	NEAR-TERM	MID-TERM	LONG-TERM
Energy Production & Efficiency Technologies	<ul> <li>M&amp;M Specifications and Performance Standards</li> <li>Low-Cost Sensors and Communications</li> <li>Samplings, Inventories, &amp; Estimates</li> </ul>	<ul> <li>Sensor Networks</li> <li>Remote Sensing Prototype</li> <li>Direct Measurement to Replace Proxies and Estimates</li> </ul>	<ul> <li>Fully Operational Sensor and Satellite Networks that Feed the Integrated Architecture</li> </ul>
Carbon Capture, Storage, & Sequestration	<ul> <li>M&amp;M Specifications and Performance Standards</li> <li>Low-Cost Sensors and Communications</li> <li>Samplings, Inventories, &amp; Estimates</li> <li>Ability to Assess the Integrity of Geologic Reservoirs</li> <li>Improved Leak Detection from Capture and Pipelines</li> </ul>	Sensor Networks     Remote Sensing Prototype	<ul> <li>Fully Operational Sensor and Satellite Networks that Feed the Integrated Architecture</li> </ul>
Other GHGs	<ul> <li>M&amp;M Specifications and Performance Standards</li> <li>Low-Cost Sensors and Communications</li> <li>Samplings, Inventories, &amp; Estimates</li> </ul>	<ul> <li>Sensor Networks</li> <li>Remote Sensing Prototype</li> <li>M&amp;M Techniques for Agricultural Sources</li> </ul>	<ul> <li>Fully Operational Sensor and Satellite Networks that Feed the Integrated Architecture</li> </ul>
Integrated M&M Systems Architecture	<ul> <li>Identification of Metrics, Criteria, Sources, and Requirements for Measurements</li> <li>Comprehensive Vision of Integrated Systems Architecture and Technology Needs</li> </ul>	<ul> <li>Model and Data Specification</li> <li>Large Scale, Secure Data Storage System</li> <li>Data Visualization Tools</li> <li>M&amp;M Processes Incorporated into Design of Climate Change Technologies</li> </ul>	<ul> <li>Fully Operational Integrated MM Systems Architecture (Sensors, Indicators, Data Visualization and Storage, Models)</li> </ul>

Figure 8-6. Technologies for Goal #5: Measure and Monitor Emissions

(Note: Technologies shown are representations of larger suites. With some overlap, "near-term" envisions significant technology adoption by 10–20 years from present, "mid-term" in a following period of 20–40 years, and "long-term" in a following period of 40–60 years. See also List of Acronyms and Abbreviations.)