

Bird protection on Medium Voltage Overhead Network Poles



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www.BirdProtection.info

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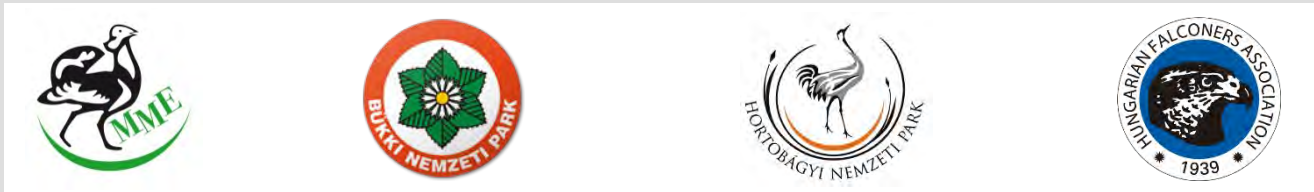


The parties:

- Electrical utility companies



- Bird protection associations

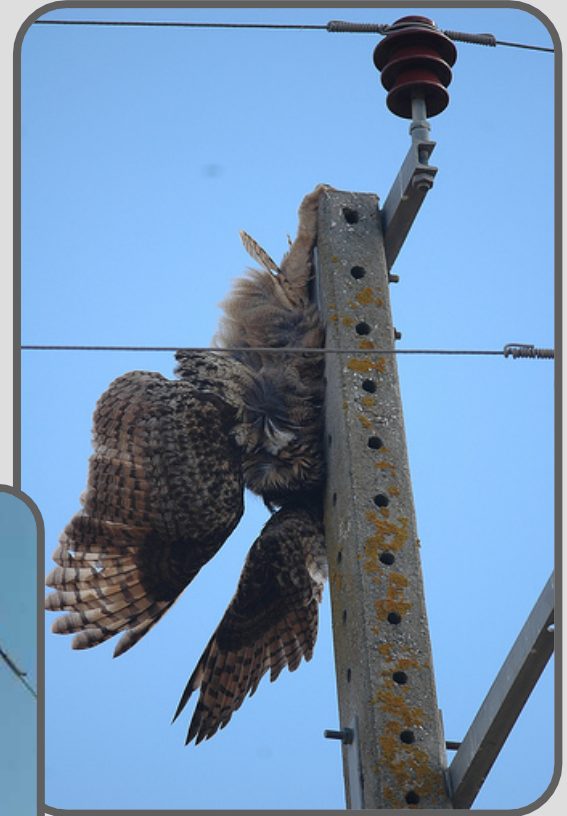


=> Versus....or rather with ?

How to get from **Versus** to **With**?

- ✓ Offering discussions & willingness to listen (both parties)
- ✓ Importance of PR value (at electrical utilities)
- ✓ Financial support (to electrical utilities)
- ✓ Personal interest:
 - Bird protection activist getting knowledge in electrical distribution industry
 - Electrical engineer getting knowledge in bird protection specifics.
- ✓ Coordination with repair and retrofit projects (at electrical utilities)
- ✓ Available products offering ADVANTAGE instead of asking for for COMPROMISE

Reality: Bird electrocutions on MV networks



The right commitment

More and more players in Hungary (Manufacturers, R&D companies, Electrical companies) believe that there **must** exist solutions that satisfy both the network owners and the bird protection associations.

Yes, there ARE!



www.szatuna.hu



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Dilemma: See-through network or bird protection?

It might be difficult to choose:



← Being able to perform visual inspection from the ground

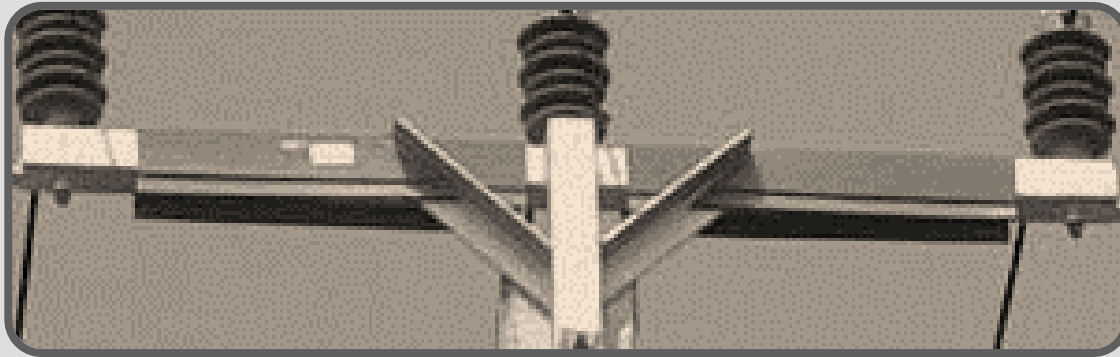
OR

increase bird safety by covering the insulators?



Compromise is needed from the network owner!

The first trial products

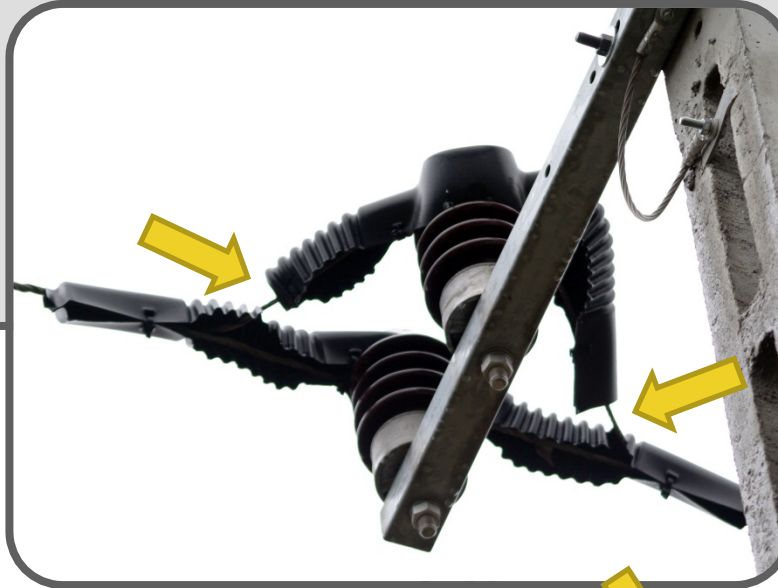
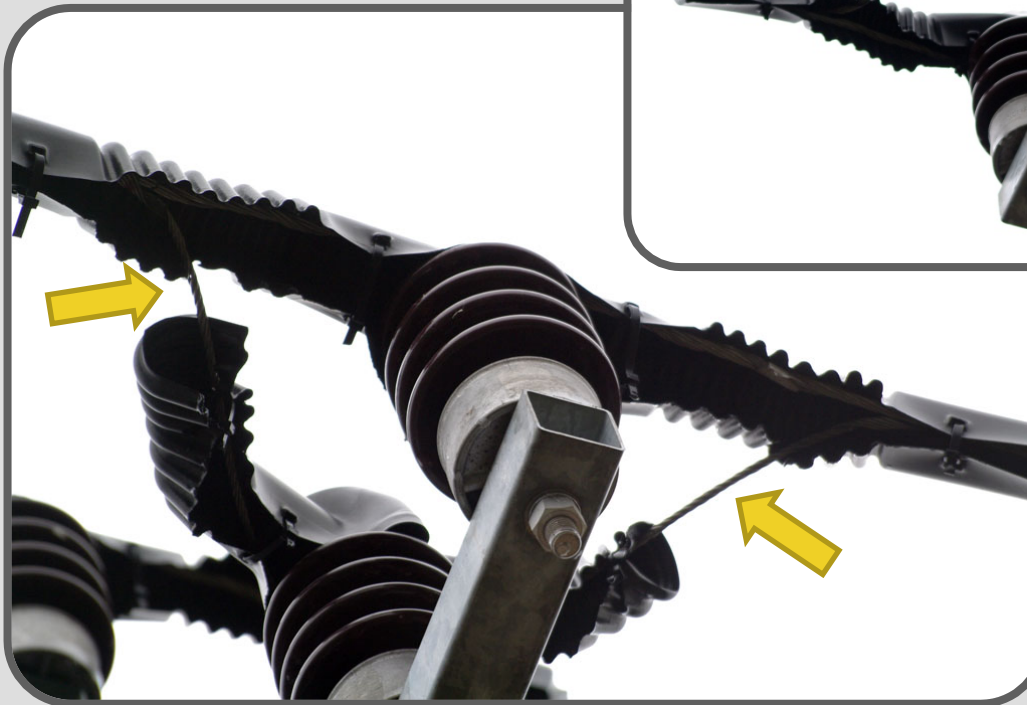


By covering the crossarms the number of bird electrocution didn't decrease considerably.
Moreover, many of such covers fell off.

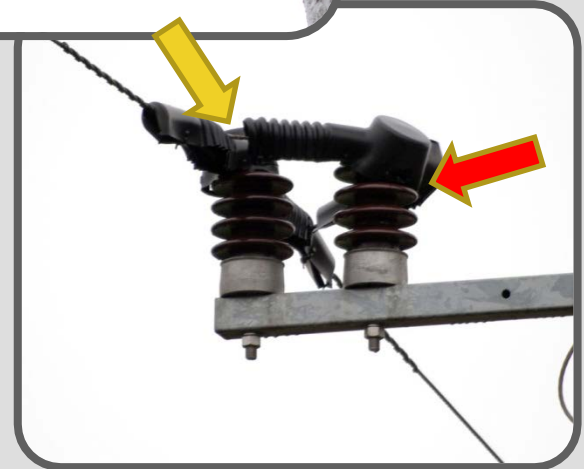
The first trial insulator covers

Still many defects.

Uncovered points:



**Shortened
creepage
distance**



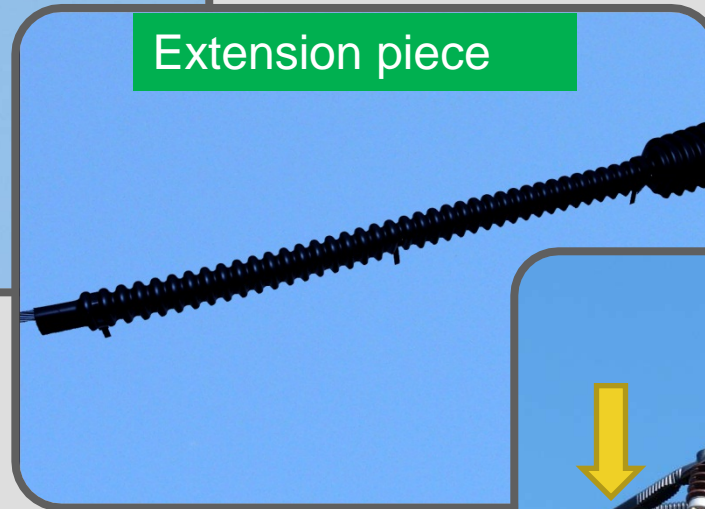
There ARE good solutions!

The goal is to offer products to network owners that **decrease** bird-mortality **WITHOUT** asking to make compromises!

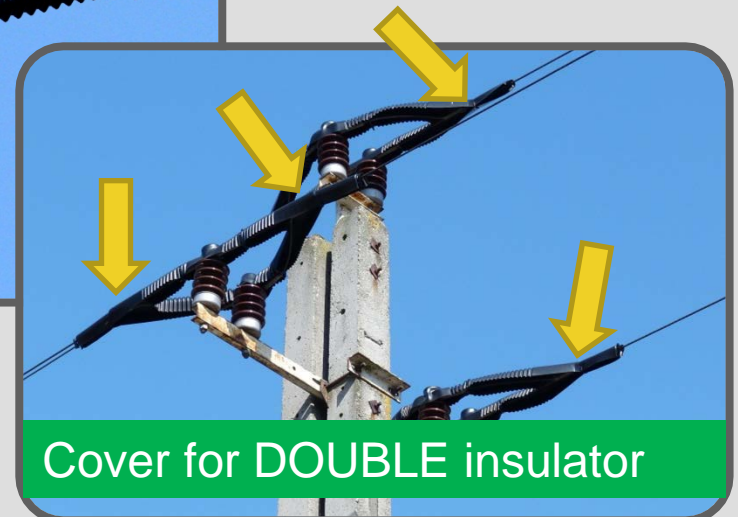


MBR[®] Insulator covering system

(MBR-1, MBR-1H, MBR-2)



No more
uncovered points

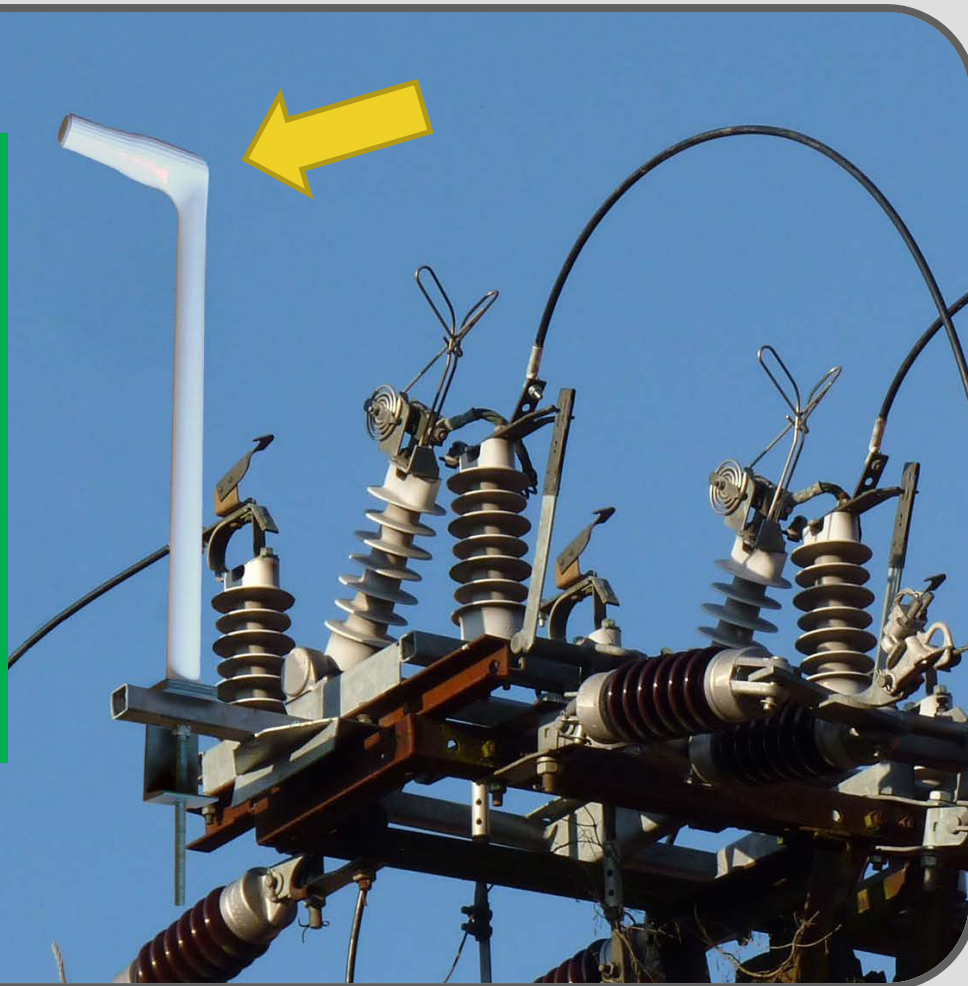


Wing spacers



Bird rest

The bird rest offers a safe place for the birds around open pole mounted disconnectors.



Bird-safe connections

Using Live Line
Connectors
and Covered MV
cables the
connection between
two lines is bird-
safe yet
disconnectable



Hybrid arrangement crossarm

- Respects safety distances set by network owners **and** bird protection associations
- Middle phase on standing insulator, side phases on hanging insulators.
- Max weight of one element: 6 kgs. No need for crane to install.
- Bird rest installed to avoid bird excrement to deteriorate insulator or connections.
- Mounting using holes in „Y” direction: old crossarm is dismantled only after installation of new crossarm is done.
- Answering an existing need of the utilities for flexible network **AND** bird safety... **without compromise**



Full-Hanging arrangement crossarm

- Respects safety distances set by network owners **and** bird protection associations
- All phases on hanging insulators.
- Max weight of one element: 6 kgs. No need for crane to install.
- Bird rest installed to avoid bird excrement to deteriorate insulator or connection.
- Mounting using holes in „Y” direction: old crossarm is dismantled only after installation of new crossarm is done.
- Answering an existing need of the utilities for flexible network AND bird-safety...**without compromise**

The crossarm in the designing phase:



The crossarm in reality at RWE-Hungary training facility

Result:

Over 5000 poles
are bird-safe by
now

Over 30 000 poles
are planned to
be made bird-
safe

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