



FINGRID

# Finnish Experience

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# Finnish experience

- Congestion management and capacity allocation
- Tariff structure, G and L component
- Inter-TSO compensation mechanism
- Charging of power flows from non-EU countries (Russia)
- Transfer of the assets of interconnections to the Regulatory Asset Base of the TSOs

# Finnish way to handle congestion

## Before market opening

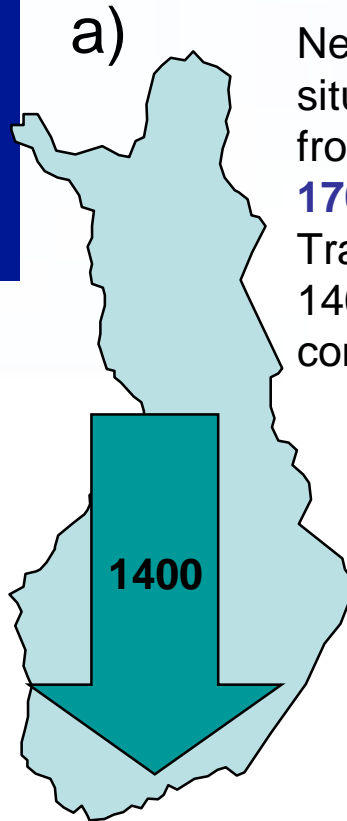
- Contracts for capacity reservations were applied

## Open market -> market based methods

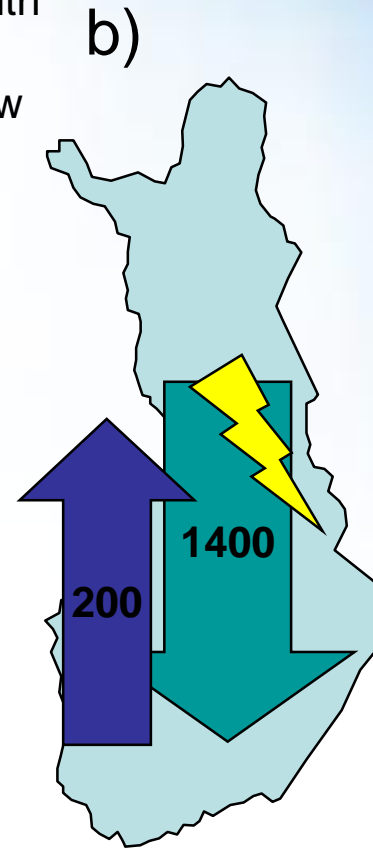
- Internal congestion
  - removed by counter trade
  - removed by strengthening grid
- Nordic cross border congestion
  - managed by means of market splitting through Elspot
  - removed by strengthening grid
  - guaranteed by counter trade (agreed spot trade)



# Congestion management - counter-trade -



Network in normal situation. Capacity from north to south **1700 MW**.  
Transmission flow 1400 MW. No congestion.



Fault or outage on one transmission line. Capacity only **1200 MW**. Flow still 1400 MW. TSO purchases 200 MW generation up in south and sells it to north for down regulation. After counter-trade netflow is 1200 MW and congestion has been released.

# Experiences from congestion management

- ÿ "Use it or lose it" -principle is key element at starting point
- ÿ Efficient cooperation between neighbouring TSOs is very important
- ÿ Close relationship between Spot-market operator and TSOs is of major importance
- ÿ Implicit auctions instead of explicit auctions
- ÿ Counter trade
  - makes electricity trade easier and more efficient
  - market for counter trade is needed (e.g. regulating power market or spot market)
- ÿ Congestion revenues should be earmarked for grid investments

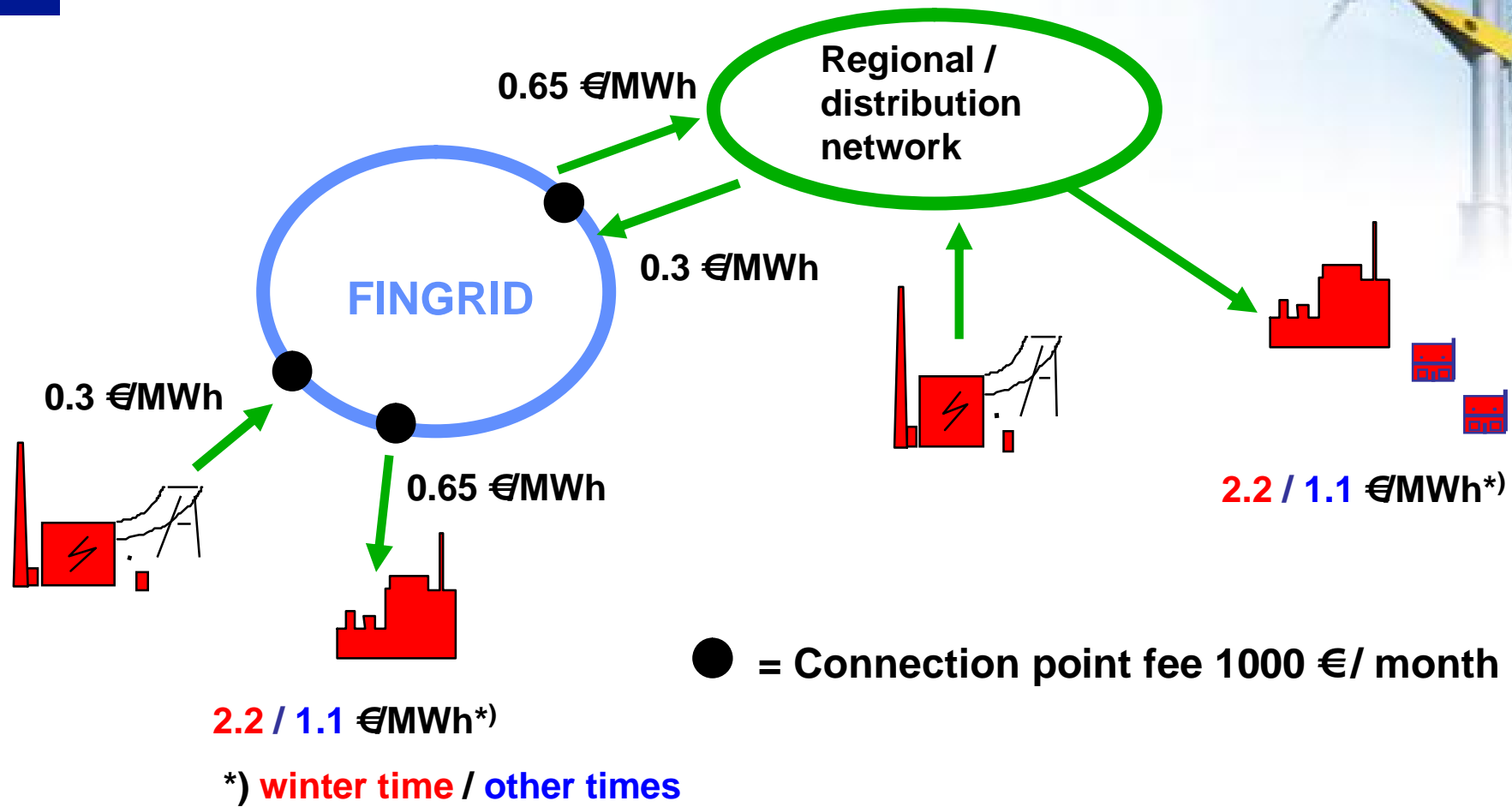
# Finnish way in tariffication

**Until 1995 distance and transaction based tariffication**

## **Postage stamp tariff from 1995**

- 1995-98 Finnish market => 50% - 50% split between G and L
- Under common Nordic market => 10% - 90% split between G and L
  - level playing field => to harmonise absolute level G
  - to stabilize Fingrid's grid income. (Nordic market variations in power production based on Norwegian hydro situation)

# Main grid pricing, 2006



# Experiences from tariffication

- ÿ Keep it simple
  - energy based fees, no power fee
  - no need for locational signals in tariffication (market splitting gives market based locational signals through price areas)
- ÿ Develop tariffication in close cooperation with your customers
  - there will be different opinions
  - customers accept difficult decisions if they understand reasons
- ÿ Also generators should be responsible for grid costs => harmonised level of G should be bigger than zero

# Finnish way in inter-TSO compensation mechanism

- ÿ When the cross border tariffs were taken away Nordic TSOs started to discuss about transit issues
- ÿ Bilateral agreements between neighbouring TSOs
- ÿ 2002-03 Nordic ITC agreement - a compensation for losses (With and Without Transit, WWT)
- ÿ From 2004 ETSO ITC agreement (ETSO model)
  - abolishing cross border fees between participating countries
- ÿ Temporary EU ITC agreement among EEA-countries from 2007?
  - IMICA-model for infrastructure costs
  - WWT-model for losses

## Experiences from ITC

- ÿ Abolishing cross border fees => transit compensation is needed
  - transiting TSO should have motivation to keep up and develop grid for transit purposes
- ÿ Move forward in steps and be proactive
- ÿ For "edge countries" border towards perimeter countries is a major challenge
  - IMICA-model seems to be a great step forward from current ETSO-model
  - all EEA-countries should have equal ITC-principles towards a single perimeter country.

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