Regulating Security of Supply for Consumers
Comparative overview

Remco Frenken
What does Security of Supply mean for EU-Consumers?

1. There is light (and heat) when I want it
   • Once every few years, it may fail for a few quarter hours
   • If worse than that, the government should step in

2. I do not get disconnected, unless I am not paying my bills for many months

3. All suppliers provide same reliability; I switch for price, greenness or service reasons
   • Switching is an option which I execute when I feel like it
   • As long as I pay my bill, I can never get disconnected for not acting

How is the Security of Supply assured in case a supplier goes bankrupt? We will illustrate this with the case of Agrabah Power
AP has a simple Business Structure, comparable to many competitors

Sourcing:
- Buy Power (& Gas) from Exchanges, traders and production companies
  - Mix of short term and long term contracts
- Complete sourcing with power from own coal fired power plant
- Pay at the end of the month

Selling:
- Sell Power (&Gas) to households and Small Business
- Collect money at beginning of the month

So what happens when AP goes bankrupt?
On Friday afternoon, AP announces they have filed for bankruptcy

Sourcing: 100% change compared to yesterday (from 100 to 0 in 1 day)

- Suppliers (incl Exchanges) do not deliver anymore
  - Suppliers will stop delivering to assure the best possible position for claim negotiations
    - Typical, contract relations consists of many deals, short term and long term;
    - Each of those deals has a value (MtM); as markets move, this value changes continuously
    - All deals typical under a single netting & credit support agreement, MAC clauses etc.
    - Insufficient credit support = no deal
- Power plant gradually switched off, a plant manager received a letter from an (American) lawyer claiming ownership of the coal stock

Selling: Unchanged compared to yesterday

- Consumers take same amount of power and gas as usual

So no sourcing but unchanged demand; anyone afraid the lights will go out?
Introduction: Agrabah power falls away, but lights stay on

Various rules, regulations and procedures assure that “Security of Supply” for consumers is safe...

- Missing power (and gas) is delivered via Regel energy/Unbalance power
  - Comparable to falling away of large interconnector and power station
    - TSO assures that system is robust
    - Ample production in the system
    - “Right way” risk for power plants

- No one will ask customers of AP to disconnect by Saturday Morning
  - Retail demand is considered as stable

Are the rules similar in Europe? And looks like we have a “missing money” problem..
Comparative overview

Rules vary within Europe and so do the responsiblities for TSO’s, DSO’s, Regulators etc.

• On request of TenneT, Gasunie, ACM and Economic Affairs, UMS assessed the current rules & regulations related to Supplier of Last Resort (SoLR) in the Power & Gas industry
  • Triggered by increased risk profile of participants in the Energy Market
    • Credit downgrades (in 2006: A+ was the standard; in 2016 BBB is the standard)
    • Impact Energy Transition on business models

• Aim of comparison: get a feel of the principles and approaches in several countries, in order to mutually benefit from the insights
  • Based on in-depth understanding of the energy value chain in various countries
    • Production, Retail, Exchanges, Program Responsibility, Bankruptcy experiences, Credit Standards, Common practices in Trading Risk Management, Grid codes, System codes etc.

• Scope: Netherlands, Belgium, UK (England & Wales) and Germany

So what did we find?
## Comparative overview

**Scope: 4 countries with same market model, but different characteristics**

<table>
<thead>
<tr>
<th></th>
<th>NL</th>
<th>B</th>
<th>G</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Consumption (TWh)</td>
<td>120</td>
<td>80</td>
<td>577</td>
<td>359</td>
</tr>
<tr>
<td>Gas Consumption (TWh)</td>
<td>400</td>
<td>190</td>
<td>815</td>
<td>793</td>
</tr>
<tr>
<td>Retail Market Structure (Power)</td>
<td>Top 4 has 75-80%, high switch rates, mostly unbundled</td>
<td>Incumbant has 40%, but 40 other suppliers present, mostly unbundled</td>
<td>Top 4 has 45%; 1100 suppliers for 55%, limited unbundling</td>
<td>Top 6 has 60%, 15 mid sized entities have rest, Unbundled</td>
</tr>
<tr>
<td>SoLR</td>
<td>Customers allocated pro rato to other suppliers (“Restverdeling” on national level)</td>
<td>SoLR appointed by DSO. Split per region, and per DSO.</td>
<td>Grundversorger as determined per DSO (supplier with most clients in DSO area)</td>
<td>Regulator appoints SoLR (or takes control of bankrupt company to avoid SoLR)</td>
</tr>
<tr>
<td>Remarks</td>
<td><strong>TSO’s have large operational role</strong></td>
<td><strong>DSO’s have large operational role</strong></td>
<td><strong>DSO’s have large operational role</strong></td>
<td><strong>Regulator has large operational role</strong></td>
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</table>

Detailed results in your Syllabus or on:

Netherlands: TSO in the lead, bank guarantees possible to smooth the process. Detailed & tested procedures.

- If supplier bankrupt: maximum 10 working days “grace time” to sell portfolio (or “doorstart”)
  - During those 10 days, the TSO can (but is not obliged) guarantee the purchasing of commodity via bank guarantees
  - Regelenergy/Unbalance deliveries are also guaranteed by TSO

- After max 10 days, the remaining customers are switched pro rato to other suppliers
  - Process centrally managed (“centralized switch register”)
  - Works well, at least for smaller suppliers (has been tested in real life)
  - Initial price (power) based on exchange
  - Has not been tested for large suppliers
  - New supplier will invoice from moment of switching
    - Various potential legal and operational nuances are outside scope of this presentation

- Missing money: partly covered by TSO (in first instance, for max 10 days) and by customer. Operational switching risks, invoicing risks and market risks for new suppliers

- Regulator approves various steps, but TSO’s is operationally in the lead. DSO’s hardly involved. Customers gets automatically switched to new supplier; if he disagrees he has to initiate another switch.

- Major risks/flaws: New supplier can be overwhelmed by new customers (esp. in case large supplier falls away. Also invoicing risk (esp if customers switches away after few days).
Belgium: Procedures only on high level and still in development; DSO in the lead

- SoLR is responsibility regions (VREG/CREG/Brugel)
- DSO appoints the SoLR (and conditions approved by e.g. VREG; in Wallonia default SoLR is the pre-liberalisation supplier)
- SoLR delivers from 0h01 the day after the original supplier is bankrupt
- Procedures still in development (at time of study, which was 2014/2015)
- Major risks/flaws: Only high level principles, no detailed procedures. Risk of having different approaches per DSO (and per region). No procedures in case the SoLR goes bankrupt. No grace time.
- Positive: Only very limited “missing money” risk.
Germany: DSO in the lead, robust system, as long as only new entrants fall away...

- If supplier goes bankrupt, every DSO (800!) allocates the respective customers to the Grundversorger
  - Grundversorger: the (non-bankrupt) supplier with most clients in the DSO area
  - Grundversorger is typical linked to DSO (Germany has only very limited unbundling)
    - No credit risks
    - Less admin risks
    - High probability the customer will recognize the new supplier and pay the bill
    - High probability the Grundversorger will be happy with the clients (his target zone)
  - Result: customers are allocated to the entity who can best handle them

- In German system, some flexibility related to power and gas allocation is possible, typical till one month later.
  - Customers can be switched “back in time”
    - This is not possible in NL or UK, limited possible in Belgium

- Procedures have been tested for small and mid sized companies (TeldaFax, > 700.000 customers)

- Risk/Flaws: What happens when the Grundversorger fall away? In a typical German city, no1 has 60%, no2 has 5%; if No1 falls away, No2 gets suddenly 12 times as much customers, whereas No2 (with 4.9%) has no problems at all.. Also, what if RWE/EON/ENBW/Vattenfall would fall away?
England & Wales: Regulator in the lead, separate approach for large suppliers

- Regulator (OFGEM) has detailed procedures how & when to appoint a SoLR
- In case a supplier falls away:
  - OFGEM talks to administrator; if he provides a bank guarantee, company can continue; without bank guarantee license is revoked and SoLR procedure starts
    - If administrator provides bank guarantee, 14 days to find a solution
  - SoLR procedure:
    - OFGEM asks other suppliers to “make an offer” to take over the supply
    - The best offer (from customer perspective; so not from Administrator perspective) is chosen as the SoLR
    - If no offers received, OFGEM appoints a SoLR (one of the “big six”); SoLR can then deliver power and gas for their “highest” tariff in their tariff structure.
    - Please note that OFGEM is, on a routine basis, collecting much more information about suppliers than the regulators in NL, B and Germany do
- Recently, the procedure has been modified
  - < 500,000 customers: only above procedure
  - > 500,000 customers: above procedure or procedure below
    - Request to court to appointment special administrator (“expertise in energy list’)
    - Min of Finance can than provide bank guarantee
    - OFGEM will take (de facto) management control
    - Duration 6 months, with one off prolongation possibility for another 6 months
### Observations

Despite similar market models, the rules and regulations for SoLR are different

<table>
<thead>
<tr>
<th>Country</th>
<th>Inspiring Ideas</th>
<th>“Rainy day” risk</th>
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</table>
| NL      | • Consistent procedures across the country, while leaving room to manoeuvre (incl. Bank guarantees)  
• Operational Lead by TSO’s (right skills, good standing, ample resources and experiences) | • Procedures also robust for major suppliers?  
• Tempatation TSO to be easy in providing bankguarantees (socializing risks of private companies) |
| B       | • Bankguarantees to DSO’s from suppliers (limiting missing money risk) | • Only high level principles; vulnerable for interpretation  
• 3 different SoLR procedures in case nation wide incumbent falls away |
| G       | • SoLR tailored to regional circumstances  
• Back switching (limiting missing money problem) | • Not robust for falling away of large players  
• Allocation/reconciliation could be severely impacted & become unpredictable  
• System not robust for “perfect storm”, as no centralized leadership |
| UK      | • Split in SoLR procedures between large and small suppliers  
• Customer focus prevails over “preserving value in bankrupt entity”  
• Upfront collecting of relevant information | • High burden on Regulator, who may not have the practical experience and ‘mindset’ to master a ‘perfect storm’.  
• Very detailed regulation; limits room to manoeuvre |
Observations

So what happens if Agrabah Power goes bankrupt?

<table>
<thead>
<tr>
<th>Country</th>
<th>Customer</th>
<th>Owner Agrabah Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>NL</td>
<td>• Automatically switched to (probably) unknown supplier for OK tariff</td>
<td>• 10 days to sell the business, without additional risks (“free option”), as TSO provides bankguarantee</td>
</tr>
<tr>
<td></td>
<td>• Pre payment risk limited, as first 10 days still supplied by AP</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Pre payment risk for &gt; 10 days</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>• Automatically switched to incumbent, for high tariff</td>
<td>• 1 day to sell the business</td>
</tr>
<tr>
<td></td>
<td>• Pre payment risk on commodity from day 1</td>
<td>• No chance on bankguarantees</td>
</tr>
<tr>
<td></td>
<td>• No pre payment risk on grid costs (bankguarantees)</td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>• Automatically switched to local incumbent (who is mostly the grid company as well), for high tariff</td>
<td>• 1 day to sell the business</td>
</tr>
<tr>
<td></td>
<td>• Pre payment risk (commodity, grid) fully with customer, from day 1</td>
<td>• No chance on bankguarantees</td>
</tr>
<tr>
<td>UK</td>
<td>• Automatically switched to (probably) unknown supplier for competitive tariff</td>
<td>• &lt; 500.000: no free option; bankguarantee needed if business is to be continued</td>
</tr>
<tr>
<td></td>
<td>• Pre payment risk with small suppliers, not with larges suppliers</td>
<td>• &gt; 500.000: bank guarantee possible, provided certain conditions are met</td>
</tr>
</tbody>
</table>
Conclusions

Security of Supply guaranteed, but in various ways. Robustness in case of Large Suppliers needs attention.

- All 4 countries have covered the ‘basics’ related to SoLR
- In all countries, procedures have been tested in real life situations
  - Bankruptcies have occurred in all countries; no major issues occurred, only ‘lessons learned’

- In Belgium and Germany, the SoLR is based on the assumption that major incumbents will not go bankrupt
  - “Every disaster starts with a bad assumption”

- In UK and, to a lesser degree, NL, the SoLR is not based on availability of major incumbents

- Insights in both legal, commercial and technical effects & constraints is required, in order to (re)act responsible during a bankruptcy (or chain of bankruptcies)
  - Roles & responsibilities are specific per country
  - Significant amounts of money at stake
  - Relative complex processes (trading, nomination, allocation, reconciliation, measurement)
  - Bankruptcy law versus Energy Law versus Rules & Regulations versus feasibility, all with an international dimension
  - Political sensitive
  - 24/7 delivery; no ‘time out’ or ‘we deliver later’ options
Contact

Remco Frenken
Managing Partner

UMS Group Europe B.V.
Amstel Business Park
Joop Geesinkweg 901-999
P.O. Box 94013
1090 GA Amsterdam
The Netherlands

Mobile:  +31-6-83970398
Office:   +31-20-561-7033
rfrenken@umsgroup.com
www.umsgroup.com