



# SASB Industry Working Groups Due Process Report

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RENEWABLE RESOURCES & ALTERNATIVE ENERGY  
SECTOR

June 11, 2015

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## Introduction & Overview

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SASB develops and disseminates industry-specific accounting standards for material sustainability information for use by U.S. publicly-listed corporations and their investors, such that sustainability performance can be evaluated alongside financial performance. SASB standards identify, prioritize, and describe non-financial risks and opportunities likely to constitute material information. SASB standards are designed to provide decision-useful information for the benefit of companies, investors, and the public.

This report covers the Renewable Resources & Alternative Energy Sector and the stakeholder engagement process associated with industry working groups (IWG). This report provides a detailed description of the IWG process and data detailing the outcomes of the IWG recruiting process as well as IWG participation rates. Some additional changes were made to the report template based on recent feedback from the Standards Council. These changes include:

- A list of IWG participants who completed surveys (Exhibit D) in addition to the list of complete IWG registrants (Exhibit E).
- A comparison of IWG recruiting targets vs. IWG commitments and total completed surveys (Exhibit C).
- An analysis of key findings and patterns that help to explain survey completion rates (Table 1).
- The list of the top ten companies in each sector that flags which companies enrolled in the IWG process (Appendix 1).

## SASB Industry Working Group Overview

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SASB Industry Working Groups (IWGs) play a critical role in helping SASB achieve its mission. IWG members are industry experts with at least five years of experience in the industry for which they are reviewing SASB Standards. They are recruited across the following interest groups: issuers (corporations); market participants (investors and analysts), and; public interest/intermediaries (accountants, attorneys, consultants, academics, government officials, NGOs, etc.). IWGs convene to review SASB's evidence-based research of ESG disclosure topics that likely constitute material information for companies within their industry as well as accounting metrics for the disclosure of those topics. IWGs provide important feedback on these disclosure topics and metrics, providing additional evidence of financial impact and/or evidence of interest, as well as suggesting other topics for which they have supporting evidence.

### **OBJECTIVE & APPROACH**

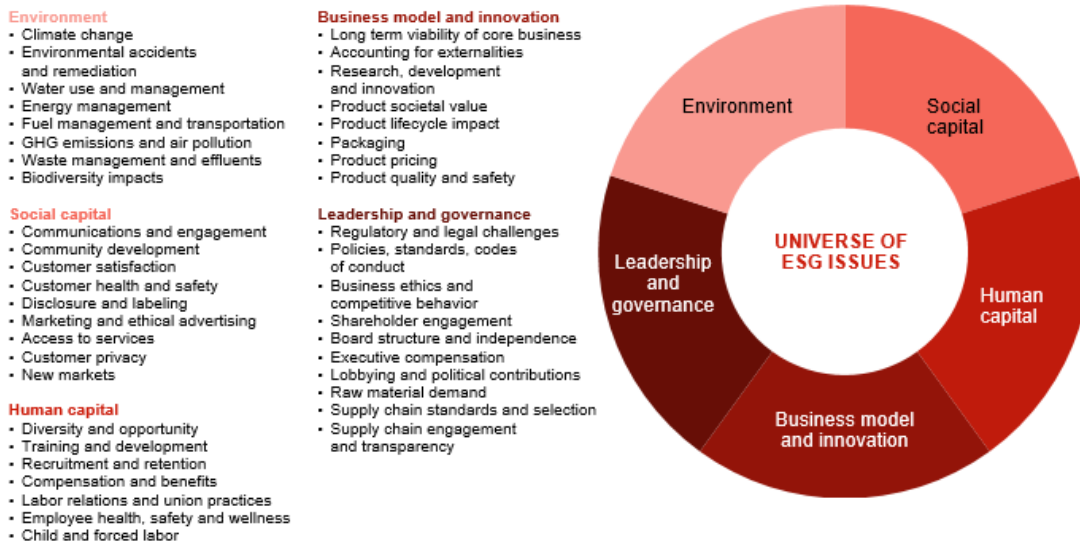
SASB Standards refine the set of Environmental, Social and Governance (ESG) factors (shown in Exhibit A) into a minimum set of ESG disclosure topics that are likely to

contain material information for companies within a given industry. The standards-setting process begins with a research phase that identifies disclosure topics based on evidence of interest and financial impact. The proposed industry specific disclosure topics and metrics under consideration are then vetted by SASB's industry working groups (IWG) as part of the stakeholder engagement process. IWGs members ensure that the draft standards address only disclosure topics with strong likelihood of constituting material information.

SASB IWG objectives include the following:

- To solicit technical feedback on proposed ESG disclosure topics for the industry in question.
- To solicit feedback on suggested accounting metrics for the associated disclosure topics, based on the following criteria: relevant/decision useful, cost-effective, comparable, and auditable.
- To provide the technical feedback and comments based on the perspective, knowledge, and industry experience associated with the participant's interest group (corporate participants, market participants or public interest participants).

### Exhibit A – Universe of ESG Issues Researched by SASB for Materiality



### THEMATIC SECTORS AND INDUSTRY WORKING GROUP RECRUITING

SASB categorizes industries into thematic sectors and industry working groups based on their resource intensity as well as their sustainability innovation potential. The system by which SASB groups industries into thematic sectors and IWGs is known as SASB's

Sustainable Industry Classification System™ (SICS™). SICS™ ties back to standard classification systems, such as Bloomberg's Industry Classification and Global Industry Classification Systems, so users don't have to learn another system.

## **Open Enrollment**

Enrollment in IWGs is open to all qualified participants and industry experts via [SASB's online registration form](#). Applicants' suitability for IWGs is screened by SASB's Stakeholder Engagement Team (SET) to ensure they have sufficient experience and expertise in their fields and are actively involved in US capital markets. SET also monitors enrollment in IWGs to ensure participation is balanced across the following three interest groups:

1. Corporations (issuers)
2. Market Participants (investors, analysts and exchanges)
3. Public Interest/Intermediaries (academics, government officials, NGO's and others not included in groups 1 and 2 above)

## **Active Outreach**

SASB conducts active outreach to recruit IWG participants via a variety of channels to ensure interest groups are balanced across all industries in the thematic sector covered each quarter.

### ***Targeted Outreach – Phase I***

IWG recruiting begins with broad outreach across a variety of channels roughly two-months prior to the kick-off of each working group.

#### **Referrals**

Referrals are by far the best source for recruiting IWG members. During Phase I of targeted outreach, SET leverages SASB's Board of Directors, past Advisory Council, partners, past IWG members and subscribers to SASB's newsletter. This targeted outreach is conducted through email communication and targeted phone calls through which SET members disseminate recruiting materials and html invitations that can be widely distributed within these key networks.

#### **Prospecting**

When referrals are not available, contact information is obtained through publicly-available channels. SET engages in a prospecting process that involves developing contact lists of qualified professionals in the top publicly-traded companies identified by the Research Team. These prospecting lists are developed using LinkedIn, Data.com, outreach to trade associations, and leveraging the team's personal networks. This prospecting phase serves as an

important pipeline to streamline and scale the recruiting efforts in order to meet target numbers. (See Appendix I for a list of companies targeted in Phase I outreach for the Renewable Resources & Alternative Energy IWGs).

### **Bloomberg Terminal**

SET also utilized the Bloomberg terminal to identify analysts and portfolio managers to participate in the investor interest groups of the Renewable Resources & Alternative Energy IWGs.

### **Targeted Outreach – Phase II**

As registrants begin to populate SASB IWGs, more narrowly-focused outreach becomes necessary. This targeted approach focuses on areas in which open enrollment and Phase I Outreach results are not well balanced across the interest groups.

Industry and/or trade associations and sector focus groups are also important vehicles through which SASB conducts outreach. SET conducted outreach to the following industry groups:

- American Forest Products Association
- American Solar Energy Society
- Center for Resource Solutions
- Forest Stewardship Council
- Ohio Wind Energy Association
- Roundtable on Sustainable Biomaterials
- Sustainable Forest Systems
- Sustainable Forestry Initiative, Inc.

### ***IWG PROCESS, TOOLS AND MATERIALS***

IWG participants provide vital feedback during a one-month period of structured engagement. During this time, IWG participants review SASB Industry Briefs and are encouraged to contribute evidence supporting or refuting the financial impact of and/or interest in disclosure topics and related accounting metrics drafted by SASB. Please refer to Exhibit B for an overview of the standards-setting process; IWGs are included in the Development Phase (Phase 2).

Participants are provided with the following tools and materials through which to conduct their work:

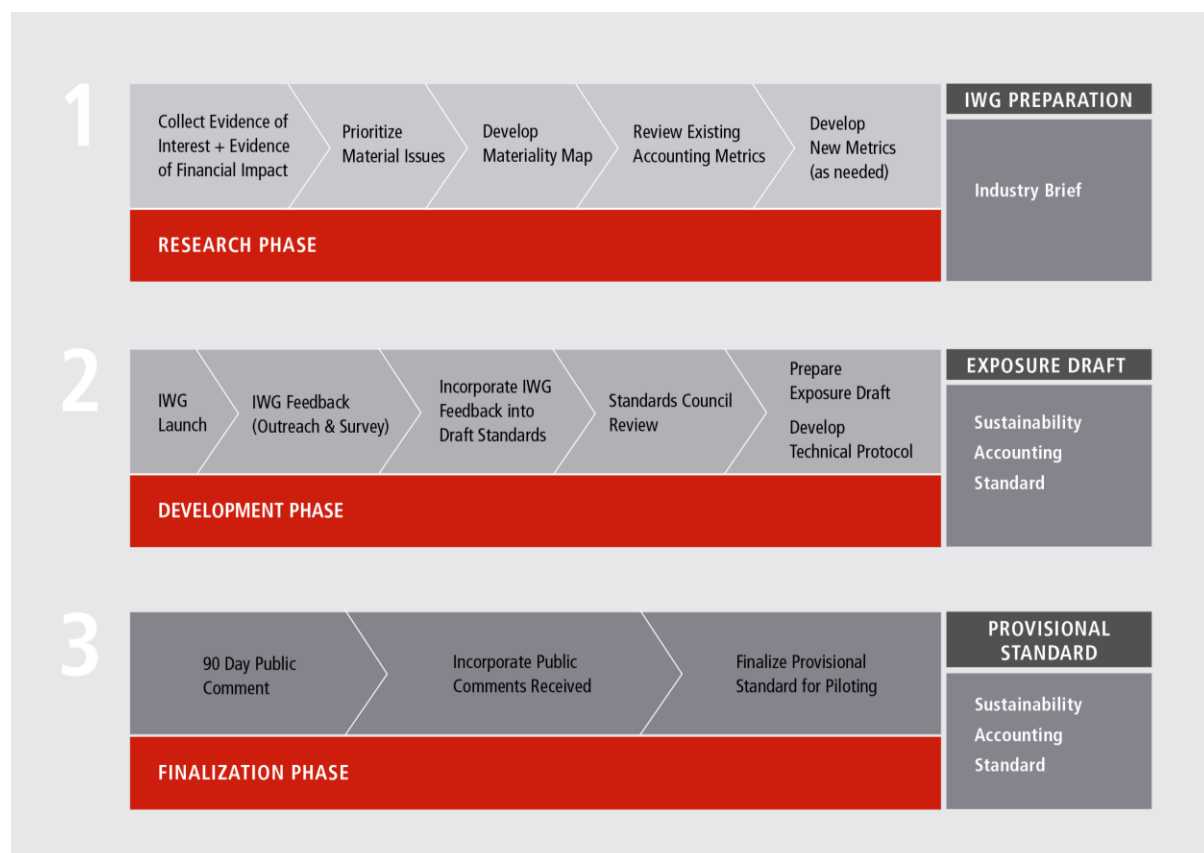
- Orientation materials outlining SASB’s evidence-based standards-setting approach and the “lens of materiality”, including the SEC’s definition of materiality
- An optional orientation webinar (of which a recording is distributed to IWG members who cannot participate in the live broadcast)
- A SASB Industry Brief for their industry

- A self-paced, electronic survey designed to capture detailed feedback
- A mid-point “check-in” webinar during which members of the Research Team are made available to answer questions from IWG members

Participants are asked to: 1) read the SASB Industry Brief for the industry in which they are enrolled, and; 2) complete the online survey providing feedback on the disclosure topics and accounting metrics. Participation in online discussions, webinars, and follow up conferences is optional.

Survey results and comments are compiled by SASB’S research team for consideration in the exposure draft of the industry standard. All IWG communication with SASB is retained to document the standards development process. IWG members may also suggest other disclosure topics for which they have evidence of materiality, and issues they believe should be included in SASB Standards

### Exhibit B – SASB’s Work Flow, One Sector per Quarter



# Industry Working Groups: Renewable Resources & Alternative Energy Sector

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SASB’s working groups (IWGs) covering the Renewable Resources & Alternative Energy sector were convened from February 4<sup>th</sup> through March 6<sup>th</sup> 2014<sup>1</sup>, and extended until March 20<sup>th</sup>. The Renewable Resources & Alternative Energy sector focused on five industries listed in Table 1.

**Table 1: RENEWABLE RESOURCES & ALTERNATIVE ENERGY SECTOR IWG Composition**

Industry Working Groups	
RR0101	Biofuels
RR0102	Solar Energy
RR0103	Wind Energy
RR0104	Fuel Cell & Industrial Batteries
RR0201	Forestry & Paper

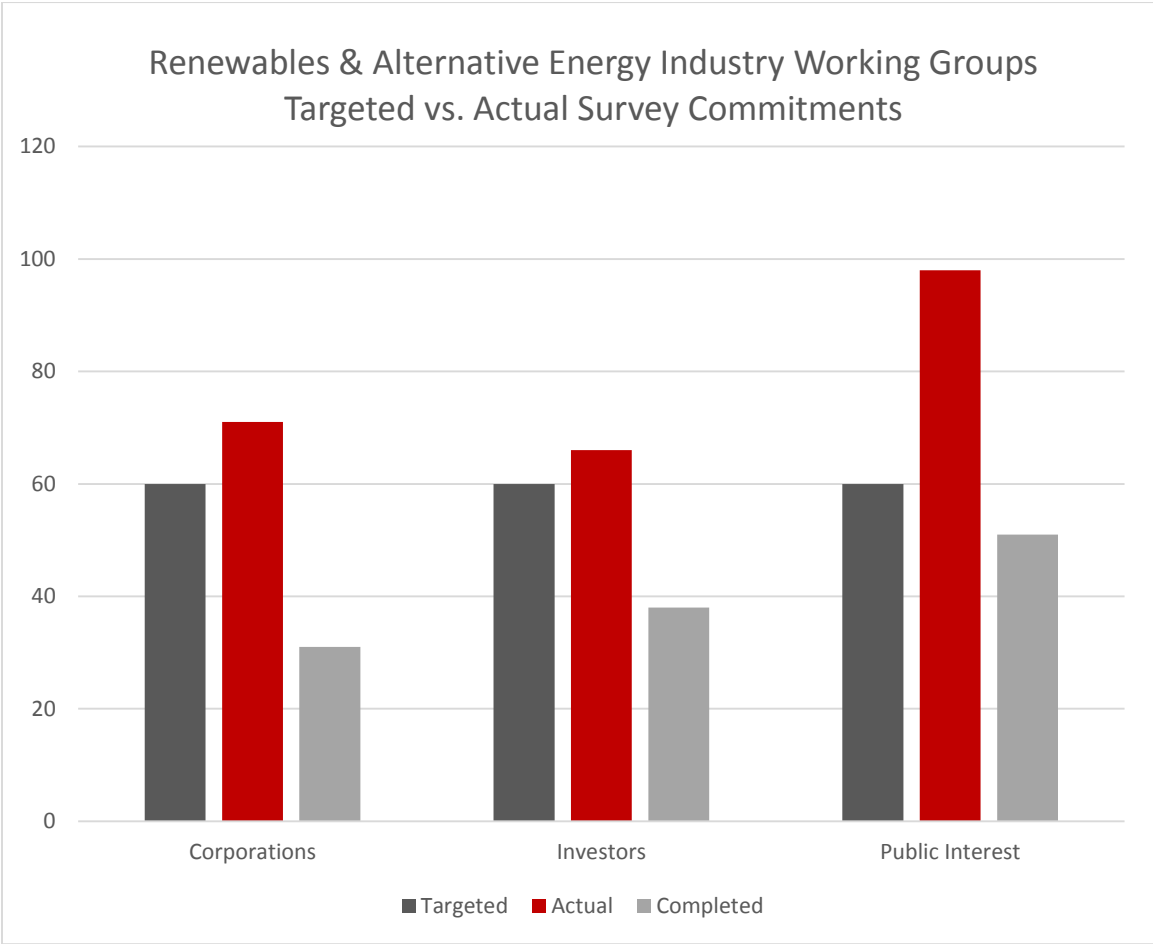
## Recruiting – Planned vs. Actual

Ideal target levels are set for participation in SASB IWGs are as follows: twelve experts per interest group per industry. With five industries in this sector, this target would have resulted 180 registered IWG participants. SET enrolled a total of 235 IWG. Of the 235 enrolled IWG members, 120 IWG registrants completed their surveys resulting in an average completion rate of 51%.

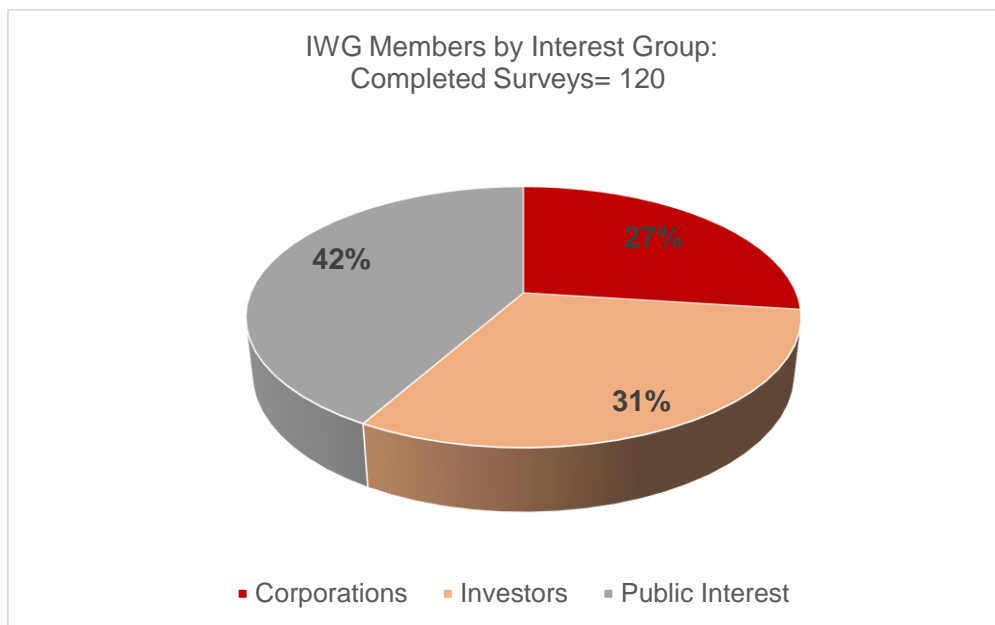
Exhibit C shows SASB’s targeted vs. actual IWG survey commitments and completed surveys based on interest group. Exhibit D provides a list of industry working group participants who finalized their surveys. Exhibit E provides a list of total participants who registered into the industry working groups.



**Exhibit C: Composition of Renewable Resources & Alternative Energy Working Groups-Targeted vs. Actual Survey Commitments**



## Exhibit D: SASB Renewable Resources & Alternative Energy Industry Working Group Members Who Completed Surveys



Last Name	First Name	Title	Organization Name
Allen	Brian	Principal	American Solar Energy Society
Angantýsson	Ágúst	Senior Associate	KPMG
Audren	Juliette	Sustainability Program Manager	SWM-Intl
Ayala	Ricardo	Owner/General Manager	Sun City Solar Energy
Beauvilain	Lisa	Investment Manager (ESG & Policy)	Impax Asset Management
Bibi	Amna	Audit Associate	KPMG LLP
Bishop	Alastair	Portfolio Manager	BlackRock
Bohlmann	Greg	Director Business Development	Biofuel Producer
Booth	Mary	Director	The Partnership for Policy Integrity
Briggum	Sue	Vice President Federal Public Affairs	Waste Management
Callender	Heidi	Executive Director	Ohio Wind Energy Association
Canavan	Karla	Director Sustainable finance	Bunge
Carosio	Daniela	Director, Institutional Relations	ECPI Group
Carty	Joeri	Manager, Corporate Sustainability Lead	NextEra Energy
Chalvatzis	Konstantinos	Lecturer in Business and Climate Change	University of East Anglia
Cobb	Carole	Senior Vice President	Cobalt Technologies
Collie	Robert	Chief Research Strategist	Russell Investments
Cook	Brendan	Senior Analyst	Center for Resource Solutions
Das	Kaushik	Senior Advisor	TransCanada Pipelines

Davidson	Christopher	Director, Global Sustainability	MeadWestvaco
Davis-Hall	Suzanne	Manager - Environment and Regulatory	Klohn Crippen Berger
De Jesus	Agnes	Chief Sustainability Officer	Energy Development Corporation
De Albuquerque	Linda	Supply Chain Manager	Sungevity
Durso	George	Director:Sustainability	RockTenn
Eggerss	Candice	Managing Director	Firelake Capital Manatement
Emmons	Thomas	Head, Renewable Energy	Rabobank
Exarchos	Themis	Researcher	FORTH-IMBB
Farren-Handford	Matt	Senior Manager, Energy & Sustainability	EY
Fisher	Kyla	Corporate Sustainability Director	PaperWorks Industries Inc
Francisco	Anthony	Assistant V.P./Manager	Municipal Revenue Services
Garvey	Monica	Sustainability Manager	Verso Paper
Ginach	Danielle	Associate Director, Impact Management	Sonen Capital
Glen	Rob	Regional Manager, BNEF	Bloomberg LP
Goddard	Kurt	Vice President Investor Relations	FuelCell Energy
Goldman	Mark	Founder and CEO	Armageddon Energy
Harbak	Lilian	Sustainability Reporting Specialist	Vestas
Hegarty	Pamela	Global Equity Analyst	Boston Common Asset Management
Heim	Steven	Managing Director	Boston Common Asset Management
Henderson	Hazel	President and Founder	Ethical Markets
Hetrick	Sonya	Impact Investing Analyst	HIP Investor
Hissom	Russell	Partner	Baker Tilly
Infante	Marie	CEO	MIR Associates
Johns	Tracy	Special Markets Director	Wildlife Works
Kintner	Avery Reginald-	Strategic Planning/Business Development	MelRok/Empowered Energy
Koizumi	Michel	SRI Analyst	Sustainalytics
Kozlowski	Brian	Sr. Mgr. Sustainability Performance Opt.	Domtar
Lagace	Pascale	Vice President, Environment and Climate	Resolute Forest Products
Lai	Justina	Director, Investments	Sonen Capital
Lehman	Kevin	ESG Analyst	Breckinridge Capital
Lethenstrom	Emily	Research Analyst	Trillium Asset Management
Levey	Erin	ESG Research Analyst	EIRIS
Levy	Elizabeth	Portfolio Manager	Trillium Asset Management, LLC
Lewallen	Marv	Corporate Energy Manager	Clearwater
Livingston	Karen	Senior Business Advisor	SBA
Lucente	Michael	Managing Member	self-employed
Ma	Yaowen	Analyst	Verdantix
Macfarlane	Jamie	Research Analyst	EIRIS
Mayer	Adam	Architect	William McDonough + Partners
McDonald	James	Manager, Sustainability	International Paper
McGlyn	Jessica	President	Catalynics LLC
McGregor	Bryon	CFO	Pacific Ethanol

Mencke	Katie	Senior Consultant	Poyry Management Consulting
Menezes	Natasha	Senior Consultant, Strategy	Ernst and Young LLP
Menon-Varma	Rekha	Managing Partner	Vertaeon
Metnick	Jason	Senior VP, Customer Affairs	Sustainable Forestry Initiative, Inc.
Miller	Bill	COO	Angelino Group
Minick	Phil	Director	Renewable Power Direct
Missimer	Katie	Coordinator	American Forest Products Association
Montefusco	Erica	Director: Environmental, Health, & Safety	Green Plains
Morrison	Kathryn	Associate Analyst	Sustainalytics
Morsy	Salim	Associate, Bloomberg New Energy Finance	Bloomberg New Energy Finance
Motz	Cynthia	Global Advisory Council	Cornerstone Capital Group
Mountain	Diane	Sr. Project Manager	ERM
Nash	David	Partner	McMahon DeGulis LLP
Nelson	Dave	Lecturer	University of Michigan
Pasishnyk	Natalia	Consultant	Key Associados
Piacenza	Luis	Partner	Crowe Horwath LLP
Pirovska	Margarita	Policy and Sustainability Analyst	Cornerstone Capital Group
Pryde	Natalie	Principle Scientist/Client Services Mgr	T&M Associates
Punkari	Timo	Senior Partner	Lawrence William
Putman	Ben	Principal Consultant	P3 Sustainability Consulting
Ramanantsoa	Samson	Managing Director, BNP Capstar Partners	Exane BNP Paribas
Robbins	Alicia	Resource Economist	Weyerhaeuser
Rosengard	John	President	Environmental Risk Communications, Inc.
Rowell	Laura	Global Sustainability Manager	Sonoco
Rudolf	Matthew	Business Development & Americas Director	Roundtable on Sustainable Biomaterials Columbia Management Investment Advisers, LLC
Ryerse	Malcolm	Corporate Governance Analyst	American Forest Products Association
Schwartz	Jerry	Senior Director, Energy and En	Key Associados
Serrano	Luiz	Manager	MeadWestvaco
Sharo	Doug	Lead SH&E & Sustainability Specialist	Cox Enterprises, Inc.
Sok	Kevin	Manager of Engineering/Alternate Energy	GeoTreasures Climate Risk Bonds
Spangenberg	Johnny	CEO	Arup
Tabarra	Mohammad	Associate Director	Fredrikson & Byron
Taylor	Todd	Shareholder	Calvert Investments
Thoumi	Gabriel	Sr. Sustainability Analyst	On The Green, LLC
Valenta	Mary	CEO	SUST4IN
Viegas	Marcio	Founder & Managing Director	Callan
West	Anna	VP, Manager Published Research	Manomet Center for Conservation Sciences
Whitman	Andrew	Director	Yale University
Yonavjak	Logan	Master of Forestry Candidate	

## Exhibit E: SASB Renewable Resources & Alternative Energy Total Enrolled Industry Working Group Members

Last Name	First Name	Title	Organization Name
Acuna	Francisco	CEO	InTrust Global Investments
Agouz	Mohammad	CEO	ISAA
Allen	Brian	Principal	Appropriate Technology Group, LLC and American Solar Energy Society
Angantýsson	Ágúst	Senior Associate Senior Manager, Energy Technology Policy	KPMG
Arnot	Robert		Natural Resources Canada
Atabey	Tuba	Turkey Partner	SUSTAINOVA
Atkin	Jeffrey	CEO	Sustainable Forest Systems LP
Audren	Juliette	Sustainability Program Manager	SWM-Intl
Austin	Glenn	Director, Corporate Responsibility	Monsanto Company
Ayala	Ricardo	Owner/General Manager	Sun City Solar Energy
Ayoola	Fadeke	Consultant/Author	CDSB
Beauvilain	Lisa	Investment Manager (ESG & Policy)	Impax Asset Management
Bibi	Amna	Audit Associate	KPMG LLP
Bishop	Alastair	Portfolio Manager	BlackRock
Bohan	Jamie	Sr. Dir. Recycling & Alt Tech Dev	Republic Services
Bohlmann	Greg	Director Business Development	Biofuel Producer
Boles	Kellie	Sustainability/Compliance Director	Georgia-Pacific
Booth	Mary	Director	The Partnership for Policy Integrity (PF
Boyadzhiev	Dragomir	Managing Partner	Copula Capital Advisors
Boyce	KC	Consultant	Green Den Consulting
Brengle	Andrew	research analyst	MSCI
Briggum	Sue	Vice President Federal Public Affairs	Waste Management
Brotto	Lucio	Researcher	University of Padova - ETIFOR
Buckley	Tim	Financial Analyst	IEEFA
Burke	Carey	CEO	Green Specialty Fuels, LLC & Impex AEDM
Callender	Heidi	Executive Director	Ohio Wind Energy Association
Canavan	Karla	Director Sustainable finance	Bunge
Carosio	Daniela	Director, Institutional Relations	ECPI Group
Carty	Joeri	Manager, Corporate Sustainability	NextEra Energy
Chalvatzis	Konstantinos	Lecturer, Business & Climate Change	University of East Anglia
Chan	Dorothy	Senior Public Affairs Manager	CLP Holdings
Chatterjee	Anirban	GHG Lead Verifier	Bureau Veritas Certification
Chercover	Steve	SVP, Senior Research Analyst	D. A. Davidson & Company

Cobb	Carole	Senior Vice President, Operations	Cobalt Technologies
Collie	Robert	Chief Research Strategist	Russell Investments
Cook	Brendan	Senior Analyst	Center for Resource Solutions
Costello	Amy	Sustainability Manager	Armstrong World Industries
Coulson	Ken	Principal	Future Bright
Dalal	Ashit	Managing Consultant	eDelta Consulting
Das	Kaushik	Senior Advisor	TransCanada Pipelines
Davidson	Christopher	Director, Global Sustainability	MeadWestvaco
Davis-Hall	Suzanne	Manager, Environment &Regulatory	Klohn Crippen Berger
D'Couto de Azevedo	Chris	CEO	Neah Power
Antunes	Renato	Equity Analyst	Brasil Plural
de Jesus	Agnes	Chief Sustainability Officer	Energy Development Corporation
DeAlbuquerque	Linda	Supply Chain Manager	Sungevity
Dellinger	William	Professor	Lindenwood University
Diouf	Dominique	Research Associate	Universite Laval
Duffy	Matthew	Executive	EnerNOC
Durso	George	Director, Sustainability	RockTenn
Eggerss	Candice	Managing Director	Firelake Capital Management
Ellis	Michael	Partner	Green Order
Emmons	Thomas	Head, Renewable Energy	Rabobank
Erdal	Zeynep	Technology and Sustainability Leader	CH2M HILL
Erickson	Ara	Sustainability Manager	Weyerhaeuser
Exarchos	Themis	Researcher	FORTH-IMBB
Farren- Handford	Matt	Senior Manager, Energy & Sustainability	EY
Feilhauer	Stephan	VP Group Strat. Corp Investments	Deutsche Bank
Fernald	Eric	Corporate Communications	MSCI
Fernandez	Lorena Anabel	Sr. Financial Analyst	Aeroflex Incorporated
Fields	Phillip	EHS Manager	Exide Technologies
Finisdore	John	Principal	Sustainable Flows
Fisher	Kyla	Corporate Sustainability Director	Paper Works Industries Inc.
Francisco	Anthony	Assistant V.P./Manager	Municipal Revenue Services
Frisch	Steven	President and CEO Vice President, Responsible	Sierra Business Council
Furuya	Shin	Investment Research &	Domini Social Investments, LLC
Galeano	Victoria	Managing Director	Aligned Strategies
Garcia-Manas	Carolota	Head of Research	EIRIS Conflict Risk Network
Gardner	Nina	Director	Strategy International

Gieseke	Tim	President	Ag Resource Strategies, LLC
Ginach	Danielle	AD, Impact Management	Sonen Capital
Glen	Rob	Regional Manager, BNEF	Bloomberg LP
Goddard	Kurt	Vice President Investor Relations	Fuel Cell Energy
Goldman	Mark	Founder and CEO	Armageddon Energy
Gordon	Wayne	Strategist	Wayne Gordon
Griffith	Leslie	Sales Manager, Sustainable Solutions	Covanta
Hagawa	Takahiro	Senior associate	KPMG
Hamalian	David	Intern	3Sisters Sustainable Management
Hanna	Ian	Director of Strategic Development	Forest Stewardship Council
Harbak	Lilian	Sustainability Reporting Specialist	Vestas
Hegarty	Pamela	Global Equity Analyst	Boston Common Asset Management
Heim	Steven	Managing Director	Boston Common Asset Management, LLC
Henderson	Hazel	President and Founder	Ethical Markets
Henson	Rebecca	Senior Sustainability Analyst	Calvert Investments
Hetrick	Sonya	Impact Investing Analyst	HIP Investor
Hissom	Russell	Partner	Baker Tilly
Hodges	John	Director, Financial Services	BSR
Hong	Aram	Senior	EY
Husain	Khalid	Director – ESG	TIAA-CREF
Infante	Marie C.	CEO	MIR Associates
Ireton	Karin	Head of Sustainability	Standard Bank
Jagu	Catherine	Director	Gimelec
Jamea	El Mostafa	Researcher	
Jenkins	Edward	Director	CBIZ MHM, LLC
Johns	Tracy	Special Markets Director Director, Reporting & SOX Compliance	Wildlife Works
Jones	Matt		Kapstone Paper
Jürs	Janette	Senior Consultant	EY
Katsaros	Steve	CEO and Founder	Nokero Solar
Katz	Samantha	Managing Director	BGC Environmental Brokerage Services
Kauffman			
Johnson	Jill	Director, Sustainability	Solazyme, Inc.
Kenausis	Gregory	Partner at Grand Haven Capital	Plug Power
Khan	Sofia	Program Officer	World Wildlife Fund
Kim	Kitae	Sustainability Manager Strategic Planning/Business Development	AGCO
Kintner	Avery		MelRok/Empowered Energy
Kirkpatrick	Roger	Business Development Manager	Bloom Energy

Koizumi	Reginald-Michel	SRI Analyst	Sustainalytics
Kott	Benjamin	CEO and Founder	EnergyDeck
Kozlowski	Brian	Sr. Mgr. Sustainability Performance	Domtar
Lagace	Pascale	VP, Environment and Climate	Resolute Forest Products
Lai	Justina	Director, Investments	Sonen Capital
Lamb	Natasha	Senior	Trillium Asset Management, LLC
Larrison	Tim	Head of Finance	Yingli Green Energy Americas
Lehman	Kevin	ESG Analyst	Breckinridge Capital
Lehrman	Leland	Partner	Leland Lehrman
Lethenstrom	Emily	Research Analyst	Trillium Asset Management
Levey	Erin	ESG Research Analyst	EIRIS
Levy	Elizabeth	Portfolio Manager	Trillium Asset Management, LLC
Lewallen	Marv	Corporate Energy Manager	Clearwater
Lewis	Sanford	Attorney	Strategic Counsel on Corporate Accountability
Liberti	Francesco	ED, Environmental Risk Officer	Morgan Stanley
Lindquist	Sydney	Sustainability Leader	Momentive Specialty Chemicals Inc.
Livingston	Karen	Senior Business Advisor	SBA
Lucente	Michael	Managing Member	Self-Employed
Luchte	Jennifer	Manager, Corporate Responsibility	Monsanto Company
Ma	Yaowen	Analyst	Verdantix
Macfarlane	Jamie	Research Analyst	EIRIS
MacLean	David	Sustainability Manager	CHP & Associates Consulting Engineers, Inc.
Maddox	Robert	Chief Sustainability Officer	Sterling Planet
Maher	Francis	President	Verasiti
Mankikar	Divya	Vice President	Trucost
Marano	Marc	Investment Banker	Canaccord Genuity
Margolis	James	Partner	ERM
MARY	SAMUEL	ESG Analyst Sustainability Lead Technical	KEPLER CHEUVREUX
Mateo	Dave	Specialist	LRQA
Mayer	Adam	Architect	William McDonough + Partners
McDonald	James	Manager, Sustainability	International Paper
McGlyn	Jessica	President	Catalynics LLC
McGregor	Bryon	CFO Vice President, Corporate	Pacific Ethanol
McLeod	Patricia	Responsibility	ENMAX
Mencke	Katie	Senior Consultant	Poyry Management Consulting
Menezes	Natasha	Senior Consultant, Strategy	EY



Menner	Paige	Principal	PE Realty Advisors, LLC
Menon-Varma	Rekha	Managing Partner Senior Vice President, Customer Affairs	Vertaeon
Metnick	Jason	Principal	Sustainable Forestry Initiative, Inc.
Meyers	David	Principal	Green Ant Advisors
Miller	Bill	COO	Angelino Group
Minick	Phil	Director	Renewable Power Direct
Missimer	Katie	Coordinator	American Forest Products Association
Molotsky	Brad	EVP and General Counsel, LEED AP	Brandywine Realty Trust
Montefusco	Erica	Director, EHS	Green Plains
Mooney	Neill	Managing Director	AlphaWatt Limited
Morgan	Will	Director of Impact	Sonen Capital
Morrison	Kathryn	Associate Analyst Associate, Bloomberg New Energy Finance	Sustainalytics
Morsy	Salim	President	Bloomberg New Energy Finance
Mott	William	Global Advisory Council	Agland Investment Services
Motz	Cynthia	Director	Cornerstone Capital Group
Moulard	Pierre-Henri	Sr. Project Manager	Ennesys
Mountain	Diane	Partner	ERM
Nash	David	Lecturer	McMahon DeGulis LLP
Nelson	Dave	Equities Research Analyst	University of Michigan
Nguyen	Phuc	Senior Coordinator	Citigroup
Odawara	Osamu	Doctoral Researcher	Inpex Corporation
Okwuosa	Innocent	Chief Innovation Officer Associate Professor of Business Strategy	University of Reading
Papa	Carlo	Consultant	Enel Green Power
Park	Jacob	Partner	Green Mountain College
Pasishnyk	Natalia	Partner	Keyassociados
Pavri	Porus	Director	Logos Consultants
Penarrubia	Susana	Lecturer	Deutsche Asset & Wealth Management
Pencak	Joanne	Sustainability Manager	University of Vermont
Peplinski	Scott	Partner	Verso Paper
Piacenza	Luis	VP Strategic Planning	Crowe Horwath LLP
Pierre-Louis	Kendra	Policy and Sustainability Analyst	Altanova
Pirovska	Margarita	Ecological Economist	Cornerstone Capital Group
Pittman	James	Founder and CEO	Earth Economics
Ponce	Alfonso	Principle Scientist/Client Services	Green Heads Consulting
Pryde	Natalie	Analyst	T&M Associates
Psoras	Andrea		NYSSA

Punkari	Timo	Senior Partner	Lawrence William
Putman	Ben	Principal Consultant	P3 Sustainability Consulting
Qadir	Saima	Consultant	Saima Qadir
Radhakrishnan	Rakesh	Director, Advisory Services	Thomson Reuters
Ramanantsoa	Samson	Managing Director	Exane BNP Paribas
Ramirez	Juan Manuel	Consultant	Alta Via Consulting LATAM
Reuterkiold	Sakiko	Manager, Private Equity	Itochu Corporation
Robbins	Alicia	Resource Economist	Weyerhaeuser
Roccisano	Sara	Energy & Infrastructure Investments	TIAA-CREF
Roselle	Peter	Vice President	Morgan Stanley
Rosengard	John	President	Environmental Risk Communications, Inc.
Rossin	Alexandre	Senior Manager	Centurion Global Capital
Rowell	Laura	Global Sustainability Manager Business Development & Americas	Sonoco
Rudolf	Matthew	Director	Roundtable on Sustainable Biomaterials
Russell	Jeffrey	Assistant General Counsel	SunEdison
Rutten	Max	Managing Partner	Max Rutten Columbia Management Investment Advisers, LLC
Ryerse	Malcolm	Corporate Governance Analyst	Valero Energy Corporation
Sampath	Sanjay	Senior Environmental Engineer	Andrtiz Hydro
Sauze	Frederic	Chairman and Managing Director	American Forest Products Association
Schwartz	Jerry	Senior Director	Keyassociados
Serrano	Luiz	Manager	MetaVu
Serwinowski	Mark	President and Founder	Sampoerna School of Business
Setiono	Bambang	Head of Accounting Study Program	MeadWestvaco
Sharo	Doug	Lead SH&E & Sustainability Specialist	7AC Technologies, Inc.
Sherber	Michael	Vice President of Engineering Audit Principal, Corporate Audit Services	Duke Energy
Sherrard	Pete	Senior Director, Sustainability at Plum	Plum Creek
Sims	Kat	Assistant Project Manager	ITC Limited
Singh	Neha	Manager	HSBC Global Service Delivery
Singhal	Deepak	Sustainability & Communications	Renewable Energy Systems Americas
Smidinger	Sierra	Manager of Engineering	Cox Enterprises, Inc.
Sok	Kevin	Adjunct	Singapore Management University
Soulodre	Leesa	CEO	GeoTreasures Climate Risk Bonds
Spangenberg	Johnny	Shared Accounting Center	ABB
Speckinger	Sandra	Manager - Sustainable Development	TransAlta Utilities
Stuart	Danielle		

Suharto	Adrian	Sustainability Manager	Neste Oil
Tabarra	Mohammad	Director	Arup
Taylor	Todd	Shareholder	Fredrikson & Byron
Thoumi	Gabriel	Sr. Sustainability Analyst	Calvert Investments
Tsiouris	Manthou	CEO	Iteknowledgies International
Ulrich	Ryan Scott	Global Communications	Suntech Power
Valauri	Christina	Managing Director	Natixis Securities Americas LLC
Valenta	Mary	CEO	On The Green, LLC
Van Hamelen	Elze	Sustainability Consultant	Van Hamelen Consulting
Viegas	Marcio	Founder & Managing Director	SUST4IN
Vu	Loc	Analyst Manager, Strategic Sustainability Planning	Nelson Capital Management
Wade	Susan		San Francisco Public Utilities Commission
Waheed	Ambreen	Director Global Responsibility	Stora Enso
Webster	Sarah	Vice President, Investor Relations	Pattern Energy
West	Anna	VP, Manager Published Research	Callan
White	Kevin	Senior Director	Panasonic
Whitman	Andrew	Director	Manomet Center for Conservation Sciences
Wolf	Martin	Director, Product Sustainability	Seventh Generation, Inc.
Wood	Al	Chief Financial Officer	dlight design
Yonavjak	Logan	Master of Forestry Candidate	Yale University
Zaim	Katalin	Program Manager	United Nations Development Program
Zubiria Furest	Barbara	EVP Capital Markets & IR	Abengoa

## **RENEWABLE RESOURCES & ALTERNATIVE ENERGY IWG SURVEYS**

### **Survey Composition & Administration**

#### **Composition & Administration**

Renewable Resources & Alternative Energy IWGs were structured to solicit feedback on the disclosure topics identified by SASB as likely to constitute material information for companies in an industry, and the proposed accounting metrics for disclosure of these issues in the Forms 10-K and 20-F. Disclosure topics identified by SASB's research team for industries in the Renewable Resources & Alternative Energy sector are shown by industry in Exhibit F.

The same general survey format was used for all industries, and included the following sections:

- Section 1: Disclosure Topics
- Section 2: Accounting Metrics
- Section 3: Comments on Industry Brief

#### **Section 1: Disclosure Topics**

##### ***Disclosure Topic Evaluation and Ranking***

Respondents were asked to review the disclosure topics identified by SASB and answer the question, "Do the proposed disclosure topics listed below constitute information that may be material to investors, pertaining to companies in the X industry?" Participants are given the option of responding, "Yes. It is material", "No. It is not material" or "Yes, but with reservations."

##### ***Importance of Disclosure***

The survey also asked participants to force rank the importance the disclosure topics identified for their industries.

##### ***Additional Disclosure Topics***

Respondents were also given the opportunity to identify up to three issues they believed were likely to be material to their industry but had not been included in SASB's minimum set. For every disclosure topic suggested for inclusion, participants were prompted to provide a contextual explanation of why the issue should be added to the minimum set. They were also prompted to upload documents as evidence to support the inclusion of the new issue and/or provide URLs linking to evidence to support the inclusion of the issue.

## Exhibit F: SASB Disclosure Topics – Renewable Resources & Alternative Energy Sector

	Solar Energy	Wind Energy	Fuel Cells & Industrial Batteries	Biofuels	Forestry & Paper
Environment	<ul style="list-style-type: none"> <li>Energy Management in Manufacturing</li> <li>Hazardous Materials Management</li> </ul>		<ul style="list-style-type: none"> <li>Energy Management</li> </ul>	<ul style="list-style-type: none"> <li>Air Quality</li> <li>Water Management</li> </ul>	<ul style="list-style-type: none"> <li>Greenhouse Gas Emissions</li> <li>Air Quality</li> <li>Energy Management</li> <li>Water Management</li> <li>Waste Management</li> <li>Land Use &amp; Ecological Impacts</li> </ul>
Social Capital	<ul style="list-style-type: none"> <li>Energy Access</li> </ul>				<ul style="list-style-type: none"> <li>Community Relations &amp; Rights of Indigenous Peoples</li> </ul>
Human Capital			<ul style="list-style-type: none"> <li>Workforce Health &amp; Safety</li> </ul>		<ul style="list-style-type: none"> <li>Workforce Health &amp; Safety</li> <li>Fair Labor Practices</li> </ul>
B. Model & Innovation	<ul style="list-style-type: none"> <li>Cost Reduction to Scale GHG Mitigation</li> </ul>	<ul style="list-style-type: none"> <li>Design to Mitigate Community &amp; Ecological Impacts</li> <li>Design for Materials Efficiency</li> </ul>	<ul style="list-style-type: none"> <li>Product Efficiency</li> <li>Product Design &amp; End-of-Life Management</li> </ul>	<ul style="list-style-type: none"> <li>Product Formulation &amp; Impact on Food Markets</li> <li>Lifecycle Emissions Balance</li> </ul>	<ul style="list-style-type: none"> <li>Climate Change Adaptation of Forestlands</li> </ul>
Leadership & Governance	<ul style="list-style-type: none"> <li>Sensitive Materials Sourcing</li> </ul>	<ul style="list-style-type: none"> <li>Sensitive &amp; Critical Materials Sourcing</li> </ul>	<ul style="list-style-type: none"> <li>Sensitive &amp; Critical Materials Sourcing</li> </ul>	<ul style="list-style-type: none"> <li>Political Spending &amp; Government Support</li> <li>Health, Safety, and Emergency Management</li> <li>Sourcing &amp; Environmental Impacts of Feedstock Production</li> </ul>	<ul style="list-style-type: none"> <li>Wood &amp; Fiber Supply Chain Management</li> </ul>
Emerging	<ul style="list-style-type: none"> <li>Product End-of-Life Management</li> </ul>				

## **Section 2: Accounting Metrics**

The second section of each industry survey sought feedback on the accounting metrics delineated in the SASB Briefs for disclosure of disclosure topics in that industry. Participants were asked to first comment on the individual accounting metrics based on the following criteria:

- Relevance – Does the accounting metric adequately describe performance related to the disclosure topics, or is it a proxy for performance?
- Usefulness – Does it provide decision-useful information to companies? To investors?
- Cost-effectiveness – Is the data already collected by most companies or can it be collected in a timely manner and at a reasonable cost?
- Comparability – Will the data allow for peer-to-peer benchmarking within the industry?
- Auditability – Can the data underlying this accounting metric be verified?

Respondents were provided an opportunity to discuss the accounting metrics, to suggest alternatives, and to provide input on how each accounting metric is presented (units, aggregated and/or normalized). Respondents were also asked if they would like to suggest content for the Disclosure Notes (technical guidance) will accompany accounting metrics for each disclosure topic.

## **Section 3 – Comments**

The surveys also provided participants the opportunity to inform SASB of errors and omissions, as well as to provide general comments on the industry briefs.

### **Administration**

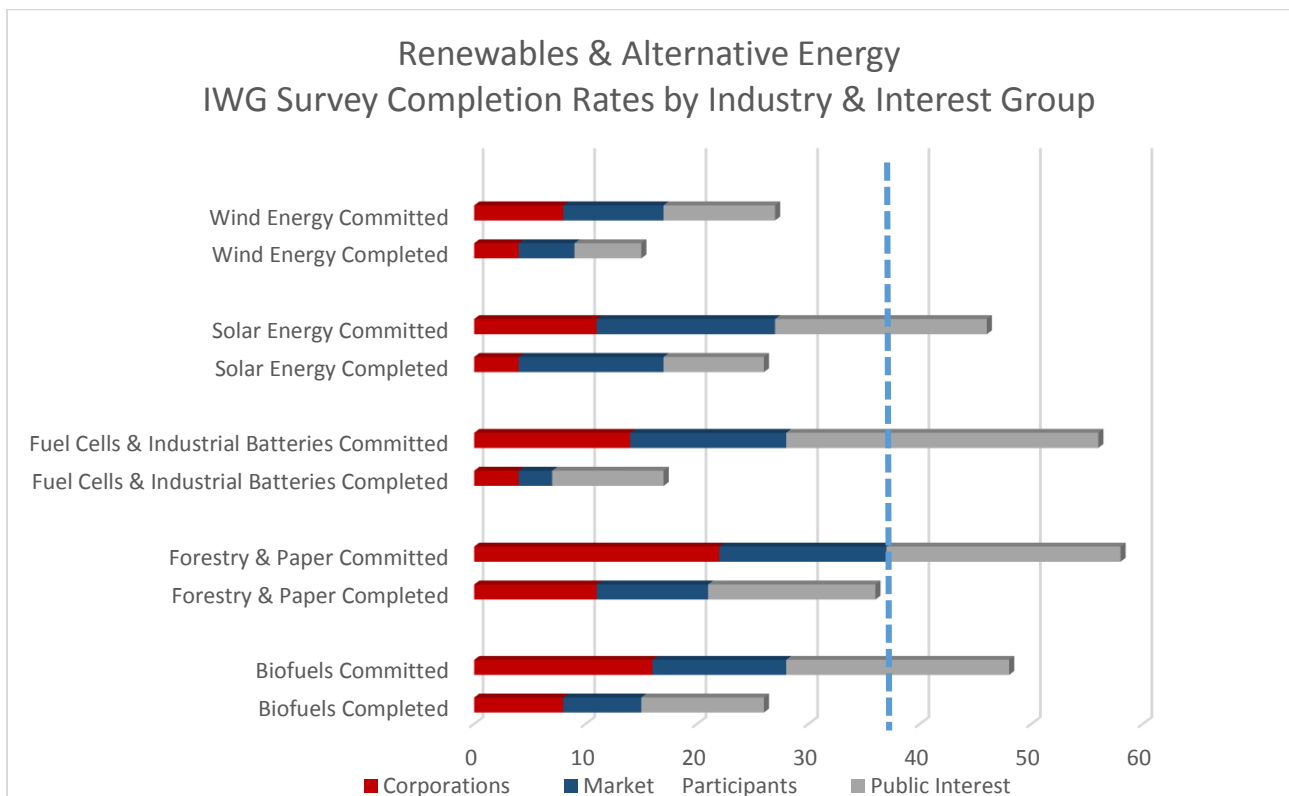
IWG members received links to unique, user-specific URLs to launch digital surveys hosted via Fluid Surveys. URLs were associated with participant email addresses which allowed us to monitor which participants were actively engaged in the surveys and follow up with others who were not.

### **Survey Participation**

The SET has been fostering stronger IWG corporate participation by promoting broader internal participation in the survey. SASB provided enrolled IWG members with a pdf copy of the survey so that responses could be vetted more readily across internal corporate team members in other departments. The online survey has also been augmented to include a place to add the names of other survey respondents who participated in the process. This approach has allowed for a more collaborative approach with key internal decision makers (sustainability, finance, legal, IR, etc.). This transparency is helpful for SASB to show how participation extends beyond sustainability leadership.

In total, 235 participants were enrolled into the industry working groups (IWG) with adequate balance achieved across the three main interest groups: corporate professionals (30%), market participants (28%), and public interest members (42%). At the conclusion of the IWG response period, there were 120 completed surveys representing a 51% response rate. The completion rates by industry are shown in Exhibit G and are detailed both graphically and in a table that provides the raw numbers. The response rates are comparable with the working group survey completion status from previously-convened IWGs as shown in Exhibit H.

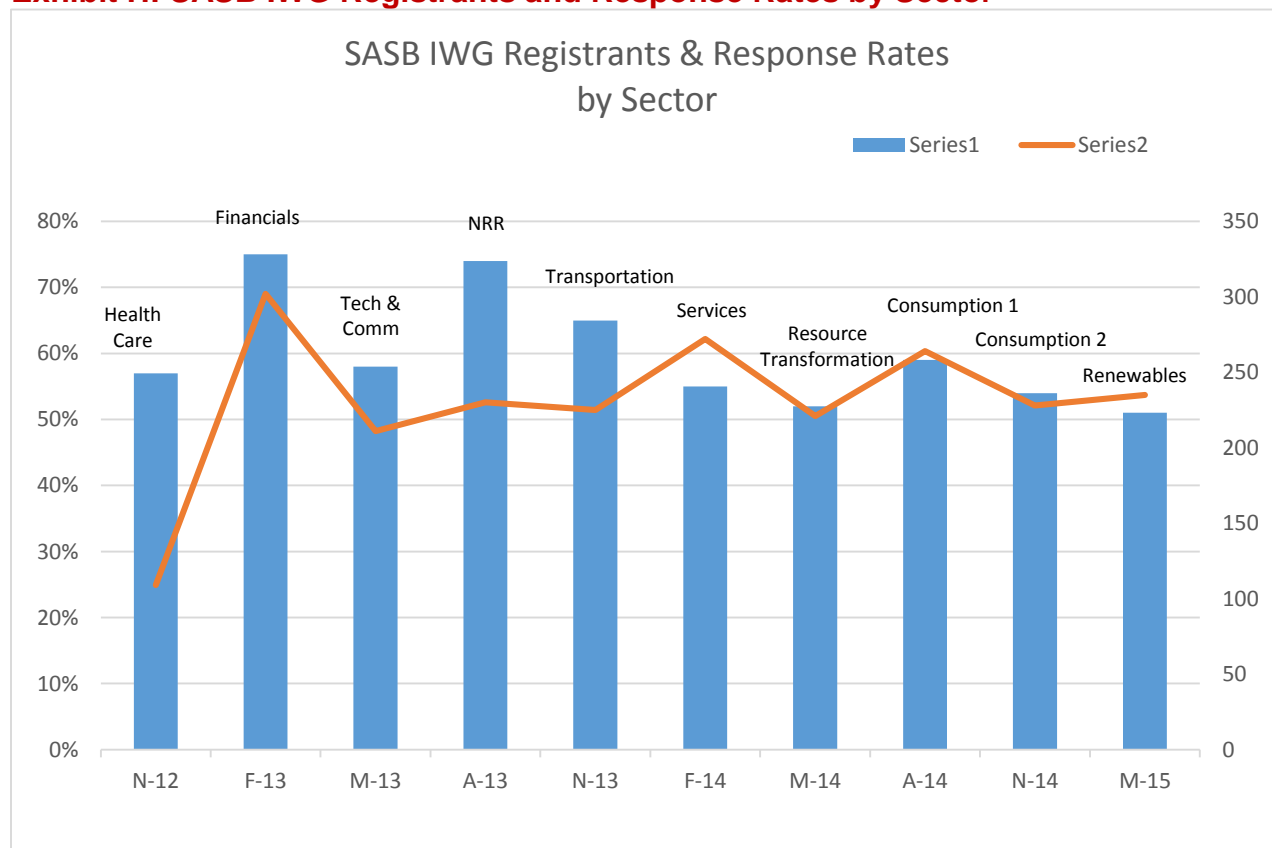
### Exhibit G: Survey Completion Rates by Industry



**Table 2: Raw Data for Survey Completion Rates by Industry**

IWG (Committed vs. Completed)	Corporations	Market Participants	Public Interest	Totals	Completion Rate
Biofuels Completed	8	7	11	26	54%
Biofuels Committed	16	12	20	48	
Forestry & Paper Completed	11	10	15	36	62%
Forestry & Paper Committed	22	15	21	58	
Fuel Cells & Industrial Batteries Completed	4	3	10	17	30%
Fuel Cells & Industrial Batteries Committed	14	14	28	56	
Solar Energy Completed	4	13	9	26	57%
Solar Energy Committed	11	16	19	46	
Wind Energy Completed	4	5	6	15	56%
Wind Energy Committed	8	9	10	27	

**Exhibit H: SASB IWG Registrants and Response Rates by Sector**





### **Analysis of IWG Participation and Survey Responses**

Overall, the recruiting efforts for IWG participants was very successful. In all industries, with the exception of the wind energy industry, the SET was able to achieve enrollment in excess of the 36 members targeted per industry working group. In addition, the SET was able to enroll a minimum of 3 top companies per industry, with the exception of the wind energy industry. The IWG members representing the top companies in the Renewable Resources & Alternative Energy sector are listed in Appendix 2.

The IWG registration process yielded 235 members that were adequately balanced, with corporations at 27%, investors at 31%, and public interest at 42%. Of the 235 enrolled participants, there were 120 completed surveys with response rates ranging from 30-62% across the industries (see Exhibit G). Key factors that contributed to the outcome of the Renewable Resources & Alternative Energy sector are listed below.

### **Key Findings for IWG Recruiting and Survey Completion Rates**

The Renewable Resources & Alternate Energy sector represented industries that are not as mature as industries covered in other sectors. For this reason there is a smaller pool of publically traded companies and a larger amount of independent “start-up” organizations. The Wind Energy and Fuel Cell & Industrial Battery industries were particularly challenging to recruit due to the maturity of the market and inability to attract the attention of the industry associations and corporate members. In addition, the research team made some adjustments to the SIC classification later in the IWG recruiting cycle that had implications for recruiting, most notably in the Fuel Cell & Industrial Battery industry.

### **Survey Results**

Please see the *Standards Outcome Review* report, presented to the Standards Council by the Standards Development Team, for analysis of working group feedback.

## APPENDIX I – Top Companies in Renewable Resources & Alternative Energy Sector by Revenue

\*Bright yellow/bold= Include those companies enrolled and completed their the IWG survey

Biofuels			Solar Energy			Wind Energy			Fuel Cells & Industrial Batteries			Forestry & Paper		
Company	C	BICS Primary Industry	Company	C	BICS Primary Industry	Company	C	BICS Primary Industry	Company	C	BICS Primary Industry	Company	C	BICS Primary Industry
* ARCHER-DANIELS	US	Grain & Oil	FIRST SOLAR INC	US	Solar	CHINA MING Y-ADS	CN	Wind Turb	ENERSYS	US	Fuel Cells	** WEYERHAEUSER CO	US	Specialty & Other REIT
* VALERO ENERGY	US	Petroleum	* KYOCERA CORP-ADR	JP	Electr	BROADWIND ENERGY	US	Wind Turb	EXIDE TECH **	US	Vehicle Ba	INTL PAPER CO	US	Corrugated Packaging Matl
GREEN PLAINS INC	US	Gasoline	SUNPOWER CORP	US	PV Mfg	PATTERN ENER	US	Wind Ener	SAFT GROUPE-ADR	FR	Fuel Cells	DOMTAR CORP	CA	Paper Mills
ABENGOA SA	ES	Engineering	YINGLI GREEN-ADR	CN	PV Mfg	CLEANTECH SOLUTI	CN	Other Win	FUELCELL ENERGY	US	Fuel Cells	RESOLUTE FOREST	CA	Paper
* COSAN LTD - A	BR	Petroleum	TRINA SOLAR-ADR	CN	PV Mfg	AMER SUPERCONDTR	US	Other Win	CHINA BAK BATTER	CN	Fuel Cells	FIBRIA CELUL-ADR	BR	Pulp Mills
RENEWABLE ENERGY	US	Biofuels	CANADIAN SOLAR I	CA	PV Mfg	* NF ENERGY SAVING	CN	Metal Valv	ULTRALIFE CORP	US	Fuel Cells	UNIVERSAL FOREST	US	Other Misc. Wood Products
PACIFIC ETHANOL	US	Gasoline	RENESOLA LTD-ADR	CN	PV Mfg	GREENWIND NRG IN	IE	Wind Turb	CHINA SUN GROUP	CN	Industrial	LOUISIANA-PACIFI	US	Wood Building Materials
* ANDERSONS INC	US	Grain & Fi	JA SOLAR HOL-ADR	CN	PV Cells Crystalline Silicon				PLUG POWER INC	US	Fuel Cells	KAPSTONE PAPER A	US	Paper Mills
REX AMERICAN RES	US	Gasoline	JINKOSOLAR-ADR	CN	PV Modules Crystal Silicon				LITHIUM TECH	US	Fuel Cells	GLATFELTER	US	Paper Mills
* MURPHY USA INC	US	Petroleum	SUNEDISON INC	US	Solar Plant Construction				UNI-PIXEL INC	US	Fuel Cells	VERSO PAPER CORP	US	Paper Mills
FUTUREFUEL CORP	US	Other Inor	HANWHA SOLAR-ADR	CN	PV Modules Crystal Silicon				NEAH POWER SYSTEM	US	Fuel Cells	ARMSTRONG WORLD	US	Flooring Products
AEMETIS INC	US	Biofuels	AU OPTR-SPON ADR	TW	Display Panels				AMERICAN SECURITY	US	Fuel Cells	PLUM CREEK TIMBR	US	Specialty & Other REIT
ADECOAGRO SA	LU	Food Crop	ADV ENERGY INDS	US	Solar Inverters							MERCER INTERNATI	CA	Pulp Mills
* PETROBR-SP P ADR	BR	Integrated	CHINA SUNERG-ADR	CN	Solar Energy Equipment							NEENAH PAPER INC	US	Paper Mills
SOLAZYME INC	US	Biodiesel	UNITED MICRO-ADR	TW	Semiconductor Mfg							CLEARWATER	US	Sanitary Paper Products

OTC or Non-US listed	
* Neste Oil	FI
* SuedZucker	DE

OTC or Non-US listed	
Sharp Corp	JP
Suntech Power	CN
GCL-POLY	HK

OTC or Non-US listed	
Vestas Wind Systems	DK
Suzlon Energy	India
Gamesa Corp	ES
EDP Renovaveis	ES
EOLUS WIND	FI

OTC or Non-US listed	

OTC or Non-US listed	
Stora Enso	FI
ITOCHU Corp	JP
UPM KYMMENE	FI
SAPPI LTD	ZA

