

Electricity supply challenges and lessons learnt from the 2010 Soccer World Cup

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Chair 2010 Electricity Supply Industry Forum (2010 ESI)

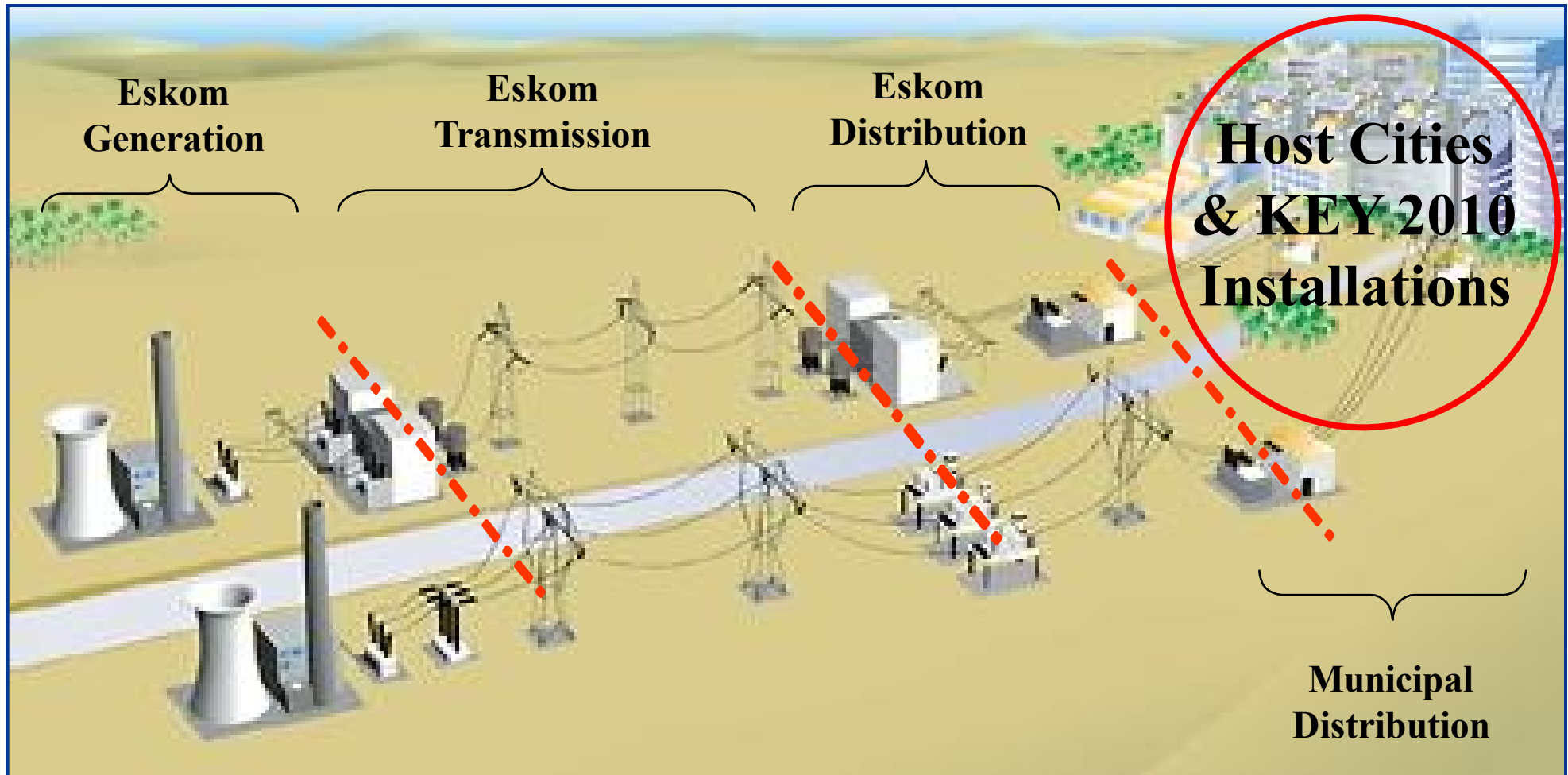
AMEU Convention, September 2010



- Background (Electrical supply chain)
- 2010 ESI Forum & Regional Task Teams
- Highlights
- Lowlights
- Key lessons learnt
- 2010 Legacy
- Conclusions



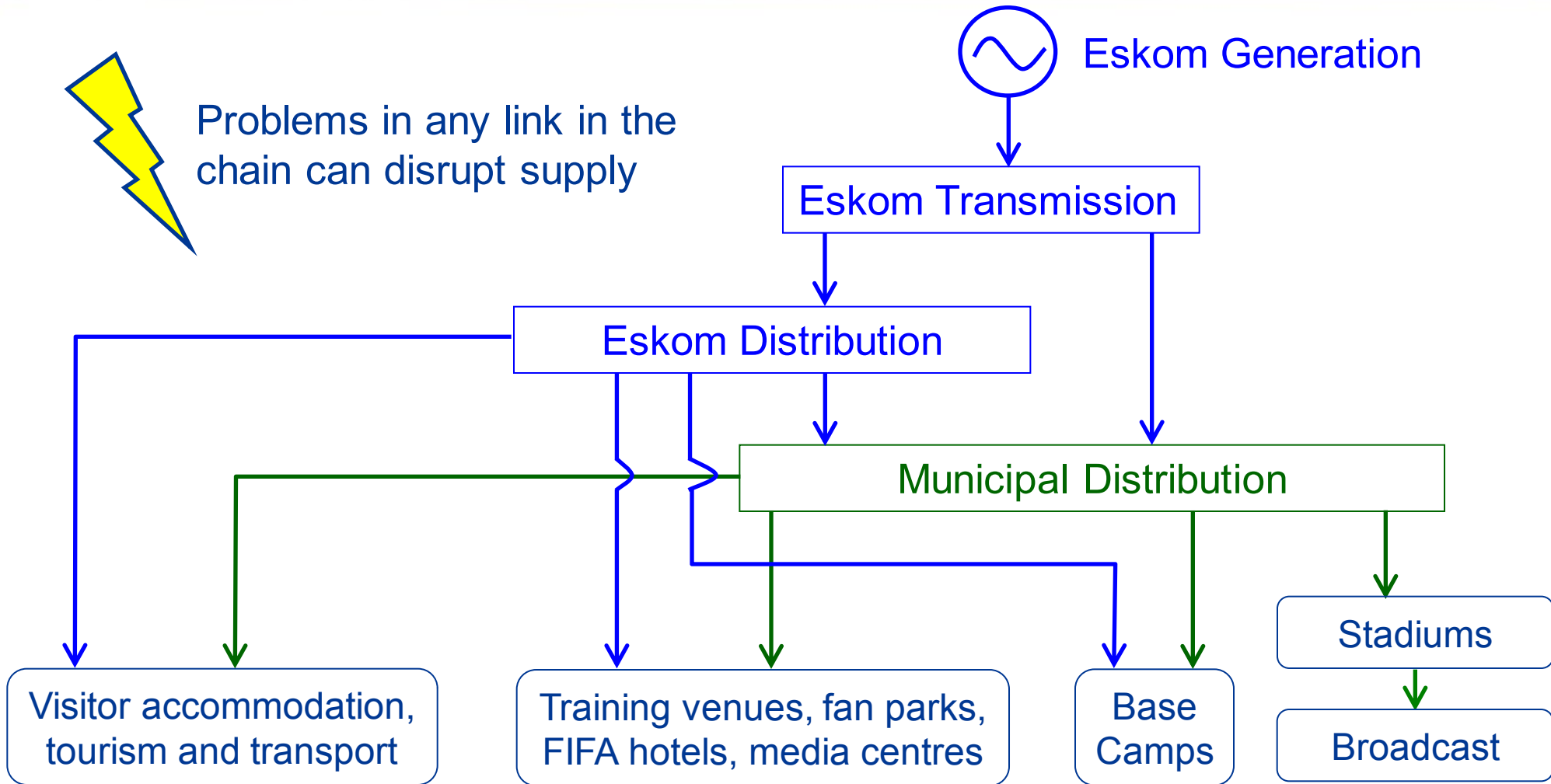
Electrical supply chain



Electrical supply chain continued



Problems in any link in the chain can disrupt supply



Multiple role players!



- Jointly formed by AMEU and Eskom in August 2006
- Coordinated electrical supply preparations
- National meetings quarterly (AMEU, Host Cities, Eskom, DOE, NERSA, SALGA, Treasury, EDI Holdings)
- Formed Regional Electricity Task Teams



2010 Regional Electricity Task Teams

- Identified key networks and assessed condition
- Upgrading, refurbishment and maintenance of these networks
- Planning of strategic spares
- Adjustment of automatic and manual load shedding
- Contingency plans (in place and tested)
- Staff availability (leave planning, staff deployment)
- Enhanced security
- Clear communication channels utilising existing operational structures supplemented to ensure integration with Provincial JOC, City JOC, VOCs and the Eskom RSACs



Highlights

- Forecasted additional loads for 2010 – Networks assessed – Capital Projects identified – Funding requirements raised
- Capital projects initiated and progress tracked
- Provided supply specifications / recommendations
- Communicated activities e.g. AMEU Conventions, circulars and E-Bulletin & internally within Eskom via the Eskom 2010 project
- Established linkages e.g. LOC Power Forum & NERT
- International contacts and learning from Germany 2006, 2008 Beijing Olympic Games & EURO 2008
- Deployed response teams & used 2009 CC to test preparations



Lowlights

- Minor faults (MV cable, mini-substation and street lighting)
- Late finalisation of certain fan parks and PVAs
- Accreditation of staff by FIFA problematic
- In cases less than ideal lighting levels at e.g. park and rides
- Overloading due to illegal connections
- Conductor theft – but much lower than historical levels
- Cable damage by contractors – despite efforts
- Overstated stadium overlay power requirements
- What could have been.....see next slides



ETHEKWINI Electricity– Taxi on stay wire (Off Umgeni Rd)



City Power: Prospect-Robertsham 88kV Tower - Unsafe after hit by a car (N12, Comaro off ramp)



Key lessons learnt

- Use independent operators at stadiums, fan parks and PVAs
- Place bans on construction works prior to the event - secures cables and other utilities and enhances beautification of the Host City
- Create formal effective communication channels and protocols
- Provide alternative communication systems to minimise dependency on cellular phone communication
- Create cooperation between the Host Cities and Eskom - effectively achieved via regionally focused task teams supported by a national body such as the 2010 ESI Forum



Key lessons learnt continued

- Get the support and commitment of top management
- Don't underestimate the time and process to perform staff and vehicle accreditation
- Finalise power supply requirements well in advance with a design-stop early enough to allow time for the utilities to meet the required power supply deadlines
- Finalise the locations of key sites such as fan parks as soon as possible to allow for electrical infrastructure planning, design and installation lead times
- Supply requirements should not be unreasonably overstated



Key lessons learnt continued

- Make provision to accommodate unforeseen last minute eventualities
- Perform proper planned maintenance - significantly reduces unplanned outages
- Event preparations can minimise but not completely eliminate network faults. Strategies are required to ensure that faults can be identified, located and repaired in the shortest time possible. Technologies such as fault indicators can assist in this regard.



2010 Legacy

- Significant network additions and upgrading, including street lighting (unlikely under normal conditions)
- Successful introduction of new technologies e.g. Tetra communication system for the City of Johannesburg
- Successful testing of operational capacity and experience in dealing with international organisations and major events
- Skills development and job creation
- Improved cooperation between Municipalities, Eskom and government entities



- Preparations started in 2006 to ensure a coordinated approach at both national and regional (Host City) levels
- Voluntary gathering of industry professionals committed to ensuring that the games and associated activities were powered
- Extend beyond just supplies to the Stadiums
- Treated as business un-usual
- Approached in a spirit of cooperation – we will only be successful if we are all successful
- The event was hosted without any serious supply interruptions. We can all be understandably proud of this major achievement



The contributions from all participants
in the 2010 ESI Forum are
acknowledged and appreciated

A pair of hands, one light-skinned and one dark-skinned, are shown holding a white globe of the Earth. The hands are positioned on either side of the globe, with fingers gently gripping it. The background is a soft, out-of-focus light color.

Thank you

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