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Solar technology innovation meeting summary

Solar Innovation and Technology Center

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Solar Innovation and Technology Center
Summary of Meeting of Advisory Group - 11 December 2009

On December 11, 2009, Senator Harry Reid and President Neal Smatresk (UNLV) conveyed a group of approximately 60 people (see attached lists) from the public and private sector to provide input on the structure, focus, and need for a Solar Innovation Technology Center. At this meeting, there were small group discussions followed by a larger group discussion on the needs in the areas of Workforce / Training, Marketing and Finance, Economic and Policy Making, Infrastructure and Manufacturing, Technology Transfer and Commercialization, and Research. The notes below summarize the major comments from the group. This represents individual comments and in other cases an abbreviated version of overlapping comments. Portions of these comments will be integrated into the full proposal.

Workforce / Training
• Provide advanced technology certification at low/medium/high level education
• Link manufacturers with labor unions.
• Educate local and state policymakers on solar issues, policy roadblocks
• Continue and expand apprenticeship training in partnership with Electrical Joint Apprenticeship and Training Committee (JATC).
• Provide Train the Trainers workshops for those that are conducting advanced training in solar energy.

Marketing/Market/Finance
• Serve as an agenda-neutral center for information (clearinghouse, website, one-stop shop)
• Educate public on: current programs, tax incentives, rebate process, the payback process, technology, small-scale solar technology (i.e. small solar chargers for small home appliances or battery chargers), and availability of current trained workforce
• Create “incubators” for new manufacturing businesses
• Provide financing infrastructure to bring capital to proposed programs
• Examine state investment dollars and union pension dollars to invest in solar technologies
• Provide education on marketing tactics (up the ladder)
• Examine interactions between national security and energy security.
• Capitalize on the convening ability of Las Vegas to become a center for the exchange of ideas in solar energy.

Economic/Policy Modeling
• Provide technological and economic models and analysis of financial impacts
• Serve as clearinghouse to accelerate the approval process for projects
• Map resources (micro and macro scale)
• Provide policy integration among various agencies
• Participate in the new environmental impact statement (EIS) for the Nevada Test Site
• Tie into state visioning committee
• Leverage expertise from the Brookings Institution to examine federal policies vis a vis state policies
• Integrate more solar forecasting into the overall energy plan
Infrastructure/Manufacturing
- Attract solar tech manufacturers to Nevada (NDA can help)
- Bring together new products and the trained labor for delivery to the community
- Provide necessary materials to build solar modules, solar water heaters, solar storage
- Facilitate the connection of technologies from various local industries
- Examine ways to invest state and city pension funds in Nevada manufacturing companies
- Solve land, water, and infrastructure obstacles to bringing in new companies

Tech Transfer
- Provide intellectual property (IP) evaluation for commercialization on a national level – Solar Tech Funnel
- Invest funds into higher risk projects
- Involve banks and lending institutions
- Develop a network of venture capitalists/Angels
- Develop a more sophisticated and efficient model of tech-transfer

Applied Research
- Interaction between concentrated solar and radar systems
- Transmission infrastructure
- Power storage and battery storage.
- GIS databases for informed decision making.
- Heat transfer
- Solar water heating
- Simulation and modeling with high performance computing
- Application testing (i.e., verification and certification) of new products
- Meteorological forecasting and modeling
- Distributed Systems – photovoltaic and thermal
- Zero Energy Home – codes and specifications
- Full System Analysis – deployment
- NREL partnerships

Basic Research
- Prioritize research and development in the early stages of the center
- Prioritize interdisciplinary approach
- Partner with national Labs
- Storage of solar energy
- Reliability of grid connection and interconnection
- Algae development
- Thermal transfer efficiency to reduce heat losses
SOLAR TECHNOLOGY INNOVATION MEETING
Friday, December 11, 2009
Stan Fulton Building, Salon B & C
University of Nevada, Las Vegas

AGENDA

9:00-9:30 a.m.
Check-in and light breakfast

9:30 a.m.
Introductions & Opening Remarks
President Neal Smatresk
University of Nevada, Las Vegas

10:00 a.m.
The Overarching Vision
Senator Majority Leader Harry Reid
(via videoconference)

10:30 a.m.
Facilitated Group Discussion
Vice President for Research Ron Smith
University of Nevada, Las Vegas
--Basic research
--Applied research
--Tech transfer/commercialization
--Market analysis and financing
--Education and workforce development
--Policy analysis
--Manufacturing and economic development

11:30 a.m.
Closing Remarks & Next Steps
President Neal Smatresk

11:45 a.m.
Luncheon Buffet
LIST OF ATTENDEES AND INTERESTED PARTIES
SOLAR INNOVATION AND TECHNOLOGY CENTER MEETING
December 11, 2009

FRANCISCO AGUILAR
EXECUTIVE DIRECTOR
AGASSI FOUNDATION
3883 HOWARD HUGHES PKWY 8TH FLOOR
LAS VEGAS NV 89169
francisco@agassi.net

TRENTON ALLEN
DIRECTOR PUBLIC FINANCE DEPT
CITI
ONE LIBERTY PLACE 1650 MARKET ST
PHILADELPHIA PA 19103
trenton.j.allen@citi.com

JEFF AMES
CTO & EXEC DIRECTOR OF GOVERNMENT AFFAIRS
SWITCHNAP
7135 S DECATUR
LAS VEGAS NV 89118
Jeff@switchnap.com

TOM ANDERSON
CHIEF OPERATING OFFICER
AMERICAN CAPITAL ENERGY
2116 PASEO PRIMERO
SANTA FE NM 87501-8399
tanderson@americancapitalenergy.com

WILLIAM ANTHOLIS
MANAGING DIRECTOR
BROOKINGS INSTITUTION
1775 MASSACHUSETTS AVE NW
WASHINGTON DC 20036
wantholis@brookings.edu

LYDIA BALL
OFFICE OF SENATOR HARRY REID
333 LAS VEGAS BOULEVARD SOUTH SUITE 8016
LAS VEGAS NV 89101
Lydia_ball@reid.senate.gov

DAVE BELOTE
COMMANDER 99TH AIR BASE WING
4430 GRISSEND AVE SUITE 101
NELLS AFB NV 89191-6520
david.belote@nellis.af.mil

CHRIS BROOKS
DIRECTOR
BOMBARD ELECTRIC
6434 S ARVILLE ROAD
LAS VEGAS NV 89118
solar@bomardelec.com

CHRISTOPHER BROPHY
VP OF ENERGY AND ENVIRONMENTAL SERVICES
MGM-MIRAGE
3260 INDUSTRIAL ROAD
LAS VEGAS NV 89109
cbrophy@mgmmirage.com

NOLAN BROWNE
MANAGING DIRECTOR
FRAUNHOFER CENTER FOR SUSTAINABLE ENERGY SYSTEMS
25 FIRST STREET
CAMBRIDGE MA 02141
nbrowne@fraunhofer.org

DOUGLAS W BUCHANAN
VICE PRESIDENT US PROJECT DEVELOPMENT
BRIGHTSOURCE ENERGY
1999 HARRISON STREET SUITE 2150
OAKLAND CA 94612
dbuchanan@brightsourceenergy.com

LINDA BULLEN
LIONEL SAWYER & COLLINS
300 SOUTH 4TH STREET
Las Vegas NV 89101-6053
Lbullen@lionelsawyer.com
LIST OF ATTENDEES AND INTERESTED PARTIES
SOLAR INNOVATION AND TECHNOLOGY CENTER MEETING
December 11, 2009

ROBERT BUNTJER
ELECTRICAL JOINT APPRENTICESHIP & TRAINING COMMITTEE OF
SOUTHERN NEVADA
620 LEGION WAY
LAS VEGAS NV 89110
rbuntjer@earnwhileyoulearn.org

MADISON BURNETT
ELECTRICAL JOINT APPRENTICESHIP & TRAINING COMMITTEE OF
SOUTHERN NEVADA
620 LEGION WAY
LAS VEGAS NV 89110
mburnett@earnwhileyoulearn.org

TIM CARLSON
PRESIDENT
PBR
3404 CALLE DEL TORRE
LAS VEGAS NV 89102
tim@pbrcorp.com

JOHN CROCE
NIREC
999 TAHOE BLVD TCE 216
INCLINE VILLAGE NV 89451
Jim.croce@nirec.org

JULIA CURTIS
DIRECTOR OF BUSINESS STRATEGY & GOVT RELATIONS
SHARP ELECTRONICS CORP
5901 BOLSA AVE
HUNTINGTON BEACH CA 9264

JEFFREY DOMINICK
JOHNSON CONTROLS
Jeffrey.s.dominick@jci.com

RICH DONOHUE
SENIOR SYSTEMS ENGINEER
SIERRA NEVADA CORPORATION
444 SALOMON CIRCLE
SPARKS NV 89434
Richard.donohue@sncorp.com

KATHLEEN DRAKULICH
MCDONALD CARANO WILSON LLP
100 WEST LIBERTY ST 10TH FLOOR
RENO NV 89501
kdrakulich@mcdonaldcarano.com

CORNELIUS EASON
WORKFORCE CONNECTIONS
7251 W LAKE MEAD BLVD SUITE 200
LAS VEGAS NV 89128
ceousn@snwib.org

MARK EDGEL
SOUTHERN NEVADA LABORERS LOCAL 877
4200 E BONANZA RD SUITE 101
LAS VEGAS NV 89110
MarksnLtt872@earthlink.net
LIST OF ATTENDEES AND INTERESTED PARTIES
SOLAR INNOVATION AND TECHNOLOGY CENTER MEETING
December 11, 2009

ROB ELLIOTT
OFFICE OF SENATOR HARRY REID
333 LAS VEGAS BOULEVARD SOUTH
SUITE 8016
LAS VEGAS NV 89101
Robert_elliott@reid.senate.gov

TOM FAIR
NV ENERGY
PO BOX 98910
LAS VEGAS NV 89151-0001
tfair@nvenergy.com

SCOTT FRIER
CHIEF OPERATING OFFICER
ABENGOA SOLAR INC
13911 PARK AVENUE SUITE 206
VICTORVILLE CA 9239

JIM GROTH
DIRECTOR
NEVADA STATE OFFICE OF ENERGY
727 FAIRVIEW AVE SUITE F
CARSON CITY NV 89701
jgroth@energy.nv.gov

JAMES HALSEY
INTERNATIONAL BROTHERHOOD OF
ELECTRICAL WORKERS LOCAL 357
4322 EAST BONANZA ROAD
LAS VEGAS NV 89110
Jhalsey@ibewlu357.com

AMANDA HAMLIN
BUREAU OF LAND MANAGEMENT
ADMINISTRATIVE ASSISTANT PFO & RECO
PAHRUMP FIELD OFFICE
Amanda_Hamlin@blm.gov

MICHAEL HATFIELD
DIRECTOR OF DEVELOPMENT
NEXTLIGHT RENEWABLE POWER LLC
353 SACRAMENTO ST SUITE 2100
SAN FRANCISCO CA 94111
mhatfield@nextlight.com

ARTHUR HAUBENSTOCK
BRIGHTSOURCE ENERGY
1999 HARRISON STREET SUITE 2150
OAKLAND CA 94612
ahaubenstock@brightsourceenergy.com

WILLIAM HECK
COGENTRIX SOLAR SERVICES LLC
704 N. GREEN VALLEY PARKWAY
SUITE 200
HENDERSON NV 89074
williamheck@ cogentrix.com

S. KENT HOEKMAN
RESEARCH PROFESSOR
DIVISION OF ATMOSPHERIC
SCIENCES
DESERT RESEARCH INSTITUTE
2215 RAGGIO PARKWAY
RENO NV 89512
Kent.hoekman@dri.edu

CHRISTIAN HOEPFNER
FRAUNHOFER CENTER FOR
SUSTAINABLE ENERGY SYSTEMS
25 FIRST STREET
CAMBRIDGE MA 02141
choepfner@fraunhofer.org

SOMER HOLLINGSWORTH
PRESIDENT & CEO
NEVADA DEVELOPMENT AUTHORITY
6700 VIA AUSTI PARKWAY SUITE B
LAS VEGAS NV 89119
shollingsworth@nevadadevelopment.org

DAVID IRWIN
GREENTECH SOLAR/SOLBIO ENERGY INC
707 8TH STREET UNIT 113
NEW WESTMINSTER B.C.
CANADA V3M 3S6
dirwin@greentechsolar.ca
DAVE JANSEN
LONGENECKER & ASSOCIATES
5052 PENSIER STREET
LAS VEGAS NV 89135
djansen@longenecker-associates.com

CLAY JENSEN
DIRECTOR OF PROJECT
DEVELOPMENT
BRIGHTSOURCE ENERGY
BSE LAS VEGAS OFFICE
10161 PARK RUN DRIVE SUITE 150
LAS VEGAS NV 89145
cjensen@brightsourceenergy.com

BRANDON KEPHART
BETTER BUILDING SYSTEMS
150 NORTH DURANGO DRIVE SUITE 290
LAS VEGAS NV 89145-5604
bkephart@bbs-lv.com

ROBERT R LIND
MANAGING DIRECTOR
BERKSHIRE BRIDGE CAPITAL LLC
2596 GRASSY SPRING PLACE
LAS VEGAS NV 89135
Bob@BerkshireBridgeCap.com

ROBERT LIST
CHIEF EXECUTIVE OFFICER
THE ROBERT LIST COMPANY
1975 VILLAGE CENTER CIRCLE SUITE 140
LAS VEGAS NV 89134-6237
rlist@rlistco.com

ALEX MCDONOUGH
OFFICE OF SENATOR HARRY REID
522 HART SENATE OFFICE BLDG
WASHINGTON DC 20510
Alex_mcdonough@reid.senate.gov

OTTO MÉRIDA
PRESIDENT & CEO
LATIN CHAMBER OF COMMERCE
300 NORTH 13TH STREET
LAS VEGAS, NEVADA 89101
otto@vlcc.com

CLAY JENSEN
DIRECTOR OF PROJECT
DEVELOPMENT
BRIGHTSOURCE ENERGY
BSE LAS VEGAS OFFICE
10161 PARK RUN DRIVE SUITE 150
LAS VEGAS NV 89145
cjensen@brightsourceenergy.com

RICHARD METCALF
DIRECTOR CORPORATE AFFAIRS
LABORERS INTL UNION OF NORTH AMERICA
905 16TH ST NW
WASHINGTON DC 20006
rmetcalf@Liuna.org

DAVID MILLS
AUSRA INC
303 RAVENDEALE DRIVE
MOUNTAIN VIEW CA 94043
David.mills@ausra.com

FREDERICK MORSE
SENIOR ADVISOR OF US OPERATIONS
ABENGOA SOLAR INC.
236 MASSACHUSETTS AVE NE SUITE 605
WASHINGTON DC 20002
fredmorse@morseassociatesinc.com

PATRICIA MULROY
GENERAL MANAGER
SOUTHERN NEVADA WATER AUTHORITY
1001 S VALLEY VIEW BLVD
LAS VEGAS NV 89153
Pat.mulroy@snwa.com

TERRY MURPHY
PRESIDENT
SOLAR RESERVE
2425 OLYMPIC BLVD SUITE 500 EAST
SANTA MONICA, CA 90404
terry.murphy@solar-reserve.com
LIST OF ATTENDEES AND INTERESTED PARTIES
SOLAR INNOVATION AND TECHNOLOGY CENTER MEETING
December 11, 2009

ROBERT NIELSEN
BOMBARD ELECTRIC
6434 S ARVILLE ROAD
LAS VEGAS NV 89118
rlnlv@aol.com

CINDY ORTEGA
VP OF ENERGY & ENVIRONMENTAL SERVICES
MGM-MIRAGE
3260 INDUSTRIAL ROAD
LAS VEGAS NV 89109
cortega@mgmmirage.com

REGENT KEVIN PAGE
3300 WEST SAHARA AVENUE SUITE 400
LAS VEGAS NV 89102
Kevin_J_page@nshe.nevada.edu

TOM PERRIGO
DEPUTY DIRECTOR OF PLANNING & DEVELOPMENT
CITY OF LAS VEGAS
DEVELOPMENT SERVICES CENTER
731 S FOURTH ST
LAS VEGAS NV 89101
tperrigo@lasvegasnevada.gov

KATHERINE POTTER
VP FOR COMMUNICATIONS
AUSR A INC
303 RAVENDALE DRIVE
MOUNTAIN VIEW CA 94043
Katherine.potter@ausra.com

BRADLEY B PRITCHARD
HEAD OF CLEAN TECHNOLOGY GROUP
WELLS FARGO SECURITIES LLC
600 CALIFORNIA STREET SUITE 1600
SAN FRANCISCO CA 94108
brad.pritchard@wellsfargo.com

TED J QUIRK
OF COUNSEL
GREENBERG TRAURIG
3773 HOWARD HUGHES PKWY SUITE 400
NORTH LAS VEGAS NV 89169
quirkt@gtlaw.com

DON REID
SENIOR PROJECT DEVELOPMENT ADVISOR
SOLAR MILLENNIUM LLC
1625 SHATTUCK AVE
BERKELEY CA 94709
reid@solarmillennium.com

DAN ROSE
SHEET METAL WORKERS LOCAL 88 TRAINING CENTER
2560 MARCO STREET
LAS VEGAS NEVADA 89115
dan@88training.com

RUSSELL ROWE
SHAREHOLDER
KAEMPFER CROWELL
8345 W SUNSET ROAD SUITE 250
LAS VEGAS NV 89113-2092
rrowe@kcnvlaw.com

MICHAEL SALTMAN
PRESIDENT
THE VISTA GROUP
2295-A RENAISSANCE DRIVE
LAS VEGAS NV 89119
mas@thevistagroup.net

TONY SANCHEZ
SR VP PUBLIC POLICY & EXTERNAL AFFAIRS
NV ENERGY
PO BOX 98910
LAS VEGAS NV 89151-0001
tsanchez@nvenergy.com
LIST OF ATTENDEES AND INTERESTED PARTIES
SOLAR INNOVATION AND TECHNOLOGY CENTER MEETING
December 11, 2009

CORDELL SANDERS
BUSINESS REPRESENTATIVE
SHEET METAL WORKERS LOCAL 88
2560 MARCO STREET
LAS VEGAS NEVADA 89115
cls@smw88.com

GUY SNOW
G & G SYSTEMS
4340 W HACIENDA AVE
LAS VEGAS NV 89118
guy@ggsystems.net

DONALD SNYDER
CHAIRMAN
SMITH CENTER FOR THE
PERFORMING ARTS
241 W CHARLESTON BLVD SUITE 111
LAS VEGAS NV 89102
don@donsnyderlv.com

RANDY SOLTERO
SHEET METAL WORKERS LOCAL 88
2560 MARCO STREET
LAS VEGAS NEVADA 89115
rsoltero@smw88.com

NED THOMAS
PRINCIPAL PLANNER
COMMUNITY DEVELOPMENT DEPT
CITY OF HENDERSON
PO BOX 95050 MSC 115
HENDERSON NV 89009-5050
ned.thomas@cityofhenderson.com

TERRY A VAETH
LONGENECKER & ASSOCIATES, INC
1700 SWEET PEA AVENUE
LAS VEGAS NV 89183
tvaeth@longenecker-associates.com

MATT VAN NOTE
BOMBARD ELECTRIC
6434 S ARVILLE ROAD
LAS VEGAS NV 89118
mvannote@bombardelec.com

MICHAEL VANNOZZI
OFFICE OF SENATOR HARRY REID
333 LAS VEGAS BOULEVARD SOUTH
SUITE 8016
LAS VEGAS NV 89101
Michael_vannozzi@reid.senate.gov

CHRIS WILE
INTERNATIONAL BROTHERHOOD OF
ELECTRICAL WORKERS LOCAL 357
4322 EAST BONANZA ROAD
LAS VEGAS NV 89110
cwile@ibewlu357.com

GARY WOOD
SOUTHERN NEVADA WATER
AUTHORITY
1001 S VALLEY VIEW BLVD
LAS VEGAS NV 89153
Gary.wood@snwa.com

FRANK WOODBECK
NEVADA COMMISSION ON
ECONOMIC DEVELOPMENT
555 E WASHINGTON SUITE 5400
LAS VEGAS NV 89101
frwoodbeck@state.nv.us

JAMES WOODRUFF
NEXTLIGHT RENEWABLE POWER LLC
353 SACRAMENTO ST SUITE 2100
SAN FRANCISCO CA 94111
Jwoodruff@nextlight.com

MICHAEL YACKIRA
PRESIDENT & CEO
NV ENERGY
PO BOX 98910
LAS VEGAS NV 89151-0001
myackira@nvenergy.com

STEPHEN YOUNGER
NATIONAL SECURITY
TECHNOLOGIES
PO BOX 98521
LAS VEGAS NV 89193-8521
youngesm@nv.doe.gov
LIST OF ATTENDEES AND INTERESTED PARTIES
SOLAR INNOVATION AND TECHNOLOGY CENTER MEETING
December 11, 2009

UNLV Attendees

NEAL SMATRESK
PRESIDENT
UNIVERSITY OF NEVADA, LAS VEGAS
4505 S MARYLAND PKWY BOX 451092
LAS VEGAS NV 89154-1092
President@unlv.edu

RON SMITH
VICE PRESIDENT FOR RESEARCH & GRADUATE STUDIES
UNIVERSITY OF NEVADA, LAS VEGAS
4505 S MARYLAND PKWY BOX 451092
LAS VEGAS NV 89154-1092
Ron.smith@unlv.edu

STAN SMITH
ASSOCIATE VICE PRESIDENT FOR RESEARCH
UNIVERSITY OF NEVADA, LAS VEGAS
4505 S MARYLAND PKWY BOX 451087
LAS VEGAS NV 89154-1087
Stan.smith@unlv.edu

THOMAS PIECHOTA
DIRECTOR OF MULTI-DISCIPLINARY RESEARCH & SUSTAINABILITY
UNIVERSITY OF NEVADA, LAS VEGAS
4505 S MARYLAND PKWY BOX 451087
LAS VEGAS NV 89154-1087
Thomas.piechota@unlv.edu

OLIVER HEMMERS
EXECUTIVE DIRECTOR
HARRY REID CENTER FOR ENVIRONMENTAL STUDIES
UNIVERSITY OF NEVADA, LAS VEGAS
4505 S MARYLAND PKWY BOX 4009
LAS VEGAS NV 89154-4009
Oliver.hemmers@unlv.edu

BOB BOEHM
DEPARTMENT OF MECHANICAL ENGINEERING
UNIVERSITY OF NEVADA, LAS VEGAS
4505 S MARYLAND PKWY BOX 4027
LAS VEGAS NV 89154-4027
Bob.boehm@unlv.edu

RAMA VENKAT
PROFESSOR
DEPT OF ELECTRICAL & COMPUTER ENGINEERING
DIRECTOR, SCIENCE & ENGINEERING BUILDING
UNIVERSITY OF NEVADA, LAS VEGAS
4505 S MARYLAND PKWY BOX 454026
LAS VEGAS NV 89154-4026
Rama.venkat@unlv.edu

NANCY BRUNE
INSTITUTE FOR SECURITY STUDIES
UNIVERSITY OF NEVADA, LAS VEGAS
4045 S SPENCER STREET SUITE 306
LAS VEGAS NV 89119
Nancy.brune@unlv.edu

MARIANNE BUEHLER
SUSTAINABILITY LIBRARIAN
UNIVERSITY LIBRARIES
UNIVERSITY OF NEVADA, LAS VEGAS
4505 S MARYLAND PKWY BOX 7001
LAS VEGAS NV 89154-7001
Marianne.buehler@unlv.edu

CRAIG PALMER
HARRY REID CENTER FOR ENVIRONMENTAL STUDIES
UNIVERSITY OF NEVADA, LAS VEGAS
4505 S MARYLAND PKWY BOX 4009
LAS VEGAS NV 89154-4009
Craig.palmer@unlv.edu
LIST OF ATTENDEES AND INTERESTED PARTIES
SOLAR INNOVATION AND TECHNOLOGY CENTER MEETING
December 11, 2009

WILLIAM BOLDT
VICE PRESIDENT FOR
ADVANCEMENT
UNIVERSITY OF NEVADA, LAS VEGAS
4505 S MARYLAND PKWY BOX 451058
LAS VEGAS NV 89154-1058
William.boldt@unlv.edu

NANCY STROUSE
EXECUTIVE DIRECTOR
UNLV FOUNDATION
4505 S MARYLAND PKWY BOX 45106
LAS VEGAS NV 89154-1005
Nancy.strouse@unlv.edu