

Public-private comparative economic realities and the feasibility of public ownership in UK energy system

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Note: This presentation is based on joint work with Mika Minio-Paluello

Summary

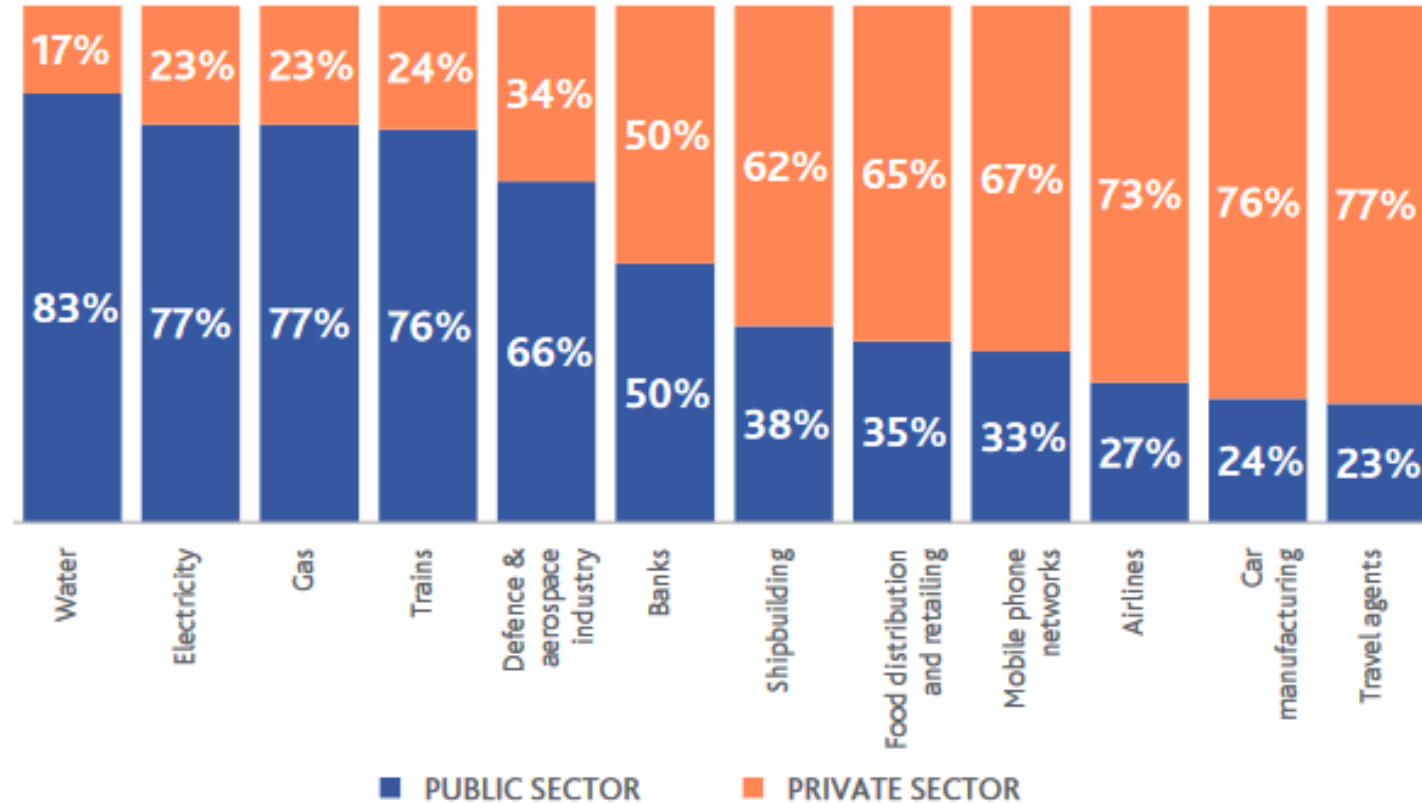
- Why public ownership
- Issues
 - Affordable compensation
 - Comparative public/private efficiency
 - Practicality and legality in EU
- Possible structure of public energy system in UK

Why public ownership?

- Democratic control and planning and localisation
- Economic gains (cost of capital, transaction costs, local economies)
- Decarbonisation
- ...and it's very popular
- Needs statutory responsibilities for public authorities, local options, capacity-building, open information, participation

UK 2017: Public supports public

Figure 3.2a:
The British public's
support for
nationalisation



- Big growth in public support for public ownership: [report by Legatum/Populus Oct 2017](#)“Public opinion in the post-Brexit era: Economic attitudes in modern Britain”

Affordable: compensation costs not prohibitive

- UK law: parliament decides, not city rules, can pay less than market value e.g. for 'economic justice' (Moody's, Linklaters)
- Claims by SMF et al that compensation will cost £90billion+ use 'virtual' figure of RAV, include debt: 'economically illiterate' (Helm)
 - Hall2016 estimated compensation for grids as £24bn, cf. annual savings £2bn+
- increases UK public debt from 100% of GDP to 105% : no cause for alarm (FT)
- Investors would probably not flee UK, cf. German expropriation of nuclear reactors in 2011 without compensation, no capital flight (city analyst)
- Jonathan Ford, City Editor of FT: "The whole aim of the exercise would presumably be to stop private companies from making excessive returns from the public. Why then would the government start by paying a market premium based on those same excessive returns?" (FT 18 Feb 2018 John McDonnell is right: Britain can easily nationalise water <https://www.ft.com/content/d3b3ecfc-1495-11e8-9376-4a6390addb44>)

Efficiency: no comparative advantage for private sector firms

- Mainstream economic theory predicts superior efficiency of private firms over public sector firms.
- **“key issue is whether efficiency gains more than offset higher private sector borrowing costs. While there is an extensive literature on this subject, the theory is ambiguous and the empirical evidence is mixed.”(IMF, March 2004)**
- There are now many studies of the empirical evidence on comparative technical efficiency between public and private firms.
- **the results are remarkably consistent across all sectors and all forms of privatisation and outsourcing: the empirical evidence does not show that the private sector is systematically more efficient than the public sector. (Hall and Nguyen RWER June 2018, forthcoming)**

Efficiency: no comparative advantage for private sector firms

- Meta-reviews and major studies across countries and sectors find no consistent difference
 - Most recent review of studies across sectors concludes that: “research does not support the conclusion that privately owned firms are more efficient than otherwise comparable state-owned firms.” (Mühlenkamp 2015)
 - Knayzeva et al (2013) control for selection bias in comparative study of 2400 firms, and showed, with a high level of statistical significance, that privatised companies did *worse* than those that remained public, and continued to do so for a period of 10 years: “the privatization group underperforms the group of sectors remaining public”.
 - UK privatisations in general: “little evidence that privatisation has caused a significant improvement in performance” (Martin and Parker 1997, Florio 2004)
 - Similar for meta-review of studies of outsourcing versus direct provision: “it is not possible to conclude unambiguously that there is any systematic difference in terms of the economic effects of contracting out technical areas and social services” (Petersen et al 2012)

Efficiency: no comparative advantage for private firms (sectoral)

- **Airports:** “Empirical evidence regarding the effects of privatization on the efficiency of airports is scarce and largely inconclusive (Bel and Fageda 2010); “The results ...of the airport and seaport industries do not provide clear patterns of superior performance associated with particular forms of ownership or organization” (Gong et al 2012); same in UK (Parker 1999)
- **Buses:** study of 73 cities across all continents found: “Statistical tests do not show any significance as regards relationship between efficiency and the type of operator.... ” (Pina and Torres 2001)
- **Prisons:** “privately managed prisons provide no clear benefit or detriment” (Lundahl et al. 2009)
- **Healthcare:** systematic global overview of 317 papers, which concluded that: “summary statistics showed average for-profit hospital efficiency levels at 80.1%, not-for-profit at 82.5%, and public at 88.1%.” (Hollingsworth 2008, Hsu 2010) or across developing countries “Studies evaluated in this systematic review do not support the claim that the private sector is usually more efficient, accountable, or medically effective than the public sector”. (Basu et al 2012)”
- **Rail:** global review of rail privatisations finds ‘mixed results’ (Beck et al 2013)
- **Telecoms:** global study comparing private and public productivity found: ““privatized sectors perform significantly worse” than companies which continued to be state-owned. .” (Knyazeva+ 2013)
- **Water and waste:** meta-review of 27 econometric studies on waste and water various countries: “We do not find a genuine empirical effect of cost savings resulting from private production” (Bel and Warner 2010); “no statistically significant difference in efficiency scores between public and private providers.” (Warner and bel 2009)

Electricity: no comparative advantage for private firms

Efficiency

- global study in 1995 by Pollitt found no significant systematic difference between public and private in terms of efficiency (Pollitt 1995)
- study of productivity across Europe concluded that “the link between private or public ownership with TFP is not straightforward”. (Del Bo 2013)
- “Most cross-country papers on utilities find no statistically significant difference in efficiency scores between public and private providers.” (Estache et al 2005)

Prices

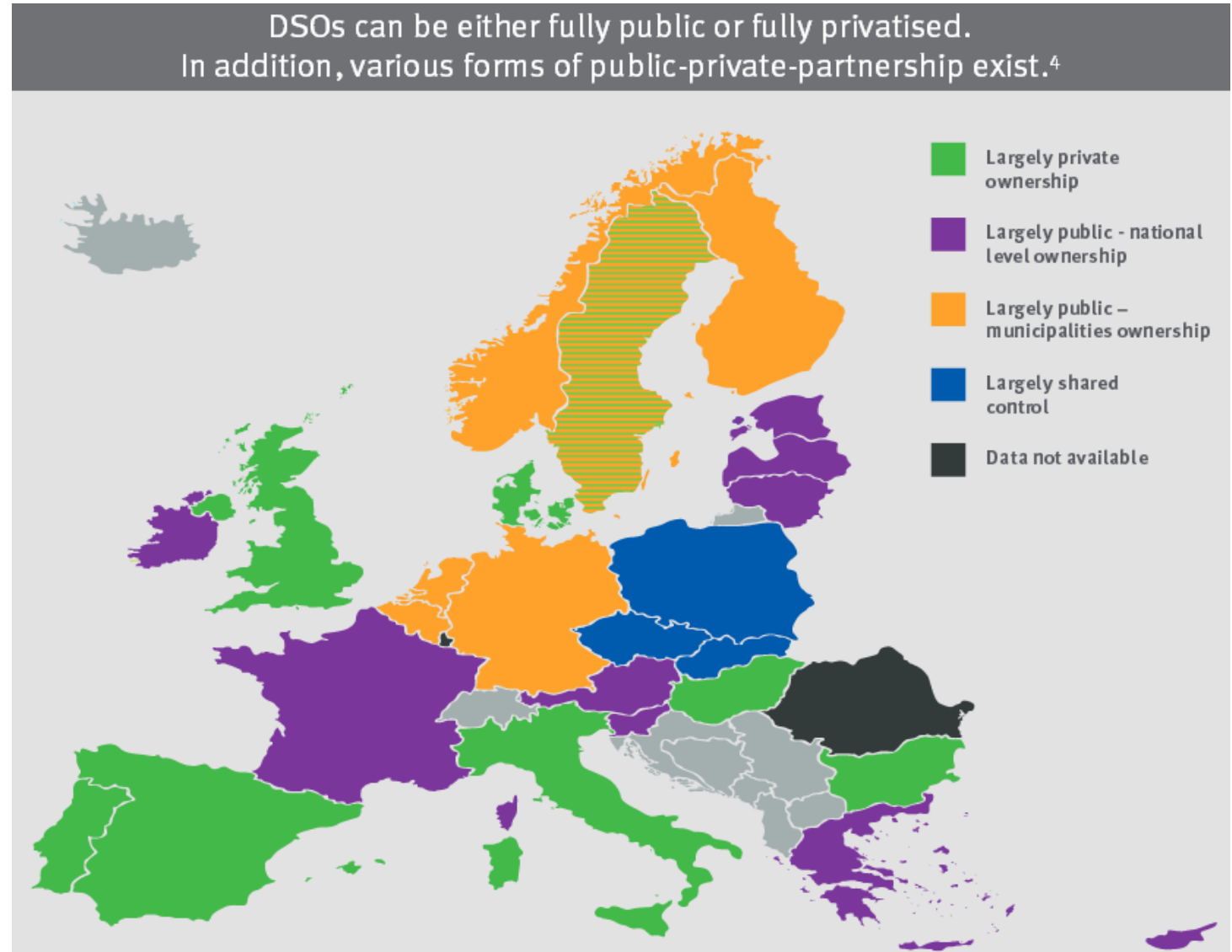
- OECD studies of 19 countries found that: “wholly private ownership of electricity operators [is] associated with prices that were 23.1 per cent *higher* than if ownership were wholly public” (Steiner 2000, Dee 2010)
- A 2013 analysis of electricity *and gas* prices in 15 west European countries over a 30-year period found that “after controlling for other factors, *public* ownership is associated with lower residential net-of-tax electricity prices” (Fiorio and Florio 2013) and by a substantial amount: “the net effect is [a reduction of]...up to 30% on net-of-tax prices, or 20% on gross-of-tax prices” (Florio 2014).
- UK consumers “seem to be paying higher prices than they would have under public ownership” (Newbery and Pollitt 1997), by as much as 10% to 20% (Branston 2000).

System inefficiencies: unbundling, regulation

- Inefficiencies of unbundling
 - A study of comparative efficiency in the USA found that electricity systems in deregulated states “have lower productive efficiency, and have also experienced decreases in efficiency over time. In particular, the vertical separation of generation, a hallmark of an effort to deregulate the industry, is associated with an adverse impact on productive efficiency” . (Goto and Makhija 2009).
 - These losses were quantified in a further study (Meyer2012), covering both Europe and the USA, which found that unbundling transmission and distribution networks results in 2%-8% efficiency losses due to the loss of coordination, and the separation of retail and generation can increase costs by 20% or more, due to the increased risk for both generators and retailers.
- Transaction costs of system: e.g. regulators
 - Ofgem has 883 staff, £63 m. per year (Ofwat 182 staff, £22m.; WIC 21 staff, £3.6m)
 - Cf EU directive 2009/72 art. 37 only requires a separate regulatory body for “fixing or approving transmission and distribution tariffs or their methodologies”

Practicality: public energy companies common in Europe

- EU directives require liberalised markets for electricity and gas , but do NOT require private ownership
- Many transmission, distribution and generating companies in Europe are owned and operated by the public sector,
- Many suppliers of electricity and gas are owned by municipalities



Practicality: public renewable generation in Munich

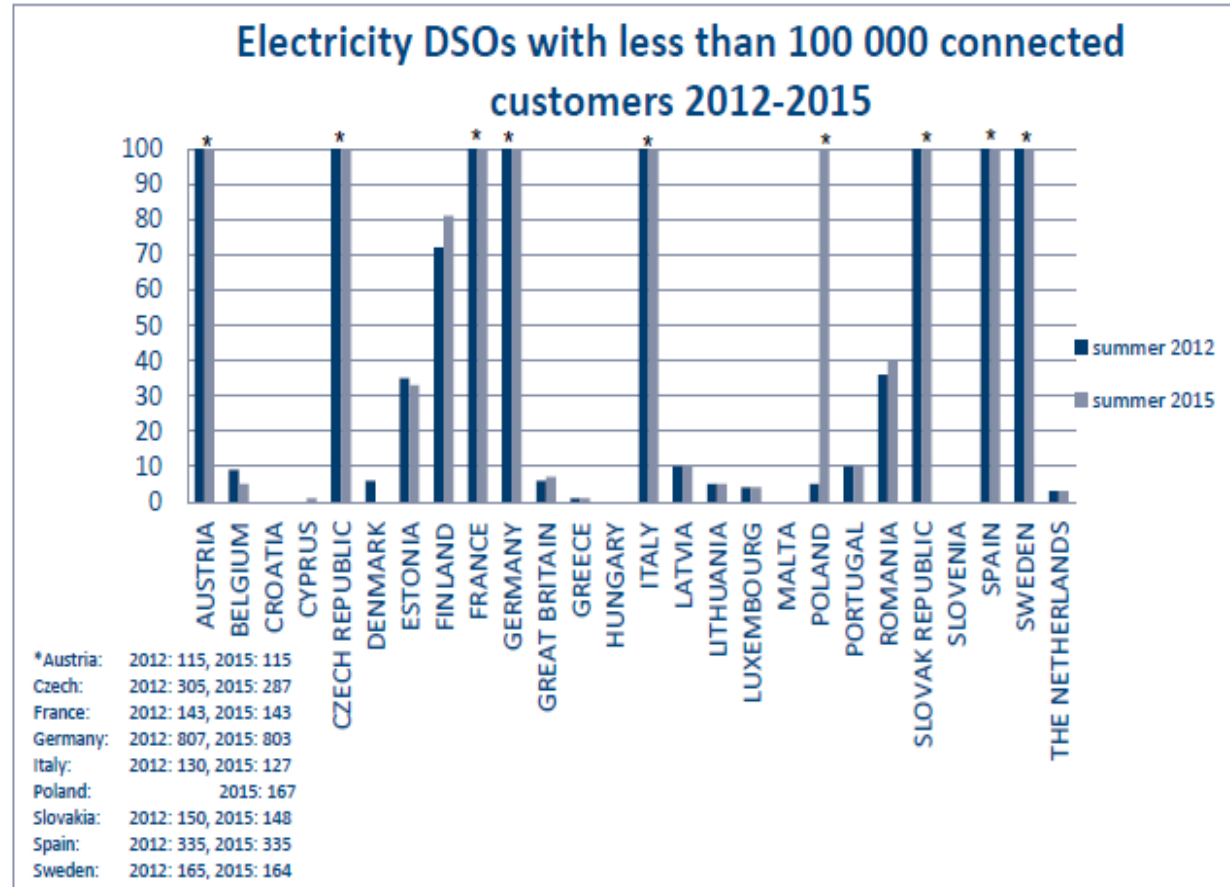
- “Today, energy supply is characterized by oligopolies of private energy suppliers. There is practically no competition on price. The transition to renewable energies is made rather reluctantly.
- By 2025, our utility company aims to produce so much green energy, that the entire demand of the city can be met. That requires enormous investments around 9 billion euros by 2025 and can only be successful if the long-term goal is sustainable economic success rather than short-term profit maximization ...
- German cities and towns are currently trying to correct the mistakes made in their privatization policies of the past. There are many examples of newly established or revived municipal utility companies, especially for energy and water supply, or of the repurchase of municipal transport services.”
- Dieter Reiter, Mayor of Munich: Welcome address to Munich Economic Summit May 2011.
<http://www.cesifo-group.de/DocDL/Forum-3-2011.pdf> ;
<https://www.swm.de/english/company/about/annual-report.html>

EU legal neutrality: Netherlands makes private grid ownership illegal

- EU law says that member states are free to decide on public or private ownership under EU treaty (art.345): “The Treaties shall in no way prejudice the rules in Member States governing the system of property ownership.”
 - So all parts of an energy system can be public or private
- Since 1998, the Netherlands has even made private ownership of electricity and gas distribution and transmission companies illegal.
 - This was unsuccessfully challenged in a case heard by the CJEU in 2013, where the CJEU ruled that “Article 345 TFEU must be interpreted as covering rules entailing the prohibition of privatisation” (Energy Regulations and Markets Review ed. David L. Schwarz 6th Edition July 2017 Law Business Research Ltd. Ch 25 Netherlands p.305 https://thelawreviews.co.uk//digital_assets/b0ebac9b-1b21-4695-a4d5-99f89463352b/Energy-Regulation-and-Markets.pdf)

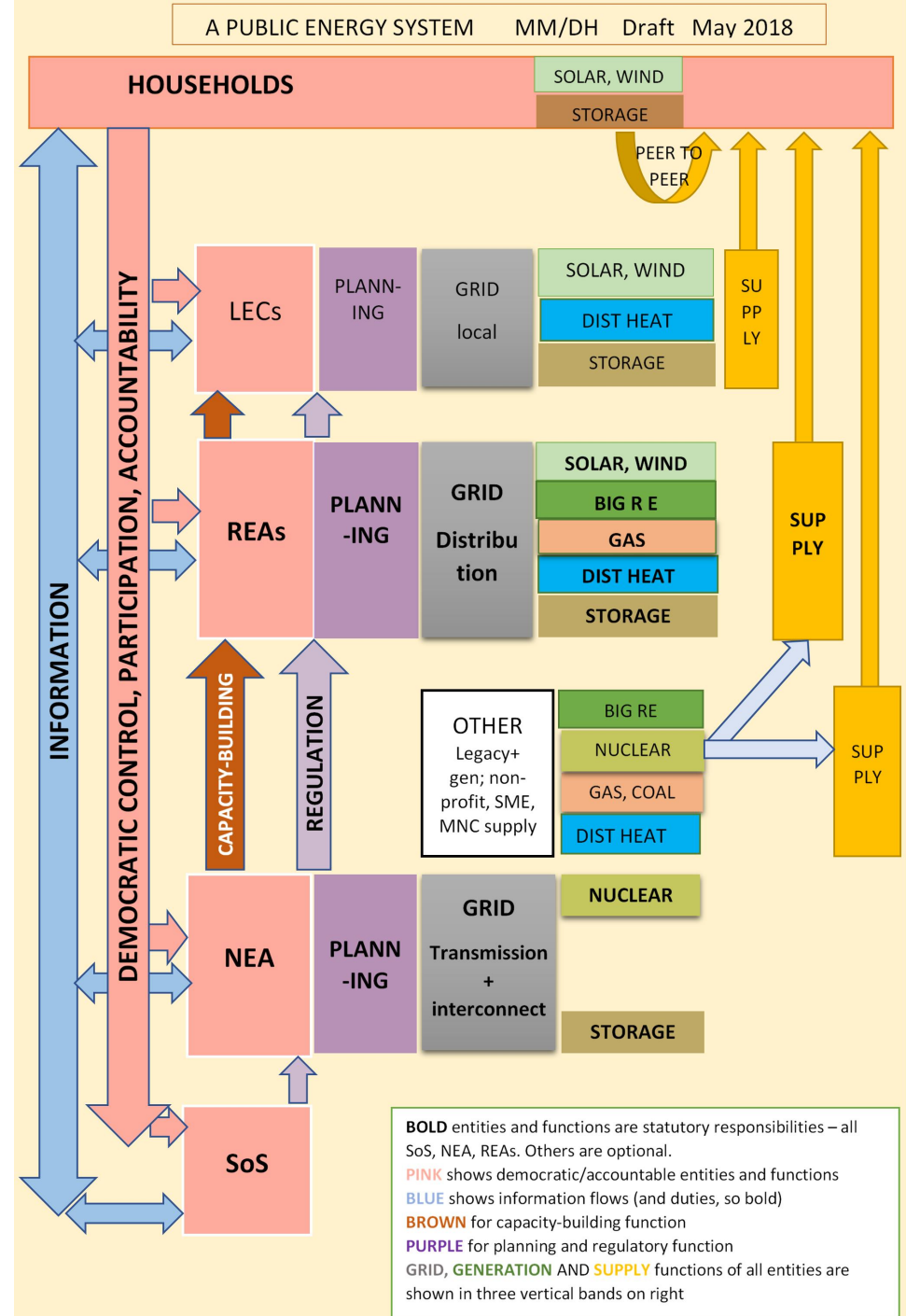
Distribution grids and vertical integration: EU law

- EU law allows group ownership of distribution and generation and supply, just requires separate legal form and management decisions (as e.g. SSE, SP)
- small distribution grids < 100,000 customers are exempt from unbundling rules of EU so can be vertically integrated
- EU plans to allow 'local energy communities'



A possible public energy system

- Infinite local possibilities- allows for multi-functional LECS wherever wanted, + capacity-building
- Universal statutory duties – on Regional Energy Authorities (REAs) for 100% affordable supply, decarbonisation, distribution, information, capacity-building, planning; on National Energy Authority (NEA) for transmission, information, capacity-building, planning, regulation
- Flexible – multi-level options eg for RE, DH, storage, supply, planning and cooperation for changing technology, needs
- Democratic – public meetings/docs for accountability, public decisions, participation, responsive
- Public information flows – for system, planning, participation, transparency
- Professional – NEA/REAs own and supervise grid and other companies, but companies run by professionals



Regional Energy Authority: public ownership and professional operations

- Democratic board with statutory functions
- Supervision of arms-length companies – as in many European cities, or e.g. TfL
- Separate professionally run companies for grid, supply, big RE, other RE/storage/DH
- Distribution and generation and supply as per EU rules

Structure of REA, with arms-length separate operating companies

