Note: Numbers in parentheses (#) correspond to rows in Table 3: Measures & Technologies.

## TABLE 1: SCENARIOS & SENSITIVITIES

Sensitivities (System Wide Assumptions) →	A- price on CO <sub>2</sub>	B- Freeze on NG	C- Reduce NG	D-expand NG	E- high NG leakage	F- low NG leakage		
Scenario 1: Buildings (residential/commercial/	'industria	al)						
Envelope Efficiency and Lighting								
Deep envelope retrofits for existing buildings (1)								
Maximum efficiency for new buildings (NEW)								
Expanded high-efficiency lighting (2)								
Efficient Appliances/Equipment								
Expanded advanced energy-efficient appliances (3)								
Expanded high-efficiency water heating (4)								
Expanded high-efficiency HVAC (5)								
Renewable thermal, district heating/cooling, &	c CHP							
Expanded renewable thermal technologies (6)								
Expanded district heating/cooling using waste heat source (revised 8)								
Expanded combined heat and power (CHP) (9)								
Scenario 2: Electric power sector			•			•	•	
Renewable energy - Residential/Community S	cale							
Expanded residential distributed generation								
(component of 11)								
generation (component of 11)								
Further Expanded residential/community renewables coupled with distributed energy storage (12)								
Renewable energy – Utility-Scale and Micro-Grids								
Expanded utility-scale renewables (13)								
Further Expanded utility-scale coupled with energy storage (14)								
Expanded micro-grids powered by renewables & energy storage technologies (NEW)								
Waste-to-energy			1		T			
Anaerobic digestion (15)								
Advanced waste-to-energy (16)								
Nuclear								
Maintain nuclear (19)								
More efficient use of natural gas								
Expanded advanced natural gas combined cycle gas turbines (17)								

Demand response & time-of-use rates								
Expanded demand response (10)								
Time-of-use rates (NEW)								
Scenario 3: Transportation sector								
Electrify transportation								
Expanded advanced vehicles (20)								
Electrify intercity buses (22)								
Electrify commuter rail (23)								
Expanded light-rail (NEW)								
Transit & TOD (VMT reduction)								
Increased public transit service & ridership (25)								
Transit-oriented dev/smart growth (26)								
Increased telecommuting (NEW)								
Expanded bike lanes & paths (NEW)								
Fuel switching & medium/heavy duty vehicles								
Low-carbon biofuels (21)								
CNG and propane for medium/heavy duty vehicles (24)								
CNG, propane or fuel cells for school bus and local transit bus fleets (NEW)								
Shifting long-distance freight from trucks to rail (NEW)								
Autonomous vehicles & ride sharing								
Expanded autonomous vehicles (NEW)								
Expanded ride-share services (NEW)								
Scenario 4: Carbon sequestration								
Tree planting & retention (27)								
Forestry BMPs (28)								
Forest reclamation/expansion (29 revised to include conversions from other landuses, e.g. brownfields, golf courses, etc.)								
Improved agricultural practices (30 revised to include reduction of synthetic fertilizers with N2O)								
Wetlands restoration (31)								
Scenario 5: Waste & reduction of methane & gases with high global warming potential								
Waste								
Increased source reduction and recycling (33)								
Reduction of methane & gases with high GWP								
Reductions in natural gas (methane) leaks (18)								
Reduction of fluorinated gases (32)								

Sensitivities (System Wide Assumption)	Scenario Description
Additional (NEW) Sensitivities	
A: Price on Carbon	The social cost of carbon is captured in a fee imposed on fossil fuels.
B: Freeze Gas Capacity	No new natural gas generation capacity is added to the regional system.
C: Stepwise Reduction in Natural Gas Generation	Planned retirement of plants throughout the region (e.g. 20% by 2030; 40% by 2040; 60% by 2050
D: Significant expansion of natural gas capacity	P.A. 15-107 leads to significant expansion of regional natural gas capacity via long-term contracts that lock in increased natural gas generation in the region through 2050
E: High upstream CH4 leakage rate	Assess impact of incorporating emissions from production and transport of fracked gas – high end estimates
F: Low upstream CH4 leakage rate	Assess impact of incorporating emissions from production and transport of fracked gas – low end estimates

## TABLE 2: SENSITIVITIES AND SCENARIO DESCRIPTIONS