

# Building a renewable energy supply curve with the Irish TIMES model

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## Methodology Step 1 – 11 Scenarios

- 1 Reference Scenario:
  - ≥ 16% renewable energy penetration by 2020
  - ≥ 16% in the following period 2020-2030.
  
- 10 REMAP Scenarios :
  - ≥ 18% renewable energy penetration by 2030
  - ≥ 20% renewable energy penetration by 2030
  - .....
  - .....
  - ≥ 36% renewable energy penetration by 2030

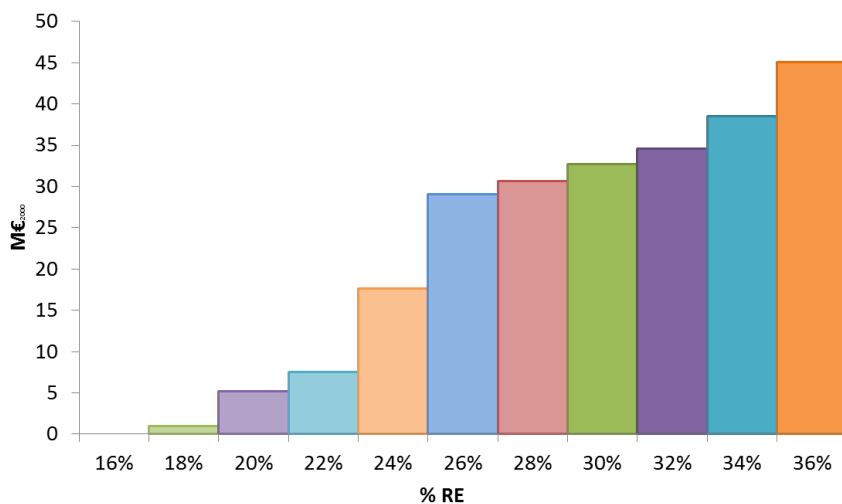


## Methodology Step 2 – Build Cost Curve

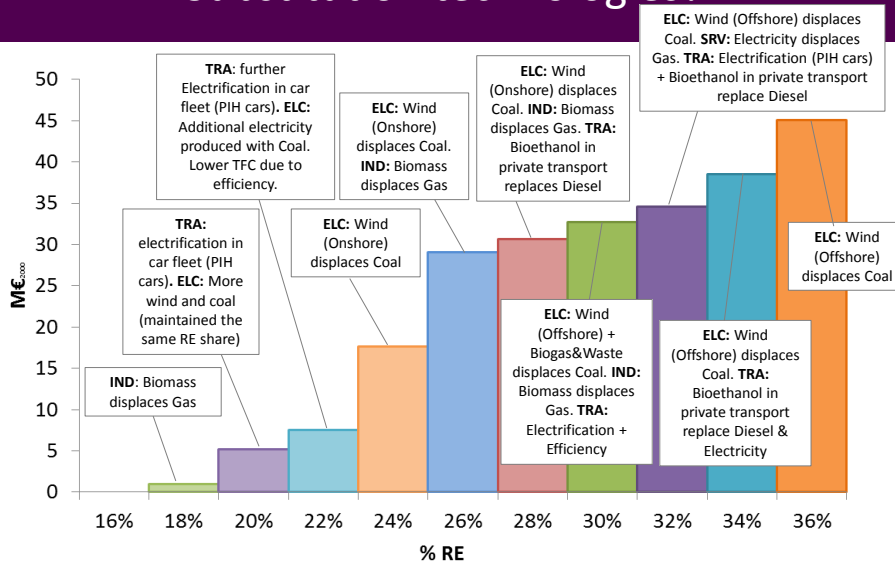
- ❑ Compare **Total System Cost** for scenarios and build the supply curve
- ❑ Manually identify **Substitution Technologies** (& more) from results analysis.



## Cost Curve with Irish TIMES



## Substitution technologies?

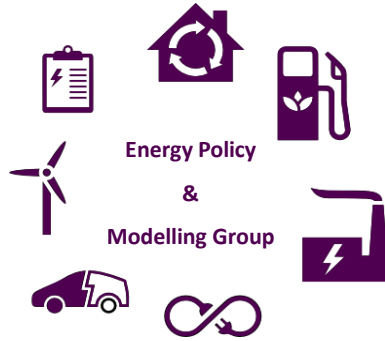


## Discussion Points

- Multiple Substitution Technologies + Efficiency measures**  
**NOT Single Substitution Technology**
- Total system costs difference (M€) NOT Annualized cost difference (USD per year) vs.**
- Negative** cost (saving) options are already embedded in the REF (total system cost minimised) => the cost of RE options are only **positive** (incremental).



Thank you



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