A FEATURE TO DECREASE RUNTIME BY FIXING CAPACITY PARAMETERS

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On behalf of:

Institute for Energy Technology
Center of Global Energy Policy
The Danish Energy Agency
The run time is exploding

We keep increasing the complexity.

Modelers want
- more time slices and long-term model runs
- more technical details, like ancillary services or unit commitment
- more regions and countries
- etc.

For every new feature, the run time increases.
One way to reduce the run time is to *fix investment decisions* from one run to another.

Some work has already been done to develop such a feature (REG_BDNCAP), which might not cover all needs and currently does not have a well-described documentation.
Methodology development

- A simple way to add investment decisions between model runs
- Based on REG_BDNCAP
- A script to write scenario files in case the REG_BDNCAP-feature is not sufficient
  - *This will be publicly available*

Testing, testing, testing

- Testing on at least four different models
- Testing on different reasons for adding restrictions on capacities

Increase accessibility

- Create and test a how-to-guide
  - *This will be publicly accessible, so that the TIMES-community can benefit from the work*
A STRONG AND EXPERIENCED TEAM

Energy Modelling Lab (DK)
- Project lead
- Methodology development
- Testing
- Documentation

Institute for Energy Technology (NO)
- Methodology development
- Testing
- Documentation

Center of Global Energy Policy (US)
- Methodology development
- Testing

Danish Energy Agency (DK)
- Testing
- Review of documentation