

Mazoon Electricity Company Investment Program During the 3rd Price Control Period 2012 -2014

Presented By: Abdulaziz Said Al Shidhani
Planning & Regulatory Affairs Manager

Outline

- Background
- Demand Forecast
- Summary of MZEC Capex Program 2012-2014
- Major Projects

Geographical Coverage



MZEC Vision

*To become One of the
Leading Distribution and Supply
Companies in the Region by 2016*

Price Control Reviews

First Price Control

2005 – 2007

Extended to 2008

Tropical Cyclone

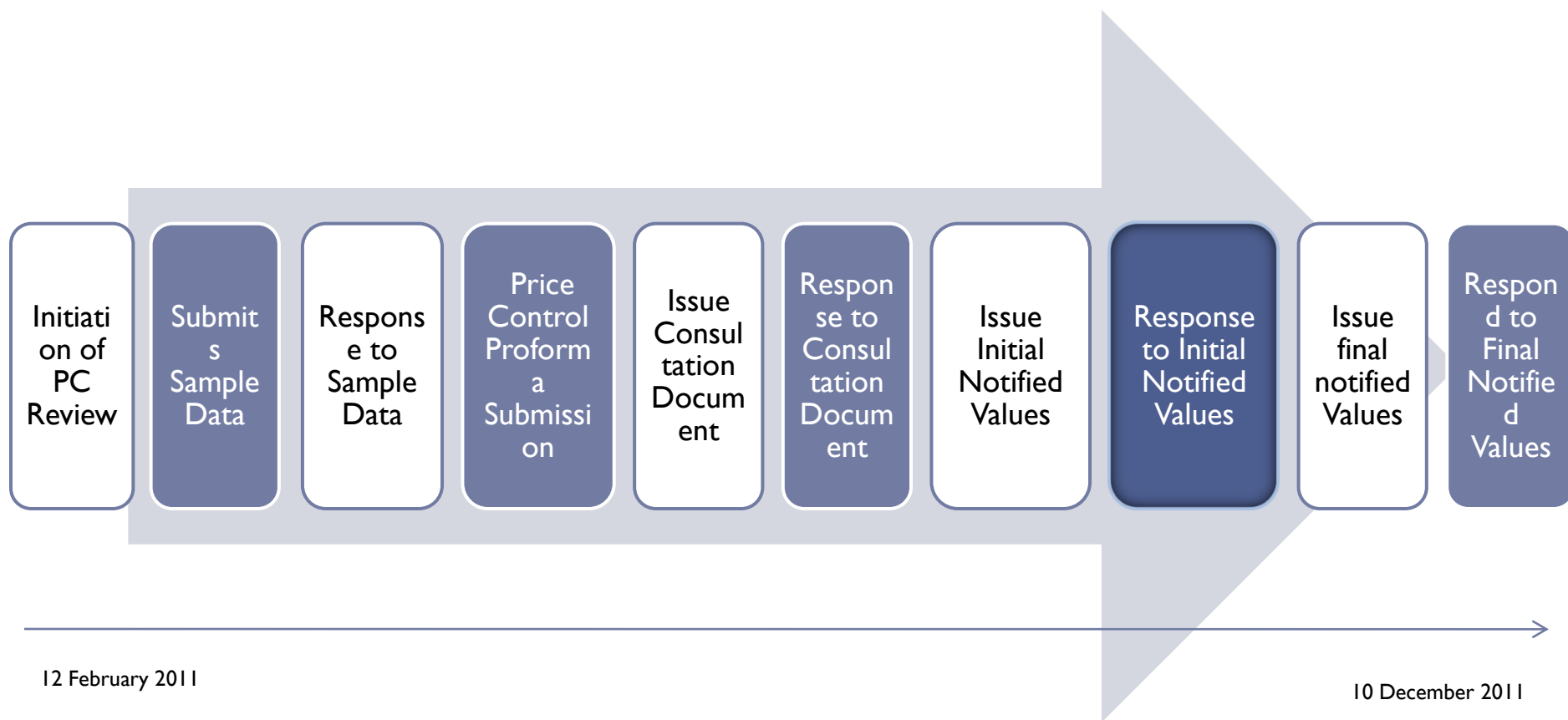
2nd Price Control

2009 - 2011

3rd Price Control

2012- 2014 (2016)

Price Control Review Consultation Process



12 February 2011

10 December 2011



Demand Forecast

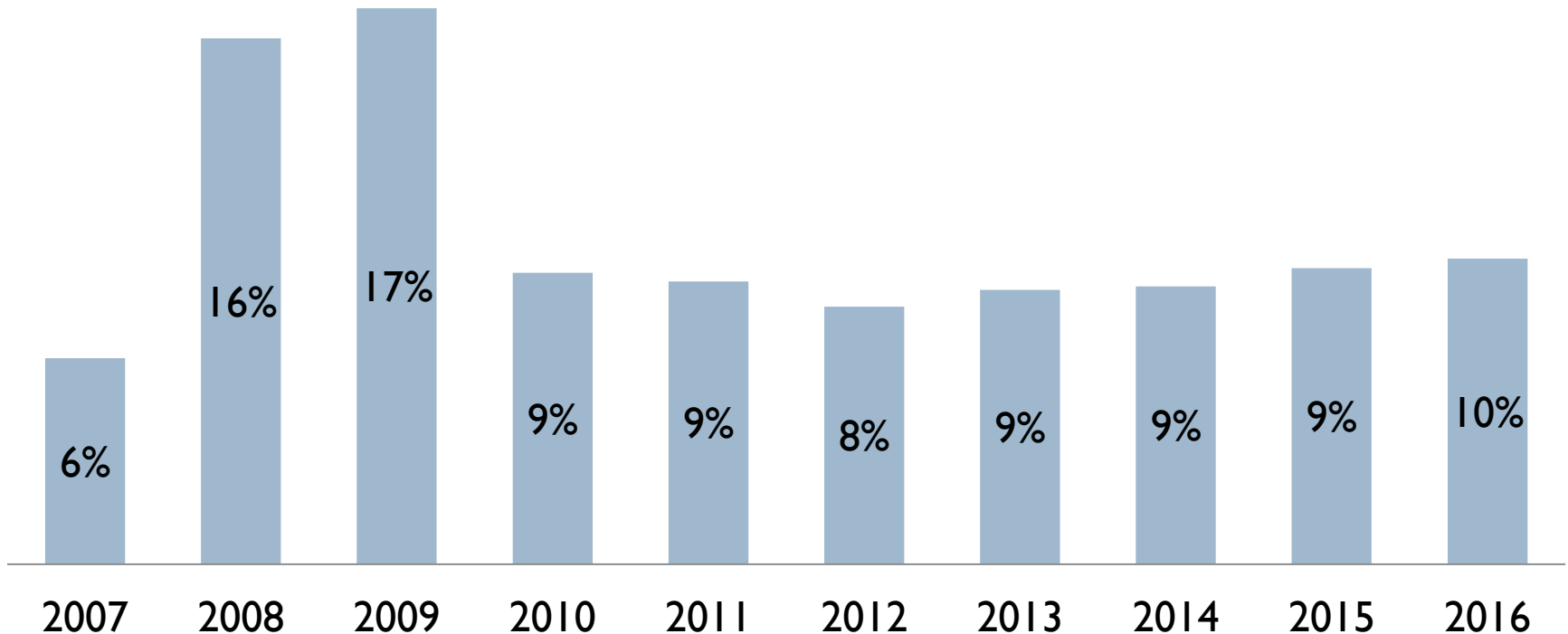
- Autonomous Demand Growth
- Major Projects Demand Growth

Autonomous Demand Growth

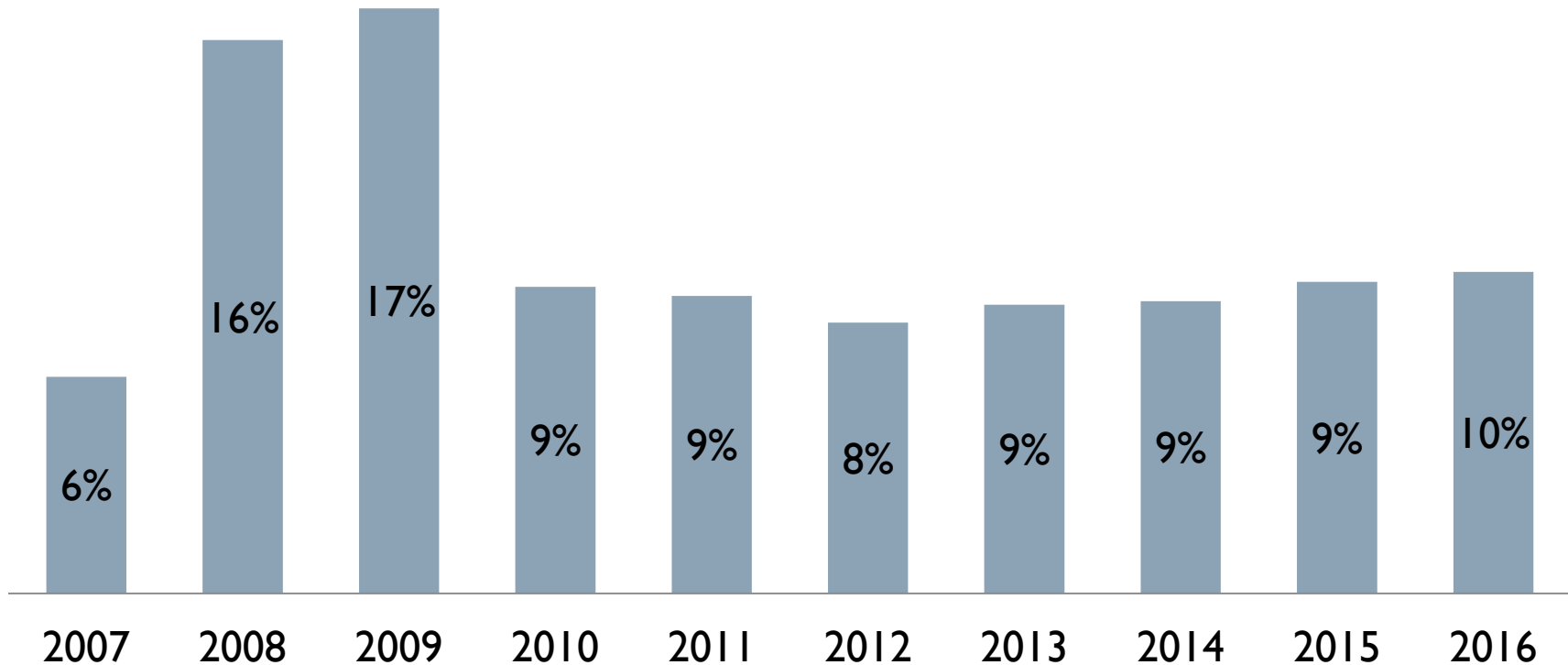
▶ RUD → GDP

▶ Customers accounts → Population

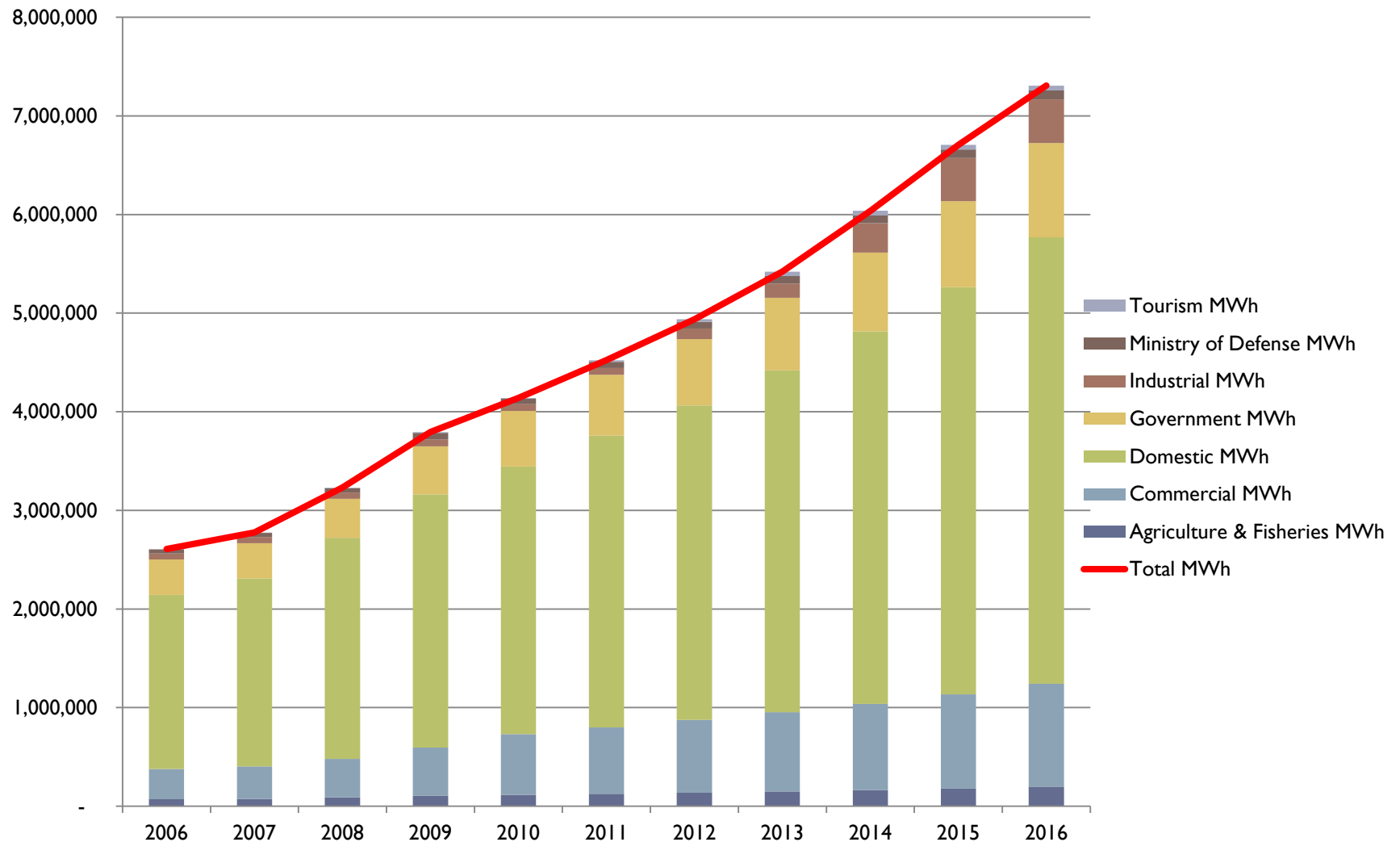
Energy Distributed Normal Growth



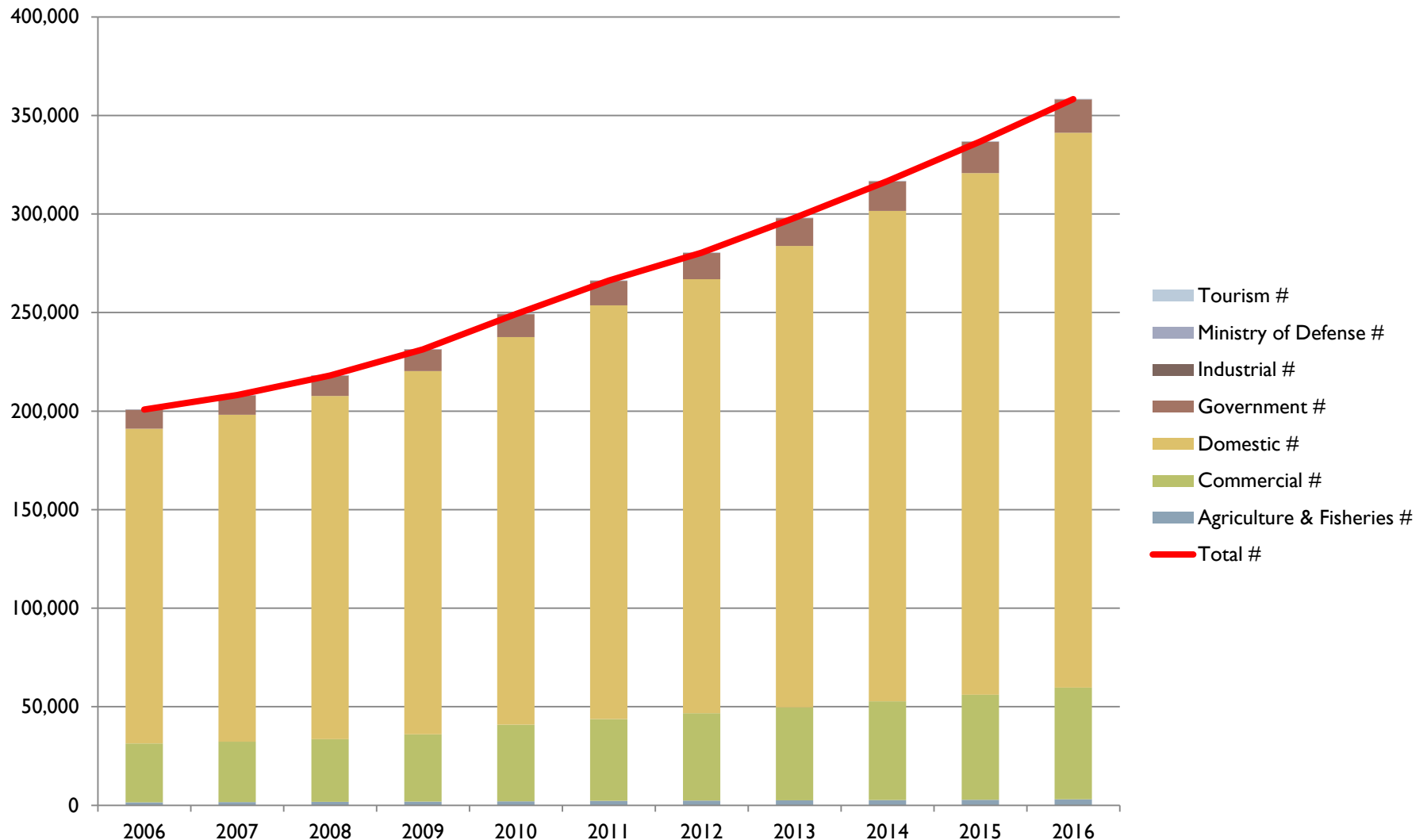
Energy Distributed Growth with Major New Loads



Energy Distributed Growth



Customer Accounts Growth

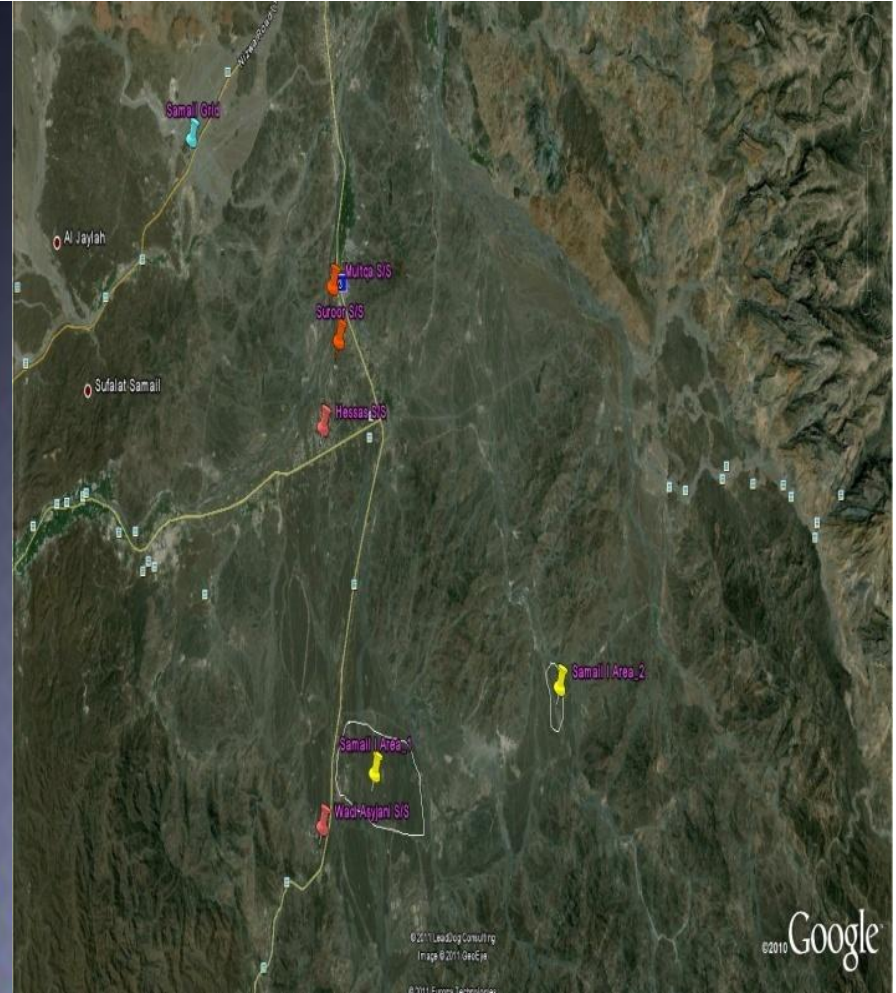


Aerial view of the New Al Batinah Coastal Road



Sumail Industrial Area

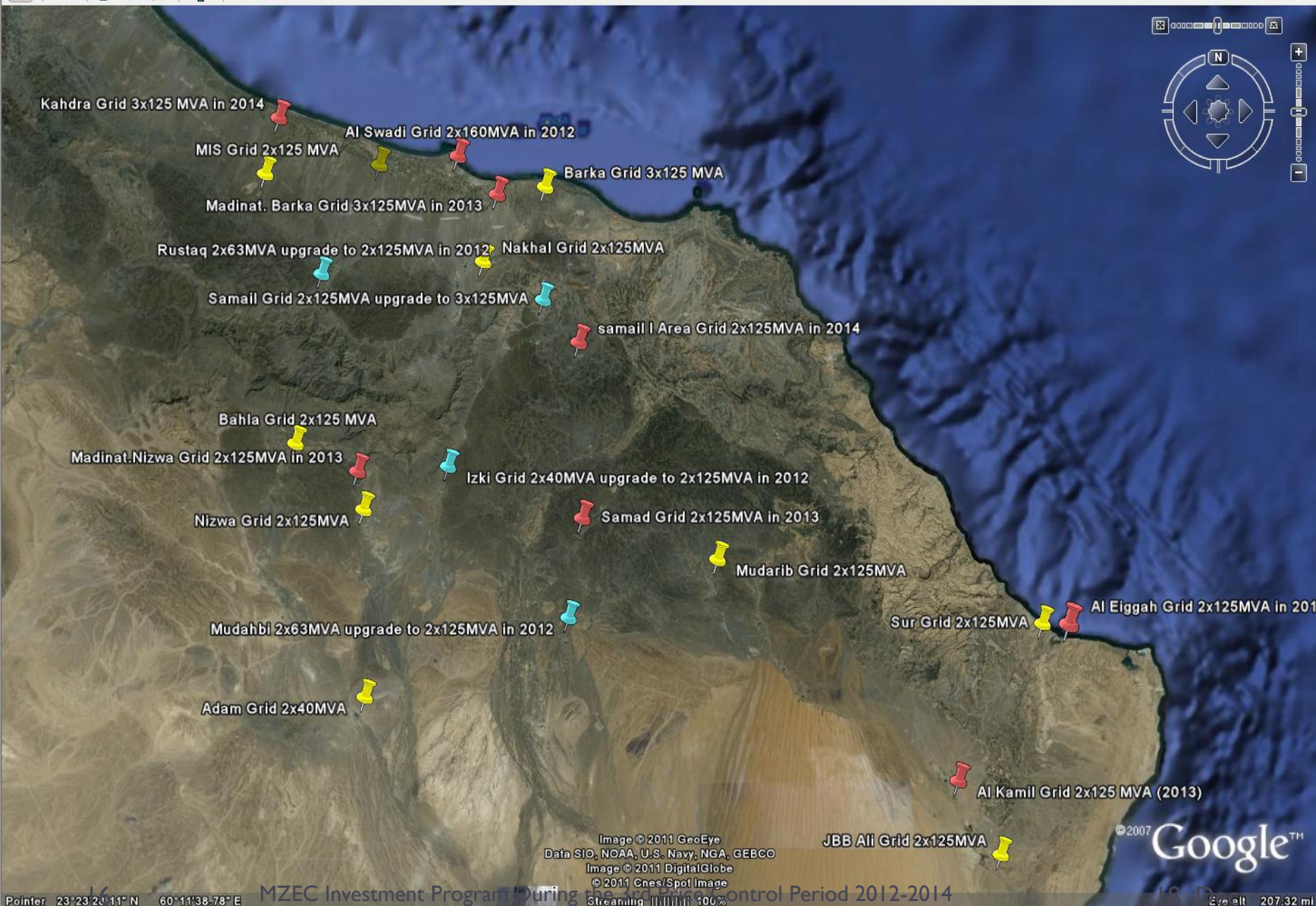
Ariel view of the planned area



Summary of MZEC

Capex Program

2012-2014

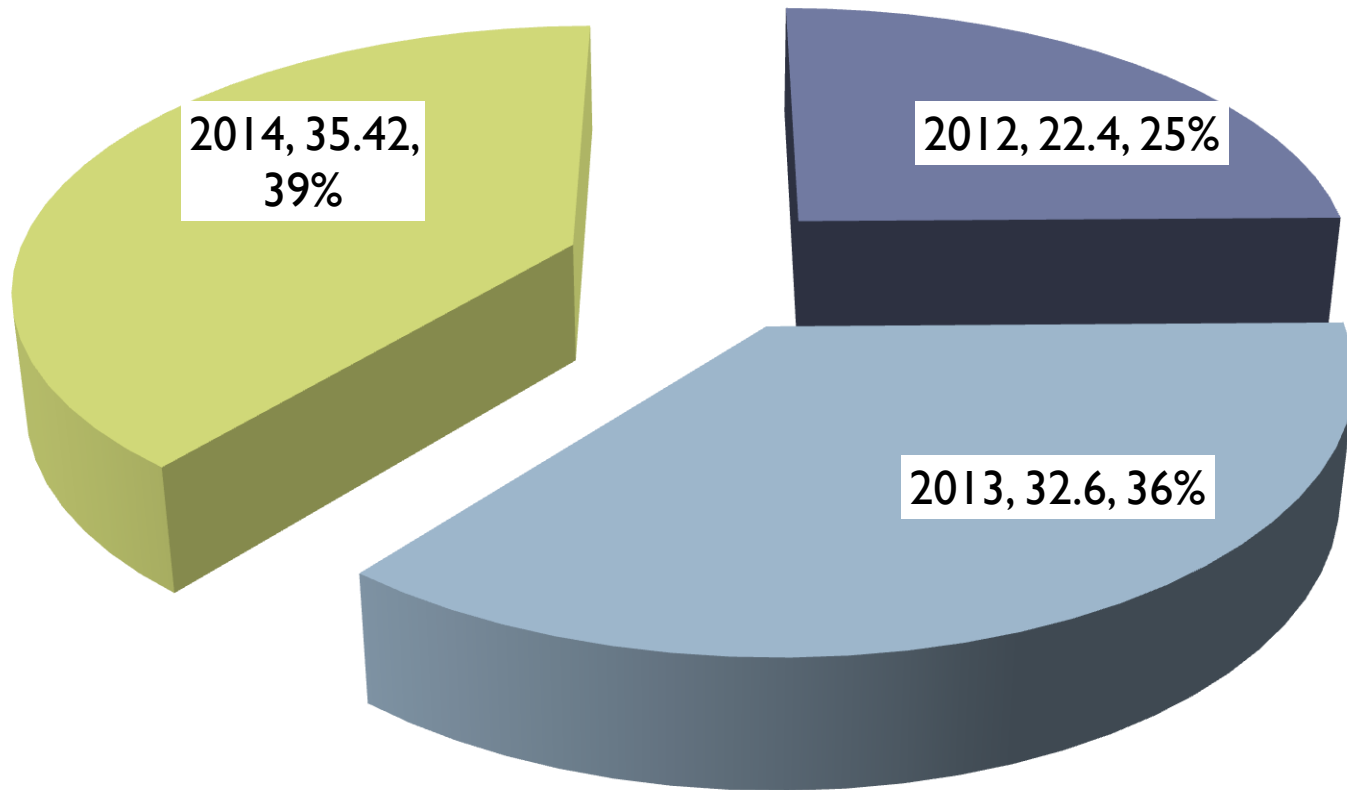


New Grid Substations

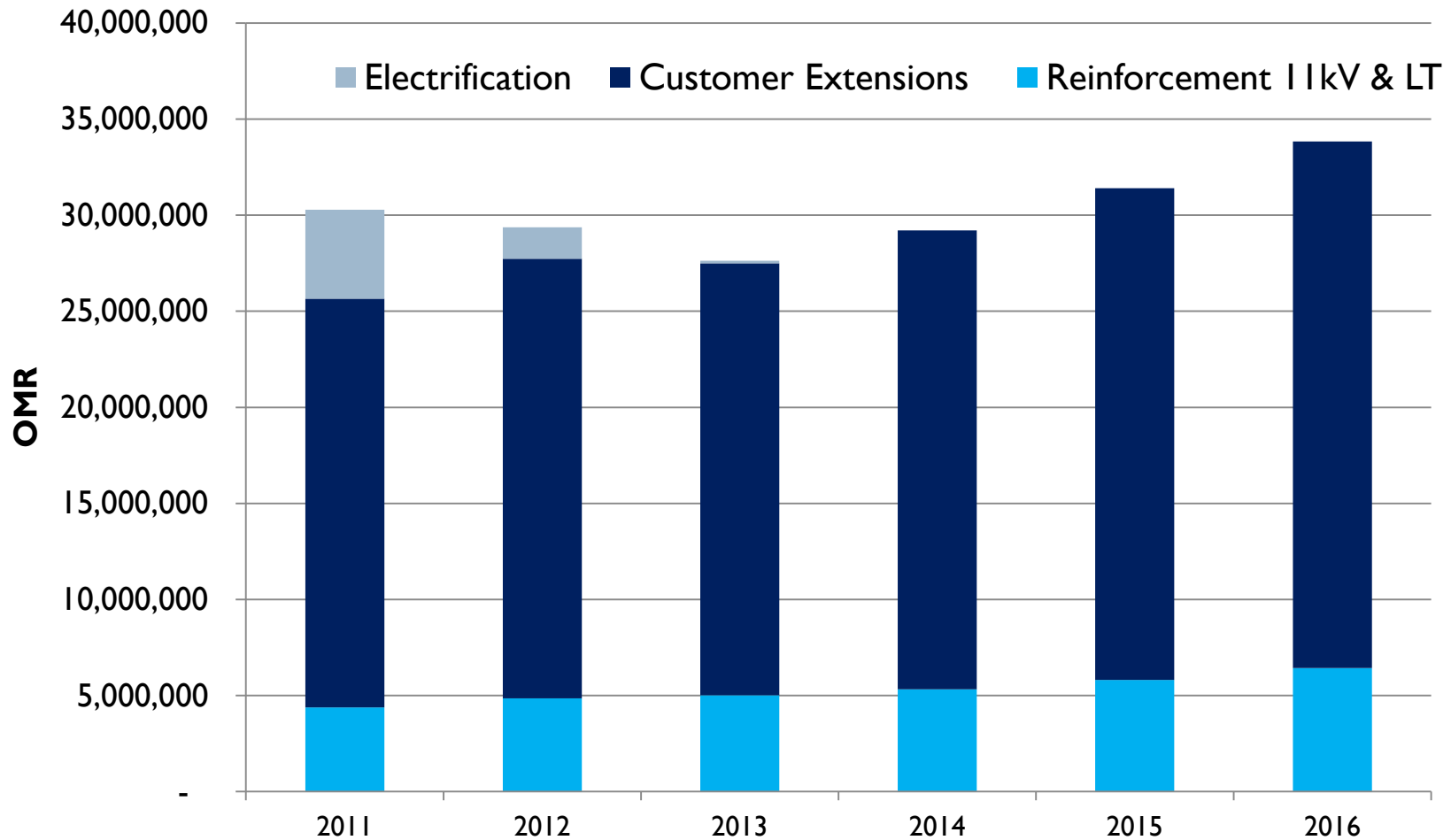
- Al Aigah 2x125 MVA - SUR - 2013
- Al Kamel 2x125 MVA – Al Kamel & Al Wafi - 2013
- Ibra 2x125 MVA - Ibra - 2014
- Madinat Barka 3x125 MVA - Barka - 2013
- Al Khadhra 3x125 MVA - Al Swaiq – 2014
- Madinat Nizwa 2x125MVA - Nizwa - 2013

Overall Capital Expenditure

33 kV Investments



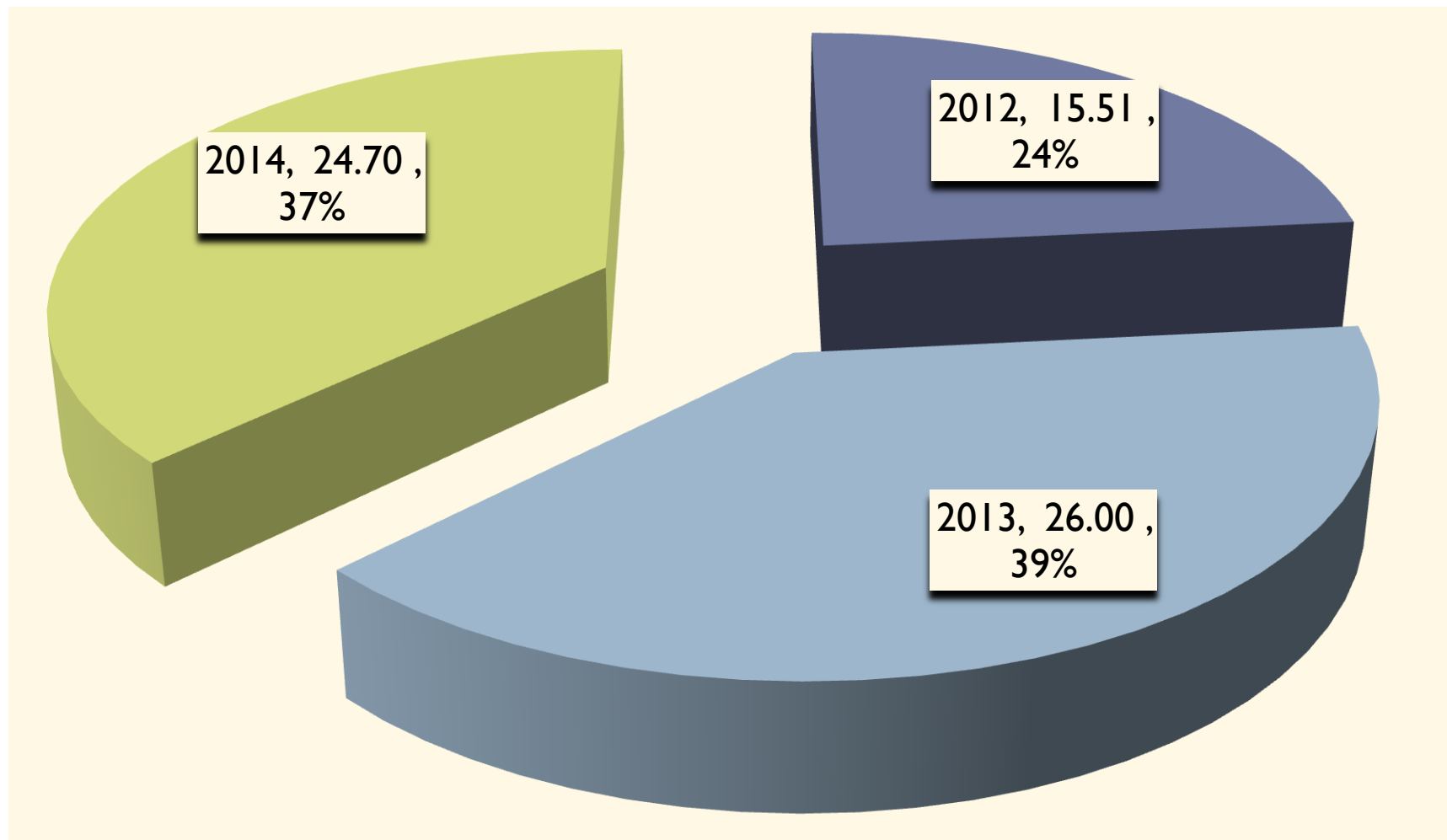
LT and 11kV Load Related Investment



Common Assets

- SCADA System Phase II
- GIS of Dakhiliya, North Al Sharqiyah and South Al Sharqiyah
- Transformers Workshop
- Replacement of Meters (65,000 meter)
- Protection System Enhancement

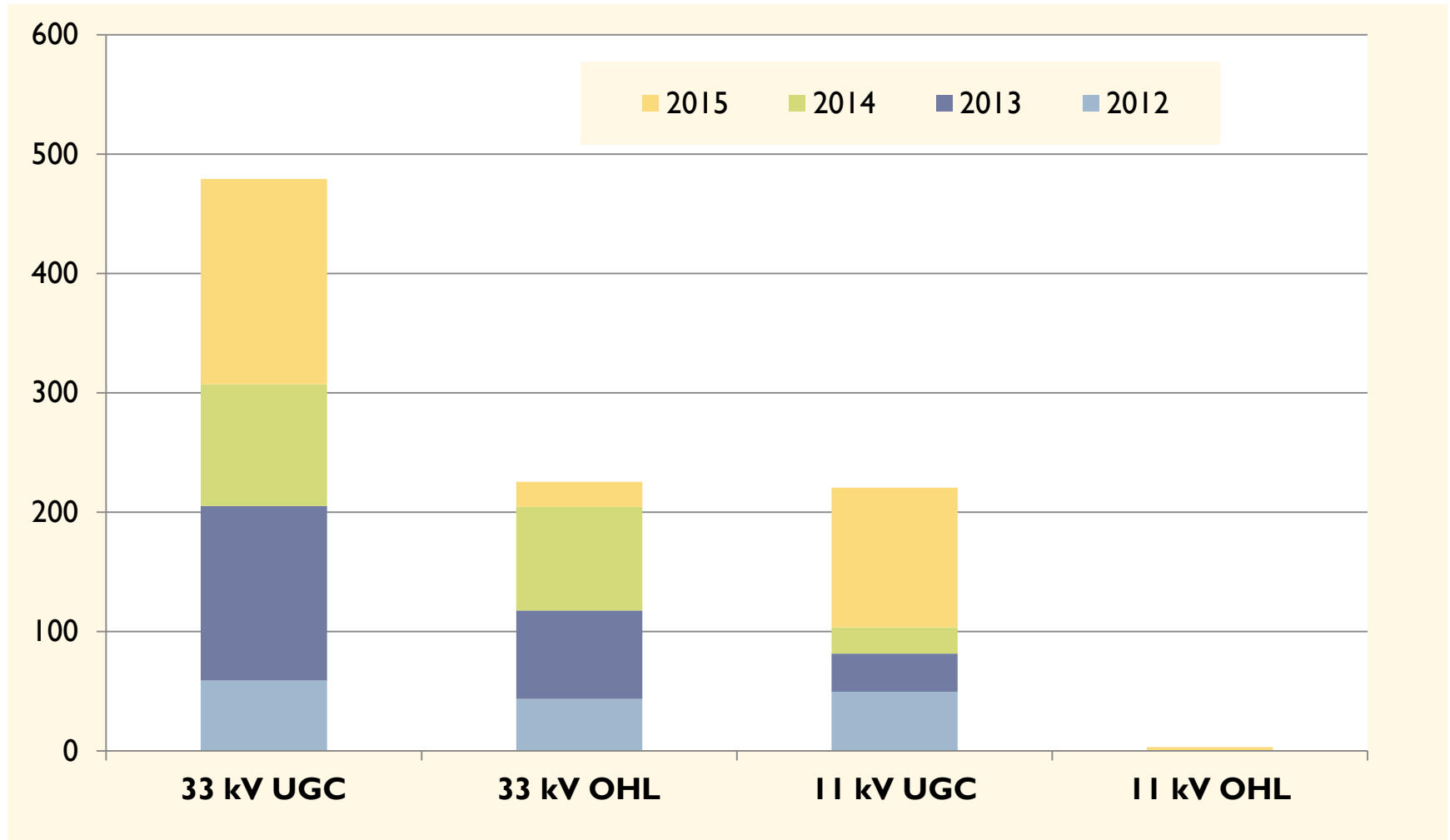
Investments in South Al Batinah



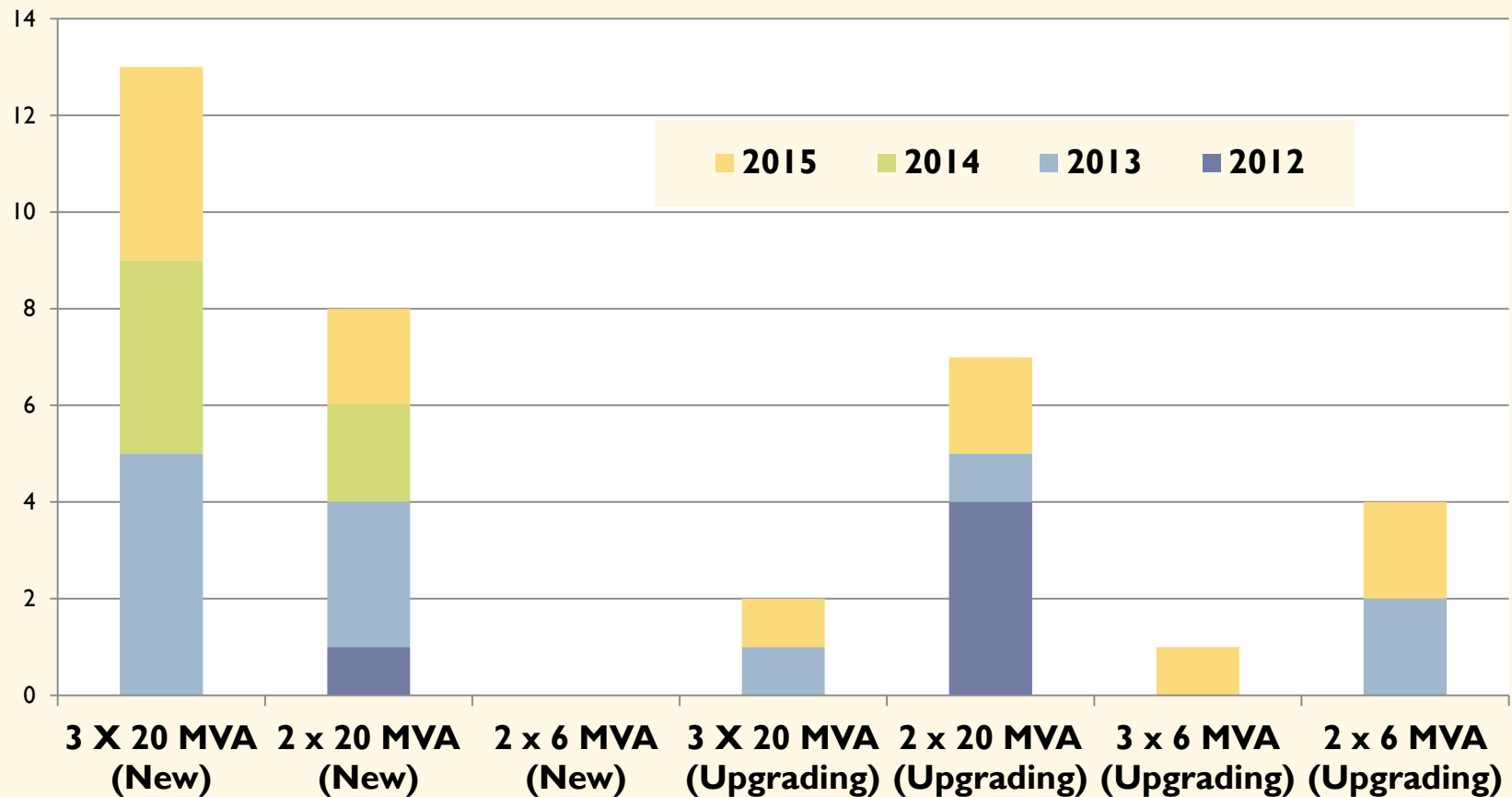
Investments in South Al Batinah

| | 2012 | | 2013 | | 2014 | | 2015 | |
|-------------------------------------|------|------|------|-------|------|-----|------|-----|
| Investment Type | Unit | QTY | Unit | QTY | Unit | QTY | Unit | QTY |
| Grid Substation (33 kV switchgear) | NO | 12 | NO | 28 | NO | 26 | NO | |
| 3 X 20 MVA (new) | NO | | NO | 5 | NO | 4 | NO | 4 |
| 2 x 20 MVA (New) | NO | 1 | NO | 3 | NO | 2 | NO | 2 |
| 2 x 6 MVA (New) | NO | | NO | | NO | | NO | |
| 3 X 20 MVA (Upgrading) | No | | No | 1 | No | | No | 1 |
| 2 x 20 MVA (Upgrading) | No | 4 | No | 1 | No | | No | 2 |
| 3 x 6 MVA (Upgrading) | No | | No | | No | | No | 1 |
| 2 x 6 MVA (Upgrading) | No | | No | 2 | No | | No | 2 |
| 33 kV UGC | km | 58.9 | km | 146.2 | km | 102 | km | 172 |
| 33 kV OHL | km | 43.5 | km | 74 | km | 87 | km | 21 |
| 11 kV UGC | km | 49.5 | km | 32 | km | 22 | km | 117 |
| 11 kV OHL | km | | km | | km | | km | 3 |

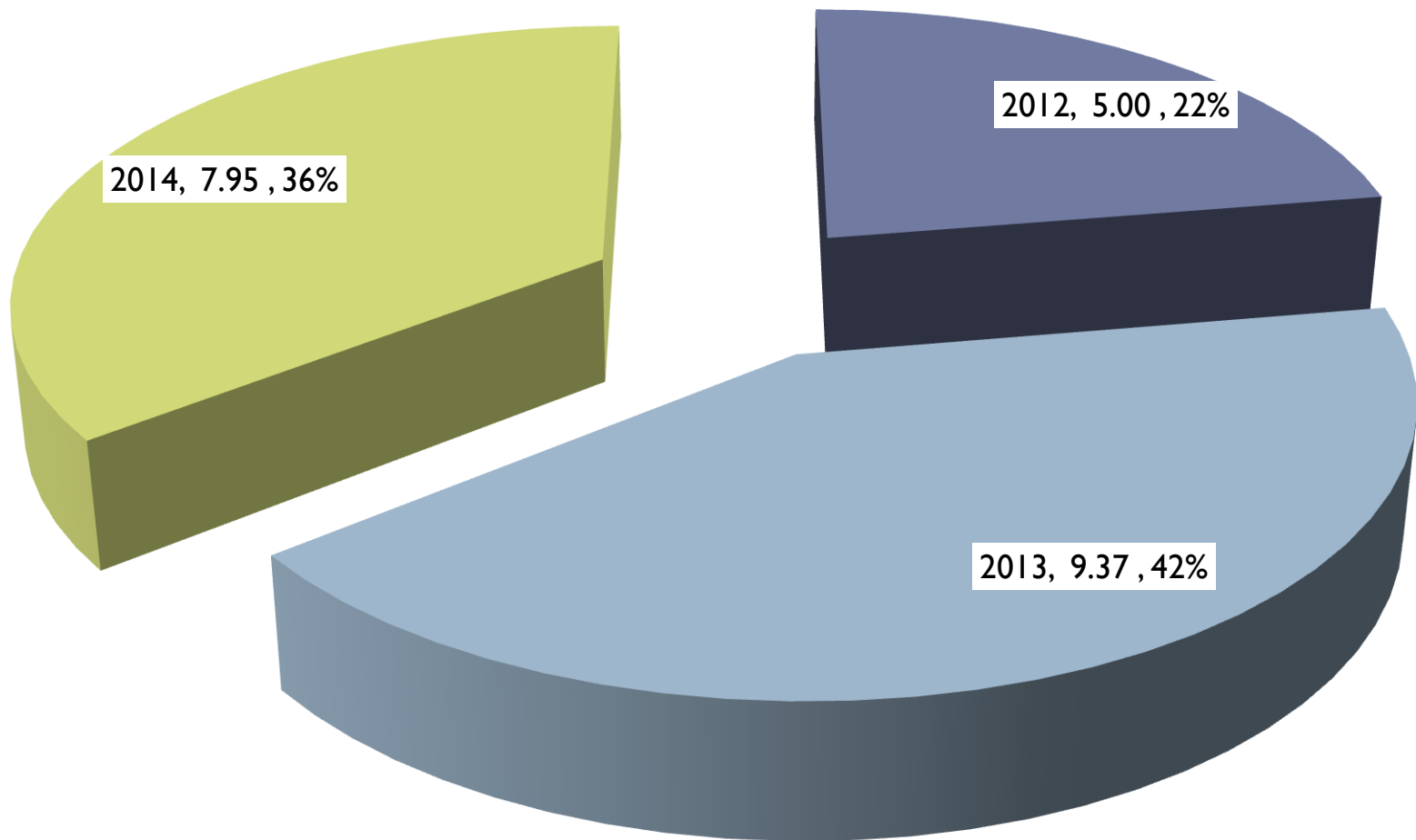
Investments in South Al Batinah Circuits



Investments in South Al Batinah 33/11 kV Substations



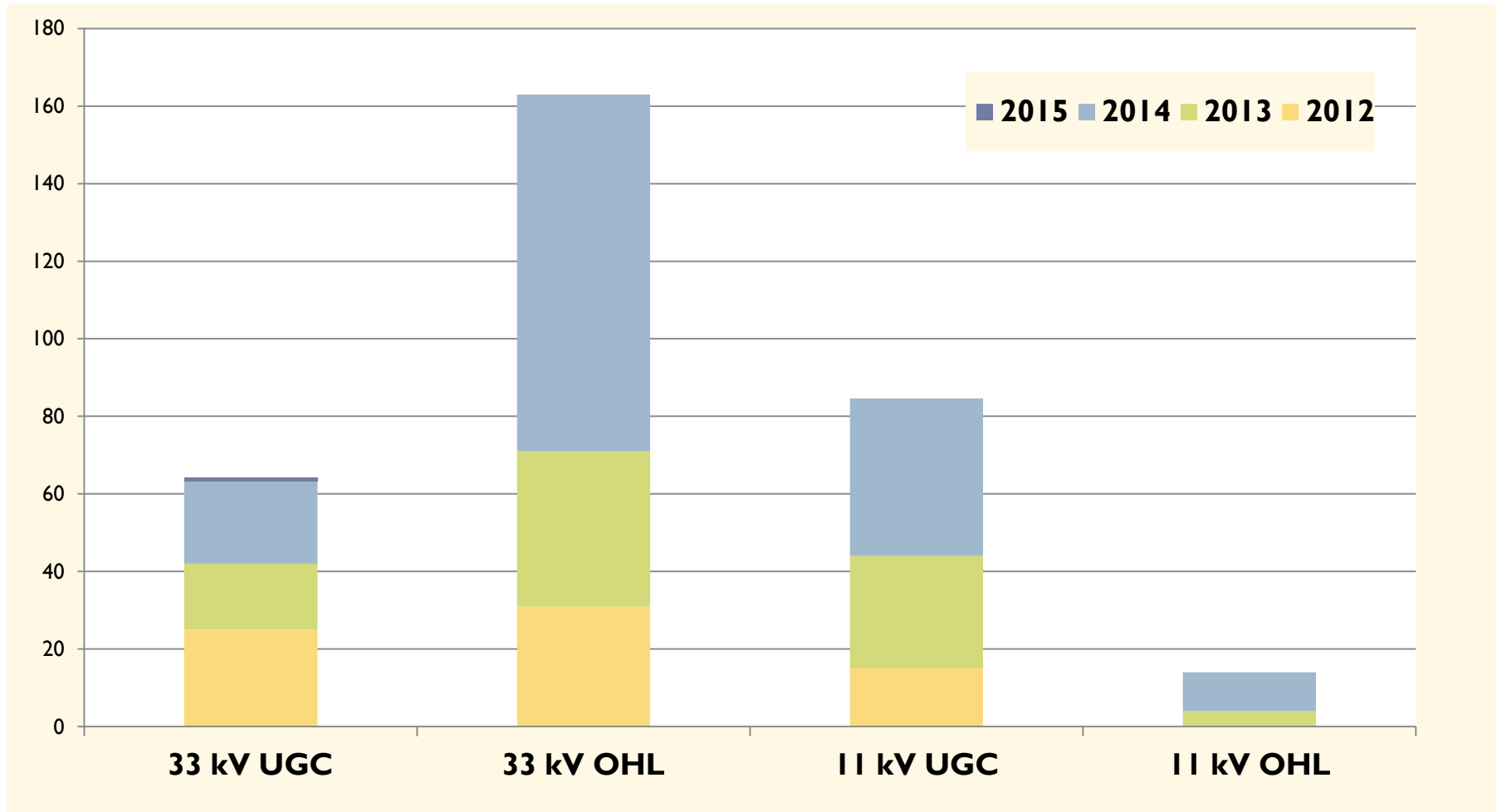
Investments in Dakhiliyah



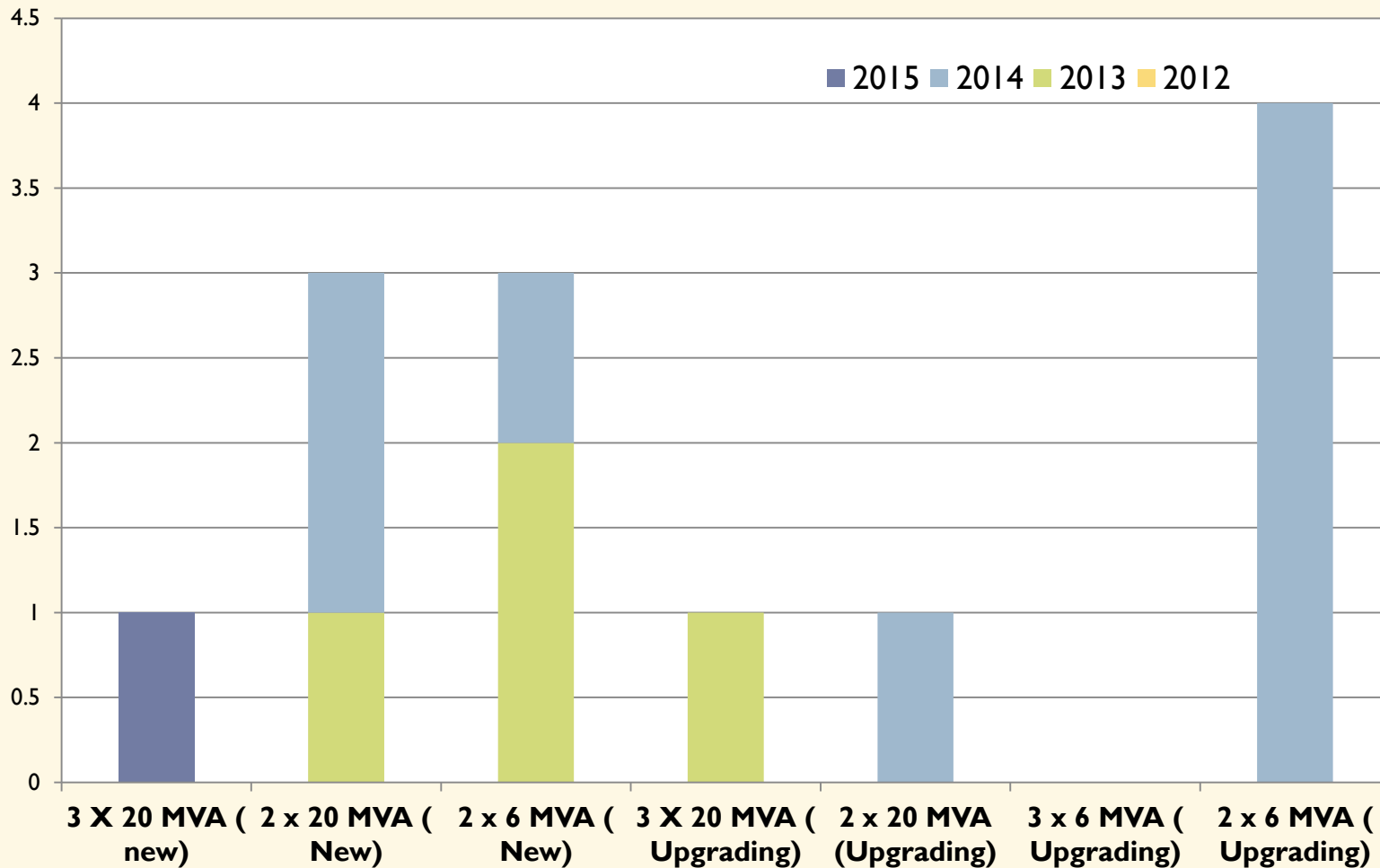
Investments in Al Dakhiliyah

| Investment Type | 2012 | | 2013 | | 2014 | | 2015 | |
|--|------|-----|------|-----|------|------|------|------|
| | Unit | QTY | Unit | QTY | Unit | QTY | Unit | QTY |
| Grid Substation (33 kV switchgear) | NO | | NO | 30 | NO | | NO | |
| 3 X 20 MVA (new) | NO | | NO | | NO | | NO | |
| 2 x 20 MVA (New) | NO | | NO | 1 | NO | | NO | 2 |
| 2 x 6 MVA (New) | NO | | NO | 2 | NO | 0.5 | NO | 1 |
| 3 X 20 MVA (Upgrading) | No | | No | 1 | No | 2 | No | |
| 2 x 20 MVA (Upgrading) | No | | No | | No | | No | 1 |
| 3 x 6 MVA (Upgrading) | No | | No | | No | | No | |
| 2 x 6 MVA (Upgrading) | No | | No | | No | 1 | No | 4 |
| 33 kV Circuit (UG cable 3cx300mm) | km | 25 | km | 17 | km | 35.6 | km | 21.3 |
| 33 kV Circuit (OHL ACSR 200mm-Panther) | km | 31 | km | 40 | km | 15 | km | 92 |
| 11 kV Circuit (UG cable 3cx240mm) | km | 15 | km | 29 | km | 18 | km | 40.6 |
| 11 kV Circuit (OHL ACSR 150mm-Wolf) | km | | km | 4 | km | | km | 10 |

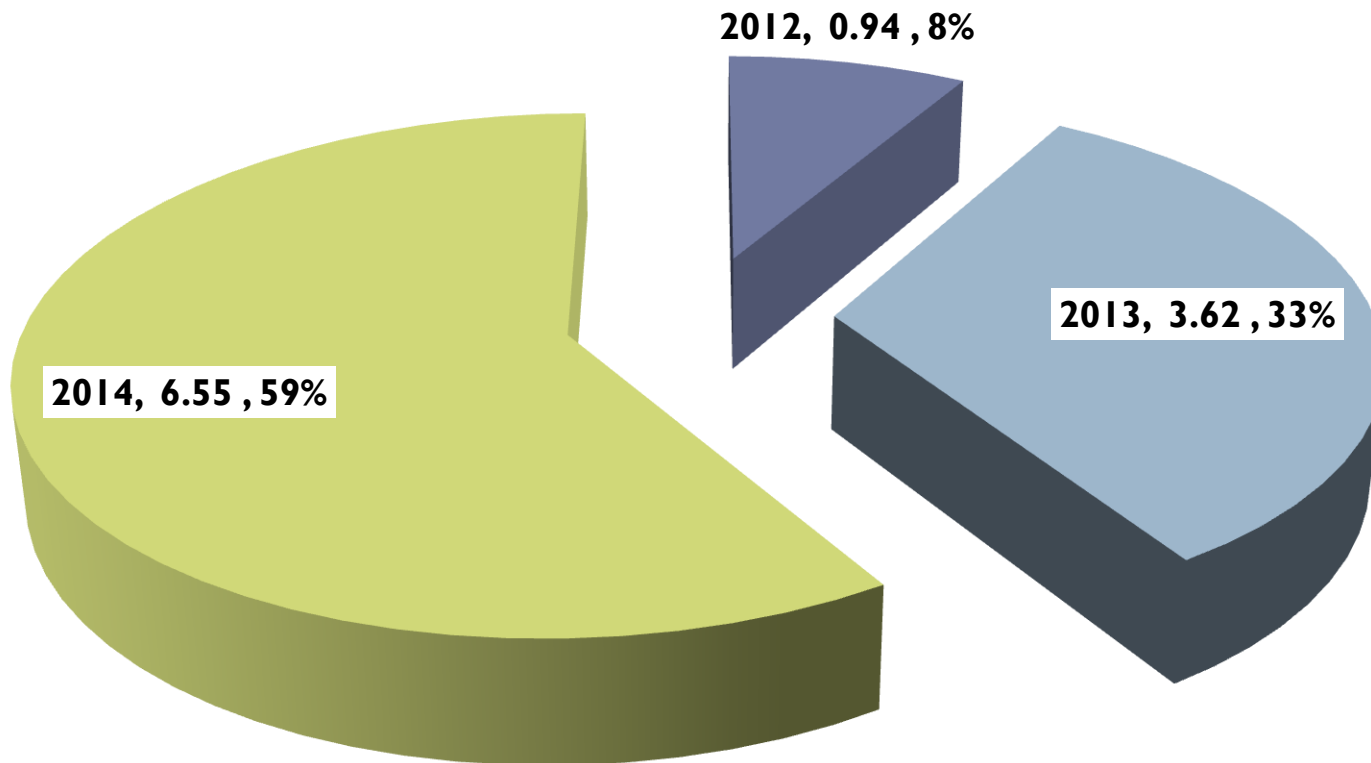
Investments in Al Dakhiliyah Circuits



Investments in Al Dakhiliyah 33/11 kV Substations



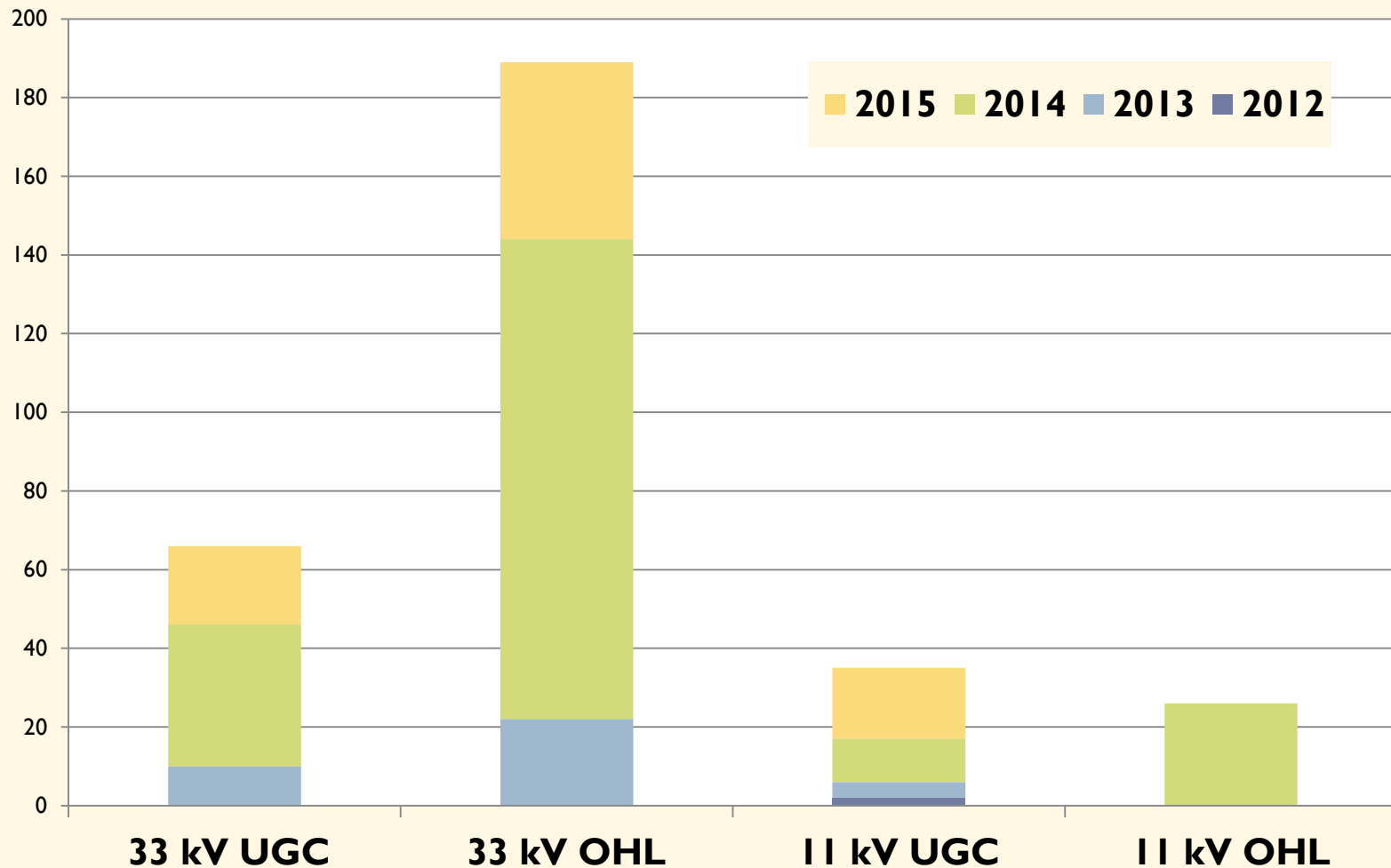
Investments in Al Sharqiyah (N&S)



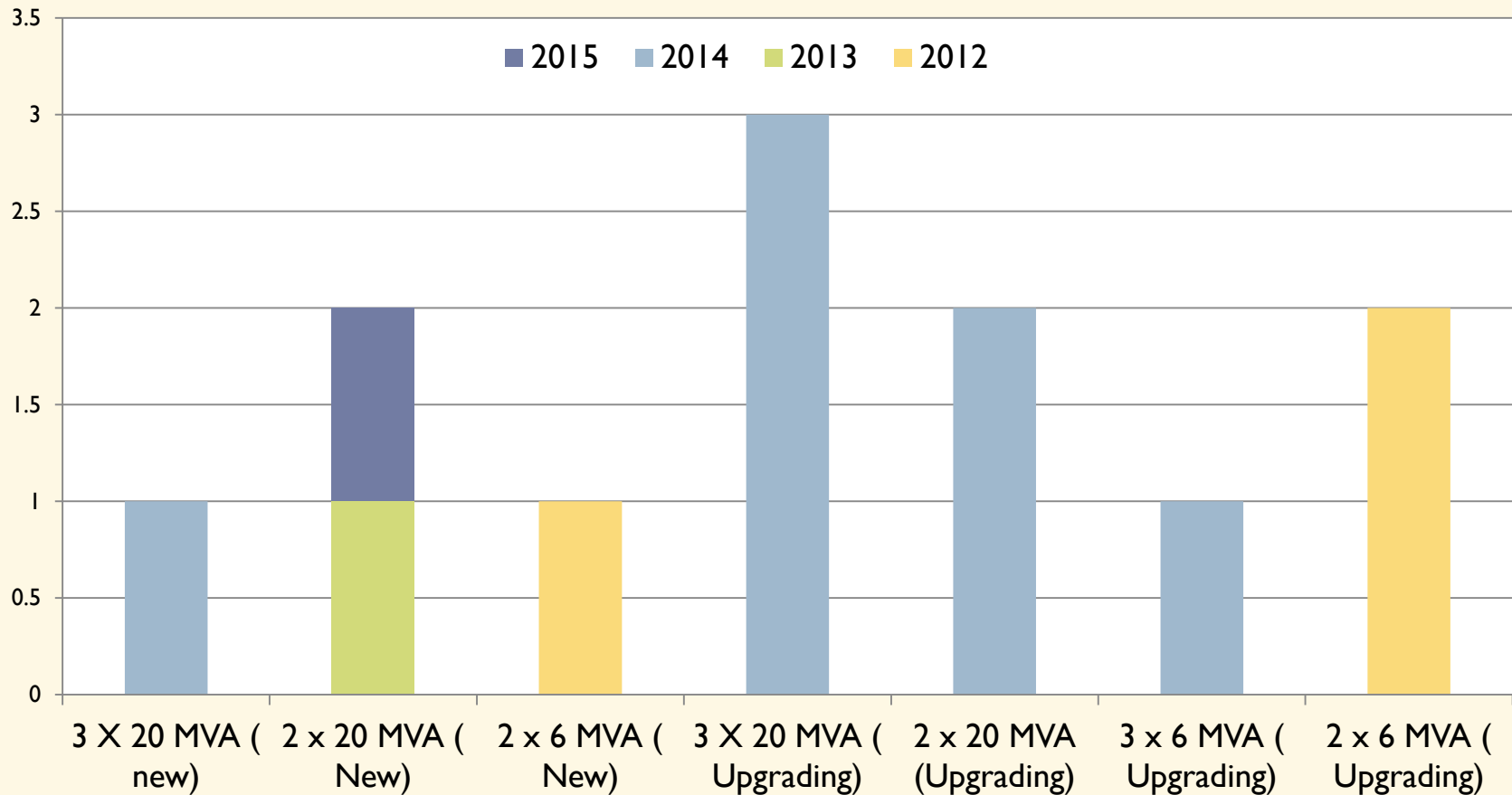
Investments in Al Sharqiyah

| | 2012 | | 2013 | | 2014 | | 2015 | |
|--|------|-----|------|-----|------|-----|------|-----|
| Investment Type | Unit | QTY | Unit | QTY | Unit | QTY | Unit | QTY |
| Grid Substation (33 kV switchgear) | NO | 8 | NO | 40 | NO | 38 | NO | 20 |
| 3 X 20 MVA (new) | NO | | NO | 1 | NO | 1 | NO | |
| 2 x 20 MVA (New) | NO | | NO | 1 | NO | | NO | 1 |
| 2 x 6 MVA (New) | NO | 1 | NO | | NO | | NO | |
| 3 X 20 MVA (Upgrading) | No | | No | | No | | No | |
| 2 x 20 MVA (Upgrading) | No | | No | | No | | No | |
| 3 x 6 MVA (Upgrading) | No | | No | | No | 1 | No | |
| 2 x 6 MVA (Upgrading) | No | 2 | No | | No | 2 | No | |
| 33 kV Circuit (UG cable 3cx300mm) | km | | km | 10 | km | 36 | km | 20 |
| 33 kV Circuit (OHL ACSR 200mm-Panther) | km | | km | 22 | km | 122 | km | 45 |
| 11 kV Circuit (UG cable 3cx240mm) | km | 2 | km | 4 | km | 11 | km | 18 |
| 11 kV Circuit (OHL ACSR 150mm-Wolf) | km | | km | | km | 26 | km | |

Investments in Al Sharqiyah Circuits



Investments in Al Sharqiyah 33/11 kV Substations



3rd Price Control in Brief

- ▶ Challenging Capex Program
- ▶ Tender Law Amendments
- ▶ Internal Capabilities & Market Support
- ▶ Security Standards, HSE, Losses, ...etc
- ▶ Separation of Distribution & Supply

Thank you

