LESSONS FOR THE 2010 FIFA WORLD CUP SOUTH AFRICA FROM THE 2009 FIFA CONFEDERATIONS CUP EXPERIENCE

Presenters: Sicelo Xulu – Director – Engineering Services, City Power
Sanjay Bhana - 2010 Project Manager- Special projects – 2010, Eskom

AMEU Conference: September 2009
The Journey to 2010

Phase 1: Apr 07 – Mar 08: - Planning

Phase 2: Apr 08 – Mar 09: Implementing Planning

Phase 3: Apr 2009 – Mar 2010: Host a successful 2009 FIFA Confederations Cup

14-28 June 09

Phase 4: Apr 2010 – Aug 2010: Host a successful 2010 FIFA World Cup SA

11 June 2010 – 11 July 2010

11 June 2010 – 11 July 2010

2007

Phase 1: Apr 07 – Mar 08: - Planning

Phase 2: Apr 08 – Mar 09: Implementing Planning

Phase 3: Apr 2009 – Mar 2010: Host a successful 2009 FIFA Confederations Cup

14-28 June 09

Phase 4: Apr 2010 – Aug 2010: Host a successful 2010 FIFA World Cup SA

11 June 2010 – 11 July 2010
2010 Electricity Supply

1. 2010 ESI objectives:
   • Ensure a **reliable** electricity delivery,
   • Electricity **supply chain preparedness**, and
   • Treatment of **risks**
   • Contribute towards **staging and managing “the best World Cup ever”**
“Congratulations for the outstanding contribution towards the successful hosting of the 2009 FIFA Confederation Cup”
2009FCC: Host City Learning

Source: www.fifa.com
2009 FCC Learning: Host Cities

• Objectives
• Risk identification and treatment
• Lessons for 2010FWC
The Electricity Supply industry (ESI) has established **Regional Task Teams** to coordinate the implementation of Electricity Plans for Confed and 2010 SWC.

City Power Johannesburg is leading the Gauteng RTT which comprises of the following stakeholders:
- City Of Johannesburg, (City Power and 2010 office)
- Eskom Central Region (Transmission and Distribution)
- Mogale City
- Emfuleni Municipality

Sub-WG:
- Infrastructure Planning
- Maintenance Planning & implementation
- Emergency Response
- Security of infrastructure (against Theft and Vandalism)
- Public Lighting
Establishment of Work Groups

- **Sub-WG: Infrastructure Planning**
  - To **assess and address power requirements** to meet the demand related to the confederation cup and 2010 SWC.

- **Sub-WG: Maintenance Planning & implementation**
  - To **develop and implement maintenance plans**. To also identify confederation cup and 2010 related events and implement contingency plans to ensure continuous supply of electricity.

- **Sub-WG: Emergency Response**
  - To **develop and implement integrated emergency response and regional command centers for emergency plans** and load shedding, integrate with the existing host City JOC.

- **Sub-WG: Security of infrastructure (against Theft and Vandalism)**
  - To develop and implement an **integrated anti-theft and vandalism strategy** during Confederation and 2010 SWC.

- **Sub-WG: Public Lighting**
  - To **identify public lighting requirements** i.e. major 2010 routes, Fan Parks, Park and Ride etc and ensure that these areas are **well lit** during the events.
Identifying the supply chain to key installations

**Preparations leading to the FCC: Network Readiness**

**Step 1:** ID key installations
- Stadia & Precinct
- Fan Parks
- Public Viewing areas
- Broadcasting Centres: Local & Int’l
- Base Camps
- Training Venue
- Key FIFA Installations: HQ, Hotels, etc.
- Other key Installations: Police, Command centres, etc.

**Step 2:** ID key networks and sub-stations
- Munic - Sub
- Munic - Sub
- Munic - SubC
- Munic - Sub
- Munic - Sub
- Munic - Sub
- Munic - Sub
- Munic - Sub
Preparations leading to the FCC: Operational Plan

The operational plan was developed consisting of the following:

- Network Configuration: Ellis Park Precinct
  - Grid Supply
  - Standby Generation
- Network readiness
  - Maintenance Status
  - Plant out of service
- Event Coordination
  - Structure
  - Accreditation
  - Communication
- Training Venues
- Park and Rides
- Routes
  - Protocol
  - Park and Rides
- Public Viewing Sites
- Resource Plan
  - Standby Teams
  - Strategic Spares
  - Mobile Generators
1. City Power provided TETRA system, to be used as a medium of communication
2. Standby Teams were deployed at major substations for the duration of the event – for quicker restoration times
3. City Power and Eskom Personnel deployed at VOC, JCC and Eskom Command Center
Modus Operandi during the FCC: Supply to the Stadium

- Confirmed with LOC: No FIFA prescriptive method on modus operandi (FIFA requirements – Continuous supply to both pitch lighting and broadcasting i.e. N-1)

- Two options considered for continuous supply.
  
  **Option 1 (Preferred – due to automatic chop over)**
  
  - City Power grid - primary and generators as back up supply.

  **Option 2**
  
  Generators - primary and grid as back up supply

Full tests were conducted before the commencement of the event!
Challenges/Lessons Learned

• Accreditation:
  – Limited number of people accredited, 16 (sixteen) application made and only 6 (six) approved, which 38%
  – Access denied for accredited personnel to repair faulty lights at match day – 1

• VOC operation:
  – Not enough space at the VOC, crowded

• Voltage regulation:
  – Experience high voltage levels at the overlay (on the load side), due to the Trfr fixed tap design
  – The overlay load supplied from generators, grid utilised as back up supply
  – Mitigation: Internal overlay supply to be reconfigured (more than one (1) point of supply)
Challenges/Lessons Learned...

• Network Risk:
  – Single cable between City Power and Ellis Park stadium supply
  – Manual network switching at Ellis Park (upgrade underway to allow for better network configuration)
  – Mitigation: Second cable laid and terminated

• Power Consumption:
  – Waiving of Ellis Park actual maximum demand
  – Grey area with regards to overlay payment of power consumption
2009FCC: National Learning

2009 FIFA Confederation Cup™ - Host cities

Source: www.fifa.com
2009 FCC Learning: National

• Objectives:
  – Test readiness
  – Gain an understanding of the magnitude of the event
  – Train staff
2009 FCC Learning: National

• Experiences:
  – Risk identification and treatment
  – Preparations:
    • Operational Philosophies
    • Resources
    • Safety
    • Security
    • Communication
  – Reliability of supply
  – Collaboration
2009 FCC Learning: National

• Lessons for 2010 FWC
  – A risk management approach to be used
  – Key information sets must be sourced
  – Resource requirements need to be quantified and an optimal solution determined
  – Pro-active treatment plans need to be investigated and implemented for the treatment of labour risks.
  – Alignment of emergency and media communications with all
  – Alignment of all intelligence gathering activities - enhance decision making and responses to incidents and issues that may arise.
  – Need for detailed simulations (people, processes and systems) and trial runs
  – Defining and agreeing on the levels of information exchange with the various stakeholders.
Overall Recommendations

• A risk based approach be utilised
• Adequate security and storage
• Safety considerations
• Accreditation requirements
• Appropriate fuel supply considerations
• Resource planning for the 2010FWC
• Emergency communication and media information dissemination
• Clarity sought on issues such as costs incurred over the 2010FWC and re-imbursement for such.
2009 FCC Vs 2010 FWC

2009 FIFA Confederation Cup™ - Host cities

Rustenburg, Polokwane, Tshwane/Pretoria, Mangaung/Bloemfontein, Johannesburg, Durban, Nelspruit, Cape Town

Source: www.fifa.com

The TEST RUN is over
prepare for
The MAIN EVENT

2010 FIFA World Cup™ - Host cities

Rustenburg, Polokwane, Tshwane/Pretoria, Mangaung/Bloemfontein, Johannesburg, Durban, Nelspruit, Cape Town

X 4 specific stadiums
X 2 PVA’s

X 10 stadiums

Countrywide Fan Parks, PVA’s, Border posts, transport hubs, broadcast centres, hospitals, etc.

System Operations

Generation

Transmission

Distribution

Within Municipal area of control

Host cities & Key 2010 Installations

In Eskoms area of control

The TEST RUN is over
prepare for
The MAIN EVENT
Conclusion

• The 2009FCC served its purpose in:
  – Providing the ESI with an opportunity to test its event specific readiness, assumptions and real time operations.
  – Providing the ESI with an opportunity to test the adequacy and effectiveness of the risk treatment plans implemented.
  – Creating an understanding of the magnitude of the 2010FWC which will be upon us shortly and the necessary actions to be taken to ensure success for this event, i.e. incorporating lessons learnt into our final preparations so as to have more robust and complete plan of action for the 2010FWC.
Acknowledgements

Co-authors:
• Sicelo Xulu – Director – Engineering Services, City Power
• Sanjay Bhana - 2010 Project Manager- Special projects – 2010, Eskom
• Xolani Lembede – Planning Manager, City Power
• Adam Pobe – 2010 Co-ordinator, Centlec
• Gert Booysen – Director Technical Services, Tshwane Electricity
Thank you