

## Looking under the hood: A comparison of techno-economic assumptions across national and global integrated assessment models

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## **Appendix D:**

### **Levelised Capital and O&M costs of electricity (LCOMCE) for twelve power generating technologies**

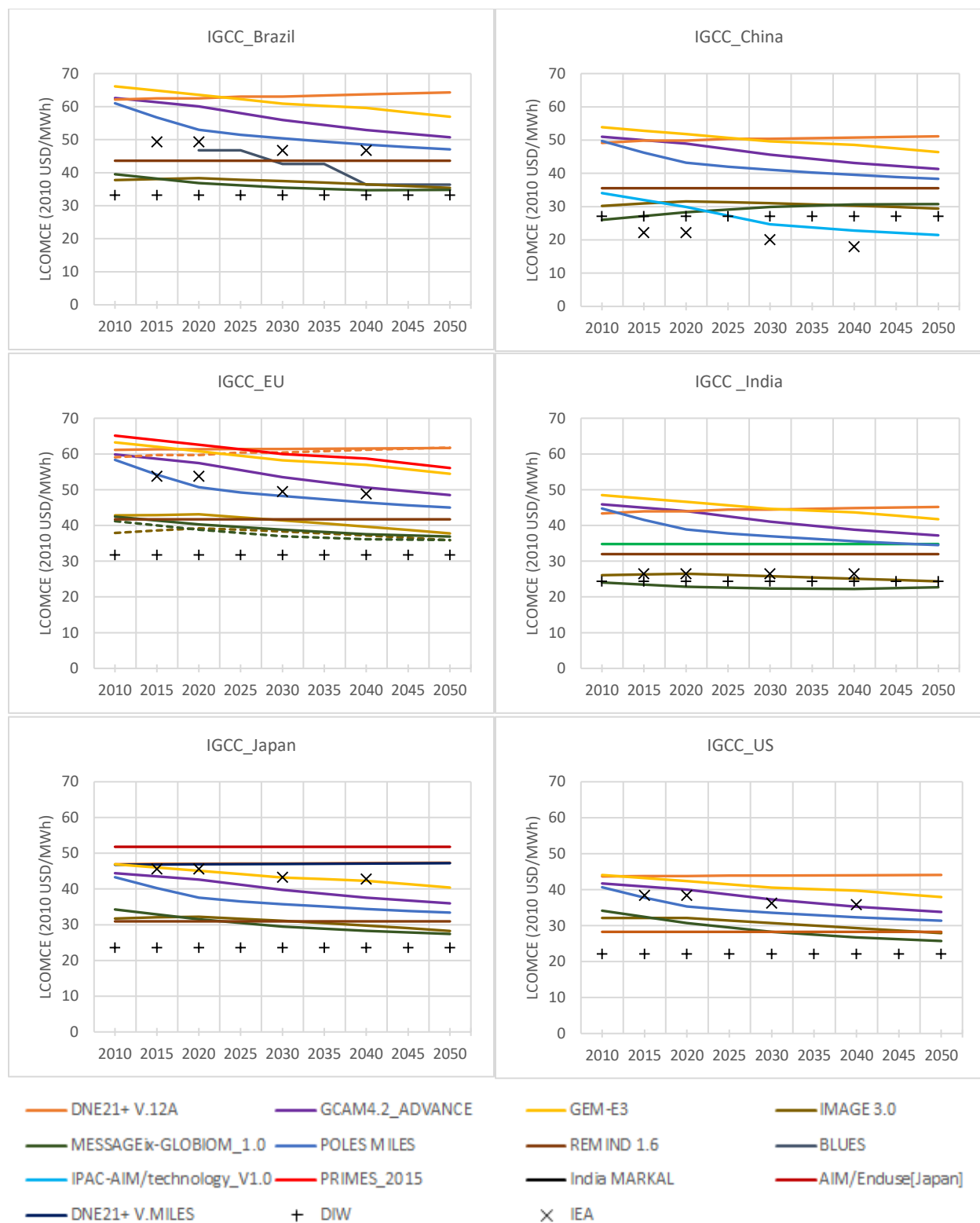
#### **1. Technology list:**

1. Coal\_IGCC
2. Coal\_PC
3. Gas\_CT
4. Gas\_CC
5. Biomass
6. Nuclear
7. Hydro
8. PV
9. CSP
10. Wind\_offshore
11. Wind\_onshore
12. Geothermal

## **2. Adopted average annual capacity factor of power generating technologies**

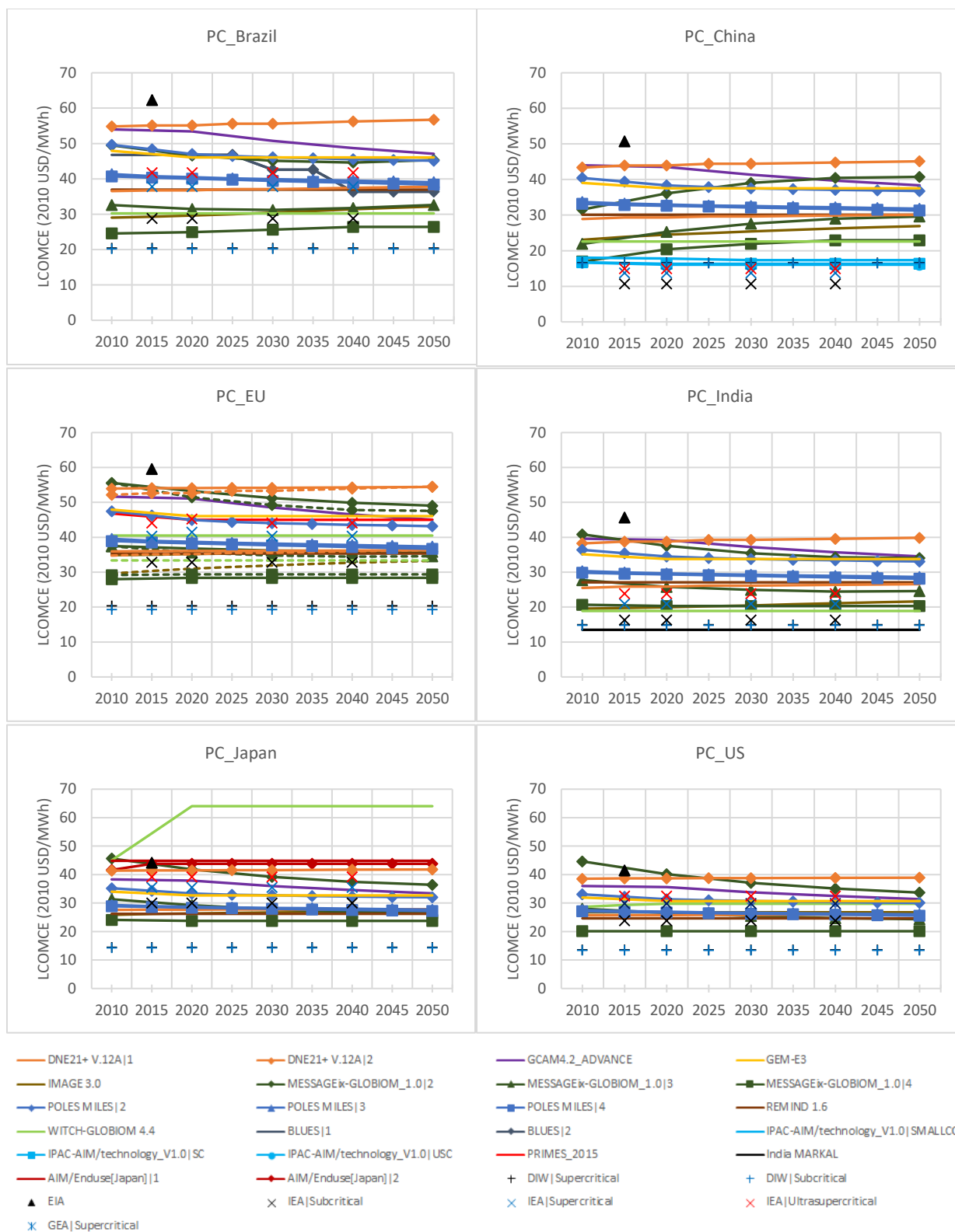
<b>Countries/ Regions</b>	<b>Coal</b>	<b>Natural Gas</b>	<b>Nuclear</b>	<b>Hydro</b>	<b>Solar and Wind</b>
<b>Brazil</b>	44%	29%	85%	56%	24%
<b>China</b>	54%	19%	83%	37%	18%
<b>OECD Europe</b>	51%	39%	77%	34%	14%
<b>Non-OECD Europe</b>	41%	43%	77%	34%	14%
<b>India</b>	60%	50%	59%	34%	18%
<b>Japan</b>	62%	44%	48%	40%	15%
<b>USA</b>	66%	26%	90%	40%	27%

(Source: EIA, 2016. International Energy Outlook 2016: Chapter 5 Electricity)



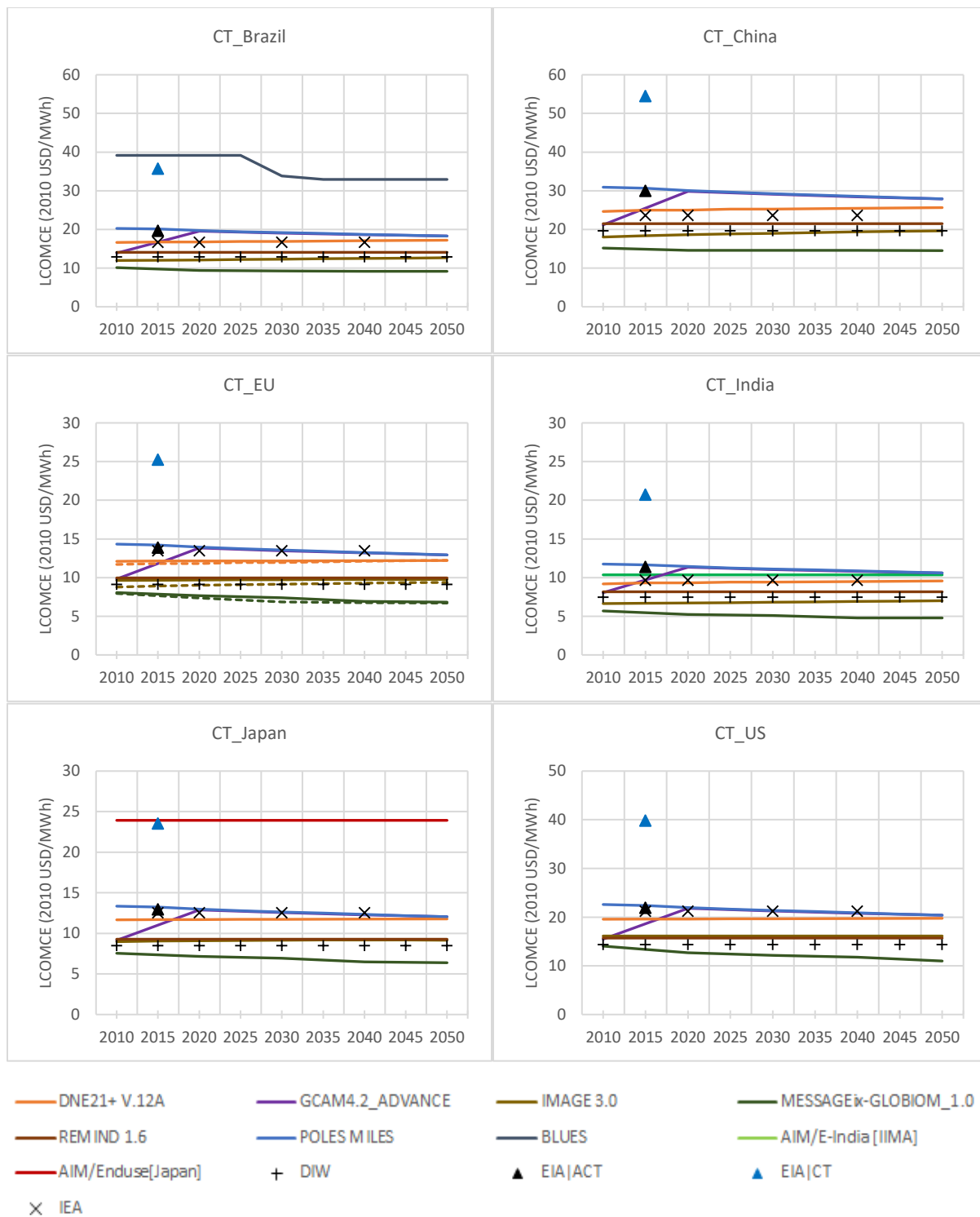
Note: solid lines for the Western Europe and dot lines for the Eastern Europe.

**Figure 1: LCOMCE of IGCC power plants in selected regions across IAMs.**



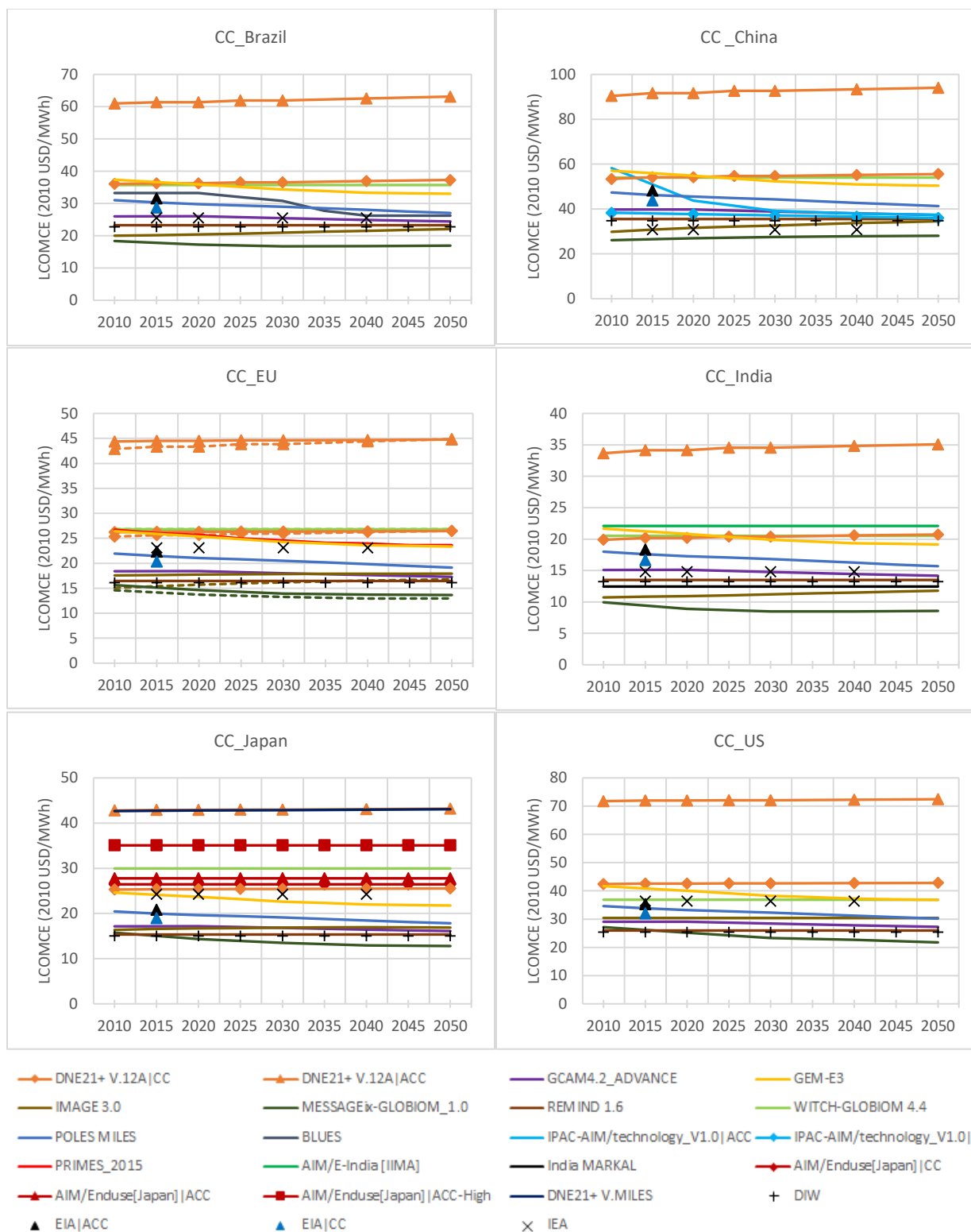
Note: solid lines for the Western Europe and dot lines for the Eastern Europe.

**Figure 2: LCOMCE of PC power plants in selected regions across IAMs.**

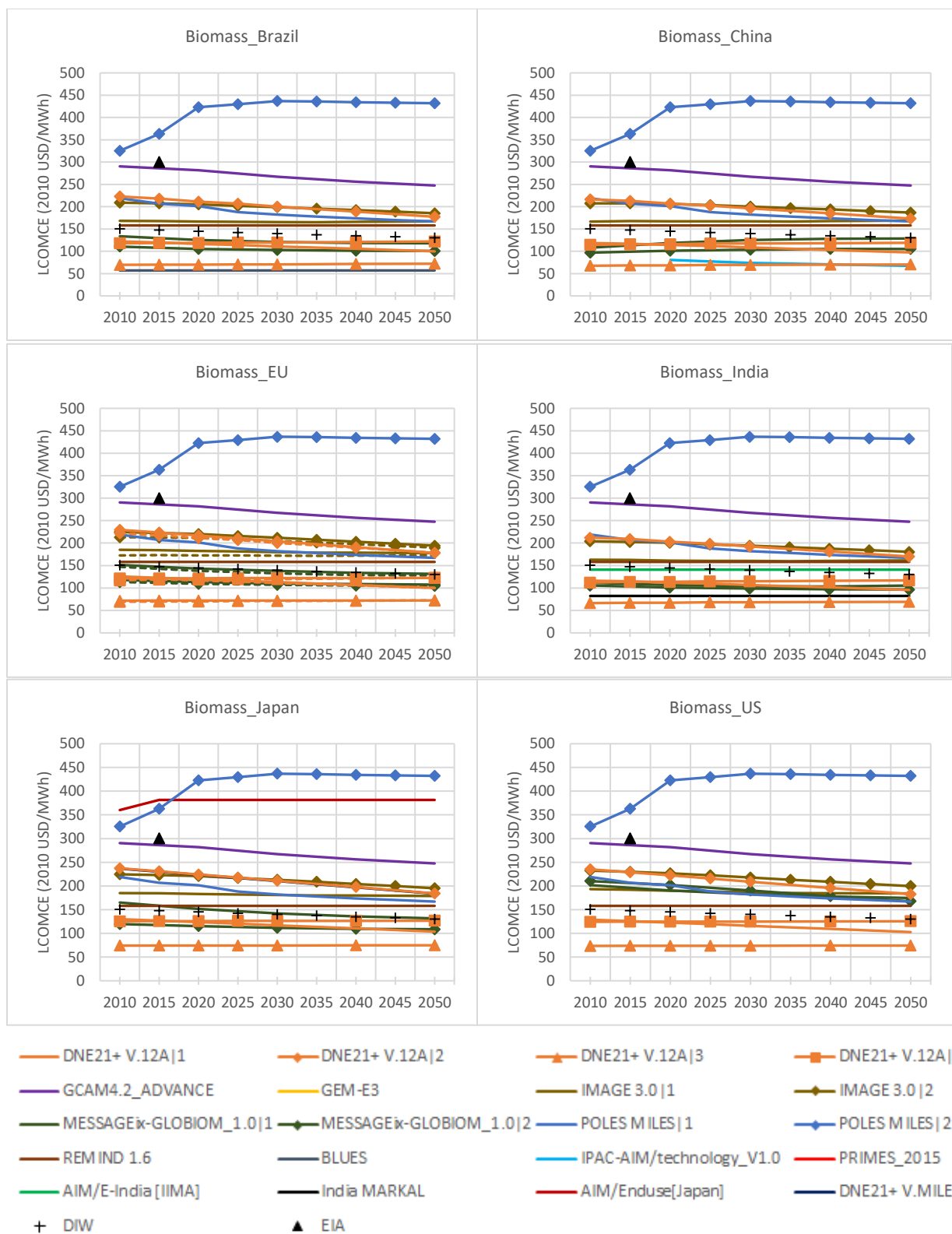


Note: solid lines for the Western Europe and dot lines for the Eastern Europe.

**Figure 3: LCOMCE of gas combustion turbine (CT) power plants in selected regions across IAMs.**



**Figure 4: LCOMCE of gas combined cycle (CC) power plants in selected regions across IAMs.**



Note: solid lines for the Western Europe and dot lines for the Eastern Europe.

**Figure 5: LCOMCE of biomass power plants in selected regions across IAMs.**





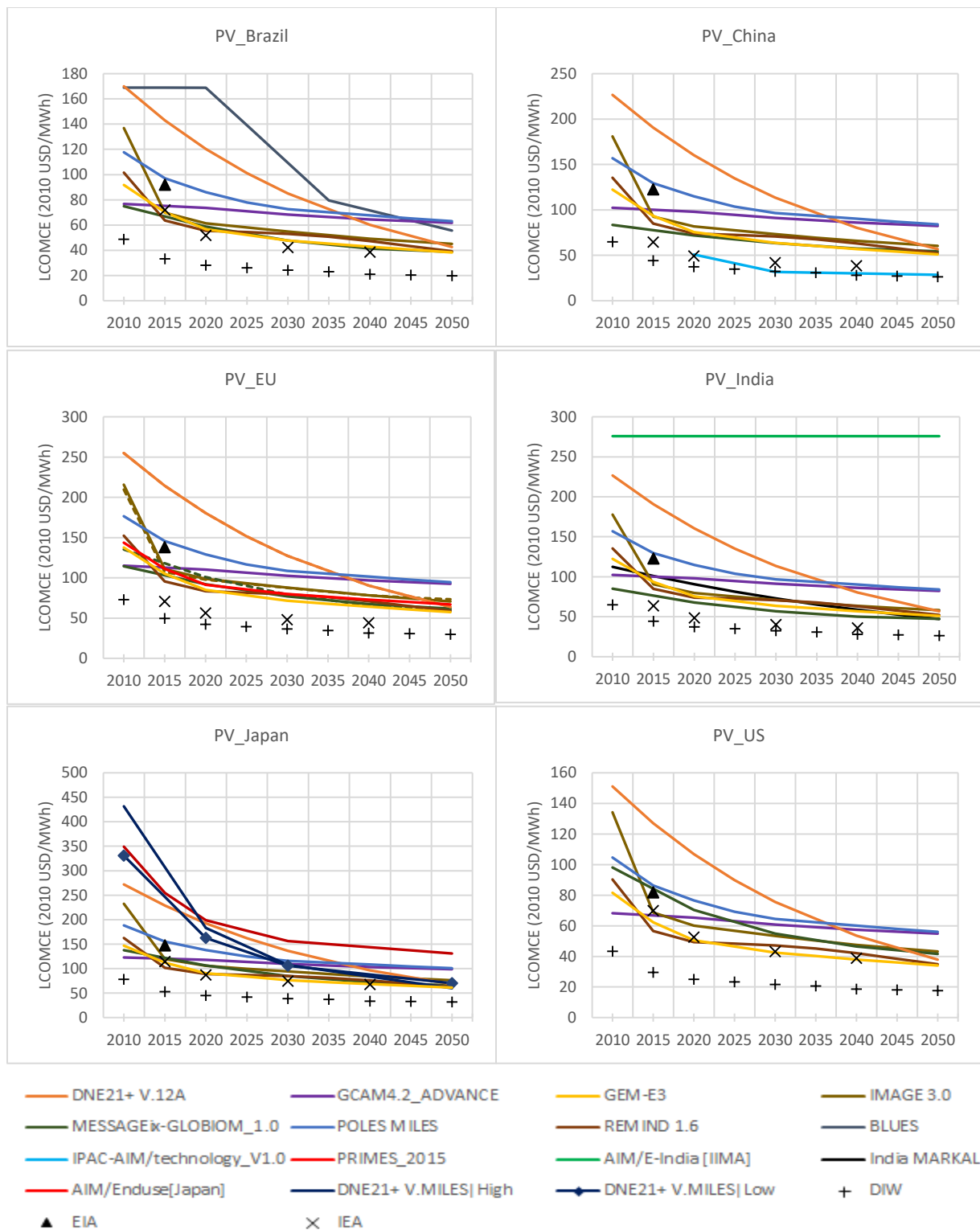
Note: solid lines for the Western Europe and dot lines for the Eastern Europe.

**Figure 6: LCOMCE of nuclear power plants in selected regions across IAMs.**



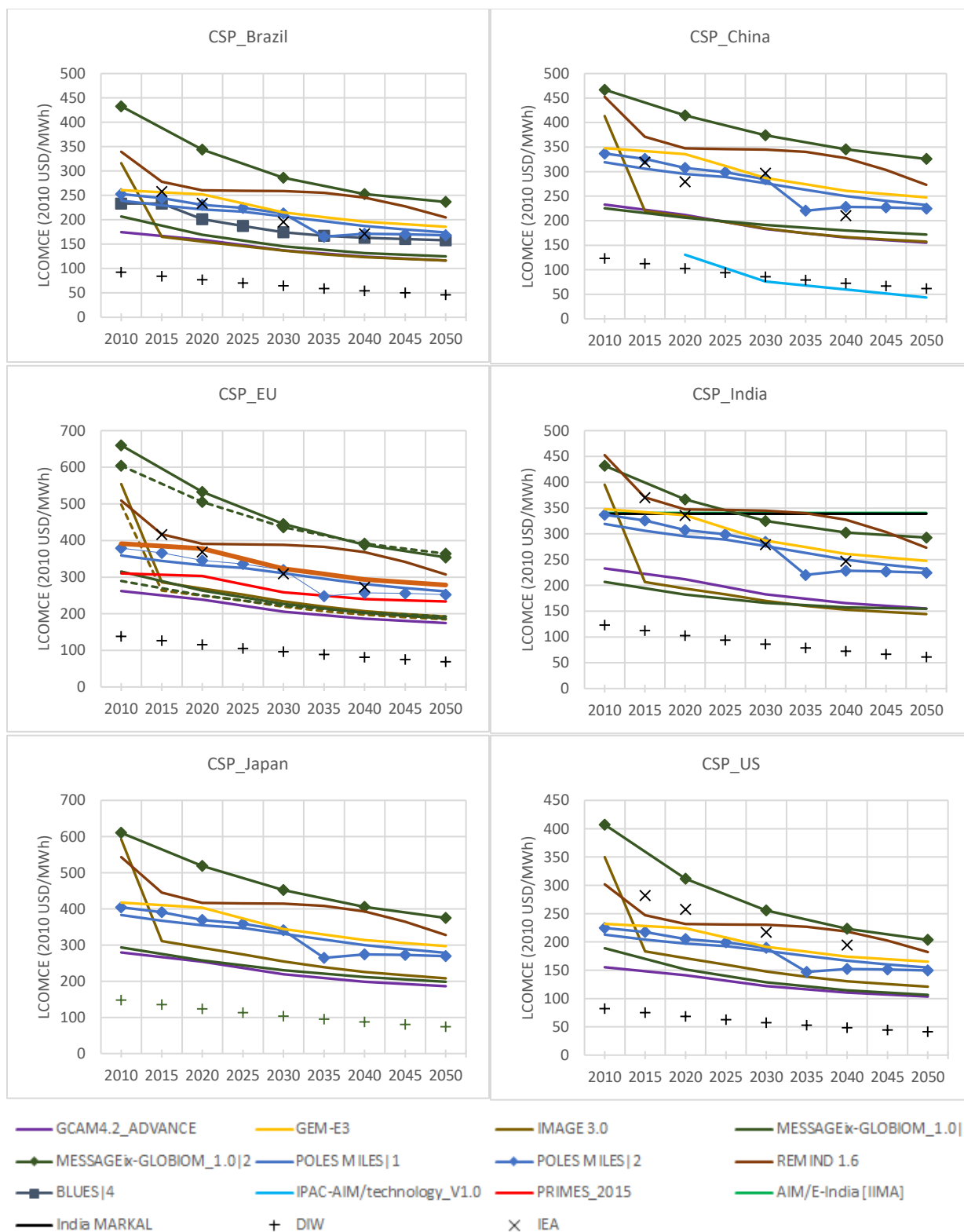
Note: solid lines for the Western Europe and dot lines for the Eastern Europe.

**Figure 7: LCOMCE of hydro power plants in selected regions across IAMs.**



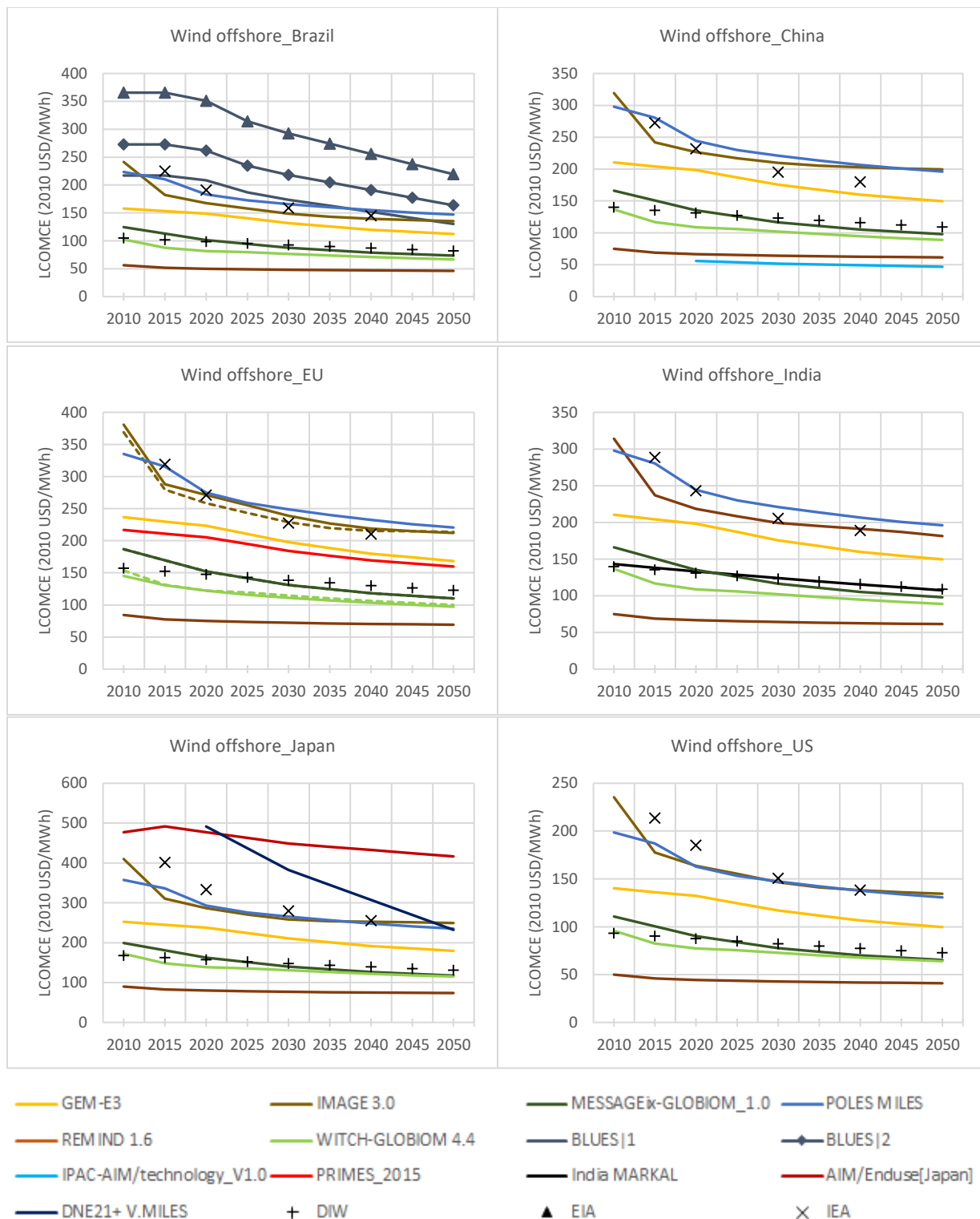
Note: solid lines for the Western Europe and dot lines for the Eastern Europe.

**Figure 8: LCOMCE of PV power plants in selected regions across IAMs.**



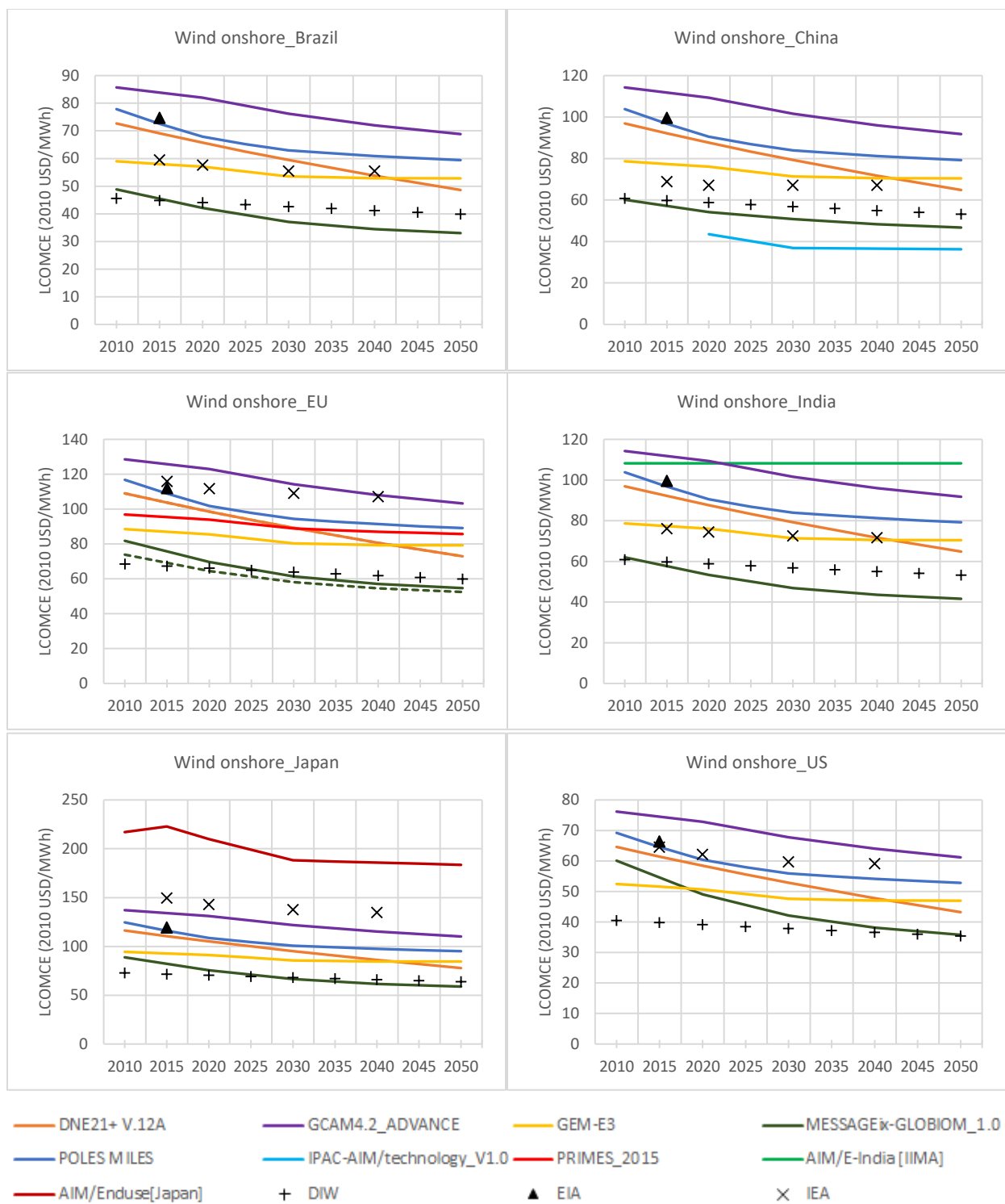
Note: solid lines for the Western Europe and dot lines for the Eastern Europe.

**Figure 9: LCOMCE of CSP power plants in selected regions across IAMs.**



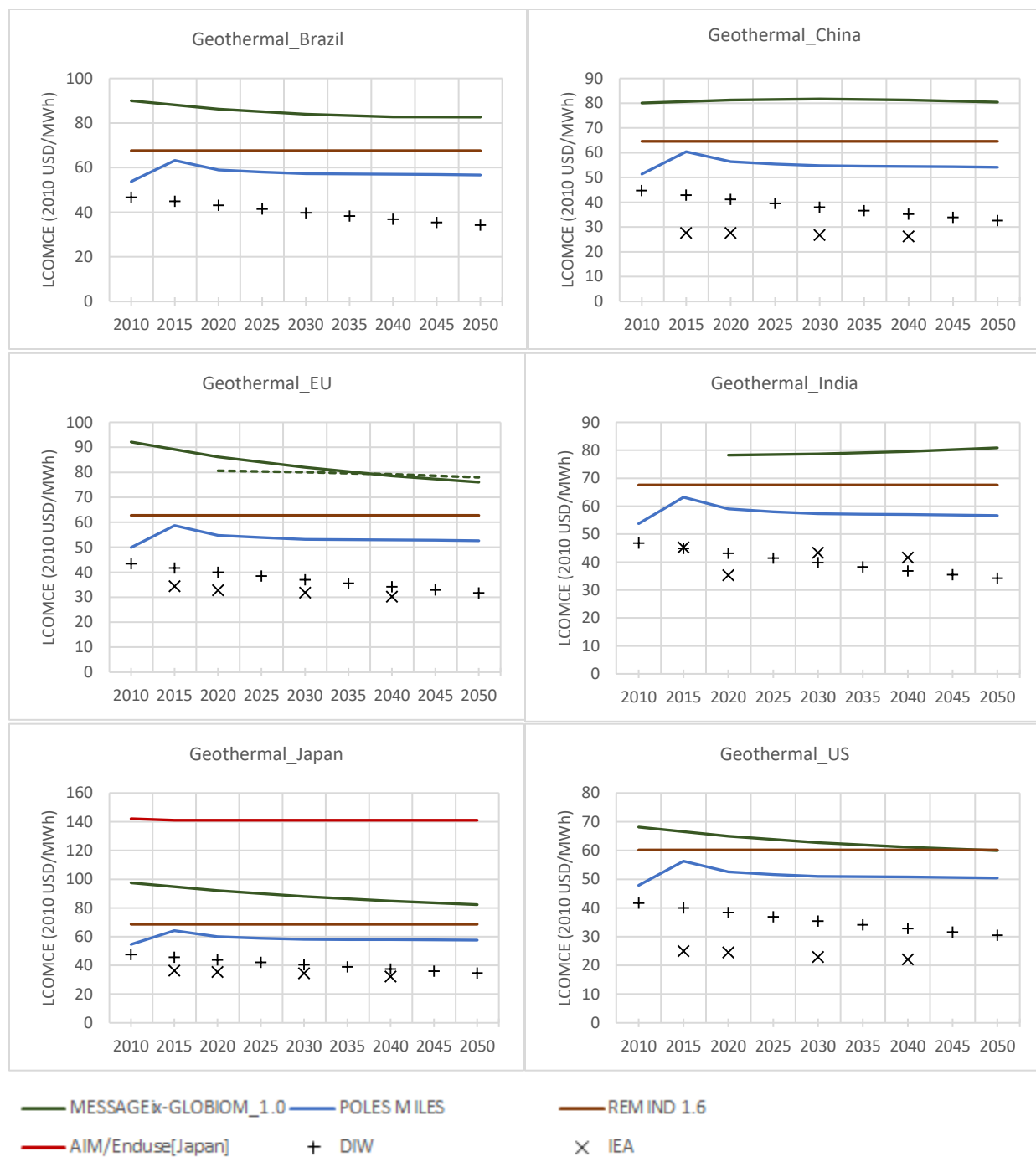
Note: solid lines for the Western Europe and dot lines for the Eastern Europe.

**Figure 10: LCOMCE of wind offshore power plants in selected regions across IAMs.**



Note: solid lines for the Western Europe and dot lines for the Eastern Europe.

**Figure 11: LCOMCE of wind onshore power plants in selected regions across IAMs.**



Note: solid lines for the Western Europe and dot lines for the Eastern Europe.

**Figure 12: LCOMCE of geothermal power plants in selected regions across IAMs.**