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FIGHTING FOR A FUTURE FOR ALL  
EPSU Pan-European Conference of Utilities Unions

Health and Safety – the way forward as our planet is heating up. 11 May 2022

**Heat: an escalating occupational hazard, impacting European workers' health, safety and well-being**

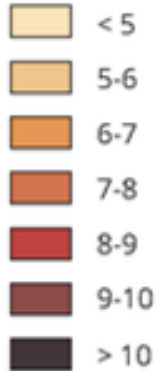
Claudia Narocki



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- **Why do heat events represent an escalating OHS issue for European workers?**

Observed trends in warm days across Europe between 1960 and 2018

Days/decade



No data

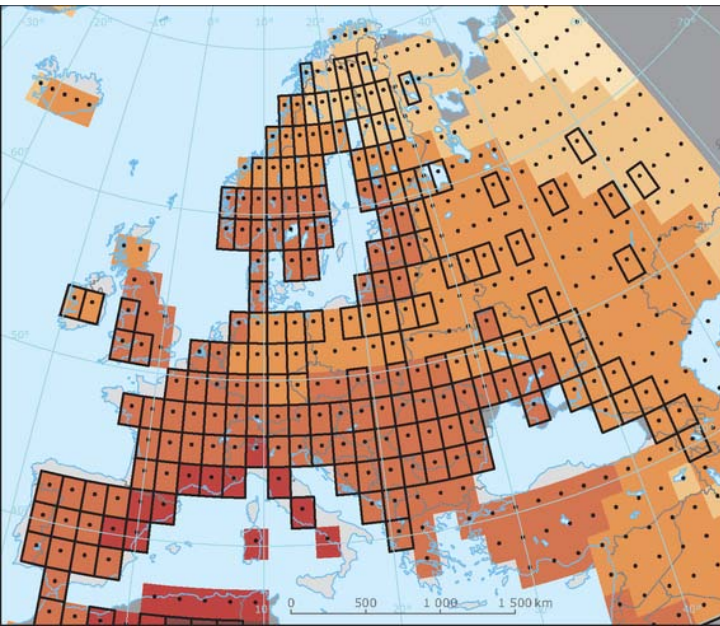
Outside coverage

# Global warming, causing...



- a rise in summer temperatures, affecting especially the southern part of Europe

- **heat events** become more frequent, more intense and are lasting more days.
  - happening also in regions where summers are typically cooler.
  - the hot season begins earlier and is lasting longer



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# Ambiental heat, for some workers, is topped on other occupational heat stress factors



Workers can be exposed to heat stress not only by environmental conditions (temperature + humidity + thermal radiation...) but also by...

- physical work (exertion): increases the production of internal heat
- the use of PPE or clothing which hinders the dissipation of body heat.

→ leading to

- Harsh working conditions
- Heat illnesses (such as heat stroke, heat exhaustion, rhabdomyolysis, heat syncope, heat cramps or heat rash)

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# Research is unveiling a wide diversity of negative impacts of heat on health, some on the long term

Not only acute heat related illnesses,  
but also...

- long-term impacts on health such as a wide variety of cardiovascular, respiratory illnesses.
- disruption to reproductive health.

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## Heat also exacerbates other occupational hazards,

- Higher impact of contaminants
- Higher accident/occupational injuries rates during heat events
- Reduction of the effectiveness or the applicability of other preventive measures, such as PPE, etc.
- Reduces comfort and productivity
- Impairment of human performance
- Psychosocial issues: interpersonal relations.

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# Local effect, in cities: the “heat island” effect, worsens ambient conditions during heat events

Urban temperatures are higher compared to their surrounding regions, especially

- during heatwaves,
- in the evening and during the nights.

Microclimate zones within cities:

- temperatures may vary by up to 10°C at the same time depending on the urban landscape (density of cement, asphalt, bodies of water such as rivers and ponds, + heat emitted by air conditioning units, etc.)



## More diversity of jobs/ tasks potentially exposed



- + unfreshed workplaces (example in Spain: schools) now affected as a result of the extension of the summer period
- + heated vehicles or machines, etc.
- + hot micro-climates (heat island, sunny places)
- + work under sun radiation:
  - + newly occupations as delivery on bicycles; tourism, free time and leisure monitors; personnel installing temporary facilities such as venues for events; etc.
  - + “unpostponable” activities, as maintenance or repair of technological infrastructure, emergency response, police, surveillance and security tasks, etc.
- + Intensification of the pace of work associated with labour management practices or payment systems,
- + growing demand of use of PPE against other hazards



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# Heat exposures reduce productivity and social wellbeing

Productivity losses: slowing down the work + loss of working hours, decreased production output, reduced quality of products and services.

Reduction of income, for workers with daily production targets or who are paid on the basis of output (or have to work longer work days, increasing exposures).

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# Deepening of social polarization

Heat is a occupational hazard that is frequently found for

- workers in manual low income occupations
- jobs requiring physical exertion
- work done mostly under the sun radiation.

And occupational heat exposures, by causing heat-related illnesses and/or traumatic injuries, do reinforce social inequalities.

In polarised societies, those occupations that are most exposed to heat and solar radiation tend to be occupied by the most vulnerable groups.

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# Vulnerability: inhibition of serious or imminent risks exposures avoidance

Interruption of exposures can dramatically reduce the damages posed by the thermal environment.

But many workers are pushed beyond safe thermal limits - risk exposure avoidance (self care) is inhibited

when ...

- + no trade union representation in the workplace,
- + OHS management is weak or absent
- + intensification of work,
- + piecework payment,
  - + being part of a vulnerable group (such as undocumented immigrants)
- + etc.

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- **How adaptation policies can contribute to OHS**



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# Policies for addressing heat as an occupational hazard in Europe (1)

Climate change **adaptation** policies should seek the reduction of exposures and the increase of protection, by

→ setting the obligation for employers to plan a preventive and adaptive response to heat events, beside the General Duty and WD provisions.

→ legal provisions and guidelines for sectors, setting minimums (for example, to provide shade for any task position)

→ better enforcement, with special focus on the most exposed and vulnerable workers.

→ removal of structural barriers to the improvement of OHS working conditions (such as piecework payment systems)

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## Policies for addressing heat as an occupational hazard in Europe (2)

- provision of specific occupational action lines in climate change adaptation policies, as the heat health plans; for example, a specific alert system.
- reinforcement of the occupational monitoring and information system, in order to make visible the hazard and to reflect the real burden on workers:
  - better identification of exposed activities,
  - enhanced health surveillance and monitoring
  - impact on productivity, wellbeing and social polarization.
- support for R + D, for technical adaptation
- support for technical standardisation
- support for the exertion of rights, and better protection
  - visits, information and training by unions



## Occupational safety and health in the wind energy sector

European Risk Observatory  
Report

### HAZARD IDENTIFICATION CHECKLIST: OCCUPATIONAL SAFETY AND HEALTH (OSH) RISKS IN THE WIND ENERGY SECTOR

#### Part A: Introduction

This checklist aims to help identify the potential hazards to workers engaged in the activities associated with the wind energy sector. It considers the activities and the specific hazards to workers across the entire life cycle of wind turbines, from the manufacturing and transportation of parts, through their installation, operation and maintenance, to emergency rescue and waste treatment. The checklist covers the most common hazards associated with large-scale wind energy installations but in no way does it mitigate the need to undertake a systematic and thorough risk assessment of the wind farm.

Wind energy is a mainstream renewable power source and, if the right steps are taken, this source will be essential in meeting Europe's 2020 renewables target, tackling climate change, strengthening energy security and creating new jobs. It is renewable and clean and produces no greenhouse gas emissions. In 2013, it accounted for 13% of the EU's power capacity and 32% of all new power capacity in Europe. As the EU power sector continues its move away from oil, coal and nuclear fuels, wind energy has experienced tremendous growth over the past decades, and this is expected to continue. In 2010, there were 70,488 onshore wind turbines and 1,132 offshore turbines across the EU. By the end of 2009, the European wind energy sector provided jobs for 192,000 people, and many more well-trained workers are needed in areas ranging from manufacturing to project management. It has been predicted that by 2020 there will be 446,000 jobs in the wind energy sector.

### OCCUPATIONAL SAFETY AND HEALTH IN THE WIND ENERGY SECTOR

#### 1 Introduction

This e-fact considers occupational safety and health (OSH) issues in the wind energy sector and is aimed at raising awareness and supporting good OSH in onshore and offshore facilities. It summarises the findings from EU-OSHA's report 'Occupational safety and health in the wind energy sector' (EU-OSHA, 2013a). It considers the activities associated with wind energy and identifies specific hazards to workers across the entire life cycle of wind turbines, from the design and manufacturing of parts, through their transport, installation and maintenance, to emergency rescue and waste treatment. Although wind energy is considered 'green' and good for the environment, it does not necessarily mean it will be good for the health and safety of workers. Wind energy workers can be exposed to hazards that can result in deaths, serious injuries and ill health during the various phases of a wind farm project. Many aspects of siting, erecting, maintaining, servicing and possibly dismantling wind turbines are unique, and even if most of the job hazards that these workers will face are not (e.g. working at heights, manual handling, electrical risks or confined spaces) the working environments and combinations in which they are found create unique challenges (e.g. remote areas, extreme weather conditions or working at sea). New technologies or working processes associated with wind energy will also lead to new hazards, which call for new

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**Thank you for your attention!!!**

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