

## Annex I - Methodology

### *Additional information/caveats:*

- *Generation data = ENTSO-e hourly generation in MWh by unit*
- *Historic power prices = EEX Dutch power day ahead prices*
- *Future power prices = EEX Dutch power futures*
- *Coal price = CME API2 monthly prices*
- *CO2 price = EEX EUA price*
- *Profitability calculations exclude any profit or loss due to forward hedges. Utilities sell electricity and buy carbon permits in advance, so our methodology using day-ahead prices does not include the profit or loss of these forward hedge transactions.*

### *Pricing information*

*Dutch power prices from EEX to Cal-25 then formula used for extrapolation*

*CO2 prices out to Dec-30 from EEX*

*API2 prices out to Cal-25 then formula used for extrapolation*

### *Calculations and assumptions:*

- *Load factor = generation (MWh) / installed capacity (MW)*
- *Hourly revenue (€/MWh) = Hourly generation from ENTSO-e (MWh) x EPEX hourly prices (€)*
- *Gross profitability (€/MWh) = Hourly revenue - ((CO2 cost + Coal cost + Coal transportation cost + VOM) \* hourly generation)*
- *Gross profitability (€/MW) = Gross profitability (€/MWh) / Installed capacity (MW)*
- *Net profitability (€/MW) = Gross profitability - Fixed Operating & Maintenance (FOM) costs (€/MW)*
- *Fixed operating costs (FOM) = €30,000 / MW / year*
- *Annual FOM per unit (€) = FOM (€/MW) x installed capacity (MW)*
- *Variable operating costs (VOM) are averaged at €2/MWh for all units*
- *Coal transportation is averaged at €0.5 / MWh for all units*
- *CO2 cost = CO2 price (€/MWh) / unit efficiency rate*
- *Coal cost = Coal price (€ / MWh / unit efficiency rate)*
- *Unit efficiency rates: 46% for Eemshaven and Maasvlakte 3. 45% for Onyx Power Maasvlakte*
- *Conversion of coal price in tonnes to MWh = Coal price (€/tonne) / 6.97633*
- *Conversion of CO2 price in tonnes to MWh = CO2 price (€/tonne) \* 0.33333*
- *Capital costs are excluded from all calculations*