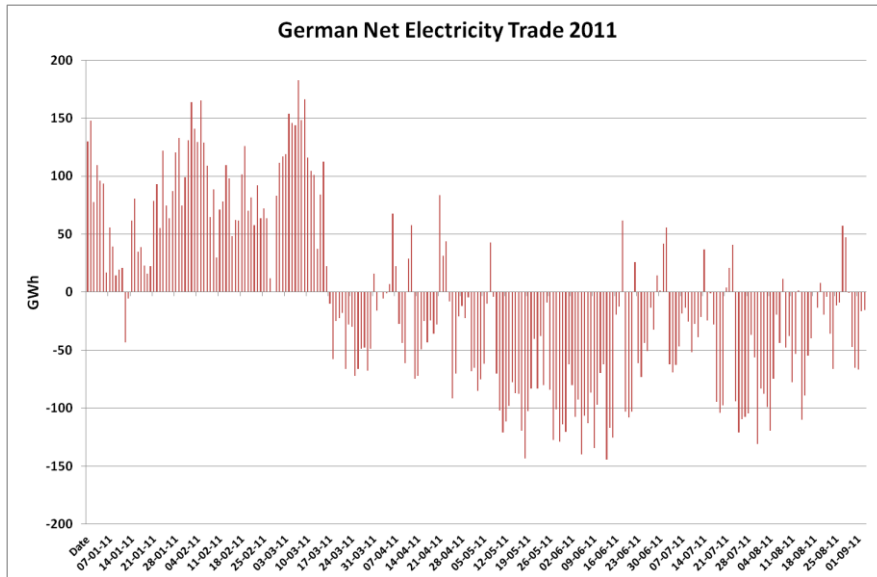


Impacts of German Nuclear Phase-Out



- Germany's nuclear phase-out part of wider restructuring of energy sector;
- Phase-out cut output by 1 804 TWh from 17 reactors with 20.5 GW capacity;
- Producing this amount with nuclear would have cost € 30.2 bn. (€ 12/MWh variable costs and € 8.5 bn. refurbishment).



Price for One-Year Forward Delivery of Baseload Electricity (€/MWh)



- Producing same amount w/o nuclear would have cost € 75.8 bn. w/ pre-phase-out price of € 52/MWh and 13.9 GW of coal and gas capacity in construction.
- E-price rose by 7 €/MWh to 60 €/MWh (today € 48/MWh) w/ loss in consumer surplus of 12.6 € bn (assumptions !!!).
- Trade impacts impressive but of limited welfare relevance.
- **Direct cost of phase-out in current undiscounted Euros is € 58 billion.**