

Presentation in English, part 2 of 3

# Ellevio Contractors day 2025

22 januari 2025  
Clarion Sign

ELLEVIO

The text in this presentation has been automatically translated, which means that there may be discrepancies and inaccuracies in the translation compared to the original text

# Afternoon agenda

- 13.00–13.45 Project pitch Anders Åkesson, Amanda Lundin, Anders Eriksson
- 13.45–14.15 Sustainability and Safety Award Karolina Viksten, Camilha Botvid-Nilsson
- 14.15–14.45 Coffee break
- 14.45–15.45 Security – a team game Terje Steisjö, Thomas Widén and group discussions
- 15.45–16.45 Electrically powered projects Mathias Stenemyr, Pure Energy and Veronica Sund, Oslo Municipality
- 16.45–17.00 Thank you for today! Stefan Ytterbom, Sarah Östberg, Jörgen Hasselström
- 17.00–18.00 Mingle
- 18.00–21.00 Dinner with award ceremony for Excellent Entrepreneur 2024

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# Projektpitch Nord/Syd

Anders Åkesson



# NordSyd

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Autotranslated. In case of discrepancies, the Swedish version applies.

130 kV stations

**15 st**

130 kV-Overhead lines

**200 km**

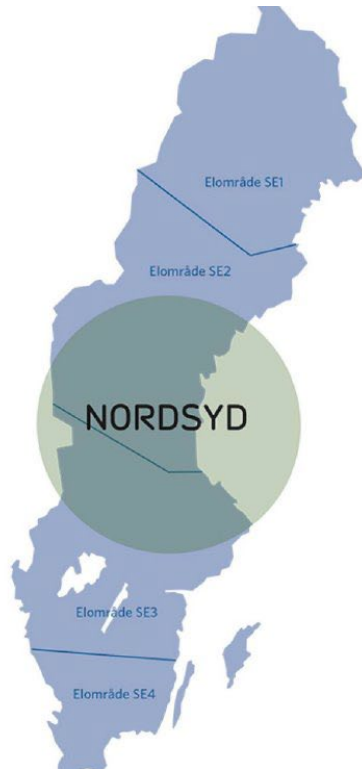
Ready year 2032!



# Svenska kraftnäts program NordSyd

## NordSyd

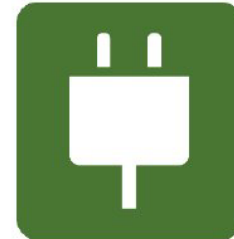
- > Kraftfull förstärkning mellan elområde 2 och 3
- > Förnyelse och kapacitetshöjning
- > Både närliggande och långsiktiga åtgärder
- > Mer robust och flexibelt nät



Ca 2000 km ny ledning och ca 30 stationer ska byggas/byggas om



Investeringar på ca. 75 miljarder



Kapacitetshöjning från 7300 MW till 10 000 MW

- Kort sikt: kapacitetsökning med ungefär 800 MW
- Lång sikt: kapacitetsökning med ungefär 2000 MW



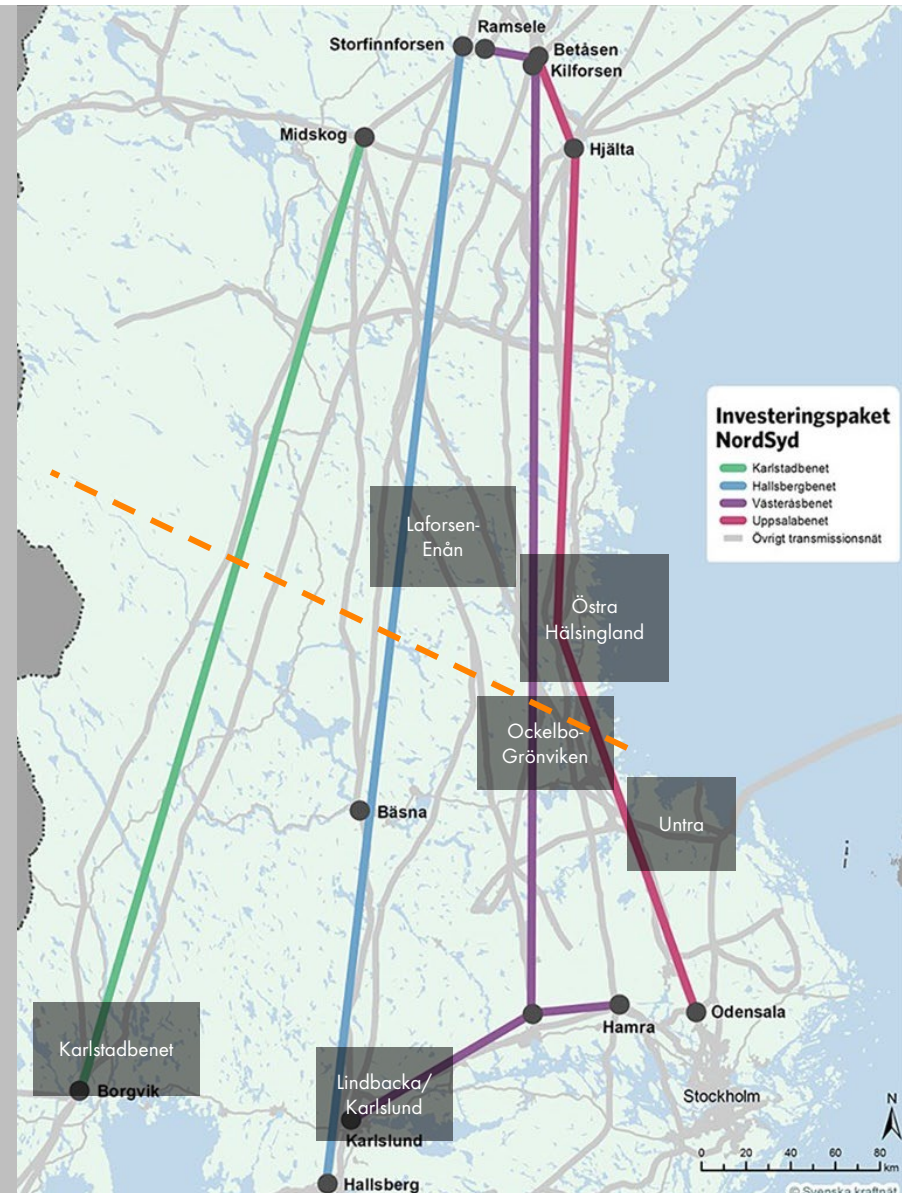
Genomförandetid ca 20 år





# Ellevios parts in NordSyd

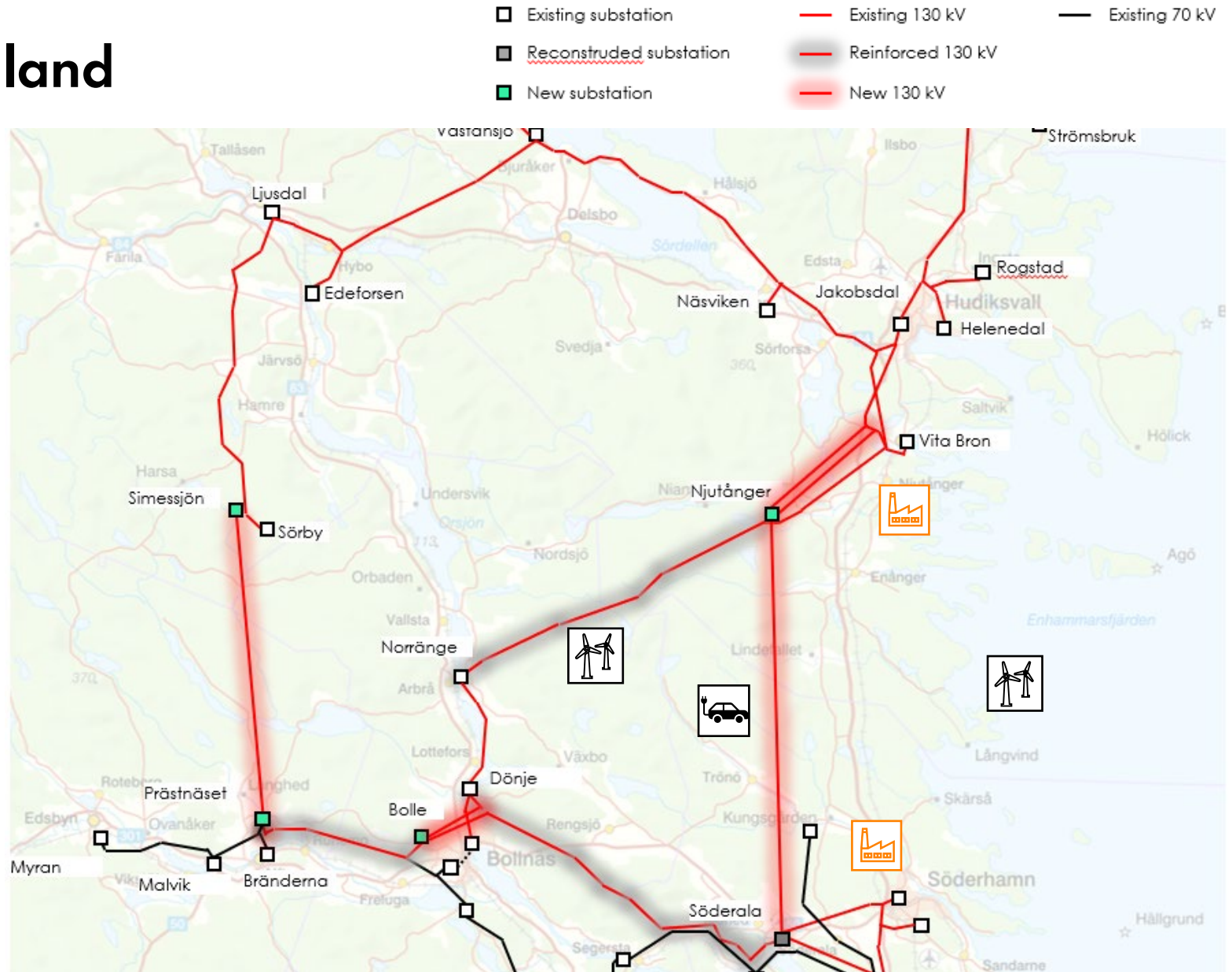
- 220 kV is removed and replaced by 400 kV
- New 400 kV lines
- The boundary between bidding areas 2 and 3 (section 2) will be renewed and strengthened through extensive investments over the next 20 years
- A lot of reinvestments and reinforcements, but also several completely new plants to increase capacity from today's 7,300 MW to more than 10,000 MW
- Major impact on several areas of Ellevio's network
- Six areas are included in Ellevio's NorthSouth
- The work is in different phases in the different areas – project phase to investigation phase



# NordSyd – Östra Hälsingland

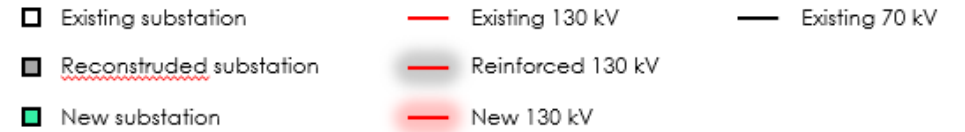
## Östra Hälsingland – project until 2032

- New main station Njutånger
- New 130 kV substations: Simessjön, Prästnäset, Bolle, Fänsmyran
- Reconstruction of stations Söderala and Norränge
- New pipelines Njutånger-Söderala, Njutånger-Mekrossla, Simessjön-Prästnäset-Bolle
- Renovation of pipelines Njutånger-Norränge, Dönje-Söderala



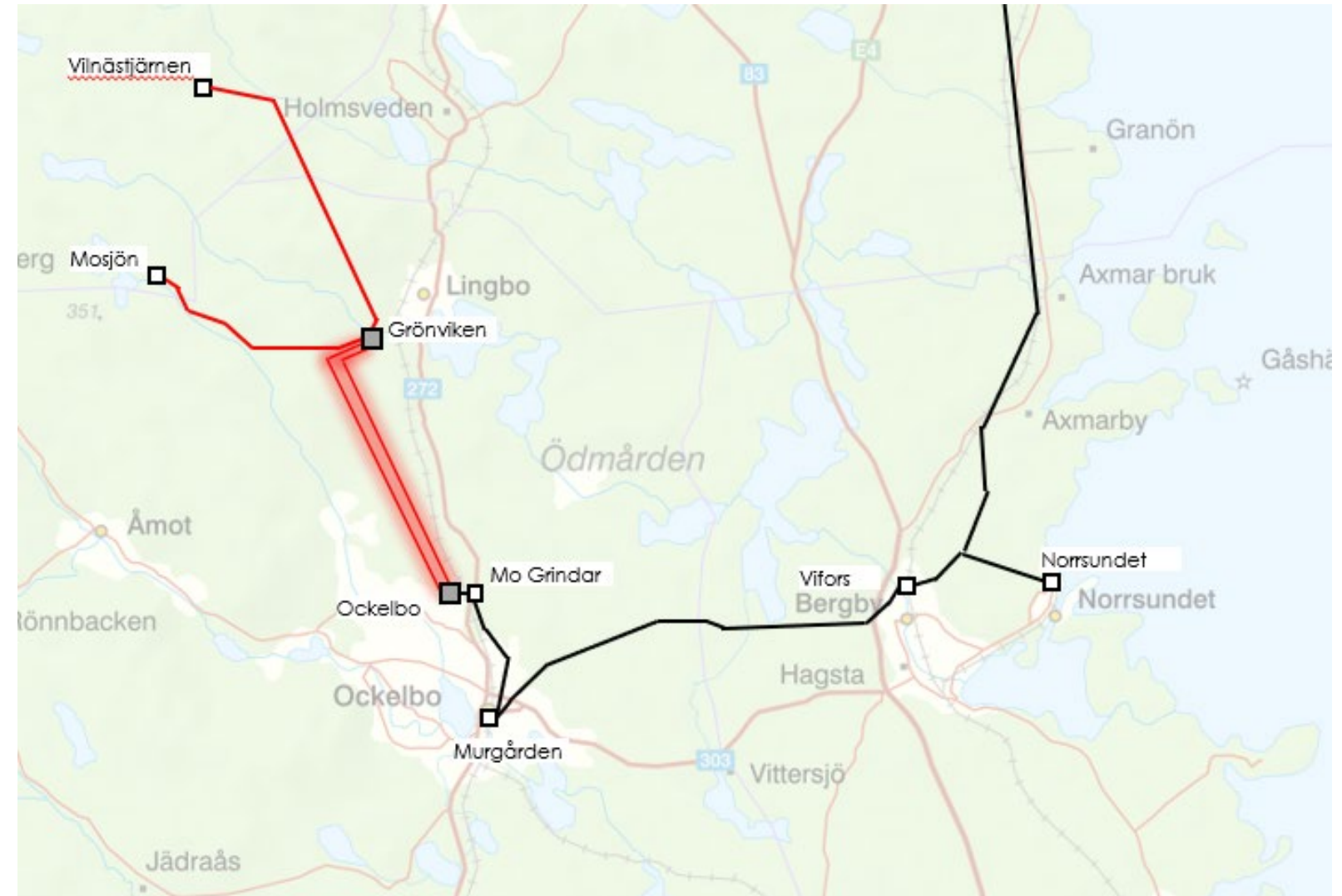


# NordSyd – Grönviken – Ockelbo

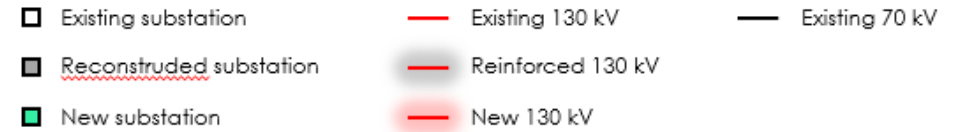


## Grönviken-Ockelbo

- Conversion of Ockelbo station to 130 kV
- Expansion of Grönviken with new 400/130 kV transformer and new 130 kV switchgear
- New double line from Grönviken to Ockelbo

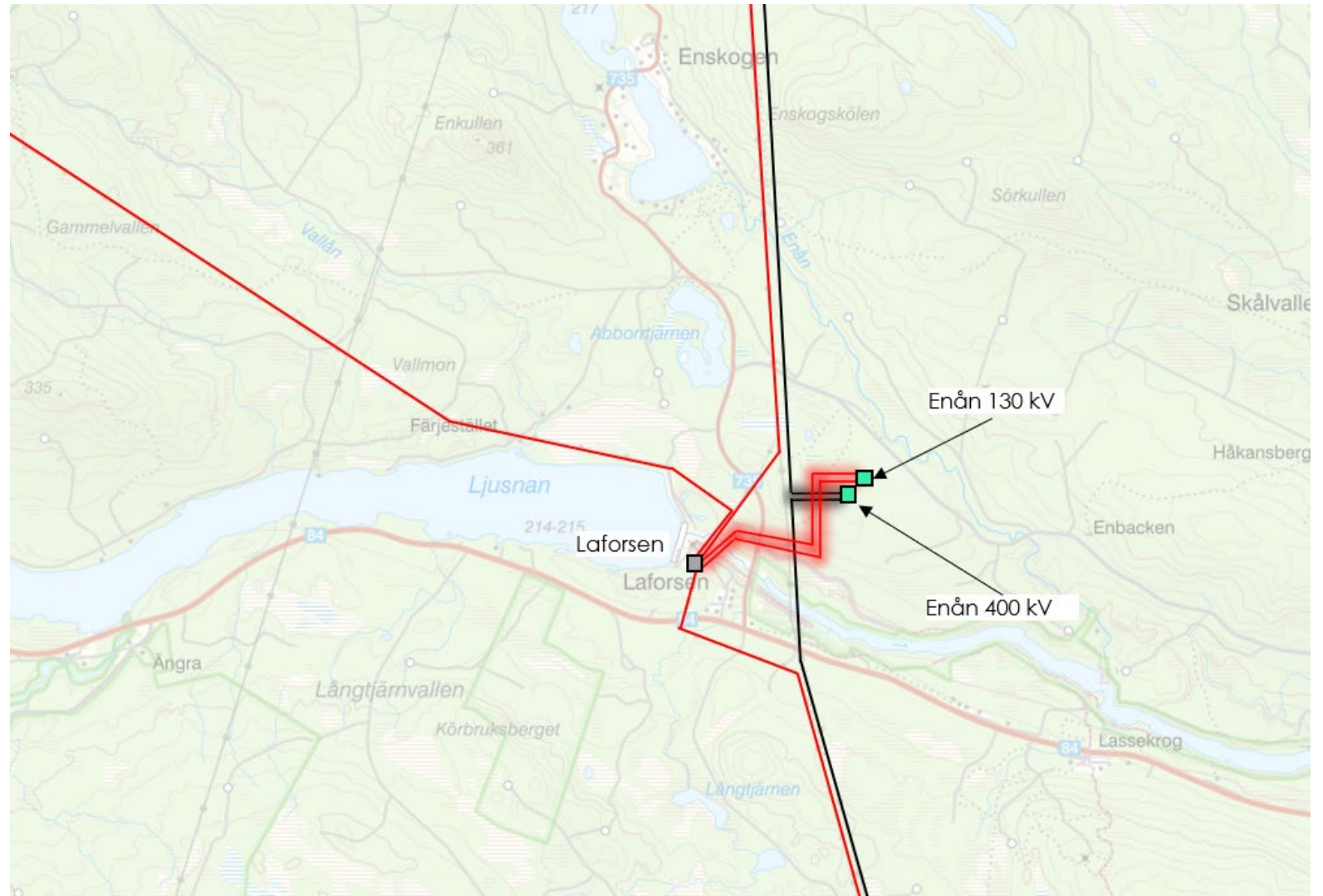


# NordSyd – Laforsen – Enån



## Laforsen-Enån

- New 400/130 kV substation Enån
- Ellevio to build 130 kV switchgear for Enån
- 220 kV will be demolished in Laforsen and 130 kV will be rebuilt
- New 130 kV lines from Enån for supplying Laforsen

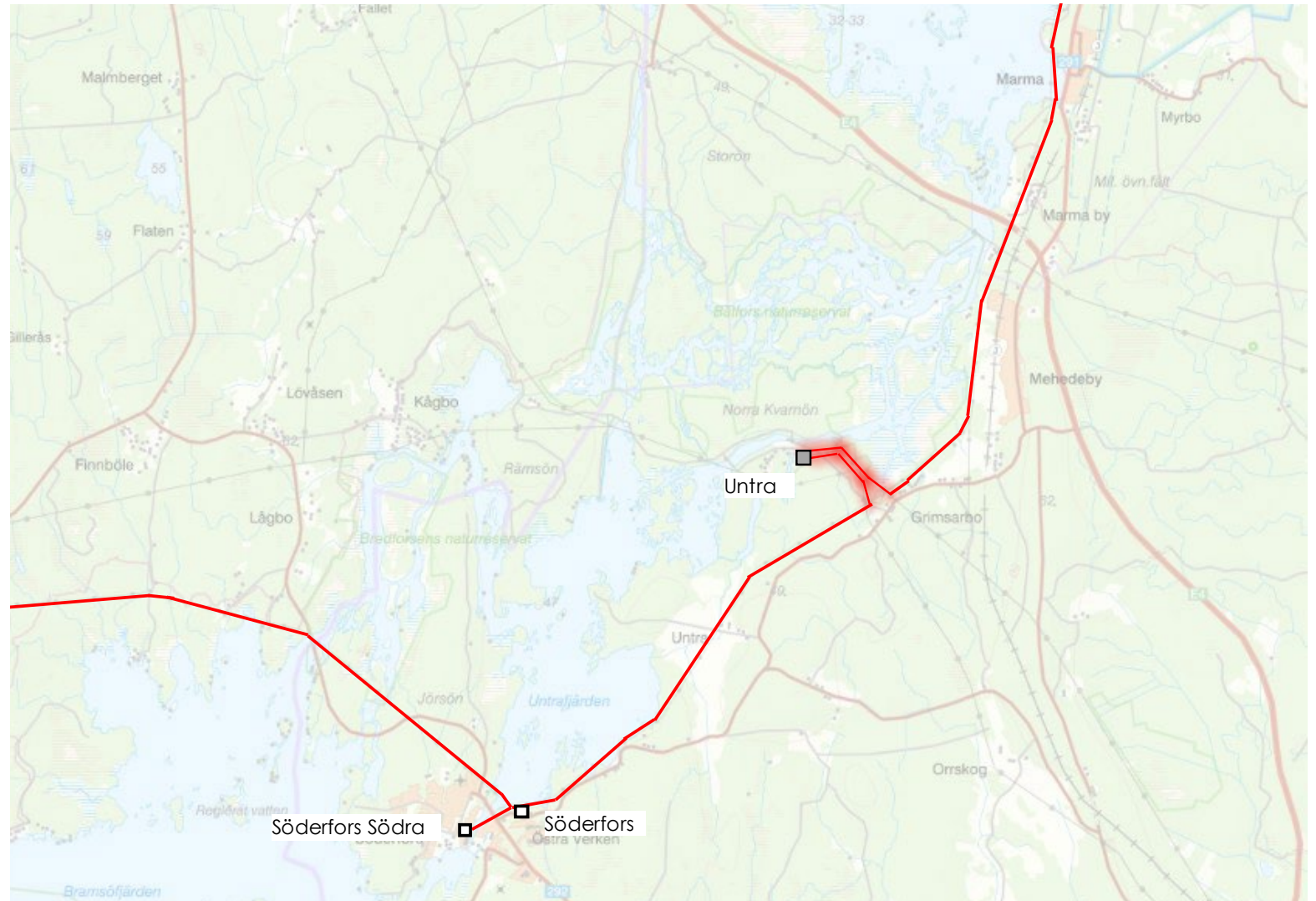
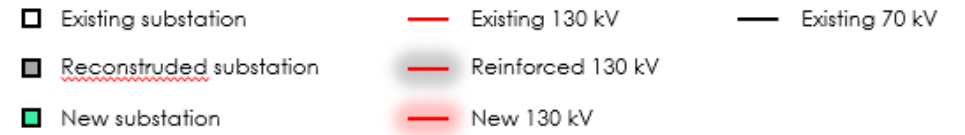




# NordSyd – Untra

## Untra

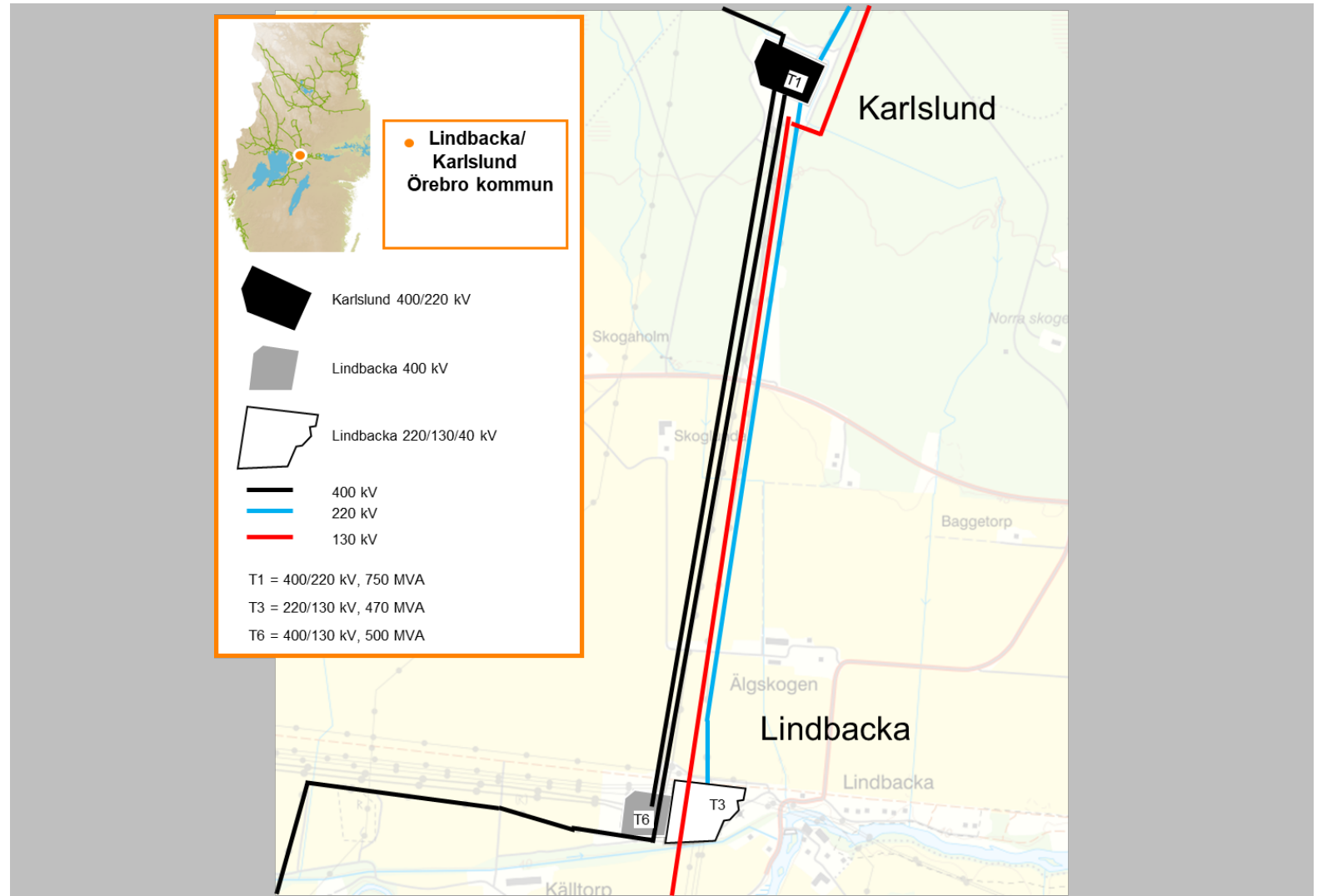
- 220 kV to be demolished in Untra
- 2 new 130 kV lines in/out of L14
- Conversion of Untra to 130 kV



# NordSyd – Lindbacka – Karlslund

## Lindbacka-Karlslund

- 220 kV to be demolished in Karlslund and Lindbacka
- New 400/130 kV transformers installed in Karlslund
- New 400/130 kV transformer installed in Lindbacka
- Reconstruction/extension of Karlslund in connection with new transformers
- Grid planning is underway for a complete reconstruction of Lindbacka 400/130/40 kV
- Reconstruction of 130 kV line between Karlslund and Lindbacka





# Nuläge och tidplan

- Njutånger – Contract in progress
- Network planning in progress
- In winter 2025/2026, the first pipeline projects will be put out to tender
- At the end of 2025, the next package of 130 kV substations will be put out to tender
- Procurements will take place during the period 2025–2027
- Implementation with a focus on 2026-2032

## Upphandlingar

- Stations – still turnkey contracts
- Considering strategic partnering for station projects
- Transmission – continued execution contracts
- Work is underway to standardize tender documents for stations



# NordSyd

- Approximately 15 x 130 kV stations AIS
- > 200 km of 130 kV overhead lines steel, composite, wood
- Construction contracts – traditional but not established
- How can we make projects attractive to count on?
- Cooperation, forms of agreement, clarity – to discuss during the evening!



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A scenic view of a harbor in a coastal town, likely in Sweden. The water is a vibrant blue, and the sky is a clear, bright blue. In the foreground, several white sailboats are docked at a wooden pier. The background features a row of colorful wooden buildings, including a prominent red one and a yellow one. A large, light-colored rock formation is visible in the distance, with a person standing on top. The overall atmosphere is peaceful and picturesque.

# Projektpitch Västkusten

Amanda Lundin



## Our projects contribute both to the quality of life for everyone who lives here and to the energy transition

### Examples of what we need to do:

- Older electricity grids, e.g. substation replacements
- Charging infrastructure to be expanded
- Low voltage is amplified and buried
- New lines from distribution stations



# Elwin: Prequalification for smaller contracts

Ellevio sees a greater need for smaller projects

- Projects up to SEK 2.5 million
- Today on the West Coast
- Small projects – less risk to test
- Tenders for each project
- Already qualified

Opportunity to submit proposals at the end of my presentation

Mix of projects, e.g.:

- Switching cable between two power stations
- Actions after maintenance inspections
- Greater customer connections with new substations
- Switching substations



# Examples of upcoming major opportunities

# Orust

## The project in brief

- Rebuilding and reinforcement in southern Orust
- Cable routing with medium-voltage cable
- New smart substations
- New low-voltage network
- Value approximately SEK 50 million for Ellevio
- Coming to the market in spring 2025

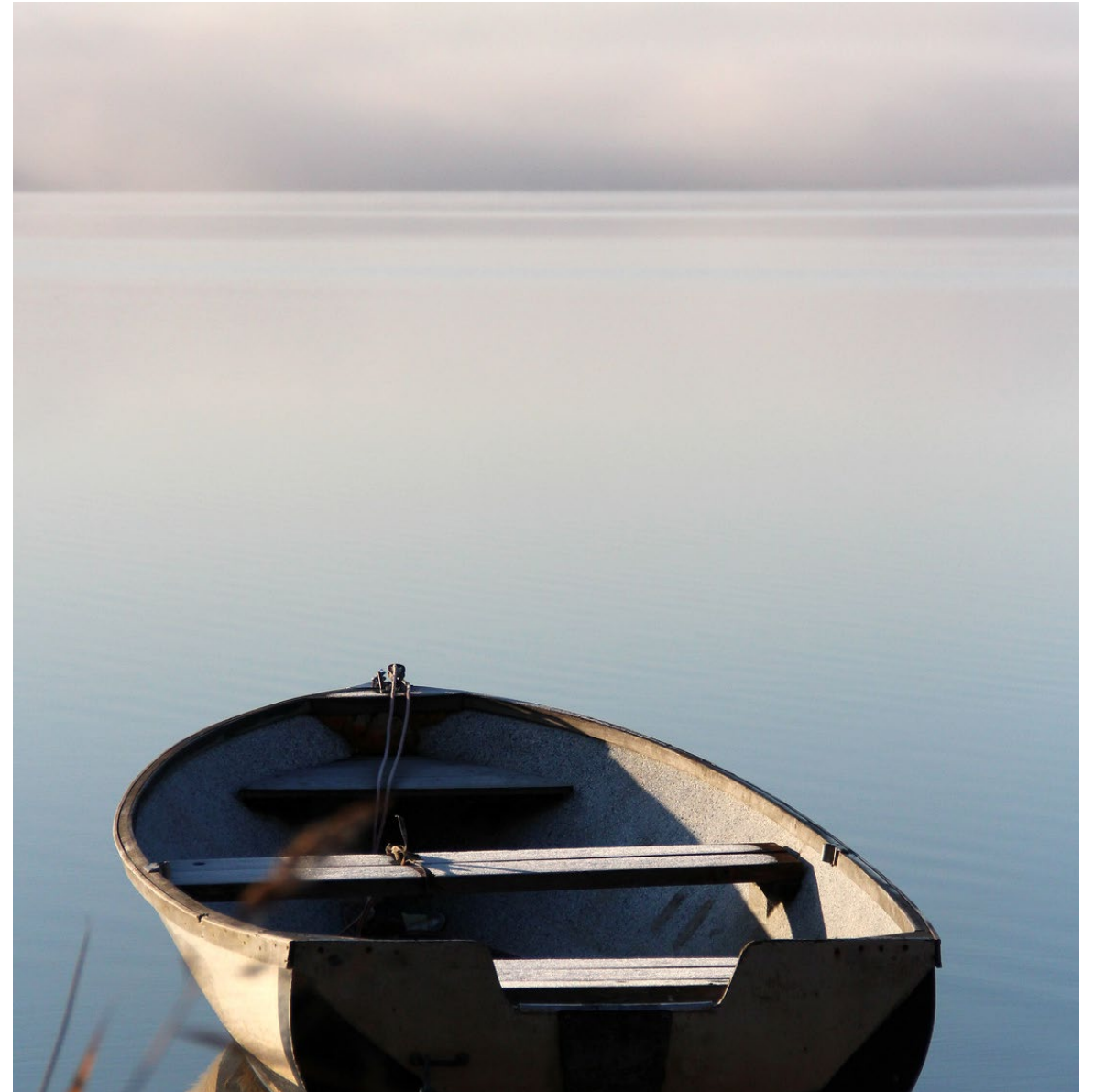




# Tjörn

## The project in brief

- Reconstruction and reinforcement of the remaining overhead line network on Tjörn
- Cable routing with medium-voltage cable
- New smart substations
- New low-voltage network
- Value approximately SEK 135 million for Ellevio
- Coming to the market in spring and summer 2025





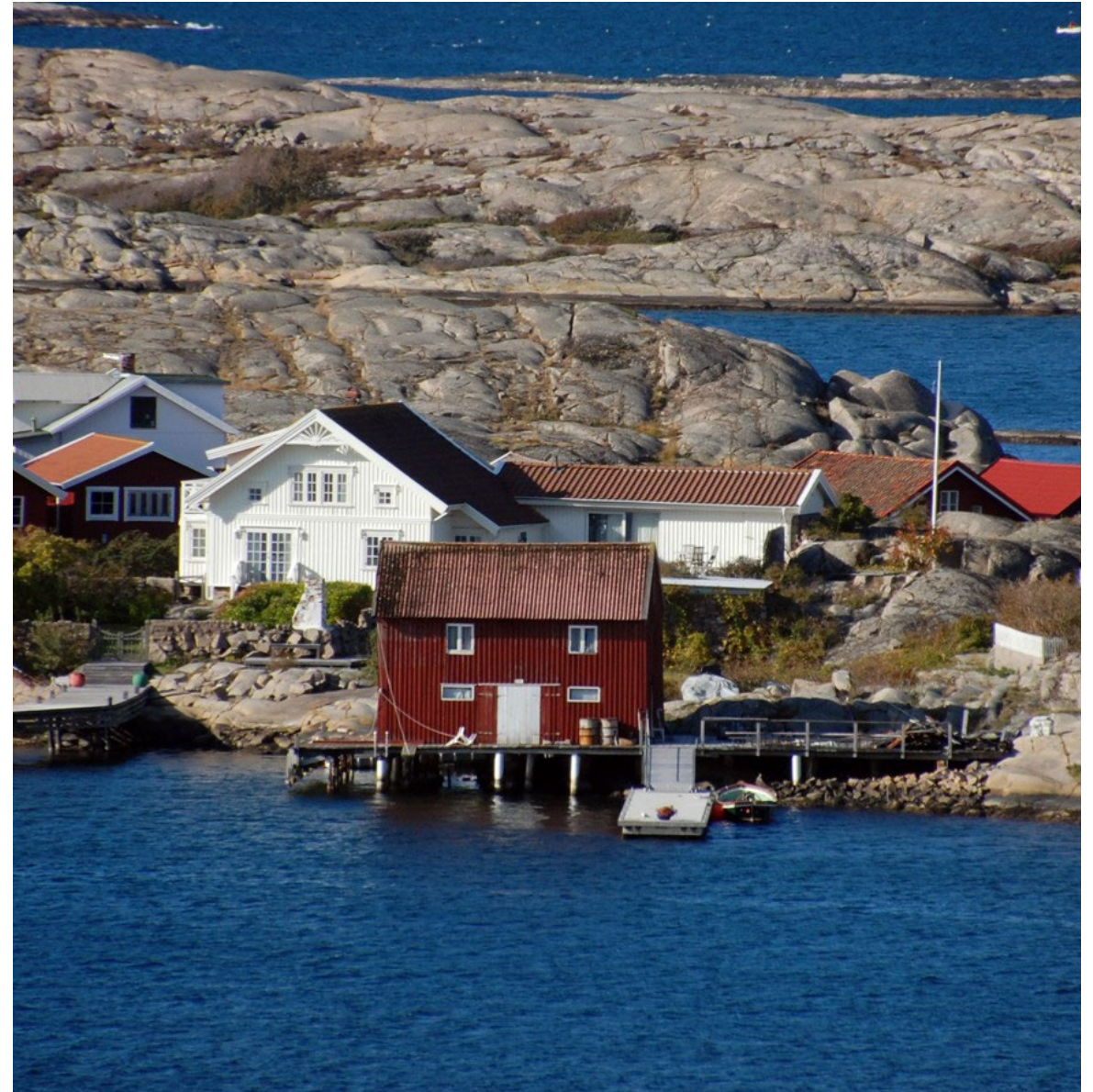
# Challenges and how we can tackle them together

- Growing market
- Knowledge and experience
- Apprentices
- Risk management



# In conclusion...

- The west coast is an important and prioritized area for us at Ellevio.
- The area has great needs and we will therefore invest a lot here in the future.
- Anyone who invests here can expect more projects to come in the future.



# Help us improve

Together  
we are  
stronger!



1. How can we make our projects on the West Coast attractive for you to bid for?
2. How do you view smaller projects (Elwin) compared to larger ones and why?

Feel free to contact us if you have any questions or want to know more about the way forward with us:

[amanda.lundin@ellevio.se](mailto:amanda.lundin@ellevio.se) eller  
0725-19 47 89



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# Projektpitch Stockholm

Anders Eriksson



# Our previous procurement strategy...

## ... for work on regional networks in Stockholm

A station is procured as a turnkey contract with a fixed price

A cable contract is procured as a contractor with A-prices/adjustable quantities

Sounds pretty simple, but does it still work?

Regarding cable contracts, we believe so and continue to work according to that principle

When it comes to station contracts, we don't think so. We have therefore modified our strategy to work forward!





# Our current strategy...

... for work on regional networks in Stockholm

## So how have we modified our strategy?

We have looked at our projects and are now trying to divide them into the following categories:

- Complex (e.g. Beckomberga)
- Inner city (ex. Brunkeberg)
- Normal (e.g. Högberga/Lidingö)





# Our current strategy – complex

... for work on regional networks in Stockholm

## Conditions

- Large, complex contract that in addition to the station can also contain new cable connections
- We believe that the premise for these projects is adjusted over time, which means that the risk of changes is great
- The projects are ongoing for a long time
- The projects have more external stakeholders (the City, SvK, etc.)

## Paketering

- Collaboration contract in two phases
  - Phase 1 Design ABK
  - Phase 2 Execution ABT

## Objective

- Have our complex contracts carried out in a way that all parties involved think is reasonable, linked to compensation/risk and results





# Our current strategy – complex

... for work on regional networks in Stockholm

Which stations are these?

- Bredäng
- Liljeholmen
- Perstorp (including cable /Högdalen)





# Our current strategy – inner city

... for work at regional grid stations in Stockholm

## Conditions

- The station is located in an existing building in Stockholm where there is no possibility of more space
- Transport routes, establishment, storage areas are minimal
- Normal operation of the station is required in all situations (work on the electrical installation only takes place during off-peak periods)

## Package

- The project is divided into smaller contracts and coordinated by Ellevio (different types of contract)
- All strategic materials (STVs, transformers, cables) are provided by the client
- Ellevio acts as both developer and BAS-U

## Objective

- Refine each contract and thus target the right contractor
- Reduce the risk for each contractor while clarifying the responsibilities between the client and the contractor



# Our current strategy – inner city

... for work at regional grid stations in Stockholm

Which stations are these?

- Brunkeberg (pågående)
- Stadshagen
- Kronoberg
- Katarina
- Tegner





# Our current strategy – normal

... for work at regional grid stations in Stockholm

## Conditions

- Space is available to build a new station (investment) or a new station in parallel with existing one (reinvestment)
- Transport routes etc. are to be "equated" with the rest of Sweden
- Coordination with external parties is at a reasonable level

## Package

- Turnkey contract with fixed price (some parts, such as earthworks, are handled with A-price/adjustable quantities)

## Objective

- Proven working method but finding a reasonable level of risk for each party



# Our current strategy – normal

... for work at regional grid stations in Stockholm

## Which stations are these?

- Ubby (ongoing)
- Högberga (ongoing)
- Salo
- Bromsten





# How will this work continue?

- Our goal is to constantly adapt to the prevailing market.
- Will our strategy look the same next year?





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# Sustainability

Entreprenörsgdagen 22 januari 2025

Karolina Viksten, Head of sustainability

Camilha Botvid-Nilsson, Work environment specialist



# Some of what has happened since last time



**EU CSRD**  
Need for data  
– and  
collaboration!



**New climate  
target scope  
1-2**  
42% reduction  
in CO2e by  
2030



**Electric  
vehicles and  
work  
machines**  
From pilot  
project to  
contract  
requirements



**Serious  
accidents**  
What can we  
learn and how  
can we  
prevent –  
together?



**Safe  
Prerequisites  
Program**  
Incl. ESA26,  
and  
AFS2023:3  
Design and  
BAS



**Client  
responsibility**  
New direction



# EU:s CSRD

Need for data – and collaboration!



## Corporate Sustainability Reporting Directive samt European Sustainability Reporting Standards

- EU directive for uniform sustainability reporting
- DMA – Double Materiality Assessment
- Stakeholder dialogues
- Energy companies EBR HMS-U60: Sustainability management
- New working group
- Focus on common ways of collecting climate and sustainability data
- Common Fuel Reporting Template...

# New climate target scope 1–2

42% reduction in CO<sub>2</sub>e by 2030



## 42% reduction in climate emissions scope 1–2 by 2030, base year 2023, market-based approach

- Ellevio's scope 1–2 emissions:
- Leakage SF<sub>6</sub> gas
- Backup power plants on diesel
- (own vehicles, local power for facilities, heating and cooling for offices)
- Grid losses are covered by the purchase of guarantees of origin (fossil-free electricity)



# Electric vehicles and work machines

From pilot project to contract requirements



## Electric vehicles and work machines by 2030

- Ellevio's scope 3 emissions target
- Several pilot projects in 2024
- Requirements in new framework agreements Radisson 3BC (operation, maintenance, connection, small investment projects, customer-oriented field services)
  - Staircase for electric operation and fossil-free 2025-2030
  - Only electric mini excavators and handheld machines
  - Transition plan to electric
  - Financial incentive SEK 60 million over 3 years

# Serious accidents

What can we learn and how can we prevent – together?



## Serious accidents in early 2024

- Several serious accidents in early 2024
- Some common root causes:
  - Instructions were not followed or were not followed
  - Staff did not have the right skills
  - Voltage testing was not performed
  - Deficiencies in personal protective equipment
- Investigations and preventive measures
- Safety Day 2024 with ~20 contractors
- Newsletter "Safe Workplaces" to ~4800 people
- Clarified crisis procedures: **Operations should always be contacted in the event of serious accidents** (Blue lights)



# Summary Accidents 2024

- Serious accidents in early 2024
- A total of 81 accidents, of which
  - 71 at contractor/subcontractor
  - 7 external (with customer or third party)
  - 3 Ellevio employees
- LTIs: 12 pcs
- SI – Serious Incidents: 10
- Most common with Current Flow, Fall in the same level, and Contact with sharp object
- Activity: Electrical work and Construction are the most common activities, but also Loading/unloading

## Accidents (*total*) – 81 1.

Some period 2023: 69 Result 2023: 69

SI accident – 7 2.

Some period 2023: 10 Result 2023: 10

LTI accident – 12 3.

Some period 2023: 14 Result 2023:14

## Near Misses – 160 4.

Some period 2023: 144 Result 2023: 144

SI near miss – 3 5.

Some period 2023: 12 Result 2023: 12

## Risk Observations – 997 6.

Some period 2023: 981 Result 2023: 981

# Flying audits – Summary of requirements

Results regarding approved items in a total of just over 300 flying audits in 2024

● Sustainability Index 2024: 94%





# The Safe Conditions Programme

Incl. ESA26, and AFS2023:3 Design andBas



- **How can we at Ellevio become better in our roles in safety work?**
  - **Builder**
  - **Construction Work Environment Coordinator – Design (Base P)**
  - **Client**
  - **Event manager and manager at ENIA**
  - **Coordinator, permanent establishment**
  - **Electrical installations**
- **Additional prerequisites:**
  - **ESA26**
  - **AFS2023:3 Design and construction work environment coordination**
  - **Input from entrepreneurs**

# ByggHerrensArbetsMiljöansvar, BHAM

New direction



- Review within Ellevio
  - Safe conditions programme
  - AFS2023:3 Design and construction work environment coordination
  - Input from entrepreneurs
- Handling going forward
  - Ellevio's ambition going forward is to take on the role of developer in an increasing number of projects/agreements. Implementation is progressive.
  - The contractor is then designated as Bas-U (and Bas-P if applicable)





# New rules for the construction work environment

Camilha Botvid-Nilsson  
Work Environment Specialist



# New rules for the construction work environment from 1 January 2025

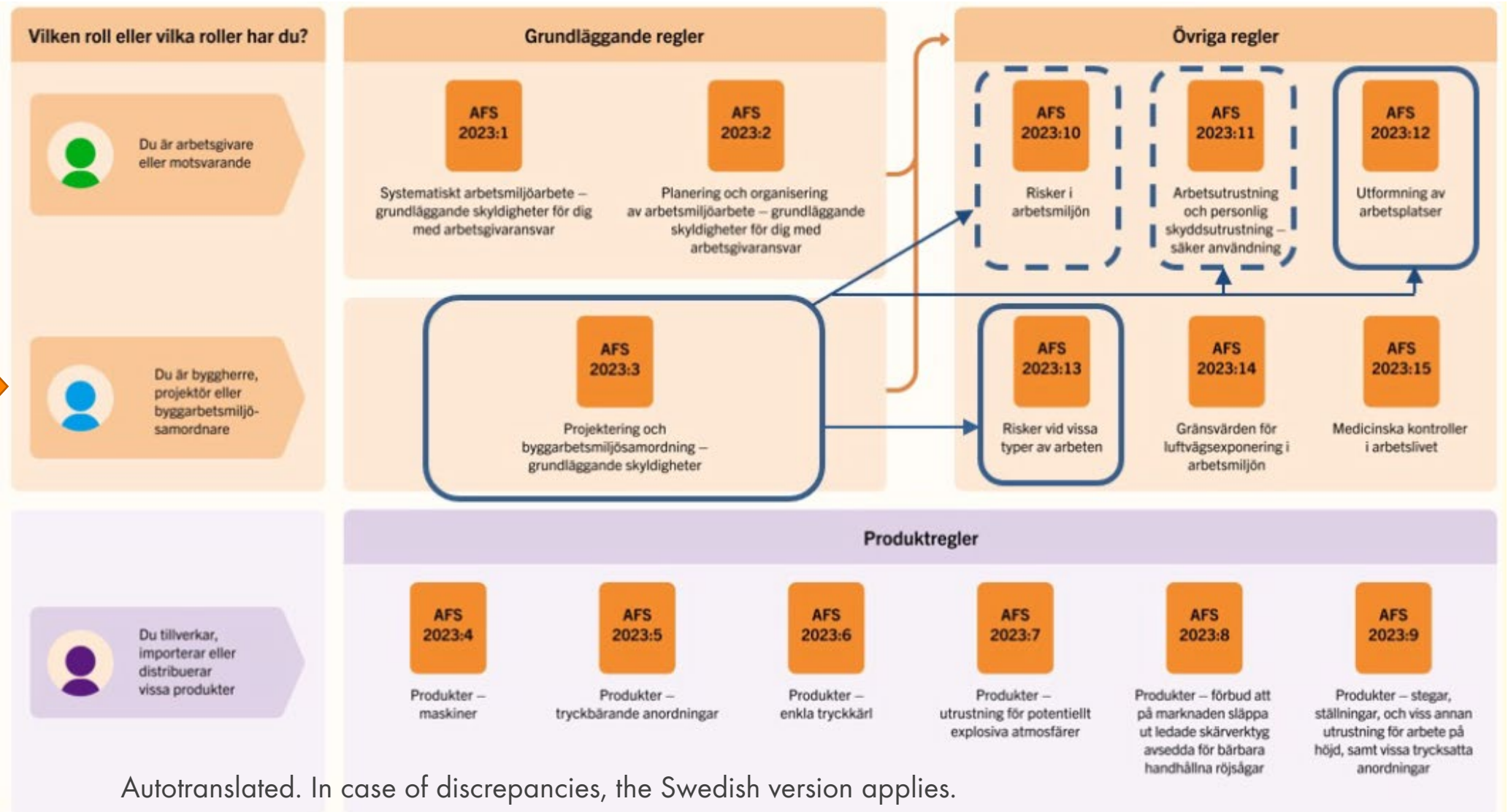
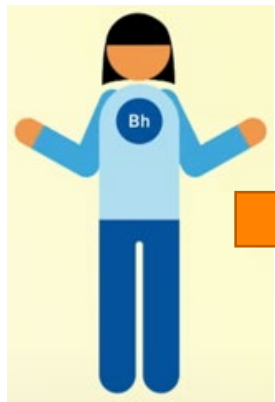




# Regulations of great relevance to building and civil engineering work

AFS 1999:3	Byggnads- och anläggningsarbete	AFS 2006:04	Användning av arbetsutrustning
AFS 2020:1	Arbetsplatsens utformning	AFS 2006:06	Användning av lyftanordningar och lyftredskap
AFS 2012:2	Belastningsergonomi	AFS 2006:01	Användning av motorkedjesågar och röjsågar
AFS 2011:19	Kemiska arbetsmiljörisker	AFS 2006:03	Användning av truckar
AFS 2005:16	Buller	AFS 2006:02	Bergarbete
AFS 2005:15	Vibrationer	AFS 2006:05	Enkla tryckkärl
AFS 2005:06	Medicinska kontroller i arbetslivet	AFS 2006:04	Arbetsbänkar
AFS 1999:07	Första hjälpen och kristöd	AFS 2006:03	Användning av lyftanordningar och vissa tekniska anordningar
AFS 2011:18	Hygieniska gränsvärden	AFS 2006:02	Maskiner
AFS 1981:14	Skydd mot skada genom fall	AFS 2008:03	Kvarts – stendamm i arbetsmiljön
AFS 1981:15	Skydd mot skada genom ras	AFS 2015:02	Användning av personlig skyddsutrustning
AFS 1982:03	Ensamarbete	AFS 2001:03	Användning av personlig skyddsutrustning
AFS 2004:03	Stegar och arbetsbockar		
AFS 2007:01	Sprängarbete		
AFS 2013:04	Ställningar		

# Relevant to the developer



Autotranslated. In case of discrepancies, the Swedish version applies.



# AFS 2023:3 – Construction

## Wards:

1. General provisions
2. Responsibilities and tasks of actors in construction projects – specific chapter for different actors
3. Common rules on risk prevention – applies to all stakeholders

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Avdelning I: Allmänna bestämm... +

Avdelning II: Aktörernas ansvar ... -

2 kap. Byggherren +

3 kap. Bas-P +

4 kap. Bas-U +

5 kap. Byggherrens ställföreträ... +

6 kap. Projektörer – arkitekter, ... +

7 kap. Den som tillverkar mont... +

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Avdelning III: Gemensamma bes... +

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# What's changed?



# Developer, news in AFS 2023:3 2 kap.

- Developed the client's responsibilities and tasks in work environment management at all stages of construction projects
- Overall responsibility:
  - Organize and set requirements for work environment management in the construction project at an early stage
  - Create conditions and set requirements for coordination management e.g. meetings
  - Choice of actors
  - Follow up on work environment management at all stages
  - Take action when work environment management does not work
  - Participate in the handover of work environment management at all stages

# Construction Work Environment Coordinator, news in AFS 2023:3

## 3 kap. Bas-P, news

- **Routines for coordination and work environment management.**
- Follow up that the designers work to prevent work environment risks.
- Start and be able to present the work environment plan at an early stage.
- Temporary and collaborative structures must be given special consideration by a person with competence in them.
- Hand over their work in a structured way.

## 4 kap. Bas-U, news

- **Routines for coordination and work environment management.**
- Make sure that there is a person with special expertise who leads work where there are temporary and collaborative structures.
- Inform the developer if the contractor does not follow instructions, and in the event of serious risk.
- Participate in the handover of the work environment plan and work environment management.
- Give the go-ahead for the start of work to contractors.
- Request information about risks from contractors who have not provided it.
- Follow up on the contractors' work environment work – interrupt if there is a risk.



# 11 kap. Work environment plan, news

- Developed at an early stage when an idea for a new project is made.
- Serves as a governing document for the work environment management throughout the construction project further into the maintenance/operation chain.
- Measures against the risks must be described for the work steps, not the risks.
- A general work environment plan from Ellevio will be investigated further.

Löp.nr	Aktivitet/arbetsmoment/arbetsområde	Ingående risk-nr enligt risköversikt	Riskreducerande åtgärder	Hänvisning till arbetsberedning Bilaga eller AFS
A	Beskriv utförligt vilken aktivitet som avses, i vilket <u>arbetsmoment</u> <u>riskerna</u> uppkommer samt vilket arbetsområde som berörs t.ex. sektion, station, om det är skyddsobjekt som är särskilt känsligt eller plats.  <b>Se exempel nedan</b>	Välj ingående risker utifrån numrering i risköversikten	Beskriv utförligt de åtgärder som föreslås t.ex, typ av fallskyddsanordningar och infästningar, stöd- eller stabiliseringsåtgärder, slantlutningars lutning eller rasskyddssystem o.s.v.  Specificera detaljerat t.ex, säkerhetsavstånd, hantering för sprängning, typ av elektrisk arbetet, inhängning och vilka trafik- och avstängningsanordningar som ska användas. Spegla förklarande text i hanteringen av åtgärd likt arbetsberedning  <b>Se exempel nedan</b>	Om arbetsberedning krävs, specificera detta.
B	<b>Exempel Bas-P och U</b> <b>I Tidplanen löpande men främst längs väg dalmyrsgatan</b> Kommande schaktning för lågspänning förlägs i tätbebyggt villaområde i Karlstads norra delar, Stockfallet.	1, 3, 7, 14, 15, 16, 18	Tydliga TA-planer med erforderlig skyltning till 3:e man. Innan arbetets avslut för dagen kontroll att inga öppna schakt finns och helst med körplåtakta.	AFS 2023:3 med 2023:13

# Summary of the changes from 1/1-25 in general

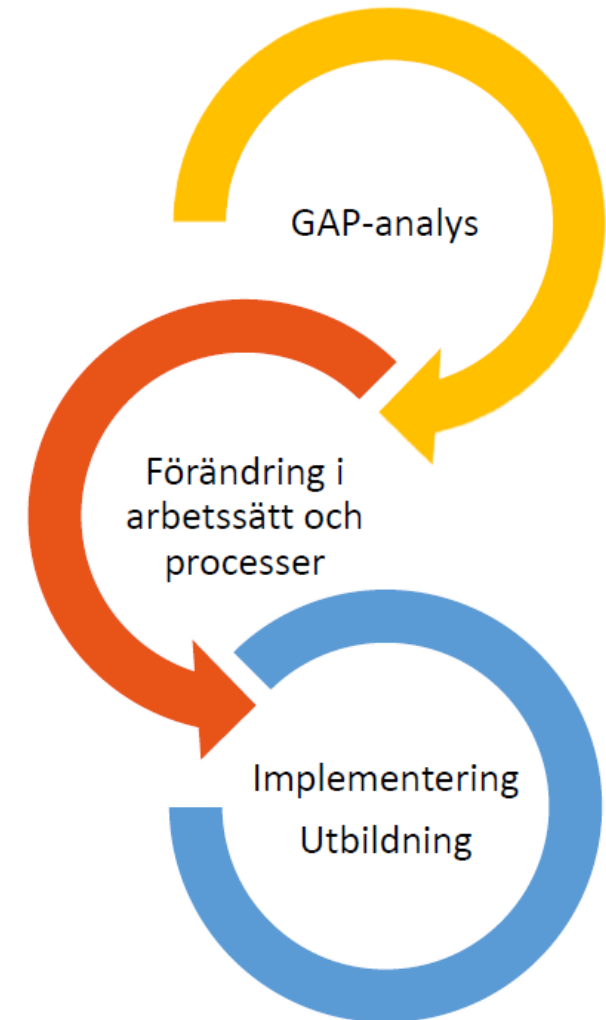
- Begin the construction project's work environment work in writing at an early stage of the idea.
- Work methodically according to the basic principles.
- Adapt the work environment management to the size, complexity and risk level of the construction project.
- Develop, follow, control and review routines for work environment management in the construction project.
- Collaborate and contribute at an early stage in the organisation of work environment management.
- Control and follow up on preventive work environment management.
- Take action if there are shortcomings.
- Ensure that the work of temporary and collaborative structures can be done safely throughout all stages.
- Hand over the work environment management in a structured way.





# How is Ellevio preparing?

- Review of all governing and supporting documents linked to the client's work environment responsibility, e.g. template Work environment plan
- Review requirements in procurement and contracts
- Develop new training and train internally in the developer, Bas-P/Bas-U, designer
- Cooperation within EBR-HMS-U35 Construction and civil engineering in the electricity network industry
- Dialogue with our designers and contractors on how to meet the new requirements in the roles of Bas-P, Bas-U, and where applicable the client's deputy – LUF and Radisson agreements respectively
- Variants of Flying Audit depending on whether we are the developer or not
- EHS resources that support us in the construction client's responsibility, among other things
- New management of coordination responsibilities for permanent establishments (Ellevio is responsible)



# Questions?

**Camilha Botvid-Nilsson**

Senior specialist byggarbetsmiljö, ByggHerrens ArbetsMiljö

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070-265 53 28





# Ellevios Honorary award within Safety and Sustainability

# Honorary Award Safety and Sustainability

**Ellevio awards an honorary award in safety and sustainability to recognize and thank a person for his many years of efforts for a safer and more sustainable electricity grid industry.**

**This person has done a lot for our industry-wide work to create safe workplaces. He has been the knowledgeable, balanced, committed link between us electricity network companies and our contractors, for example in the EBR Committee, the EBR HSE Committee and its working groups.**

**Thank you for important and committed efforts over many years!**





Honorary Award Safety and Sustainability

Mats Ählberg



# Ellevio Safety Award 2024



# Ellevio Safety Award 2024

The Ellevio Safety Award 2024 is awarded to a relatively new contractor who has shown a very strong focus on health and safety and a good and responsive dialogue with us as a client.

This contractor is rewarded for its strong focus on health and safety, its responsive dialogue with us as a client and its process-based business management system. Through proactive safety work and early efforts to meet the new Bas-U requirements, the contractor is a role model in the industry.

Their use of electric work machines contributes to our sustainability goals and improves the working environment. The contractor also shows a great willingness to develop safe workplaces by both giving and receiving suggestions for improvement.



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NYAB

ELLEVIÖ

Autotranslated. In case of discrepancies, the Swedish version applies.



# Coffee break

We start again at 14.45