# Metrics and Benefits Guidance for the Smart Grid Investment Grant Program

Guidance for ARRA Smart Grid Program Metrics and Benefits						
Guidance ID	G-004					
Metric	Monetary Investments	TOTAL DE LE CONTRACTOR				
Smart Grid Category	Smart Grid Investment Grant Program					
Metric Type	Build					
Issue Date	May 13, 2010	STATES OF AS				
Revision and Date	Revision 1, February 1, 2011					

# Background

The reporting of Monetary Investments for the ARRA Smart Grid Investment Grant (SGIG) Program is required by both the Office of Management and Budget (OMB) and the Department of Energy (DOE). The following guidance is specific to DOE reporting requirements for the Metrics and Benefits analysis of the SGIG Program.

#### Guidance

- Monetary Investments should be provided for the cumulative "Installed Cost of Equipment" in accordance with Table 1 on Page 2 of this Guidance. The figures provided may be estimated at the discretion of the recipient.
- In cases where costs cannot be classified according to the categories in Table 1, they should be reported as "other" costs.
- The Installed Cost of Equipment equals the sum of the ARRA funds received from DOE and the cost share funds applied by the recipient. These costs should be reported separately as part of the Monetary Investment Build metrics.
- The Monetary Investments should be reported in a manner consistent with the Build metrics for the associated equipment. If equipment is being reported in the Build metrics, then its cost should be reported in the Monetary investments, and vice versa.
- The Installed Cost of Equipment should include:
  - Equipment and technology costs;
  - o Installation and construction costs, including direct labor and material;
  - o Engineering and design costs associated with installation and construction; and
  - o Project management costs associated with installation and construction.
- "Installed" means that a piece of equipment has been physically placed and configured in a manner that will enable it to perform its primary function. If the equipment is a component of a larger system, the component may be considered "installed" even if other components must be installed for the larger system to perform its primary function.

### Metrics and Benefits Guidance for the Smart Grid Investment Grant Program

• Integrated / Cross Cutting Systems projects should segment Monetary Investments into the relevant categories as presented in Table 1. These include: AMI; Customer Systems; Electric Distribution-DER; and Electric Transmission.

Reporting Monetary Investments in this way will enable the DOE Metrics and Benefits Team to identify investment levels associated with deployment of Smart Grid assets and to understand the relationships between technology costs and functional impact.

# Table 1. Installed Cost (\$000) Smart Grid Program Equipment

AMI				Customer Syst	ems				
Monetary Investment	AMI Back Office Systems	Communication Equipment	AMI Smart Meters	Customer Back Office Systems	Customer Web Portals	In Home Display	Smart Appliances	Programmable Controllable Thermostats	Participating Load Control Device
ARRA	-	-				-	-		-
Cost Share	-	-				-	-		-
Total	-	-				-	-		-
Other Assets	and Costs that do n	ot align with the ca	tegories listed abov	e:					
Electric Dis	stribution								
Monetary Investment	Back Office Systems	Distribution Management System	Communications Equipment / SCADA	Feeder Monitor / Indicator	Substation Monitor	Automated Feeder Switches	Capacitor Automation Equipment	Regulator Automation Equipment	Fault Current Limiter
ARRA		-	-	-	-	-	-	-	-
Cost Share		-	-	-	-	-	-	-	-
Total		-	-	-	-	-	-	-	-
Other Assets	and Costs that do n	ot align with the ca	tegories listed abov	e:					
<b>Electric Di</b>	stribution – Dist	ributed Energy	Resources (DER	)					
Monetary Invest <u>m</u> ent	DER Interface / Control Systems	Communication Equipment	DER / DG Interconnection Equipment	Distributed Generation (DG)	Renewable DER	Stationary Electricity Storage	Plug-in-Electric Vehicles		
ARRA		-	-	-	-	-	-		
Cost Share		-	-	-	-	-	-		
Total		-	-	-	-	-	-		
Other Assets	and Costs that do r	ot align with the ca	tegories listed abov	e:					
Electric Tra	ansmission								
Monetary Investment	Back Office Systems	Advanced Applications (Software)	Dynamic Rating Systems	Communication Equipment	PDC	PMU	Line Monitoring Equipment		
ARRA	-	-				-	-		
Cost Share	-	-				-	-		
Total	-	-				-	-		
Other Assets	and Costs that do r	ot align with the ca	tegories listed abov	e:					

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