

Case Study: Net Metering in Florida

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Integrating Clean Energy Regulation into Evolving Energy Markets

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Background

- ❑ 2007 focus on customer owned generation
- ❑ January 2007 workshop to identify ways to encourage renewable energy
- ❑ Net metering and expedited interconnection were identified
- ❑ 2007 rule changes were initiated and final implementation in 2008

FPSC Proposed Interconnection and Net Metering Rule

- ❑ For customer-owned renewable generation that is primarily designed to offset part or all of a retail customer's electricity requirements
- ❑ Individual system size: 2,000 kilowatts (kW) or less
- ❑ Renewable systems as defined by Section 377.803, F.S., are eligible. Examples include solar, wind, biomass, etc.



Rule Requirements*

- ❑ Utility must file with the Commission a Standard Interconnection Agreement – expedited <2MW
- ❑ In order to protect both the customer and the utility, the agreement must comply with:
 - ❑ IEEE 1547, 1547.1 and UL 1741
- ❑ 3 Tiers, <10kW, $10\text{kW} \leq 100\text{kW}$, $100\text{kW} < 2\text{MW}$, larger systems require interconnection study
- ❑ Grid reliability provisions discussed in other presentation

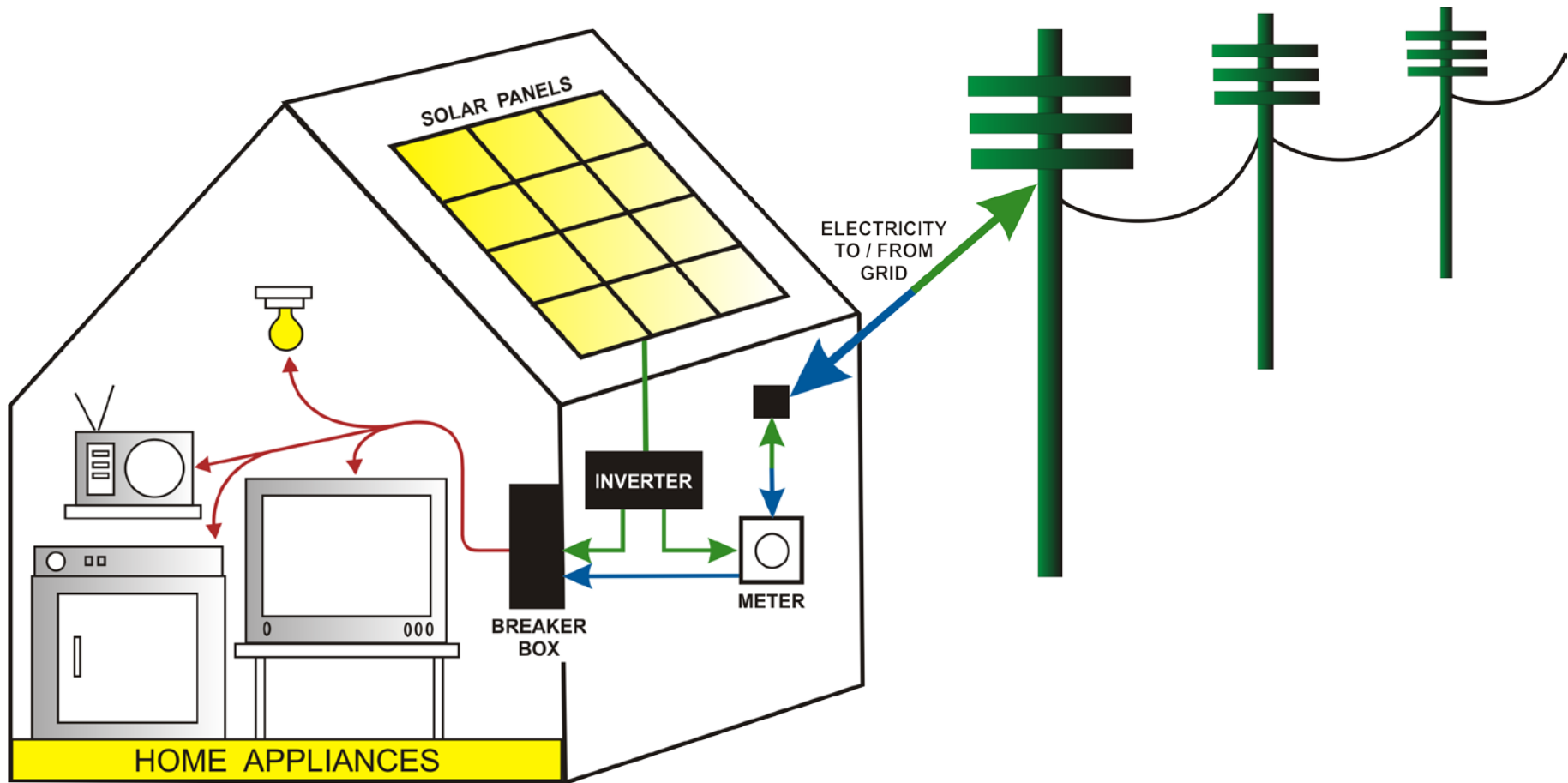
Rule Requirements (cont.)

- ☐ No additional fees for small systems
- ☐ Interconnection study fees for large systems
- ☐ Interconnection Agreement
 - ☐ Allows inspection by the utility
 - ☐ Customer is responsible for damage to customer equipment from utility operations/restoration – unless negligence is found
 - ☐ Requires insurance for larger systems

Rule Requirements (cont.)

- ☐ May require a manual disconnect switch that the utility can open without notice for protection of the grid or the customers system
- ☐ Small systems are exempt if they are inverter-based
- ☐ Sets deadlines for the utility AND the customer

Inverter System



Specific Net Metering Provisions

- ☐ If the interconnection conditions are met the utility MUST:
 - ☐ Allow interconnection
 - ☐ Provide a meter that measures net electricity used
 - ☐ Only bill for net power used
 - ☐ Excess power credited to the next month's bill, for only up to 12 months – Retail credit
 - ☐ End of the year excess to be paid at “as-available” rates

Results

	# of Customer-Owned Renewable Systems				kW Gross Power Rating			
	2008	2009	2010	2011	2008	2009	2010	2011
IOU	383	1,045	1,876	2,826	1,761	7,903	13,032	20,383
Municipal	137	313	494	615	797	3,378	4,102	5,005
Rural Electric Cooperative	17	267	463	553	272	1,955	3,269	3,871
TOTAL	537	1,625	2,833	3,994	2,830	13,236	20,403	29,259

4,000 systems, 30,000 kW power ratings

Questions?

