Navigating paradox as a mechanism of change and innovation in hybrid organizations[1]

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Hybrid organizations combine institutional logics in their efforts to generate innovative solutions to complex problems. They face unintended consequences of that institutional complexity, however, which may impede their efforts. Past scholars have emphasized conflicting external demands, and competing internal claims on organizational identity. Data from an in-depth field study of the public-private Cambridge Energy Alliance suggest another consequence – paradoxes of performing (Smith & Lewis 2011) that generate ambiguity about whether certain organizational outcomes represent success or failure. This paper develops a process model of navigating such paradoxes: in sensemaking about paradoxical outcomes, actors grapple with the definition of success and can transform the organizational logic. The result can be oscillation among logics, or novel synthesis between them when outside perspectives enable a clearer view of the paradox. Hybrid organizations' capacity for innovation depends in part on the results of this change process.

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For several decades, scholars and practitioners have sought novel organizational models and strategies for addressing big, complex problems: scientific and technological innovation; poverty alleviation; public health; education; and environmental sustainability among others. One result of this search has been the formation of organizations that draw from multiple institutional logics, particularly when problems seem to dwarf the capability of organizations hewing narrowly to one logic. Logics of the market and academic science come together in efforts to accelerate medical discovery in biotechnology firms (Murray, 2010). Logics of market and charity combine to approach poverty alleviation through microfinance organizations (Battilana & Dorado, 2010; Canales, 2008). In this paper I focus on a public-private hybrid organization[2] that combines logics of government bureaucracies, business firms, and non-profit associations to tackle the complex challenge of climate change.

While some scholars have emphasized the "sense of dissonance" (Stark, 2009) and innovative potential of synthesizing logics and practices (Chen & O'Mahony, 2006; Murray, 2010; O'Mahony & Bechky, 2008; Reay & Hinings, 2009), there are also challenging unintended consequences of such institutional complexity (Greenwood, Raynard, Kodeih, Micelotta, & Lounsbury, 2011). Hybrid organizations must contend with competing external demands (Pache & Santos, 2010) and internal identities (Kraatz & Block, 2008). As a result, while inertia and stasis are a problem for organizations conforming to homogenous institutional fields (DiMaggio & Powell, 1983; Hannan & Freeman, 1984), excessive change may characterize the life of organizations that grapple with these multiple influences. Such instability

[2] There are two prominent uses of the term "hybrid organization" in scholarly and practitioner literature. One is Powell's (1990) "neither market nor hierarchy" idea of a hybrid, networked organizational form. The other is in the combination of public and private organizing logics, through mission-driven businesses, social enterprises, cross-sectoral collaboration, and public-private partnerships of various kinds. I use the term in this latter sense.

and flux could deplete organizations' capability to solve complex problems, particularly if change leads to the collapse of hybridity and the dominance of one logic (Kraatz & Block, 2008).

How do change processes unfold in hybrid organizations? What bearing do they have on the innovative potential of combining logics? The present study makes two key contributions in exploring these questions. First, it develops a process model of iterative, continuous organizational change (Orlikowski, 1996; Tsoukas & Chia, 2002) that could be generalizable across a variety of hybrid organizations. Prior studies have emphasized more episodic "responses" to institutional complexity (Greenwood et al., 2011; Pache & Santos, 2010), or followed hybrid organizations over time without developing this kind of process model (Battilana & Dorado, 2010; Reay & Hinings, 2009). Second, this model illustrates how sensemaking amid organizational paradoxes (Quinn & Cameron, 1988; Smith & Berg, 1987; Smith & Lewis, 2011) can be an important mechanism of change in hybrid organizations, and one that affects their capacity to innovate. This new mechanism complements prior mechanisms in the empirical literature such as power struggle and negotiation among competing internal and external factions who represent disparate logics (Ashforth, Reingen, & Ward, 2009; Fligstein, 1987; Layzer, 2008; Thornton & Ocasio, 1999).

My central finding is that as members of a hybrid organization take actions to achieve their mission, and then interpret the outcomes of those actions, they discover that some outcomes are ambiguous and paradoxical: they are successes through the lens of a public service logic but failures through the lens of a client service business logic. Efforts of members to make sense of these outcomes – and therefore the organizational strategy and identity – result in their transforming the organization from a business logic to a non-profit logic and finally to a synthesis of the two. It is in this synthesis – partly enabled by bringing external perspectives into

the sensemaking conversation – that innovative practices emerge through combining organizational means and ends in new ways.

I start by reviewing the literature on change in hybrid organizations, and on the more general role of sensemaking and paradox in organizational change. I then describe my theory-building ethnographic study of the Cambridge Energy Alliance (CEA), a public-private partnership to promote energy efficiency as a solution to climate change. Building on my data about CEA's transformation, I develop a process model of navigating paradox in hybrid organizations, and identify a specific "service paradox" arising in organizations with dual logics of public service and client service. I conclude by suggesting the more general conditions for paradoxes like the one I describe. I argue that active reflection on organizational paradox – by both scholars and practitioners – will result in our better understanding processes of change in hybrid organizations, and in preserving or enhancing their capacity for innovation.

Institutional logics, hybrid organizations, and change

It is axiomatic that institutional theory has evolved through two phases. Early institutional theorists saw organizations *as* institutions infused with meaning, value and legitimacy by their members and leaders (Selznick, 1957). Later there emerged a "neo-institutionalism" (DiMaggio & Powell, 1983; Meyer & Rowan, 1977; Powell & DiMaggio, 1991) focused on external actors that impose values and expectations *on* organizations. In this shift, the primary level of analysis moved from organization (and what goes on inside) to field and network with the emphasis on diffusion of norms and practices across organizations. One result of such diffusion is the emergence of institutional logics (Lounsbury, 2007; Thornton & Ocasio, 1999, 2008) that define comprehensive "rules of the game" within different spheres of social and economic life.

This recent emphasis on institutional logics has, however, sparked a new line of inquiry that revives some concerns of the old institutionalism. What are the organizational consequences of participating in multiple fields, or of combining multiple logics under one organizational roof? Doing so can create important sites of innovation (Reay & Hinings, 2009; Stark, 2009) and the emergence of new practices and institutions (Chen & O'Mahony, 2006; Murray, 2010; O'Mahony & Bechky, 2008; Reay & Hinings, 2009). This is because combining logics means bringing together novel combinations of capital, tacit knowledge, and regimes of justification – means and ends – resulting in what Stark (2009) calls the "sense of dissonance." At the same time, organizations can experience conflicting demands as they seek to conform to diverse norms and expectations (D'Aunno, Sutton, & Price, 1991; Glynn, 2000; Kraatz & Block, 2008; Pache & Santos, 2010). In attempting to internally reconcile these competing demands, hybrid organizations may fall prey to internal conflict and confusion (Ashforth et al., 2009) or an isomorphic pull toward the status quo of one field (DiMaggio & Powell, 1983).

One important consequence of combining logics is organizational instability and change, which scholars have largely described in terms of power struggles and negotiations among external and internal constituencies adhering to different institutional logics. As the balance of power shifts, so does the organization (Fligstein, 1987; Thornton & Ocasio, 1999; Zilber, 2002). Such change can dissipate the capacity for innovative recombination if one logic comes to dominate.

Several empirical studies have documented how business actors, and financial actors within the business field, can control the outcomes of such change processes, imposing the market logic over alternative/ competing institutional logics of professions, civil society, and the state. In collaborative, public-private environmental governance initiatives, real estate

developers can use their willing participation as a bargaining chip and thus steer decision making to suit their private interests (Layzer, 2008). Within the publishing industry (Thornton & Ocasio, 1999) and in multi-divisional corporations (Fligstein, 1987), financial logics have supplanted professional logics through shifts in the balance of power among senior managers, combined with normative conformity and imitation at the institutional level. These studies help explain "who wins" among competing constituencies hewing to specific logics.

Some research, however, suggests that managers may be able to moderate conflict and domination of particular factions and logics. For example, in microfinance organizations that provide loans to low-income clients in the developing world, hiring people whose career backgrounds link them firmly to either the finance field or the development field can lead to factional conflict and organizational drift toward these individual logics. Hiring (usually younger) employees without these biases and socializing them into the hybrid culture may enable a more dynamic and innovative balance between logics (Battilana & Dorado, 2010).

Such managerial actions may occur in the early stages of the organization as Battilana and Dorado describe, or as a response to competing demands and identity claims at other moments in organizational life. Theorists have made efforts to categorize such deliberate responses to institutional complexity (Greenwood et al., 2011). When facing competing external demands, organizations can engage in compromise, avoidance, defiance, or manipulation (Oliver, 1991; Pache & Santos, 2010). When facing competing internal identities and factions adhering to those identities, managers can attempt deletion, compartmentalization, aggregation, and synthesis (Kraatz & Block, 2008; Pratt & Foreman, 2000). Through doing so, organizations might achieve (at least temporary) stability, legitimacy, and recombinant innovation without succumbing to domination of a single logic.

The "response" discourse, however, suggests strategic decisions at a moment in time. Theorists like Pache & Santos (2010) and Greenwood et al (2011) outline a predominantly variance-based, contingency-style research program to explain antecedents and consequences of these responses, at the organizational and field levels. As in other domains of organizational research, a process-based approach can complement this type of work. First, it can be useful in uncovering new causal relationships and interactions to be explored through more comparative and cross-sectional research (Langley, 1999; Mohr, 1982). It might unearth new conditions under which responses are likely to occur, as well as the intended and unintended consequences of those responses. Further, a process perspective can foreground the continuous nature of change without assuming or privileging stability or equilibrium (Tsoukas & Chia, 2002).

Pache & Santos (2010) themselves suggest a pathway for such work: "Understanding the dynamic process through which organizational responses shape organizational structure, which in turn influences subsequent responses, is an important next step in uncovering the complexity of institutional processes." (p. 473). Following this suggestion, I depict two examples in FIGURE 1 of how responses identified in prior work might feed back to conditions. This depiction is a starting point for a more process-based understanding of change in hybrid organizations.

INSERT FIGURE 1 ABOUT HERE

In the present study I develop a process model with similar feedback of actions and outcomes to conditions for action. The new model, however, is based on a previously unidentified mechanism: navigating paradoxes that arise in combining institutional logics. This

mechanism complements those depicted in FIGURE 1, and in the discussion I address how they might be integrated in future work.

Sensemaking, paradox, and organizational change

A useful starting point in understanding the relationship between paradox, sensemaking, and organizational change is Lüscher and Lewis's (2008) action research study of managerial sensemaking at the Lego Company. These authors found that the company's planned change efforts to foster self-managing teams created a series of dilemmas – ambiguous and apparently conflicting demands (e.g., for both control and empowerment) that paralyzed middle managers. Through the authors' action research process, they helped these managers view their dilemmas through the lens of paradox. A paradox involves contradictory yet interrelated elements that exist simultaneously and persist over time (Smith & Lewis, 2011). As such, paradoxes at Lego could not be solved but could be navigated through "both-and" thinking toward "workable certainty" and actions that broke through paralysis.

Smith and Lewis (2011) build on this piece and other studies of paradox to suggest that paradoxes can be latent in organizations, but made salient through processes of change like that at Lego. They surface in the form of ambiguity that demands sensemaking (Weick, 1995): an iterative cycle of action and retrospective interpretation to generate stable meaning and organized action. Such processes can occur naturally but may fall into vicious cycles of stuckness, confusion, and conflict. Moving toward workability and creative action in the face of paradox requires cognitive and behavioral complexity (Denison, Hooijberg, & Quinn, 1995), sometimes enabled by outside assistance like that provided by Lüscher and Lewis as action researchers.

These scholars' work contributes to a stream of work that views episodic organizational change as an exogenous *trigger* for sensemaking. Organizational members must make sense

amid change efforts that are unfolding and disrupting everyday routines (Balogun & Johnson, 2004; Gioia & Chittipeddi, 1991); in the process they shape the implementation and outcomes of change. In this view, change gives rise to ambiguity and paradox (Cameron & Quinn, 1988), which in turn gives rise to sensemaking in order to enable action rather than paralysis.

It is also possible, however, to see a different causal pathway. Sensemaking can *generate* organizational change that is continuous, situated, and emergent (Tsoukas & Chia, 2002; Weick & Quinn, 1999). Slippage in organizational routines and action can occur, and unintended consequences of action are common. Retrospective sensemaking can reframe such actions and consequences as intended, thereby changing organizational identity, strategy, and practice (Plowman et al., 2007; Weick, 2001). Where the other literature tends to focus on middle managers who are sensemaking amid executive-led change programs, here the process can more directly involve top management teams. In this paper I show how paradox can be a driver of strategic sensemaking, and this process results in organizational change.

The root cause of that paradox in the present study is hybrid organizations' combining of institutional logics and therefore multiple ways of acting and making sense of organizational outcomes. Scholars have noted that institutional logics constrain sensemaking by providing scripts for action and schemas through which organizational phenomena get interpreted (Weber & Glynn, 2006; Weick, Sutcliffe, & Obstfeld, 2005). What happens when those schemas generate contradictory interpretations – for example defining the same organizational outcome as both success and failure? Weber and Glynn (2006) suggest that such institutional contradictions might be triggers for sensemaking, but do not posit the outcomes of that sensemaking. Smith and Lewis (2011) suggest that "paradoxes of performing" may occur in organizations with a

plurality of stakeholders and goals, and they use corporate social initiatives as a potential context (Margolis & Walsh, 2003), but give no empirical illustration of the idea.

My empirical study of the Cambridge Energy Alliance brings to light a specific paradox of performing I call the "service paradox." It develops a process model of how navigating that paradox leads to iterative organizational change that at first undermines then enables innovative action. By mapping this process and some conditions under which it occurs, this paper contributes to our understanding of the organizational consequences of combining institutional logics, and has important implications for managerial practice and public policy.

RESEARCH CONTEXT AND METHODS

The Cambridge Energy Alliance

The Cambridge Energy Alliance (CEA) was created through a partnership among diverse actors: the municipal government of Cambridge, Massachusetts; several Boston-area foundations; the electric and gas utilities; and a range of energy service companies (ESCos) and financial institutions that provide technical and financial assistance for energy efficient improvements in buildings. From its inception, CEA combined a logic of public service with a logic of client service. It was intended to be a mission-driven non-profit organization, organizing community outreach and serving as a gateway for this group of private and government organizations. In 2006, it set community-level goals to achieve "unprecedented levels of energy savings and clean energy" in Cambridge (indicated by 50% penetration in both commercial and residential sectors, and 50 MW of peak energy use reduction). Yet it was also designed to sustain itself like a business with revenue from two sources: markups on energy efficiency projects; and rewards for greenhouse gas and energy use reduction created by voluntary and regulatory markets. To its individual clients, CEA promised a financial payback and reduction in

ecological footprint from their investments in energy efficiency. Thus CEA's tag line was "Save Money. Save the Planet."

FIGURE 2 depicts CEA in the value chain for energy efficient building retrofits, as an alliance arrayed in concentric circles.

INSERT FIGURE 2 ABOUT HERE

CEA is part of a family of similar initiatives in the United States that include the Greater Cincinnati Energy Alliance, the Southeast Energy Efficiency Alliance, and the Energy Efficiency Partnership of Greater Washington. I conducted preliminary interviews with key personnel of each of these initiatives, but went into ethnographic depth with CEA. CEA involved partners from the government, business, and non-profit sectors and therefore served as a vivid site for the study of hybrid organizations. Furthermore, the context of Cambridge, MA is supportive of ongoing involvement by all three types of actors so CEA's hybridity was most likely to be sustained over the period of observation. Cambridge is part of a Boston metro area with several philanthropic foundations at least partially focused on environmental causes, and a burgeoning clean energy industry (Pernick, Wilder, & Winnie, 2010). Cambridge is a wealthy, highly educated, and politically liberal community (BACVR, 2005; US Census Bureau, 2008), with two major research universities providing a strong base of highly trained volunteers and advisors. In this context, the Cambridge city government had made political commitments and built a solid administrative infrastructure to back environmental initiatives, such as biohazard monitoring and single-stream recycling, in addition to greenhouse gas reduction. In a supportive environment, any challenges for CEA would be more likely attributable to its hybridity. CEA therefore provides a strategic research site (Merton, 1987) for addressing the questions posed above.

Data gathering

To study how CEA changed over time, I conducted a two-year ethnographic field study. The theoretical territory of hybrid organizations is still in its early stages, and the questions I pose are inductive, aiming to describe processes of sensemaking and organizational change. Thus, an inductive, theory-building strategy from qualitative data is appropriate (Edmondson & McManus, 2007). Data gathering included participant-observation, semi-structured interviews, and archival data analysis, summarized in TABLE 1.

INSERT TABLE 1 ABOUT HERE

Participant-Observation. Following some preliminary interviews in July-August, 2008, I conducted participant-observation within the Cambridge Energy Alliance organization, from the period of September, 2008 through May, 2010.

My participant role was as an engaged organizational historian. This meant participating in meetings as a note-taker and carrying out dozens of informal conversations that served as unstructured interviews. As I gathered these data about the unfolding organizational history, the "engaged" aspect of the role meant periodically sharing my findings through conversations and written documents. Doing so ensured deep and sustained access to people and documents because organizational members saw my presence as potentially contributing to organizational learning and effectiveness (Balogun, Huff, & Johnson, 2003; Schein, 2007). The interactive process of sharing findings and reflections also generated useful data about sensemaking processes as people responded to my interpretations with their own. At the same time, this research approach – combining elements of ethnography and action research – necessarily introduces biases in the research process. My interpretations of CEA's context, actions, and

outcomes clearly affected my informants' interpretations. The key to rigor with this interactive methodology is to be reflexive and transparent about the author's impact, to triangulate insights with multiple data sources, and to consider one's own role when theorizing about organizational processes observed (Argyris & Schön, 1978; Latour, 2005; Lüscher & Lewis, 2008). I endeavor to follow these prescriptions throughout this paper and particularly in crafting the process model.

Meetings I observed took a variety of forms – any time more than two people were having a conversation around the CEA headquarters office, they would move to the conference room, and would either invite me to join or accept my request to join. The 80 days of in-office observation included many such opportunities for spontaneous participant-observation, in contexts where I could observe and record people's active sensemaking. With time, I noticed a great deal of repetition in the themes of conversation, and realized that certain meetings were particularly valuable to observe because they consolidated topics from multiple different conversations; they focused on those actions, outcomes, and issues people were most eager to interpret. These were the bi-weekly "Core Group meetings," the quarterly strategy meetings, and the quarterly board of director meetings, which I separately enumerate in TABLE 2. During these meetings I typed field notes on a laptop computer in real time to ensure high fidelity capture of the conversation.

In my informal conversations and interviews, informants from CEA were impressively candid with me throughout my two years of observation, sharing reflections on CEA's internal and external relationships, activities and outcomes. I believe this access and candor were facilitated by three things: their genuine desire for me to capture and share "lessons learned," since their mission included serving as a "national model"; a belief that I could offer value to the organization through my own reflections and writing as described above; and a non-disclosure

agreement that I signed, giving CEA the right to review my writing prior to publication and redact any confidential information. My work was subject to three such confidentiality reviews at various stages of writing, none of which required any deletion or alteration of material. The only material I personally chose to omit concerned identifiable quotes and stories that could potentially damage individuals' reputation.

When I was asked to contribute my insights to the organization, I first typed up my reflections and, where possible, did audio recordings of my own contribution and the ensuing discussion. These records served two purposes: they allowed me to use my impromptu verbal reflections to support my theory building and writing; and they documented the moments in which my feedback may have influenced thinking inside the organization. Latour calls this the "fourth notebook," the space for documentation of the researcher as actor influencing the system he or she is observing (Latour, 2005). One such episode contributed to the process of change at CEA (from Phase 2 to Phase 3), and I describe it in detail in the narrative below, including transcription of quotes from the audio recording.

Semi-structured interviews. For some categories of participants in the CEA network (particularly clients of CEA), semi-structured interviews were my primary means of inquiry. I interviewed each person in the CEA Core Group at least once. I endeavored to interview a representative from each of the "Large Commercial and Institutional" or "C&I" clients. Any time I heard members of CEA mention an important client, funder, or partner I added them to my list of interviewees. Although I was not successful in gaining access to all these potential informants, I used snowball sampling from those I did interview in order to give me a broader view of CEA's context and relationships. I customized interview protocols to the informant and included sections on career background, experience with energy efficiency projects, experience

with the Cambridge Energy Alliance, and reflections on CEA's activities and outcomes. I audio recorded each interview for transcription and qualitative data analysis.

Archival data. My role as historian gave me access to documents and archival data sources summarized in TABLE 1. I based sampling of documents on a similar methodology to that for semi-structured interviews: any time I heard mention of a document or saw a document in use in a meeting or conversation, I either immediately requested a copy or added it to a list of documents that I requested as a batch. All such requests for documents were granted.

Analytic methods

My overall analytic approach was iterative and abductive with the goal of building and refining theory from rich case study research (Eisenhardt, 1989). It involved four cascading activities: tagging; theming; theorizing; and timing. These activities arose in sequence, but continued in parallel as I remained in the field gathering data. The nature of my engaged organizational historian role was that there was never a "complete" data set until I exited the field – coding and theorizing in each phase led to insights that I shared with people in CEA, which generated further data as I recorded the ensuing conversations and activity.

I imported all materials (2000+ pages) into a database using the Atlas.ti version 6 (Muhr, 2011) qualitative data analysis software. It enabled me to code passages within documents, query and visually map relationships between codes, and autocode text based on search strings. It also served as a repository for regular memos as I analyzed data throughout the study period.

My first pass of analysis focused on **"tagging."** I coded large sections of my field notes into interaction types, including Board of Directors meetings, core group meetings, meetings with ESCo partners, client meetings, informal conversations, and ethnographic interviews occurring spontaneously during my observations. I did grounded coding (Glaser & Strauss,

1967) of key recurrent topics of conversation such as specific relationships with clients, partner organizations, and the City government, and how CEA portrayed its organizational identity. I did some theory-driven coding, related to CEA as a hybrid organization. The guiding research questions were simple and pragmatic at this early stage. What were the main challenges that CEA faced as a hybrid, cross-sectoral organization? How did people in the organization think about their hybridity (a question about sensemaking and identity)? What challenges did they face as an organization? Under what conditions and through what practices did the actors overcome the challenges? At the outset of the research, it was not clear how effective CEA would be in accomplishing its objectives. Whatever occurred, however, I wanted to be able to explain the specific contribution of CEA's hybridity.

As time went on, it was possible to start **"theming"** – to identify more abstract themes in the data that drove recurring concerns at CEA. Examples include: coherent logics behind notions of CEA as a business, a non-profit, or a government program, which I depict in TABLE 2 below; particular identity statements like "one stop shop" that seemed to organize thinking and action; debate about how to interpret energy efficiency transactions going on in Cambridge but outside CEA's service umbrella, which I coded as "inside-outside." I was also logging in a memo a timeline of key events and organizational changes.

Tagging and theming generated over 200 codes, many of which did not have clear conceptual boundaries between them. I therefore began a process of more deliberate **"theorizing."** I disambiguated codes, adding annotation to each code and consolidating or deleting where appropriate. Where concepts had unclear boundaries, such as between identity and organizational logic, I read relevant academic literature that helped sharpen distinctions, and re-categorized some coded passages. To assist this process of disambiguation, I also developed a

visual "network view" of codes with conceptual links between codes to help clarify distinctions and relationships. Conceptual network mapping made visible some contradictions between the institutional logics at play among CEA and its clients and partners. One of these contradictions centered on the "inside-outside" concern that clients might be conducting energy efficiency investments outside of CEA's direct engagement. Such outcomes seemed to have ambiguous and contradictory implications for CEA's business model and identity, because organizational members labeled them as successes and failures at different moments in CEA's history.

The concept of paradox (Lewis, 2000; Quinn & Cameron, 1988; Smith & Berg, 1987) seemed a useful way to characterize such contradictions, and I wrote an extended memo on the paradoxes of hybrid organizing. I presented the memo to academic colleagues and to CEA itself, resulting in conversations that helped clarify the concept of "service paradox."

In parallel with my intensive study of the everyday, in-practice challenges and sensemaking of CEA actors, I noticed an overall arc of organizational change in three phases, depicted in TABLE 3 and described below. In an effort to explain these trends, I developed a process model of change based on sensemaking about paradoxical outcomes. To help validate and refine this model, I began a **"timing"** activity. Assisted by the autocode feature of Atlas.ti, I conducted temporal analyses of the text, which showed the rise and fall of a "one stop shop" framing of CEA's work, followed by the rise and fall of a "laboratory" framing, followed by the rise of a "catalyst" framing. I detail and explain these transformations in the narrative below.

ORGANIZATIONAL CHANGE IN CEA

From its inception, CEA combined multiple institutional logics: public service government/non-profit logics focused on serving the whole of a community, and a client service business logic focused on serving its parts. I describe these logics in TABLE 2, which includes

both abstract structural dimensions of the institutional logics (Ewick & Silbey, 2002; Giddens, 1984; Scott, 2003), and (in italics) the actors most relevant to these dimensions. It borrows from prior conceptualizations by scholars studying the interface between business, government, and non-profit organizations (Bryson, Crosby, & Stone, 2006; Cooney, 2006; Waddell, 2005).

INSERT TABLE 2 ABOUT HERE

As its work evolved, CEA experienced three phases of change characterized by a shifting balance among these logics. In Phase 1, CEA emphasized a "one stop shop" framing of its identity and a business logic. In Phase 2, CEA framed itself as a "laboratory," a logic associated with being a grant-funded non-profit. Phase 3 was a period of more balanced, complex hybridity, framed by the idea of being a "catalyst." These phases are hard to precisely delineate: while there are marker events that help define them (e.g., the resignation of the CEO in April 2009, the reorganization of responsibilities among the staff in December 2009), these events both recognize and precipitate change. They represent fuzzy but analytically useful boundaries in a process of continuous change (Tsoukas & Chia, 2002). TABLE 3 depicts these phases.

INSERT TABLE 3 ABOUT HERE

It is also possible to visualize the changes through the results of my autocoding in Atlas.ti. FIGURE 3 depicts the frequency that three characterizations of CEA appeared in my "primary documents," i.e., interview transcripts, field notes, and archival documents. It shows that "one stop shop" and "laboratory" or "experiment" were prevalent throughout my observation period as descriptions of CEA. The shift from Phase 1 to Phase 2, however, marks a

shift toward the dominance of the "laboratory" or "experiment" frame over the "one stop shop" frame, and Phase 3 marks the emergence of "catalyst" as a new frame.

INSERT FIGURE 3 ABOUT HERE

In both transitions, navigating paradox was the key mechanism of change. Combining logics of public and client service created the "service paradox," an example of what Smith and Lewis (2011) call a paradox of performing. This paradox surfaced when CEA unintentionally catalyzed energy efficiency work outside its client relationships. Within the institutional logic of a client service business, these indirect effects are seen as failure because they do not draw revenue. Within the public service logic of non-profit organizations or government agencies, they are seen as success because they advance city-level climate goals. This ambiguity triggered sensemaking as organizational members sought to define success and failure. Within each phase, CEA initially did so through the lens of the currently dominant logic. They then reframed the organizational identity and strategy, with associated structural changes and ascendance of a new logic. They took new actions that produced new outcomes, continuing the iterative process. As people became more reflexive and aware of the paradox, these shifts in organizational identity gradually supported more innovative action. External perspectives – including my own – partly enabled that reflexivity. I depict this process model in FIGURE 4.

INSERT FIGURE 4 ABOUT HERE

In the sections that follow, I describe the three phases of change in CEA's organizational logic, following the elements of TABLE 3 and FIGURE 4: the organizational identity at the

outset of each phase; the paradoxical outcomes in that phase; and the process of sensemaking and transformation to the next phase.

Phase 1: "One stop shop" identity and business logic

CEA was founded after two staff members of the City of Cambridge approached Sam Quinn[3] at the Kendall Foundation in June 2006. The City had set a target in 2002 of 20% reduction in GHG emissions by 2010, and had invested in some municipal energy efficiency projects. Its assessment of 2005 emissions, however, showed them going up, not down, and they sought help in reaching their original target.

The City and Foundation jointly convened a group of energy efficiency professionals and entrepreneurs. These advisors developed a business plan and established the idea of a cross-sectoral Cambridge Energy Alliance described above and depicted in FIGURE 2. While CEA did not have a formal mission statement in Phase 1, an approximation of such a statement can be found in a "Chronicle of CEA" document dated May 2007.

> *The Cambridge Energy Alliance (CEA) is a new nonprofit organization affiliated with the City that will design, market, finance, manage, and document unprecedented efficiency improvements in the use of energy, water, and transportation. The CEA will carry out a massive $100+ million efficiency effort offering new technical services and financing options to residents, businesses, organizations, and institutions. Where feasible, the CEA will also support installations of new renewable and clean energy generation, and technologies that curb electricity use during peak demand periods.*

Here we see the organization presenting itself as a "nonprofit organization affiliated with the City." Said one founder, "We want the City's name behind it." At the same time, the founding team envisioned an organization clearly separate from the City bureaucracy. They

[3] All persons' names in this narrative are pseudonyms.

wanted an enterprise that would be autonomous, flexible, replicable in other cities, and "private sector oriented." CEA founder Sam Quinn explained:

> *I really wanted CEA to be private sector based, because unless people in the private sector are making money doing things, you can't reach scale. It's pretty clear that energy efficiency is only going to work as a truly impactful climate solution if the market opens up and businesses profit by doing the right thing.*

In keeping with this business logic, the founders' intention was for CEA to seek revenue from a 5% markup fee on energy efficiency retrofits, and payments from government-created markets for energy demand reduction and greenhouse gas reduction. Revenue would come from a mix of public and private actors, but followed a fee-for-service logic, rewarding CEA for its efforts to "design, market, finance, manage, and document" efficiency improvements. FIGURE 3 shows that CEA frequently referred to itself as a "one stop shop" for energy efficiency.

Given the intention to generate revenue as a business would, the founders pursued financing through private sector loans that could be paid off with interest as the organization grew its fee-based revenues. Foundation and government grants were intended to taper off over time. A 7-year financial forecast dated May 16, 2008 presents this original model. It anticipated $442K in fees for 2008, ramping up to $4000K by 2014. Grant revenue was anticipated to taper down from $100K in 2008 to $50K per year by 2010. After 7 years, at the end of 2014, CEA would have paid off its debt and reduced GHG emissions in Cambridge by 10%.

In 2007 and 2008, the CEA founding team executed on this original concept, building a stable of energy efficiency companies and securing debt-based financing. In Q1 of 2008 they begin outreach to large Commercial and Institutional (C&I) clients, an effort that accelerated when Keith Johnson, hired as CEO in July of 2008, made it a focus. In September, 2008, they launched their Residential outreach program. Soon, however, they began to confront paradoxical outcomes of their work.

Paradoxical outcomes in Phase 1

Residential sector. CEA's outreach to homeowners began with a tripartite offering: a free home energy audit; installation and arranging services for home energy efficiency measures such as insulation, air sealing, and heating system upgrades; and a financing option via CEA's partnerships with two local banks. Originally, CEA anticipated that customers would sign up for financing and installation because of the convenience involved. Economic and policy analyses of energy efficiency have indicated that transaction costs are a primary barrier to action (Brown, 2001). CEA hoped to reduce these costs and add value through the convenience of a "one stop shop," enabling them to charge a 3-5% markup on installations.

Results from the field, however, gradually revealed that something else was going on. Residential customers were calling CEA to do energy audits, then taking the suggestions to outside contractors for bidding in a search for the lowest price. CEA managers saw this as a problem and as a conflict between its public service mission and its need to sustain itself as a business. In a Core Group meeting 12/2/08:

> *Person 1 - Let's keep in mind that projects [done with others' resources] don't produce revenue to CEA…*
>
> *Person 3 -* ***From an organizational mission standpoint, it's right to do, but it doesn't create sustainable entity.***

The following day, in a residential strategy meeting on 12/3/08:

> *Person 2 - We know people are doing heating systems but not using [CEA partner] to do it.*
>
> *Person 4 -* ***We can still capture that as success****.*
>
> *Person 2 - Yes but need [CEA partner] to be compensated… Already down 115K expenditures with no revenue…. Sooner or later… they will say we're out of here…*
>
> *Person 4 - Speaks to idea of how to create immediate successes. Doing multiple efficiency measures is a measure of success. But if person decides to do heating system but not through us then we lose track. Or massive uptick in audits in Cambridge…* ***what are our measures of success?***

This final question captures the essence of the problem. What can CEA count as success, given the mix of a public logic that dictates reducing energy use throughout the community and a private logic of achieving financial sustainability through transactional revenue with particular clients? How should it make sense of indirect effects and their paradoxical meaning?

After these conversations, CEA responded to the customer trend by giving up on the idea of a markup fee in the residential sector. If customers did not take them up on their offer, it would be best to lower the price and complication of trying to secure a markup.

A second revenue stream for this residential work also seemed increasingly elusive. CEA had planned to track the electricity and greenhouse gas savings it achieved with customers, then sell the associated credits and carbon offsets through new market mechanisms like the New England Regional Greenhouse Gas Initiative (RGGI). Artificial markets like RGGI theoretically allow organizations operating with a private sector logic (providing services, buying and selling credits) to contribute to public good, thus internalizing externalities. As such, these markets require a careful accounting of private transactions. When CEA's customers went outside its umbrella to carry out energy efficiency improvements, this accounting became impossible. Thus CEA gave up on the idea of securing these "attributes" in their residential work.

CEA gradually accepted the outcome as part of their mission to provide a public service to the citizens of Cambridge, recognizing that the revenue and perhaps even the logic of client service transactions did not seem to fit the residential market. Instead they sought grants that would enable them to frame their indirect effects in the community as success. One example was a grant from the electric utility NSTAR that rewarded CEA for an overall increase in the number of energy audits conducted through NSTAR's own programs in Cambridge, and energy use reduction among residential customers in aggregate.

Such grants would require CEA to perform canvassing and community event participation, as well as demonstrable contribution to city-wide carbon and energy reduction goals. They would not, however, create accountability based on individual transactions with homeowners – they aligned with public service logics rather than a client service business logic. Paradoxical outcomes in the residential sector therefore contributed to the transition from Phase 1 to Phase 2 and the ascension of a non-profit institutional logic as depicted in TABLE 3.

Large commercial sector. CEA's engagement with large commercial, industrial, and institutional (C&I) energy users also began to produce paradoxical outcomes that were pivotal to its organizational transformation from Phase 1 to Phase 2. CEA initially pursued these clients with a strategy aligned with the institutional logic of a client-service business. It employed client managers with sales backgrounds who developed increasingly detailed worksheets for tracking the progress of individual projects through a sales cycle.

This outreach to C&I clients was not, however, altogether successful. Like the residential clients, several key C&I clients engaged CEA for energy audits and advice but chose a different ESCo for implementation. Some decided to conduct projects using internal resources or independent contractors. In these cases, CEA had made an important contribution to the client's energy efficiency efforts, but one for which CEA was not compensated.

The Beta organization (a pseudonym) was a salient example that occurred during Phase 1. Beta engaged CEA to do a preliminary energy audit, following an introduction by the City Manager. Beta compared CEA side by side with a traditional ESCo and chose the latter. An informant from Beta had the following to say about this outcome:

> *OK, so you didn't get the job. But if you look at your highest level goals around reducing the greenhouse gas footprint of Cambridge, we're still achieving that goal. We haven't contracted with you but we have*

> *contracted with a reputable firm and we are doing things. I don't mean this as consolation prize, but at the highest level... the reason for your existence is being addressed by the path of action that we're taking.*

The "reason for your existence" here refers to the public service mission of CEA to meet city-level goals. From Beta's perspective, CEA's work with Beta should be framed as a success. It engaged the senior leadership of the organization in a conversation about energy efficiency. Further, CEA's analysis of the facilities was incorporated into the final scope of work that the other ESCo would execute, expanding the range of efficiency measures to be done.

CEA managers did not see it this way, at least initially. The Beta case was experienced as a tremendous blow. It came one month after another client, Epsilon, opted to implement energy efficiency projects internally rather than with CEA, thus removing a second anticipated source of revenue. CEA's CEO resigned from his salaried position in order to reduce the organization's operating costs and keep it viable, and took an unpaid position on the Board of Directors. A conversation began among the remaining management team about how to make sense of this outcome and how to move forward. A client manager had this to say:

> *We took such a hit with Beta and Epsilon that we really put on the brakes to say what can we do differently… We need to get people together to absorb these failures, and get common thought on how to proceed and then proceed.*

Within a private sector, client service logic (CEA's interpretive frame in Phase 1), Beta was a failure, one that required active sensemaking.

Sensemaking and transformation to Phase 2

In the meetings and backstage conversations that followed the Beta "failure" in the spring of 2009, CEA began reconsidering its approach to engaging and servicing clients, and in fact all aspects of the business model: its value-add and markup; the types of clients it pursued; and the quality of its service delivery partners. CEA gradually settled on a new strategy for large C&I

clients. Rather than approach clients immediately with ESCos, they chose to take a more consultative approach and offer services with less intensive financial and physical capital investment, such as running employee behavior change campaigns, that would avoid placing CEA in direct competition with other ESCos.

This shift in business strategy occurred as part of a wider reframing of the CEA organization and Cambridge itself as a "laboratory." While the idea of CEA as an experiment or a laboratory had been used in Phase 1 (see FIGURE 3), here it became a central descriptor of the organization among the organization's senior managers. They framed failures as necessary parts of a learning journey, new approaches to the market as experiments, and the ultimate goal of the organization as developing knowledge for the wider public. Core staff even talked about bringing on a high-level volunteer to explicitly strengthen that identity:

> *Person 1 – We could get a Chief Scientist - if Cambridge is laboratory, make sure we are learning… Extends the metaphor... Documenting what you've done is as important or more than what you accomplish. Test tubes. Laying down body of knowledge. Energy Advisor tracking calls, what doing, what works and doesn't. Experience.*
>
> *Person 2 - Hypothesizing and testing, and moving on when you've learned.*

During the same month, this idea of Cambridge as laboratory underpinned CEA's application for a grant from the Kresge Foundation. This grant would support CEA's staff in educating and advising other cities around the United States so they could replicate CEA but learn from its challenges. Cases like Beta were still framed as failures, but as failures from which CEA and others could learn as CEA disseminated its findings.

CEA's founders also began to recognize and solidify some more structural changes to the organization. Two distinct groups had formed, with distinct logics and strategies – a small residential community outreach apparatus, and a large C&I consulting practice. While the

consulting approach was being developed, the basic relationship between the "small" and "large" businesses had flipped from its original business model – CEA had assumed the large would subsidize the small, but now grants acquired to support the small were subsidizing the development of a new model for the large. This basic fact led to acknowledgements at board meetings that CEA was coming to operate "more like a traditional non-profit." After Johnson's resignation as CEO, Elise Eggers was appointed acting Executive Director. This title reflected institutional norms of non-profit organizations rather than the more corporate "CEO" title for Johnson. Discussions began with CEA's attorney and Board of Directors about the possibility of re-filing their pending request for 501(c)(3) status with the IRS, a key institutional signal for non-profit organizations. Their idea was to depict the organization as far more dependent on grants – as it had come to be. A new phase of the organization had begun.

Phase 2: "Laboratory" identity and non-profit logic

During Phase 2, discussions of current and upcoming government and foundation grants came to dominate the first half of each core group and board meeting, an emphasis that began in summer, 2009 and continued through the end of 2009. The only significant non-grant income to CEA during this period came from Forward Capacity Market credits, but these were not the result of new efficiency projects facilitated by CEA. Rather they came from a quasi-charitable donation to CEA by large C&I clients who had made prior efficiency investments and chose not to participate in the Market themselves.

Personnel changes further reflected this shifting emphasis toward grant-funded activity. A community outreach coordinator joined in January 2009 to organize volunteers and grant proposals. Supported by a grant from NSTAR in July 2009, CEA hired an "Energy Advisor" for residential customers. The result was that of the three full time staff members, two were

dedicated to the small residential program that was not a source of fee revenue. Both had community organizing and grant writing backgrounds in non-profit organizations. They brought on a summer intern and a group of student volunteers for neighborhood canvassing, making this activity a major focus of organizational attention. These staff documented their efforts to support the idea of disseminating knowledge from the CEA "laboratory."

Paradoxical outcomes in Phase 2

During this second phase, CEA experienced a paradoxical outcome with one of its largest potential clients, Gamma. Gamma invited CEA to conduct free energy audits on some of its facilities, then broke off the engagement to conduct the recommended projects with their own internal construction and financial resources. On other facilities Gamma implemented projects with little to no direct involvement from CEA. In parallel, Gamma worked with CEA to support it financially as they would a charitable community organization, through donation of FCM credits. Yet they wanted all of these activities to be considered part of the community campaign to promote energy efficiency and demand reduction. One representative from Gamma said:

> *I think there is a lot of opportunity for CEA to reach their goal without necessarily doing it themselves. And I think that has been… sort of a sticking point for me.* ***Whatever we do, if we reduce our demand, that will represent a significant decrease in greenhouse gases in Cambridge.*** *And CEA won't have had to do very much. Perhaps they should embrace that a bit more…* ***But my impression is if they don't do it, they don't want to have anything to do with it****. That's a not a good city goal. They should be looking at what I call the '****parasitic opportunities****.' Not trying to control that, as much as encourage and support that.*

The Gamma quote further illustrates the contradiction at the heart of CEA's hybrid identity. As a public service organization, CEA had city-level targets in terms of energy reduction (50 MW of peak load), penetration (50% of residences and businesses), and capital investment ($100 million of investment mobilized). These could be reached through a variety of

means, including persuasion, education, policy design and advocacy. Direct implementation is but one strategy. From this logic of public service, "parasitic opportunities" – claiming credit and press for others' work – would mean success. On the other hand, CEA is a client service organization, with a business model dependent on project revenue to sustain its operations and pay off its debt. From a logic of private service, "parasitic opportunities" are seen as failure and exacerbate financial troubles. Thus, as CEA focused on opportunities for fee income, they created the impression that "if they don't do it, they don't want anything to do with it." The difference in Phase 2 was that they framed such failures as a valid and important part of being a laboratory, and secured grants to support communication of lessons learned.

Sensemaking and transformation to Phase 3

Gradually, however, CEA began more explicit reflection on its definition of success and failure. In the late fall of 2009, I distributed a paper I had written in which I began to identify paradoxical outcomes and the challenge of interpreting them. This was the first encounter that members of CEA had with the (anonymized) client reactions by Beta and Gamma quoted above. In response, they started talking more explicitly about the problem of having city-level goals but trying to deliver value to individual clients. At a January 2010 strategy meeting, a client manager introduced the idea of CEA as a "catalyst" to frame the organization's identity.

> *Author – [Beta] could be seen as a success or it could be seen as a failure…*
>
> *Person 2 -* ***I think it should be viewed as a success****... it doesn't help us, our bottom line, but that's not the purpose. We are trying to get people thinking about it and taking action regardless of how they get there.*
>
> *Person 1 - Because* ***when we say 'one stop shop' I question that. I think we are trying to be a catalyst. We are trying to be the thing that is added to this mix of ingredients that causes something to happen.***
>
> *There is a lot of ways we can do that, but* ***when we say 'one stop shop' that implies that we step up and we command everything and that is never going to be the case****.*

Person 3 - I think that notion of being a catalyst is a good one… It's not just CEA making stuff happen. There is stuff happening at federal and state level. There is municipal policy. There are other private initiatives... ***The mission could/should address that context or include that context and talk something about what CEA's role is as a catalyst, facilitator…***

Person 4 - So finding ways to indicate that if efficiency occurs in Cambridge, that's a good thing, doesn't have to be done by us specifically...

Several things are notable about this interchange. First, Beta is being actively reframed as a success, where earlier in the organization's history it was described as "taking such a hit" *by the same client manager*. Second, the idea of being a catalyst is juxtaposed explicitly with the previously dominant description of CEA as a "one stop shop." A significant feature of the "catalyst" framing is the shift in agency – rather than CEA doing the projects, or even driving the projects, it acknowledges that CEA is one among many influences on building owners.

A catalyst might also acknowledge and reward actions happening outside its direct influence, although this idea is controversial:

Person 6 - We do get criticized for that… of saying that... you know, that CEA isn't really doing anything, we are just recycling others' successes.

Person 5 - If we do it right we shouldn't be criticized for it.

Person 1 - Well, if our mission is to reduce greenhouse gas emissions in Cambridge… then everything is fair game!

CEA continued to wrestle with what it might mean to give (or take) credit for others' actions, and how to sustain itself as an organization in doing so. As the core staff explicitly reflected on the question, they began to more directly confront the tension between the institutional logics at play in the organization. In doing so they produced a new, more complex synthesis emerging from the idea of being a catalyst.

Phase 3: "Catalyst" identity and complex hybrid logic

This synthesis appears in the May 2010 redrafting of CEA's mission statement:

> *The Cambridge Energy Alliance confronts Climate Change by educating, inspiring, and assisting residents and businesses in Cambridge to improve the efficiency of their buildings and reduce their climate impact. We work to overcome barriers that prevent people and organizations from implementing efficiency measures in their buildings through programs, outreach, and financing; creating new solutions to old problems. We work to share our successes and our challenges with other communities so that Cambridge can be a model for energy efficiency to communities across our nation. Our goal is transformational change of buildings and organizations so that energy efficiency and conservation is realized across our society.*

It is worth noting a few changes from the earlier statement to this one. In May, 2007, the key verbs were "design, market, finance, manage, and document" energy efficiency improvements – processes associated with being a client service business. By 2010 the key verbs became: "educating, inspiring, and assisting"; "overcome barriers"; "share our successess and our challenges." The mix of practices and goals could now include grant-funded education and outreach, client-funded "assisting," and attempts at more systemic change.

A set of structural changes served to balance these client-service and public-service lines of activity. In lieu of hiring a permanent Executive Director or CEO, the Board of Directors named the three core staff members as Co-Executive Directors in early 2010. One would focus on managing large C&I client interactions. The second would focus on residential and small business outreach. The third would manage FCM projects, financial management, and reporting requirements for CEA's grants. All staff and consultants began logging their hours and activities, and internally billing time against either client projects or grant-funded projects like community outreach in Cambridge or advising other communities.

The new identity cemented the idea that energy efficiency accomplishments in Cambridge should be celebrated, whether or not they took place through direct client

engagement. In Phase 3, the key paradoxical outcome was the announcement that Alpha, a C&I client that CEA had courted and offered free energy audits, would be conducting a substantial energy efficiency program without CEA's direct involvement. In an interview, Quinn said CEA would happily publicize Alpha's efforts and said Alpha could be "a win win win" for Alpha, CEA, and the electric utility seeking to encourage efficiency efforts in Cambridge.

In this context, innovative initiatives and actions emerged and appear in TABLE 3. First, CEA successfully closed an energy efficiency retrofit project with a large commercial client, yielding the type of fee-based revenue they had hoped for in Phase 1. The client, an engineering and consulting firm called CDM with its headquarters office in Cambridge, had a "community" pillar in its mission and saw working with CEA as a way to embody this mission while saving money on energy.

Second, CEA initiated client work that leveraged its role as a community organization. It tried to broker a relationship between the Cambridge Health Alliance – a potential customer for its new consulting services – and business students in a course on sustainability. It also pursued an engagement with the Cambridge Public Schools to work with high school students in supporting energy audits in both their homes and the school buildings.

Third, starting in early 2010, CEA began crafting a special program focused on laboratory energy use. Research laboratories in universities and life science companies account for the largest concentration of energy use and greenhouse gas emissions in Cambridge. Their ventilation systems, however, present unique challenges in energy engineering and in health, safety, and environment (HSE) compliance. CEA realized that it could convene companies, universities, energy experts, and City HSE inspectors to tackle these challenges. Through its ties to the City of Cambridge, CEA secured the commitment of HSE inspectors to participate and

give laboratory organizations leeway for experimentation. Eventually, as laboratories pursued energy efficiency renovations, CEA hoped to be involved as a service provider. This program design combined the practice of consulting and client service with the practice of community organizing, thus integrating diverse bases of knowledge within CEA's team.

Finally, a shift happened in discussions about a possible recognition program for participants in the CEA program. This idea had long been held on the back burner because of a set of vexing questions at the nexus between logics. If CEA were to provide a "gold seal" on homes and storefronts, would it be for working with CEA as clients, or for simply reaching an ambitious benchmark of energy use? Should prior efficiency efforts be acknowledged? Should work outside the CEA umbrella be acknowledged (i.e., "parasitic opportunities")? CEA finally brought the recognition program onto the docket of projects in the spring of 2010 for piloting and execution in the second half of the year. This work was in part funded by community block grant money from the federal government, routed through the City of Cambridge.

The common feature of these interactions is a closer synthesis of the public and private service logics within the CEA organization than had occurred before. They created funding streams that could reward serving both the parts and the whole of the Cambridge building stock. They took advantage of CEA's distinctive role in Cambridge, established through its non-profit-style community outreach. And they brought together human and financial resources in new ways, all toward the goal of reducing energy use and greenhouse gases while saving money for homeowners and businesses. The Phase 3 activities did not solve the organization's financial woes, which were significant after having taken on debt and operated for three years without significant revenue. They did, however, begin to demonstrate the innovative potential of CEA as a hybrid organization combining logics of public and client service.

DISCUSSION

As a public-private hybrid organization, the Cambridge Energy Alliance combined multiple institutional logics under a single organizational roof. Given prior scholarship, we might expect these competing logics to manifest as competing demands by external constituencies (Oliver, 1991; Pache & Santos, 2010), or competing priorities and claims about organizational identity among internal constituencies (Glynn, 2000; Kraatz & Block, 2008; Pratt & Foreman, 2000; Zilber, 2002). These models (represented in FIGURE 1) portray administrative leaders (Selznick, 1957) as mediators or negotiators among these constituencies. Organizational change occurs through episodic managerial actions that compromise, avoid, defy, and manipulate external demands, or moves that delete, compartmentalize, aggregate, or synthesize internal identities.

Through ethnographic analysis of CEA I have developed a process model of another, complementary mechanism of change, one that is more interpretative, iterative, and emergent in its emphasis (depicted in FIGURE 4). In this organization, combining institutional logics did not result in overtly competing interests or factions. Instead they resulted in a latent organizational paradox involving contradictory interpretive schemes (the bottom arc of FIGURE 4). This paradox surfaced when the organization's actions led to paradoxical outcomes that were difficult to define as either successes or failures (the middle arc of FIGURE 4). In sensemaking about paradoxical outcomes as one or the other or both, organizational members initially used the lens of the current organizational identity and dominant institutional logic (the upper arc of FIGURE 4). Upon further reflection, however, they reframed CEA's outcomes and identity and thereby transformed its organizational logic, feeding back to a new cycle. In the first iteration of this process – from Phase 1 to Phase 2 – they shifted from one dominant logic (client service

business) to another (public service non-profit). In the second iteration from Phase 2 to Phase 3, they developed a novel synthesis. Particularly in this second iteration, there was a key role for external actors – prospective clients, channeled through my writing and conversation as an engaged researcher. These external perspectives offered new interpretations that informed sensemaking. This role contrasts with the models in FIGURE 1 that emphasize external actors' role as imposing interests and demands.

I label the particular paradox in this case the **service paradox.** Smith and Lewis (2011) define paradox as involving "contradictory yet interrelated elements that exist simultaneously and persist over time." In the case of the service paradox, those elements are "the client" and "the public," the foci of service in CEA's multiple institutional logics. The client-public relationship is an instance of a "part" and a "whole" – CEA sought to serve individual clients and, through them, the whole Cambridge community and more broadly the planet. Smith and Berg (1987) identify parts and wholes as constitutive of many paradoxes because they define one another – they are deeply interrelated – yet they can appear in contradiction or conflict in the course of group, organizational, and social life.

The service paradox remains latent in the life of an organization with dual client service and public service missions. It surfaces from beneath the waters and demands navigation when outcomes appear as both success and failure. In CEA's case, this occurred when it unintentionally "catalyzed" – supported or enabled – transactions with competitors outside its umbrella of client service. These transactions are considered successes for the public service mission but failures for the client service mission. Ultimately, CEA navigated the paradox by increasingly recognizing such catalytic activity and intentionally fostering it – perhaps moving closer to what Waddock and Post (1995) call a "catalytic alliance."

It is important to note, however, that this more innovative phase of navigation occurred after CEA had exhibited some hallmark patterns of organizations grappling with paradox as characterized by Lewis (2000) and named in FIGURE 4. These patterns show that innovation is by no means a guaranteed outcome of hybridity and navigating paradox.

The first emergent pattern was stasis or "stuckness" when people reflect on their situation and realize that any action will have contradictory effects. CEA had recurring discussions about a recognition program for homes and small businesses investing in energy efficiency – a marketing consultant proposed this idea in CEA's first year but it had yet to be implemented three years later. Allocating resources to such a program means confronting a question at the heart of the service paradox: should CEA recognize projects it did not implement?

A second pattern is for individuals or groups of people to reframe or escape the contradiction such that one or the other side is no longer the actor's responsibility, a phenomenon described as "splitting" (Smith & Berg, 1987). Structural differentiation can result, in which organizational subunits pursue contradictory strategies. In CEA's Phase 2, the small residential team adhered to a public service logic, while the large C&I team focused on client service. The important feature of this intra-organizational division, however, was that it only arose after paradoxical outcomes were interpreted as *either* success of mission *or* failure of client service delivery. The division dissipated when people began to understand outcomes in the more complex frame of CEA as a catalyst with multiple definitions of success.

Temporal splitting is a third pattern, and results in an oscillation behavior in which the actor alternates between polarities (Johnson, 1996; Lewis, 2000). We see this in the life of CEA, which began by asserting City-level goals, then developed a fee-for-service business model, then oriented itself toward grants to support its operations with less direct client accountability. The

process model developed in this paper helps explain how such oscillation can occur, as we see in the shift from Phase 1 to Phase 2.

Scholars of paradox have differed among themselves as to whether and how any lasting resolutions of paradoxes might be possible. "Workable certainty" (Lüscher & Lewis, 2008) may arise that guides one action at a time, as well as a more lasting capability for "behavioral complexity" (Denison et al., 1995), at least at the individual level:

> *The test of a first-rate leader may be the ability to exhibit contrary or opposing behaviors (as appropriate or necessary) while still retaining some measure of integrity, credibility, and direction. Thus, effective leaders are those who have the cognitive and behavioral complexity to respond appropriately to a wide range of situations… If paradox exists in the environment, then it must be reflected in behavior. (p. 526)*

I suggest that CEA began to evidence a *collective* form of behavioral complexity through its more creative and dynamic syntheses across business, government, and non-profit logics in Phase 3. People in CEA directly confronted and accepted the ambiguities involved in paradoxical outcomes; and they explicitly articulated a more complex framing of CEA's identity as a "catalyst." New practices emerged that integrated the capability for client service with the capability for community organizing. This is exactly the kind of innovative recombination that Stark (2009) calls "the sense of dissonance." External perspectives from CEA's clients, filtered through my writing and conversation as an engaged researcher, partly enabled this more complex thinking and innovation. At the time of observation, however, most of these innovations were in the proposal stage, leaving open the possibility that unintended outcomes might spur further sensemaking and transformation. The process of change is ongoing and emergent (Orlikowski, 1996; Tsoukas & Chia, 2002; Weick & Quinn, 1999).

CEA's pattern of oscillation followed by synthesis follows a similar sequence of events to Gilbert (2006). That study showed that competing frames (of threat and opportunity from new

technology) could eventually co-exist among senior managers who are above the fray of everyday decision-making. I played a similar insider-outsider role in the CEA case. The management structure of CEA's co-Executive Directors in Phase 3 further enabled what Gilbert calls "senior team frame integration." It is important to note, however, that what Gilbert identifies as a synthesis might be more properly termed as splitting and structural differentiation, since it involved different organizational divisions holding the competing frames. Owing in part to CEA's small size, a tighter integration and synthesis occurred there than in Gilbert's field site.

Implications for theory

This paper offers an important contribution to scholarship on hybrid organizations and organizing amid institutional complexity (Greenwood et al., 2011). It develops an iterative process model of change in hybrid organizations, showcasing the value of process-oriented research and theorizing. The model features an interpretative process different from prior mechanisms of change in the literature such as external institutional shock, power struggles among internal and external factions adhering to particular logics, or episodic responses to conflicting demands (Fligstein, 1997; Glynn, 2000; Pache & Santos, 2010; Thornton & Ocasio, 1999; Zilber, 2002). Here change occurs as people invent new ways to frame the organization – "one stop shop," then "laboratory," then "catalyst" in the CEA case – when they confront the latent paradoxes of a hybrid organization. Rather than explaining "who wins" in a process of contestation, this mechanism explains when we might expect people take innovative action at the nexus of multiple logics.

The findings are therefore important for scholars interested in sites of innovation, and the possibility that combining institutional logics might generate novel practices and organizational forms (Murray, 2010; Stark, 2009). The case of CEA suggests that combining logics does not

always lead to innovation – instead it can lead to stuckness or oscillation between logics. Innovation, as in the Phase 3 of CEA's development, seemed to occur to a greater degree when people were reflectively aware of latent paradoxes, and had linguistic hooks like "catalyst" to describe a way through them. This more complex understanding of organizational identity created a space for combining diverse forms of tacit knowledge (Stark 2009), such as consulting and community organizing in the CEA life sciences strategy. It is for future researchers to further operationalize and quantify this capacity for reflection on paradox, and (through comparative study) to more systematically assess its contribution to innovation.

More generally, there may be other moderators and intervening processes for innovation in hybrid organizations, which will be critical to explore. Scholars and practitioners often laud the trend of creatively melding elements from business, government, and civil society organizations (Senge, Smith, Kruschwitz, Laur, & Schley, 2008; Waddell, 2005). They do not always identify the challenging organizational processes behind realizing that creative potential.

For institutional theorists, there is further work necessary to integrate the process model in this study with mechanisms identified in prior work, such as those depicted in FIGURE 1. How do managers make sense of paradoxical outcomes when they have external actors making explicitly conflicting demands on their behavior, or more overtly conflicting internal factions aligned with particular identities? CEA might be unusual (for reasons I explore below) in being "holographic" (Albert & Whetten, 1985), with organizational members generally agreeing on an overall identity for the organization. The organization did not involve overtly conflicting factions, even when there was some structural splitting between the residential and C&I teams. Therefore the more interpretative and cognitive mechanism I emphasized was highly salient. What would happen, however, if such divisions had solidified, with people engaging in more

heated "framing contests" (Kaplan, 2008)? Could a narrowly cognitive/interpretive approach to paradox – getting people to see the "both-and" nature of the organization, perhaps through action research intervention – overcome organizational conflict and transform power struggles identified in prior scholarship? This is an important direction for future empirical research, which could be done through a similar style of research in a more contentious context. Theory development through such work could yield a more comprehensive process model, one that integrates elements of FIGURE 1 and FIGURE 4.

Another direction for institutional theory is to further explore the idea that institutional logics do not necessarily compete, contradict, or conflict continuously. Multiple logics can create latent paradoxes (Smith & Lewis, 2011) that only surface at particular moments in time. In CEA's case those moments involved particular unintended consequences of organizational action that appeared as both success and failure through the lens of multiple logics. These consequences were particularly salient for CEA in the context of resource scarcity and thus an imperative to avoid failure. This finding suggests a need to identify not only the "responses" to competing logics, but also the conditions and processes through which they appear competing in the first place (Greenwood et al., 2011). Resource scarcity – which Smith & Lewis (2011) identify as a trigger for latent paradoxes to surface – may be one such condition. Here a larger-n, comparative style of research would be relevant, to identify when hybrid organizations can expect to encounter contradiction, confusion, and conflict versus relatively smoother sailing.

Limitations and additional directions for future research

This paper presents an exploratory, theory-building field study, using CEA as a strategic research site (Merton, 1987) for answering questions about hybrid organizations that combine institutional logics. As hinted above, the model developed here must be tested and refined in

other contexts to more fully establish its validity and generalizability. In particular, four features of the CEA context and this research study bear mention as particularities.

First, Cambridge, Massachusetts is not a typical town – as detailed above, it has plentiful resources and political support for energy efficiency initiatives. On one hand, this means that we can more easily attribute CEA's challenges to the paradoxes of hybrid organizing. On the other hand, the context supportive to CEA is also supportive for competing energy service companies and contractors. This fact may therefore increase the likelihood of transactions occurring outside CEA's client service relationships, and thereby make the service paradox more salient. Studies of similar initiatives in other contexts might show whether competitive context moderates the effect of the service paradox on the life of hybrid organizations.

Second, it is worth noting CEA's particular strategy for solving the problem of energy efficiency: to directly engage clients and encourage their investment in energy efficient building retrofits. The service paradox might play out differently in other organizations, for example one that conducts benchmarking and rating of energy efficient buildings in an effort to encourage energy efficiency investment by others. Such organizations may, from their inception, intend to be "catalysts" and indirect in their effects on social change (Waddell, 2005; Waddock & Post, 1995). They may not attempt CEA's tight integration between a client-service business model and a community service non-profit model, which made paradoxical outcomes particularly salient. Research on organizations taking a broader range of strategies in a similar problem domain might be valuable in clarifying scope conditions for the service paradox.

Third, certain features of energy efficiency as a problem domain may bias toward models of change that are less centered on conflicting interests than other models have been. Where there are zero-sum games in cross-sectoral collaborations – for example between real estate

developers and landscape conservationists (Layzer, 2008) – it is easy to see where factions and conflict may arise. There, more politically centered models may be more useful. In the domain of energy efficiency, by contrast, such conflicts are not nearly as overt. Efficiency retrofits in buildings have a dual public and private benefit, yielding both cost savings and pollution reduction. So too in other domains where actions can yield public and private good: agriculture practices that reduce input costs and pollution; process safety management in manufacturing that saves lives and equipment; preventative health measures that reduce treatment costs for individuals and governments. These are domains where efforts to promote the mix of public and private good might proceed with less conflict amid a mix of actors and logics, but where the service paradox should be salient because of the client/public, part/whole relationship. What are the conditions under which we should expect competing logics to primarily manifest as factional negotiation and conflict, versus as a relatively "cooler" sensemaking process? Comparative study of hybrid organizations across problem domains may shed light on this question.

Finally, I assert in this paper that organizational members' active reflection on paradoxes may be essential in their navigating toward more behaviorally complex, innovative ways of working amid competing logics. Within CEA, however, that active reflection occurred partially in response to my own intervention as a researcher. As detailed above, my sharing in-process writings with CEA focused their attention on contradictory interpretations of success and failure, and helped spur the round of sensemaking and reframing that drove a transition from Phase 2 to Phase 3. This feature of my participant-observation raises an important question for future research – when does reflective engagement of paradox require engagement with an outside perspective (such as I provided), and when does it occur endogenously? This question is particularly relevant given the resurgence of action research as a methodology in the study of

organizational change (e.g., Lüscher & Lewis, 2008). In such studies, it may be necessary to withhold researcher observations – perhaps as a control in an experimental design – in order to understand when reflective engagement occurs on its own.

Implications for policy and practice

This paper strikes a cautionary note for entrepreneurs and policy makers looking to create and support "hybrid," "cross-sectoral," "public-private," or "social enterprise" organizations. Practitioners should not assume that success and failure will be easy to define amid a combined mission of private service (to individual clients) and public service (to the economic, social, or environmental well-being of a whole population). In fact some indirect effects of organizational action can be seen as paradoxical outcomes that are good for mission but bad for business, such as spurring people to "do the right thing" without the organization's involvement. It may be important that practitioners recognize this tension and find ways of rewarding the organization for being a "catalyst." This means finding financing and revenue streams that are tied to the progress of the entire constituency as well as streams tied to service of individual clients or partners. Doing so may require hybrid organizations to engage in systemic institutional change, for example advocating for changes in public policy.

There are important implications for policy makers here as well. Government policies that internalize externalities of pollution and natural resource use via tradable credits and permits (such as the electric grid's Forward Capacity Market and the Regional Greenhouse Gas Initiative in CEA's case) are often still tied to individual transactions. Therefore they do not support education and movement building that benefits the whole constituency simultaneously. Trends toward accountability among philanthropic foundations can have a similar unintended consequence if they tie funding to individual transactions. Policy makers looking to encourage

beneficial practices like energy efficiency retrofits and sustainable agriculture should provide a mix of funding streams that require both progress against collective, community goals and countable individual transactions.

Finally, it is important for practitioners and scholars to be conscious that none of these prescriptions is universal. Hybrid organizations are complex entities, influenced by a diverse range of internal and external stakeholders. They are rife with episodes of tension when latent paradoxes surface and demand navigation – within the organization, among immediate partners, and with outside exchange partners. Ignoring paradoxes can result in undesirable outcomes like stuckness and inaction, oscillation and mission drift, factionalization and internal conflict. It may take a particular quality of behavioral complexity and leadership across boundaries to navigate this territory. Being open to external perspectives – clients, competitors, partners, and scholars – will be a key to unlocking the innovative potential of hybrid organizations.

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FIGURE 1

Two mechanisms of change in hybrid organizations from prior literature, depicted as potentially iterative processes when outcomes feed back to conditions.

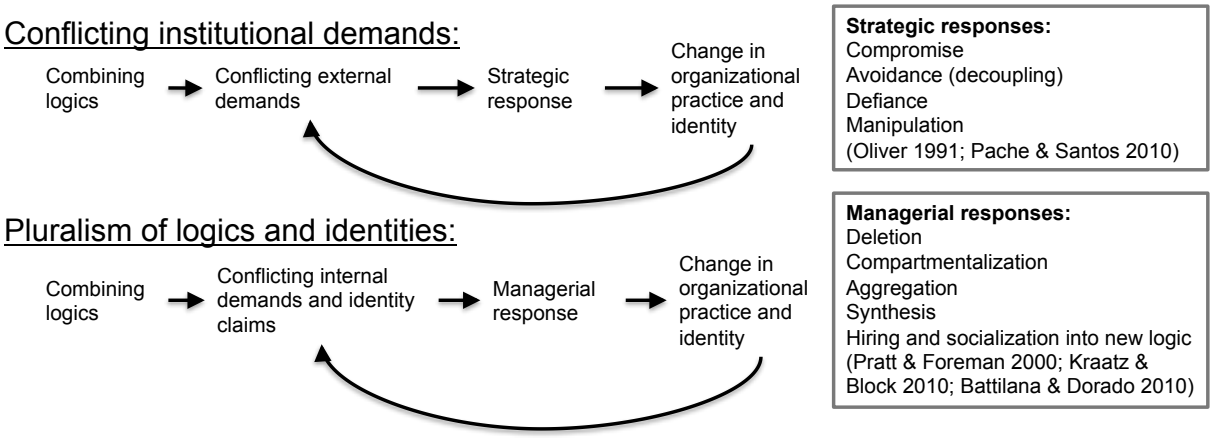

FIGURE 2

CEA and its exchange partners. Actors within the solid line represented themselves as part of CEA when interacting with people outside. Fill patterns are used to identify the primary institutional logic of each actor.

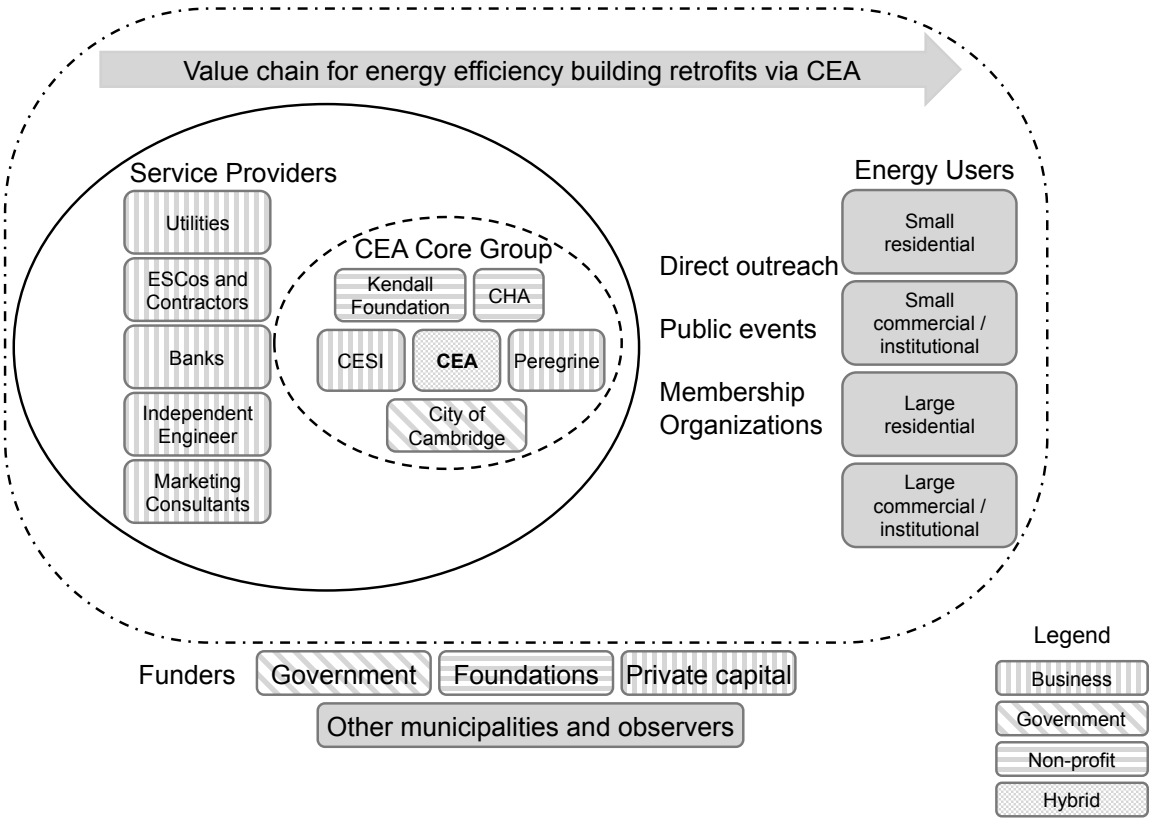

FIGURE 3

Results of autocoding for CEA being described as "one stop shop," "laboratory/experiment," or "catalyst."

Primary documents included interview transcripts, single days of field observation, and archival documents.

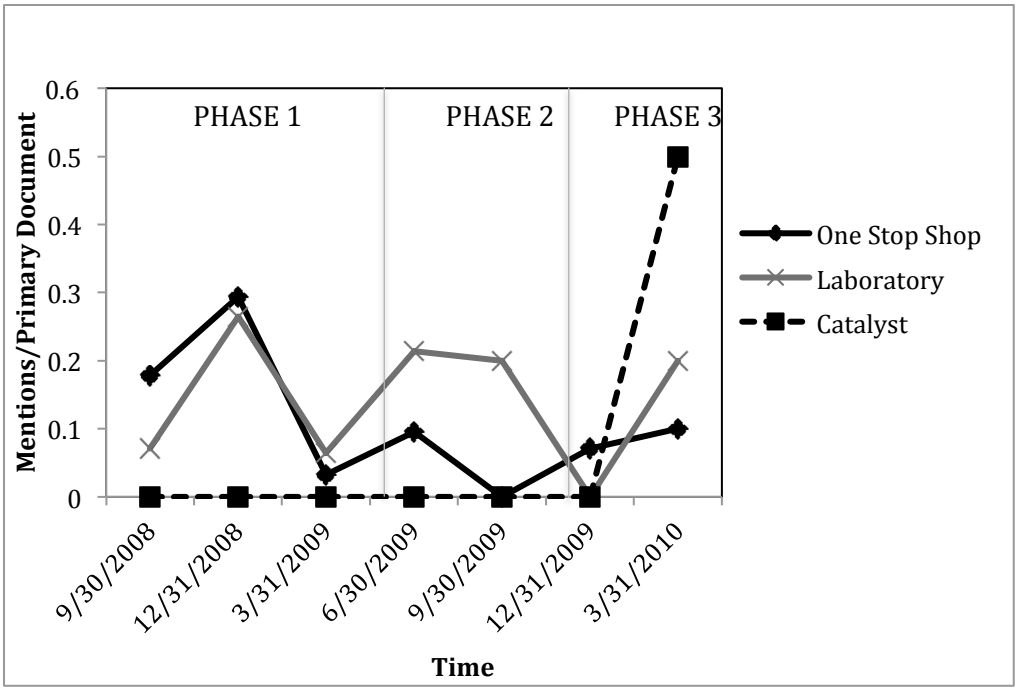

FIGURE 4

Navigating paradox in hybrid organizations: A process model

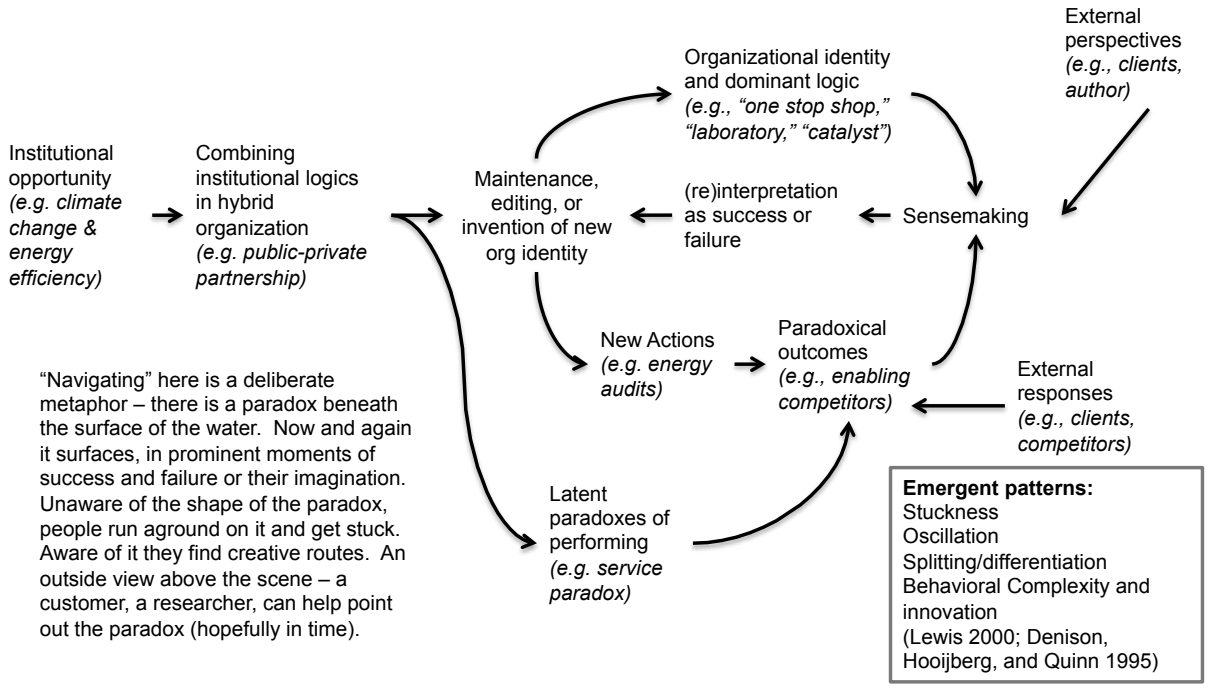

TABLE 1

Data sources gathered between July 2008 and May 2010

Interviewees (40)		**# of interviewees**
CEA executives and staff		2
Consultants to CEA		6
City officials		3
Potential and actual C&I clients		11
Energy service company partners		8
Utility representative		1
Related organizations and initiatives in Massachusetts		7
Related initiatives outside MA, talking about CEA		2
Archival records (58)		**# of documents**
Strategy presentations and whitepapers		6
Grant applications and financing solicitations		5
Financial reports		9
Tracking spreadsheets/databases for client engagements		3
Client energy audit reports		5
Meeting minutes		30
Observations (125)		**# of events**
Strategy meetings	Sporadic	9
Board of Directors meetings	Every 6-8 wks	9
Core Group meetings	Every 2 wks	27
Observation in office (2-5 hours/ day)	Sporadic	80 days

TABLE 2

Institutional logics at play in cross-sectoral hybrid organizations, and (in italics) their instantiation in the Cambridge Energy Alliance. Conceptual categories based on Ewick & Silbey (2002) and Scott (2003)

Institutional logic	State	Market	Civil Society
Ideal type organization	**Municipal government bureaucracy**	**Business firm**	**Non-profit organization**
Normativity/ strategic imperatives	**Public service.** Policy implementation, serving constituents, accountability *(CEA view of energy users: political constituents with the rights & responsibilities of citizenship)*	**Client service.** Revenue, profit, value creation *(CEA view of energy users: clients who need to be served and who should be given choices)*	**Public service.** Mission, public service, solidarity, selflessness *(CEA view of energy users: activist targets, campaign participants, partners, and/or members)*
Source of agency/ capacity to act	Coordination of public resources, rule making, enforcement power *(Primary actors in CEA: City officials)*	Salesmanship, innovative service delivery *(Primary actors in CEA: Consultants)*	Convening, collective action framing, education *(Primary actors in CEA: Community organizers)*
Constraint/ structure	Law, procurement rules, transparency to public *(CEA stakeholders embodying constraint: Budgeting bureaucrats and officials, City Council, elected officials, taxpayers / voters)*	Rules of the game, scarce client attention and resources, brokerage position, fiduciary responsibility to financiers *(CEA stakeholders: Investors, clients, subcontractors, board of directors)*	Normative expectations of stakeholders *(CEA stakeholders: Foundations, donors, members, board of directors, IRS)*
Time	Budget cycles, election cycles	Sales cycles, quarterly reporting	Campaign momentum, tipping points, grant funding cycles
Space	Public meetings/hearings	Homes and businesses as clients	Neighborhoods, events, intimacy
Artifacts (carriers)	Climate action plan, budgets	Business plan, sales brochures	Grant proposals

TABLE 3

Phases of change in CEA and the role of sensemaking about paradoxical outcomes

		Phase 1: 6/2006 to 5/2009	**Phase 2: 5/2009 to 12/2009**	**Phase 3: 12/2009 to 5/2010**
Initial/ revised framing and strategy	*Organizational logic*	**Client-service business** *Founder:"I really wanted CEA to be private sector based, because unless people in the private sector are making money doing things, you can't reach scale."*	**Public-service non-profit** *Ex-CEO: "CEA is starting to look more like a traditional non-profit organization."*	**Complex hybrid organization** *Founder: "It's a very different organization from what we envisioned a few years ago. More realistic, more adaptable to conditions on the ground, and more useful on the national stage."*
	Identity framing	**One stop shop** *CEO: "We have 5 ESCOs under contract with us as a one stop shop program… With one phone call you get audit, financing, project management, oversight."*	**Laboratory/Experiment** *Ex-CEO: **"**We are using CEA as a national laboratory."*	**Catalyst** *Client mgr: "I think we are trying to be a catalyst. We are trying to be the thing that is added to this mix of ingredients that causes something to happen."*
	Financial strategy	Loans to finance CEA; client fees from ESCo projects; grants to taper	Grants as primary income source	Staff billing time to mix of grants + consulting client fees
	Initiatives and actions	Attempt sales of ESCo+finance services to clients via client managers.	Grant application to serve as laboratory and national model, advising other cities based on CEA learning.	CDM deal closed; CHeA project with MIT students proposed; Life sciences lab energy project formulated; Small business recognition program launched
Outcomes and sense-making about them	*Paradoxical outcomes*	Residential customers do audits but put projects out to bid, late 2008; Beta does audit but works with other ESCo, 3/2009	Gamma does audit but implements internally, 11/2009	Alpha does audits but implements internally, 5/2010
	Sensemaking about success and failure	*Client Mgr:**"We took such a hit with Beta** and Epsilon that we really put on the brakes to say what can we do differently… **We need to get people together to absorb these failures**, and get common thought on how to proceed and then proceed."*	*Ex-CEO: "Documenting what you've done is as important or more than what you accomplish. Test tubes. Laying down body of knowledge."*	*Client Mgr: "**I think [Beta] should be viewed as a success**. I mean... it doesn't help us, our bottom line, but that's not the purpose. We are trying to get people thinking about it and taking action regardless of how they get there."* *Founder: "[Alpha] could be a win win win."*
	Significant personnel changes	Outreach coordinator hire 1/2009; CEO Johnson resignation 4/2009	Energy advisor hire, 6/2009; Co-exec. directors, 12/2009	