

## Summary and Recommendations of the *Getting to Fifty Summit*

### Executive Summary

In March 2007, New Buildings Institute (NBI) hosted and facilitated the *Getting to Fifty Summit*. This meeting of 60 experts was initiated to develop relationships and strategies which will significantly and rapidly reduce energy use in new and renovated commercial buildings. *Getting to Fifty* (GT50) refers to the Energy Policy Act of 2005 (EPACT 2005), which provides tax incentives for buildings that are designed to use 50 percent or less of the energy of typical code buildings (ASHRAE 90.1-2001).

Only 1 new building in 1,000 is built to the EPACT 2005 standard. However, these exemplary low-energy buildings represent a variety of building types and sizes built across the country, supported by a wide mix of owners and design teams. The barriers to the widespread design and construction of low-energy buildings are not technical in nature, nor do they appear to be financial; more likely they are related to the motivation of owners and the skill set of the design and construction teams. Currently, there is limited practical guidance for design teams who may be ready to consider improvements to performance which would make their buildings 50 percent more efficient than code. The uncertainties and time requirements of researching and implementing new approaches, and the associated performance risks, continue to be real-world obstacles to improved energy performance.

The *Getting to Fifty Summit* was a working meeting, designed to develop concepts and networks that would progress toward solutions after the gathering's conclusion. Summit participants developed a remarkably broad and inclusive planning document to accelerate the efficiency of commercial buildings, with a range of recommendations encompassing policy, education, marketing, and research and development. Key concepts developed and supported by attendees include:

- ***It is critical to build the business case for high-performance buildings.*** Owners are the decision makers regarding building priorities and required financial performance. They need stronger, more specific communications and visible leadership from their own community.
- ***Early design process improvements can improve information, choices and commitments related to building performance.*** Several specific early action steps that would improve design choices were developed at the Summit.

- ***Plug-and-play integrated technology packages can capture the next step in efficiency for lighting, heating, ventilation and cooling.*** Examples of work underway are the US Department of Energy (DOE) Commercial Lighting Initiative, California Energy Commission (CEC) PIER Advanced Rooftop Unit with automated, embedded diagnostics, and, at the whole building level, ASHRAE's *Advanced Energy Design Guidelines* and NBI's *Advanced Buildings: Core Performance*.
- ***Climate-responsive design is the design element most likely to lead to buildings with very low energy requirements.*** Daylighting, natural ventilation and evaporative cooling represent complex interactions of technology, building form, controls and people. These interactions require both research and educational strategies to maximize their impact.
- ***Feedback on measured building performance needs to be improved from several perspectives.*** In order to improve the next design, design teams need feedback on the performance of previous design choices. Owners and operators need feedback on current performance to improve building operations.
- ***Building case studies and post-occupancy evaluations are needed to reduce real and perceived risks of low-energy buildings.*** A tiered strategy of case studies was conceived at the Summit, all of which include energy, financial and occupant comfort information. More support is needed for case study development and post-occupancy evaluations.
- ***Tax incentives and progressive codes and standards are the public policy tools that will have the greatest impact in supporting the development of low-energy buildings.*** Extension and expansion of the EPACT 2005 tax deductions are needed. Codes and standards must move more aggressively to reduce the carbon impacts of buildings.

NBI views the GT50 Summit as a starting point for an enhanced network to create a new class of low-energy buildings. The GT50 Summit was an experiment in collaboration and connective leveraging. Could a large group of organizations and individuals all committed to higher standards of energy efficiency in commercial buildings come together and blend efforts to accelerate the integration of this new class of buildings into the existing market landscape? The response of the group was a resounding “yes,” while the resultant enthusiasm and list of next steps point to new ways of approaching and stimulating the market. Through the work at the Summit, a new and powerful commitment to collaborate was established and communicated.

This document is viewed as an action step rather than simply the summing up of an exceptional meeting. Improving building energy efficiency should be a fundamental tenet of programs and policy to mitigate climate change. This report provides the foundation for action on that critical work by a new network of experts, advocates and businesses. NBI is committed to facilitating and supporting this network in several ways:

- The key results of the GT50 Summit have already shaped future planning at NBI. GT50 activities are at the core of NBI's strategic development for the next few years.
- NBI is expanding its website to better support GT50 participants in a more collaborative and interactive way. The GT50 aspects of the website will initially focus on the major action categories discussed in the *Moving Forward* section of this document.
- Key strategies developed at the Summit are being advanced to organizations that might be interested in joint development projects.
- NBI will host additional meetings that focus on elements of the GT50 Summit results and will be discussing organization and priorities with Summit participants.

## Introduction

In 2006, New Buildings Institute began researching new commercial buildings in the United States that were designed to be significantly more energy efficient than typical construction. This exercise was driven in part by NBI's interest in supporting the Energy Policy Act of 2005, which includes tax deductions for new buildings that are designed to use 50 percent less energy than buildings constructed to ASHRAE 90.1 – 2001 levels. Another motivator was the need to identify the types of energy efficiency strategies adopted in the marketplace by designers and/or owners of extremely energy-efficient buildings (referred to as low-energy buildings). NBI reviewed a wide variety of databases and case studies and assembled an on-line database ([www.newbuildings.org/gtf](http://www.newbuildings.org/gtf)) and a slide show/presentation on the results.

NBI located approximately 100 buildings built in the past 5 years that would meet, or come close to meeting, the EPACT 05 standard. Key findings of the review included:

- Buildings designed to this level of efficiency represent fewer than 1 in 1,000 of buildings designed and constructed in the U.S. annually.
- The range of building types and sizes was extremely large, from warehouses to medical office buildings, and range from a few thousand to nearly 1,000,000 square feet.
- Costs of the projects varied greatly, from under \$100 to nearly \$400 per square foot, for reasons that had little or nothing to do with their efficiency features.
- Although low-energy buildings were found across the country, more were located in states with strong energy efficiency programs, and fewer buildings were located in hot, humid climates.
- The most common efficiency design features listed were daylighting and advanced control strategies (referenced in nearly all projects), while innovative features such as natural ventilation and underfloor air/displacement ventilation were present in 20 to 40 percent of the projects.
- Several projects reduced designed energy use by 70 to 80 percent, a level that could easily lead to a net-zero-energy building with a moderate size photovoltaic array.

The broad conclusion drawn from this set of projects is that low-energy buildings of various types and sizes can be built today across the country, supported by a wide mix of owners and design teams. However, just a few buildings attempt to reach this performance level. The barriers to the widespread design and construction of low-energy buildings are not technical in nature, nor do they appear to be financial, but are more likely related to the motivation of the owners and the skill set of the design and construction teams. A second important conclusion is that this class of low-energy buildings is poorly understood and that, with some notable exceptions, actual performance (including energy performance, financial performance, occupant satisfaction and marketplace acceptance) is largely unverified.

NBI is not the only organization interested in buildings that reduce energy use by 50 percent. The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) is producing a series of *Advanced Energy Design Guides* focused on achieving a 50-percent energy reduction. The 2030 Challenge references a near-term (2010) goal for buildings to use half as much energy as average buildings, a position that has received support from the American Institute of Architects (AIA) and the U.S. Conference of Mayors, among others. The US Green

Building Council (USGBC) recognizes energy efficiency as part of its LEED program, and many gold and platinum LEED buildings are represented in the *Getting to Fifty* database.

## Meeting Agenda and Structure

With this expanding attention to buildings that use 50 percent less energy, NBI developed the concept of a two-day working gathering of energy experts from a broad spectrum of interests to develop strategies to accelerate low-energy buildings into the marketplace. The meeting, called the *Getting to Fifty* Summit, aimed to pool resources and expertise focusing on the following areas:

- What additional technical guidance needs to be developed?
- How can training be developed and supported for design professionals?
- What are the best strategies to increase owner interest?
- How can emerging technologies and design practices be accelerated into the market?
- How can existing resources be linked to support the goal?
- What other gaps and/or barriers exist that might impede progress towards the *Getting to Fifty* goal?

Sixty key decision makers, advocates and design professionals met at the Emory University Conference Center in Atlanta, Georgia, for a two-day retreat to work through detailed strategies and enhance linkages between organizations and resources. Support for the *Getting to Fifty* Summit was provided by the Energy Foundation and EPA Energy Star through grants that support NBI activities, and by NBI's sponsor organizations. Attendees included representatives from:

- *Government*: US Environmental Protection Agency, California Energy Commission, New York State Energy Research & Development Authority
- *Design Professional Organizations*: American Institute of Architects, American Society of Heating, Refrigerating and Air-Conditioning Engineers, US Green Building Council, Illuminating Engineering Society of North America
- *Energy Efficiency Advocates/Policy*: Natural Resources Defense Council, American Council for an Energy Efficient Economy, Alliance to Save Energy, 2030 Challenge
- *Utilities*: National Grid, Pacific Gas & Electric, Northeast Energy Efficiency Partnerships, Northwest Energy Efficiency Alliance
- *National labs*: Lawrence Berkeley National Laboratory, Pacific Northwest National Laboratory, Oak Ridge National Laboratory and National Renewable Energy Laboratory
- *Business Organizations*: Development community, design firms, Wal-Mart
- *Selected exemplary practitioners and university faculty*
- *Trade press*
- *Foundations focused on climate change and sustainability*

The GT50 Summit began the evening of March 7 and concluded on March 9, 2007. The opening reception focused on presenting examples of low-energy buildings from around the country, many of which were designed or managed by attendees at the Summit. After the first evening, the PowerPoint presentations were put away, and the remainder of the meeting consisted

primarily of facilitated, small-group working sessions designed to identify ways to accelerate building energy efficiency. The initial small groups focused on five areas:

- Design Strategies
- Research and Technology
- Public Policy
- Owners and Operators
- Education and Training

By the end of the first day the small groups had identified over 100 possible strategies to accelerate energy efficiency in buildings. These options were sorted and organized by NBI staff overnight, and prioritized through a group exercise the next morning. The Summit then reorganized into “affinity groups” around a set of the highest priority strategies to develop additional networks and initial action plans. Affinity groups were self-selected based on interest and involvement in topic areas.

## Recommendations

A few key themes especially resonated with the participants at the GT50 Summit and form the basis for a core of action going forward. These themes were reflected in the working group reports and demonstrated by the identification of priorities and the establishment of action plans in the closing sessions of the GT50 Summit. Listed below, these key themes provide a sense of the critical areas where action is needed to accelerate energy efficiency in commercial buildings.

Each theme is followed by specific action items. The highest priority action items, as rated by the attendees at the Summit, are **listed in bold**. In some cases, multiple groups recommended similar highly rated action items, which are shown in **bold** within each group.

### *Build the Business Case*

Owners are the critical decision makers regarding building priorities and required financial performance. While there is compelling evidence that green/high-performance buildings can outperform standard construction from a variety of perspectives, stronger, more specific communications and visible leadership are needed to hasten action by owners and developers.

- **Strengthen and/or form owners’ coalitions relative to energy-efficiency goals.**  
Anoint a team of early doers with sufficient square footage to make a difference, e.g. a *Billion Square Foot Club*. These owners can drive vertical supply chains to improve access to high-performance products and services, take part in applied research to hone the technology and serve a key leadership role.
- **Provide financial incentives (e.g. government, utility) that are scaled to measured performance.** The most efficient buildings should earn higher incentives, but the incentives should be linked to measured performance, not simply design expectations.
- **Continue to provide to the market early case studies that build the business case.** Sufficient case studies are needed so that there are case studies specific to the various building/owner types and climates.

- **The designation of “Class A-plus” office space should be restricted to LEED Gold or better buildings.**
- All government entities should build or lease only high-performance space.
- Research and develop client needs and values to assist business case development.

### *Assemble Advanced Technical Solution Sets*

While RD&D needs to continue on new technologies, tremendous energy efficiency can be gained by more limited development to improve the usefulness of existing technologies and design strategies. Both areas are covered in the points below:

- **Engineer technologies by geographic/climate region, with an emphasis on passive technologies such as daylighting, natural ventilation and advanced evaporative cooling.**
- **Develop intelligent energy storage systems, whether grid based, district scale or on-site.**
- **Develop plug-and-play integrated technology packages for lighting, heating, ventilation and cooling.** Examples of work underway are the DOE Commercial Lighting Initiative and the CEC-PIER Advanced Rooftop Unit.
- Develop a Research and Development plan specific to building types and regional strategies.

### *Improve Operational Performance*

It is not enough to *design* more efficient buildings; these buildings must also be properly managed and operated to maintain and improve performance. There continues to be a gap between constructing and operating the buildings, especially related to controls. New diagnostic tools are emerging. With new design strategies and technologies being incorporated in low-energy buildings, a focus on operational performance has even greater importance.

- **Significantly broaden the implementation of post-occupancy evaluations on low-energy buildings.** Operational performance aspects of these buildings need to be understood.
- **Design controls to be more usable and workable for building operators; envision an iPod-like interface.** Develop intuitive feedback/metering/dashboard design to support building operations for varying levels of building complexity.
- **Improve operations and maintenance training and greatly improve the skills and number of building operators to meet future needs.**
- Add better information technology to building operations, starting with basic energy and demand characteristics.

### *Ramp Up Educational Strategies*

Education is needed at all steps in the decision and implementation chains. Generally, the stories about low-energy buildings need to be told, with an emphasis on accomplishments, regional context and lessons learned.

- **Develop a multi-week post-graduate institute that can rapidly bring practicing design and management professionals to a higher level of proficiency in the development of high performance /sustainable buildings.** Initial development could be coordinated nationally, then offered at several colleges and universities around the country and on-line.

- **Develop and communicate additional case studies to various audiences (architects, engineers, owners, operators), including detailed energy performance on the country's best performing buildings.**
- **Create a training and marketing pilot to increase the “grey-collar” workforce needed to manage building energy use and data.** The grey-collar concept combines the operational trench work (blue collar) needed to run buildings with the growing level of information technologies and controls (white collar) skill base. The marketing would build awareness among owners of this skill set's value and attract new workers to this critical field.
- Enhance college curriculum related to sustainability and energy efficiency strategies for programs in engineering and architecture. Support the 2010 initiative.

### ***Develop New Tools for Design Support***

Beyond the educational strategies and case studies referenced above, the design community needs additional tools to support improved designs.

- **Develop tools to quantify energy options early in the design process.** For simple buildings, this might be a list of the top “How To” guidelines to improve energy performance such as ASHRAE's *Advanced Energy Design Guidelines* series or NBI's *Advanced Buildings: Core Performance*.
- **Create feedback loops from building operations to the design process.** To improve future practice, design teams need to better understand real-world performance issues.
- Include performance metrics in design contracts. Design teams should work with targets and have reasonable responsibility and/or incentives to meet targets.

### ***Provide Significant Policy Carrots and Sticks***

To significantly accelerate progress toward highly efficient buildings, public policy must support and/or require efficiency. There are policy options at the national, state and local level that can support efficiency.

- **Extend and expand the tax deductions for commercial buildings in EPACK 05.** Ensure that the administrative system is transparent and workable.
- **Develop building energy performance standards and/or significantly ramp up energy code stringency.** These options are probably the only way to move large chunks of the market.
- **At the national level, adopt a program similar to the Oregon Business Energy Tax Credit.** The Oregon program has proven both effective and flexible in encouraging greater energy efficiency in buildings.
- **Accelerate low-energy/green building permitting and density bonuses at the local level.**
- **Enact a carbon tax.**
- All public buildings should receive an Energy Star score and pursue Energy Star Labels.
- Scale incentives to the level of performance; e.g., provide bonuses proportional to the level of demonstrated efficiency for utility and green building programs.

### ***Clarify and Align Performance Metrics***

There are a wide variety of building-performance metrics in the marketplace. Some key metrics are based on the building as designed (which may not include all building loads, many of which

are more related to occupant use), while others are based on measured performance. With the emphasis on carbon reduction, source energy vs. site energy is also important. The variety of metrics causes marketplace confusion when discussing performance, and alignment of metrics with carbon reduction goals is desired. This area was not a major focus of the GT50 Summit, primarily because ASHRAE, AIA and USGBC have already begun discussions on this topic. EPA joined the limited discussion that occurred at the Summit. The key action needed is continued work to align and clarify performance metrics among the key parties, which might include:

- Complete additional research and analysis to determine how design-related metrics relate to measured performance values.
- Consider a scale that includes two performance measures: *As-Designed* and *As-Operated*.

## **Moving Forward: Action Plans for Key Recommendations**

An intentional aspect of the GT50 Summit was enhancing development of networks around topic areas to encourage the development of ongoing action. Initial meetings of these “affinity groups” focused on particular topics convened briefly at the Summit to develop the first steps of action plans. The seven topics selected represent recommendations receiving the most votes during earlier discussions and activities. Note that three of the seven focus on measuring and using building performance information, an area that clearly needs additional attention .

The following section presents the topics selected by GT 50 participants for their attention and input on the final day of the meeting. The priority steps are listed.

**1) *Business Case for High-Performance Buildings.*** Specifically discussed in the *Recommendations* section of this report, this group included discussion of an owners’ coalition on low-energy buildings. Recommended initial activities included:

- Create a chart of different audiences for the business cases and determine the status of current case study quality.
- Convene a leadership group around the hottest markets and link to the Clinton Climate Initiative and BOMA.
- Review the available resources and link together through the web.

**2) *Feedback of Measured Performance Information to Design Better Buildings and Improve Building Operations.*** Gathering useful measured performance data was a topic covered in several of the breakout groups discussed earlier. The affinity group meeting set a goal of making performance monitoring and verification and feedback on metrics standard practice. Among the early steps suggested were:

- Identify the existing activities moving in this direction.
- Develop feedback tools and routes.
- Develop contract language for design teams to address building performance (e.g., performance contracting).
- Create “pilots” with large owners.

3) **Early Design Process Improvements.** Several specific early action steps were developed in this affinity group, including:

- Promote and expand public programs (e.g. utility programs) that bring energy consulting to design teams.
- Develop tools to assist the charrette process to improve effectiveness.
- Develop system tools that identify design strategies for specific building types.
- Require energy performance in the Request for Proposals/Request for Qualifications processes.

4) **High-Performance Building Case Studies.** The focus of this group was obtaining additional case studies, particularly of buildings in the GT50 data set. Initial actions were:

- Utilize the DOE High-Performance Buildings database to coordinate access to case studies. Many more case studies of high-performance (low-energy) buildings are needed.
- Develop a tiered strategy of detailed case studies (\$100,000 per project, with subsystem performance monitoring), independently verified case studies (\$10,000 per project, with carefully documented performance information), and self-reports (\$1,000 per project, submitted by owners or design teams using some standard information fields).
- Incorporate occupant satisfaction along with energy performance in order to accelerate its profile as a critical metric.
- Create a marketing strategy for the use and distribution of case studies.

5) **Post-Occupancy Evaluation** This group proposed a more formal sharing of information from several active groups (Green Building Alliance, Center for the Built Environment, etc.) followed by a planning session in the fall of 2007. Information sets for post-occupancy evaluations need to be defined, market interest assessed and a marketing strategy needed. NBI is currently piloting a very simple post-occupancy evaluation and will make its literature review, development issues and current status available at [www.newbuildings.org](http://www.newbuildings.org). NBI may be an appropriate organization to host or co-host the fall 2007 planning session.

6) **Progressive Codes and Standards** This group suggested three initial areas of focus:

- Improve multi-level codes and code enforcement with progressive codes linked to high performance buildings.
- Develop regulatory assurance of continued building performance such as time-of-sale requirements.
- Consider new approaches to appliance standards such as regional differentiation for climate-related equipment.

7) **Climate-Responsive Design** This group focused on developing whole-building strategies and equipment solutions that include controls. Initial suggested steps include:

- Research and matrix what works regionally.
- Identify strategies that have the most immediate impact.
- Dedicate research, design and development regionally.
- Regionalize codes and standards to provide optimal solutions.

NBI is committed to facilitating and supporting the network moving forward with these action plans in several ways.

First, the key results of the GT50 Summit have already shaped future planning at NBI; *Getting to Fifty* activities are at the core of NBI's strategic development over the next few years. Progress and results on these strategic activities will support continuing efforts to accelerate building efficiency.

Second, NBI is expanding its website to include additional materials to support GT50 participants. The *Getting to Fifty* aspects of the website will be more collaborative and interactive, offering a place for the network to converse. More detailed action plans will be posted online by May 1, 2007, along with additional information and links. The *Getting to Fifty* section of the NBI website ([www.newbuildings.org/gtf](http://www.newbuildings.org/gtf)), will be updated regularly and begin to serve as a community bulletin board on these topic areas and refer interested parties to other relevant websites.

Third, NBI is advancing key strategies to organizations that might be interested in joint development projects. Discussions have already been held with several organizations on improving performance measurement and development of an owners' group.

Fourth, NBI will host additional meetings that focus on elements of the GT50 Summit results. One smaller meeting has already occurred - NBI staff and Board met with DOE staff to discuss the outcomes of the Summit and how better collaboration can be supported. The Board also committed to pursuing a second GT50 Summit; NBI staff will be talking with other organizations about the goals and key organizational elements of future gatherings.

## Conclusions

NBI views the *Getting to Fifty* Summit as a starting point for an enhanced network to create a new class of low-energy buildings. The Summit was an experiment in collaboration and connective leveraging. Could a large group of organizations and individuals committed to higher standards of energy efficiency in commercial buildings come together and blend their efforts to accelerate the integration of this new class of buildings into the existing market landscape? The response of the group was a resounding "yes," while the resultant enthusiasm and list of next steps point to new ways of approaching and stimulating the market. Through the work at the Summit a new and powerful commitment to collaborate was established and communicated.

*Getting to Fifty* Summit participants developed a remarkably broad and inclusive set of plans to accelerate the efficiency of commercial buildings with a range of recommendations encompassing policy, education, marketing, and research and development. This document is viewed as an action step rather than simply the summing up of an exceptional meeting. Improving building energy efficiency should be a fundamental tenet of programs and policy to mitigate climate change. This report provides the foundation for action on that critical work.

## *Getting to Fifty Summit Attendees*

Adam Hinge	Sustainable Energy Partnerships
Alexandra Sullivan	US EPA
Andrew Nicholls	Pacific Northwest National Laboratory
Andy Mangan	US Business Council for Sustainable Dev.
Ann Peterson	California Energy Commission
Blair Hamilton	Vermont Energy Investment Corp.
Brendan Owens	USGBC
Bruce Hunn	ASHRAE
Carol Jones	Pacific Northwest National Laboratory
Dan Nall	Flack and Kurtz
David Goldstein	Natural Resources Defense Council
David Vasnaik	Pacific Gas & Electric
Dennis Creech	Southface
Dennis Wilde	Gerding Edlen
Dick Bourne	UC Davis Western Cooling Efficiency Center
Ed Mazria	2030 Challenge
G.Z. Brown	University of Oregon Daylighting Lab
Harry Misuriello	Owens Corning
Harvey Bryan	Arizona State University
Harvey Sachs	ACEEE
James McClendon	Wal-Mart Stores
Jason McLennan	Cascadia Region Green Bldg. Council
Jean Lupinacci	US EPA
Jeff Harris	Alliance to Save Energy
John Jennings	Northwest Energy Efficiency Alliance
John Kennedy	Green Building Studio
Karen Butler	US EPA
Karl Brown	California Inst. for Energy & the Environment
Kent Peterson	ASHRAE/P2S Engineering
Kevin Flynn	IESNA/Kiku Obata
Lee DeBaillie	Energy Center of Wisconsin
Malcolm Lewis	Constructive Technologies Group
Marcus Sheffer	Energy Opportunities, Inc./a 7group Company
Marge Anderson	Energy Center of Wisconsin
Mark Eggers	NY State Energy Research & Development Auth.
Markku Allison	American Institute of Architects
Mary Ann Lazarus	HOK
Michael Ivanovich	Consulting-Specifying Engineer Magazine
Michael McAteer	National Grid, USA
Michelle Moore	USGBC
Nadav Malin	Environmental Building News-Building Green

Patrick Hughes	Oak Ridge National Laboratory
Paul Torcellini	National Renewable Energy Laboratory
Sandy Wiggins	Consilience LLC
Scott Bernstein	Center for Neighborhood Technology
Scott Thigpen	Booz Allen Hamilton
Sharon Alpert	Surdna Foundation
Steve Selkowitz	Lawrence Berkeley National Lab
Sue Coakley	Northeast Energy Efficiency Partnerships
Terry Townsend	Townsend Engineering/ASHRAE
Tom Hartman	The Hartman Company
Vivian Loftness	Carnegie Mellon University

In addition to the individuals listed above, the following NBI staff were present:

Dave Hewitt, *Executive Director*  
Cathy Higgins, *Program Director*  
Mark Frankel, *Technical Director*  
Mark Cherniack, *Senior Program Manager*  
Cathy Turner, *Senior Analyst*  
Terry Egnor, *Senior Consultant*  
Patrice Thrasher, *Consultant*