



Σύνδεση ΦΒΣ στο Σύστημα Διανομής

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(ΣΣΑΑΗ)
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Εισαγωγή από τον ΔΔΣΔ



Η Εποχή της Ενεργειακής Μετάβασης

Χαρακτηριστικά



Ο Ρόλος των DSO' s στην ενεργειακή μετάβαση

Key players in the energy transition

The era of:

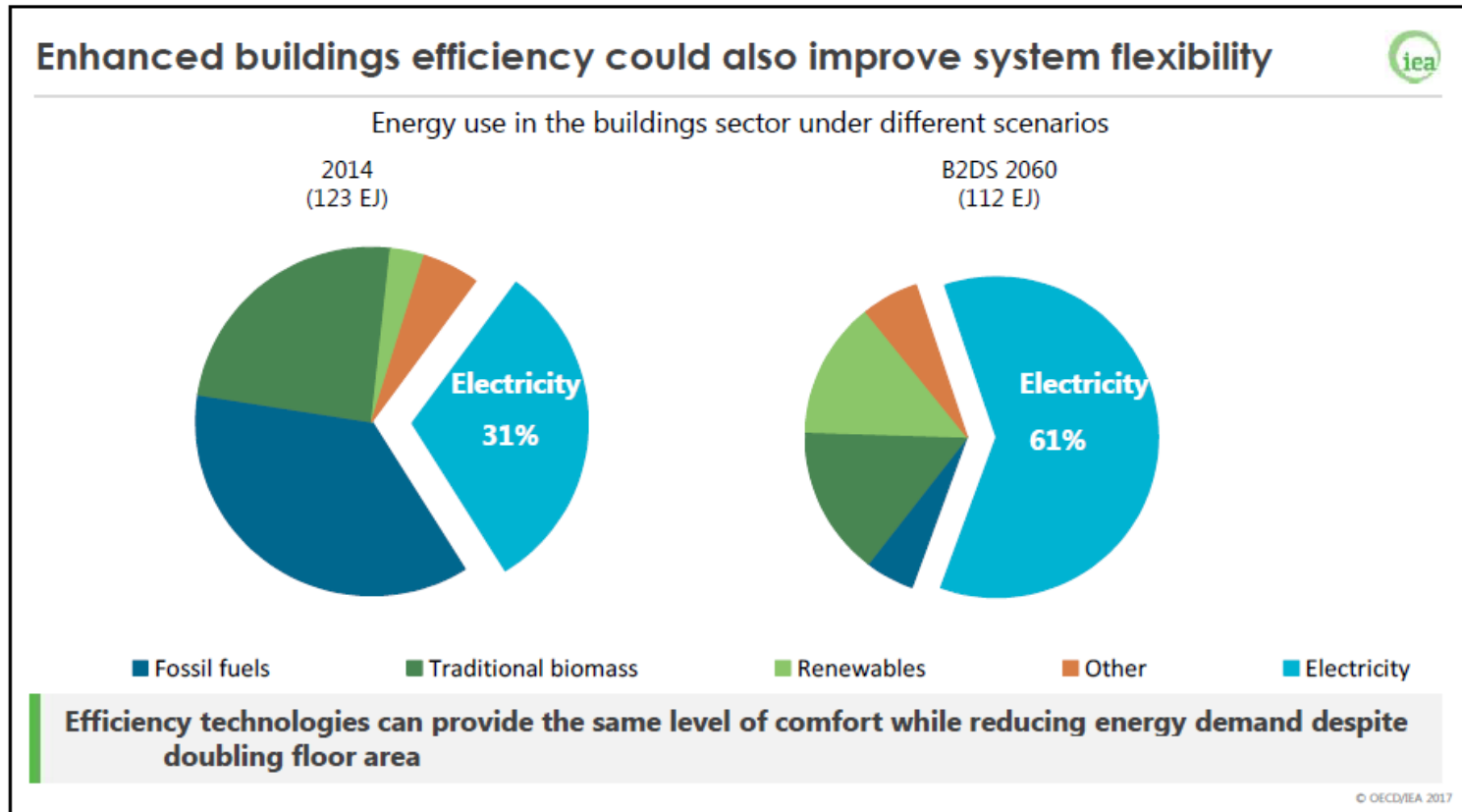
- Decarbonisation
- Decentralisation
- Digitilisation

The era of:

- Distr. RES integration
- Dynamic tariffs
- Flexibility
- Active customers
- Big Data
- Disruption



Η εποχή του εξηλεκτρισμού της ενέργειας Η εποχή της Πράσινης Ενέργειας



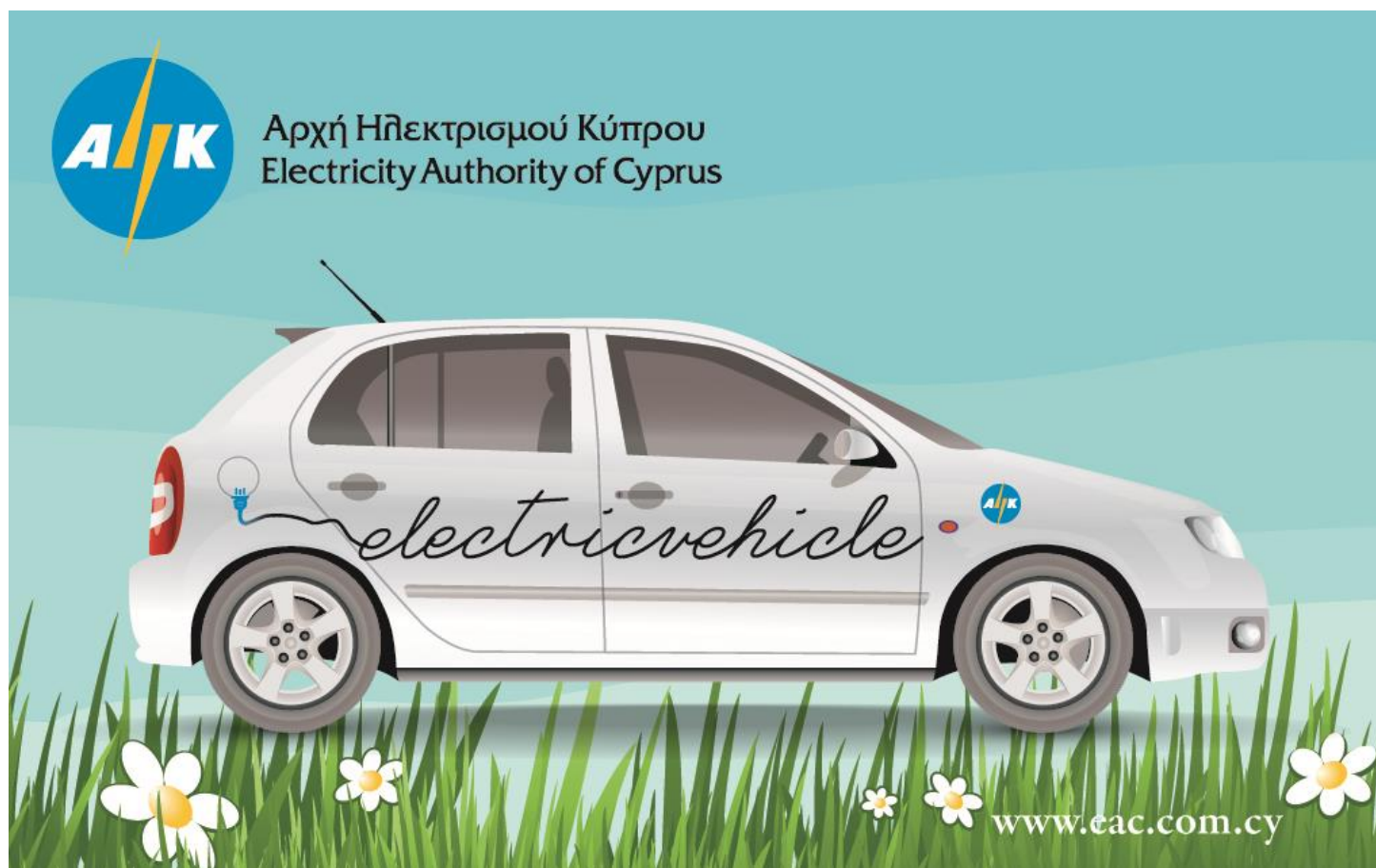


Η Εποχή των ηλιακών σπιτιών





...και της Ηλεκτρικής Κίνησης





Η Εποχή των Ενεργειακών Κοινοτήτων



Energy systems' challenges on islands:

- insularity-often not connected to mainland grid because of distance
- dependency on external supply of fossil fuels (costs: wholesale energy prices are 2 to 3 times higher on islands)
- pollution(GHG emissions and local air pollution) –as electricity often provided by diesel generators
- additional challenge seasonal energy consumption spikes due to tourism



Need to integrate RES under critical system stability challenges



Οι Διαχειριστές είναι οι καταλύτες των νέων προκλήσεων

A new paradigm “Integrate not connect”

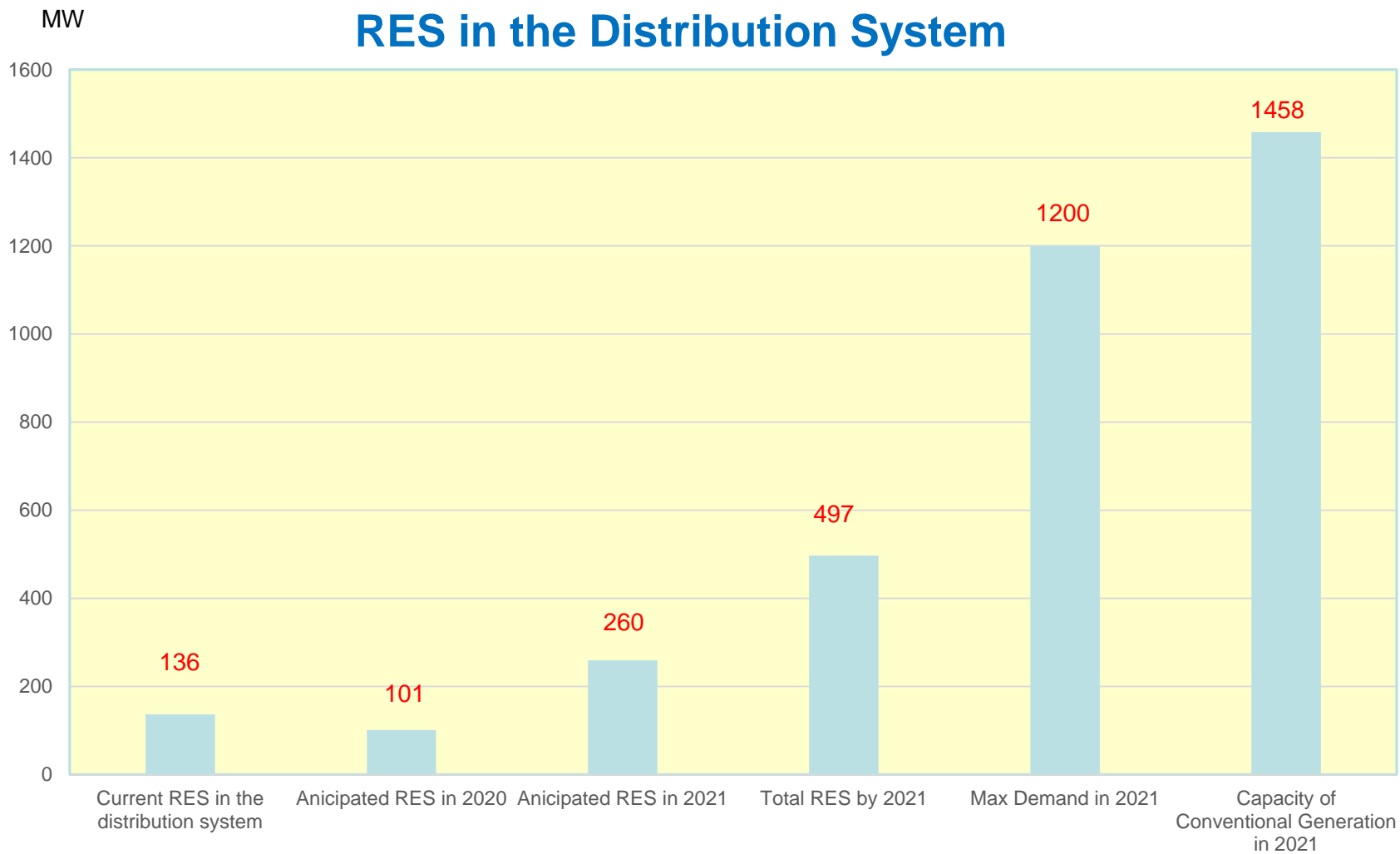


The challenge of RES Integration

- Plan the system as usual?
- Connect as usual?
- Forget after connect?
- What's the direction of the energy flow?
- Is the energy flow predictable?
- Do we need other kind of flows in the system?
- Is Passive network in distribution enough?
- Do we need system extension and reinforcement or system evolution?



RES in the Distribution System





2020-2030 Penetration

BAU model study

- No storage
- Isolated system
- No significant penetration of EV
- Nearly zero curtailment



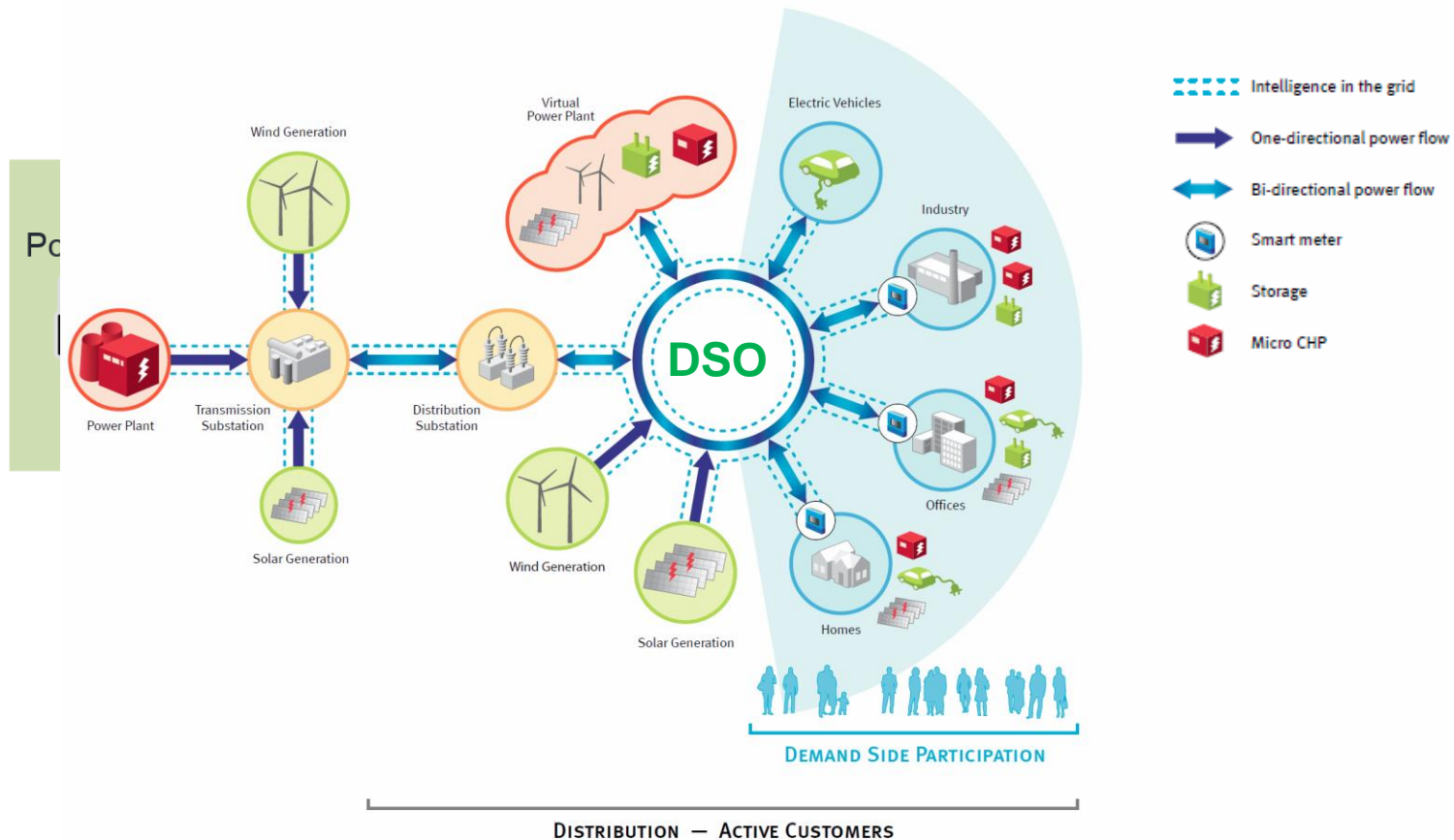
23% penetration by 2030

System redesign/evolution model study just started



The paradigm has broken – smart grids as the platform for all!

❑ Power system of YESTERDAY vs TODAY vs TOMORROW





Conclusion



- ✓ The future is green and sustainable!
- ✓ The future is electric!
- ✓ DSO's and RES producers are paving the way to the future!

