Electricity sector modelling scenarios - SEERmap

GHG

2016 2035 2050

DECARBON

NO TARGET

DELAYED

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WB6 installed generation capacity (MW)

- Coal, lignite - Existing
- Coal, lignite - New
- Natural gas - Existing
- Natural gas - New
- Nuclear - Existing
- Nuclear - New
- HFO/LFO
- Hydro
- Wind
- Solar
- Other RES

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WB6 electricity production – TWh

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Lessons (draft)

- The transformation of electricity sector in WB will happen even without any policy interference.
- The role of lignite in electricity production will go down even in no target scenario from 50 to 7-8 TWh by 2050.
- Electricity sector transformation will have a sizeable macroeconomic impact in case of smaller countries – stranded assets will mean significant loss.
- Validity of new lignite based generation is in question.
- After 2030 NO TARGET scenario fulfills lower proportion of demand with electricity from the region than the other two (DELAYED brings the highest demand fulfillment, but it has a price).
- Delayed deployment of RES-E will mean higher installed capacity – higher total investment costs – early RES-E deployment is recommended.
- Costs of investment in RES-E is high in the region – government action is needed to reduce.
- Support for RES-E is needed before 2030.
- Wholesale prices of electricity does not vary significantly across the scenarios – until 2040, when DECARBON scenario brings lower prices.