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Enron and the California energy crisis: The emergence of a corrupt collective

Adam Nix (De Montfort University)

Stephanie Decker (Aston University)

Carola Wolf (University of Liverpool)

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Corresponding author:

Dr Adam Nix

Faculty of Business and Law

The Gateway

Leicester

LE1 9BH

adam.nix@dmu.ac.uk

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Abstract

This paper provides an analytically structured history of Enron's involvement in the California energy crisis. That is, it narrates Enron's emergence as both a corrupt organisation and its role as the central actor within a broader inter-organisational corrupt collective. Our analysis uses telephone and email records to develop a rich, fly-on-the-way understanding of the organisation's everyday operations and adoption of market manipulation as a route to divisional performance. In elaborating the corrupt collective as a new concept, we also show how the control of assets, information and assistance flowed to Enron's traders, who combined them with their own capabilities to manipulate the energy market. Additionally, this paper provides answers by narrating events over the course of the collective's existence, thus showing how its corrupt activities changed over time.

Keywords: Organisational corruption; Analytically structured history; Enron; Energy markets

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Introduction

In the spring of 2000, California's system of electricity provision started experiencing problems that would worsen and continue well into the next year. The resulting blackouts, regulatory interventions and ruinous energy prices would ultimately become known as the California energy crisis. Two years previously, the state had instigated deregulation, splitting up the large monopoly utilities and creating markets for electricity to be traded between various participants. Amongst them was Enron, whose newly formed West Coast Trading division operated from Portland, Oregon. Along with others, Enron would eventually be accused, charged and found guilty of manipulating California's new markets, contributing to the crisis as a result.¹ Within this paper, we narrate Enron's actions as a form of organisational corruption and show how this was established and organised over time (Ashforth, Gioia, Robinson, & Trevino, 2008). As part of this, we also show corruption's spread beyond organisational boundaries to form what we conceptualise as an inter-organisational *corrupt collective*.

Of those embroiled in the crisis, Enron has become the most publicly recognised. Although implicated beforehand, its prominence here was dramatically increased by the company's new-found infamy in the wake of its accounting scandal (Benke, 2018). Once incorporated into broader narratives, the energy traders' apparent contempt for the Californian public and wilful aggravation of the crisis was presented as yet more evidence of Enron's culture of reckless greed (e.g., Fusaro & Miller, 2002; McLean & Elkind, 2013).² In this way, public awareness was increased by works such as the popular post-scandal documentary film, *The Smartest Guys in the Room*, which included a segment on energy crisis (Gibney, 2007). While inclusion as a sub-plot of Enron's wider history is warranted, Enron's actions in California also represent a significant set of events in themselves. Consequently, more detailed and specific focus on Enron West Power Trading offers potentially substantial insight, beyond the significant body of research into the wider case.

¹ As well as the guilty pleas of three individual Enron traders (United States v Belden; United States v Forney; United States v Richer), the FERC's trial into Enron's actions (docket EL03-180-000) found that "*Enron violated its market-based rate authority starting on January 1, 1997 and engaged in gaming and anomalous market behaviour by itself and in concert with others.*" (FERC, 2007:4). This confirms and extends the findings in the FERC's final report on the crisis (FERC, 2003). The 2007 decision was vacated as moot after Enron's out-of-court settlement negated the need for any court mandated redress or the prospect of appeal (see FERC, 2008).

² Although not fully absolving them, there are also those who argue Enron's actions should be viewed as the result of poor regulation and representative of widespread market activity at the time (e.g., Bush & Mayne, 2004; Cicchetti, Dubin, & Long, 2004; de Bruijne, 2009). However, these views do not contest the established version of events, rather they argue that Enron's actions were not the main contributor to the crisis and that their actions were, to a certain degree, understandable.

The output of this paper takes the form of an analytically structured history (Rowlinson, Hassard, & Decker, 2014), which shows how organisational corruption was established and organised over a four year period. Internally, we find that corruption within the firm's West Power Trading division followed a path similar to that anticipated within conceptualisations of corruption's normalisation, whereby corrupt practice become institutionalised over time (Ashforth & Anand, 2003; Brief, Buttram, & Dukerich, 2001). Furthermore, the division was representative of Pinto, Leana, and Pil's (2008) *corrupt organisation* concept, with power collectively abused for primarily organisational benefit, through the achievement of operative goals. The potential relevance of this concept is well highlighted by the confession of Enron's head trader, Tim Belden:

Beginning in approximately 1998, and ending in approximately 2001, I and other individuals at Enron agreed to devise and implement a series of fraudulent schemes through [California's energy] markets. We designed the schemes to obtain increased revenue for Enron from wholesale electricity customers and other market participants in the State of California.

(Belden, 2003:3)

Although some anecdotal use of the case has established preliminary links to organisational corruption research (see Fleming & Zyglidopoulos, 2009; Palmer, 2012), substantive empirical investigation remains absent. Rather, extracts from journalistic work (mostly McLean & Elkind, 2013) are used to illustrate isolated points, as opposed to forming a comprehensive investigation based on extensive source usage. While conceptually useful, investigation of historical events in this manner has limitations, leading to call for more substantive examination (Ashforth & Anand, 2003). Accordingly, we contribute by developing a detailed understanding of a single historical case, using primary and secondary sources to show how corruption was established and organised as an ongoing collective activity.

We further contribute by generating insight into inter-organisational collaboration as part of the organisational corruption concept. Although acknowledged as potentially relevant, research in this area has largely ignored the collective activities within inter-organisational networks (Bertrand & Lumineau, 2016; Pinto et al., 2008). Similarly, that corruption extended beyond the boundaries of the organisation is a point regularly marginalised in existing work on Enron's involvement in the energy crisis. We show that, in the process of becoming a corrupt organisation, Enron's traders established an inter-organisational network of actors, working

collusively for the financial gain of their respective organisations. We call this a *corrupt collective*, which constitutes a loosely aligned network of embedded corrupt organisations. Accordingly, in developing an in-depth understanding of the case, this research contributes by extending our understanding of organisational corruption in relation to collective activities that are fundamentally inter-organisational in nature.

Though prior work deals with corruption in a more generalised, analytical terms, the primary aim here is to develop understanding of these theoretical constructs from a detailed interaction with empirical evidence. As such, priority is given to developing a narrative of certain events rather than a generalisable theoretical interpretation (Rowlinson et al., 2014). Hence, this paper draws strongly on historical research traditions, particularly the area of historical organisation studies, producing what Maclean, Harvey, and Clegg (2016) term “history as narrating”. More specifically, treatment of the sources follows an integrationist position, using an *analytically structured history* to produce a narrative output that sits at the intersection of the analytical and the empirical (Rowlinson et al., 2014; Üsdiken & Kieser, 2004). Our understand of Enron’s actions during the crisis are gained from historical records of their communicative interaction (telephone and email-based) with internal and external actors.

The so-called *Enron Trader Tapes* contain over 2000 pages of transcribed dialogue relating to 380 trading-floor calls (see Kang, Plaisant, Elsayed, & Oard, 2010). These sources capture Enron actors’ interaction with various relevant parties, including colleagues, collaborative partners, customers, and regulatory representatives. The tapes were originally obtained via federal subpoena and later made public via the Federal Energy Regulatory Commission (FERC) e-library. They were processed by an economist specialising in the energy industry and transcribed by a team of listeners, who screened over 1000 hours of recordings and identified calls relevant to market manipulation (Pechman, 2007). Due to their legal aims, only calls relevant to the case were transcribed, giving a highly concentrated sample of corruption-related interaction. Some, mostly personal, dialogue was redacted before publication, due to its irrelevance as case evidence: this includes details such as names of family members and home telephone numbers. Additionally, to facilitate clarity, we removed some superfluous non-verbal phrases (e.g., “Urm”) and linguistic false starts (e.g., “And– and I...”) from the quoted extracts. In total, 361 PDF transcripts were manually coded using the Nvivo software package.

The original collection of emails known as the *Enron Email Corpus* contains over 500,000 emails from 151 accounts (see Aven, 2015). Due to its size, we draw on the assertion

of Decker (2013) in ‘sampling’ this collection to reduce it to a more manageable and relevant collection. As our study was limited to Enron’s trading in the West, only the accounts of those employees based in its Portland trading-office were used. This reduced the accounts from 151 to 20. The specific emails from those accounts were then limited to just those held within ‘sent email’ folders. With sent mail, the communication was significant enough to warrant attention, as opposed to the passive holding of emails in an inbox folder. Use of the latter would increase the risk of attributing significance to communications that were in fact ignored or even unseen. This process reduced the corpus to 4,160 individual items, which were also manually analyzed using Nvivo.

This short paper starts with a historical context section, which briefly details Enron’s origins and progression, before outlining California’s route to energy deregulation. From there a summary of the full paper’s findings is provided.

Historical context

To better understand the nature of Enron’s actions in California, it is important to understand the context and circumstances within which they were situated. The details of Enron’s history have been extensively chronicled (see Benke, 2018; Boje & Rosile, 2003; Bradley, 2011). Consequently, there would be little to gain from a comprehensive retelling of them here. This said, there are details of Enron’s wider organisational history that are relevant to its actions in California, and it is important that such details are accounted for. Similarly, California’s route to deregulation has also been well investigated, most prominently in the fields of policy (e.g., Joskow, 2001; Weare, 2003) and law (e.g., Bush & Mayne, 2004; Martin III, 2003). Such was the scale and complexity of California’s energy deregulation, the crisis, and the factors that caused it, doing full justice to its retelling is also beyond our scope and aims. Accordingly, in the below section we give an overview of Enron’s history and its route to the West Coast as well as detailing the basis for California’s deregulation of its energy system.

Enron

Enron was formed by the merger of Houston Natural Gas (HNG) and Omaha-based InterNorth in 1985. The terms of the merger installed HNG’s recently hired CEO, Ken Lay, as head of the new company. The new entity constituted a major player within the natural gas industry, controlling the largest and most far-reaching system of transmission pipelines in North America (Benke, 2018). After moving the company headquarters to HNG’s home in Houston, a first priority was to give it a fresh identity (Enron, 1986; HNG/InterNorth, 1986a). Lay was a strong advocate of free markets generally and energy deregulation specifically, and the new

entity needed to project the deregulated and dynamic energy company of the future he envisaged (McLean & Elkind, 2013). Accordingly, Enron was chosen for its sense of modernity and thus a movement away from any previous association with its traditional natural gas industry origins (HNG/InterNorth, 1986b). This projection of a modern, up-to-date and catalytic player within global business would remain a key part of Enron's identity throughout its operational existence.

After a turbulent initial period that included takeover attempts and its near collapse as a result of rogue trading on the oil futures market, Enron had entered a period of comparative stability by 1987 (Boje, Rosile, Durant, & Luhman, 2004). Although now profitable, it was yet to realise the rewards envisaged from recent gas market deregulation. In fact, the new natural gas spot market had created significant uncertainty which was hampering liquidity throughout the industry (Benke, 2018). It was at this time that Enron started working with then McKinsey consultant, Jeffery Skilling, to develop a new, commodity-based form of natural gas trading. Pitched as a 'gas bank', Skilling believed gas should be traded through a mediating partner rather than directly between buyer and seller as was currently the case (Skilling, 1991). Underlying this view was the need to spread risk throughout a portfolio. By managing sale and purchase obligations in aggregation, Enron could mitigate the uncertainty and safely provide more stable arrangements for buyers and sellers (Bradley, 2011). Despite some scepticism, this initiative aligned with Enron's desire to leverage recent deregulation and was duly adopted.

Without its creator, the 'gas bank' had a troubled start, and in 1990 Skilling left McKinsey to head-up Enron's new Financial Services division (Enron, 1990). His purpose here was to bring his concept of the gas bank to working fruition, something he quickly achieved (Chatterjee, 2003). Skilling, whose experience in banking and finance influenced his commoditised vision of income generation, continued to champion financialisation over the coming years (Benke, 2018; Thomas, 2002). As with the gas bank, he believed in the conception and facilitation of markets, where services and resources were commoditised, and Enron managed the interface between buyer and seller (Culp & Hanke, 2003). The counterpoint to this approach was the firm's historic focus on the utilisation of assets, such as pipelines and power plants. In many respects, this position was comparatively risk-averse and preferred business activities that favoured a longer-term and stable route to income generation (Fusaro & Miller, 2002). Increasingly, however, the success of the new financial services division aided Skilling's ascendancy within the firm, allowing him to push for ever broader adoption of his more financialised strategy (Culp & Hanke, 2003).

Throughout the early 90s, these two aspects of Enron's business strategy co-existed. However, Skilling's promotion to President and Chief Operating Officer marked a turning point for the company (McLean & Elkind, 2013). There followed increased movement away from asset-intensive operations, something compounded by poorly performing projects such as the Dobhol power plant in India (Fusaro & Miller, 2002). Ultimately, as the 90s progressed, the focus became ever more one of value through service, rather than value through the leveraging of physical assets (Culp & Hanke, 2003). In this way, Skilling's approach had become Enron's principal operational strategy, with the company increasingly resembling the financial organisations found on Wall Street rather than a gas company (Benke, 2018). With this evolution, the appetite for risk increased, with more interest in shorter-term substantial profits, than stable, longer-term profitability associated with traditional industry activity (McLean & Elkind, 2013).

By 1997, Enron had gone from a significant, if globally obscure natural gas company, to an organisational phenomenon with substantial visibility as a free market advocate and an aggressively profit-driven focus. Young, aspirational, and bright graduates wanted to work for the company that promoted the importance of brains above age or experience (Cruver, 2002). Furthermore, its political presence as an advocate of free markets and deregulation was substantial, helped in no small way by Lay's connections to Washington (Bradley, 2011). Enron was also now involved in a diverse collection of markets, with its expansive operations famously including areas as diverse as broadband and water supply. Despite this, much of Enron's focus remained based in the energy sector (Tillman, 2009); and it was here that much of its deregulation advocacy was directed, with Enron seeing electricity markets as the greatest opportunity for new profit streams. As political appetite increasingly aligned with Enron's perspective in this regard, government and industry alike looked to electricity deregulation with ever increasing optimism (Benke, 2018).

US energy deregulation

The distribution of electricity to consumers (or ratepayers) relies on two key physical components; *generation*, the ability to produce electricity, and *transmission*, the capacity to transfer large amounts of that energy from its source through to its point of distribution (Schewe, 2007). Physically, generation comes from numerous forms of wattage producing infrastructure (e.g., power plants). Transmission, on the other hand, consists of the high-voltage cables and substations, which move electricity to a regional point of distribution. From there it is connected through to ratepayers, who can draw as much or as little power as required. Rather

than being a completely integrated network, the North American grid is divided by location into regional interconnections (see Figure 1); it is from these interconnections that individual states are connected to their regional neighbours.

[Insert Figure 1 here]

The fact that energy is fundamentally transient in nature complicates the process of its large-scale provision. Once generated, energy can be used or temporarily stored, however, this latter option is impractical on the scale encountered with grid systems (Bhagwat, 2003). As excessive quantities of surplus electricity cannot be stored, it has the potential to overload system infrastructure. Conversely, too little energy will necessitate the limiting of voltage (brownouts) or total absence of supply (blackouts). Put another way, too much energy at a given time overloads the grid, whereas too little will not adequately provide for all its consumers. This challenge necessitates the continual need for a precise balance between supply and demand. When balanced, the grid is able to account for the transience of energy by anticipating likely consumption and limiting generation accordingly.

To achieve this balance, grids are managed through a complex system of forward planning, adjustment and contingency (Schewe, 2007). *Scheduling* involves the advanced (normally day-ahead) planning of a base-level of generation and organisation of that energy's route through the grid, anticipating availability and demand at a given point in time. As transmission paths vary in capacity, care must be taken not to congest them by scheduling too much energy through particular paths. This base supply is then adjusted where necessary, closer to the time of transmission (day-of or hour-ahead); in some cases reserves (ancillary services) might be called on to negate any unexpected shortfall (Blumstein, Friedman, & Green, 2002). Reserves come from generation units that are physically able to respond quickly to a need for supply and have spare capacity to do so. Using this combination of planning, fine-tuning and redundancy, an abundance of electricity can be reliably delivered to ratepayers, while avoiding the risks of over-generating.

Like other US states, California's pre-1998 energy industry was made up of vertically integrated utility companies (see Figure 2); which would supply captive consumers in a geographic area using their own generation and transmission infrastructure (Bhagwat, 2003; Walsh, 2002). This arrangement had been established in the post-war expansion of the 1940s, changing only marginally since (Schewe, 2007). Beyond this, a small number of regional bilateral agreements existed, which allowed utilities to meet unexpected demand or take advantage of underutilised generation (i.e., where supply exists for diminished demand). Given their scale and infrequency, such arrangements never required a centralised market (Blumstein

et al., 2002). Furthermore, standalone generation ventures, known as *qualifying facilities*, existed to sell energy to utilities through pre-arranged long-term contracts.³ In this way, California's energy industry was dominated by large utilities with no competitors and limited incentive for efficiency (Weare, 2003).

[Insert Figure 2 here]

As with natural gas, California had become increasingly reliant upon electricity imported from other states (FERC, 2003). This is because, although the state was a major market for electricity consumption, it generated comparatively little power itself (Blumstein et al., 2002). Because of California's significance as a net importer of energy, many participants within the Western Interconnection had significant presence in California's markets (something that increased further with deregulation) (FERC, 2003). Thus, inter-state trading allowed California to import power to suit domestic demand and offered a lucrative market for out-of-state generators.

By the late 1980s, California was suffering from several energy-related issues. The essentially monopolistic structure was contributing to prices 30-50% above the national average, a problem compounded by the expensive forward contracts the state had entered into with qualifying facilities (Blumstein et al., 2002). Furthermore, projections for future generation construction projects were bleak, with little incentive for utilities to undertake financially risky developments (FERC, 2005). Such issues aligned with the increasingly widespread view that greater integration of competition into the electricity market would mitigate some of the significant inefficiency that had developed, as it had done previously with natural gas (Bhagwat, 2003). On 23rd September 1996, after consultation and planning phases beginning in 1992, the state agreed to deregulate its electricity system (Richard & Lavinson, 1996). The legislation enacting this restructure aimed to induce competition, lower consumer prices, and improve reliability (Bushnell, 2004).⁴

Under the new system (see Figure 3), ratepayers would have a choice of whether to stay with their existing provider or move. Additionally, consumer rates were reduced and capped for the first few years of the new system's operation. Utilities were required to sell and purchase power on a newly created spot market run by the California Power Exchange (PX).⁵ Even where they had their own generation capacity to do so, utilities were required to purchase all

³ Qualifying facilities were created in response on the 1970s oil crisis and allowed for private, independent generation which fed into the utilities' available supply. To encourage the creation of such facilities, the state had agreed generous long-term contract, which committed to purchasing energy at a set price.

⁴ AB 1890. "The Electric Utility Industry Restructuring Act". California Assembly (1996)

⁵ Also referred to as the CalPX

the energy needed to serve their pre-restructure consumers on the PX. In promoting the use of the PX market, the regulations also curtailed their ability to enter into long-term bilateral contracts, making the spot markets the main mechanism of exchange between participants. In this way, the PX had a chiefly financial function and was not concerned with whether trading activity was physically feasible.

[Insert Figure 3 here]

In order to manage the physical delivery of electricity, the bill established the California Independent Systems Operator (ISO)⁶, who managed transmission within the state. Utilities, who historically owned transmission lines, were required to transfer operational control of them to the ISO. This allowed the ISO to manage the market activity of the PX through centralised control of state transmission. As part of this, the ISO was also responsible for managing contingency and adjustment administration, something it did largely through an automated computer system. As such, the ISO would receive the PX's market information, and its system would then set about making sure there was enough power to support the anticipated load and that paths were not congested in the process. If a line were congested, it would use artificial price adjustments to incentivise the required change in scheduled flow. In this way, its role in the new structure would be to convert the financial transaction of electricity into a physical movement of power.

Within the space of ten years, California had taken its traditional, monopolistic, energy system to the forefront of US deregulation. Though it had not ushered in complete reliance on market forces, it had set in motion the first competitive US electricity market, which was scheduled to commence in January 1998.

Establishing manipulation as a path to profit

Throughout the 90s Enron had increasingly developed an aggressive performance driven focus and, with the profitability of natural gas levelling out, the firm looked to electricity to sustain its financial performance (Lambert, 2015). Accordingly, Enron acquired Portland General Electric (PGE) in July 1997, allowing it to operate within the Western Interconnection and, with that, California's new markets (Holden, 1996; Portland-General/Enron, 1997). The state's imminent deregulation was the culmination of many years of lobbying and political encouragement by the organisation, and Enron was naturally eager to participate (Benke, 2008). Beyond economic advocacy, the move was seen by Enron's leadership as an important

⁶ Also referred to as the CAISO.

opportunity to leverage its knowledge of financial services and commodity trading in an untapped market (Lambert, 2015). To this end, the goals for the acquisition were closely tied to an ethical climate that valued free market ideals and profit maximisation in an increasingly competitive business environment (Benke, 2018).

Shortly after the acquisition, Enron created the West Power Trading division of Enron Power Marketing, Inc, locating it in the same building as PGE in Portland. The division was set up to buy and sell electricity throughout the West, either as a standalone trading activity or as part of service arrangements with other parties (Crowley, 2005); in this way, it was markedly different from PGE. As a traditional utility, PGE provided electricity to ratepayers, possessing and managing the physical infrastructure to do so (Pechman, 2005). West Power Trading, however, was only involved in wholesale energy and focused on fundamentally financial activities, not owning any of its own infrastructure (Crowley, 2005). Furthermore, the two companies were required to remain legally and operationally separate, further disconnecting Enron's financial activity from the end user services of PGE. Thus, West Power Trading's focus was not the practicalities of reliably delivering energy to ratepayers; rather, its overwhelming interest was in electricity as a tradable, abstract commodity (The Economist, 1998).

To capitalise on California's new markets, the division's senior traders set about preparing extensively for the coming deregulation. As they worked to understand the complex new system, it became clear that the rules and protocols California had implemented contained flaws (CalPX, 1999). Ultimately, these flaws offered potentially profitable opportunities to anyone with the knowledge and inclination to use them.⁷ Enron's drive for profit maximisation and belief in market forces encouraged an unsympathetic view of such vulnerabilities (McWilliams, 1997). This, along with the division's own focus on abstract financial operations, provided an ethical climate that permitted the pursuit of profit through the exploitation of these design flaws. Accordingly, with potential opportunities open to them, the division's leaders needed to hone their understanding of the rules. By late 1997, they had therefore started actively exploring the market's exploitable weaknesses, with a view to generating operational income in the process.

It was around this time that a consultant associated with the information technology firm, Perot Systems, approached Enron with information about "loop-holes" in the new system

⁷ Enron was not alone in seeing an opportunity here, with subsequent enquires finding that numerous participants were involved in similar research during this time (Bush et al, 2004; FERC, 2003b).

(Backus, 1997a). Perot Systems had been contracted to help design protocols for both the ISO and PX. Through this, the company had amassed a substantial working knowledge of the new system's features, limitations and flaws (Kamp, 2002). In addition, the company had worked in the recently deregulated UK energy market, where substantial market manipulation had followed deregulation (*California's electricity market: The case of Perot Systems*, 2002). Using this knowledge, a consultant connected to Perot Systems, George Backus, set about promoting consultancy services targeting firms interested in capitalising on the market's new protocols and systems (Backus, 1997b). A fax recovered from Backus to *Pacific Gas & Electric* (PG&E)⁸ highlights the extent to which such activity carried amoral, if not immoral, implications for those intending to use them:

There may be ethical issues related to "the end justifying the means" but there is a large region of opportunities between what is ethically viable (profitable) and ethically dangerous (illegal). It is prudent to understand the full spectrum of possibilities, and through the understanding of market dynamics that it provides, to select that appropriate subset of strategies which best serve the long-term interests of PG&E.

(Backus, 1997b)

Backus also suggested to PG&E that they “destroy [the fax] or black out selected sections after you have read it”, however, news of his activity did not go unnoticed for long. In October, a letter to Perot Systems VP, Ronald Nash, from the head of the ISO chastised the company, not only for its “violations of basic norms of business ethics” and being “indicative of bad faith dealing”, but also risking “seriously eroding the integrity of the California market system” (Tranen, 1997). In response to this and threats of litigation, Perot Systems agreed to adopt a new ethics policy and cease relevant activity. Nonetheless, their representatives continued to offer services based on the information to various market participants, including Enron (Backus, Gribik, Lall, & Smith, 1998; Perot Systems and Policy Assessment Corporation, 1998).

Early the next year, Backus and three Perot Systems representatives were invited to give a presentation to Enron's senior traders. Among those in attendance were the then director of the California trading desk, Tim Belden, and his superior, Rich Davis. The presentation, entitled “Profit Maximisation Under UK and US Deregulation”, contained a section on “using

⁸ Despite the similar acronyms, Portland General Electric (PGE) and Pacific Gas and Electric (PG&E) and distinct organisational entities. Also, unlike PGE, PG&E was not owned by Enron.

California PX/ISO and FERC rules in the best advantage” (Backus et al., 1998). Here, the presenters were quick to rationalise such activity as a natural part of market participation, noting “market distortions are inevitable” and “distortions ‘force’ gaming to ‘clear’ the market”.⁹ Notwithstanding such perspectives, gaming (i.e., taking ‘unfair’ advantage of the rules and procedures) was explicitly prohibited by the new markets’ rules.¹⁰ Even so, the presentation went on to identify various automated protocols that the new systems would follow in given market conditions and the best games to utilise in such cases. Belden’s handwritten notes on subsequent tutorial handouts allude to his interest in these vulnerabilities, perceiving the potential to profit from deliberately congesting the system; “result of this process is a game to submit [transmission bids] on congested side of the tie.” (Belden, 1998a).

In the months that followed, Enron continued communications with Backus and his associates, clarifying details and further developing understanding of the market’s vulnerabilities (McCullough, 2007a:50; Smith, 1998). As the leader for the California trading desk, Belden was particularly focused on developing ideas relating to the state’s market vulnerabilities. In a personal review document, he explicitly advocated to superiors that gaming should be more actively pursued in the interest of profit, “California gaming- we always say that we need to increase this activity but we never do. Need to work more closely with cash, scheduling, and real time [desks] to maximise opportunities.” (Belden, 1998b). Such activity was also occurring elsewhere in the division. For instance, Belden’s colleague, John Lavorato instigated a collusive initiative in the Canadian market called Project Stanley (SNOPUD, 2007a). Here, a small number of Enron traders had worked with Canadian energy utility to artificially increase energy prices (McCullough, 2007b).

Despite an increase in actual acts of gaming, such activity was still largely exploratory in nature (SNOPUD, 2007b). Internal trading notes from the time highlight trades as “phoney”, with the cited goal to “see if we could and take advantage of buying power at the Ex-Poste price” (Enron, 1998:3). Additionally, external partnerships required to conduct such tests were in also in their infancy. For instance, the same notes suggest a level of novelty, stating that a collaborating utility company “agreed to this ‘game’”. Thus, the division had entered a period

⁹ Such a view is indeed also argued by a number of economists who see (legal) gaming as natural process of market forces, seeing it as an extension of game theory.

¹⁰ “Gaming” is defined by the regulation’s governing market activity (Market Monitoring and Information Protocols (MMIP)) as “taking unfair advance of the rules and procedures set forth in the PX and ISO [...] to the detriment of efficiency of, and of consumer in, the ISO Markets.” Gaming of this nature was explicitly prohibited (CASIO, 2000:496).

of testing the regulations, seeking to develop its understanding of those practices that could be successfully implemented on a larger scale.

The most notable test from this period occurred in May 1999, when Belden conducted what he would later characterise as a market “experiment” (quoted in CalPX, 1999:13). Here, he hoped to observe how the market reacted to congestion caused by physically impossible schedules. Belden had instigated a smaller test in January, but the comparatively discrete activity had been overlooked (Hain, n.d.; McCullough, 2007b). When scaled-up and repeated, however, the results were immediately noticeable (CASIO, 1999). On the morning of 24th May, Belden bid to supply 2,900 MWs of power for the next day to the California PX from a Nevada-based generation source (CalPX, 1999). In order to provide this generation, he scheduled transmission through a small path called Silver Peak. Although theoretically within the ISO’s transmission network, Silver Peak was actually a small capacity line installed solely for the transfer of power from a generator in Nevada through to California. As such, it could carry a maximum of 15MWs (in line with the unit’s output). In what McCullough (2007a:56) calls a “proof of concept scheme”, Belden had orchestrated a situation whereby only 15MWs of the 2,900MWs of power the ISO thought it was getting, could actually be delivered. In effect, he had purposefully congested a path, allowing him to observe what happened when the ISO’s system intervened to decongest it.

When Belden’s schedule was submitted to the ISO, it triggered the congestion relief protocols that Perot Systems had helped create. These automatically set about trying to balance the congested path and in doing so accepted Enron’s adjustment bids, whereby the ISO paid them to decrease transmission on the congested path (Weaver, 2004). The schedule had also created a significant shortfall in anticipated energy. This the ISO redressed by increasing out-of-state imports, using reserve power, and reducing demand in the day-ahead market through increased prices (McCullough, 2007a). Importantly, the experiment had demonstrated to Belden that it was possible to influence prices using California’s congestion protocols and also receive payments to relieve purposefully created congestion (McCullough, 2007b).

Reaction to Belden’s experiment swiftly followed and the day after a market report referenced the event, noting the PX would be investigating whether market manipulation had been a factor (O’Neill & Cocke, 1999). The investigation lasted a year and resulted in a \$25,000 fine for Enron (CalPX, 1999). The cost of the experiment to the ratepayers was much higher, estimated to be between \$4.6M and \$7.0M. This is perhaps closer to what Enron thought they might be liable for, with a \$10M liability reserve earmarked to cover potential ramifications of the investigation (McCullough, 2007a). As part of their settlement with PX, Enron agreed not

to substantially repeat the practices employed in the Silver Peak incident. While it is true that they did not repeat the experiment, many of its features went on to be operationalised in the congestion relief strategies that traders would later develop (de Bruijne, 2009).

Although Silver Peak may have been the realisation of years of preparation by the division's senior traders, it represented only the initial stage of Enron's corruption. Belden had not tried to hide his actions and therefore did not need to maintain an illusion of legitimate trading practice. Furthermore, his actions were not meant to be repeated or rolled out to other traders to emulate. Put simply, Silver Peak constituted an isolated event and lacked the repeatability associated with normalised corruption; it was therefore indicative of the limited and exploratory nature of their corrupt activity at the time. In this manner, it represented an act of experimentation that confirmed the intuitions that had been developed through purposeful investigation. In combination with the other experimental activity going on at the time, this period of testing highlighted a path to substantial future profit; going forward, it was this potential that the division sought to harness.

Summary of the full paper's findings

Our full paper continues to elucidate Enron's involvement in the California energy crisis, showing how its traders used corrupt practices to profit hugely from the state's deregulation and exacerbating the crisis in the process. More specifically, key actors within the division developed a broader set of market manipulation strategies (see Table 1), aiming to increase the scale and profitability of their endeavours. From here, these strategies were operationalised throughout the division, ultimately forming a normalised aspect of its operational practices. At this stage, we also show the emergence of a corrupt collective, whereby Enron become part of a wider, inter-organisational network of corrupt actors. Our findings here highlight that, from a relatively early stage in Enron's corruption, traders began developing illicit alliances with their industry customers, which provided the control, information and assistance needed to turn their theoretical strategies into a viable route to organisational profit. The findings from this paper show that after the corrupt collective had been formed, corruption remained dynamic. That is, even as a relatively complex network of inter-organisational actors, the collective was able to react to the changing environment in which it was operating. To this end, our research shows how corruption was organised as an on-going aspect of both an organisation's internal practices and the activities of illicit alliances between organisations.

[Insert Table 1 here]

Through this research, we develop a greater understanding of the company's actions as an example of organisational corruption (Ashforth et al., 2008; Zyglidopoulos, Hirsch, de Holan, & Phillips, 2017). As part of this, the paper also elaborates the involvement of external organisations (and their actors) as participants in collectively actioned corruption. This extends the concept of the *corrupt organisation* (Pinto et al., 2008) to include what we term a *corrupt collective*. To this end, we integrate theoretical understanding of corruption with historical sources from a known case of market manipulation. By maintaining a sensitivity to the empirical context and theoretical authenticity, this paper goes beyond the use of historical events to 'test' theory, while also lifting the findings above empirical insight (Maclean et al., 2016). In this manner, we produce an analytically structured history of organisational corruption in California's deregulated energy markets (Rowlinson et al., 2014). It is through this narrative that we address the question; How was corruption in a collective established and organised and how did its activities change throughout its corrupt lifetime?

This paper contributes to work on organisational corruption by developing a fine-grained understanding of an important empirical case. Here, we show how a corrupt organisation was initially established through the purposeful efforts of lead traders and also how it was organised as an on-going collective activity. In doing so, this goes some way to answering the call for more systematic empirical work on the corruption's normalisation (Ashforth & Anand, 2003). Despite such calls, few empirical studies have investigated organisational corruption in historical terms (cf. Andersson, 2017). Accordingly, we find that between 1997 and early 2000 corruption was institutionalised within Enron's West Power Trading division, initially through isolated actions of a dominant coalition before becoming embedded and routinised into wider organisational activities. In this way, corruption in the form of market manipulation became the normal route to divisional performance. While this institutionalisation was reinforced with rationalisation of corrupt acts and the socialisation of recruits, market manipulation appears to have been an ethically uncomplicated practice during this time. In this way, corruption's development over this initial period moved quickly from the purposeful decisions of a few senior traders to a substantial feature of the division's operative existence.

Additionally, this paper adds "theoretical refinement" to the corrupt organisation concept (Maclean et al., 2016), elaborating the involvement of external parties as a form of corrupt collective. Although the driving force for Enron's corruption was clearly based within the West Power Trading division, we show that its close collaboration with a network of affiliates became similarly normalised. An assumed aspect of the corrupt organisation

phenomenon is that a level of external collusion forms part of that organisation's corrupt behaviour. As Pinto et al. (2008:692) note in the explanation of the concept, "[t]he majority of corrupt organisational behaviours, such as price fixing, tying arrangements, and bribe giving, involve third parties; thus, corrupt networks would comprise both individuals who are internal to the organisation and those who are external" (also see Baker & Faulkner, 1993; Geis, 2017). Beyond this assumption, however, little has been done to incorporate this aspect of the phenomenon into its conceptualisation (cf. Bertrand & Lumineau, 2016). This paper elaborates the characteristics of such inter-organisational dynamics in relation to organisational corruption theory. To this end, we find that multiple entities pursued organisational performance through collectively achieved activities. In this case corruption was coordinated and actioned through Enron as the dominant organisational actor (See Figure 4); however, various structures of such *corrupt collectives* are ultimately conceivable.

[Insert Figure 4 here]

Finally, this paper shows how normalised corruption is affected by increased scrutiny. As corruption is perpetuated over time, the consequences of that corruption have the potential to draw suspicion. In this respect, it is a feature of the corruption process inherently bound in causation over time. Additionally, unconnected events might change the context in which corruption is being committed. To this end, the second period elaborates how the collective reacted to the unfolding energy crisis and the increasingly fervent accusations levelled at them. Here, actors rationalised their actions in light of crisis events, mitigating the cognitive dissonance resulting from their potential contribution to it. Specifically, I find the rationalisations aligned closely with the *denial of victim* ideology, whereby Californian actors were victims of their own failings. Furthermore, previously institutionalised activities had to be refined to mitigate the increased scrutiny and potential for incrimination. In this respect, this period represented a second iteration of the normalisation process, with new behaviours (e.g. clandestine communication) introduced and adopted. Accordingly, this paper's use of a historical case allows a greater appreciation of corruption as a sustained activity.

Conclusion

This paper develops an analytically structured history, which shows how Enron West Power Trading became both a corrupt organisation and the dominant actor in a wider corrupt collective. In elaborating the corrupt collective as a new concept, we show how the control of assets, information and assistance flowed to Enron's traders, who combined them with their own capabilities to manipulate the energy market. Hence, limiting our investigation to activity

bounded within Enron itself would have failed to account for factors vital in explaining how corruption occurred. Through this research, we are able to show how corruption was established and organised as both an internal undertaking and as the core component of inter-organisational activities. Additionally, this paper provides answers by narrating events over the course of the collective's existence, thus showing how its corrupt activities changed over time. In providing answers we elaborate the networks of relationships and social structures that allowed a corrupt organisation to function. In doing so, it demonstrates how corruption became a highly integrated component of an organisation's ongoing day-to-day operations.

Figure 1 Map of US Energy Interconnections (source: WECC, 2018)

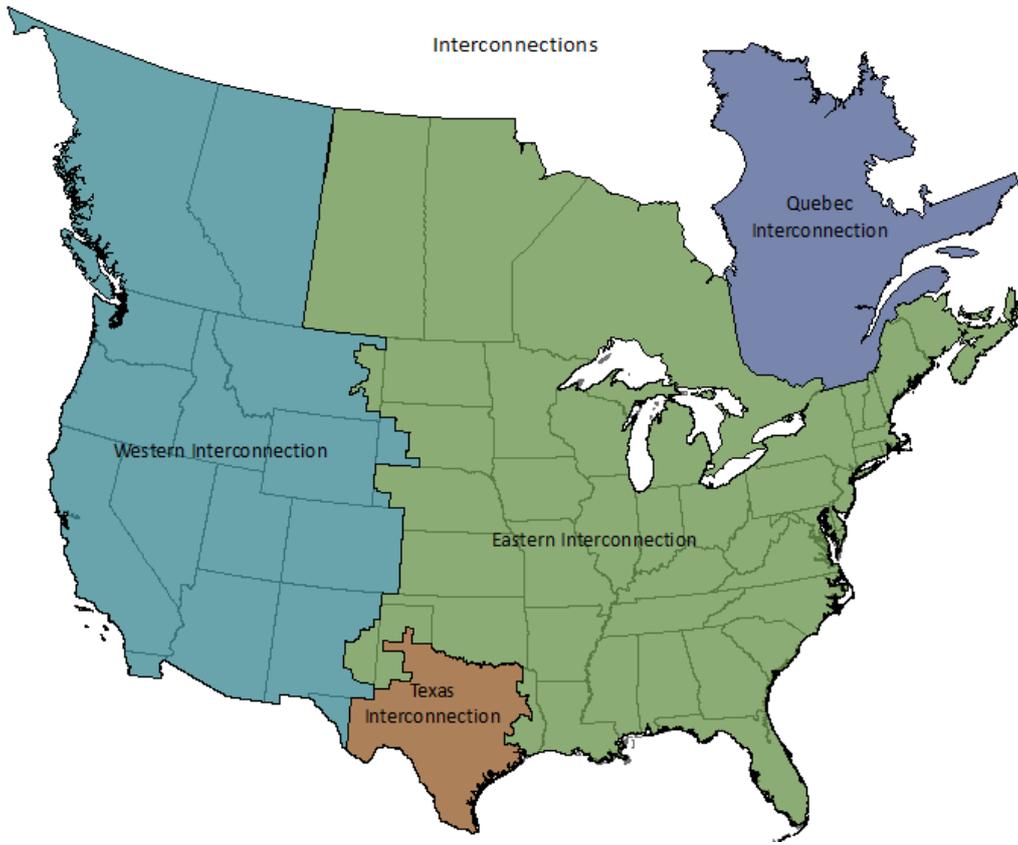


Figure 2 Pre-1998 Energy Market Structure (adapted from Weare 2003:11)

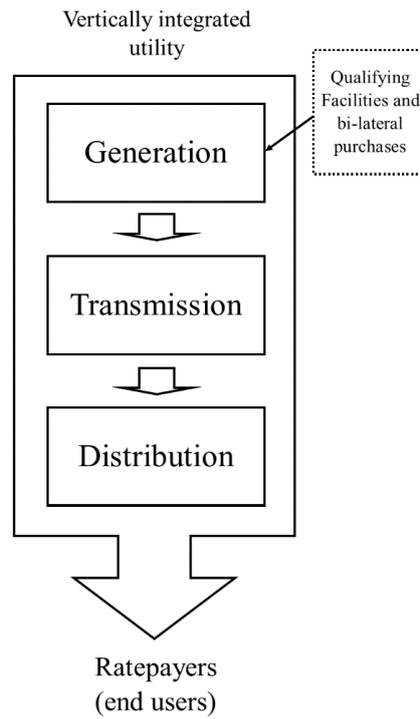


Figure 3 Deregulated Market Structure (adapted from Weare, 2003:11)

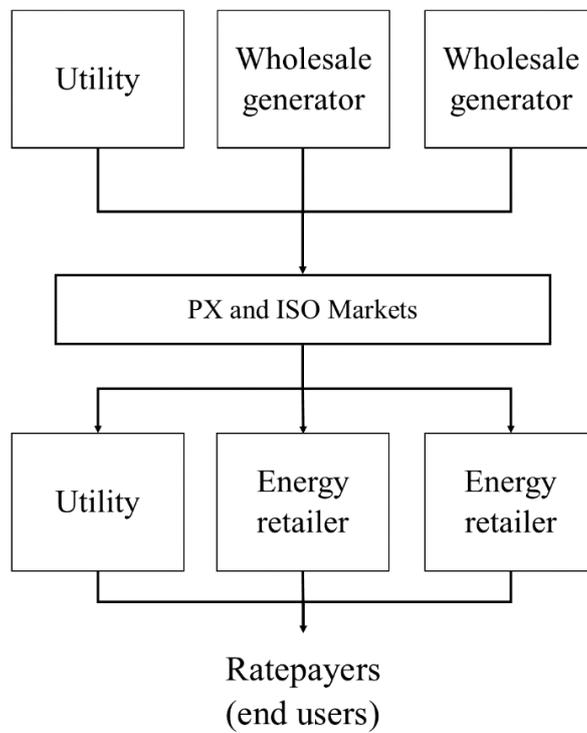
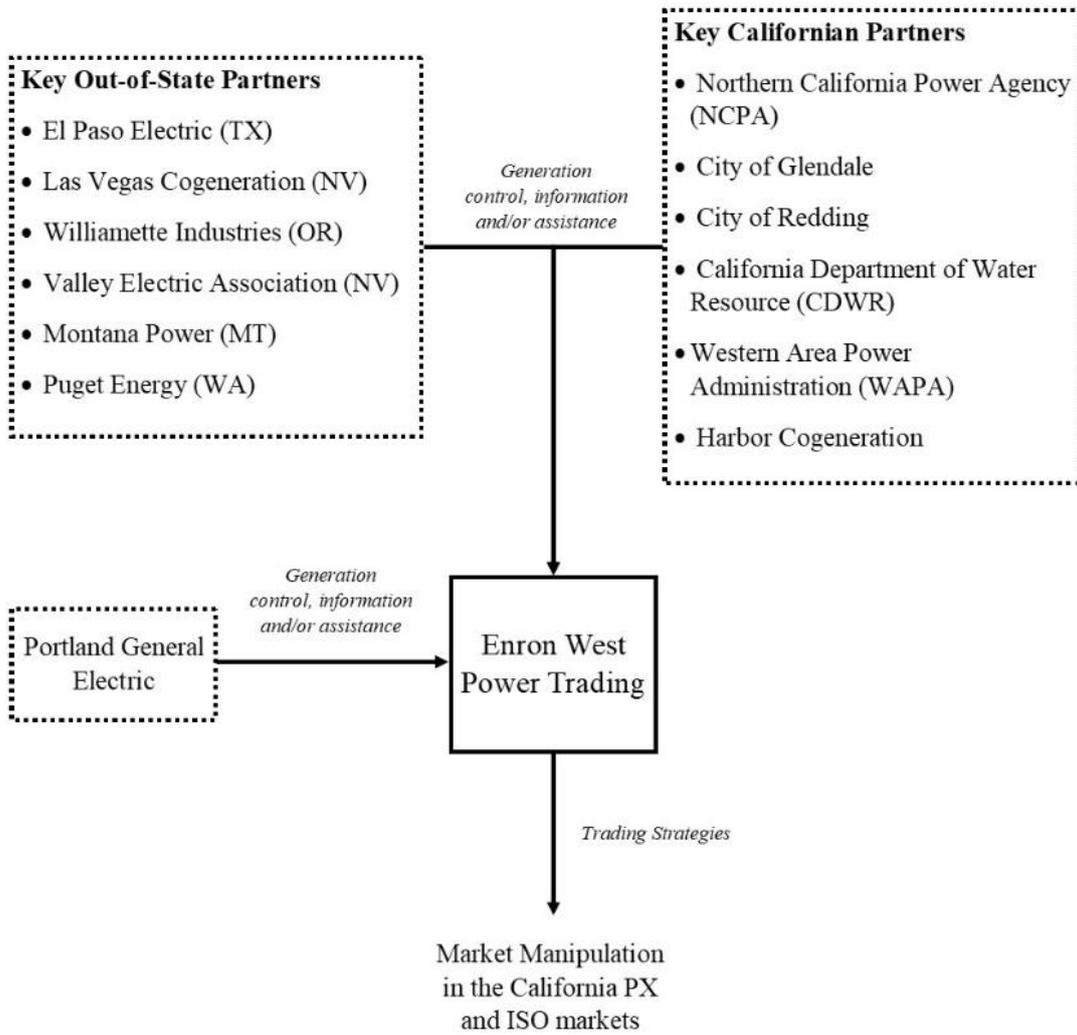


Table 1 Summary of Key Trading Strategies

Type	Trading Strategies	Description
Prohibited arbitrage	Export of Californian power	Exporting energy from California and selling to more lucrative out-of-state markets (without a price cap).
	Ricochet (a.k.a Megawatt Laundering)	Exporting energy out of the ISO's system, thus avoiding price caps and decreasing supply. Then re-importing to sell in the next day's real-time markets.
	Fat Boy	Falsely overscheduling load in the hour or day-ahead markets and selling surplus in the higher real-time markets.
	Thin Man	Falsely under-scheduling load in the hour or day-ahead markets and then buying cheaper energy in the real-time markets.
Congestion-based	Death Star (variations included Forney's Perpetual Loop and Driscoll's Death Star)	Scheduling fictitious transmission in a loop that flows in the opposite direction to a congested path. Thus, collecting congestion relief revenues.
	Lead Shift	Scheduling large demand for energy in order to change market price and the buy or sell in that market at a higher return.
	Wheel-Out	Purposefully scheduling transmission on a path that is out of service to be paid to congestion revenues.
	Non-firm Export	Scheduling non-firm energy for export on a congested line with no intention or ability to deliver. Congestion revenues collected.
	Scheduling to collect congestion charges	Scheduling energy in order to congest a path, then receiving a payment to cancel the schedule, thus relieving the congestion.
Ancillary services-based (reserve power)	Get Shorty (a.k.a Paper Trading)	Selling reserves in the day-ahead markets and then buying them in the cheaper real-time market.
	Selling non-firm energy as firm	Fraudulently labelling energy as firm (backed-up by reserve power), when in fact it is non-firm.
	Double selling	Selling the same reserve power to multiple markets, i.e., as day-ahead reserves and then again in real-time trading.

(Based on: de Bruijne, 2009; FERC, 2007; Yoder & Hall, 2000)

Figure 4 Structure of Enron's Corrupt Collective



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