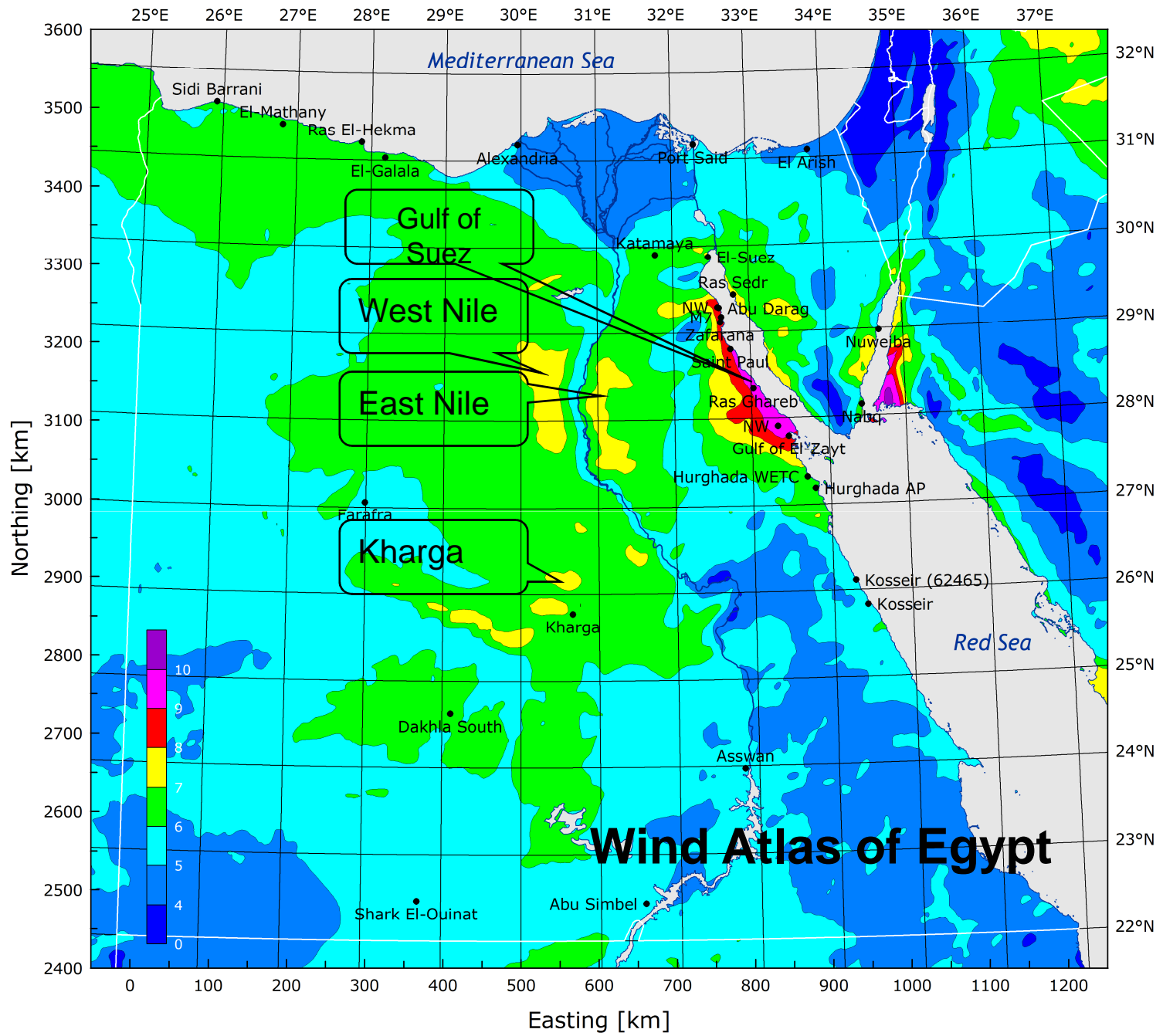


# Wind Energy Development for Egypt





# Development areas

- Gulf of Suez area
  - Best wind potential, area restrictions
    - Areas assigned to Gas and Oil Industry
    - Environmentally protected areas
    - Grid extension 500 kV for 5000 MW (7.000)
- Area west of the Nile
  - Lower wind potential, low wind turbines
  - 500 kV grid available

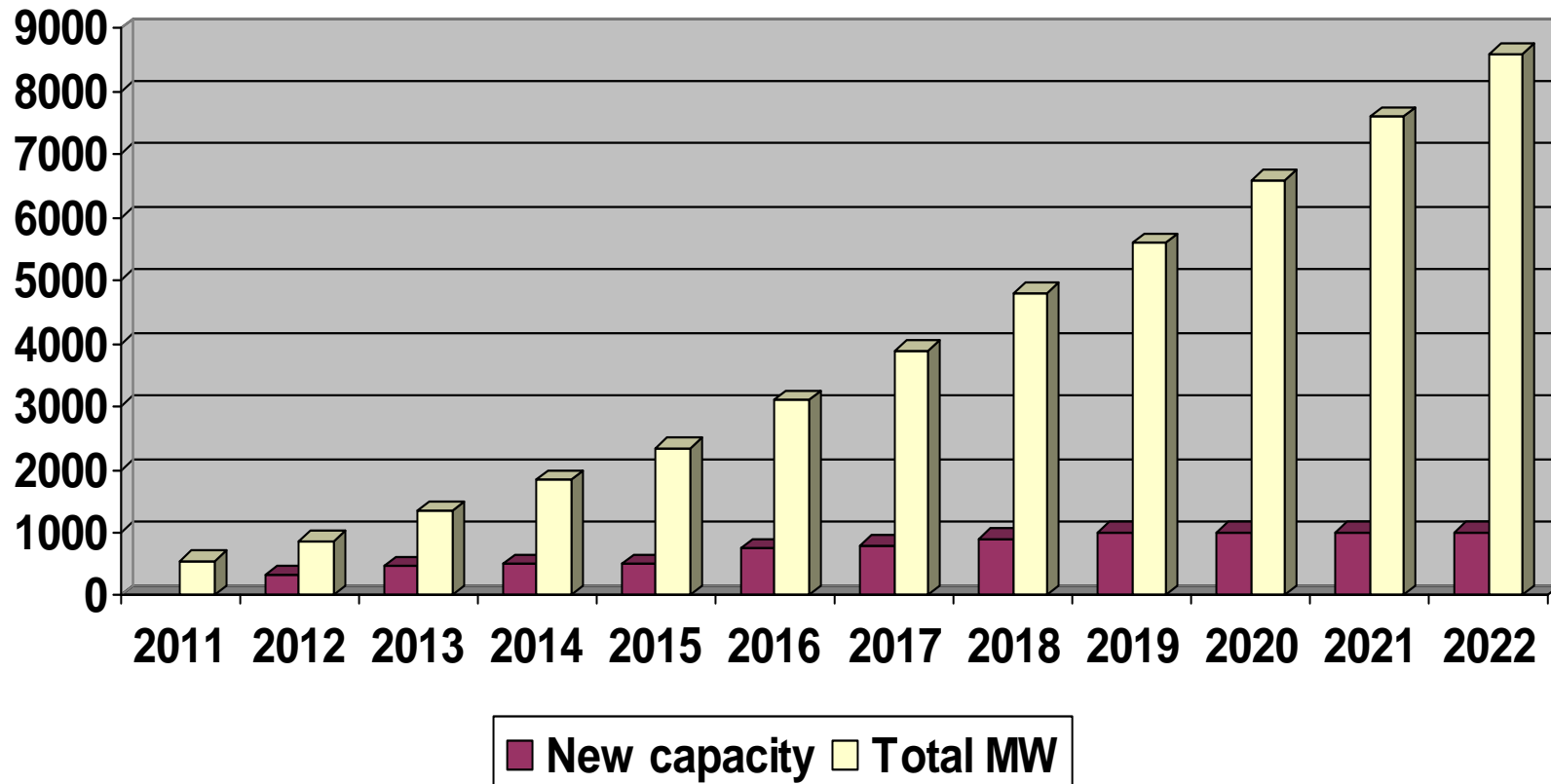
# Expected development until 2022 private projects starting 2013

The time schedule is based on the assumption that the necessary grid enforcements for the planned wind farms can be completed by mid 2012.

| Year     | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|----------|------|------|------|------|------|------|------|------|------|------|------|
| New cap. | 320  | 220  |      |      |      |      |      |      |      |      |      |
| Priv.    | 250  | 250  | 500  | 500  | 750  | 800  | 900  | 1000 | 1000 | 1000 | 1000 |
| Total MW | 870  | 1340 | 1840 | 2340 | 3090 | 3890 | 4790 | 5790 | 6790 | 7790 | 8790 |

From 2022 onwards the program should be continued.

# Tentative time schedule



# Cost of Wind Energy

- Expected tariffs USD/ kWh
  - Suez Area
    - 0.105-0.115--??
  - Nile Area (500kV Grid existing)
    - 0.13-0.145--??
  - Transmission costs have to be added
    - Appr.0.015

**The End**  
**Thank you for your attention**