Minutes

4th SJWS for the development of TYNDP 2017

Brussels, 23 February 2016, from 10:30 to 16:30

ENTSOG, Av. De Cortenbergh 100, 1000 Brussels

Introduction
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Data Source of Commodity Prices
Ádám Balogh, ENTSOG Adviser

Presentation available download

ENGIE

Q: For the last slide that displays the chart showing the use of the current gas price, should this be used? Current commodity prices depend on many factors – is this a relevant option, especially for the Blue Transition scenario where a lot is expected to change? This could be dangerous or inappropriate.

A: We have the same outlook. WEO based on market fundamentals of the world. There could be spikes within this but using the fundamentals, they should not be considered over a long term period even if they last for a year. But we are open for further comments

CREG Belgium

Q: Regarding the price of the sources and the Input and outputs of the model - how does this work?

A: Here prices play a role in two places. Demand side for power generation, in terms of merit order. Slow progression coal is before gas, Blue Transition and Green Revolution have gas before coal.

2nd SJWS discussed the modelling and supply configurations – it introduced the price configurations where we attach prices to gas supplies, using a reference price set by an external source. This is our proposal today using WEO data.

It is different for each scenario and at each point in time. Around this we build a supply price curve to trigger contrasted supply mix using expensive and cheap variations to maximise and minimise use of supply sources.

The reference price will have an impact in monetisation of the EU bill. Depending on supply configuration, it will offer different supply bills for the EU.

Q: What if a power user's look to coal rather than gas?

A: The merit order for generation will depend on wholesale price. WEO defines input price, when we are considering demand – we are looking at contrasted demand of coal before gas and gas before coal.

Depending on the supply mix, it may affect the marginal prices, but we do not see this impacting the merit order of generation.

ACER

Q: Alignment of the scenarios with ENTSO-E Visions. Can you be more specific on what is being used – e.g just prices, CO2 or what – to what level?

A: It's difficult to discuss the detail of the power generation methodology in this session – this can be covered at SJWS#5 - we have data from ENTSO-E for their visions which includes hourly generation, capacity and demand figures. We use a methodology for gas demand for power from this data and the results are checked by experts in the TSOs. The merit order affects the ENTSO-E data.

Q: This is in terms of general alignment, could you be more specific on data used for transparency reasons? Can this be available in the TYNDP report or the next SJWS? It would be interesting for future interlinkage / level of alignment between the organisations.

A: That what we did the last TYNDP and we want to do this again, in terms of transparency and in the report. There is a confidentiality agreement in place, so we cannot publish all data provided.

There is a clear indication of the price data they used in their report - 2013 WEO – here the proposals to update the prices as displayed in the WEO 2015 that can be taken into account…but this is still fully consistent in the merit order in terms of alignment

Elengy

Q: In the newspapers, there are stories of a price war between Russia and LNG. How do you take this into account for the price curves?

A: What we are trying to do with price configurations is a standardised approach. We want to trigger contrasting mixes of supply sources. There are multiple versions which include variations on Russia and LNG – this was covered in previous SJWS and gives a wide enough range of possibilities.

The price curve has a role for the modelling, not an evolution of the market, the curve triggers storage use (summer/winter). The shape of the curve also allows the neutral balanced operation of the model.

Q: I'm not a specialist, but when reading news that Russia may increase supplies by reducing their price – it will be a price war. This is a concern for the market over the next ten years.

A: Do you not think this is covered by the maximisation of Russian gas? Maximised volume could be for whatever reason – reduced price included.

Q: Question is to do with the slope of the curve, only a positive elasticity not a negative one?

A: ENTSOG must restate - this is just a modelling function, the shape of the curve is secondary – we require min or max of a specific supply. Through these we can cover the potential supply changes.

Q: But somewhere the modelling will have an impact on the results

A: Most outputs are independent on supply price (apart from marginal price and EU Bill). The standardised approach is used so that is easy to understand to show results. We will cover later in this SJWS.

ENGIE

Q: LNG price is independent of Europe, e.g. Japan during Fukushima impacted world prices.

A: We are asking the model to maximise and minimise sources, this naturally allows for a variety of causes.

CREG Belgium

Q: What are the nuclear power generation assumptions you have applied across your scenarios?

A: These assumptions are aligned with the ENTSO-E assumptions in the respective countries.

E3G

Q: Will the scenarios include price shock events?

A: Price configurations cover sources being cheaper or more expensive, there is a plausible scenario behind these variations. So the supply trigger could be seen as covering these issues, using a year at cheap and expensive.

Q: Could you do a +10€ price curve variation for one or two years in a shock scenario?

A: 5€ gives a stock figure – this could be doubled if this represents a more realistic price to one of these situations. It is just important that a standardised approach is used so that it and the results can be easily explained and used.

They are deterministic values in min max curves, these curves are used to maximise cheaper source and having +7 or +10 makes no difference to model, just to the values that are produced at the end.

In future these should be defined as supply configuration not price configurations, as it seems to be causing confusion….

TYNDP Outputs – the TYNDP assessment

Céline Heidrecheid, ENTSOG Business Area Manager

Presentation available download

Elengy

Q: In terms of import route diversification, is this calculated…looking at gas from Norway is this at every point?

A: We are not looking at Norway, but looking at routes - access to a given country or balancing zone, looking at capacities and entry points.

Q: OK so you take into account the import route, not the route itself but an entrance point to a country. There are routes of the pipelines and you take the import points. LNG has import points but the routes could be from Qatar or wherever. My point is that this indicator mentions it is supposed to highlight the diversification of the route, but with LNG this doesn't apply as the LNG source/route can differ – it offers much higher diversity than just one import point.

A: The way it's computed, the way the LNG is sourced is complicated, so here it's a proxy to true diversification, entry diversification.

S: This is a minimum. This approach doesn't take into account the diversity of LNG and is detrimental to this source

E3G

Q: These are useful indicators from a physical perspective, but the political picture doesn't represent the physical structure. It could be a useful way in terms of security of supply and useful to see how regulation has changed over time. Would it be possible to show Ukraine as well, changing market, N-1 rule? Reliability of suppliers is as important as the infrastructure itself. An instability of suppliers or instability matrix, interesting to have a sense of the flow for suppliers.

A: Evolution occurs over the years, it's computed for every 5 years. Through new projects you can see the evolution.

Ukraine: ENTSOG is currently discussing with them about entry to TYNDP, will not discuss further today.

Suppliers: as ENTSOG we do not want to enter into discussion about who is and isn't a stable supplier.

Elengy

Q: You are using the HHI index, but with LNG terminals, most are modular. As this doesn't cover the route to Europe, only the entry point, once again this seems a discrepancy between the title of the output and the regulation. If you have an example of a terminal pipeline and LNG both of 15bcm, this diversification is not taken into account. It should be related to the average number of supply sources into Europe.

A: Here we do not treat LNG that different to Entry capacity – ENTSOG are not looking at the source, e.g. pipeline or interconnection point that could give access to Russia etc

The indicators are defined in the CBA methodology, which will not change in short term, but when reopened input could be taken on board.

What you are asking today goes beyond the model. Indicators can be seen as contributing to several criteria of the regulation. It was seen as part of 2nd PCI selection, it is tricky to consider indicator for multiple criteria, as this represents double counting. It was decided as part of the regional groups to match one regulation with one indicator.

E3G

Q: Non-modelled - what does this mean?

A: It means we do not need the model to calculate the results, we can use external data.

ENGIE

Q: The value of lost load is an underestimate, it is an average. The social cost cannot be compared to the average GDP. Value of lost load has to be calculated on a very specific event and not an average, also comparing one market place to another one, value of lost load on the size of customers, it is a complex thing. I understand the approach is stated by EIB, but I am sceptical about this approach. E.g. in the UK there is the Cash Out reform, establishing lost load value is much higher than the one we have here due to a stressful situation.

A: Most comments made are shared by us. FAQ can cover some of these issues.

Disruption should not have an average case, but equally there are other factors where things might be lower, depending on length of disruption. Disruption should be considered in a case by case basis, we have been experimenting with this but with our resources, available data and the

fact we are not economists, we cannot go into such modelling of national economies of Europe, but we acknowledge the concern.

The two edges of Europe would have different values, but PS-CBA uses Europe wide calculations.

ACER, EC – EU wide calculations are more beneficial to evaluate projects. Individual detail may make results harder to interpret.

Q: Did you liaise with ENTSO-E on these topics? If we have a linked approach – gas fired power plants may be first to be curtailed, this may impact value of lost load.

A: This is a good point, the value of lost load for electricity would be higher, efficiency affects due to loss of energy compared to input. It's all gas that arrives but may be used for many purposes.

Q: But you need to have reasoning on marginal approaches, reasoning on average figures is not fully relevant

A: ENTSO-E produce a winter outlook, countries facing gas curtailment, could this be substituted with other generation types.

EC

Q: Monetization is affected, the value compared to previous the TYNDP is 6 times higher

A: Uncomfortable with the previous value, but essentially it is just a monetary value to apply to modelling results

CRE

Q: Presenting figures in terms of volume versus non-protected customers, so showing who would be affected, might help to refine the methodology of lost load – e.g. industrial vs domestic customers

A: This is an interesting point, currently we do not intend to collect protected demand from TSO. Due to new tasks for ENTSOG, I'm sure we will approach this topic again. However, given time constraint this edition we do not plan to collect from TSO. The volume of lost load can be seen, so it may be possible for member states to utilise this.

Q: I cannot remember the data collection details – will you define between industrial and domestic, but this will not cover protected, but the option could be offered?

A: We plan to collect the data for those sectors separately, wherever possible we will collect but not all can provide, power and final demand data are the only definite requirements.

S: Percentage disrupted and volumes might help to determine and it would be interesting to make comparison. Just in presentation terms, for example a worrying percentage may occur but this is a small volume.

ACER

Q: The way this is calculated it is very simple and easy to follow, a step in the right direction towards monetization. Could it be a proxy to supply disruption and the effect on the economy? Interesting from the presentation if it could be used into other areas, maybe needs further discussion and elaboration – it is a very complex topic.

A: We are asking for insight from all concerned to provide us with a value – what should we use for the value to use to monetise? There are no offers so this is our proposal. We could check with the EIB, confident of good proxy, suggestions are welcomed for improvements…

ENTSOG can always revert to the demand not satisfied if stakeholders are unhappy with the proposal

CREG Belgium

Q: What about demand side measures?

A: Per country, DSR and individual country issues etc could be done in a highly complex model but this is a simple model. This would all have an impact on the actual loss of welfare.

E3G

Q: By using this, if demand goes down then value increases, if demand reduction is good for climate and economy is this misleading? Also if you have this indicator then you need a stranded asset indicator – supply disruption from demand reduction

A: This is correct, the value will increase – but this is true, as shown by historic results in less energy intensive economies (gas or electricity). We do not think this is in contradiction, if you disrupt a more sophisticated economy there is more cost involved.

S: But more sophisticated economy they will be better prepared against disruption. About valuing the smartness and the risk

Route disruption case

ENGIE

Q: It is my understanding these are based on flow analysis and not just capacity. If this is the case, why is Spain not in blue given the significant flexibility?

Also, the calculations are on a country scale, does it take into account interconnection flows?

A: Yes this is the modelling tool with interconnection capacities along with flows and sources. Disruption with peak demand everywhere at the same time based on supply assumptions and infrastructure levels. For remaining flexibility, country demand is increased one by one.

Q: Modelling assumptions – flexibility of 120% compared to the average. Maybe for places with high storage, such a generic assumption may need to be adapted. If there is no storage, having flexibility from pipeline gas would be low compared to real flexibility.

A: This is EU wide, we are setting supplies at 110% across the EU. Does your question have a specific country focus?

Q: Austria has no storage or LNG – 5% peak, pipeline higher flexibility is required

A: Is the recommendation for higher than 110% depending on supplier?

Q: Twice the normal demand for a specific day, without storage and LNG, 120 or 130% would be required to close the gap.

A: Infrastructure bottlenecks are highlighted, it is not that we are missing supplies, they just can't reach the source.

Q: But it is a flow based approach and not just capacity – both approaches need to be mixed up.

A: Even at the 110% level the supply is not being used up, bottlenecks are the issue. But we will reflect on the comments

CRE

Q: Is this country level or balancing zone level?

A: We will check this – this will impact a limited number of countries. There would be no technical barrier to this.

EC

Q: On slide 25, regarding Latvia and Lithuania. Is the bad score due to connections, not due to disruption?

A: They are a different colour to Poland, so there is a reason behind this – a bottleneck is stopping the sharing of sources – if not they all would be the same colour

E3G

Q: The infrastructure gap is tested against indicators and the demand scenarios?

A: For each indicator and each scenario (not decided if all demand scenarios will be tested, this may depend on the data collected)

Q: For Green Revolution is states EU Targets met, but the commission targets are not aligned to the Paris targets. The world has changed; green revolution is just in line with state that exists, it is not a revolution. Can there be a scenario of infrastructure in a 1.5 degree world, delivering Paris in a green scenario.

I think there are system indicators missing – no indicator of stranded assets – stranded asset value risk. Risk of over balancing, value of resilience of the system and alternatives to gas supply. There is a bias toward supply driven risk, not demand side responses.

A: The TYNDP is produced every 2 years and cannot cover every actuality. Green Revolution covers lots of elements and future versions may include some of the elements mentioned above.

Import price spreads configuration

Céline Heidrecheid, ENTSOG Business Area Manager

Presentation available for download

ENGIE

Q: To clearly understand, the German is the core market to set the price or do you recreate the market price? How is it implemented?

A: It is the import not market price, using an information source on import prices. In order to test, we did it within the modelling setting Germany as a basis due to the function and liquidity of the market.

Germany would be our reference price, other countries import prices will work as a spread from this price. A publication from 2013 was used for the test numbers, we are currently looking for other sources for the import prices and would be very interested in proposals or feedback what could be used

Q: When comparing the slide 6 chart to slide 4 which gives a patchwork of the import prices, we don't understand the difference between Poland and Germany, we saw 2€ not 8€. Other countries were fine.

A: This is based on the test values – the source for these was not slide 4. Source for Poland was 10€ from the information source, hence produced a price spread of 8€ in the tests. Test values come from 2013 to see if the methodology makes sense. With regards to the data source for the import prices, we are working hard to improve, trying to use the Eurostat database, ACER and DG ENER. In the EU COMEX database, countries need to provide data, and regulations are set to not use this data publically. We can try to fill in the gaps of countries data that is not available but this will need to be agreed.

ACER data was applying certain data assumptions and presenting exchange not import prices.

Q: Price on slide 4 ACER. They will soon be able to have information on long term contract prices, may be a valuable source of information…

A: The price information there is not an import price, but a mixture formed within the country.

ACER: What Adam has explained is generally correct. An observation: whatever final prices are considered as reference prices, the method, source and assumptions should be well described in the TYNDP to avoid potential misunderstanding (example of this slide from 2013).

REMIT data relies on external sources, this is not a part of REMIT. The information displayed on slide 4 is based on public sources. Final comment would be that instead of using the reference price of Germany it should maybe be the most competitive and liquid - TTF or NBP instead?

E-Control Austria

Q: Germany import price is the only published price. The TTF difference between this and all the other hubs, difference between long-term contracts in Poland and Germany – this is not solved by infrastructure?

A: Good point, with this approach we can determine if it's not infrastructure that will solve the problem. The feedback we want today is regarding the source and methodology. Remember these are import and not hub prices.

Where the issue is not infrastructure related, then the model will set marginal price in all neighbouring countries. The model could be able to provide an answer without non-infrastructure barriers

ENGIE

Q: Today the gas community has very good prices – we are in a price bubble, every shipper with long term contracts will take the pipeline gas. Norway maybe not, but with Russia I do not expect producers to lower their production to Europe as they are at their minimum range. If importation of gas decreases within Europe, I'm not sure there is a willingness to reduce further, we are reliable customers. This is an assumption, but I do not expect less…though of course this relies on price, with the context of gas markets developing – a reduction of 20%?

A: This is focused on countries highly dependent on a given supplier. Source will never accept a diversification – in Baltic

Q: Nord stream is a way of continuing to supply EU customers with Russian gas without using Ukraine. They are keen to maintain to supplies to Europe

A: Looking at the charts, the market might not have liquidity, just a single source – do you think the monopolistic supplier would it maintain price and adjust volume, or change price?

We were happy seeing the results of the testing. For 2015, we see how the model can determine the impact of Klaipeda – this reflects what has happened and as a result we are happy about this. A monopolistic supplier has changed price to maintain volumes – but what level should be used?

Q: Key point will be the price war. New sources in the Baltic region, seen by Russia, would able to lower my price to increase competition. Even sources upstream from Europe, the market stops the source being relevant

A: An incentive is required for supplier to lower its price, this is the only way to model the impact of the price war and competition.

CRE

S: We need to look into this in more detail, but it's definitely going in the direction we were thinking of. We have to think a bit more in a volume aspect. No volume is displaced, just by increasing competition the price goes down.

With regards to the reference price, the import price and hub price are on two different sides. We need to look at the robustness and check for significant differences, it could be looking at specific projects and judging between the results

ACER

Q: Referring to slide 7, after the initial year the situation will evolve – do you use the map and information as a starting point, then the model then assumes perfect competition? Is this the assumption?

A: Once a project solves an issue, then extra projects can only solve residual problem. So the model keeps the picture from project to project. But you're right that the price is the starting point for the model but they evolve based on infrastructure.

Q: How does the model behave with no extra infrastructure? How does the prices progress?

A: With no infrastructure the results would stay the same as the initial reference prices. But we know there will be new projects. We set input prices but if there is no infrastructure bottlenecks then there will be no difference in marginal prices

Legal notice on projects submission

Nico Van der Maren, ENTSOG Legal Adviser

Adám Balogh, ENTSOG Adviser

Presentation available for download

No comments or questions on Proposal 1

No comments or questions on Proposal 2

No comments or questions on Proposal 3

This is the content of the legal notice, the ENTSOG legal team will be preparing the official document. You will have to accept these legal terms.

Bundesnetzagentur

Q: Why is this appropriate for this TYNDP compared to the last version?

A: We are always looking to improve, maybe it was not considered in the past. New role of the TYNDP - in the past, a disclaimer was in the TYNDP but this is more appropriate in the data collection and submission.

Q: NRA's will also have access to the data submitted?

A: We mentioned that we will go public with the project data but at the point in time the data collection has finished and has been checked, not only with NRA's but also with other stakeholders – this is covered by the last bullet point

ACER

Q: This question is related to CAPEX and how this is treated in the TYNDP. I understand the approach and cost of infrastructure at an aggregated level. On the ACER and NRA side, we have not changed our view since the last TYNDP – we want public disclosure of cost at an item level, this is shown in the E-TYNDP with regional electricity plans, cluster level with benefits and costs. I understand the intentions and position of ENTSOG, but reiterate ACER requests.

A: This is a discussion about TYNDP adapting costs and benefits – PS CBA is where this has an effect. TYNDP works at infrastructure level and then we present costs at this level.