why it is important to report all near misses and other observations to us," Pelvo says.

"We add additional emphases to our safety training as challenges arise."

COMMUNICATION AND ORIENTATION BECOMING MORE NECESSARY

Taking other working groups into consideration is an integral aspect of worksite safety.

"Tasks need to be coordinated so that it is safe for everyone to work, especially on large worksites. Coordination and communication are necessary to avoid unforeseen situations and damage," Pelvo says.

Paavo Kaija, HSEQ Manager at Enersense, emphasises the importance of communication in all activities on electrical worksites as the green transition proceeds - the more investments are made in renewable energy and new types of power plants are built, the more worksites and different operators there are.

"For example, wind power projects involve many new types of installations, with operators working in parallel. It is no longer a case of building a single line - there are multiple connections →



Unexpected situations and accidents can be avoided by coordinating tasks precisely and safely.



We must focus carefully on occupational safety in every work phase.

and branches, some made at the same time. This means that everyone must focus more on safety and share information,” Kaija emphasises.

Continuous training within working groups is a big part of ensuring safety. Enersense has increased the number of worksite meetings it holds.

“We have a worksite meeting every morning, not just at the start of a project. Every task is reviewed individually. In other words, we break down the job into small parts during orientation,” Kaija says.

Clarity is the focus when writing instructions so that international and temporary workers receive all the most important information.

“Our work plans now include a lot of pictures, so safety is not affected, even if we do not speak the same language fluently. Finnish norms differ from international ones, but pictures are clear and unambiguous,” Kaija says.

Where international working groups are concerned, it is also important to point out that

”Our work plans now include a lot of pictures, so safety is not affected, even if we do not speak the same language fluently.”

Finland’s electricity grid is unusual: induced voltage behaves differently than, for example, in the Baltic countries. In Finland, transmission lines often run long distances in parallel, presenting a risk of induced voltages in transmission lines in the same right-of-way as the work location.

“It is essential to understand the need for additional earthing to ensure the work location is unenergised. This may surprise some foreign workers, so it should be emphasised during orientation,” Kaija says.

ADDITIONAL EARTHING REQUIRES CONCENTRATION

Planning and implementing additional earthing is a critical safety issue on which Fingrid now aims to place a special emphasis. Inadequate planning and implementation of additional earthing has led to hazardous situations on worksites.

“For example, a group may have planned the additional earthing correctly, but the installation technician failed to follow the plan. We are now providing additional training and requiring additional earthing to be reported to reduce the number of similar incidents and highlight the importance of the issue,” Pelvo says.

Service providers have made additional earthing plans on electrical worksites for years, but the need for additional earthing became a separate mandatory field on the online safety declaration form at the start of June.

“Groups must evaluate the need for additional earthing when they complete the safety declaration form. If additional earthing is necessary, they should describe where it is needed and how it will be implemented. Alternatively, they can attach a separate additional earthing plan,” says **Veijo Siiankoski**, Grid Maintenance Manager at Fingrid.



Additional earthing is an important safety measure. It can ensure that a work location in a high-voltage installation is unenergised and eliminate hazardous induced voltages in work locations. ♦

Work must not begin without a work preparation permit

NO WORK of any kind may take place on an electrical worksite until Fingrid issues a work preparation permit.

The process of starting work in electrical installations follows a fixed order that must not be changed. Firstly, Fingrid de-energises any live installations and installs the main earthing. After that, Fingrid’s Main Grid Control Centre issues a work preparation permit to the working group. The working group should then install additional earthing in the work location before starting work.

“Safety must never be compromised due to a lack of time. Working groups must always wait until the transmission system operator issues a work preparation permit before installing additional earthing and starting work,” says **Veijo Siiankoski**, Manager, Maintenance Management from Grid Maintenance.

Fingrid’s instructions “Operating and electrical work safety in the main grid” (kk31304) must be followed whenever work is done in Fingrid’s electricity grid.

Eliminate risk behind the wheel

Fingrid's employees and partners often need to travel the country by road. Safe drivers make sensible choices and obey traffic laws.

TEXT VESA VILLE MATTILA | PHOTO FINGRID

Driving during working time is covered by the Occupational Safety and Health Act, and the employer must consider the risks of driving. It is good to remember that everyone is responsible for keeping their vehicles in proper condition.

A reform of the Road Traffic Act that took effect in 2020 aimed to make traffic safer and smoother. It increased drivers' freedoms and also their responsibilities, calling on them to learn new rules. However, some areas are open to interpretation.

"The new Road Traffic Act increased freedom to some extent, but this highlights the driver's responsibility for driving safely," says **Juha Merjama**, CEO of Tapaturva, a specialist in promoting occupational safety.

CONCERNS OVER CHANGING SPEED LIMITS

The reform to the Road Traffic Act changed the yellow barrier (no overtaking) line to white, linked the use of winter tyres to the prevailing road

conditions, and increased the options for parking.

The Act also introduced a raft of new road signs, such as signs indicating merging lanes, minimum speed limits, and bicycle streets.

Merjama is most concerned about the overhauls to speed limits.

All vehicles with a total mass of less than 3,500 kg are now permitted to drive at the speed limit for the road in question. The maximum speed limit for a vehicle towing a trailer weighing up to 750 kg is 100 km/h. If the trailer weighs more than this, the maximum speed limit is 80 km/h.

"Van drivers must pay special attention to securing the goods in the back. Furthermore, everyone should check their trailer's details and not just immediately drive at 100 km/h," Merjama says.

WHY THE RUSH?

Siemens Energy works as the main contractor on several Fingrid substation contracts. Siemens Energy's worksite managers and commissioners visit site after site.

"We constantly remind our employees to check the condition of their tyres, for example. Another common warning is to stay out of meetings that divert concentration while driving," says **Kaisa Ruusunen**, Quality and Safety Coordinator.

She also points out that nothing can justify breaking the speed limit or driving too fast for the conditions:

"The impulse to rush often comes from an external party, not the driver." ♦



Fingrid promotes green mobility

CHARGING points for electric vehicles are rapidly becoming more common at Fingrid's substations.

In 2024, approximately half of Fingrid's substations – around 60 – will have type 2 electric vehicle charging points rated at 22 kilowatts.

"Travel chargers can also be plugged into the 1- or 3-phase sockets at all our substations. Charging an electric car should not cause employees to work after hours," says **Timo**

Heiskanen, Manager, Maintenance Management at Fingrid.

"Every charging point is within the fenced-off substation area. They are all equipped with residual-current devices and overcurrent protectors, and they are located far from the substation building for extra safety."

For now, Fingrid's charging points are available to all Fingrid employees and partners. ♦

The exercise required participants to move an incapacitated person under a pipe. Furthermore, the narrow access opening made getting the person out of the area more difficult.



WISE TO PRACTISE RESCUING PEOPLE from difficult places

Fingrid arranges occupational safety training for its employees and service providers. In August, training groups practised rescuing people stuck in confined spaces at reserve power plants.

TEXT PÄIVI BRINK | PHOTOS FINGRID

There are lots of difficult spots where Fingrid’s employees and service providers need to work at reserve power plants. In many cases, the spaces themselves are spacious enough, but they are accessed via cramped entrances.

For example, if a person is incapacitated due to a sudden illness or accident, getting them out of such an area can be difficult.

“At reserve power plants, the spaces classified as confined spaces include wells, flue gas ducts, combustion chambers, air intake ducts, and fuel tanks,” says **Maija Nurmi**, Occupational Safety and Health Manager at Fingrid.

Everyone who works in confined spaces practises rescuing personnel regularly. Fingrid arranges joint exercises every 1–2 years, and independent training takes place several times a year.

New employees are also given an orientation to occupational safety in confined spaces.

“Every reserve power plant has a comprehensive set of equipment, and employees are allowed to practise rescue activities during working hours. This helps to ensure that the lessons learned from exercises are implemented in the workplace,” Nurmi says.

PRACTICAL RESCUE EXERCISES IN HUUTOKOSKI

Kärnä Oy held a training exercise at the Huutokoski reserve power plant in early August. The participants were two eight-person teams from two service providers, Patria Aviation and Elcoline Industrial Service.



The participants in the rescue exercise learned how to put on harnesses correctly and received practical advice on the many uses of the equipment. An incapacitated person can be extracted from a confined space using harnesses and ropes.

The Huutokoski reserve power plant was undergoing annual maintenance, so it was possible to enter some confined spaces.

“The training was highly practical,” Nurmi says.

The training familiarised the participants with the equipment, and they each had the chance to go through the rescue activities several times.

“The equipment included the same harnesses and ropes that many of our employees will be familiar with if their work carries the risk of falling. The participants were given some useful tips on using this equipment in their day-to-day work. We think the instructions were so good that the participants will share them with their colleagues.” ♦

Expert: *Timo Heiskanen, Manager, Substation Management, Fingrid*

New guidelines on working in confined spaces at substations

THE specification “Working in confined spaces at substations” has been in use since autumn 2022. It is sent to contractors as guidance during procurement processes.

The most important step is to identify confined spaces in advance.

At substations, this means, above all, inspecting transformer pits.

The instructions apply in the event of a sudden illness or injury of an employee in a confined space. Personnel hatches have been added to the deck structures of trans-

former pits to ensure a safe exit route.

The new specification provides personnel with a better understanding of the risks and requirements of working in confined spaces. ♦

You are responsible for your safety during leisure time

During working hours, your employer is responsible for safety and providing the appropriate equipment, but at home and during your leisure time, your safety is your responsibility. Stay out of trouble by thinking ahead and planning.

TEXT MARJO TIIRIKKA | PHOTO SHUTTERSTOCK



Most accidents happen during leisure time, most commonly when moving from one place to another. The majority of such accidents involve stumbling or falling.

Trips and slips also cause cuts and bruises. Sprains and more serious injuries can hospitalise people.

“People put themselves in danger at home by climbing onto surfaces like chairs or up ladders. It is important to think about the stability of the surface and the footwear. For example, it is a bad idea to climb to a height while wearing woolly socks or crocs,” says **Mika Liuhamo**, Product Manager at the Finnish Institute of Occupational Health.

TAKE A MOMENT TO THINK THINGS THROUGH – AT HOME AS WELL AS AT WORK

From time to time, it is a good idea to stop and consider the kinds of hazards

“People put themselves in danger at home by climbing onto surfaces like chairs or up ladders.”

Mika Liuhamo
Product Manager
Finnish Institute of
Occupational Health

that can arise in leisure time. When facing a new task at work, we take a moment to think it through. At home, we often approach things headlong without any preparation, even if it is something we do not routinely do.

“It would be wise to take a moment of reflection at home as well. Spend a couple of minutes planning – think about the best way of doing things and which tools you will need,” Liuhamo says.

When accidents happen at home or during leisure time, it is often because

of being tired, careless or rushed. Liuhamo says that being in a hurry may not be the real reason. However, it may be the go-to explanation if a person does not have the energy or inclination to take care of safety.

THINK AHEAD AND TAKE ACTION

The first step in preventing accidents is to identify hazards. The better we can identify different hazards, the more effectively we can affect and reduce the number of accidents.

However, as Liuhamo points out, being aware of hazards is not enough – we also need to react to shortcomings and take action.

If a stool looks a little flimsy, use a safer one instead. If there is slippery ground on the way to the letterbox, grit the route. Wear suitable shoes when you go to pick up your post.

“A little effort and a few changes could prevent many accidents.” ♦

A PRACTICAL QUESTION



Patience and planning ensure safe leisure time

You can ensure safety in the home by planning your jobs as thoroughly as you do at work and using protective equipment, says **Jani Rintala**, Project Manager at Caverion Industria Oy.

TEXT MARJO TIIRIKKA

1 What is the most important step in ensuring safety during leisure time?

You should plan the jobs you do in your leisure time in advance, just as you would at work. Give yourself plenty of time – don’t rush. If you are unsure whether you have the skills to do something, it is a good idea to contact a professional instead.

2 When should protective equipment be used for jobs in leisure time?

I wouldn’t do forestry work without protective equipment. There are many different risks involved, so appropriate protective equipment is essential.

If you have a loud lawnmower, use hearing protectors. As the autumn evenings grow darker, remember to use reflectors or reflective harnesses.

Before you tip snow off your roof, make sure nobody is under the eaves. If you need to go onto the roof, use a safety harness. When chopping firewood, forester’s boots improve safety, but I recommend using safety shoes at least.

3 What are the important things to bear in mind when emptying roof gutters or climbing ladders?

If you have the right tools for cleaning the gutters from ground level, you should definitely use them. You can avoid the risks of working at height. If you need to go up to the roof, use fall protection and safety equipment.

Working on ladders is usually prohibited on worksites, so why would you do it in your leisure time? You should always be very careful with ladders and, if you must work on them, make sure they are prevented from falling. ♦

“If you are unsure whether you have the skills to do something, it is a good idea to contact a professional instead.”



Every observation counts!

AN AMAZING number of safety observations were made on Fingrid's work sites in 2022, surpassing the target of 600. The target for 2023 is more than 700 safety observations.

SAFETY observations provide us with information about hidden hazards and help us to improve safety. Safety observations can be about big things or small things – every observation counts.

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