Recommended Indicators for SIEA Commitment Members

GRI Performance Indicator EN16 Direct and indirect	Units	Definition/Scope	Metrics (column from original sheet)	Companies (column from original sheet)	Comments
EIATO DILECE qua indilece		See GRI Indicator Protocols in G3.1	Total carbon footprint for the eneration, manning and	Applied Materials, Constellation Energy*, Dow*, Dow	CDP disclosure is appropriate
greenhouse gas emissions	Tonnes of CO2 equivalent	See GRI Indicator Protocols in G3.1		Corning, DuPont, First Solar, MEMC/SunEdison, NextEra*, NRG*, Siemens*, Sunpower, Suntech*,	CDP disclosure is appropriate
EN8 Total water withdrawn by source	M^3/yr	See GRI Indicator Protocols in G3.1	Total water consumption, including office and non-office expressed in hundred ft ³ (HCF) Liter of water withdrawn per watt produced	Applied Materials, Constellation Energy*, Dow*, DuPont, First Solar, MEMC/SunEdison, NextEra*, NRG*, Siemens*, SunPower, Suntech*, Total*, Trina	
EN3 Direct energy consumption by primary source	Joules or multiple	See GRI Indicator Protocols in G3.1	- Kilowatt hour per Watt produced	Applied Materials, Dow*, Dow Corning*, DuPont, First Solar, MEMC/SunEdison, NRG*, Siemens*, SunPower, Suntech*, Total*, Trina	
EN4 Indirect energy consumption by primary source	Joules or multiple	See GRI Indicator Protocols in G3.1	- Kilowatt hour per Watt produced	Solar, MEMC/SunEdison, NRG*, Siemens*, SunPower, Suntech*, Total*, Trina	
None specific to solar	MW modules material recycled?		- Number and Location of modules globally	Applied Materials, Dow*, DuPont, MEMC/SunEdison, NRG*, Siemens*, SunPower, Suntech*, Total	Proposed metric around program in place and number of modules recycled or disposed.
EN22 Total weight of waste by type and disposal Method	Tonnes	See GRI Indicator Protocols in G3.1	- Response time from customer request to pick up of modules		EN22 probably the most broad depending on operation
EN22 Total weight of waste by type and disposal Method	Tonnes	See GRI Indicator Protocols in G3.1	- Amount of hazardous waste properly disposed of measured in metric tons.	Applied Materials, Dow*, Dow Corning, MEMC/SunEdison, NextEra*, NRG*, Siemens*, SunPower, Suntech*, Total*	General agreement a waste metric needs to be included
			- Grams of waste per watt produced		
			- Kilogram of waste recycled versus disposed, also as a %		
LA7 Rates of injury, occupational diseases, lost days, and absenteeism and total number of work-related fatalities by region and by gender	ODR, LDR, AR, IR (recordable rate US)	See GRI Indicator Protocols in G3.1	Total number is reportable injuries/100 employees/year. Calculation based on FY and not rolling 12-month rate Lost time injury rate – OSHA definition	Applied Materials, Dow*, Dow Corning, DuPont, NextEra*, NRG*, Siemens*, SunPower, Suntech*, Total*, Trina	Also need to include contractor rate where available for installers as a best practice
EN28 Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with environmental laws and regulations.		See GRI Indicator Protocols in G3.1	Cumulative number of NOVs received from a Regulatory Agency during an inspection.		Could include a requirement to disclose significnat environmental or safety events regardless of NOV
None specific to solar	MW				Since it is SEIA seems like we should have some solar specific metrics
None specific to solar	MW				
	Yes or No and web				Not a Metric but location of metrics and general company information needs to be disclosed
	EN3 Direct energy consumption by primary source EN4 Indirect energy consumption by primary source EN4 Indirect energy consumption by primary source None specific to solar EN22 Total weight of waste by type and disposal Method EN22 Total weight of waste by type and disposal Method LA7 Rates of injury, occupational diseases, lost days, and absenteeism and total number of work-related fatalities by region and by gender EN28 Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with environmental laws and regulations. None specific to solar	EN3 Direct energy consumption by primary source EN4 Indirect energy consumption by primary source EN4 Indirect energy consumption by primary source None specific to solar EN2 Total weight of waste by type and disposal Method EN2 Total weight of waste by type and disposal method EN2 Total weight of waste by type and disposal method E	EN3 Direct energy consumption by primary source EN4 Indirect energy consumption by primary source EN4 Indirect energy consumption by primary source None specific to solar MW modules material recycled? EN22 Total weight of waste by type and disposal Method EN22 Total weight of waste by type and disposal Method EN22 Total weight of waste by type and disposal Method EN22 Total weight of waste by type and disposal Method EN22 Total weight of waste by type and disposal Method EN22 Total weight of waste by type and disposal Method EN22 Total weight of waste by type and disposal Method EN22 Method EN23 Method EN24 Monetary value of significant fines and total number of work-related fatalities by region and by gender EN28 Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with environmental laws and regulations. None specific to solar MW None specific to solar MW Yes or No and web	ENB Total water withdrawn by source ENB Total water withdrawn by source END Total water withdrawn by source END Direct energy consumption of the WRI/WBCSD principles END Direct energy consumption of the water withdrawn per watt produced END Direct energy consumption of the water withdrawn per watt produced END Direct energy consumption of the water withdrawn per watt produced END Indirect energy consumption of the water withdrawn per watt produced END Indirect energy consumption of the water withdrawn per watt produced END Indirect energy consumption of the water withdrawn per watt produced END Indirect energy consumption of the water withdrawn per watt produced END Indirect energy consumption of the water withdrawn per watt produced END Indirect energy consumption of the water withdrawn per watt produced END Indirect energy consumption of the water withdrawn per watt produced END Indirect energy consumption of the water withdrawn per watt produced END Indirect energy consumption of the water with produced consumption of the water with produced ensured in metric tons. END Indirect energy consumption of the water with produced of the water by the water produced of the water by the water produced of	ENS Total water withdrawn by source ENS Total water withdrawn by source ENS Total water withdrawn by source ENS Direct energy consumption by primary source ENS Indicator Protocols in G3.1 - Kllowatt hour per Watt produced - Number and location of modules globally Applied Materials, Dow", Dow Corning, DuPont, First Source, MEMC/Sunction, North, Siemens', SunPower, Suntech', Total' ENS Total weight of waste by primary to primary power of modules globally Total weight of waste by primary to primary energy engine energy energy energy energy energy energy energy energy ene