

Humanitarian and technical Aid DTEK

**D.TEK** Energy  
in action





# Electricity Infrastructure Restoration



## Current problems

### Current situation

- Many power facilities are destroyed or damaged
- Lack of equipment for reconstructions
- Long lead time to produce certain equipment

## Solutions

### How to resolve the problem

- Humanitarian aid
- Financial support mechanisms, e.g. Ukraine Energy Support Fund established by Energy Community Secretariat
- Immediate placement of orders
- To sell the equipment at production cost

## Next steps

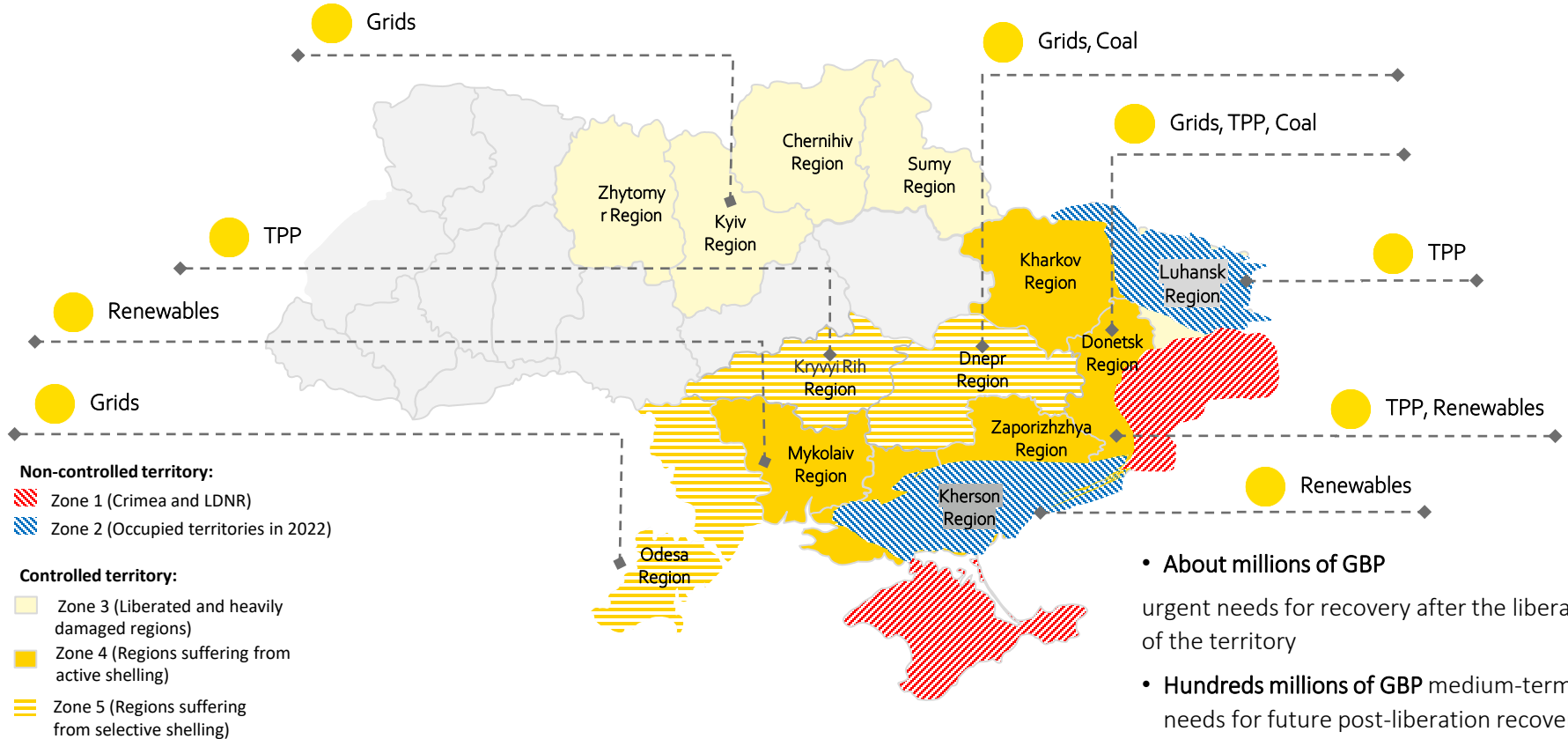
### To do

- Supply of urgently needed equipment as humanitarian aid by different companies
- To develop a solution for attraction of financial technical support
- Consider selling of equipment at production costs

Help us to help Ukraine faster



# Actual Situation in Ukraine



- **About millions of GBP** urgent needs for recovery after the liberation of the territory
- **Hundreds millions of GBP** medium-term needs for future post-liberation recovery



# Materials and Equipment for the Grid Restoration

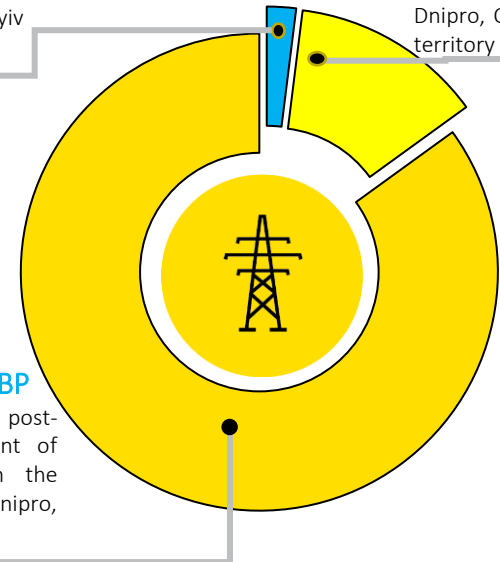


## Required scope of assistance for restoration (financing, supply of equipment and materials)

**8,54 Million GBP**  
**urgent need** for recovery after the liberation of the Kyiv region territory

**56,59 Million GBP**  
**medium-term need** for future post-liberation recovery of the Kyiv, Donetsk, Dnipro, Odesa region territory

**367,85 Million GBP**  
**long-term need** for post-liberation development of electric networks in the Kyiv, Donetsk, Dnipro, Odesa regions



*In order to assess distribution system operators' needs for materials and equipment for restoration, we analysed the war map (areas where military hostilities took place or are ongoing) and the length of distribution networks.*

*! The slide shows the current situation at DTEK's DSOs. In the event of military hostilities intensifying in the regions, the demand may change.*



# Key Needs: 35-150 kV Grids



Material or Equipment	Urgent (1-3 month) Quantity	Medium Term (6-15 months) Quantity	Long Term (15+ months) Quantity
<b>RESTORATION OF TRANSFORMER AND DISTRIBUTION POINTS</b>			
35-150 kV substations fixed 4-63 MVA, 6-10 kV complete switchgear	2 pcs	4 pcs	38 pcs
35-150 kV mobile substation 40 MVA	-	2 pcs	4 pcs
35-150 kV transformers power 10000-63000 kVA	4 pcs	21 pcs	84 pcs
6-150 kV vacuum and SF6 circuit breakers	46 pcs	91 pcs	364 pcs
35-150 kV disconnectors	-	56 pcs	224 pcs
35-150 kV current and voltage transformers	27 pcs	294 pcs	1176 pcs
6-150 kV transformer oil	-	60 tones	240 tones
6-150 kV other materials and equipment	47 pcs	1419 pcs	5676 pcs
<b>OVERHEAD AND CABLE LINES</b>			
35-150 kV reinforced concrete poles	-	317 pcs	1268 pcs
35-150 kV uninsulated and insulated electric wires	-	107 tones	428 tones
35-150 kV clamps, fittings and crossheads	-	25314 pcs	101256 pcs
35-150 kV insulators	-	14500 pcs	58000 pcs
35-150 kV couplings for cables	-	420 pcs	4080 pcs
35-150 kV other materials and equipment	-	684 pcs	336 pcs



## Key Needs: 0,4-20 kV Grids (1/2)



Material or Equipment	Medium Term (6-15 months) Quantity	Long Term (15+ months) Quantity
<b>DISTRIBUTION SUBSTATION</b>		
0,4-10 kV complete switchgear and packaged transformer substation	490 pcs	1960 pcs
0,4-10 kV disconnectors and switches	3220 pcs	12000 pcs
6-10 kV transformers power 25-1000 kVA	330 pcs	812 pcs
0,4-10 kV one-sided service cell	200 pcs	800 pcs
0,4-10 kV current and voltage transformers	232 pcs	928 pcs
0,4-10 kV oil for transformer	40 tones	160 tones
<b>OVERHEAD AND CABLE LINES</b>		
0,4-10 kV reinforced concrete poles	14520 pcs	58080 pcs
0,4-10 kV uninsulated and insulated wire	3000 km	12000 km
0,4-10 kV fittings for wire mounting and clamps	267082 pcs	1068328 pcs
0,4-10 kV crossheads	67080 pcs	268320 pcs
0,4-10 kV Insulators	79800 pcs	319200 pcs
0,4-10 kV insulated cables	668 km	2672 km
0,4-10 kV couplings for cables	27106 pcs	108424 pcs
0,4-10 kV other equipment	78878 pcs	315512 pcs



## Key Needs: 0,4-20 kV Grids (2/2)



Material or Equipment	Medium Term (6-15 months) Quantity	Long Term (15+ months) Quantity
ENSURING TECHNOLOGY PERFORMANCE OF WORKS UNDER VOLTAGE LIVE WORKS, OTHERS		
0,4-150 kV special car lifts	10 pcs	43 pcs
0,4-20 kV sets of tools, devices and personal protective equipment	24856 pcs	99424 pcs
0,4-20 kV electrical laboratory	1 pc	4 pcs
0,4 kV diesel generator with connection cable 500 -1000 kVA	28 pcs	112 pcs



## Key Needs: Coal production



### Urgent needs

- Air compressor (4 pcs)
- Cable (30 km)
- Anionic polymeric flocculant (250 t)

- Cutoff disk (2000 pcs)
- Pumps (50 pcs)
- Sleeve (7000 m)
- Conveyor belt (13 000 m<sup>2</sup>)

### Medium-term needs





# Urgent needs

- Power transformers (2 pcs)
- Voltage transformers (44 pcs)
- Current transformers (69 pcs)
- Submersible drainage pumps (40 pcs)
- Integrated switchgear (6 kV)
- Switches

- Voltage transformers (7 pcs)
- Diesel Generator Welding Machine (8 pcs)
- Cable (3000 m)
- Wire (6000 m)

# Medium-term needs

# Contacts



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DTEK has experience in solving logistic, custom, tax and legal issues related to the import of humanitarian aid from Europe to Ukraine (including, but not limited - cooperation with the Polish State Agency *RARS*)