OpenMod Africa

plan4res

plan4res workshop Madrid

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EDF

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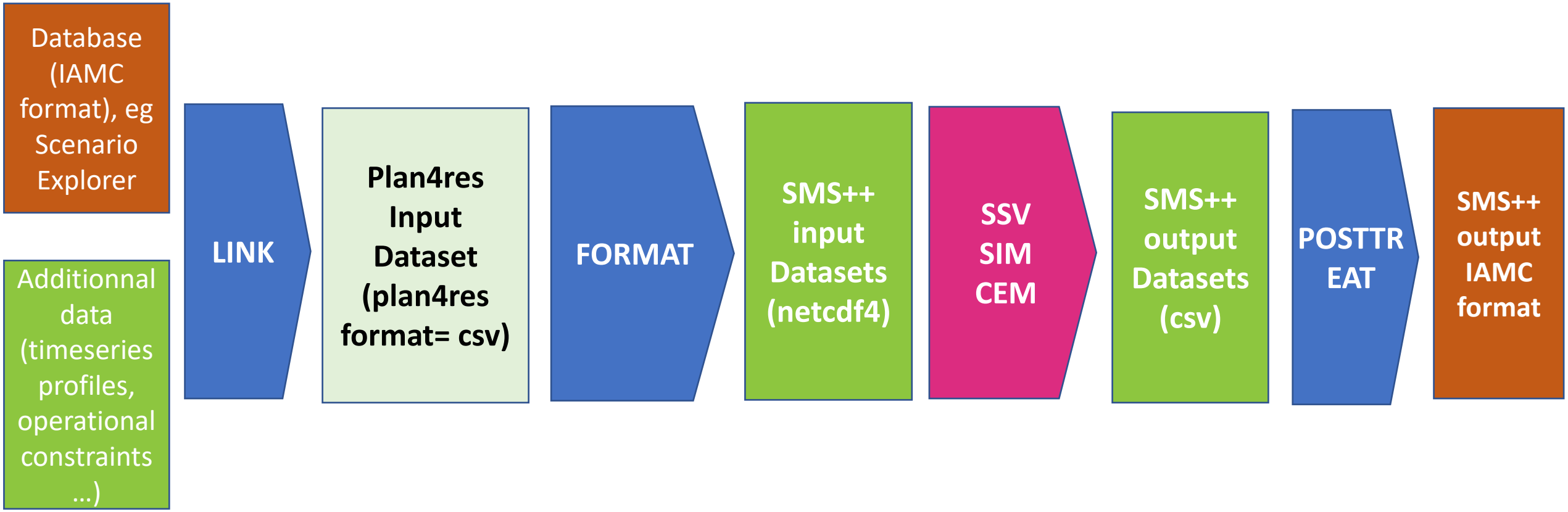
plan4res design



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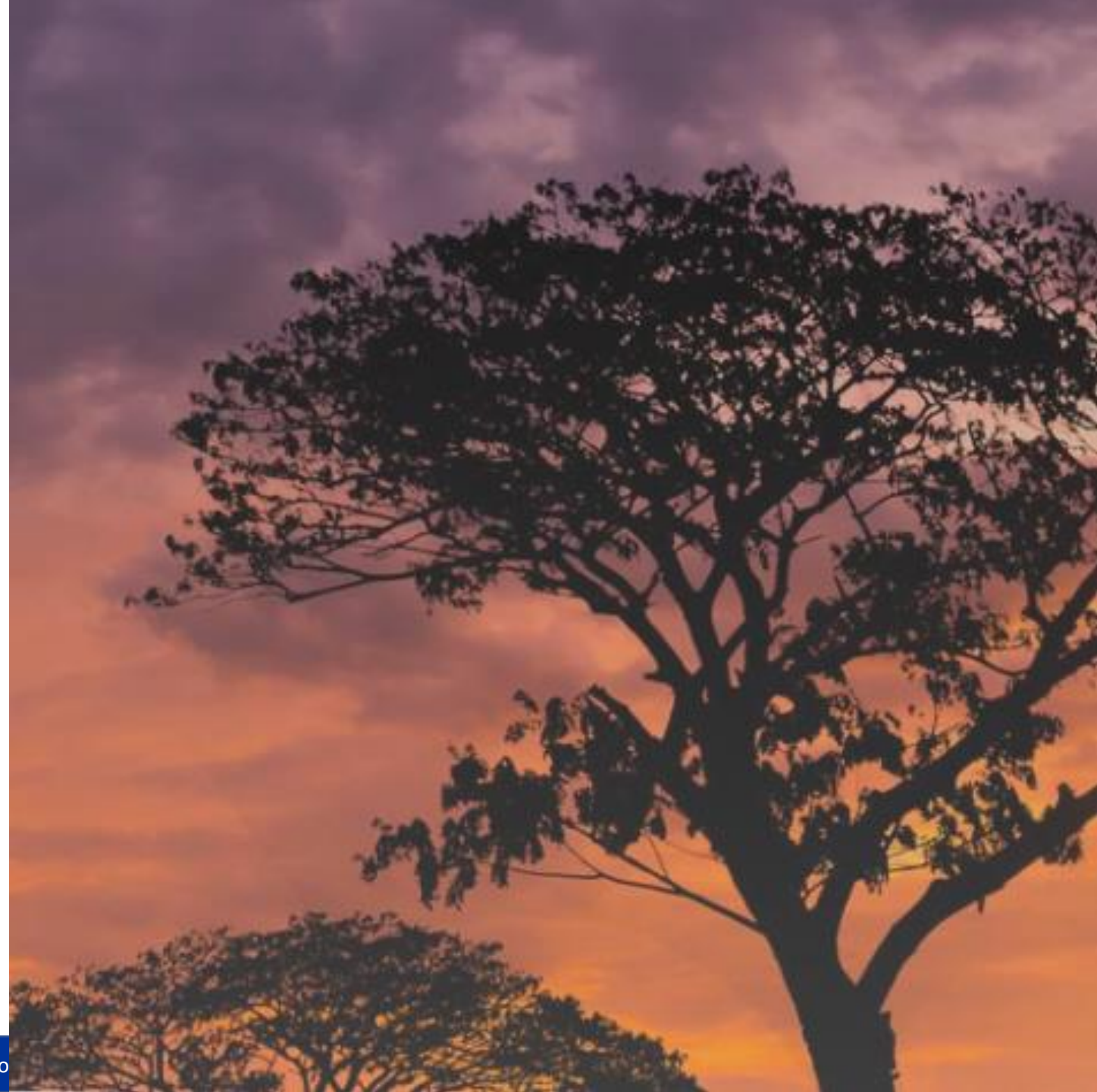
Installation recap



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Recap Installing p4r-env in windows Vagrant

For today, please update plan4res

- If you already have the plan4res folder in YOUR_P4R_FOLDER:
  From the plan4res folder: git pull
- If you don't have the plan4res folder in YourUserAccount/YOUR_P4R_FOLDER:
  From the YOUR_P4R_FOLDER folder: git clone https://github.com/openENTRANCE/plan4res

You will get:

- the file 'sms++' which you can copy to p4r-env/scripts/add-ons/
  => it has the –j…. Things already changed
  => it allows to install plan4res from the new plan4res repo
- the datasets and results for the runs of today
- this presentation

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Recap Installing p4r-env in windows Vagrant

From GitBash

- git clone --recursive https://gitlab.com/cerl/plan4res/p4r-env
- cd p4r-env
- Edit Vagrantfile to give more memory => change value in `vb.memory`
- git config submodule.recurse true
- vagrant plugin install vagrant-proxyconf
- vagrant up
- Copy the file sms++ from the plan4res repo to scripts/add-ons
- bin/p4r add-on stopt install (if you have not yet installed stopt, if it is done, skip this)
- bin/p4r add-on sms++ uninstall (if you have a previous install of sms++ which doesn't work)
- Bin/b4r add-on sms++ CPLEX=<your linux cplex installer.bin>

Everything should be in: users/YourUserAccount/YOUR_P4R_FOLDER

in YOUR_P4R_FOLDER you must have the folder plan4res and the folder p4r-env

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Preparation

- Copy YOUR_P4R_FOLDER/plan4res/pythonscripts/*.py
  to YOUR_P4R_FOLDER/p4r-env/scripts/python/plan4res-scripts/
- Copy YOUR_P4R_FOLDER/plan4res/pythonscripts/VariablesDict.yml
  to YOUR_P4R_FOLDER/p4r-env/scripts/python/plan4res-scripts/settings/
- Copy YOUR_P4R_FOLDER/plan4res/ExampleData/LoR_Madrid
  to YOUR_P4R_FOLDER/p4r-env/data/local/

All documentation is available in YOUR_P4R_FOLDER/plan4res/doc

The presentations from yesterday and today are in YOUR_P4R_FOLDER/plan4res

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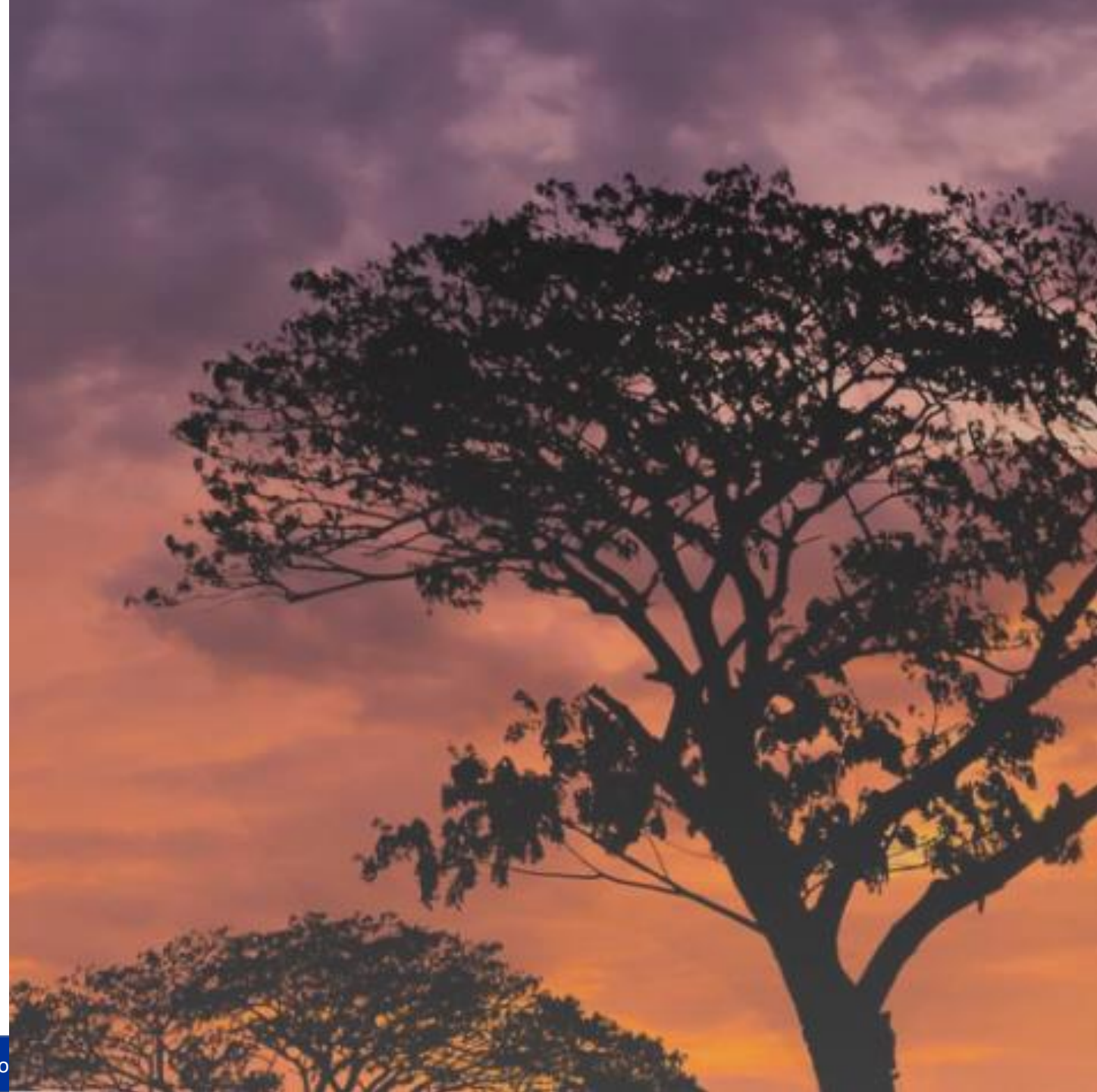
Work on your dataset



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Look at the data

- data are in YOUR_P4R_FOLDER/p4r-env/data/local/LoR_Madrid/
- IAMC file: in IAMC/ => LoR_Madrid.xlsx
- Hourly Timeseries: in TimeSeries/

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Create the plan4res dataset

- Look at the settingsCreateInputPlan4res_invest.yml
  In YOUR_P4R_FOLDER/p4r-env/data/local/LoR_Madrid/settings
  You may make a few changes but be carefull….
- from YOUR_P4R_FOLDER/p4r-env/
  ./runCREATE LoR_Madrid simul
- Look at the plan4res csv data in data/local/LoR_Madrid/csv_simul
- You can make some changes ☺

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Run the sddp and simulation

- If you want to use the files you modified in csv_simul/

  Edit runSSVandSIM.sh => comment the line source scripts/include/create.sh

  If you don't comment it, the dataset will be recreated and your changes lost

- from YOUR_P4R_FOLDER/p4r-env/

  ./runSSVandSIM LoR_Madrid

- Look at the results in /data/local/LoR_Madrid/results_simul/

  the results are also in the plan4res folder

- Notice the non served energy

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Prepare the data for investment optimisation

- Edit the settingsCreateInputPlan4res_invest.yml file

  In p4r-env/data/local/LoR_Madrid/settings

  Choose the technos you want to invest in, and the bounds

- If you want to use the files you modified in csv_simul/

  You cannot use runCREATE (which will erase your changes)

  You have to copy the files from csv_simul to csv_invest

  And then adapt them so that they are OK for investment (add columns MaxAdd, MaxRet, InvestmentCost)

- If not, from YOUR_P4R_FOLDER/p4r-env/

  ./runCREATE LoR_Madrid invest

- Look at the plan4res csv data in data/local/LoR_Madrid/csv_invest

- You can make some changes ☺

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Run the investment and simulation

- If you want to use the files you modified in csv_invest

  Edit runSSVandCEM.sh => comment the line source scripts/include/create.sh

  If you don't comment it, the dataset will be recreated and your changes lost

- from YOUR_P4R_FOLDER/p4r-env/

  ./runSSVandCEM LoR_Madrid

- Look at the results in /data/local/LoR_Madrid/results_invest/

  the results are also in the plan4res folder

- Notice the non served energy wich should be lower

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