

EUPORIAS

Supply of S2D information to users: is there an ideal scheme?

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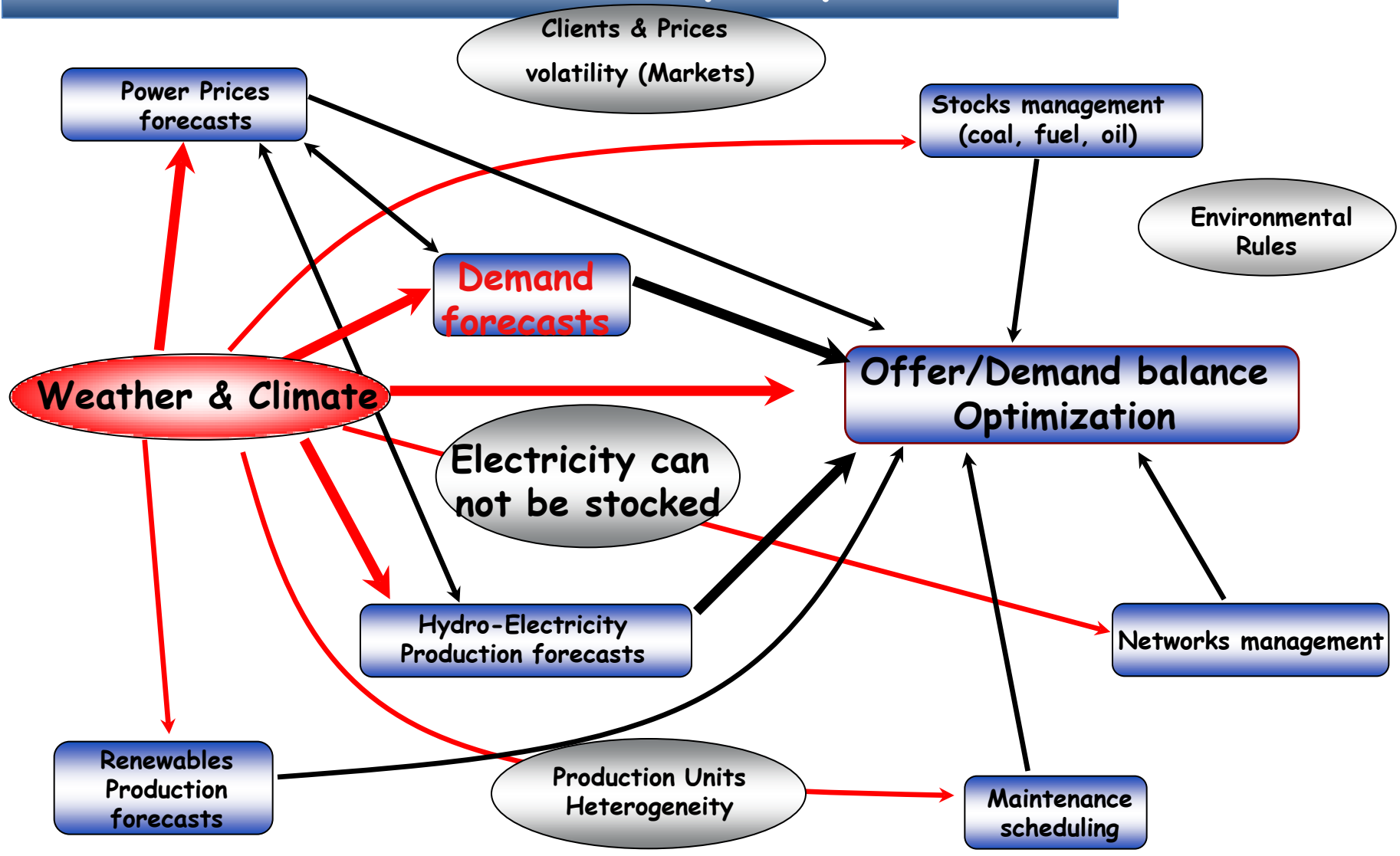
WP12 Workshop
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@euporias



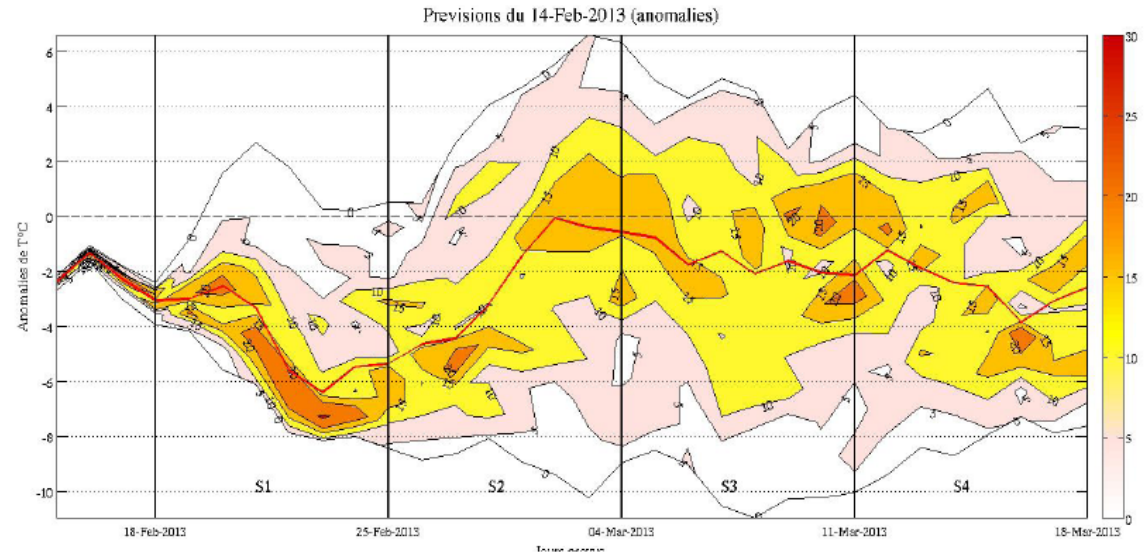
- Energy is (now generally) a competitive sector → confidentiality/money/competitiveness issues
- Operational management of a power system is a very complex problem, with many factors/constraints ...

Power Offer/Demand: a complex problem

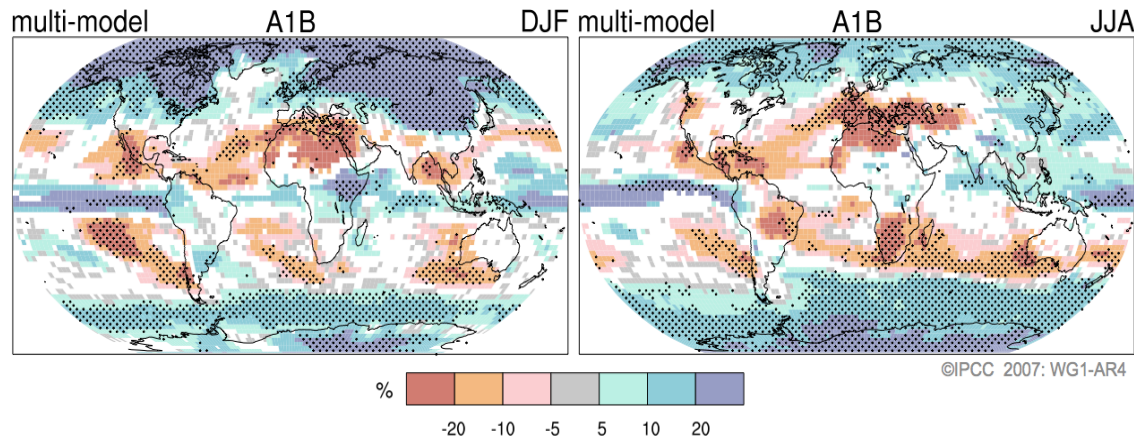


Day+2 / 30 min time step forecast: 1 000 000 variables & 10 000 000 constraints
 Highly non convex and non linear, discrete and continuous variables
 Highly demanding on optimality and feasibility

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- Operational management of a power system is a very complex problem, with many factors/constraints ...
- The weather/climate information needed is (more and more) complex and requires skills in meteorology/climatology



Projected Patterns of Precipitation Changes



- Energy is (now generally) a competitive sector → confidentiality/money/competitiveness issues
- Operational management of a power system is a very complex problem, with many factors/constraints ...
- The weather/climate information needed is (more and more) complex and requires high level skills in meteorology/climatology
- Power systems operators/managers/decision makers have (in general) little time to dedicate to weather/climate science training
 - Need of an **interface** between the scientists/providers, and the end-users

What/Who should be this interface ?

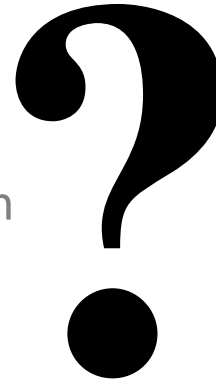
- Dedicated service of NMHSs ? → Provider
- Private companies ? → Purveyor
- End-user's dedicated service ? → In-house

What/Who should be this interface ?

- Dedicated service of NMHSs ? → Provider
 - Problem of resource (human, funding ...)
 - Lack of knowledge in energy processes/business
 - Confidentiality issues
- Private companies ? → Purveyor
 - Can develop tailored products for each customer
 - Confidentiality issues
 - Cost ?
- End-user's dedicated service ? → In-house
 - Resource (human, funding)
 - Expertise in the applications at stake
 - No confidentiality issues

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Raw Data/Forecasts / Generic Products / Guidance

Tailored products for generic/specific applications, when no confidentiality issues

Tailored products when there are confidentiality/strategic issues/complex applications/requirements

Supply of S2D information to users: is there an ideal scheme?

There is probably not one single answer ! Depends on :

- the type of information which is delivered
- to whom it is delivered (company size, level of expertise in weather/climate, resources...)
- confidentiality issues

In any case, a **close, early and on-going collaboration** is essential.

- Need to know people personally
- Need to establish a common language (for example, in the energy sector, « medium-term » deals with 1-3 years forecasts !)
- Set-up formal teams / regular meetings
- Training is important in both directions: weather \leftrightarrow user
- **Product/service development should be user-driven (cf Mike Harrison's talk)**